



MISSOULA  
INTERNATIONAL  
AIRPORT

JOHNSON BELL FIELD

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# **Nonaviation Development**

## **Missoula International Airport Master Plan Update**

Prepared for  
**Missoula County Airport Authority**

OCTOBER 2008

**CH2MHILL**





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## 7.0 Nonaviation Development Planning

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The demand for nonaviation development around the airport is expected to grow beyond the 20-year planning period, and therefore this section explores opportunities several decades into the future.

Even when considering future aviation improvements, including the need for space that would be required to accommodate a parallel runway, several hundred acres of undeveloped land remain to the south, leaving significant opportunities for nonaviation development. While a variety of land use options were considered for the area south of the airport facility, stakeholders decided that the ideal future development would comprise of a business park featuring low-rise office and light industrial space. Such buildings constructed at this location would not interfere with future aviation development, yet provide economic opportunities for the Missoula region by providing additional manufacturing and commercial space and creating an additional stream of income for the Missoula County Airport Authority (MCAA).

This chapter describes the existing airport property and future opportunities for aviation improvements, and then summarizes existing area plans that discuss development of a business park in the general area of the airport. A target industry analysis and real estate assessment follow, which rank the viability of industry sectors that would be suitable for a business park setting and provides information on the general regional business climate. Sections 7.6 through 7.10 describe how the southern portion of the Missoula International Airport (MSO) property could be developed so that future aviation space needs are preserved, while providing maximum opportunity for nonaviation development. Lastly, a series of recommended action steps are provided to help guide future decision making.

The creation of a business park south of the Missoula International Airport facility is dependent on the provision of utilities, which will be brought closer to the potential business park site with the construction of the new control tower possibly within the next few years. The creation of a business park would also require coordination between several agencies, including the Missoula County Office of Planning and Grants (OPG) and the Missoula Area Economic Development Corp (MAEDC), along with any partnering agencies or organizations that could share in the operation of nonaviation real estate development and management.

### 7.1 Target Industry Analysis

Target industry analysis is a process that identifies industries that are both desirable and appropriate for a region. Airport property development lowers operating cost to the airlines by creating a revenue stream independent of air traffic, thus making the airport more attractive to incoming airlines and the airport more likely to retain existing airlines. Benefits to the community include the creation of jobs, economic activity, tax revenue, etc.

This chapter provides a comprehensive review of determining the target industries. The following steps were included:

1. Identification of property available for development.
2. Evaluation of existing airport property and land uses.
3. Review of existing area plans.
4. Industry Sector Analysis/Real Estate Assessment.
5. Development of conceptual nonaviation development plans.
6. Recommended conceptual nonaviation development plan.
7. Identification of phasing, schedules, and next steps.

## 7.2 Property Available for Development

A total of 625 acres are available for nonaviation development south of the existing aviation development. Development of MSO began in 1938 with the purchase of 1,300 acres of land west of Missoula. Since the Forest Service needed access to an airport, and Missoula County needed heavy equipment to build the new airport, the Airport Board gave the Forest Service a perpetual easement at the airport site, while the Forest Service granted the use of their equipment for construction. The airport was opened three years later with four runways, each a mile or more in length and able to accommodate any airplane in service at that time. Over the years, additional land was acquired and new improvements were made to the facility. In 1958 a new 2,738 square-foot two-story terminal opened. The terminal was expanded in 1979, 1994, and in 2007. As of 2008, the property extends southwest of the main runway for about one mile. It is recommended that a portion of this land is reserved for future aviation use beyond the scope of the Master Plan Update (MPU). With the extension of utilities and roadways, the remaining land along the airport's southern boundary could support nonaviation development in the future.

The land available for nonaviation activities is limited by airport operations, and by the area reserved for aviation development. The aviation needs and requirements are priorities over nonaviation activities. The following section provides an overview of airport operations and the requirements of aviation activities.

## 7.3 Existing Airport Property and Land Uses

In 1977 the Missoula County Airport Board was replaced by the MCAA. The MCAA is an independent public agency responsible for the day-to-day operation and long-term planning for the airport. The Authority is self-funded from a variety of user fees and Passenger Facility Charges (PFC). The MCAA is responsible for the operations, maintenance, and management of MSO for the safety, convenience, and benefit of the public, and economic development of the community. To accomplish this mission, the MCAA seeks both aviation and nonaviation business and industry to use the land, services, and facilities located at the airport.

Missoula is the headquarters of the Northern Region of the United States Forest Service (USFS), which manages the National Forests and Grasslands in northern Idaho, Montana, North Dakota, and northwest South Dakota. Missoula also serves as the headquarters of the



Lolo National Forest and the Missoula Ranger District. Additionally, the USFS maintains a smokejumper base at the Aerial Fire Depot located adjacent to the airport.

Located in Missoula County, MSO is approximately four miles northwest of Missoula's central business district. Missoula County is home to over 100,000 year-round residents. The median age of the County population is 34.2 years. There are 363,000<sup>1</sup> people in the county's trade area, the region that significantly interacts on an economic level with Missoula County. Additionally, a total of 220,000 people are located within MSO's service area. While a significant portion of the county's trade area population resides in other airport service areas, the influence of the trade area population is important in making nonaviation landuse decisions at the airport. Missoula's diversified economy includes retail and financial services, health care, and medical research facilities, wood products industries, manufacturing, information technology, and natural resources.

MSO is adjacent to the Missoula County Development Park and technology district, a 446-acre mixed-use development that accommodates hotel/conference centers, restaurants, convenience and specialty stores, gas stations, banks, research and development, warehouses and manufacturing.

The existing facilities can be seen in the airport layout plan (ALP) in Chapter 7 of this Master Plan Update and **Exhibit 7-1**. MSO has two runways, Runway 11/29 and Runway 7/25. The primary Runway 11/29 is oriented roughly in an east-west direction, parallel to Interstate 90. The runway is 9,501 feet long and 150 feet wide and is equipped with a Category I ILS, an Approach Lighting System with sequenced flashers, runway end identifier lights (REIL), high intensity runway lights (HIRL), distance remaining markers, and precision approach path indicators (PAPI). The runway is used for airlines, air cargo operations, corporate aircraft, and general aviation (GA) aircraft and flight training activities.

The second runway, Runway 7/25 is oriented roughly in a southwest-northeast direction and intersects Runway 11/29, is 4,612 feet long and 75 feet wide and is equipped with medium intensity runway lights (MIRL). The runway is primarily used as a GA crosswind runway when winds do not favor the use of Runway 11/29.

### 7.3.1 Future Aviation Property Requirement

Multiple documents guide future development at an airport. One of those is the ALP. In addition to the existing facilities at an airport, the ALP provides a summary of the recommended improvements.

The second document is a Capital Improvement Plan (CIP). MSO has a six-year \$48.8 million CIP designed to maintain safety and meet the needs of air travelers and air carriers. **Exhibit 7-2** is a graphic representation of that plan.

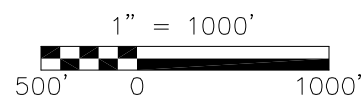
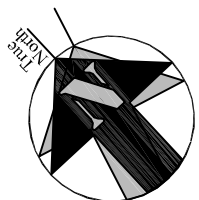
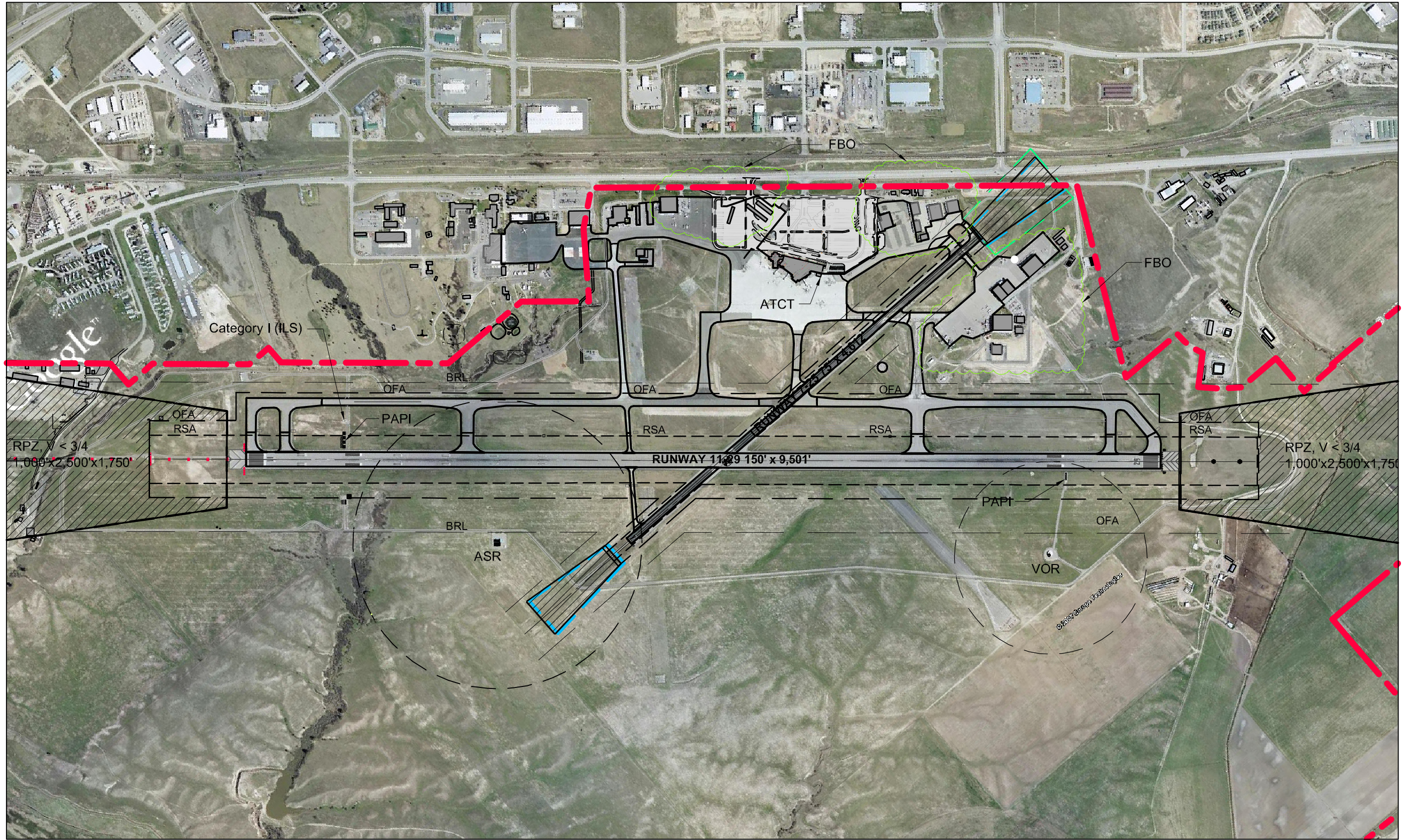
The final document is an airport master plan, being updated as part of this effort. Past master plan updates for MSO include the recommendation for a parallel runway to Runway 11/29. Although this MPU does not forecast operations to support a second parallel runway, extrapolation of data beyond the planning period does indicate that a future

