

Regional Plan Goals & Policies of the Reno-Tahoe International Airport 2013



Reno-Tahoe
Airport Authority

And
up we
go.

REGIONAL PLAN GOALS &
POLICIES OF THE RENO-TAHOE
INTERNATIONAL AIRPORT

Prepared by:

Reno-Tahoe Airport Authority

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REGIONAL PLAN GOALS & POLICIES OF THE RENO-TAHOE
INTERNATIONAL AIRPORT

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I. Introduction

The Regional Plan Goals & Policies of the Reno-Tahoe International Airport (referred to hereafter as “Document”) has been prepared to provide an overview of the nature of the operations and characteristics of the Reno-Tahoe International Airport (RTIA), one of just 3,355 public-use airports that have been identified as significant to the national air transportation system by the Federal Aviation Administration (FAA). This Document also defines the future needs and planned facility improvements to accommodate the demands generated by growth in passengers, cargo and aircraft operations, allowing the RTIA to serve the Truckee Meadows region and fulfill its role as a medium hub primary commercial service airport within the national airport system. This Document provides a framework for future land uses that may occur on property owned and controlled by the Reno Tahoe Airport Authority (RTAA) and is intended to provide a guide for the next twenty years of airport growth.

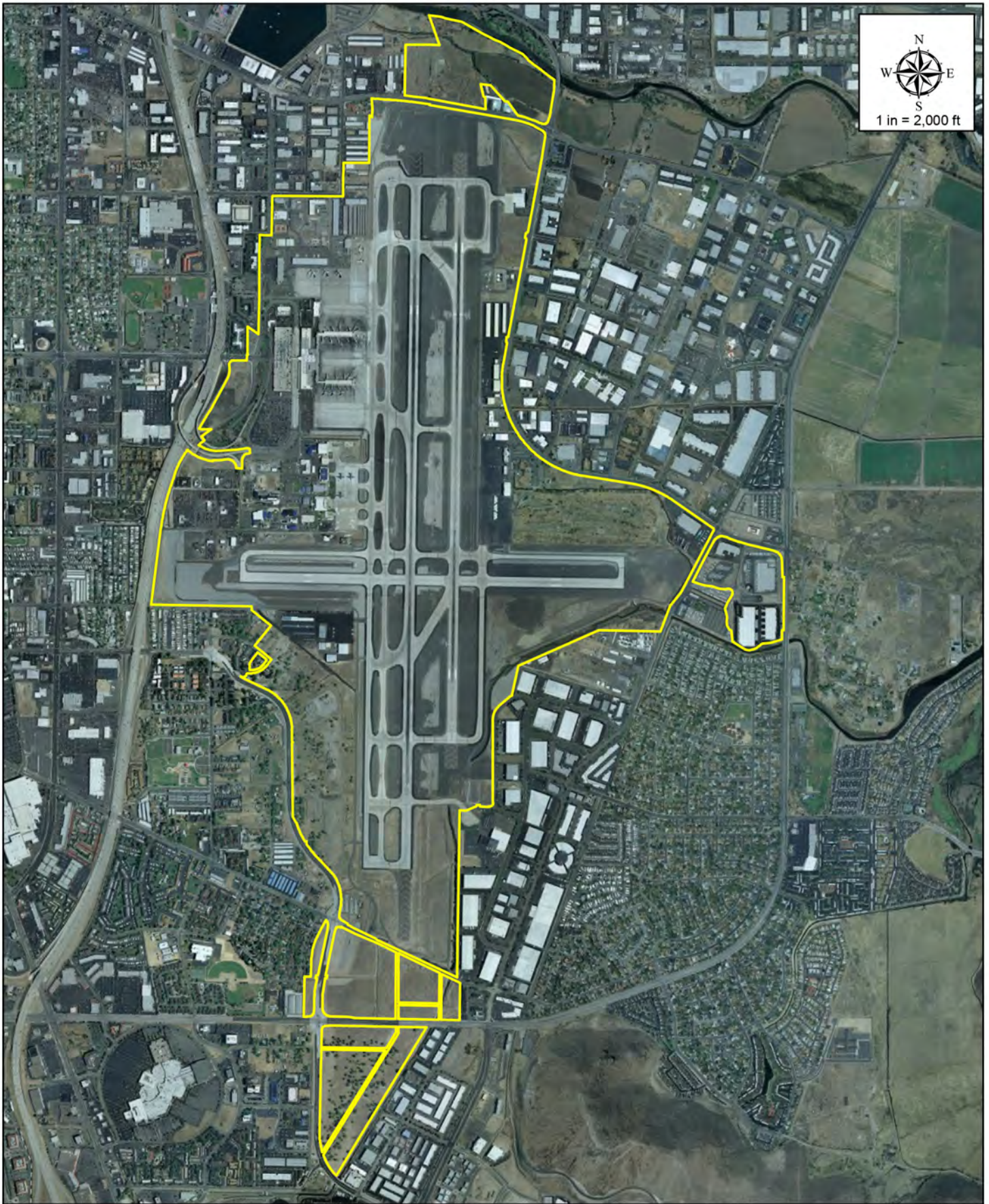


The timing of specific improvements is, in large part, driven by external demands. Community, regional and national economic factors influence the demand for the services provided at the RTIA. Additionally, changes to aircraft characteristics, to navigational aid technology, and to safety and security mandates impact airport facility requirements. Therefore, it must be understood that any long term plan for

RTIA needs to be flexible and allow the RTAA to respond to these ever changing external influences. The timing and scale of facility improvements identified in this Document are only for planning purposes and may change based on actual future conditions.

This document is based, in part, on previously completed plans and studies commissioned by the RTAA. The planning area is shown on Figure 1.





Reno-Tahoe International Airport
Planning Area

Figure 1

II. Background

Celebrating 85 years of service in November 2013, the airport has changed names, ownership, airfield configuration and terminal facilities several times. The airport has been under the guidance of an airport authority since 1977 when the Nevada Legislature created the Airport Authority of Washoe County. In 2005, the name of the controlling entity was changed



to the Reno-Tahoe Airport Authority (RTAA). Today's airport, the Reno-Tahoe International Airport (RTIA), received its current name in 1994.

The RTAA is a quasi-municipal corporation and is also operationally independent, providing its own police and fire departments, along with all administrative functions including human resources, accounting, engineering etc. While the RTAA has

eminent domain powers, it has no taxing authority, land use, zoning or development permitting control. The RTAA operates as a business and receives no local sales or property tax dollars. Financially self-sufficient, the RTAA runs both the RTIA and the Reno-Stead Airport on fees and rentals collected from airport tenants (e.g. airlines, rental car agencies, restaurants, gaming machines, gift shops, land leases). The annual operations and maintenance expenses of the RTAA is paid by non-airline sources primarily (68 percent – e.g. parking, rental cars, concessions) with airline sources covering the remainder (32



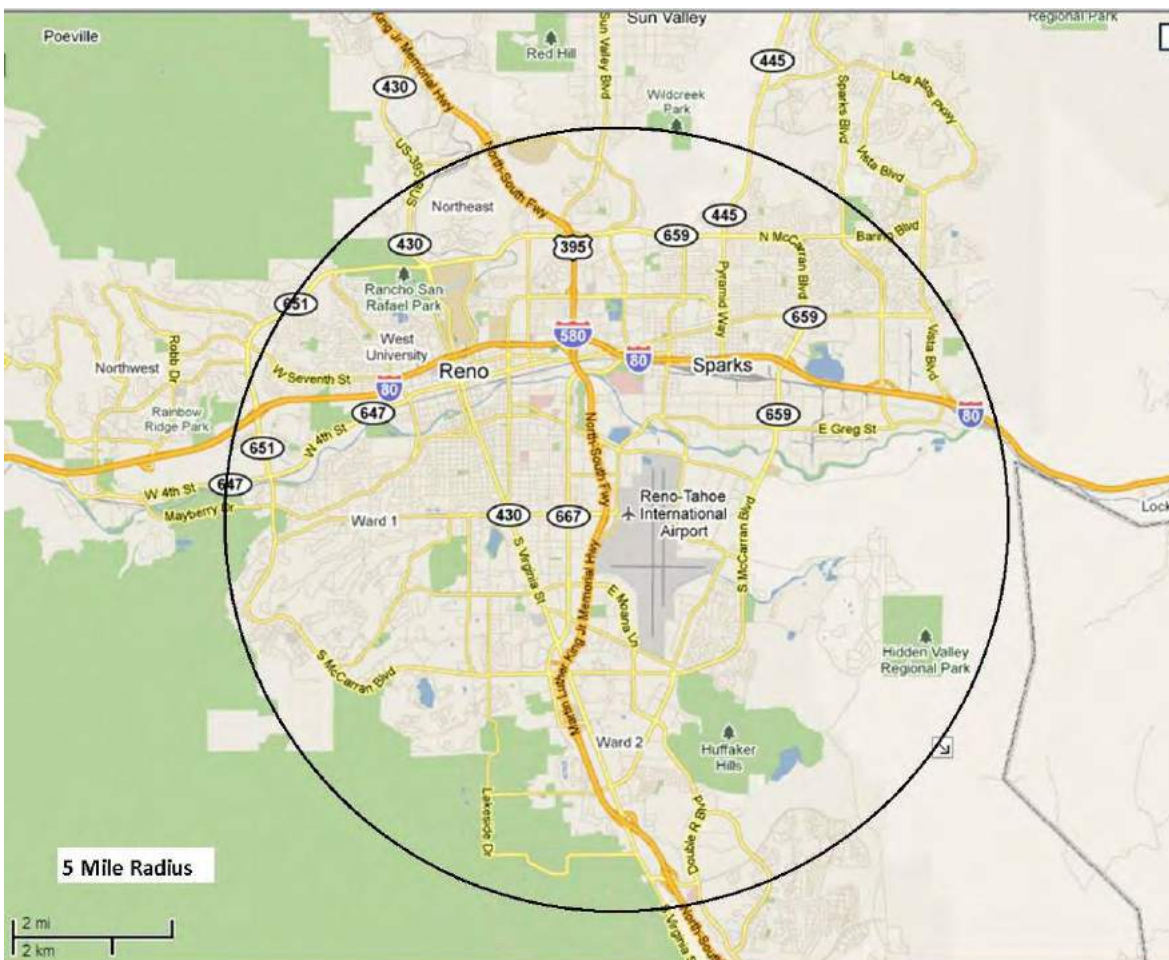
percent – landing fees, terminal building rent).



