



**Reno-Tahoe
Airport Authority**



Master Plan

EXECUTIVE SUMMARY

The Reno-Tahoe Airport Authority (RTAA) launched a comprehensive update of the Airport Master Plan in October 2016. The Plan addresses the future of Reno-Tahoe International Airport (RNO) in light of socioeconomic changes in the Northern Nevada and Lake Tahoe region and an evolving aviation industry and regulatory environment.

Mastering the Future

Since completion of the 1991 Airport Master Plan for RNO, recent and lasting changes have occurred in the region and in the aviation industry making this the right time to take a comprehensive look at RNO's future. Airport master plans are an opportunity for airport owners to review the condition of existing facilities balanced with the anticipated demand for services. For the RTAA and RNO, this was a comprehensive effort involving many people and a great deal of stakeholder input. To be sure that the existing and future facilities meet the projected needs, RTAA and the consultant team focused on key factors critical to the planning effort:

Factors critical to planning:

- ❖ Population and workforce growth
- ❖ Regional development
- ❖ Tourism and recreation destination
- ❖ Housing affordability and supply
- ❖ Stakeholder communication
- ❖ Airline industry:
 - Security
 - Technology, including unmanned aerial systems (UAS)
 - Airline consolidation
 - Fuel price fluctuations
- ❖ Air cargo
- ❖ General, corporate, and military aviation
- ❖ Ground transportation
- ❖ Federal Aviation Administration (FAA), Transportation Security Administration (TSA), Customs and Border Protection (CBP) and related regulations



What is an Airport Master Plan?

An Airport Master Plan is a comprehensive study of the Airport's operation and facilities, with regulating agencies, airport users, and the public. The final document focuses on development plans over the next 20 years to meet future aviation demand. During the study, existing conditions are assessed alongside future trends to see what long-term facilities and land use are necessary to reach development goals. The Plan is a flexible, living document that addresses the anticipated demand and accommodates necessary improvements to preserve the vitality of air transportation for the community for years to come.

Six Core Elements

1. **Inventory: "What existing facilities do we have?"**
2. **Aviation Forecasts: "How much demand do we expect?"**
3. **Facility Requirements and Demand / Capacity Analysis: "Are the airport's existing facilities sufficient to meet future demand?"**
4. **Airport Alternatives and Environmental Considerations: "How will we meet future demand?"**
 - What new, expanded, and/or improved facilities are required to meet the forecasted demand?
 - Based on goals, priorities, and agreed upon criteria, what improvements are preferred?
5. **Financial Feasibility Analysis and Facilities Implementation Plan: "How will the RTAA pay for the improvements?"**
 - When does the RTAA need to carry out improvements?
 - Are the improvements affordable?
6. **Airport Layout Plan: A graphical depiction of the preferred improvements identified in the Plan.**
 - Forecasts and Airport Layout Plan are subject to FAA approval.

Community Engagement

Inviting the public and other stakeholders into the study addresses questions and concerns early on, so that the Plan considers the goals and objectives of the community.

Public involvement for this Plan included:

- ❖ Master Plan Working Group (MPWG) made up of airport stakeholders and community leaders
- ❖ Public open houses
- ❖ Employee and tenant open houses
- ❖ Project website
- ❖ Surveys
- ❖ Newspaper, TV news, and website posts
- ❖ Social media outreach
- ❖ Targeted stakeholder group interviews
- ❖ Millennial outreach



Project Vision

To provide an achievable, flexible, fiscally, and environmentally responsible road-map that will help ensure that the Reno-Tahoe International Airport can accommodate future activity levels, further its position as a domestic and international gateway, and support regional economic development initiatives.



Evaluation Criteria

The Project Vision criteria are used to prepare and evaluate improvement alternatives, to ensure they:

- ❖ Address forecast demand
- ❖ Provide flexibility in design
- ❖ Improve passenger experiences
- ❖ Accommodate safety and security
- ❖ Facilitate efficient operational performance
- ❖ Are reasonable to construct and implement
- ❖ Do not rely on or limit other alternatives
- ❖ Consider the environment and land use planning
- ❖ Provide sufficient detail to estimate preliminary costs
- ❖ Are financially affordable and optimize economic return

INVENTORY

Inventory

RNO is the primary commercial service airport in northern Nevada, serving scheduled commercial passenger and cargo activities, military aviation, general and corporate aviation, and emergency services. RNO is a U.S. Customs and Border Protection (CBP) Port of Entry to process international arrivals and is home to the Nevada Air National Guard (NVANG) 152nd Airlift Wing.

RNO is an economic driver for Northern Nevada and the Lake Tahoe Region. Reno is also a gateway for tourists and business travelers, home to numerous aviation-related businesses that serve customers worldwide, and is an airport currently experiencing significant increases in activity. Travelers use RNO to access the City of Reno and Sparks, Carson City, and the Lake Tahoe Region including its excellent ski areas and communities along Northeastern California. In addition, RNO serves as the airport of choice for special events such as Burning Man and the National Championship Air Races. RNO's economic impact is estimated to generate \$3.1 billion of economic benefit annually and supports over 2,600 jobs at the Airport.

Setting, Demographics and Airport Operations

RTAA owns and operates RNO. RTAA was established in 1977 by the Nevada State Legislature and functions as an independent authority.

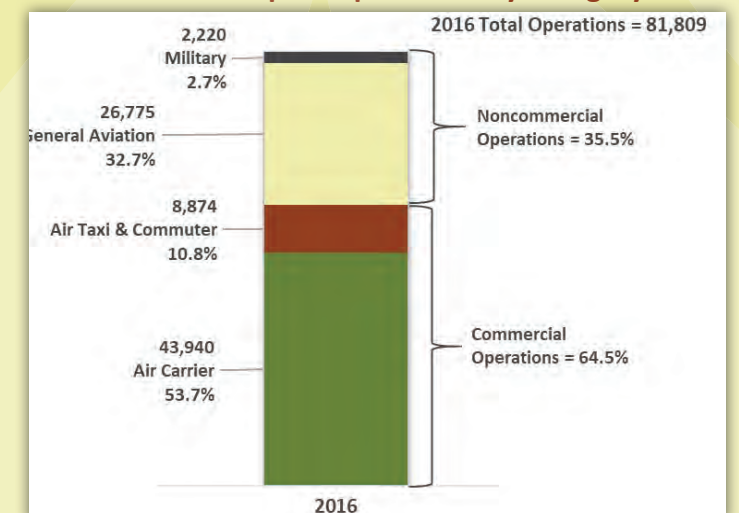
The Reno-Tahoe International Airport:

- ❖ Is in the high desert on the east edge of the Sierra Nevada mountain range.
- ❖ Is classified by the FAA as a Small-Hub Primary Airport. FAA classification is related to passenger and cargo levels and determines federal funding.
- ❖ Serves commercial, cargo, military, general, and corporate aviation customers (domestic and international).
- ❖ Is the 66th busiest commercial service airport in U.S.
- ❖ Is set in an urban environment, on 1,500 acres.
- ❖ Has a catchment area that includes northern Nevada and Northeastern counties in California, with the nearest commercial service airport being 150 miles away in Sacramento, CA.