<sup>1</sup> 2005 figure calculated by the Missoula Area Economic Development Corporation

parallel runway will likely be required. For this reason, aviation development land will be reserved to accommodate a future parallel runway and associated aviation midfield development outside of the planning period. This future runway creates the greatest constraint to the development of property for nonaviation purposes. **Exhibit 7-3** shows the future runway which would be needed beyond the planning period. The area to the southwest of that boundary is available for nonaviation activities. The remainder of this chapter will describe the potential utilization of this land.



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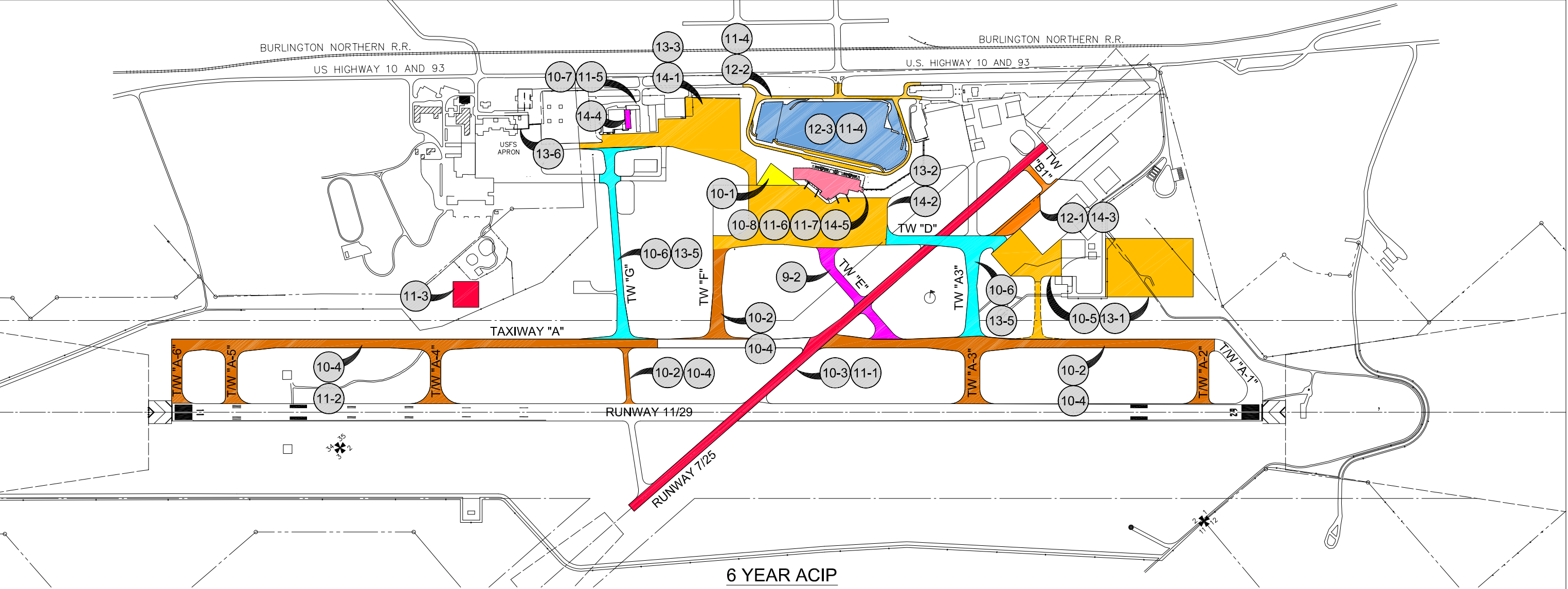
## Missoula Airport Master Plan Update

## Existing Facilities

Exhibit

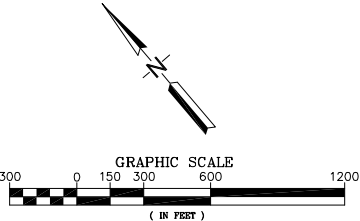
7-1





6 YEAR ACIP  
WORK ITEMS

FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014 AND BEYOND
<div>9-1</div> REPAY BOZEMAN ENTITLEMENTS	<div>10-1</div> RECONSTRUCT APRON ACA-1 - DESIGN/CONSTRUCT	<div>11-1</div> REHABILITATE RUNWAY 7/25, INSTALL PAPIS AND UPGRADE SIGNS - PHASE II - CONSTRUCT	<div>12-1</div> NORTHSTAR RAMP - PHASE II - CONSTRUCT	<div>13-1</div> EAST GA APRON/GA-3 AND DRAINAGE IMPROVEMENTS PHASE II - PHASE II - CONSTRUCT	<div>14-1</div> REHABILITATE GA WEST - 1/TL WEST APRON & TW - PHASE II - CONSTRUCT
<div>9-2</div> RECONSTRUCT TAXIWAY E (PAVEMENT AND ELECTRICAL) - DESIGN/CONSTRUCT	<div>10-2</div> REHABILITATE EAST TAXIWAY A & TWS A2, A3, A5, A6, F, G CENTER; UPGRADE ELECTRICAL - CONSTRUCT	<div>11-2</div> REHABILITATE WEST TAXIWAY A & TWS A2, A3, A5, A6, F, G CENTER; UPGRADE ELECTRICAL - CONSTRUCT	<div>12-2</div> ACCESS ROAD (PHASE 2 - CONSTRUCTION) (FEDERAL)	<div>13-2</div> REHABILITATE AIR CARRIER APRON - PHASE I - DESIGN	<div>14-2</div> REHABILITATE AIR CARRIER APRON - PHASE II - CONSTRUCT
<div>9-3</div> PASSENGER LOADING BRIDGES (2) PHASE II (PFC 6)	<div>10-3</div> REHABILITATE RUNWAY 7/25, INSTALL PAPIS AND UPGRADE SIGNS - DESIGN	<div>11-3</div> STORM WATER DETENTION POND - BIDDING & CONSTRUCTION	<div>12-3</div> PARKING EXPANSION (PHASE 2 - CONSTRUCTION) (NON-FEDERAL)	<div>13-3</div> REHABILITATE GA WEST - 1/TL WEST APRON & TW - PHASE I - DESIGN	<div>14-3</div> REHABILITATE NORTHSTAR APRON - NSA-2 - DESIGN - PHASE I
<div>9-4</div> PUBLIC SAFETY VEHICLE (PFC 7)	<div>10-4</div> REHABILITATE TAXIWAY A & TWS A2, A3, A4, A5, A6, F, G CENTER; UPGRADE ELECTRICAL - DESIGN	<div>11-4</div> ACCESS ROAD AND HANGER RELOCATION (DESIGN / CONSTRUCT)(FEDERAL)	<div>12-4</div> SECURITY IMPROVEMENTS - PHASE IV (PFC 7)	<div>13-4</div> RELOCATE GLIDESLOPE (F&E)	<div>14-4</div> SRE BUILDING EXPANSION (PFC 7) DESIGN/CONSTRUCT
<div>9-5</div> AIR TRAFFIC CONTROL TOWER (ATCT) - PHASE I - DESIGN (NOT AIP FUNDING)	<div>10-5</div> EAST GA APRON/GA-3/NORTHSTAR RAMP AND DRAINAGE IMPROVEMENTS - PHASE I - DESIGN	<div>11-5</div> SECURITY IMPROVEMENTS - PHASE III (PFC 7)	<div>12-5</div> INTERACTIVE TRAINING - SIDA, A/F DRIVERS, PART 139 (PFC 7)	<div>13-5</div> REHABILITATE TAXIWAYS A3, D AND NORTH G, PHASE II, CONSTRUCTION (PFC 7)	<div>14-5</div> TERMINAL EXPANSION (PFC)
	<div>10-6</div> REHABILITATE TAXIWAYS A3, D EAST-WEST AND NORTH G, PHASE I - DESIGN (PFC 7)			<div>13-6</div> EXPAND EMERGENCY OPS CENTER (PFC 7)	
	<div>10-7</div> SECURITY IMPROVEMENTS PHASE II, GATES (PFC 7)	<div>11-6</div> TERMINAL AREA SAFETY ENHANCEMENTS (TASE PHASE II) (PFC 7)		<div>13-7</div> LIQUID DEICER VEHICLE (PFC 7)	
	<div>10-8</div> TERMINAL AREA SAFETY ENHANCEMENTS (TASE) PHASE I (PFC 7)	<div>11-7</div> TERMINAL LIGHTING UPGRADE		<div>13-8</div> LOADER FOR SNOW REMOVAL (PFC 7)	
	<div>10-9</div> AIR TRAFFIC CONTROL TOWER (ATCT) (NOT AIP FUNDING) - PHASE II - CONSTRUCTION				



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## 7.4 Review of Existing Area Plans

This section reviews existing area plans that may impact or govern the construction of a business park. Plans are reviewed to:

- ➔ Identify physical, infrastructural, or legal limitation to the site development.
- ➔ Identify opportunities for addressing issues relating to site development.
- ➔ Understand development trends in the vicinity of MSO.
- ➔ Evaluate compatibility of airport development to existing and proposed land uses.