Guided by a special act of the Nevada Legislature (Reno-Tahoe Airport Authority Act – Chapter 474, Statutes of Nevada 1977), the RTAA was created to plan, acquire, construct, improve and operate one or more airports within Washoe County. The RTAA Board consists of nine members appointed by the Reno City Council, Sparks City Council, Washoe County

Board of County Commissioners and the Reno Sparks Convention and Visitors Authority (aka County Fair and Recreation Board of Washoe County). The RTAA is charged with maintaining and enhancing facilities at RTIA consistent with the requirements of the Federal Aviation Administration (14 CFR 139 FAA) in order to maintain the airport's operating certification. The RTAA must also provide facilities that comply with all Transportation Security Administration (TSA) requirements.

In addition to fulfilling FAA requirements, the RTAA is an "affected entity" as defined in Nevada Revised Statutes 278.026 since it provides planning and facilities related to transportation services within Washoe County. This Document must, therefore, be reviewed for conformance with the adopted 2012 Truckee Meadows Regional Plan. This Document was prepared based upon, and consistent with, the applicable policies of the 2012 Truckee Meadows Regional Plan. The RTAA also submits annual reports to the Truckee Meadows Regional Planning Agency.



Located in close proximity to the downtowns of Reno and Sparks in one of the ten designated "Regional Center Planning Area Overlay Zoning Districts", the RTIA has grown to become a major catalyst for employment in the region. The RTAA has approximately 245 employees and overall the RTIA provides employment for

approximately 2,500. The total annual economic impact of the RTIA activities on the Reno-Tahoe area is in excess of \$1.8 billion. In 2012, the RTIA served 3.48 million commercial airline passengers and handled 80,002 aircraft operations (scheduled air carrier, air taxi, general aviation and military) while 115.8 million pounds of cargo passed through the airport. The RTIA airfield consists of 3 runways capable of accommodating a wide variety of commercial, cargo, general aviation, and military aircraft.

RTIA currently has one fixed based operator (FBO) offering general aviation facilities and services primarily on the east side of the airport. Atlantic Aviation, the largest FBO in the United States, is in the middle of a \$7 million expansion and upgrade of its existing airport facilities. Construction of the new facilities should be complete in April 2014.

RTIA is also home to the Reno Air National Guard Base which was established on the west side of the airport in 1954 when Air National Guard units were relocated from the former Stead Air Force Base. The Nevada Air National Guard maintains the 152nd Airlift Wing and is equipped with Lockheed C-130 Hercules aircraft.



III. Role

According to the FAA's National Plan of Integrated Airport Systems (2013-2017), as of September 2012, there are nearly 20,000 airports in the nation. Of those 20,000 airports, only 5,171 are open to the public. Of those 5,171 public-use airports, the RTIA is one of 3,355 (3,330 existing and 25 proposed) that have been identified as essential to the national airport transportation system.

The first National Airport Plan was created in 1946 via the Federal Airport Act which provided grants for airport projects meeting Civil Aeronautics Administration (CAA) standards. Over the decades, the national airport system has been further developed and refined, however the general principles guiding Federal involvement have remained consistent:

- The airport system must support national defense, emergency readiness and postal delivery.
- The airport system should provide access to as many people as possible (defined as most of the population within 20 miles of the airport).
- The airport system should contribute to both the national economy and international competition.

In order for the airport system to maintain its objectives, each airport within the national airport system is required to:

- be safe, efficient, and permanent,
- be developed and maintained to approved standards,
- respond to improvements to air traffic control systems and technological advancements,
- be flexible and expandable, and
- be compatible with surroundings.

RTIA is classified as a primary airport meaning that more than 10,000 scheduled commercial airline passenger enplanements (also known as departures) occur on an annual basis. RTIA is currently one of 378 primary airports in the nation. RTIA is further categorized as a medium hub primary airport by the FAA because annual enplanement levels exceed 0.25 percent but are less than 1.00 percent of the national total. RTIA is currently one of 36 medium hub airports in the nation. Most medium hub airports have sufficient capacity to accommodate both air carrier operations and general aviation activity.

RTIA provides a wide range of facilities and services that benefit the regional community and links it to the global economy. At the center of the RTIA is a safe, well-maintained airfield with sufficient capacity for both existing and future aircraft operation volumes. The facilities support commercial airline, air cargo, general aviation, and military aircraft activity. The Reno-Tahoe Airport Authority (RTAA) provides the highly trained and professional workforce required to operate RTIA facilities and also provides leasable land, buildings and space for services and service providers in support of commercial airline, air cargo, general aviation and military operations. While the RTAA strives to provide for the safest possible operations and most convenient and well-maintained facilities at RTIA, it must do so in a manner that is not fully reliant on federal support for its continued success.

The RTAA works closely with the Northern Nevada community to provide exceptional air service at RTIA. Increasing air service and expanding cargo development and service are two of five Strategic Priorities for the RTAA. While the development of new passenger airline and air cargo service is crucial to the regional economy, maintenance of existing routes is also critical. If current routes cannot meet profitability standards, then airlines and cargo carriers will not consider new flights.

The leisure travel industry (casino, ski resort, etc.), business sector, and companies that rely heavily on shipping (e.g. Amazon) cannot be successful without reliable air service to move visitors, employees and goods around the country and the world. The relationship is mutually beneficial – if an air cargo carrier makes money on a route, then the carrier could increase frequency providing the airport with increased revenues and the community with increased shipping options. The economic impact of the RTIA on the regional economy is over \$1.8 billion annually.

The RTAA works with a variety of agencies, such as the Reno-Sparks Convention and Visitors Authority (RSCVA), the Economic Development Authority of Western Nevada (EDAWN), Northern Nevada Development Authority (NNDA), and The Chamber, to promote and develop air service in the region. An important partnership is exemplified by the RTAA Air Service Task Force (ASTF) which is dedicated to maintaining and increasing air passenger and cargo services for the region. The ASTF is comprised of community leaders working together with the RTIA team to increase the economic impact for the region. ASTF includes within its membership elected officials, tourism and casino industry executives, business developers, transportation experts, and community leaders. The RTAA also participates in the Regional Marketing Committee (RMC) whose goal is to increase air service for the region. RMC membership includes the RSCVA and area convention and visitors bureaus from North Lake Tahoe, South Lake Tahoe and Virginia City.

In addition to the two Strategic Priorities mentioned above, the RTAA has also prioritized optimizing general aviation operations and services and facilitating economic development at the airport. Attracting new business development, especially non-aviation related development, on vacant airport land helps the RTAA increase and diversify revenue and improve the long-term financial stability of the airport. Additionally the RTAA is committed to encouraging a variety of FBO contracts and other general aviation service providers to optimize the general aviation customer service experience.

IV. Existing Facilities

The RTIA encompasses approximately 1,540 acres of land located just south of the central business districts for both the City of Reno and City of Sparks. The property is also centrally located in the Truckee Meadows Services Area as defined in the 2012 Truckee Meadows Regional Plan. It is also located within the corporate limits of the City of Reno.

The main RTIA airfield facilities consist of three active runways:

- Runway 16R-34L at 11,002 feet in length;
- Runway 16L-34R at 9,000 feet in length; and
- Runway 7-25 at 6,102 feet in length.



The terminal building, located on the west side of the airport, contains 23 passenger boarding gates for use by commercial airlines. In addition to its primary purpose of providing access to commercial airlines, the terminal also includes services that benefit the traveling public. These include support retail, car rental businesses, food and beverage establishments, Transportation Security Administration (TSA) facilities and the offices of the RTAA.



The RTAA completed a critical terminal rehabilitation project in 2013 with the opening of the \$23 million Gateway Project. The Gateway Project included the refurbishment of the baggage claim area and central lobby, the relocation of two separate security checkpoints from the connector concourse pedestrian areas to a centralized checkpoint on the first floor, and the expansion of post-security concessions.

The Gateway Project addressed TSA security checkpoint deficiencies while also greatly enhancing the travel experience for RTIA's passengers. The new checkpoint accommodates existing and new equipment testing for usability, effectiveness, and efficiency in any number of configurations. An area adjacent to the new checkpoint has been incorporated in the design which will provide the ability for future checkpoint expansion as passenger numbers grow. Prior to the Gateway Project,

the majority of the RTIA restaurants and retail had been located pre-security. After the Gateway Project, both concourses have updated quick-serve restaurants and retail, while the connector concourse now includes a quick-serve restaurant, a full-service restaurant, and four new stores. Additionally, the new second floor concessions area was designed with



expansion space for new restaurants or retail based on demand. The new configuration allows passengers to complete TSA security screening earlier in the process and then rest, shop, and eat in a more relaxed atmosphere.

Immediately west of the terminal building is a three-story parking structure that



provides a total of 2,110 short and long term on-site vehicle parking facilities. The parking structure also accommodates parking and other activities associated with rental car businesses. A total of 460 of the 2,110 parking structure spaces are designated as short term. To the south of the parking garage is a long term surface parking lot with 1,446 additional parking spaces. There are currently a total of 3,556

public parking spaces at the RTIA. The cell phone lot, located off National Guard Way, can accommodate 47 vehicles waiting for arriving passengers.

