SUPPLEMENT DATED NOVEMBER 4, 2019
TO
PRELIMINARY OFFICIAL STATEMENT DATED OCTOBER 23, 2019
RELATED TO
CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

$337,000,000*	$400,295,000*	$29,975,000*
Junior Lien Airport Revenue Bonds, Series 2019A (Non-AMT)	**Junior Lien Airport Revenue Bonds, Series 2019B (AMT)**	**Junior Lien Airport Revenue Refunding Bonds, Taxable Series 2019C**

The information in the Preliminary Official Statement under the caption "LITIGATION" is hereby supplemented by adding the below new final paragraph to the information under such caption:

Status of Litigation Relating to Customer Facility Charge at Rental Car Center; Pending Motion to Dismiss. On June 12, 2018, a lawsuit was filed against the City (the "Customer Facility Charge Lawsuit") on behalf of an individual who had rented a vehicle at the Rental Car Center at the Airport and others in a class similarly situated (the "CFC Plaintiffs") contending that imposition and collection of the Customer Facility Charge paid under Phoenix City Code Sec. 4-79 by rental car customers (the "Customer Facility Charge") was invalid because it violated a provision of the State Constitution providing that no money derived from fees, excises, or license taxes relating to registration, operation, or use of vehicles on public highways or streets shall be expended for other than highway and street purposes. **(No revenues derived from the Customer Facility Charge involved in the Customer Facility Charge Lawsuit constitute Airport Revenues and are not security for the 2019 Bonds.)** In addition to a declaration that the Customer Facility Charge was invalid, the CFC Plaintiffs were seeking a refund of the Customer Facility Charges collected since July 1, 2016 (estimated at $140 million through date of filing of an amended complaint on June 5, 2018). A similar separate lawsuit had previously been filed on June 8, 2018 against the City (the "City Rental Car Excise Tax Lawsuit") on behalf of three local rental car companies and all similarly situated entities (the "City Rental Car Excise Tax Plaintiffs"), contending that a City excise tax levied on the gross income from the business activity of any person engaging in the business of leasing, licensing for use, or renting certain motor vehicles was invalid for the same reasons stated in the Customer Facility Charge Lawsuit. (No part of the rental car excise taxes involved in the City Rental Car Excise Tax Lawsuit constitute Airport Revenues and are not security for the 2019 Bonds.) Both the Customer Facility Charge Lawsuit and the City Rental Car Excise Tax Lawsuit relied upon an earlier ruling by a Maricopa County Superior Court (the trial court) in a separate, unrelated lawsuit against the Arizona Department of Revenue (the "Arizona Tourism and Sports Authority Lawsuit"), to the effect that a car rental surcharge imposed by state statute for the benefit of the Arizona Tourism and Sports Authority was invalid because the money raised was required by the State Constitution to be used for highway and street purposes but, as required by the authorizing legislation, was used for other purposes.

The Arizona Tourism and Sports Authority appealed the trial court's ruling to the Arizona Court of Appeals, which on March 13, 2018 reversed the trial court's ruling relied upon by the CFC Plaintiffs and the City Rental Car Excise Tax Plaintiffs in their respective lawsuits and upheld the validity of the tax collected on behalf of the Arizona Tourism and Sports Authority. On May 31, 2018, the plaintiffs filed with the Arizona Supreme Court a petition for review of the Arizona Court of Appeals' decision.

On February 25, 2019, the Arizona Supreme Court affirmed the Court of Appeals' decision in favor of the Arizona Tourism and Sports Authority and on October 7, 2019, the United States Supreme Court refused to accept a review of the decision. With the final court actions upholding the validity of the tax collected by the Arizona Tourism and Sports Authority, the City Rental Car Excise Tax Lawsuit against the City was dismissed by the trial court on June 10, 2019 and on August 2, 2019, the City filed a motion with the trial court to dismiss the Customer Facility Charge Lawsuit, which motion included additional grounds upon which the case should be dismissed. The motion to dismiss is currently pending. The City believes that the CFC Plaintiffs' claims are without merit and expects that its motion will be granted, although the CFC Plaintiffs would be permitted to appeal dismissal of the case.