RNO Catchment Area



Distribution of Airport Operations by Category



Land Use

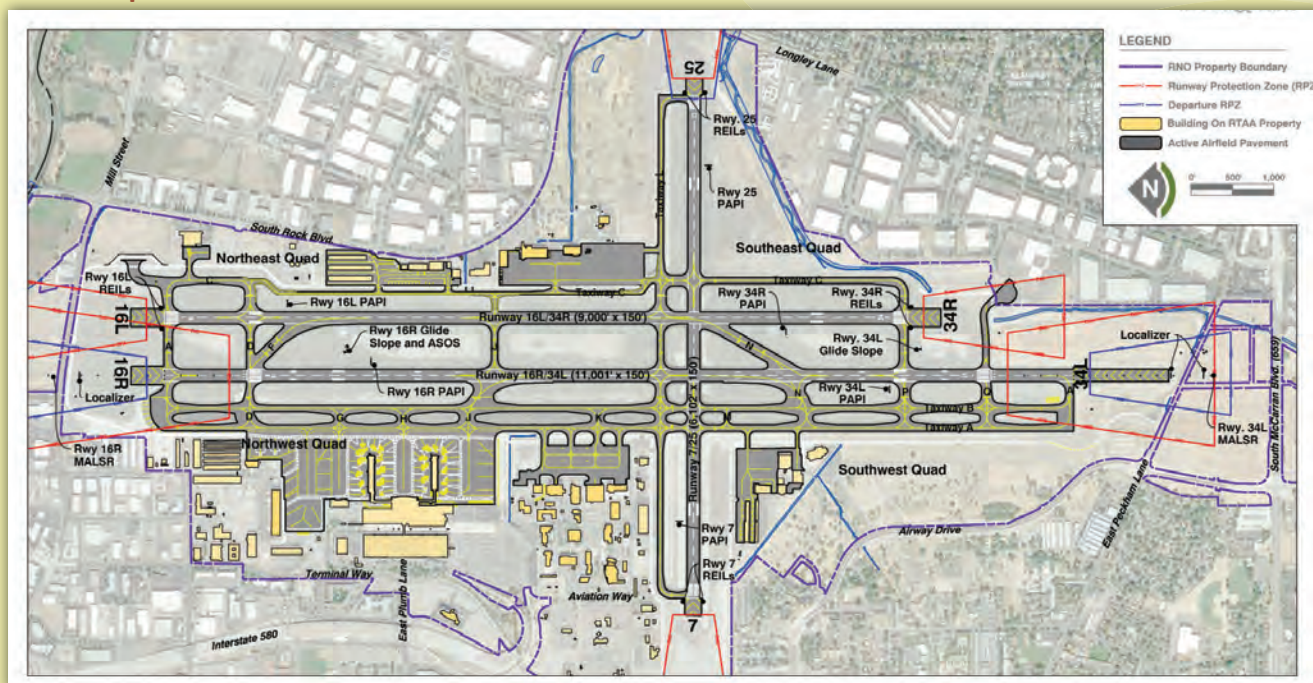
RTAA develops and maintains the RNO Airport Land Use Plan to provide a map upon which to base future development decisions, while identifying sufficient land for existing and future operations and facilities.

RNO is located entirely within the City of Reno and designated as a Regional Center in the City's Master Plan. RNO is also within the administration of the Truckee Meadows Regional Planning Commission, which partners with the cities of Reno, Sparks, and Washoe County to plan for the area surrounding RNO.

Airport Facilities

The illustration below depicts the Airport's key facilities including runways, taxiway, aircraft aprons, terminal building and concourses, landside and support facilities, navigational aids, and FAA Air Traffic Control Tower.

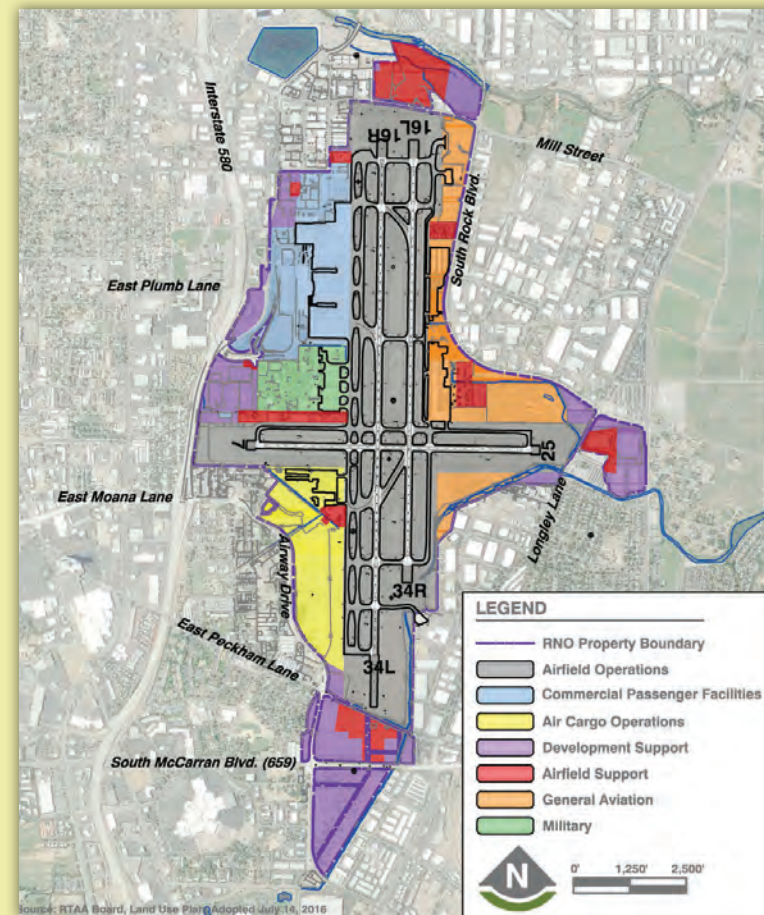
RNO Airport Facilities



Sustainability

As part of RTAA's commitment to sustainability, the Plan incorporates a solid waste and recycling plan that meets FAA goals, and to protect and enhance the environment