RTIA serves a critical support function for the industrial / business sectors of the regional economy. Existing air cargo operations occupy about 25 acres of the planning area. To the north of the terminal are two buildings used for air cargo activities that consist of approximately 67,300 square feet. The ramp facilities can handle 18 aircraft. These facilities serve air cargo carriers including DHL, Federal Express and United Parcel Service. RTIA is designed to accommodate all types of cargo aircraft.



A military installation housing the Nevada Air National Guard (NANG) is located to the south of the terminal on an approximately 60 acre site. The Guard serves a Joint Headquarters function for both the Air Force and Army. The land the Guard occupies is leased from the RTAA. The 152nd Airlift Wing, stationed at RTIA, is the host unit



wartime and peacetime, using the Lockheed C-130 Hercules aircraft as a tactical reconnaissance platform, and timely and accurate intelligence in support of national security.

RTIA has facilities to meet the full range of general aviation needs. RTIA has one Fixed Based Operator (FBO) located at the RTIA. This FBO, Atlantic Aviation, serves the needs of the general aviation sector which includes private pilots, corporate aircraft and charter services. There are a number of private hangars and aircraft tie-down spaces that are leased to individuals and companies to accommodate storage



and maintenance of private aircraft. Although the RTAA holds title to the land, hangars and other FBO structures are typically built and maintained by the leaseholders. Other general aviation service providers at the airport include Dassault Aircraft Services, Reno Flying Service, and Western Jet Aviation.

V. Vehicle / Transit / Pedestrian Access

The RTIA achieves primary vehicular access from a major freeway (I-580 / US 395) which passes west of the airport. In addition to direct connections from a southbound freeway off-ramp and a north bound freeway on-ramp, RTIA is served by a full movement freeway interchange at the intersection of I-580 / US 395 and Plumb Lane. Air cargo and ground transportation services (e.g. taxis, buses, limousines) achieve access from Vassar Street / Air Cargo Way and Villanova Drive. The east side of the airport is served by Rock Boulevard. McCarran Boulevard to the south and Mill Street to the north complete the existing major roadway system that provides complete access to and around the airport. Internal roadways provide the principle access for vehicle trips associated directly with the airport operations (e.g. aircraft maintenance, cargo and baggage transport).

The majority of the users of RTIA arrive by vehicle. These trips occur by private automobile, taxis, rental cars, shuttle buses and public transit. Given the nature of the airport operations, very little pedestrian traffic is associated with RTIA. However, pedestrian access from the existing public street system (i.e. Plumb Lane) is provided



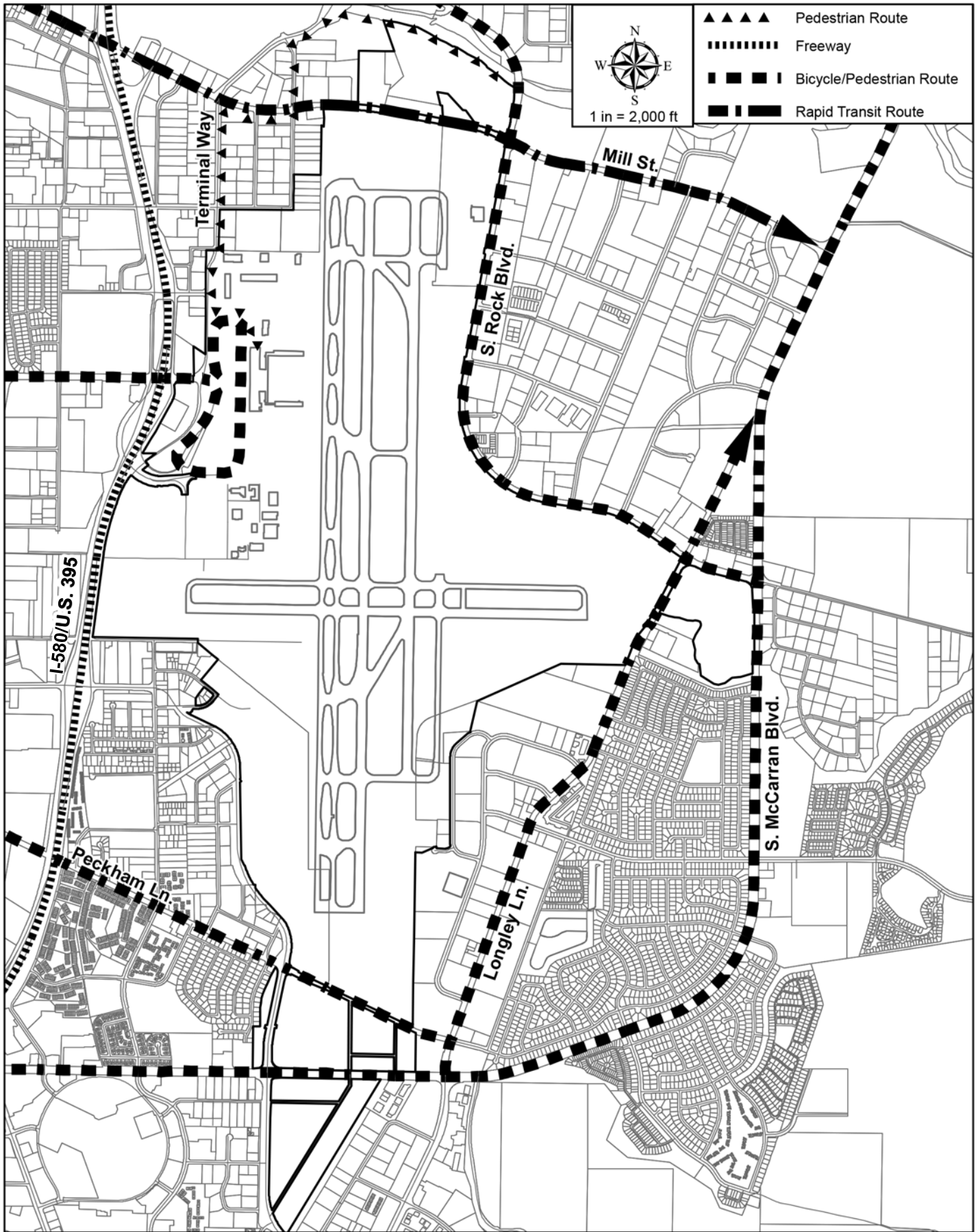
to the terminal building to the north of the parking structure. This pedestrian corridor also connects with the existing public transit stops on Terminal Way and near the north end of the baggage claim area on the west side of the terminal.

The roadway system that surrounds and connects the RTIA to the ground transportation network is a mature system. That is, no new roadways are anticipated to be needed. However, the Regional Transportation Commission (RTC) is currently undergoing the widening of an existing roadway adjacent to the RTIA Planning Area (Regional Transportation Improvement Program 2011-2015):

- McCarran Longley to Greg widen to 6 lanes

RTAA is cooperating with the RTC on their McCarran widening project, which as designed, will impact land owned by RTAA and currently under lease and generating non-aviation related revenue for the RTAA. RTAA will continue to work with RTC to assure that no RTIA facilities or improvements conflict with the roadway system.

The Circulation Plan for RTIA is shown on Figure 2.



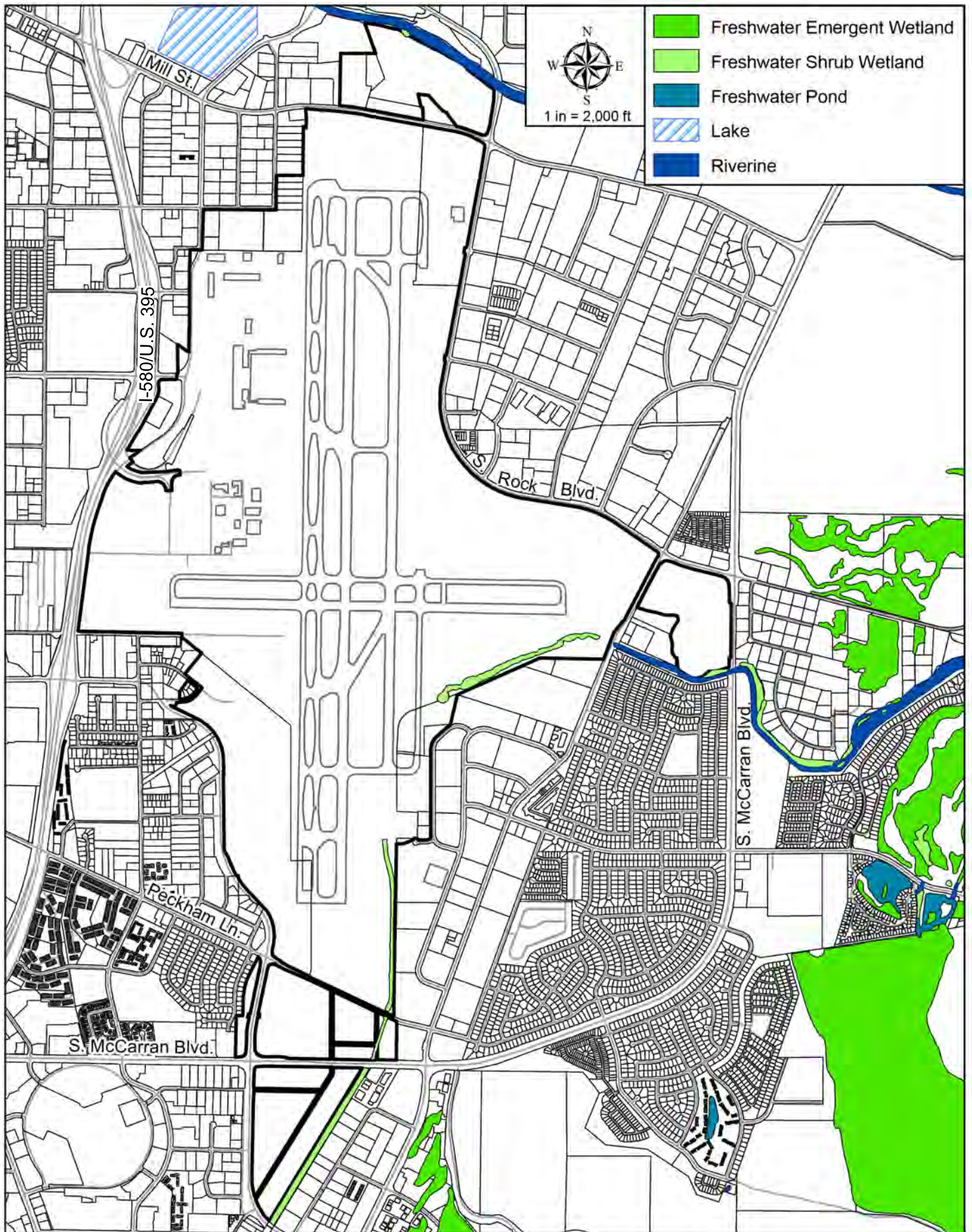
Reno-Tahoe International Airport
Circulation Plan