If the Customer Facility Charge Lawsuit is not dismissed, the City believes that it has meritorious procedural and legal defenses to the lawsuit, in addition to those that formed the basis for the Arizona Supreme Court's ruling in the Arizona Tourism and Sports Authority Lawsuit. In addition, the City has contractual remedies available to mitigate losses of Customer Facility Charge revenues, including amounts involved in a refund. Specifically, the City currently has concession agreements and leases with the rental car companies that will be operating from the Rental Car Center. The concession agreements and leases define the obligations of the City and rental car companies and establish the process for supplemental payments ("Obligation Payments") addressing shortfalls in, and the complete or partial elimination of, the Customer Facility Charge. Obligation Payments are included in the definition of pledged revenues securing the below-described 2019 Rental Car Revenue Bonds. Consequently, even if the Customer Facility Charge were declared to be invalid and the City were obligated to make a refund payment, such payment would be a one-time payment for past collections with any future amounts to be addressed with the rental car companies going forward. The City intends to vigorously oppose the Customer Facility Charge Lawsuit and although damages would not be covered by insurance the City does not believe it will have a material adverse impact on its ability to pay obligations related to the 2019 Bonds.

While Customer Facility Charge revenues are not included in Airport Revenues and are not security for the 2019 Bonds, the City has covenanted so long as the Corporation's Rental Car Facility Charge Revenue Bonds, Series 2004 (the "2004 Rental Car Revenue Bonds") remain outstanding to apply amounts in the Airport Improvement Fund to remedy deficiencies in a transportation maintenance reserve fund to the extent Customer Facility Charge revenues and other pledged revenues are not sufficient. The 2004 Rental Car Revenue Bonds are scheduled to be refunded with a portion of the proceeds of the Corporation's Rental Car Facility Charge Revenue Bonds, Taxable Series 2019B (the "2019 Rental Car Revenue Refunding Bonds") being offered concurrently with the 2019 Bonds under a separate official statement and the City's covenant with respect to the 2004 Rental Car Revenue Bonds is eliminated upon the issuance of the 2019 Rental Car Revenue Refunding Bonds and the defeasance of the 2004 Rental Car Revenue Bonds.

Citigroup

Mesirow Financial, Inc. **Siebert Cisneros Shank & Co., L.L.C.**

Cabrera Capital Markets, LLC **RBC Capital Markets**

* Subject to change

NEW ISSUES — BOOK-ENTRY-ONLY **RATINGS: Moody's: A1**
S&P: A+

PRELIMINARY OFFICIAL STATEMENT DATED OCTOBER 23, 2019

In the opinion of Greenberg Traurig, LLP, Bond Counsel, assuming compliance with certain tax covenants, interest on the Tax-Exempt Bonds is excluded from gross income for federal income tax purposes under existing statutes, regulations, rulings and court decisions, except for interest on any Series 2019B Junior Bond for any period during which such Series 2019B Junior Bond is owned by a person who is a substantial user of the AMT Property (as defined herein) or any person considered to be related to such person (within the meaning of Section 147(a) of the Internal Revenue Code of 1986, as amended). Interest on the Series 2019A Junior Bonds is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals, but interest on the Series 2019B Junior Bonds will be treated as an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals. Bond Counsel is further of the opinion that assuming interest on the Tax-Exempt Bonds is so excludable for federal income tax purposes, the interest on the Tax-Exempt Bonds is exempt from income taxation under the laws of the State of Arizona. See "TAX EXEMPTION" herein. Bond Counsel expresses no opinion as to the exclusion from gross income of interest on the Taxable Bonds from gross income for federal and State of Arizona income tax purposes. See "CERTAIN UNITED STATES FEDERAL TAX CONSIDERATIONS WITH RESPECT TO THE TAXABLE BONDS" herein.

CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

$337,000,000*	**$400,295,000***	**$29,975,000***
Junior Lien Airport Revenue Bonds, Series 2019A (Non-AMT)	**Junior Lien Airport Revenue Bonds, Series 2019B (AMT)**	**Junior Lien Airport Revenue Refunding Bonds, Taxable Series 2019C**

Dated: Date of Delivery **Due: July 1, as shown on inside front cover**

The principal of and premium, if any, and interest on the Junior Lien Airport Revenue Bonds, Series 2019A (the "*Series 2019A Junior Bonds*"), the Junior Lien Airport Revenue Bonds, Series 2019B (the *"Series 2019B Junior Bonds"* and together with the Series 2019A Junior Bonds, the *"Tax-Exempt Bonds"*) and Junior Lien Airport Revenue Refunding Bonds, Taxable Series 2019C (the *"Taxable Bonds"* and together with the Tax-Exempt Bonds, the *"2019 Junior Bonds"*) will be paid by U.S. Bank National Association, as trustee (the "*Trustee*," also referred to herein as the "*Registrar*," and the "*Paying Agent*"). The 2019 Junior Bonds will be issued as fully registered bonds in amounts of $5,000 each or any integral multiple thereof of principal due on specified maturity dates. The 2019 Junior Bonds, when issued, will be registered in the name of The Depository Trust Company ("*DTC*") or its nominee and will be available to purchasers initially only through the book-entry-only system maintained by DTC. So long as the book-entry-only system is maintained, no physical delivery of the 2019 Junior Bonds will be made to the ultimate purchasers thereof and all payments of principal of and premium, if any, and interest on the 2019 Junior Bonds will be made to such purchasers through DTC. Interest on the 2019 Junior Bonds is payable semiannually on January 1 and July 1 of each year, commencing July 1, 2020, by the Trustee. The 2019 Junior Bonds are being issued pursuant to a Bond Indenture, dated as of December 1, 2019, between the City of Phoenix Civic Improvement Corporation (the "*Corporation*") and the Trustee.

The 2019 Junior Bonds are subject to redemption prior to maturity as described herein.

The 2019 Junior Bonds are special revenue obligations of the Corporation and are payable solely from payments required to be paid by the City of Phoenix, Arizona (the *"City"*), to the Corporation pursuant to the Junior Lien City Purchase Agreement dated as of December 1, 2019 (the *"City Purchase Agreement"*) between the City and the Corporation. **The obligations of the City to make payments under the City Purchase Agreement are absolute and unconditional, but do not constitute a pledge of the full faith and credit or the ad valorem taxing power of the City.** Except to the extent the City appropriates other lawfully available funds for such payments, the City's payments under the City Purchase Agreement are payable solely from Designated Revenues (as defined herein) to be derived from operation of the City's Airport (as defined herein). The pledge of Designated Revenues to amounts due under the City Purchase Agreement is subordinate to amounts owed with respect to outstanding Senior Lien Obligations (as defined herein) and Senior Lien Obligations which may be issued in the future and on a parity with outstanding Junior Lien Obligations (as defined herein) and Junior Lien Obligations which may be issued in the future. Principal of and interest on the Series 2019A Junior Bonds is additionally payable from and secured by an irrevocable commitment of the net proceeds of a passenger facility charge approved by the Federal Aviation Administration and received in each Fiscal Year (as defined herein) in an amount equal to 93% of the Series 2019A Junior Bonds Debt Service (as defined herein) in each Fiscal Year due on or before July 1, 2026. See "SECURITY AND SOURCE OF PAYMENT" herein.

This cover page contains only a brief description of the 2019 Junior Bonds and the security therefor, and is designed for quick reference only. This cover page is not a summary of all material information with respect to the 2019 Junior Bonds or of investment risks involved with the purchase of the 2019 Junior Bonds, and investors are advised to read this entire Official Statement, giving particular attention to the matters discussed under "CERTAIN BONDHOLDERS' RISKS," in order to obtain information essential to making an informed investment decision.

The 2019 Junior Bonds are offered when, as and if issued and received by the Underwriters, and subject to the legal opinion of Greenberg Traurig, LLP, Bond Counsel, as to validity, and tax exemption with respect to the Tax-Exempt Bonds. Certain legal matters will be passed upon for the Underwriters by Squire Patton Boggs (US) LLP, counsel to the Underwriters. It is expected that the 2019 Junior Bonds will be available for delivery in book-entry-only form through the facilities of DTC on or about December , 2019.

Citigroup

Mesirow Financial, Inc. **Siebert Cisneros Shank & Co., L.L.C.**

Cabrera Capital Markets, LLC **RBC Capital Markets**

* Subject to change.