RNO Land Use



RECYCLING & SERVICE

Airport Recycling, Reuse, and Waste Reduction Plan

RNO has an active waste management plan, primarily for the passenger terminal building and administration offices, under which stakeholders practice recycling and waste management strategies. Recommendations include:

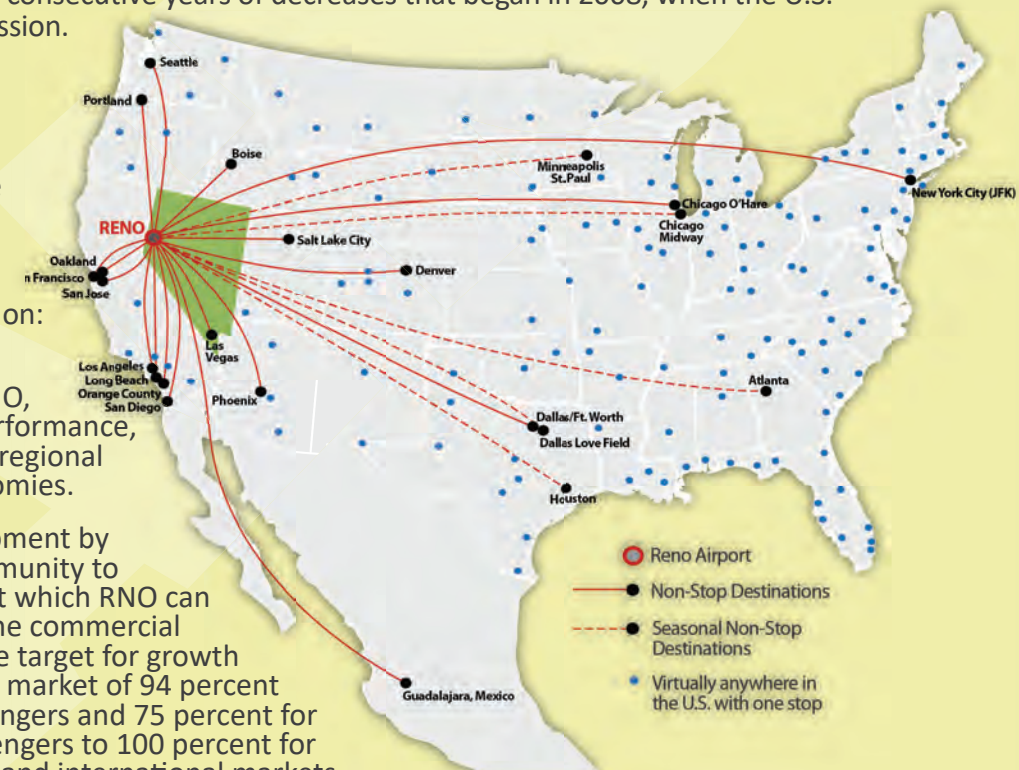
- ❖ Establish goals and objectives
- ❖ Track and communicate progress
- ❖ Evaluate collection and donation of unopened food, beverages, and toiletries
- ❖ Improve recycling through coordination with airlines and concessionaires
- ❖ Continue to reuse materials where possible
- ❖ Implement simple education program for employees, tenants, and contractors
- ❖ Expand and improve signage, specifically in pre-security and security checkpoint queuing
- ❖ Consider improvements to contracts/leases and purchasing policies/practices
- ❖ Maintain and improve recycling program according to Plan-Do-Check-Act (PDCA) cycle
- ❖ Transition to LED light fixtures
- ❖ Incorporate alternative energy
- ❖ Reduce water consumption

Commercial Passenger Service

The number of airport destinations served nonstop from RNO increased to 22 in 2016 from a low of 17 in 2010-2014. In 2017, the Airport saw an additional 10% growth. Southwest Airlines is the largest passenger carrier at RNO, with a 43 percent share of total enplanements in 2016. This share decreased from 54 percent in 2009, which allowed other airlines to increase market share. American Airlines, including US Airways, increased its passenger share from 16 to 21 percent; Alaska Airlines, from 8 to 12 percent; and new entrants JetBlue, Volaris, and Allegiant gained a combined share of 6 percent in 2016. During the same period, United's market share decreased from 13 to 12 percent, and Delta maintained its market share of 7 percent. In 2016, RNO posted its second consecutive year of growth in commercial passenger traffic, seeing 6 percent passenger growth (enplaned and deplaned), ending seven consecutive years of decreases that began in 2008, when the U.S. economy entered a recession.

The increase halted a downward trend that began in 1997 when passengers reached an all-time peak level at the height of Reno Air's hub operations at RNO. The commercial passenger service forecast is based on:

- ❖ Organic growth of seat capacity at RNO, airline financial performance, and an increase in regional and national economies.
- ❖ Air service development by RTAA and the community to increase the rate at which RNO can grow its share of the commercial service market. The target for growth is from the current market of 94 percent for domestic passengers and 75 percent for international passengers to 100 percent for both the domestic and international markets.
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- A map of the southwestern United States, specifically California and Nevada. Reno, Nevada is marked with a black dot. Red lines represent flight routes from Reno to several cities in California: Los Angeles, Long Beach, Orange County, San Diego, Las Vegas, and Phoenix. Each destination is marked with a black dot. There are also blue dots scattered across the map, possibly representing other airports or locations.



Passenger Activity Forecast

RNO’s Aviation Activity Forecast is derived from an evaluation of historical trends and growth outlook, for both the airport and the community. The forecast considers passenger travel patterns and commercial airline market strategies and performance, as well as socio-economic metrics, both regionally and nationwide.

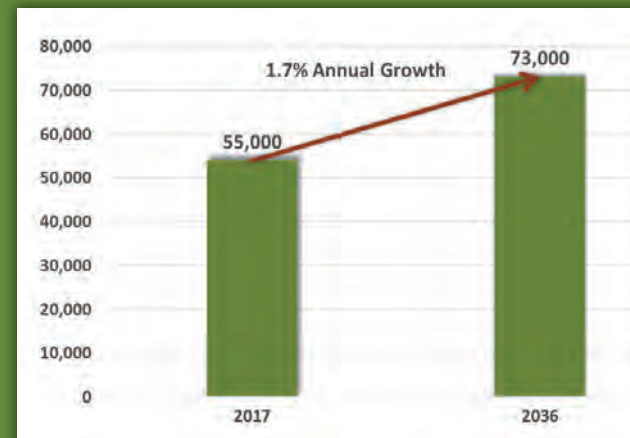
Air Cargo Forecast

The RNO catchment area has been uncommonly strong in terms of regional cargo demand through what has been a difficult period for most U.S. airports. According to the 2015 Air Cargo Market Study, RNO’s competitive advantages are “based on a location with excellent access to the Western U.S., a positive business environment, and the continued expansion of industrial activity.” RNO must rely on organic growth because it is not a regional hub, nor a hub for any domestic cargo airline. Without the connecting traffic of a hub, RNO’s cargo growth depends upon demand generated by regional industry.