### 7.4.1 Missoula County Growth Policy 2005<sup>2</sup>

In 1999 the Montana State Legislature passed legislation that gave Planning Boards authority to prepare and propose a Growth Policy. The intent of the Legislation was to encourage counties to plan for growth, and provide a framework for planning in the area. It provides guidance to the City Council and Board of County Commissioners in the:

- ➔ Authorization, construction, alteration, or abandonment of public ways, public places, public structures, or public utilities;
- ➔ Authorization, acceptance or construction of water mains, sewers, connections, facilities, or utilities; and
- ➔ Adoption of zoning ordinances or resolutions.

All planning and community development decision making was to be in accordance with the Growth Policy. Missoula City and County adopted the Growth Policy to provide a framework for continued planning efforts. However, since 1999, the State Legislature has steadily weakened the Growth Policy. The 2001 Legislature passed a bill that removed the provision for conformance with the Growth Policy as a basis for the governing body's decision on a subdivision. Again in 2003 the Legislature passed a bill that a governing body may not withhold, deny, or impose conditions on any land use approval based solely on compliance with a Growth Policy.

Goals and objectives do not directly address the airport; however development of an industrial park on airport property should consider the policy's commercial and industrial objectives. Of which, the Growth Policy states:

- ➔ Conserve resources and minimize transportation demand in rural areas by structuring commercial centers around existing facilities.
- ➔ Allocate land for commercial and industrial land uses that meets their specific needs and adheres to adopted land use policy. Efficiently and economically provide public services to those areas.

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<sup>2</sup> Missoula County Growth Policy. Retrieved 10 October 2008 from:  
<http://www.co.missoula.mt.us/opgftp/Documents/LRCounty/GrowthPolicy/CurrentGP/Ch1Introduction.pdf>



- ➔ Encourage new industrial projects to locate within existing industrial parks and areas already developed for industrial use.

The location of the Missoula Development Park immediately northwest of the airport complements these objectives. A business park at MSO will further the economy objectives outlined in the plan, which are:

1. Allow for diverse business and employment opportunities and a competitive business climate.
2. Support a stable economy by encouraging “clean” industries that utilize raw materials and diversify demand dependence; concentrating economic expansion on stable industries with long term prospects; encouraging a broad economic base; and encouraging economic expansion that meets residents’ needs first.

Finally, with regard to the airport, The Growth Policy states two action items. First it is recommended that long-range planning is conducted, specifically, the airport master plan update. Second, complete regulatory reforms in accordance with adopted policy, review and revise zoning districts with special attention paid to zoning designations in the vicinity of the airport. Neither of these issues are a hindrance to the development of a business park at MSO.

## 7.4.2 Missoula Transportation Improvement Program (TIP) 2006 - 2010

A review of the Missoula Transportation Improvement Program 2006 -2010 did not identify any projects that relate to the development of a business park at the airport.

## 7.4.3 Missoula Urban Area Comprehensive Plan

As stated in Resolution 98-052, adopting the 1998 update of the Missoula Urban Comprehensive Plan, the plan is: “...a policy document intended to provide the County and other agencies and districts with a coordinated guide for change over a long period of time. When making decisions based on the Plan, not all of the goals and implementation proposals can be met to the same degree in every instance. Use of the Plan requires a balancing of its various components on a case-by-case basis, as well as a selection of those goals and implementation proposals most pertinent to the issue at hand.

The Comprehensive Plan puts forward implementation proposals suitable for problem-solving and goal realization. Other valid approaches may exist and may at any time be used. Adoption of the Plan does not necessarily commit the County to immediately carry out each policy to the letter, but does put the County on record as having recognized the desirability of the goals and implementation proposals and the decisions or actions they imply. The County can then begin to carry out the goals and implementation proposals to the best of its ability, given sufficient time and resources.”

In Chapter 3 of the Missoula Urban Comprehensive Plan: 1998 Update under sustainable economic development, the plan states:

“The City and County of Missoula recognize the role of a strong, diverse and sustainable economy in maintaining the overall wellbeing and quality of life for Missoula County residents. The local economy should enhance

and support a diverse population, a strong community, and a healthy environment. Policies for economic development should consider that the economic health of Missoula County is mutually dependent upon the economic health of surrounding counties. Both large and small businesses are necessary to the economic health of our community, and a strong economy is vital to the local tax base, which supports the provision of public services.

Business recruitment efforts should be balanced with the strong support of existing businesses. Measures of economic growth include continued diversity, as well as improved job opportunities and business expansions. Economic development should occur in ways that conserve and enhance our natural and human resources. Investments in education and training of the Missoula work force to fill these available positions benefit all sectors of the economy. There is a direct relationship between the level of income of Missoula County residents and the affordability of adequate, quality housing.”

The development of a business park at MSO supports the goal of sustainable economic development. The plan highlights the wood products industry, high-tech and light manufacturers, research and development, and bio-science and bio-medical research as potential industries for growth. The plan also promotes the idea of Missoula as a regional center for business, professional and medical services. The Airport is specifically mentioned in the role of Missoula as a transportation center.

The 1998 Update to the Missoula Urban Comprehensive Plan identifies an urban growth area as a guide in decision making on how to best prepare for the future. The plan provides:

“The 1990 Urban Area Comprehensive Plan identified an Urban Service Area in which public services were to be available to support residential development. The 1998 Update expands upon that concept by characterizing as appropriate for urban development those lands for which public services including wastewater treatment, delivered at urban intensities, will be available over the next twenty to fifty years. Areas where urban services are provided or planned should be encouraged to develop in an urban fashion and comprise, collectively, an “urban growth area.” Within the urban growth area, residential, commercial, public, and other forms of development should be encouraged at urban densities.”

The Missoula International Airport is located adjacent to a wastewater service area.

Chapter 7 of the Missoula Urban Comprehensive Plan: 1998 Update addresses commercial and industrial land uses. For the area around the Missoula International Airport, that plan provides:

“The area surrounding the airport was designated as industrial in the 1975 Urban Comprehensive Plan. This update Plan makes no land use recommendations for this area, designated as the Missoula Airport Planning Area on the Land Use Map. The airport authority has addressed appropriate land use within the airport itself. The area outside of the airport use is currently being planned in

the Wye Mullan Road planning process and will be evaluated in terms of compatible uses within the greater neighborhood area.”

#### 7.4.4 Wye Mullan West Comprehensive Area Plan

The Wye Mullan West Comprehensive Area Plan (Wye Mullan Plan) is a detailed study of an area of Missoula County which includes Missoula International Airport. The Wye Mullan Plan is a nonregulatory document intended to provide guidance on how growth and development should occur in the plan area. The plan amended the Missoula County Growth Policy of 2002 and is updated every four years.

The planning area covers 13,227 acres. Maps from the plan are available for review as exhibits in **Appendix G1**. **Exhibit G1-1** is a location map of the planning area. The planning area boundaries are: the Reserve Street commercial area, the Clark Fork River natural area, US Highway 93, and Deschamps Lane. The plan area includes the North Reserve Street Corridor, Mullan Road to Deschamps Lane, and the Wye at the intersection of US Highway 93 and Interstate 90 (see **Exhibit G1-2**). The north boundary extends to the north side of Old Highway 10 West. At the west end of the north boundary, the plan area encompasses the “Wye,” the developing area centered on the junction of US Highway 93 North and Interstate 90. At the northeast end of the boundary the plan area encompasses existing residential development between Old Highway 10 West and Interstate 90. The east boundary extends to the east side of Reserve Street and includes the first east block of development along North Reserve Street. The south boundary follows the northern edge of the Clark Fork River. The west boundary runs along Deschamps Lane.

The existing land uses within the planning area are depicted in **Exhibit G1-3**. The majority of the property surrounding the airport is undeveloped. The old Milwaukee Railroad is generally the boundary from which development occurs to the south. Commercial and industrial lands lie to the west. These land use patterns minimize potential conflicts with development of airport property.

The existing and proposed roadway system is shown in **Exhibit G1-4**. Currently road access to the airport property south of the existing main runway is very limited. Roads are proposed that will open that land for improvements.

The airport property is outside existing sewer service area, as shown in **Exhibit G1-5**. Development of the airport property would require an expansion of the sewer service area.

As shown on **Exhibit G1-6**, Riparian Areas, three creeks cross airport property. These creeks are important to animal movement and habitat, as shown in **Exhibit G1-7**, Potential Wildlife Habitat and Linkages. The development of the south side of the property must take into consideration the protection of these areas.

Grant Creek is the eastern most creek on airport property. It presents the greatest limitations on the development of the property. As shown in **Exhibit G1-8** – Grant Creek Flood Hazards, portions of the Creek’s flood hazards include a floodway. Every effort must be taken to protect the floodway to avoid damages up or down stream.

The Wye Mullan Plan also highlights findings from the 2004 Missoula Urban Transportation Plan Update, shown in **Exhibit G1-9**. It projects that W. Broadway Street and Mullan

Road will reach at least 80 percent capacity by 2025. Traffic volume along Mullan Road is projected to increase 35 percent in relation to its capacity. W. Broadway will also experience increased traffic volumes near the airport. In addition to an intersection improvement further east, the plan also cites that modifications to the existing airport may be necessary to alleviate future congestion.

### 7.4.5 Other Studies

The *Urban Fringe Development Area Project Update and Staff Recommendation*, completed in 2008, provides an overview of existing land uses and infrastructure available around the airport as well as other areas of the immediate Missoula area. The plan displays the suitability of development in the study area based on the availability of sewers, water lines, and roads, as well as the presence of wetlands and other constraints. Mountain Water and City Sewer access is available at the airport terminal as well as near, but not in, the southeastern area of the property. Prime soils and environmentally sensitive lands are found primarily along Grant Creek, on the east side of the airport.