VI. Constraints

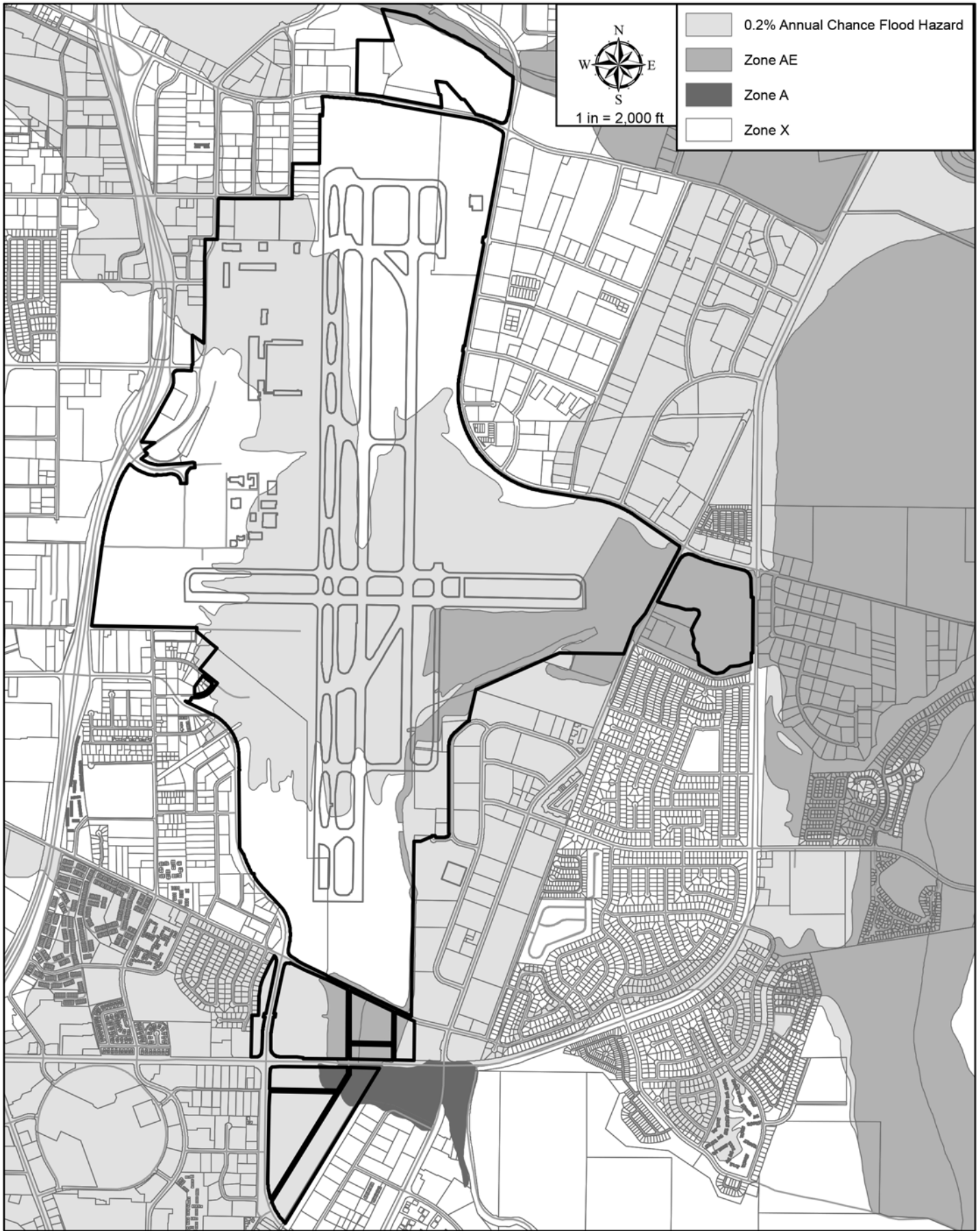
The 2012 Truckee Meadows Regional Plan defines development constrained areas as areas consisting of playas, significant water bodies, jurisdictional waters / wetlands in accordance with Section 404 of the Clean Water Act, designated (Federal Emergency Management Agency (FEMA) floodway areas within the floodplain Zone AE, natural slopes over 30 percent, publicly-owned open spaces, and properties that are deed restricted to prevent development.

The RTIA is generally free of these development constraints. Jurisdictional waters of the US / wetlands are limited to the Boynton Slough / Dry Creek located in the southeast portion of the airport and a small area next to the Truckee River on the sites north of Mill Street (see Figure 3). The west and southwest portions of RTIA include areas that have an AE FEMA Flood Zone designation (see Figure 4). The RTAA will follow all local, regional and Corps of Engineers policies and procedures if any new facilities or airport modifications affect these areas.

There are existing above ground and underground transmission infrastructure on or near the RTIA that have been identified as utility corridors. In some, but not all cases, above ground transmission lines may pose a safety risk when located in proximity to airports. The RTAA will continue to work closely with the City of Reno and the affected utility to assure that new utility installations are compatible with the operations of the RTIA.



Reno-Tahoe International Airport
Wetlands



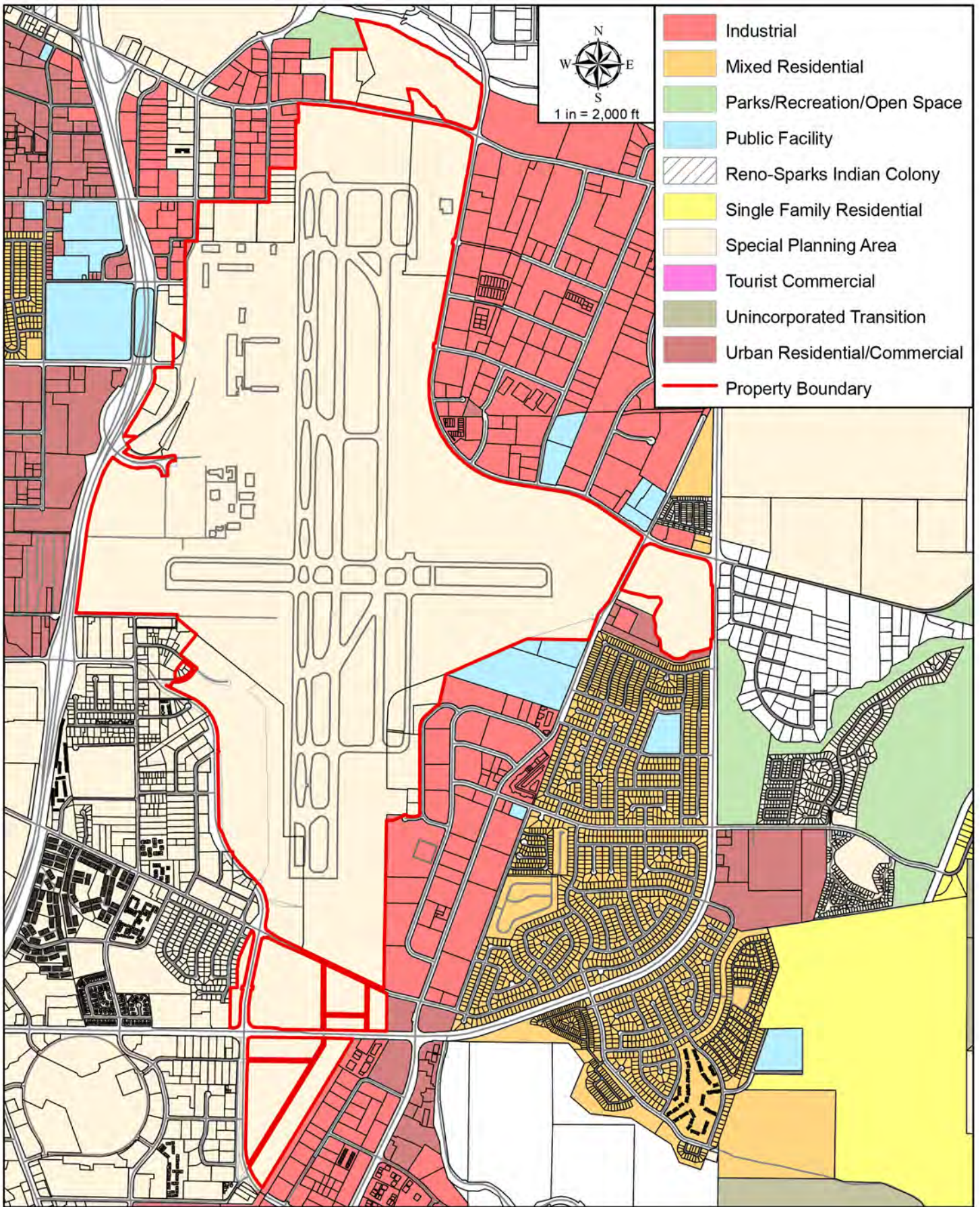
Reno-Tahoe International Airport
FEMA Flood Zone Designations

VII. Land Use

The RTIA consists of land uses that either directly or indirectly support the aviation use of the property within the planning area. The RTIA is included in the City of Reno Master Plan and has a land use designation of Special Planning Area. A specific regional center plan for RTIA and its environs was adopted by the City of Reno in 2003 and updated in 2007. This plan is called the Reno-Tahoe International Airport Regional Center (RTIARC) Plan and was found to be in conformance with the Regional Plan in 2007. Specific Reno Master Plan land use designations are shown on Figure 5.