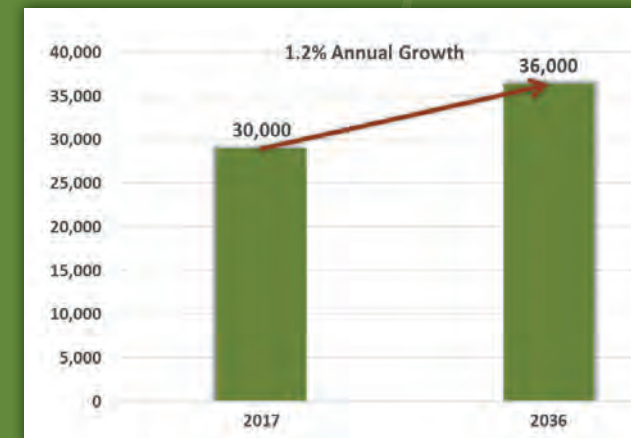
RNO is served by cargo operators UPS, FedEx, and DHL, in order of market share. These operators are expected to remain in the market.

Forecast Summaries

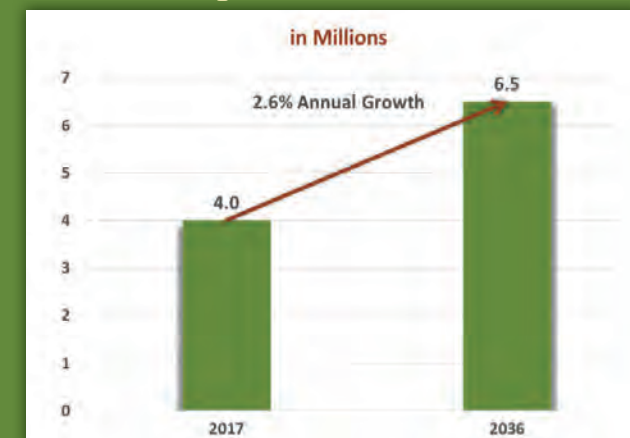
Commercial Operations



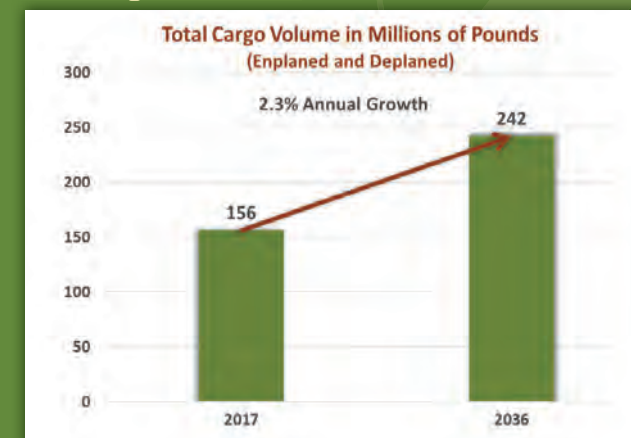
Non-Commercial Operations



Total Passengers



Air Cargo Forecast



Non-Commercial Aviation Activity

RNO’s non-commercial aviation activity includes general, corporate, and military activity. RNO’s GA activity, following national trends, has declined since the early 1990s, and tends to track with economic peaks and valleys.

Over the long-term, business aviation activity is expected to grow, while recreational and training aviation activities are projected to remain at about existing levels.

RNO has these GA businesses and services on the field:

- ❖ **Advanced Aviation Reno**
- ❖ **Atlantic Aviation**
- ❖ **Civil Air Patrol-Nevada Wing**
- ❖ **Dassault Aircraft Services**
- ❖ **Flying Start Aero**
- ❖ **Global Aviation Services**
- ❖ **Reno Flying Service**

Based Aircraft Fleet

	2017	2036	Change
Single Engine	74	75	+1
Multi-Engine	18	21	+3
Jet	17	31	+14
Helicopter	5	7	+2
Military	8	8	0
Total	122	142	+20

RNO’s military activity is driven by the on-airport Nevada Air National Guard base, which has advised the RTAA of no planned changes to mission, fleet, or activity.

Facility Requirements & Alternatives Development

The Plan assesses the terminal, landside, support, and airside facilities required to meet aviation demand at RNO over the next 20 years. The consultant team and RTAA evaluated the condition and capacity of existing facilities and focused recommendations on those facilities that must be improved, expanded, or constructed to accommodate the demand projections. No land acquisition is projected to be needed throughout the planning periods, and military facilities were not evaluated as part of this effort. Facilities that generally met requirements for capacity, security, and safety of users or were already scheduled for funded improvements were deemed sufficient for the duration of the master plan.

Sufficient Facilities

- ❖ **Terminal Building**
 - Airline ticketing
 - Baggage Claim
 - Airline Ticket Office (ATO) space
- ❖ **Landside**
 - Connectivity to city and state infrastructure, based on existing conditions
 - Existing terminal roadway and curbside infrastructure, except for improvements needed to comply with the Americans with Disabilities Act (ADA)
- ❖ **Support**
 - Snow Removal Equipment Building (SRE) and Material Storage
 - Air Traffic Control Tower (ATCT)
 - Fuel Facilities
 - Central Disposal Facility (CDF)
 - Perimeter fencing and security gates
- ❖ **Airside**
 - Runway system (runway length and airfield capacity)
 - Airfield pavement strength
 - Runway design surfaces (for example, the Runway Safety Area)
 - Runways 16L/34R and 7/25 navigational aids

Evaluating Alternatives in Five Phases

RTAA staff, the Consultant team, stakeholders, and the public discussed the alternatives in five phases over several months, beginning in April 2017:

- ❖ **Phase 1:** RTAA Board of Trustees hosted an in-person alternatives charrette with stakeholders to develop criteria to evaluate the future alternatives.