The Grant Creek Restoration and Flood Control Project has been initiated to balance hydraulic capacity, flood hazard mitigation, sediment management, maintenance, new development, airport expansion, aesthetics, and habitat to protect environmental infrastructure. The project goals are to reduce surface and groundwater problems in the area, improve fish passage in lower Grant Creek, improve fish habitat in lower Grant Creek, and improve recreational and aesthetic opportunities. The Grant Creek Environmental Restoration is managed by the County Public Works Department and supported by various State and Federal agencies.<sup>3</sup> Development in this area will require environmental approvals prior to construction.

## 7.5 Industry Sector Analysis/Real Estate Assessment

The Industry Sector Analysis/Real Estate Assessment offers a framework for exploring the types of businesses that a business park located at MSO could sustain. This section serves to provide a starting point for forming the ideal tenant mix for such a nonaviation development. Actual tenant selection, however, will be among the very last steps completed. The information presented in this section will supplement the process.

The Industry Sector Analysis examines 2002 U.S. Census Bureau Economic Census statistics taken at the county level in order to identify the types of businesses that would be suitable for a Missoula-area business park. This section reviews demographic trends in the Missoula area and presents results of the target industry analysis. Later in this section is a real estate assessment that examines qualitative factors. The following section will then be followed by an explanation of possible access and layout alternatives for the nonaviation development property.

### 7.5.1 Methodology

The following steps were performed in order to conduct the industry/real estate assessment:

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<sup>3</sup> Grant Creek Environmental Restoration and Flood Control Project Management Plan, 2002

1. A review of the largest industries, employers, and trends in the region.
2. A quantitative approach to target industry selection, based on a detailed Input-Output model customized for the region is shown in **Appendix G3**. The model has a multitude of factors that are calculated for each of the 666 5-digit NAICS<sup>4</sup> industries in the United States compiled by the U.S. Census for the 2002 Economic Census. The quantitative phase of the target industry analysis identifies industries that are both desirable and well suited to the region. Such industries:
  - Are growing nationally and regionally (at the state level),
  - Pay higher than average wages,
  - Are already present in the region,
  - Have a productivity advantage in the region,
  - Are expected to improve their profitability in the region.
3. A qualitative review that accounts the region's strengths and weaknesses and recent trends, as well as industry experience about industry trends. The qualitative step is a "sanity check," ensuring that highly ranked industries chosen are not merely "statistical artifacts."

## 7.5.2 Results of the Industry Sector Analysis / Real Estate Assessment

This section provides results of the target industry assessment using the methodology described above and detailed in Appendix G3. Demographic trends specific to the Missoula area are reviewed to evaluate the level of impact each trend has on the industry results. Finally, the raw results are verified through interviews and documents published by local economic organizations as part of the qualitative portion of the review.

### 7.5.2.1 Quantitative Results

The Top 10 manufacturing and nonmanufacturing industries are shown in **Table 7-1**. The model projected that pharmaceutical, general machinery, nonmetallic minerals, metal forming and fabrication, agricultural, and wholesalers were among the top choices for industries in the Missoula area. Industry sectors were scored based on growth and wage factors as well as location quotients and productivity and profitability. Full details and results of the quantitative analysis are presented in **Appendix G4**.

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<sup>4</sup> North American Industrial Classification System was developed by the governments of the United States, Canada, and Mexico as a way to measure business activity. NAICS are broken down into 666 codes, one for each defined industry sector. The codes measure the number of persons in a particular industry sector in a region, which can then be compared with other regions to measure overall distribution of business activity. The smallest region for which NAICS data is collected in the United States is at the county level.



TABLE 7-1  
Top 10 Manufacturing And Nonmanufacturing Industries

5-DIG NAICS INDUSTRY	MANUFACTURING INDUSTRY	TOTAL SCORE <sup>5</sup>	RANK	INDUSTRY CLUSTER
32541	Pharmaceutical and Medicine Manufacturing	17.12	1	Pharma/Bio
33911	Medical Equipment and Supplies Manufacturing	16.02	2	Pharma/Bio
33392	Material Handling Equipment Manufacturing	15.92	3	General Machinery, Equipment and Components
32732	Ready-Mix Concrete Manufacturing	15.03	4	Non-Metallic Minerals
33231	Plate Work and Fabricated Structural Product Manufacturing	14.96	5	Metals forming and fabrication
32621	Tire Manufacturing	14.85	6	Plastics & Rubber Manufacturing
33331	Commercial and Service Industry Machinery Manufacturing	14.83	7	General Machinery, Equipment and Components
32739	Other Concrete Product Manufacturing	14.70	8	Non-Metallic Minerals
33232	Ornamental and Architectural Metal Products Manufacturing	14.58	9	Metals forming and fabrication
32121	Veneer, Plywood, and Engineered Wood Product Manufacturing	13.93	10	Agricultural and Resource
5-DIG NAICS INDUSTRY	NONMANUFACTURING INDUSTRIES	TOTAL SCORE	RANK	INDUSTRY CLUSTER
54162	Environmental Consulting Services	13.56	1	
51419	Other Information Services	12.80	2	
62133	Offices of Mental Health Practitioners (except Physicians)	12.79	3	Wholesalers
54172	Research and Development in the Social Sciences and Humanities	12.34	4	
54169	Other Scientific and Technical Consulting Services	12.26	5	
54151	Computer Systems Design and Related Services	12.23	6	
62134	Offices of Physical, Occupational and Speech Therapists, and Audiologists	12.08	7	
54149	Other Specialized Design Services	12.05	8	
62121	Offices of Dentists	11.78	9	
56121	Facilities Support Services	11.72	10	

<sup>5</sup> Scores shown are the sum of weights each industry sector received based on their potential for growth and wage rates, as well as Location Quotients and an assessment of Productivity and Profitability. Please refer to Appendix G-2 for a breakdown of how these scores were specifically assigned in the analysis.

After further review, the **Tables 7-2 through 7-13** resulted in the recommended target industries for the Missoula region.

TABLE 7-2  
Agricultural and Resource

NAICS	Description	Rank
32121	Veneer, Plywood, and Engineered Wood Product Manufacturing	10.00
32191	Millwork	13.00
32199	All Other Wood Product Manufacturing	22.00
32312	Support Activities for Printing	28.00
32311	Printing	37.00
32213	Paperboard Mills	49.00

TABLE 7-3  
Automotive/Transportation

NAICS	Description	Rank
33621	Motor Vehicle Body and Trailer Manufacturing	24.00
33631	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	44.00
33636	Motor Vehicle Seating and Interior Trim Manufacturing	47.00
33639	Other Motor Vehicle Parts Manufacturing	51.00
33641	Aerospace Product and Parts Manufacturing	56.00
33632	Motor Vehicle Electrical and Electronic Equipment Manufacturing	62.00

TABLE 7-4  
Basic Materials Manufacturing

NAICS	Description	Rank
	Wood Kitchen Cabinet and Countertop Manufacturing	21.00
	Office Furniture (including Fixtures) Manufacturing	26.00
	Household and Institutional Furniture Manufacturing	30.00
	Sporting and Athletic Goods Manufacturing	38.00
	All Other Miscellaneous Manufacturing	48.00

TABLE 7-5  
Chemicals Manufacturing

NAICS	Description	Rank
32562	Toilet Preparation Manufacturing	11.00
32561	Soap and Cleaning Compound Manufacturing	23.00
32552	Adhesive Manufacturing	42.00
32518	Other Basic Inorganic Chemical Manufacturing	61.00

TABLE 7-6  
Electronic Components

NAICS	Description	Rank
33531	Electrical Equipment Manufacturing	15.00
33593	Wiring Device Manufacturing	39.00

TABLE 7-7  
Food and Beverage

NAICS	Description	Rank
31192	Coffee and Tea Manufacturing	20.00
31132	Chocolate and Confectionery Manufacturing from Cacao Beans	31.00
31161	Animal Slaughtering and Processing	40.00
31181	Bread and Bakery Product Manufacturing	45.00
31212	Breweries	46.00
31111	Animal Food Manufacturing	53.00

TABLE 7-8  
General Machinery, Equipment and Components

NAICS	Description	Rank
33392	Material Handling Equipment Manufacturing	3.00
33331	Commercial and Service Industry Machinery Manufacturing	7.00
33312	Construction Machinery Manufacturing	12.00
33399	All Other General Purpose Machinery Manufacturing	29.00
33351	Metalworking Machinery Manufacturing	32.00
33391	Pump and Compressor Manufacturing	34.00
33313	Mining and Oil and Gas Field Machinery Manufacturing	35.00
33461	Manufacturing and Reproducing Magnetic and Optical Media	58.00
33329	Other Industrial Machinery Manufacturing	70.00

TABLE 7-9  
Metals Forming and Fabrication

NAICS	Description	Rank
33232	Ornamental and Architectural Metal Products Manufacturing	9.00
33151	Ferrous Metal Foundries	16.00
33152	Nonferrous Metal Foundries	17.00
33271	Machine Shops	18.00
33221	Cutlery and Hand Tool Manufacturing	19.00
33131	Alumina and Aluminum Production and Processing	25.00
33281	Coating, Engraving, Heat Treating, and Allied Activities	33.00
33299	All Other Fabricated Metal Product Manufacturing	43.00

TABLE 7-10  
Non-Metallic Minerals

NAICS	Description	Rank
32732	Ready-Mix Concrete Manufacturing	4.00
32739	Other Concrete Product Manufacturing	8.00
32731	Cement Manufacturing	36.00
32733	Concrete Pipe, Brick, and Block Manufacturing	52.00

TABLE 7-11  
Pharma/Bio

NAICS	Description	Rank
32541	Pharmaceutical and Medicine Manufacturing	1.00
33911	Medical Equipment and Supplies Manufacturing	2.00

TABLE 7-12  
Plastics & Rubber Manufacturing

NAICS	Description	Rank
32621	Tire Manufacturing	6.00
32619	Other Plastics Product Manufacturing	14.00
32611	Unsupported Plastics Film, Sheet, and Bag Manufacturing	55.00
32613	Laminated Plastics Plate, Sheet, and Shape Manufacturing	57.00
32614	Polystyrene Foam Product Manufacturing	63.00
32616	Plastics Bottle Manufacturing	65.00

TABLE 7-13  
Telecommunication Equipment Manufacturing

NAICS	Description	Rank
33422	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing	27.00
33411	Computer and Peripheral Equipment Manufacturing	41.00
33421	Telephone Apparatus Manufacturing	59.00
33429	Other Communications Equipment Manufacturing	66.00

### 7.5.3 Qualitative Real Estate Assessment

This section serves to provide a qualitative review of the results, which include a summary of recorded and observed factors in Missoula. Raw industry results from the model's output presented in **Tables 7-2 through 7-13**, were compared with factors that influence the level of demand for a business park, such as, Missoula-specific demographic trends, historically successful and unsuccessful markets, and other traits that would influence the success of the analyzed markets.