In accordance with the RTIARC, land uses at RTIA will occur within one of the following four distinct land use categories as shown on Figure 6:

- **AIRPORT CORE** - Appropriate for facilities directly associated with airport operations (i.e. runways, aircraft hangars, terminal buildings, military operations, general aviation, etc.). This designation also allows all the uses permitted in the Airport Compatible land use category.
- **AIRPORT COMPATIBLE**- Appropriate for public and private developments which are not detrimental to the continued viability of airport operations.
- **TOURIST COMMERCIAL** - Appropriate for hotel / casinos, destination resorts, gaming, major recreational facilities, cultural facilities and tourist shopping, services and activities. These uses are permissible in the existing terminal and any future expansion of the terminal.
- **AIRPORT CRITICAL AREA** - Trapezoidal areas extending from the ends of the runways. These areas are intended to ensure compatibility with areas designated as flight paths at the RTIA with consideration given to both prevention of air navigational hazards and reduction of the risk of injury to both people and property in these designated areas. Generally, these consist of uses that have low expected persons per acre activities.



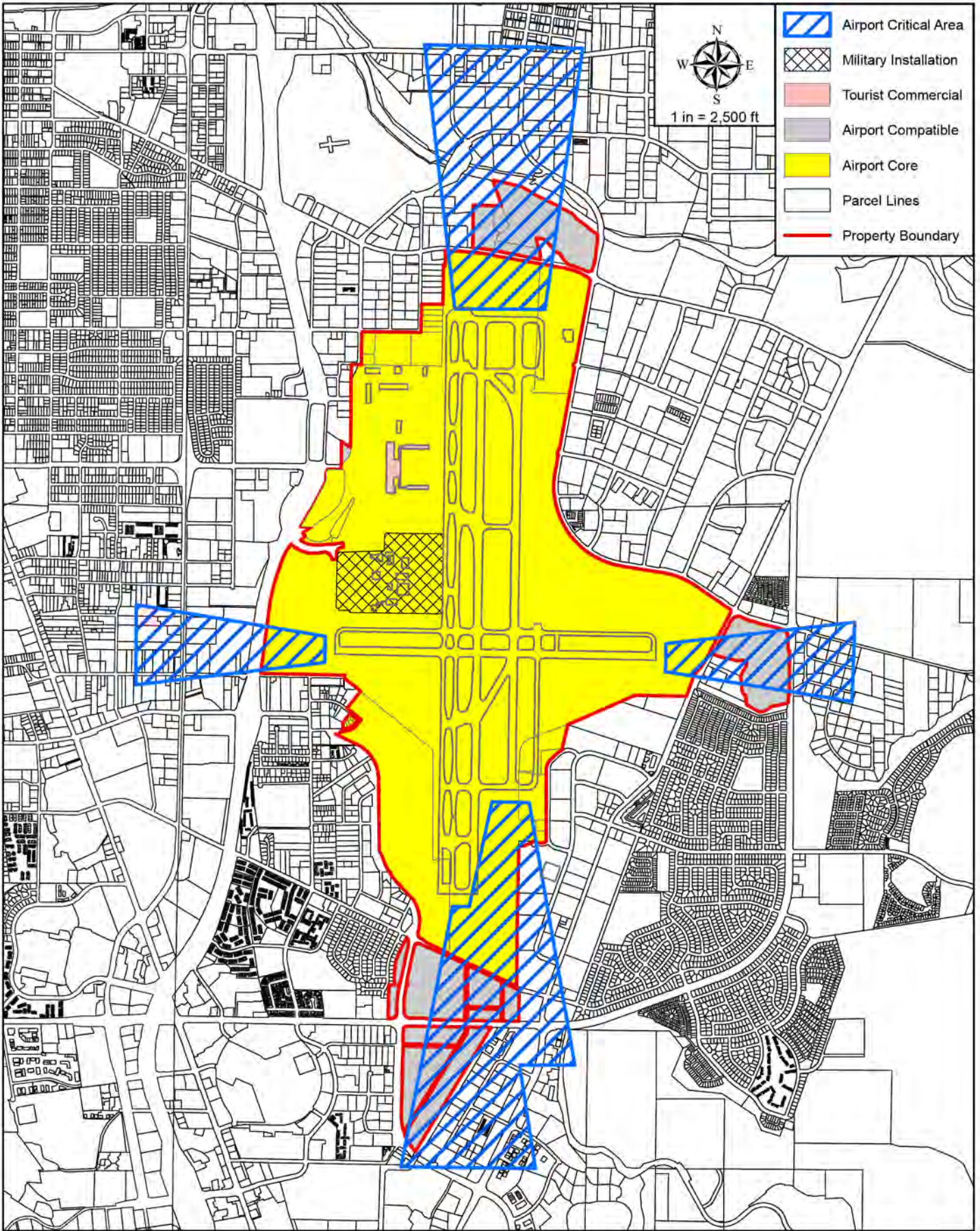
Reno-Tahoe International Airport
 Reno Master Plan Designations

In recognition of noise and safety concerns associated with the operations of the RTIA, residential uses are not permitted and non-residential intensities are held below the policy standards of Truckee Meadows Regional Plan Policies 1.2.1 and 1.2.14 that would otherwise apply in regional centers. This is recognized in the Reno Master Plan Element entitled Reno-Tahoe International Airport Regional Center Plan (Center Plan). The Center Plan specifically states:

“...the minimum non-residential intensities that are identified in the Regional Plan (1.5 floor area ratio) do not apply within this Regional Center Plan because safety and noise concerns generally make high occupancy land uses incompatible with airport operations.”

The 2012 Regional Plan has lowered the minimum floor area ratio for non-residential intensities to 1.0 for certain Regional Center Plans including the Reno-Tahoe International Airport Regional Center Plan; however the Planning Principles section of the 2012 Truckee Meadows Regional Plan provides that:

“Some Centers and portions of Corridors may require specialized planning to ensure compatibility with airport and military operations (e.g., Reno-Tahoe Regional Center); the Regional Plan allows for alternative densities in certain circumstances (see Policy 1.2.14).”



Reno-Tahoe International Airport
Land Use Plan

VIII. Demand Forecast

Since the RTAA is an “affected entity”, the demand forecasts for RTIA must be consistent with the Washoe County Consensus Forecast. Policy 1.1.1 of the 2012 Truckee Meadows Regional Plan states:

“To conform with the Regional Plan, the master plans, facilities plans, and other similar plans of local governments and affected entities must utilize the adopted Consensus Forecast for determining future regional population estimates for the formulation of goals, policies, and service plans.

The Regional Plan recognizes that some affected entities due to service area size or targeted services need to utilize additional or supplementary population data. If these affected entities utilize additional or supplementary population data, the source and methodology must be clearly described in master plans, facilities plans, and other similar plans. These plans must clearly relate back to the adopted Consensus Forecast.”

In May of 2012, the Washoe County Consensus Forecast 2012-2032 was completed. This forecast projects that by 2032 the total population of Washoe County will be 560,772 persons. This represents a 1.38 percent annual increase.

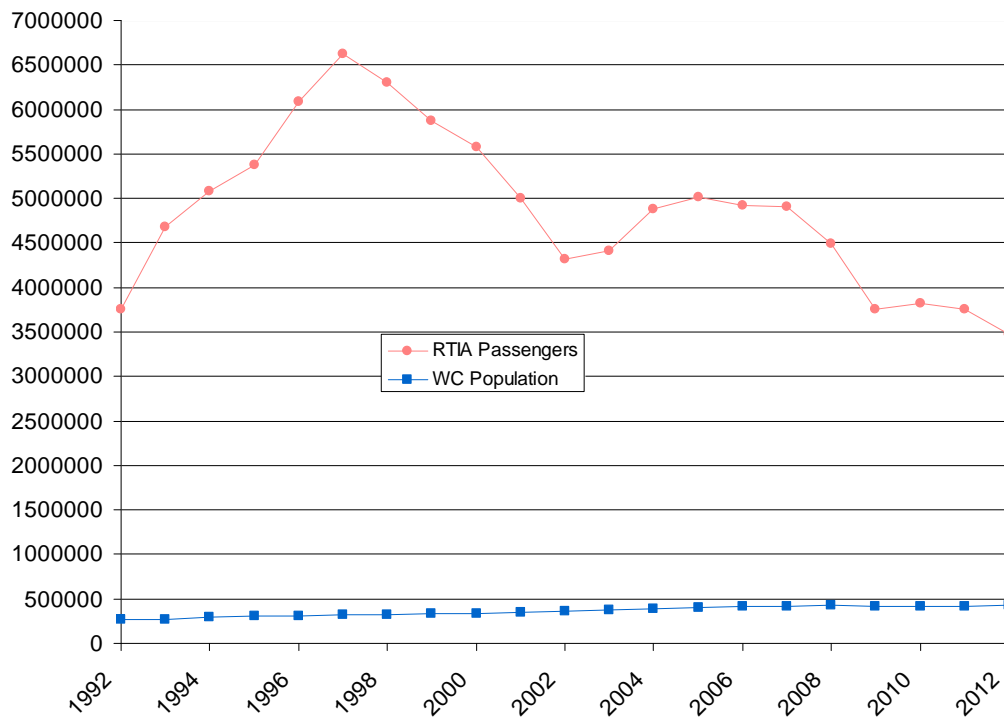
In order for the first paragraph of Policy 1.1.1 to have relevance, it is important that the demand for a particular public facility be driven by the increase in population in Washoe County. While the demand for services and facilities at RTIA are influenced by population growth in Washoe County, no direct correlation exists between Washoe County population and RTIA passenger enplanements. This is apparent when comparing historical Washoe County population figures and actual passenger counts for RTIA in Table 1. In 1992, RTIA annual passengers reached 3,749,492 and as of 2012, that number had decreased to 3,479,122. In comparison, in 1992, Washoe County had a population of 268,540 and as of 2012, population had increased to 425,930. Between 1992 and 2012, RTIA passengers have decreased by 7 percent while Washoe County’s population has increased by 59 percent. It should also be noted that while the highest population between 1992 and 2012 was reached in 2012, the greatest number of passengers (6,623,862) traveled through the airport in 1997, a travel peak which did not correlate to the population growth rate.