- ❖ **Phase 2:** Fatal flaws or limitations guided the process of elimination for prepared conceptual alternatives. The team presented refined alternatives in workshops (open house style meetings with RTAA employees and senior management, airport tenants and stakeholders, and the MPWG) and one public meeting.

- ❖ **Phase 3:** Alternative concepts underwent either removal or refinement to match criteria. The remaining alternatives in Phase 3 received scrutiny for components of each functional area (terminal, landside, support, and airside).

- ❖ **Phase 4:** RTAA reviewed the detailed description and illustration of each alternative, with a focus on landside facilities including an additional concept for a consolidated rental car facility (CONRAC).

- ❖ **Phase 5:** The Consultant team prepared and submitted the final alternatives to RTAA with details of the analysis and supporting graphics, so the RTAA Board of Trustees could consider recommended alternatives to implement.

At the annual retreat of the RTAA Board of Trustees on November 17, 2017, the Board reviewed the preferred alternative of the four functional areas. The Board approved the preferred alternative on December 14, 2017, at their regularly scheduled monthly meeting.

The Plan identified the following areas as needing improvement over the next 20 years.



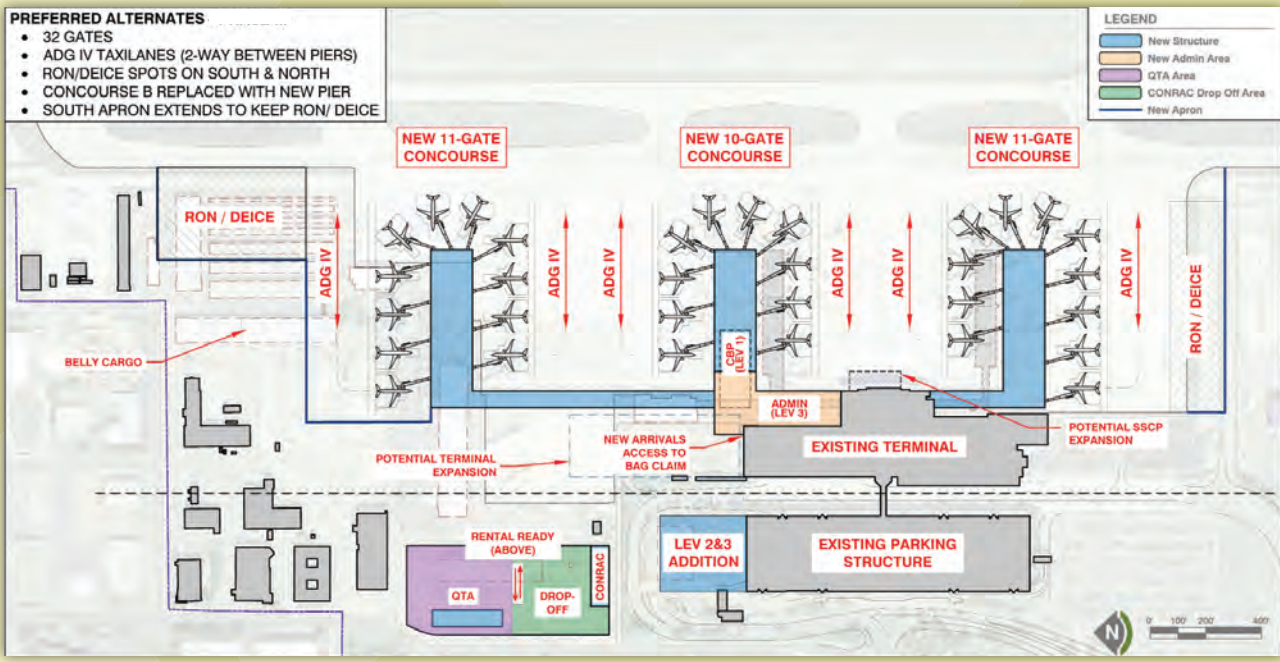
PREFERRED ALTERNATIVE

Preferred Alternative Recommendations

Terminal Recommendations

- ❖ Replace Concourse B and C piers to accommodate 10-11 gates each and build third concourse pier as needed for market demand.
- ❖ Construct two-way taxilanes between concourses, allowing for simultaneous aircraft operations with one-way taxilanes to the north and south.
- ❖ Reserve apron space east of the Security Screening Checkpoint (SSCP) at level 1 to allow for future expansion.
- ❖ Relocate existing Remain Over Night (RON) parking spaces and de-icing pads as far south as possible to establish the southern edge of development.
- ❖ Build new Customs and Border Protection (CBP) facility within level 1 of the proposed new central concourse pier.
- ❖ Construct new administrative office space on level 3 at the northeast corner of the terminal building.
- ❖ Reserve option for a new arriving passenger experience at the north end of the existing baggage claim area.
- ❖ Relocate belly cargo to the north near new third concourse pier.
- ❖ Install moving walkways to minimize passenger travel distances. Relocate existing entry vestibules located in the ticket hall outboard of existing terminal building envelope to improve queuing and circulation.
- ❖ Build new restrooms near ticket hall area on the south side of existing terminal building.
- ❖ Improve passenger wayfinding (signage) near the SSCP via changes in location, size, clarity, and consolidation of messaging.

RNO Preferred Alternative



Landside Recommendations

- ❖ Relocate existing rental car Quick Turnaround Area (QTA) and Ready/Return facilities from the existing parking garage into a new CONRAC facility located north of the terminal roadway.
- ❖ Improve vehicular and pedestrian wayfinding by installing new signage, maintaining pedestrian lines of sight, and locating curb cuts according to ADA standards.
- ❖ Construct a two-level addition on the north end of the existing parking garage to add up to 500 public parking spaces.