#### 7.5.3.1 Demographic Trends

This subsection provides a summary of the demographic trend factors considered in the overall analysis. Demographic trends are an important consideration in analyzing the viability of business sectors, as it hints toward not only the availability of labor, but also market demand and type of skills possessed by the population that are required to maintain or even start businesses. Additionally, local commerce is influenced by the cost of real estate as well as quality of life factors such as low crime and a high level of education which provides a skilled workforce.

##### *Local Real Estate Trends*

In the Missoula area, residential real estate prices are rising faster than nationally, indicating significant demand, as well as exemplifying the limited amount of developable land available. The cost of raw land has risen from about \$2 per square foot to \$15 and even as much as \$30 per square foot. Two-acre residential lots have also sold for as much as \$2,000,000, although the average price for an empty lot commanded a price of \$115,000 in 2006 and \$72,000 in 2007<sup>6</sup>. This drop in price is reflective of the decrease in size of lots sold in 2007, compared to 2006. In addition, lot sales in 2007 were 55 percent higher than 2006.

Industrial/Distribution buildings lease for around \$4 per square foot triple net.<sup>7</sup>

Appreciation is expected to continue, and the nationwide drops in property prices have had little effect on Missoula.

In terms of real estate supply, the flat and level space that is needed to accommodate large industrial and other large-scale business development is somewhat scarce due to the changing terrain, utilities, access, or other factors. In addition, demand for light industrial and distribution space is expected to keep growing. Two locations were identified in the

<sup>6</sup> Source: 2008 Missoula Housing Report, by the Missoula Organization of Realtors

<sup>7</sup> Triple net refers to a lease where the lessee pays the lessor rent, as well as taxes, insurance, and maintenance expenses.



Missoula area that offer light industrial and distribution space: 1) Forty-two acres are available for expansion at the former Stimson lumber mill ten miles away, and 2) The Missoula Development Park, located along W. Broadway Street (U.S. Route 10) directly north of MSO.

### *Population*

Population growth is a good indication of the demand in a region. Population growth in the Missoula area is strong at 1.5 percent a year for Missoula County, three percent for Ravalli County, and 1.5 percent for Lake County. Over the last two decades, Missoula County, and the MSO service area described in the MSO Forecast, has seen population growth rates that exceed growth in the State of Montana. Forecasts from NPA Data Services Inc. indicate that the Missoula area population growth rates will continue to exceed Montana's and the nation's population growth rates over the foreseeable future.

### *Crime*

The Missoula region has nearly half the nation's average in violent crime. Property crime is half again as high as the national average. **Table 7-14** shows these factors. Crime generally discourages families and business from moving into areas. The effect of crime rates on the MSO nonaviation development area is inconclusive because the location and size of the study area where crime rates were determined is unknown. Although the Missoula region has a higher property crime rate than the U.S. average, the crime is not necessarily spread across the region and could be focused in a central area away from the airport nonaviation development area.

TABLE 7-14  
Crime Rates Per 1,000

	<b>Violent Crime</b>	<b>Property Crime</b>
<b>United States (average)</b>	<b>5</b>	<b>33</b>
Montana (average)	3	30
Missoula, MT	3	49

Source: 2006 FBI Uniform Crime Reports  
Prepared by: CH2M HILL, 2008.

### *Unemployment*

Unemployment is very low, and is projected to decrease more as job growth is forecast to increase. As with population, unemployment is lower in highly-populated areas, such as Missoula County. The workforce is adaptable and good training opportunities exist, mainly from the College of Technology (which is part of the University of Montana). The 2006 unemployment rate in Missoula is 2.9 percent, compared to 3.2 percent in the State, and 4.6 percent in the nation. Over the past several years, expansion incentives and the general business climate have improved.

### *Education*

In the 2006-2007 school year, the State of Montana ranked seventh in the nation's Smart State Ranking<sup>8</sup>, up from ninth place in 2005-2006, as shown in **Table 7-15**. Smart State Rankings were designed by Morgan Quitno, which in 2007 was a private publishing company that published annual education state ranking reference books. The Smart State

<sup>8</sup> Smart State Rankings are compiled by Morgan Quitno Press, a subsidiary of QC Press.

figure is a popular estimation of the quality of statewide education based on 21 state-level education factors.

TABLE 7-15  
Smart State Rankings

State	2006-2007 Smart Rating	2006-2007 Rank	2005-2006 Rank
Montana	9.55	7	9
South Dakota	3.25	17	18
Wyoming	1.35	19	17
Idaho	1.29	20	28
North Dakota	0.95	21	20

Source: [www.morganquitno.com/edrank.htm](http://www.morganquitno.com/edrank.htm)  
Prepared by: CH2M HILL, 2008.

ACT scores in the State of Montana were on average 0.7 points higher than the national average, as shown in **Table 7-16**. High schools in the Missoula area all scored higher than the national average, with a range from 21.8 up to 28.

TABLE 7-16  
ACT Scores (2007)

Location	2007 Average ACT Composite Score	Seniors Taking the ACT (%)	Graduation Rates (%)
National	21.2		
State of Montana	21.9		
(Missoula/Lolo) Big Sky H.S.	22.3	78	94
(Missoula) Hellgate H.S.	21.8	40	94
(Missoula) Sentinel H.S.	22.8	36	98
(Missoula) Seeley Swan H.S.	28	35	99
(Frenchtown) Frenchtown H.S.	22.5	70	93

Source: National/Statewide data from [www.act.org](http://www.act.org) (2007)

Source: County data from [www.eschoolprofile.com](http://www.eschoolprofile.com)

Prepared by: CH2M HILL, 2008.

Note: ACT high score of 36.

### *Major Universities*

The type, size, and number of colleges and universities in an area are a good indication of the regional availability of skilled labor. The U.S. School Database lists two colleges and universities in Missoula, which are:

- ➔ University of Montana
- ➔ Modern Beauty School

Other schools in the region include:

- ➔ Montana State University
- ➔ Wild Rockies Field Institute – An independent organization that primarily offers environmental field-study courses that can be used to satisfy a portion of degree requirements at other colleges and universities, including the University of Montana.
- ➔ Connole-Morton School – An educational services company that provides courses to satisfy Montana pre-licensure instruction and continuing education requirements for real estate and insurance practitioners.

### *Income*

Income levels in the Missoula area grew at approximately 30 percent over the past 10 years, higher than the growth rate of the nation (22 percent) and similar to Montana (30 percent). In Missoula, the average per capita income was \$28,000 annually in 2006, compared to \$32,000 in the nation and \$26,500 in Montana. Missoula is expected to have a larger per capita income growth compared to the State as a whole because of increased economic opportunities which have resulted in part from the demand for goods and services by the growing population. Additionally, by nature, cities and densely populated areas tend to offer a greater variety of economic opportunities in contrast to rural places. Finally, the entrance of new employers puts added pressure on competitive wages.

### *Climate*

Missoula is nicknamed the Garden City due to its relatively mild winters compared to the rest of Montana. Despite this title, the Missoula region on average does not experience weather perceived as desirable: average temperatures are colder, snowfall is greater, and precipitation is less.<sup>9</sup> However, the climate has been instrumental in providing the Missoula region with opportunities for tourism and an assortment of outdoor activities, such as outdoor winter sports, hiking, biking, and fishing. For example, the effect of a good snow year in 2005 was evident from a 30 percent increase in skier visits in 2006 in the State<sup>10</sup>. The average Missoula region weather conditions are summarized in **Table 7-17**.

<sup>9</sup> 2007 Cities Ranked and Rated. Wiley 2<sup>nd</sup> Edition.

<sup>10</sup> Rising Asia, Outlook 2007. The University of Montana.

TABLE 7-17  
Weather Conditions

Attribute	Desirable Range <sup>1/</sup>	Missoula, MT <sup>2/</sup>
January Low	30 to 60 F	14 F
July High	72 to 82 F	86 F
Annual Days > 90 F	3-10	21
Annual Days < 32 F	0-30	180
Annual Days < 0 F	0	18
Annual inches of precipitation	20-30	14
Annual inches of snowfall	0-24	37
July relative humidity	50% - 70%	82% (a.m.) - 52% (p.m.)
Average possibility of sunshine	70% - 85%	54%

1/ Source: 2007 Cities Ranked and Rated. Wiley 2<sup>nd</sup> Edition.

2/ Source NOAA and Weather Reports

Prepared by: CH2M HILL, 2008.