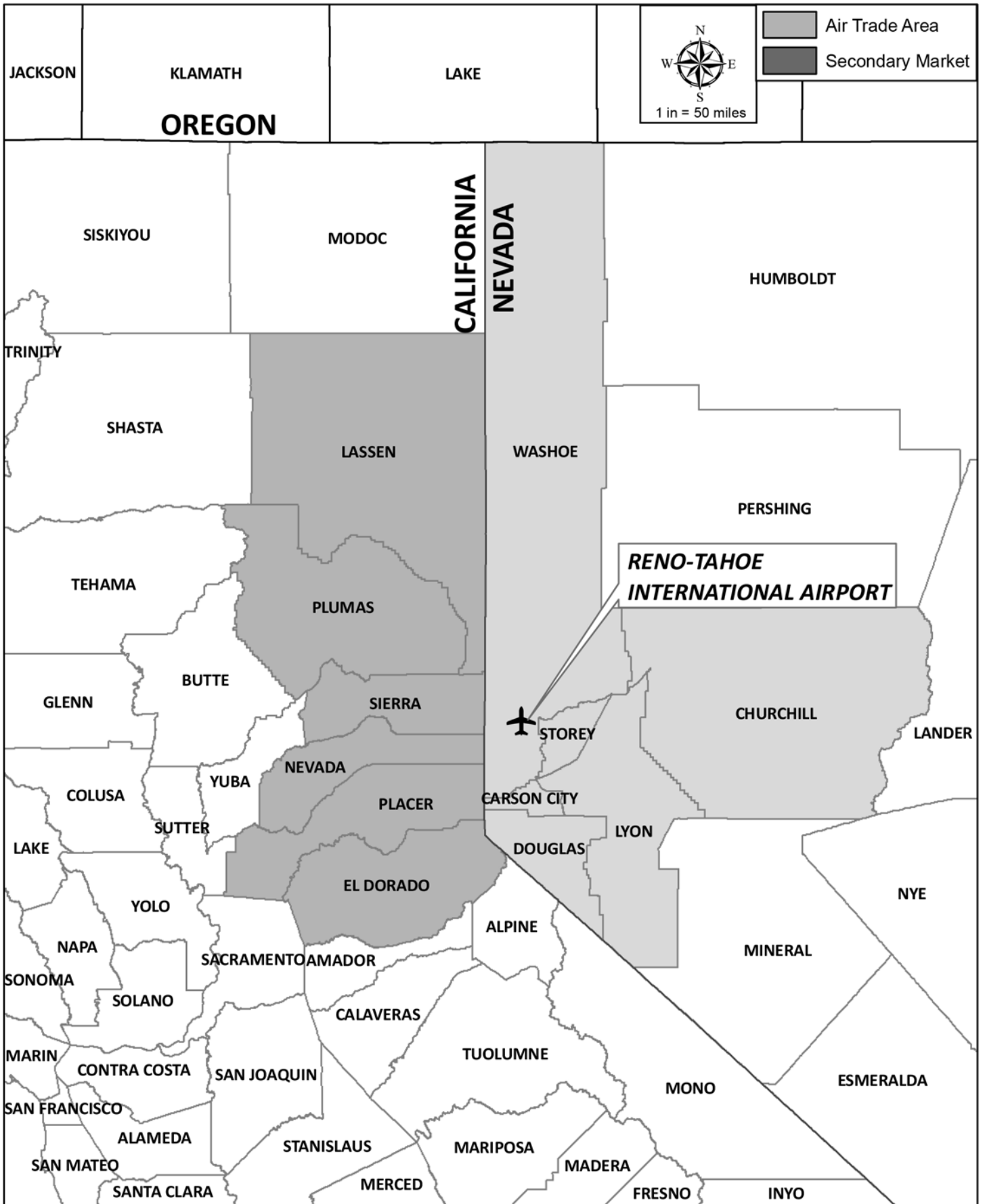
Since Washoe County represents only a portion of the population served by RTIA, the catchment area for the aviation facility demand is expanded to include two distinct service areas: the Air Trade Area and the Secondary Market. The Air Trade Area is defined as the area immediately surrounding RTIA, the area whose population and economic activity generate the majority of the airport's aviation

activity. The Secondary Market is not the primary source of activity generated at RTIA but is close enough to impact other factors of the regional economy and therefore, demand for services at RTIA. The Air Trade Area consists of six counties in Nevada: Washoe, Storey, Carson City, Douglas, Churchill and Lyon. The Secondary Market adds into the RTIA catchment area six counties in California: Lassen, Plumas, Sierra, Nevada, Placer and El Dorado. This catchment area can be seen in Figure 7.

Table 1

Comparison of total Washoe County Population to total RTIA Passengers





Reno-Tahoe International Airport
Defined Catchment Area

Commercial airport forecasts cannot be based solely on population. Airport forecasts are required to predict demand (passenger enplanements, number of aircraft operations, etc.) and as shown in Table 1, there is no direct correlation between population growth and passenger enplanements. In fact, aircraft operations and passenger enplanements, both increases and decreases, are often significantly impacted by current events and economics, while those same current events and economics have little to no impact on population. For instance, in recent history, the two significant and lasting decreases in passenger enplanements and aircraft operations occurred after the terrorist attacks of September 11, 2001 and as a result of the skyrocketing oil prices of 2008 which precipitated a lengthy national recession. However, neither of these events had as significant an impact on Washoe County's population levels as they did on air travel.

Passenger enplanements and the number and type of aircraft operations have been impacted by changes in technology (e.g. aircraft characteristics), in external macroeconomic forces (e.g. fuel costs, emerging industrial distribution centers, military base closures), in the aviation industry (e.g. airline bankruptcies or mergers, security measures), in the success of local special events (e.g. Burning Man, USBC National Bowling Championships, Safari Club International), and by competition from other airports within the national system. Additionally passenger enplanements and the number of aircraft operations can increase as a direct result of the development of new cost-effective passenger airline and air cargo routes on the part of the RTAA without any correlating change in population.

The most accurate forecast for demand levels and corresponding facility requirements at the RTIA must consider local, regional, national and international demand for cargo, passenger airline, military, and general aviation activities. In addition, that forecast must also consider the infrastructure of not just a single airport but also the infrastructure of the entire system in order to maintain a system which supports national defense, emergency readiness, postal delivery, the national economy, and international competition as well as providing air transportation access to as many people as possible.

On an annual basis, the Federal Aviation Administration (FAA) projects a forecast of aviation activity at individual airports and provides the information for use by state, regional and local authorities, the aviation industry and the public. The FAA Terminal Area Forecast considers historic activities (e.g. enplanements, operations, based aircraft), socioeconomic data (e.g. income, population, employment), cost of flying (e.g. yield, fare), and operational factors (e.g. seats per aircraft, load factors, operations / based aircraft) to generate forecasts for each airport in the FAA's National Plan of Integrated Airport Systems.

Since RTIA is within the FAA’s National Plan of Integrated Airport Systems and does not function solely based on demand generated in Washoe County, the FAA terminal area forecast is the better forecasting tool for RTIA (see Table 2). The population estimates of the Washoe County Consensus Forecast do not provide an appropriate basis for RTIA to forecast growth in passenger enplanements or the demand for aircraft operations.

TABLE 2

Reno Tahoe International Airport
2013-2033 Forecast

<u>Calendar Year</u>	<u>Annual Passengers</u>	<u>Annual Operations</u>
2012	3,479,122	82,002
2013	3,481,312	77,937
2014	3,561,979	78,392
2015	3,635,589	79,443
2016	3,714,586	80,554
2017	3,807,133	81,842
2018	3,903,536	83,169
2019	3,996,374	84,478
2020	4,080,562	85,654
2021	4,154,245	86,717
2022	4,218,312	87,641
2023	4,282,496	88,570
2024	4,354,003	89,574
2025	4,423,646	90,548
2026	4,496,379	91,555
2027	4,572,069	92,563
2028	4,650,995	93,596
2029	4,735,130	94,713
2030	4,823,811	95,911
2031	4,912,909	97,151
2032	5,007,189	98,461
2033	5,101,998	99,796

Source 2012 are actual calendar year figures.

2013 and beyond are based on growth rates projected in the FAA Terminal Area Forecast Issued 2013

The Washoe County Consensus Forecast does provide a secondary forecast that when compared to the FAA forecast assures that there is consistency between the two forecasts. In this case, the FAA forecast for RTIA is for a 1.81 percent growth

rate for passengers between 2012 and 2040 and a 1.02 percent growth rate for operations (scheduled air carrier, air taxi, general aviation and military). Applying the annual growth rate, established in the FAA forecast, results in a projection of annual passengers growing from 3,479,122 in 2012 to 5,101,998 in 2033. Annual operations are projected to grow from 82,002 in 2012 to 99,796 in 2033. Using these growth rate projections throughout the planning period assures that airport facility planning will not under serve the population increase (1.38 percent annual increase) expected by the Washoe County Consensus Forecast.

IX. Proposed Facilities

Each of the facilities identified in Section III was evaluated based on the forecasted demand in Section VIII. In some cases, as will be explained in more detail below, the forecast demand cannot be used to determine all facility needs.