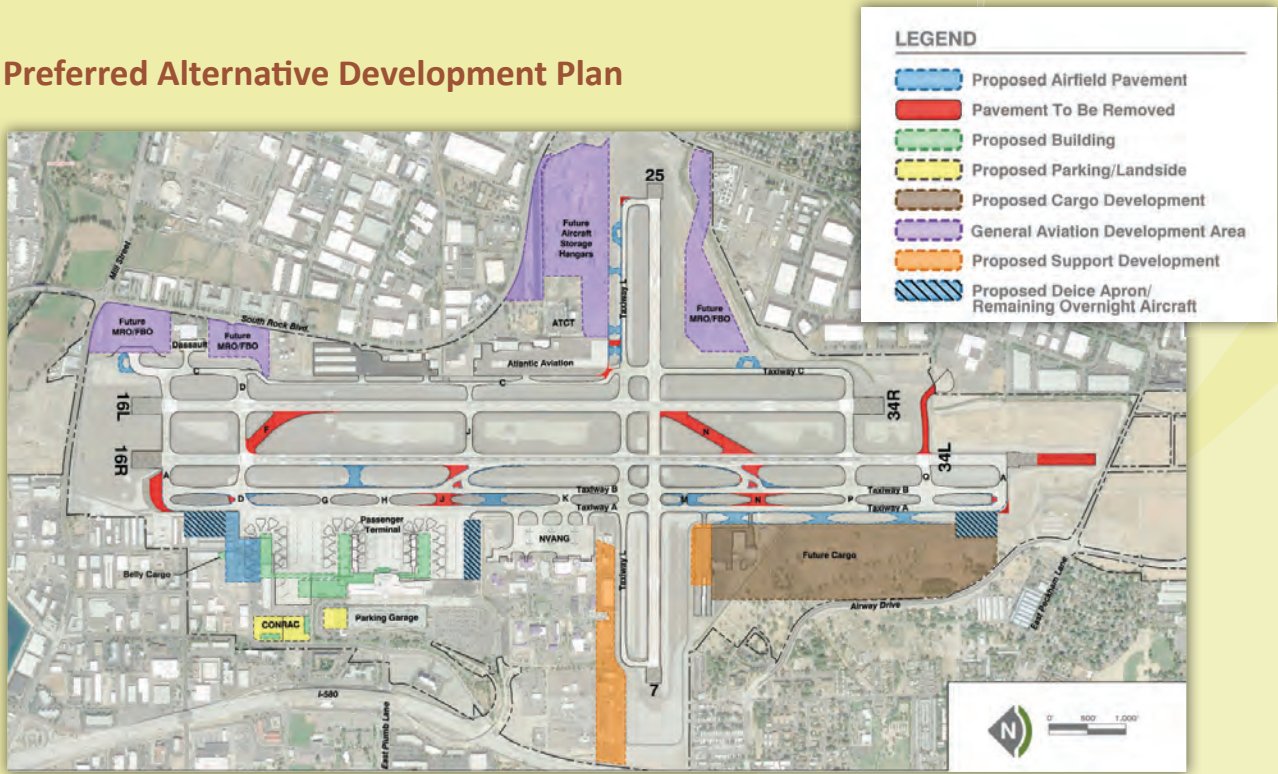
Support Recommendations

- ❖ Consolidate GA facilities on east side of airfield.
- ❖ Reserve Northeast GA development area for expansion of current tenant and/or similar business use such as an MRO/FBO facility.
- ❖ Maintain Central GA development area for hangars.
- ❖ Develop Brookside GA area for additional GA hangars and apron area.
- ❖ Reserve Southeast GA development area for long-term development of MRO or FBO facility.
- ❖ Relocate cargo to southwest quadrant to enable terminal and concourse expansion.
- ❖ Consolidate maintenance and operations facilities into a centralized campus.

Airside Recommendations

- ❖ Construct run-up aprons for GA activities.
- ❖ Correct FAA hot spots.
- ❖ Construct north and south deicing aprons.
- ❖ Install RVR to support Runway 16R CAT-II approach (subject to airspace study).
- ❖ Correct non-standard FAA design taxiways for north and south operational flow.
- ❖ Remove excess taxiway pavement.

Preferred Alternative Development Plan



Financial Feasibility Analysis and Facilitates Implementation Plan

Implementing and funding the Master Plan Capital Improvement Program (CIP) for RNO will largely be a function of federal, third party, and RTAA local funding sources (i.e. Airport Improvement Program (AIP) grants, Passenger Facility Charges (PFC), Customer Facility Charges (CFC), Airport System Debt, and RTAA Cash and Investments) available at the time of specific project implementation.

The following rough order of magnitude cost estimates have been developed for each project in the Short-Term, Medium-Term and Long-Term phases of the RNO Master Plan:

Master Plan CIP (dollars in millions)

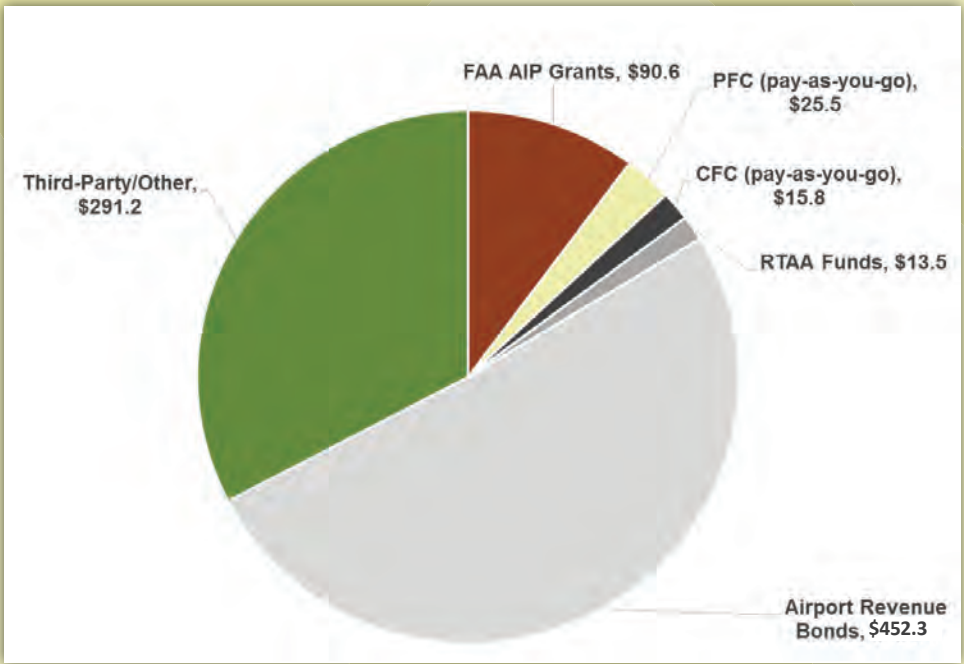
Category	Total Project Cost	Master Plan Development Phase		
		Short-Term	Mid-Term	Long-Term
New Concourse C (including new CBP facility, passenger loading bridges, and building demolition)	\$159.9	\$159.9		
New Concourse B (including passenger loading bridges and building demolition)	\$143.6	\$6.5	\$137.1	
New Concourse D (including new CBP facility, passenger loading bridges, and building demolition)	\$229.0			\$229.0
New Admin., Counter, Bag Claim, Concessions	\$33.8	\$33.8		
Terminal Wayfinding & Signage, Ticket Hall, Restrooms, Escalators	\$5.8	\$5.8		
New & Remodeled SSCP Space	\$42.6		\$42.6	
Terminal Apron & Airfield Improvements	\$59.0	\$6.0	\$30.1	\$22.8
New CONRAC (including pedestrian bridge, new QTA, landscaping, and building demolition)	\$110.0	\$110.0		
Building Demolition (Prologis Building, air cargo, and Mini Storage Warehouse)	\$49.3		\$5.1	\$44.3
Auto Parking Surface Lot	\$0.4	\$0.4		
Two-Level Parking Structure Expansion	\$43.3			\$43.3
Belly Cargo Storage Facility	\$1.8			\$1.8
Various GA Facility Improvements (as demand warrants)	\$432.7	\$38.6	\$181.0	\$213.0
Expand Cargo Apron	\$103.6		\$60.4	\$43.1
Various Cargo, Operations, and Maintenance Facility Improvements (as demand warrants)	\$220.9		\$71.5	\$149.4
Total	\$1,635.6	\$361.0	\$527.9	\$746.7