### 7.5.3.2 Business Trends

Summarized below are the local business conditions that could affect the development of a business park at the southern portion of the MSO property by first examining regional factors, such as the overall business climate, before gradually focusing on site-specific factors, such as the existence of an established business park adjacent from the airport. Results of the model's output were reviewed with economists at the University of Montana Bureau of Business and Economic Research, and compared to publications by The University of Montana, The Missoula Area Economic Development Corporation (MAEDC), The Montana Department of Labor and Industry, and the Missoula County Development Park website in order to gain an in-depth understanding of the results, and to eliminate any anomalies in the preliminary findings.

#### *Challenges to Businesses*

The local economy continues to expand in order to provide for the demand created by the growing population. At the same time, however, the availability of labor in certain industries can be low, stifling the ability for certain businesses to expand. Additionally, the cost of living is comparably higher than in other regions, particularly in terms of real estate.

#### *Encouraging Entrepreneurialism*

Missoula is primed for new business development with its high degree of human capital (with 38 percent of the population 25 years or older holding at least a bachelor's degree<sup>11</sup>). Missoula's two largest employers are the government and education industry, so Missoula is not considered a private-sector town. However, there are growing opportunities for entrepreneurs. With the presence of the local university and technology school, access to

<sup>11</sup> Source: 2006 American Community Survey for Missoula County conducted by the U.S. Census Bureau.

education remains strong. Human capital is further enhanced with the increased number of young and experienced retirees who have chosen to move into the region and are looking to start a new career, or perhaps create a business of their own. Many local organizations in the region exist to provide start-up and existing companies with business counseling and loans, including the Missoula Area Economic Development Corporation and the Montana Manufacturing Extension Center.

### *Industries*

The Missoula area is in transition away from resource-based industries, such as mining and forestry. Both mining and forestry products were hurt by increased competition and environmental factors, including government regulations. There is still industrial activity in these sectors through companies such as Smurfit Stone, Roseburg, and Plum Creek, and the jobs pay good wages and benefits, but activity is declining. The employment trend is increasing toward tourism, education, health and other services, and the technology industry. Recently, Direct TV entered the Missoula Area to provide support services to customers.

### *Services*

Missoula supports more service-related businesses than manufacturing. Health services, environmental consulting, and pharmaceutical are healthy and growing market segments. The University of Montana Pharmacy School directly influences these industries. The region's education system also supports forestry research and development. Additionally, an engineering school and several technical industry clusters are located in Bozeman.

Finally, like many states, Montana has made efforts to attract the motion picture industry to the state through the establishment of the Montana Film Office and tax credit incentives.

The largest employers in the area, besides government and universities, based on second quarter 2007 data were:

- Community Medical Center
- St Patrick Hospital
- DirecTV Customer Service
- Wal-Mart
- Albertsons
- Consumer Direct Personal Care
- Nightingale Nursing Services
- Opportunity Resources
- Stimson Lumber Company
- Smurfit-Stone Container Corp
- Western Montana Clinic
- Costco
- Doubletree Hotel
- Good Food Store
- Missoula Developmental Service
- Missoulia
- Riverside Contracting
- Roseburg Forest Products
- Village Health Care Center
- Watkins & Shepard Trucking

The majority of employers shown above are service-related industries.

### *Manufacturing<sup>12</sup>*

Manufacturing is a small business in Montana. The type of manufacturing that does the best is high-tech and defense related. Although not a lot of manufacturing occurs in Missoula, other Montana areas, such as Flathead Valley, including Kalispell, Whitefish, and Columbia Falls, and Gallatin Valley, including Bozeman and Belgrade, support many successful manufacturing businesses. Combined these areas account for almost half of all manufacturing in the state (outside of wood and possibly oil product manufacturing).

From a qualitative standpoint, it is important to consider trends on key manufacturing sector businesses to attain a better understanding of the region's economic pulse. Plywood, for instance, is a highly cyclical industry and ranks 10 on the manufacturing list in this study. Currently, this industry is down, as evidenced when recently, a major mill in Missoula closed. The site is now being marketed as an industrial site. The success of the plywood industry is driven by many factors, including the slow housing industry and the increase in government regulations on the logging industry.

Another example of an industry constrained by location is the Smurfit Stone Container Corp Paperboard Mill. The distance from other markets is a major factor contributing to the paperboard mill's financial difficulties. Along the same lines, trailer manufacturing and tire manufacturing, which were projected in this analysis, are expected to be tough markets to enter in the Missoula area due to shipping costs and price competition with other cities that offer close access to raw materials, waterways, and consumers.

### *Historically Successful Businesses*

From a transportation perspective, Missoula is well connected. However, in terms of marketing and price competitiveness, the county is not close enough to resources, users, or markets that are important to the success of most manufacturing industries. Considering its geographic location, services industry sectors are likely to perform better than manufacturing businesses. Additionally, the lack of choices for industrial sites, such as flat lands and access to rivers for transportation, will further limit industrial growth.

### *Existing Business Parks*

Although the Missoula area lacks many choices to accommodate light industrial and manufacturing, the business park development adjacent to the airport presents a glimpse of the success that a potential airport business park could offer while also providing direct competition to a business park at the airport. On the most recent parcel map of the Missoula Development Park, dated December 2007, of 446 acres of mixed-use development, only twelve technology lots were unsold, five light industrial lots were unsold, and one neighborhood commercial lot was unsold. The 446 acres also includes 60 acres of parkland. Similar to a business park at the MSO, this business park offers access to three lines of transportation: the MSO, the railroad, and Interstate 90.

### *Business Park Incentives*

The city of Missoula was awarded funds to distribute to businesses in the cleanup of Brownfield sites. Brownfield sites are abandoned or rarely-used industrial or commercial

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<sup>12</sup> Information in this section summarized from interviews with local universities and economists.

sites that are an eyesore to communities. Additionally, the MAEDC offers lending programs to businesses for expansion and retention projects that will create or retain quality jobs in the Missoula area.

## 7.6 Nonaviation Development on Airport Property

The MCAA commissioned this effort to prepare a conceptual plan for land not needed for future aviation development, located in the southern portion of the airport property. Based on likely future demand for specific land uses identified in the sections above, the purpose of this section is to develop potential nonaviation land use layouts at MSO. This section evaluates opportunities and identifies the most feasible location to construct a business park at the airport. The business park will provide parcels large enough to serve the shortage of light industrial land and commercial development area available. First, access road options are evaluated, followed by the recommendation of the preferred access route to I-90. Finally, conceptual nonaviation development plans for Missoula International Airport are developed for the preferred site.

## 7.7 Draft Conceptual Nonaviation Development Plans

This section reviews significant constraints to the development of nonaviation property at MSO. The majority of undeveloped and uncommitted land located at the airport is on the south end of the property, where the development of nonaviation activities is limited by factors such as utilities, roads, and environmental constraints. Related to that is the lack of available funds from other sources to assist in the development of alternative roads to that area. Road access alignments are defined and evaluated and a preferred road alignment is recommended. Finally, an access road alternative is selected and two potential conceptual layouts for a business park are presented.

### 7.7.1 Road Access Options

Road access is a key factor in developing an access to a business park. The most desirable access would entail a direct route to intrastate and interstate routes with as few stopping and turning points as possible. Most or all of the road development will be on airport property. The Missoula County Development Park is in a prime location because it has direct access to I-90 with few turns required<sup>13</sup>.

In this section, alternative road options are introduced, reviewed, and evaluated. Both west and east side road access options are evaluated since these routes provide direct access to surrounding interstates.

#### West Side Road Access

The most direct access to the airport property south of the reserved aviation development is from the west. Training Drive provides direct access from potential nonaviation development property to West Broadway Street, and runs outside the RPZ on Runway 11/29. West Broadway Street then provides a direct access point to the interchange with

<sup>13</sup> The Missoula County Development Park is located directly north of the airport facility along W. Broadway Avenue with access to I-90 from Airway Boulevard.

I-90, which is approximately two miles west. Access to I-90 is approximately 2.25 miles to the east via Airway Boulevard.

Approximately 0.4 miles west of the Training Drive, West Broadway Street intersection provides an opportunity to create a road to the airport property and avoid the RPZ, as shown in **Exhibit 7-4**. While property would have to be acquired for such a road, the proposed route minimizes the impact of the road on surrounding land uses. This access route would reduce the trip length to I-90. This is similar to the proposed roadway system shown in the Wye Mullan Plan in Appendix G (Table G1-4).

### East Side Road Access

Access from the east is difficult. The existing Runway 11/29 RPZ and the future RPZ for a future parallel runway abut the airport property and do not allow enough room to accommodate a road on airport property. Additionally, the location of Grant Creek restricts design options. Due to the land ownership patterns, there are no direct routes from the east side to I-90. A considerable amount of land would have to be acquired for right-of-way.

One possible route is the extension as shown in the Wye Mullan Plan in Appendix G1, called Roadway System. The southern portion of that road running parallel to the old Milwaukee Railroad bed could be moved north onto or adjacent to airport property.

There are a few issues with the development of the eastern access.

The first issue is that to provide access to I-90, land will have to be acquired. As pointed out above, this will raise the cost of development and potentially delay implementation of the project. Second, the route proposed is not a direct route to Broadway or I-90. There are several proposed turning movements and intersections that will increase travel time. Third, the route crosses a sensitive part of Grant Creek and potential the Grant Creek floodway. This raises significant design and environmental concerns. Finally, the eastern access road would provide direct access into the commercial and residential development proposed east of the airport. This actually could be a positive factor. If properly designed, the business park, commercial, and residential areas could be integrated into a cohesive unit, providing a very desirable and sustainable development area. However, due to the different land owners and traditional land development regulations this may be very difficult to achieve.

#### 7.7.1.1 Other Factors

Other factors should also be considered when evaluating placement options for the business park, including environmental constraints, availability of utilities, and impact to surrounding properties and uses.

As described above, the airport property is transected by three creeks. These creeks represent wildlife habitat and corridors. This is not necessarily a major limitation or restriction on the development of the property and their presence must be incorporated into the design of the project. Due to the presence of a floodway around Grant Creek, development will be restricted, creating a barrier to development on the eastern end of the property. To build near Grant Creek and any other environmentally sensitive areas, environmental approvals will be required.