MATURITY SCHEDULES

CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

$337,000,000*
Junior Lien Airport Revenue Bonds,
Series 2019A (Non-AMT)

Maturity July 1	Principal Amount	Interest Rate	Price or Yield	Maturity July 1	Principal Amount	Interest Rate	Price or Yield
2041	$29,785,000			2046	$40,005,000		
2042	31,275,000			2047	42,005,000		
2043	32,835,000			2048	44,105,000		
2044	34,480,000			2049	46,310,000		
2045	36,200,000						

$ % Term Bonds due July 1, , Price %

$400,295,000*
Junior Lien Airport Revenue Bonds,
Series 2019B (AMT)

Maturity July 1	Principal Amount	Interest Rate	Price or Yield	Maturity July 1	Principal Amount	Interest Rate	Price or Yield
2020	$ 640,000			2035	$13,050,000		
2021	1,185,000			2036	13,700,000		
2022	1,245,000			2037	14,385,000		
2023	7,265,000			2038	15,105,000		
2024	7,630,000			2039	15,860,000		
2025	8,010,000			2040	16,650,000		
2026	8,410,000			2041	17,485,000		
2027	8,830,000			2042	18,365,000		
2028	9,275,000			2043	19,280,000		
2029	9,740,000			2044	20,240,000		
2030	10,225,000			2045	21,255,000		
2031	10,735,000			2046	22,320,000		
2032	11,275,000			2047	23,435,000		
2033	11,835,000			2048	24,605,000		
2034	12,425,000			2049	25,835,000		

$ % Term Bonds due July 1, , Price %

$29,975,000*
Junior Lien Airport Revenue Refunding Bonds,
Taxable Series 2019C

Maturity July 1	Principal Amount	Interest Rate	Price or Yield	Maturity July 1	Principal Amount	Interest Rate	Price or Yield
2023	$9,725,000			2025	$10,265,000		
2024	9,985,000						

* Subject to change.

CITY OF PHOENIX, ARIZONA

CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

Michael R. Davis
President and Director

Bruce Covill
Vice President and Director

James H. Lundy
Secretary-Treasurer and Director

Barbara Barone
Director

Rosellen Papp
Director

Marian Yim
Director

CITY OF PHOENIX, ARIZONA
MAYOR AND CITY COUNCIL

Kate Gallego, *Mayor*

Jim Waring, *Vice Mayor*
District 2

Thelda Williams, *Member*
District 1

Debra Stark, *Member*
District 3

Laura Pastor, *Member*
District 4

Betty Guardado, *Member*
District 5

Sal DiCiccio, *Member*
District 6

Michael Nowakowski, *Member*
District 7

Carlos Garcia, *Member*
District 8

ADMINISTRATIVE OFFICIALS

Ed Zuercher
City Manager

Milton Dohoney, Jr.
Assistant City Manager

Deanna Jonovich
Assistant City Manager

James E. Bennett
Director of Aviation Services

Denise M. Olson
Chief Financial Officer

Cris Meyer
City Attorney

Denise Archibald
City Clerk

SPECIAL SERVICES

GREENBERG TRAURIG, LLP
Phoenix, Arizona
Bond Counsel

U.S. BANK NATIONAL ASSOCIATION
Phoenix, Arizona
Trustee, Bond Registrar, Paying Agent and Escrow Agent

FRASCA & ASSOCIATES, LLC
New York, New York
Financial Advisor

LEIGHFISHER INC.
Cincinnati, Ohio
Airport Consultant

SAMUEL KLEIN AND COMPANY
Newark, New Jersey
Escrow Verification Agent

This Official Statement does not constitute an offering of any security other than the original offering of the 2019 Junior Bonds of the Corporation identified on the cover page hereof. No person has been authorized by the Corporation, the City, the Financial Advisor or the Underwriters to give any information or to make any representation other than as contained in this Official Statement, and if given or made, such other information or representation not so authorized should not be relied upon as having been given or authorized by the Corporation, the City, the Financial Advisor or the Underwriters. This Official Statement does not constitute an offer to sell or the solicitation of any offer to buy, and there shall not be any sale of the 2019 Junior Bonds by any person in any jurisdiction in which it is unlawful to make such offer, solicitation or sale.