Source: Mead & Hunt, Inc., April 2018

Note: Amounts may not add because of rounding.

RNO Master Plan - Funding Sources - \$888.9 million

This chart outlines the funding plan for the Short-Term Improvements of \$361.0 million and the Medium-Term Improvements of \$527.9 million:

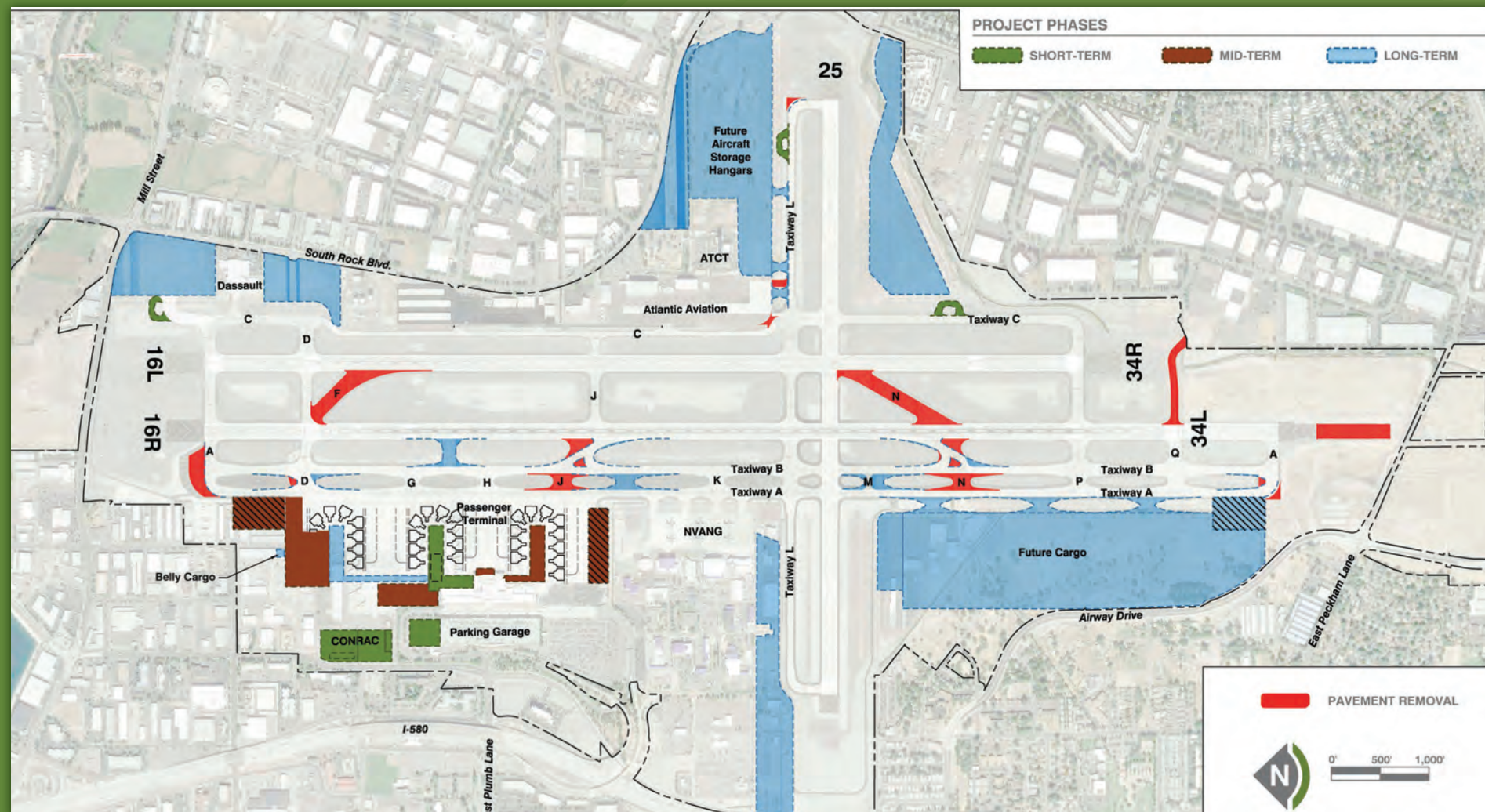


Short-Term Master Plan Improvements

Within the short-term planning period (one to five years), RNO anticipates the need for a variety of existing and Master Plan CIP projects totaling an estimated \$361.0 million. Major Master Plan projects in the short term include:

- ❖ Build new 11-gate Concourse C including new passenger boarding bridges.
- ❖ Build new Customs and Border Protection (CBP) facility within level 1 of Concourse C.
- ❖ Construct new administrative office space on level 3 at the northeast corner of Terminal building.
- ❖ Improve the Terminal ticket hall, baggage claim, concessions, restrooms, and escalator.
- ❖ Improve passenger Terminal wayfinding and signage.
- ❖ Improve the Terminal apron, deice pad, and airfield pavement.
- ❖ Build new Consolidated Rental Car (CONRAC) facility, quick-turn-around (QTA), and pedestrian bridge.
- ❖ Build new automobile surface parking lot.
- ❖ Improve various GA facilities as demand warrants.

Recommended Capital Improvement Plan Projects



Mid-Term Master Plan Improvements

The mid-term or intermediate capital projects planned for the next six to 10 years are currently estimated to total approximately \$527.9 million. Major Master Plan projects in the mid-term include:

- ❖ Build new 11-gate Concourse B including new passenger boarding bridges.
- ❖ Expand Terminal building to improve and remodel Security Screening Check Point (SSCP).
- ❖ Improve Terminal apron, deice pad, and airfield pavement.
- ❖ Expand the cargo apron.
- ❖ Improve various cargo, operations, and maintenance facilities as demand warrants.
- ❖ Improve various GA facilities as demand warrants.