Certain utilities are located nearby, as discussed in Section 7.4.5 as well as in Appendix G2. Water, sewer, gas, and electric services are available at the Missoula County Development Park north of the airport. The property is adjacent to the Sewer RSID boundary. It is therefore assumed that utilities services can be physically extended to the airport property.

As shown in Exhibit 7-1, Existing Land Uses, the airport property is surrounded by vacant land. The development of the airport property as a business park is not expected to have an adverse impact on surrounding properties.

### 7.7.2 Conceptual Plan 1. West End Development (Airport Road)

Conceptual Plan 1 develops a business park access on the west end of the airport property. The intent of this concept is to keep all the roads on airport property to the greatest extent possible. This allows the airport to maximize the road frontage and create a variety of parcel sizes and amenities.

The project would be developed in two phases. The first phase would create a set of lots south of the proposed parallel runway, as shown in Exhibit 7-4. Half the lots would have the potential for taxiway access. The second phase would create additional lots to the east of phase 1. Again, half the lots would have potential access to taxiways.

The roads running parallel to the runways would both cross Butler Creek. It is recommended that the design of the project uses Butler Creek as an amenity to the business park. This amenity could include walking trails, benches, and observation points.<sup>14</sup>

This concept would create approximately 625 acres of developable land, including the space necessary for road and utility improvements. The road length would total 18,300 feet with a 100-foot right-of-way, as shown in **Table 7-18**.

TABLE 7-18  
Conceptual Plan 1

	Phase 1	Phase 2
Developable Area (acres)	224	401
Roadway (feet)	11,000	7,300

### 7.7.3 Conceptual Plan 2. West End Development (Perimeter Road)

Conceptual Plan 2 is very similar to Conceptual Plan 1. The difference is the road is located on the edge of the airport property, as shown in **Exhibit 7-5**. This design creates less but larger lots on the south side of the property. This gives greater flexibility in having lots with a potential for taxiway access. However, the airport would lose control of development that would occur south of the airport property.

This concept would create approximately 625 acres of developable parcels. The road length would total 19,600 feet, with a 100 foot right-of-way, as shown in **Table 7-19**.

<sup>14</sup> Prior to designation of airport property as open space, available for public use, coordination should take place with the FAA to avoid the inadvertent creation of Dot 4(f) uses in areas potentially affected by future airport activities.

TABLE 7-19  
Conceptual Plan 2

	Phase 1	Phase 2
Developable Area (acres)	224	401
Roadway (feet)	12,300	7,300

#### 7.7.4 Conceptual Plan 3. East End Development (Perimeter Road)

This conceptual plan considers access from the east side of the airport, as shown in **Exhibit 7-6**. As described above, the conceptual is a modification of the Wye Mullan extension proposal. The southern portion of that proposal would be relocated onto airport property. In addition, a portion of the alignment is modified to avoid the RPZs of the two runways.

This concept would create approximately 620 acres of developable parcels. The road length would total 23,700 feet, with a 100 foot right-of-way, as shown in **Table 7-20**.

TABLE 7-20  
Conceptual Plan 3

	Phase 1	Phase 2
Developable Area (acres)	217	403
Roadway (feet)	15,200	8,500

#### 7.7.5 Conceptual Plan 4. Terminal Replacement

Conceptual Plan 4 is intended to maximize current access to I-90 and minimize distance to usable utilities. This concept would involve the relocation of the terminal to a midfield site and utilizing the terminal site for a series of parcels, as illustrated in **Exhibit 7-7**. All of the development would occur on airport property.

This concept would create approximately 141 acres of developable parcels. The road length would total 7,800 feet, with a 100 foot right-of-way, as shown in **Table 7-21**.

TABLE 7-21  
Conceptual Plan 4

	Phase 1
Developable Area (acres)	141
Roadway (feet)	7,800

The feasibility of this alternative depends on the ability to relocate the terminal.