Funding for new facilities could come from a variety of sources. Capital improvement projects at the RTIA can be funded by an FAA Airport Improvement Program (AIP) grant, accrued local fee revenues (Passenger Facility Charges), the RTAA operations and maintenance budget, or revenue bonds. The RTAA has no taxing authority and receives no local sales or property tax dollars.

On an annual basis, the FAA distributes monies to all airports nationwide in the form of Airport Improvement Program (AIP) grants for the planning and development of public-use airports. Funds must first be appropriated by Congress before the FAA can distribute them. Current congressional authorization is fixed at \$3.35 billion through Federal FY2015. AIP grant funds are drawn from the Airport and Airway Trust fund which is supported through a user paid system in which commercial passengers are assessed a fee on a per ticket basis. Airport users who do not use commercial aircraft (e.g. general aviation and military passengers) are not assessed these fees. Eligible projects include capital items which serve to develop and to improve the airport in areas of safety, capacity, security, environmental concerns and noise compatibility. Federal dollars are matched by the airport sponsor with local funds. In the case of the RTAA, all AIP funded projects are paid with 93.75 percent federal funds and 6.25 percent local RTAA funds.

There are two types of AIP funding sources, entitlement funds and discretionary funds. Entitlement funds may be accrued over several years to fund a large project or expended annually. Construction costs are not a reimbursable expense; therefore while design may proceed before full funding is received, the RTAA will typically not authorize construction ahead of a grant offer. RTIA's entitlement portion is determined based on the number of annual airline passengers which recently amounts to approximately \$1.7 million annually.

Discretionary funds are allocated nationally based on how critical a project is to the national airspace system. Runway projects at RTIA have historically been funded primarily with discretionary funding as the cost of major runway projects greatly exceeds annual entitlement levels. During Federal FY2013, discretionary funding was allocated to RTIA for the Runway 16L-34R Touchdown Areas Reconstruction Project and the Terminal Apron Reconstruction Phase 17 Project.

Also on an annual basis, the RTAA collects Passenger Facility Charge (PFC) Program funds in direct relation to the airport's commercial airline passenger traffic

volume. Every commercial airline passenger that departs the RTIA is assessed a PFC of \$4.50 which depending on the annual commercial airline passenger levels generates about \$6 to \$7 million annually for RTAA. These funds, like AIP funds, can be used to pay for FAA-approved projects that enhance safety, security, or capacity or increase air carrier competition. A recent example of a project that was eligible for PFC funds is the Gateway Project which was significantly funded by PFC funds. The Gateway Project included the refurbishment of the baggage claim area and central lobby, the relocation of two separate security checkpoints from the connector concourse pedestrian areas to a centralized checkpoint on the first floor, and the expansion of post-security concessions. The expenditure of PFC funds, pursuant to federal law, must be approved by the signatory airline carriers of RTIA, the FAA, and the RTAA Board of Trustees. Similar to AIP funding, PFC funds cannot be used for costs associated with the day-to-day operations of the airport.

Additionally, the RTAA allocates about \$2 to \$4 million from its operating budget to be used annually for capital projects that cannot wait for or are not eligible for other funding sources. Typical operating budget projects include facility repairs and infrastructure maintenance.

RUNWAYS

The existing three runways have a design capacity of approximately 20-25 million annual passengers (MAP) and an annual service volume (ASV) of 287,000 operations. Based on existing volumes of approximately 82,000 operations and 3.48 million annual passengers, it is projected that no new runways will need to be constructed within the planning horizon of this Document. RTIA can and has accommodated a wide variety of commercial, general aviation and military aircraft types.

Runway 16R-34L, the longest runway at 11,002 feet, is of sufficient length, width, and strength to accommodate regular service from large commercial and military aircraft such as the Boeing 747-400 and the Lockheed C-5. Runway 16R-34L is situated on the west side of the airfield adjacent to the largest operating aircraft (air cargo, commercial airline and military) facilities.

Runway 16L-34R, the second longest runway at 9,000 feet, is also of sufficient length, width and strength to accommodate regular service from large commercial and military aircraft such as the Boeing 747-400 and the Lockheed C-5. Runway 16L-34R is situated on the east side of the airfield adjacent to the largest concentration of general aviation aircraft facilities.

Runway 7-25, commonly referred to as the crosswind runway, is 6,102 feet and is of sufficient length, width and strength to accommodate regular service from a B-737-800W aircraft.

All three of these runways have runway safety areas that comply with FAA requirements and a variety of navigational aids which improve operational safety. The runways, therefore, exceed the existing and future aircraft operational demand.

Minor modifications and improvements to the runways will be needed to preserve the life of the existing pavement and to support the type and nature of aircraft that may use RTIA. Runway reconstruction projects, the only expected runway projects during the planning horizon, are AIP grant eligible, however routine maintenance of the runways (e.g. crack filling, surface overlays) is not eligible for funding and must be paid for through the airport's operating budget.

The next major runway reconstruction project is for the Runway 16L-34R Touchdown Areas. The Runway 16L-34R Touchdown Areas are the ends of the runway where aircraft initially touchdown on the pavement surface during landing and are subject to the highest aircraft landing gear impact and require frequent maintenance for rubber removal. The runway pavement was constructed in 1994 and has worn to a point where additional patching and crack sealing is not sufficient to maintain the concrete surface. Concrete pavement at the runway ends and along the centerline of the runway will be demolished and replaced. The project, which will require the closure of Runway 16L-34R during construction, is expected to be under construction for much of 2014.

TERMINAL

The 23 gate positions in the existing two-concourse (concourse "B" and concourse "C") terminal can serve up to 8 million annual passengers (MAP). However, many of the functions within the concourses (e.g. concessions, circulation, and restrooms) would experience significant congestion at the 8 MAP threshold. Maximum gate usage is determined by the largest capacity aircraft that can use the gate in relation to the time required to deplane, service and enplane the aircraft. Of the 23 gate positions, ten have sufficient space to accommodate 757 aircraft, twelve have sufficient space to accommodate 737 aircraft and the remaining gate can accommodate an EMB145.

Although the forecast does not anticipate such an increase in demand, the 8 MAP threshold may be reached at some point within the planning horizon if traffic increases at a higher rate than expected. When this capacity threshold is reached, an expansion of the terminal, from two concourses to four concourses, to accommodate new gates will be necessary. Terminal expansion is constrained by

the military installation to the south and the air cargo facilities to the north. A variety of alternatives were considered to accommodate a future terminal with four concourses. A southerly only expansion would require the relocation of the military installation – a prohibitively expensive solution. A northerly expansion would require the relocation of the air cargo facilities – a less expensive alternative than a southern expansion. The preferred alternative was a combined north and south expansion with the majority of the new facilities moving northerly.

The phasing of the terminal expansion would begin with a new concourse built to the south of the existing concourses along with demolition of the original “B”. The next phase would require the construction of a new concourse further north than the existing concourses followed by the demolition of the original “C”. The third phase would include the construction of a new concourse between the two new concourses with the final concourse constructed to the far north. The new concourses would be named, from south to north, concourse “A”, “B”, “C” and “D”. Both the new “C” and “D” concourses would be constructed in the currently designated air cargo area. These four concourses would allow RTIA to serve up to 12 MAP. New terminal facilities, with the exception of revenue generation areas, are AIP grant and PFC fund eligible.

Given the shortage of space inside the existing concourses and the age of the facilities, the replacement of the two existing concourses may be needed prior to the 8 MAP threshold. The main terminal building was built in the late 1950s. The concourses were built in the late 1970s. As these facilities age, modernization of these facilities will occur over time as terminal improvements are not solely driven by enplanements. The ABC Project (inline baggage system) and the Gateway Project (checkpoint consolidation) both included infrastructure improvements which extended the useful life of the terminal building by approximately 20 years. Replacement of the existing concourses will likely begin in 5-10 years, while the two new additional concourses will be added as dictated by demand.

PARKING

When the public parking garage was opened in 1997, it provided an important passenger amenity: covered parking facilities located in close proximity to the terminal building. Up to this time, there was no covered parking at RTIA. The new garage also maximized available space by providing three floors of parking facilities. Since then, the public parking facilities, which include both covered and uncovered parking spaces, are now the highest revenue generator at RTIA.

In 2007, the public parking facilities at RTIA experienced repeated overflow situations despite the fact that passenger traffic had been as high or higher in previous years. Total annual passengers in 2007 were just over 5 MAP. Based on

the 2007 experiences, a new or expanded parking structure may be required during the planning period.

The parking facilities at the RTIA are managed by RTAA employees and create a significant revenue stream. As a result, new parking facilities cannot be funded by AIP grants or PFC funds and will likely be paid for via revenue bonds which will then be repaid through parking revenues.

As a result of the 2007 overflow situation, the RTAA considered several alternatives before deciding on the following parking expansion plan which will likely require re-validation before implementation.

New parking facilities will be added incrementally to bring the total number of parking spaces at RTIA to approximately 4,300 by 8 MAP. This will consist of public, employee and rental car parking.

In order to be financially successful, airport parking must have easy access between the parking facilities and the check in and baggage areas and be available at a range of prices. Additional spaces for surface parking and for garage parking must be achieved in close proximity to their existing locations. The first phase of the parking facility expansion will be to relocate the rental car facilities to more remote locations on airport property, most likely along National Guard Way and Aviation Boulevard. Those rental car agencies, which currently operate out of the public parking facilities, also operate on leaseholds located along National Guard Way and Aviation Boulevard. There is additional, adjacent land in that area available for expansion. The relocation is expected to reduce both congestion and emissions.