Long-Term Master Plan Improvements

Approximately \$746.7 million of capital projects are forecasted in the long-term (10+ years). As discussed previously because of timing and uncertainty, the financial analysis for this Master Plan only includes projects expected within the next 10 years. Major Master Plan projects for the long-term include:

- ❖ Build third concourse pier including new passenger loading bridges.
- ❖ Improve the Terminal apron, deice pad, and airfield pavement.
- ❖ Construct a two-level addition on the north end of the existing parking garage.
- ❖ Improve various cargo, operations, and maintenance facilities as demand warrants.
- ❖ Improve various GA facilities as demand warrants.
- ❖ Build new belly cargo facility.





RNO Master Plan Funding Plan
(Short-Term and Medium-Term Improvements)

The following tables show the results of the forecast financial analysis associated with this funding plan. As shown, airline Cost Per Enplaned Passenger (CPE), RTAA debt service coverage, days cash on hand, and debt per enplaned passenger (DPE) are presented for the FY 2018-19 Budget and averages for the Short-Term and Mid-Term development periods.

These financial benchmarks evaluate the cost of the capital program to the airlines serving RNO, the ability of the RTAA to afford the additional debt service on future bond issues and its ability to maintain prudent cash and liquidity reserves.

The results presented include the Master Plan enplaned passenger forecast as well as a sensitivity analyses for the High-Growth and Low-Growth activity forecasts.



MEASURES

Summary of Key Financial Measures for Short-Term Development Phase

Key Financial Measure	Short-Term Development			
	FY 2018-19 Budget	Master Plan Forecast (Average)	High-Growth (Average)	Low-Growth (Average)
CPE (2019\$ assuming 2% discount) ¹	\$7.07	\$9.41	\$7.87	\$12.60
Debt service coverage ¹	7.63x	1.67x	1.86x	1.37x ³
Days cash on hand ¹	449	365	368	316 ⁴
Debt per enplaned passenger ²	\$8	\$152	\$140	\$175

Sources: Trillion Aviation (forecast)

- 1 Averages are based on model results for FY 2023-24 through FY 2026-27.
2 Averages are based on model results for FY 2020-21 through FY 2023-24.
3 Forecast minimum is 1.32x, which is below RTAA’s target of 1.50x debt service coverage; however, remains above 1.25x requirement.
4 Below RTAA’s target of 365 days of cash on hand.

Summary of Key Financial Measures for Mid-Term Development Phase

Key Financial Measure	Mid-Term Development			
	FY 2018-19 Budget	Master Plan Forecast (Average)	High-Growth (Average)	Low-Growth (Average)
CPE (2019\$ assuming 2% discount) ¹	\$7.07	\$12.60	\$10.61	\$17.08
Debt service coverage ¹	7.63x	1.50x ³	1.68x	1.20x ⁴
Days cash on hand ¹	449	386	431	240 ⁵
Debt per enplaned passenger ²	\$8	\$191	\$177	\$235

Sources: Trillion Aviation (forecast)

- 1 Averages are based on model results for FY 2027-28 through FY 2035-36.
2 Averages are based on model results for FY 2024-25 through FY 2035-36.
3 Certain forecast years are below RTAA’s target of 1.50x debt service coverage; however, remain above the 1.25x requirement.
4 Many forecast years are below RTAA’s debt service requirement of 1.25x.
5 Below RTAA’s target of 365 days of cash on hand.



Financial Benchmarks Comparison

To provide some context and comparison, the financial analysis also developed comparisons between the results of the financial forecast analysis and various information contained in Moody’s Investors Service U.S. Airport Medians for FY 2016. Moody’s provides financial median data each year for all the airport operators for whom it provides bond rating services. Data for FY 2016 was published in October 2017 and is the most recent data available.

Financial Benchmark Comparisons

Key Financial Measure	Moody’s U.S. Airport Medians					Master Plan Forecast (Average)	
	A1 Rated	O&D	Small Hub	Med Hub	Comp/Hybrid	Short-Term	Mid-Term
CPE (2019\$ assuming 2% rate)	\$9.26	\$8.87	\$8.71	\$8.89	\$8.19	\$9.41	\$12.60
Debt service coverage	1.91x	2.01x	2.07x	2.08x	2.05x	1.67x	1.50x
Days cash on hand	564	615	563	716	619	365	386
DPE (2019\$ assuming 2% rate) ¹	\$82	\$73	\$67	\$64	\$60	\$152	\$191

Sources: RTAA management data and information; Moody’s Investors Service, "US Airport Medians for FY 2016," October 27, 2017; Trillion Aviation (forecast and escalation of Moody’s data to FY 2018-19 dollars)

¹ Medians for DPE are presented in FY 2019 dollars assuming a 2% annual escalation rate. Amounts for Master Plan average are in nominal dollars.



With airport revenue bonds forecast to be a significant source of funding for the Master Plan CIP, key financial metrics are not as favorable as current conditions. With the debt and use of RTAA cash and investments, the other airports fare somewhat better for these measures. However, debt service coverage and days of cash on hand are within prudent limits. The forecast DPE ratio is well above the other median comparisons but is also what is expected for an airport issuing a significant amount of debt to fund its capital program.

These key financial forecast metrics should not result in the bond rating agencies establishing a credit rating for RTAA below investment grade. However, the rating may be lower than the “A” rating with a stable outlook enjoyed by the RTAA in 2015 prior to debt issuance necessary to fund the Master Plan improvements.

Implementing and funding the Master Plan CIP for RNO will largely be a function of federal, third party, and RTAA local funding sources (PFCs, CFCs, and RTAA Cash and Investments) available at the time of specific project implementation. Due to the conceptual nature of a master plan, implementation of most of these capital projects should occur only after further refinement of their costs and timing.

Given forecast funding needs, there are several approaches that the RTAA can use to undertake the CIP projects and ensure their financial feasibility, including:

- ❖ Seek additional FAA Discretionary Grant Funds.
- ❖ Prioritize third-party tenant projects to accommodate demand and encourage sustainable development.
- ❖ Issue Airport Bonds to preserve the minimum debt service reserve.
- ❖ Evaluate Public-Private Partnerships (P3s).
- ❖ Defer or delay capital projects as needed, or consider phased project implementation.



**Reno-Tahoe
Airport Authority**