EXHIBIT 7-4  
Conceptual Plan 1 Access Road Alternative

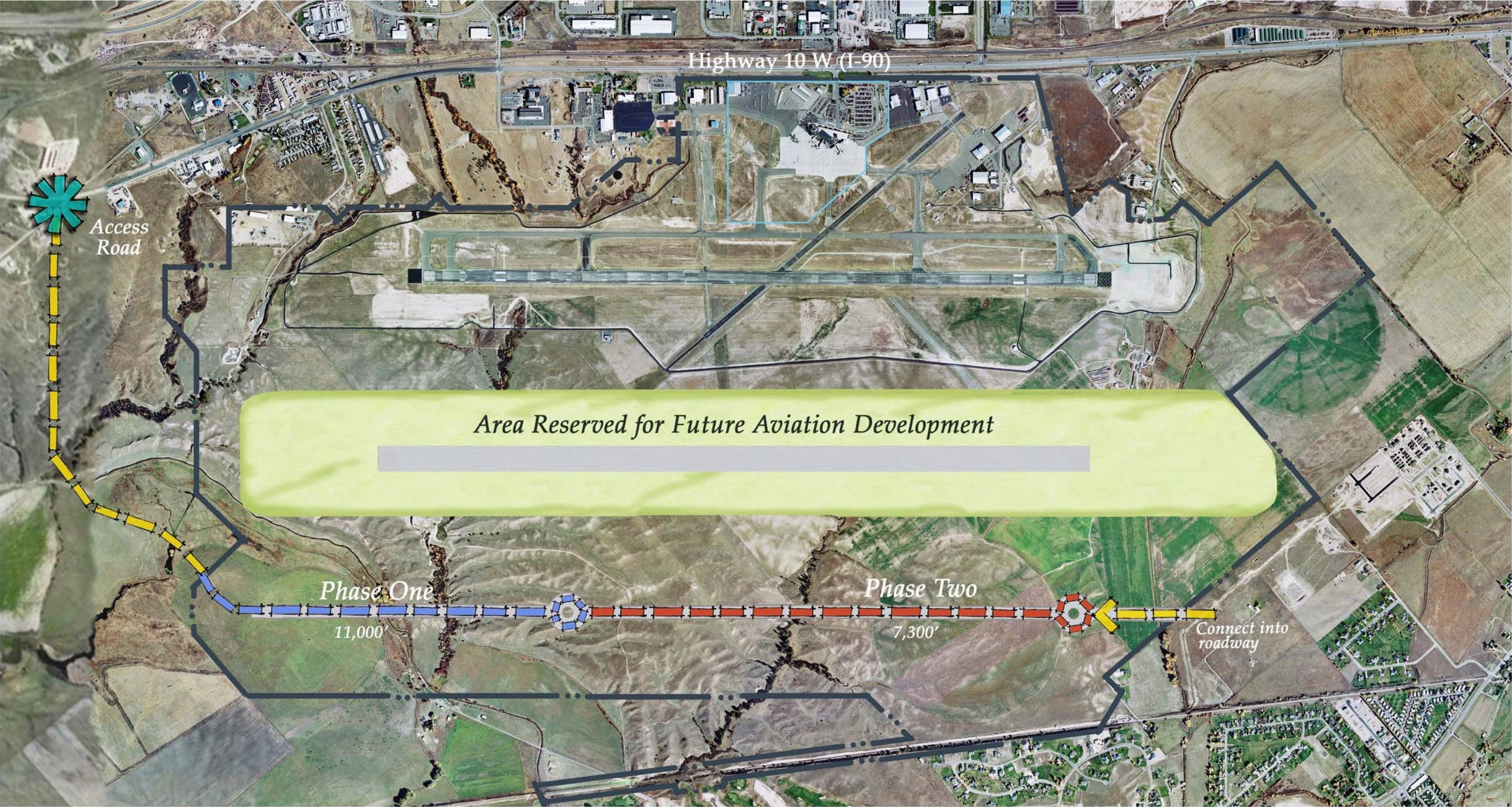




EXHIBIT 7-5  
Conceptual Plan 2 Access Road Alternative

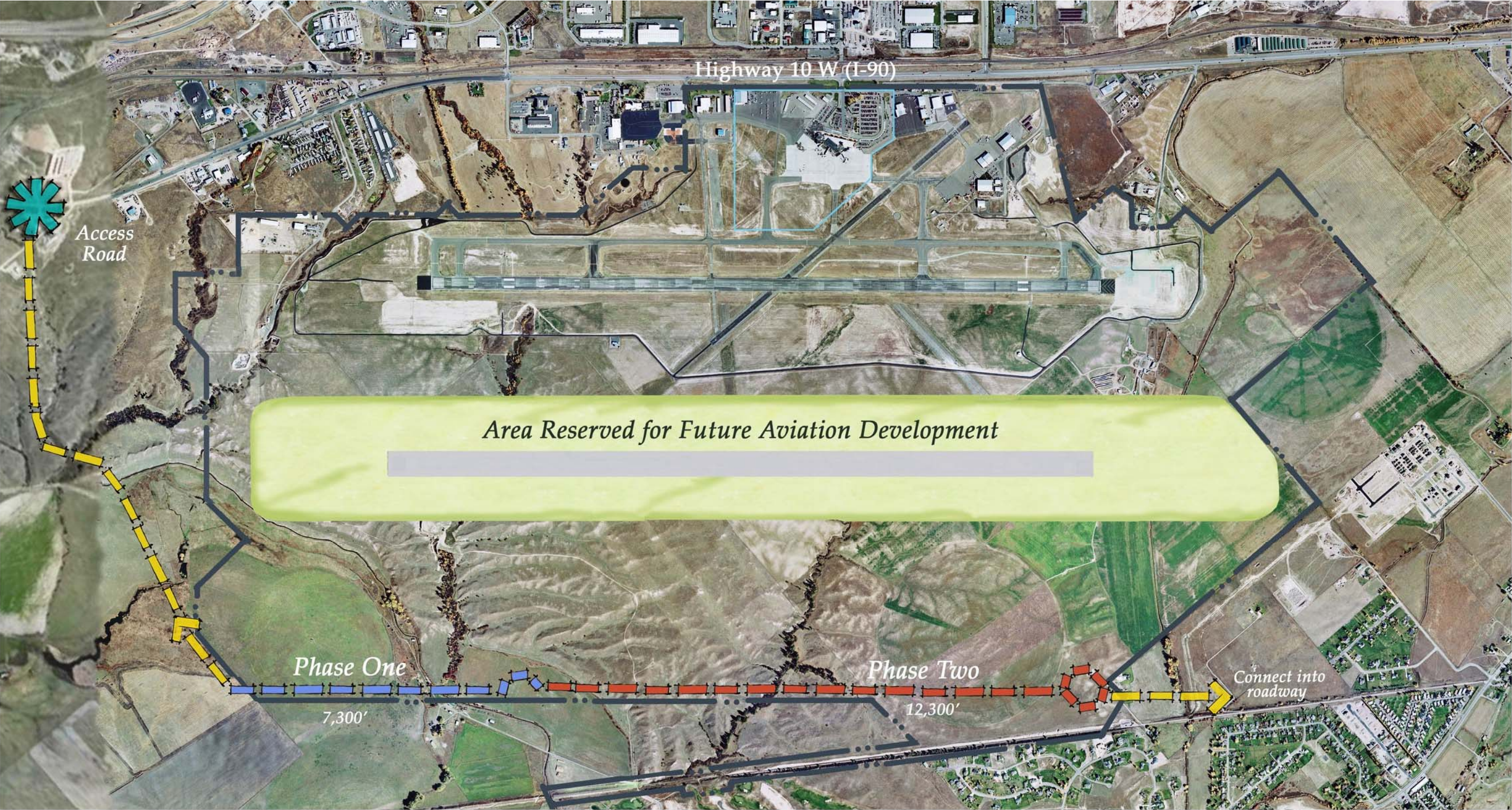




EXHIBIT 7-6  
Conceptual Plan 3 Access Road Alternative





EXHIBIT 7-7  
Conceptual Plan 4 Access Road Alternative





## 7.8 Evaluation of Conceptual Nonaviation Development Plans

Four conceptual plans were developed to evaluate different approaches to developing MSO property for nonaviation uses. Alternatives 1, 2, and 3 provide for the development of roughly the same amount of acreage. Alternative 4 created the least amount of developable land.

Access is the major difference between Alternatives 1, 2, and 3. Alternative 4 provides the most direct access to I-90; however this has to be balanced with the loss of convenient access to the terminal. Alternative 3 has the longest route and the one with the most turning movements. It also places business park traffic in the commercial/residential development east of the airport. Finally, this alternative has the greatest environmental impact due to its interference with Grant Creek.

Alternatives 1 and 2 both have the same route to Broadway and on to I-90. The difference is the location of the road on the south side of airport property. Alternative 1 is considered to have an advantage because MSO would control development on both sides of the road and it provides the greatest road frontage. Alternative 2 allows for a larger parcel size development but the property to the south could be developed by a third party and would be in competition for users of the property.

## 7.9 Recommended Conceptual Nonaviation Development Plan

Alternative 1, the west end development with the road located on airport property is the recommended alternative because it provides:

1. Convenient access to Broadway and I-90.
2. Minimum additional land acquisition.
3. Least anticipated environmental impacts.
4. Compatibility with surrounding land uses.
5. Maximum road frontage and potential lot development.

Alternative 1 is recommended to be phased. As shown in **Exhibit 7-8**, the first phase (yellow and blue) would provide access to airport property and the development of the west side of the airport property. The second phase (red) would be developed when market conditions dictate and would extend the road to the eastern half of airport property and eventually connect into the Wye Mullan Plan. This phasing could be broken into sub-phases to provide greater flexibility to fluctuating market conditions. Exhibit 7-8 shows a conceptual layout of the recommended Alternative 1 traversing the middle of airport property, with lots on both sides of the access road.



EXHIBIT 7-8  
Conceptual Plan 1





## 7.10 Phasing/Timing/Next Steps

The conceptual layout needs to be taken to a higher level of development to ensure that all land development code requirements are met and that the plan is compatible with all site conditions. The following actions are recommended to implement this alternative:

**ALP.** Adopt Alternative 1 as part of the ALP. The entire MCAA property is considered federally obligated. This jurisdiction stems from federal grant considerations and applies to all the property, regardless of the source of funds used for acquisition. As such, the Federal Aviation Administration (FAA) requires that nonaviation uses may only be placed on land not needed for future aviation activities. Also, FAA permission is needed prior to implementing such plans.

**2012 County Transportation Plan.** Request that Alternative 1 be incorporated into the Missoula Transportation Improvement Plan at the earliest opportunity and that Alternative 1 be adopted as an amendment to the Wye Mullan West Comprehensive Area Plan and the Missoula Urban Comprehensive Plan.

**Management Structure & Partnerships.** Determine a mechanism for managing the property to be used by prospective business tenants. Management options could include utilizing the Airport Authority's own staff and resources to facilitate the day-to-day operations of the business park or partnering or contracting with other agencies to administer the land. Additionally, the option exists to develop an independent corporation owned by the Airport Authority and its partners.

**Land Release.** Develop a recommended land release strategy based on the cost to release each development site, the sites' development potential, and costs for development. Conduct a strategic appraisal process to determine the reimbursement requirement to be used to move forward with each land release. Furthermore, consult with the Missoula County OPG to determine what appropriate action should be taken in regards to a potential nonaviation minor or major subdivision<sup>15</sup>.

**Financing.** Develop a financing plan for the implementation of Alternative 1 to proceed with the implementation of the project. It is recommended that this effort begin by developing a comprehensive list of the local, state, and federal programs that are potential finance tools. Then private sector tools that complement the public sector tools can be developed. Some of the finance tools will include:

- ➔ Tax Increment Financing
- ➔ Joint Development and/or Public/Private Partnerships
- ➔ Municipal Bonding techniques
- ➔ CDBG Funding and other Federal Programs

<sup>15</sup> Section 4.6 of the 2006 Missoula County Subdivision Regulations, under REVIEW PROCEDURE FOR SUBDIVISIONS CREATED FOR LEASE OR RENT, stipulates that "Subdivisions created for lease or rent which contain five or fewer structures or dwelling units shall be reviewed as minor subdivisions pursuant to this article. Subdivisions created for lease or rent which contain six or more structures or dwelling units shall be reviewed as major subdivisions pursuant to this article." Major and minor subdivision reviews are performed by the Missoula County OPG.

- ➔ Other programs as applicable under laws and initiatives of the State of Montana
- ➔ City and County Programs;
- ➔ Right of Way Donation;
- ➔ Park and Ride Programs;
- ➔ Public/Private Partnerships;
- ➔ Utilities
- ➔ Transportation Development Districts;
- ➔ Local Taxes.

**Marketing Plan.** Develop a marketing plan to market the property. The following items should be included in the marketing program.

- ➔ Executive Assessment - Conduct a high-level Executive Assessment of the local market area from the perspective of a corporate prospect.
- ➔ Land Marketing Project - Develop a recommended Marketing Strategy that includes marketing materials and identification of targeted markets and prospects.
- ➔ Deal Making - Develop a deal structure that best accomplishes the return goals of the development. Consider the target audiences, the legal, and economic parameters of the deal that best structures the deals so as to minimize any negative impacts on the private sector and to encourage their full participation.

**Environmental Assessment.** Develop a thorough environmental assessment of the project. Considerations must be made to protect environmentally sensitive lands. Additionally, any development would have to be made to comply with Missoula County's stormwater management plan.

**Transaction Documents and Negotiations.** Before marketing begins, it is important to develop with legal council the transaction documents (lease, licenses, sales agreements, options, contracts, etc.) necessary for successful real estate transactions. Potential partners/buyers are going to want to see this information.

Airport property is federally obligated and as such, all uses approved by the FAA are required to pay rent to the MCAA equal to fair market value.

**Construction.** Initiate site development and infrastructure activities. The timing of this will depend on many factors including budget availability, the marketing plan, and the success of the negotiation process.

**Stormwater Management Plan.** Final design of the nonaviation development property should be supplemented with a full-scale stormwater management plan.

## 7.11 Nonaviation Development Planning

The master plan has found that most of the open land along the southern end of the airport property will not be needed for aviation use. This results in 625 acres being available for compatible nonaviation development over the long-term that could financially benefit the airport while providing space for local businesses to expand.

A Target Industry Analysis was performed along with a Qualitative Real Estate Assessment, resulting in several concept layout plans. Significant conclusions are:

- A real estate assessment of the property indicates that the land will compete with other open spaces available for business park development. This limits the value of the property and potential rents because supply presently exceeds demand, however this is anticipated to gradually change over the long-term.
- While detailed economic analysis of near-term demand was conducted, the tenant mix planned for the development was kept generic as business trends are likely to change by the time the land is in demand, has been prepared, and is marketable.
- Supply of land in the Missoula area for uses that would be compatible with the airport will continue to exceed demand into the near future. While detailed economic analysis of near term demand was performed, the tenant mix planned for a potential business and industrial park at the airport was kept generic because development is long-term and updated studies will be needed in order to conduct appropriate marketing.
- Several land development concepts were created and evaluated for their ease of access and rough costs. The recommended alternative requires an access road connecting into West Broadway just west of the airport entrances and passing through the available land before connecting into Mullan Avenue to the Southwest. Development could be phased. Alternatively, a connection to West Broadway east of the airport is also viable.
- With the exception of Grant Creek along the eastern side of the property, development of the land is compatible with area comprehensive planning, including the Wye Mullan West Comprehensive Area Plan and the Missoula Urban Area Comprehensive Plan.
- Utilities are required for the property and road construction will include the need for culverts. Additionally, a land release must be granted from the FAA and NEPA approvals must be obtained before the land may be used for nonaviation use. Prior to making the land available for development, a marketing plan will be needed.