In its current location, the quick turn-around facility is convenient for visiting passengers because instead of picking up and dropping off rental cars at the National Guard Way/Aviation Boulevard facilities, passengers pick up and drop off primarily at the quick-turn around located directly across the roadway from the terminal. Those rental cars do not, however, all stay in the quick turn-around area but are driven regularly between the National Guard Way/Aviation Boulevard facilities by the rental car employees using the loop road and Terminal Way. Consolidating the rental car facilities instead of keeping them separated and adding a shuttle service will decrease the amount of vehicles using the loop road and reduce both congestion and emissions. Rental car companies are expected to develop an operational solution to maintain the same level of customer service currently offered.

Leasing under-utilized first floor short term parking spaces and constructing a quick turn-around area for the rental car agencies was a strategic decision to maximize revenue. Rental car functions within the public parking facility were always

considered a temporary use to be relocated when parking demand from resident passengers increased. By relocating the rental car facilities from inside the public parking garage, short term parking space capacity will be increased by 50 percent which is a significant gain. Further out, relocating the 86,000 square feet of rental car facilities immediately north of the public parking garage will be necessary in order to capture adequate space to construct a three-story parking garage extension for the second phase of the parking facility expansion.

Alternatives considered and discarded included building additional levels to the structure (the original structure was built with the capability to support only one additional level), constructing a garage to the south (removing the affordable on airport parking option), and not building an expansion (making on airport parking more expensive and losing a portion of the revenue stream to off airport parking operators.) The preferred approach outlined above was chosen because it provides the most economical method to address each customer's long range needs.

AIR CARGO

The existing air cargo facilities and associated aircraft parking apron at the Reno-Tahoe International Airport (RTIA) are located immediately north and adjacent to the passenger terminal facilities. There is no available adjacent land for expansion of the existing air cargo operations as demand increases. Additionally, any expansion of the air cargo facilities in their present location will put those facilities in direct conflict with the planned terminal expansion. Even without the expansion of the current air cargo facilities, they will be displaced when the terminal eventually expands.

Air cargo growth usually occurs first with the upgauging of aircraft and then second with increased operations. Cargo aircraft are typically as large as or larger than the commercial airline aircraft servicing the RTIA. Larger aircraft typically operate at much higher speeds than smaller aircraft and create a much higher level of wake turbulence. In order to maintain the safe and efficient operations of the RTIA airfield, any relocation of the air cargo facilities should result in air cargo aircraft maintaining direct access to Runway 16R-34L.

Air cargo facility demands are determined by the volumes and demands driven by the users of air cargo services. Such users in the Reno / Sparks / Tahoe region include non-store retailers (e-commerce distribution centers such as Amazon.com), pharmaceutical companies (such as Merck) and electronics companies (such as Arrow Electronics). Due to the tax structure within the state of Nevada, air cargo has grown nearly 20 percent on a combined annual growth rate since the early 1990s.

The largest area of available land at RTIA with direct airfield access is in the southwest quadrant which is also in close proximity to Runway 16R-34L. The approximately 100 acres available in the southwest quadrant is adequate to meet the forecasted annual growth in air cargo activity, for a phased relocation of the existing air cargo facilities and for any future air cargo growth.

MILITARY

The demand for military installation expansion has been driven Federal and State policy decisions that are beyond the control of the RTAA. Military presence is critical to the region. In 2005, when the Defense Department proposed shifting the Lockheed C-130 Hercules fleet stationed at RTIA to Arkansas and relocating all related support groups, the RTAA assisted in the efforts, led by Senator Harry Reid, to prevent the relocation of the stationed aircraft and support groups.

The current mission of the 152nd Airlift Wing, stationed at the base, consists of providing world class, worldwide tactical air delivery and Expeditionary Combat Support, including airlift and airdrop capability for cargo and personnel during wartime and peacetime, using the Lockheed C-130 Hercules aircraft as a tactical reconnaissance platform, and timely and accurate intelligence in support of national security. The NANG also conducts activities at its RTIA location that are not directly related to airport operations (i.e. photo interpretations). The RTIA provides a controlled secure environment that is necessary for national defense and emergency readiness and is prepared to respond to base modifications or growth whether or not they are related to airport operations.

As previously described, RTIA has provided the NANG with a lease area of approximately 60 acres. If the NANG determines at some future date that more land is needed to perform its function, then this Document will be updated to reflect such facilities.

GENERAL AVIATION

General aviation refers to all operations other than military, scheduled commercial airline and regular air cargo operations. General aviation operations include flight training, air ambulances, air charter, glider activities, among others. The majority of the aircraft operations worldwide are categorized as general aviation.

General aviation at RTIA provides valuable services to the community. Amongst other functions, general aviation aircraft provide air transportation into rural communities not served by commercial passenger airlines and provide medical and emergency services, etc. However smaller general aviation aircraft have different airspace, air traffic and operating requirements from commercial airline and air cargo

aircraft. These differing requirements have the potential to impact aircraft operations when large and small aircraft at RTIA mingle on runways, taxiways or aprons.

As a matter of policy, the RTAA Board of Trustees supports the transition of all general aviation development and activities to the east side of the RTIA. This policy is consistent with previous planning efforts and was approved by the RTAA Board of Trustees through Resolution 504 (adopted May 19, 2011).

The RTAA encourages support facilities for general aviation and their related ancillary services and strives to foster a positive business climate for this aviation sector. A newly developed tenant relations and marketing plan currently underway has been well received. Additionally, in support of the Board adopted Strategic Plan, a SWOT analysis brainstorming session with general aviation stakeholders was held in December 2013 and next steps include a general aviation user survey and website improvements. RTAA staff is working with a consultant to create a dedicated microsite for general aviation at Reno-Tahoe which includes information about available support services and facilities, operational specifics, and contact information and is also establishing a social media presence aimed specifically at general aviation users of the facilities. The demand for general aviation operations is dependent on the nature of the regional economy. The RTAA does not build capacity, in terms of hangars or FBO facilities, at RTIA. These facilities and services are provided by private parties based on market demand. In recent years, the Reno-Tahoe area has benefited from the addition of the Dassault Falcon business jet service center in 2009 and the Western Jet Aviation Gulfstream aircraft repair center in 2010. The addition of these two service facilities helps in branding the airport and the region as a center for first class general aviation operations while bringing jobs into the community.

While the RTAA does not intend to build hangars for general aviation aircraft storage, opportunities for private hangar development as well as additional general aviation support facilities, such as Dassault and Western Jet, will be made available based on both market demand and fair market value land lease rates. The land use plan in Figure 6 provides approximately 120 acres of land area on the east side of the airfield that may be used for general aviation if the market demands new facilities.

There are 114 based aircraft at the RTIA. The FAA Terminal Forecast projects no increase in based aircraft for the RTIA, however the RTIA has sufficient land to accommodate unexpected growth in general aviation operations.

Historically, the RTIA has had more than one FBO on the field. Presently, Atlantic Aviation is the sole RTIA FBO. There is sufficient land to accommodate additional FBO service providers based on market demand. As mentioned previously, RTAA

intends to initiate a general aviation study which will inventory facilities and services, survey local and transient users, and provide critical benchmarking information and metrics in order to identify the market demand triggers for new or expanded facilities and services. Based on the results of this study, RTAA would likely initiate a Request for Qualifications (RFQ) process at an appropriate trigger point. This RFQ process would be initiated at the direction of the Board of Trustees. In the meantime, Atlantic Aviation is currently undergoing significant capital investment in their leasehold, constructing a new hangar and terminal facility which is expected to not only offer new services but also enhance the overall customer service experience for their tenants and users. Atlantic Aviation's investment is expected to help improve the long-term sustainability of general aviation at RTIA.

X. Sustainable Design

The RTAA believes that a healthy natural environment plays a crucial role in the strength of our economy and our quality of life and it is essential for the sustainability of the aviation industry. In order to meet the demands of sustainable aviation development and to protect the natural environment, the RTAA's environmental programs endeavor to improve environmental practices, support pollution reduction and prevention, and foster environmental stewardship. This commitment goes beyond compliance with the law and encompasses the integration of sound environmental practices into our daily decisions and activities. The RTAA has pursued and will continue to pursue a course of responsible environmental stewardship. This is based on three objectives: continual improvement, pollution prevention and regulatory compliance.

RTAA has incorporated an Environmental Management System (EMS) into its everyday practices. Initiatives are incorporated into the planning and development of the RTIA and then reviewed and modified annually for effectiveness. Current EMS initiatives at the RTIA include a terminal wide recycling program, storm water pollution prevention, energy conservation / reduction, and construction debris recycling.

Additionally, the RTAA has explored and continues to explore alternative energy opportunities including solar, wind and geothermal. Wind power is unlikely to be developed on RTIA as a result of land use constraints (height) and the potential for navigational aid interference. Solar and geothermal opportunities are compatible with airport development and will likely be developed in the future in accordance with current FAA guidance.

The first solar project at RTIA, located near the Airport Rescue and Fire Fighting Facility, has been operational since March 2011 and to date has generated enough solar energy to offset the ARFF building usage.

The first geothermal project at RTIA, located on vacant land south of the Airport Rescue and Fire Fighting Facility, broke ground in 2013. The University of Nevada, Reno in collaboration with the Nevada Bureau of Mines and Geology drilled 1,000 feet below ground surface to collect geothermal gradient testing. This exploratory project is expected to provide data which will help determine the feasibility of future geothermal projects at RTIA.

XI. Policies

With the implementation of this Document, the RTAA will use the following policies as a guide in its decision making.

RTIA POLICY 1:

The RTAA is committed to environmental awareness, protection and programs that continually improve the RTAA's environmental stewardship, to minimize the impact on the natural environment while developing sustainable aviation business practices.

RTIA POLICY 2:

Any updates to RTIA plans will be consistent with the adopted Washoe County Consensus Forecast.

RTIA POLICY 3:

Development at RTIA will be consistent with the Reno-Tahoe International Airport Regional Center Plan.

RTIA POLICY 4:

Development at RTIA will be consistent with the land use plan depicted in Figure 6.

RTIA POLICY 5:

Development at the RTIA within regulated flood zones will comply with all applicable polices and ordinances of the City of Reno.