The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, give rise to any implication that there has been no change in the affairs of the Corporation or the City since the date hereof. There is no obligation on the part of the City or the Corporation to provide any continuing secondary market disclosure other than as described herein under the heading "CONTINUING DISCLOSURE" and in "APPENDIX H — Form of Continuing Disclosure Undertaking."

Upon issuance, the 2019 Junior Bonds will not be registered by the Corporation, the City or the Underwriters under the Securities Act of 1933, as amended, or any state securities law, and will not be listed on any stock or other securities exchange. Neither the Securities and Exchange Commission nor any other federal, state or other governmental entity or agency will have passed upon the accuracy or adequacy of this Official Statement or approved the 2019 Junior Bonds for sale.

IN CONNECTION WITH THE OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE 2019 JUNIOR BONDS OFFERED HEREBY AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

The City currently maintains an investor relations website, which includes information specific to the City's Aviation Department. However, unless specifically incorporated by reference herein, the information presented on the website is not part of this Official Statement and should not be relied upon in making an investment decision with respect to the 2019 Junior Bonds.

TABLE OF CONTENTS

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OFFICIAL STATEMENT
RELATING TO

CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

$337,000,000*	$400,295,000*	$29,975,000*
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INTRODUCTION

The purpose of this Official Statement, which includes the cover page and the appendices attached hereto, is to set forth certain information concerning the City of Phoenix Civic Improvement Corporation (the "*Corporation*"), the City of Phoenix, Arizona (the "*City*") and the captioned bonds (the "*2019 Junior Bonds*"). The offering of the 2019 Junior Bonds is made only by way of this Official Statement, which supersedes any other information or materials used in connection with the offer or sale of the 2019 Junior Bonds. Accordingly, prospective 2019 Junior Bond purchasers should read this entire Official Statement before making their investment decision.

All financial and other information presented in this Official Statement has been provided by the City from its records, except for information expressly attributed to other sources. The Corporation and the City warrant that this Official Statement contains no untrue statements of a material fact and does not omit any material fact necessary to make such statements, in light of the circumstances under which this Official Statement is made, not misleading. The presentation of financial and other information is intended to show recent historical information and, except as expressly stated otherwise, is not intended to indicate future or continuing trends in the financial position or other affairs of the City. No representation is made that past experience, as is shown by the financial and other information, will necessarily continue or be repeated in the future.

References to provisions of Arizona law, whether codified in the Arizona Revised Statutes (A.R.S.) or uncodified, or to the Arizona Constitution, are references to current provisions. Those provisions may be amended, repealed or supplemented.

For the definitions of certain capitalized terms used in this Official Statement and for certain provisions of the Bond Indenture, dated as of December 1, 2019 (the "*Indenture*") between the Corporation and U.S. Bank National Association, as trustee (the "*Trustee*" and also referred to herein as the "*Bond Trustee*", "*Registrar*" and the "*Paying Agent*"), pursuant to which the 2019 Junior Bonds are being issued and the Junior Lien City Purchase Agreement dated as of December 1, 2019 between the Corporation and the City (the "*City Purchase Agreement*"), see "APPENDIX F — Summary of Certain Provisions of Legal Documents — Certain Definitions." The City Purchase Agreement incorporates by reference covenants and agreements of Ordinance No. S-21974, adopted by the Mayor and Council of the City on April 20, 1994, as amended to date and as further supplemented and amended from time to time (the "*Airport Revenue Bond Ordinance*") and are applicable to the 2019 Junior Bonds. See "SECURITY AND SOURCES OF PAYMENT — Rate Covenants," "— Additional Senior Lien Obligations" and "— Additional Junior Lien Obligations" and "APPENDIX F — Summary of Certain Provisions of Legal Documents — The Airport Revenue Bond Ordinance."

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* Subject to change.

THE AIRPORT

General

The City owns and operates, through its Aviation Department, Phoenix-Sky Harbor International Airport ("*Sky Harbor*") and two general aviation airports, Phoenix-Goodyear Airport and Phoenix-Deer Valley Airport (collectively, the "*Airport*"). The City has operated the Airport as a self-supporting enterprise since 1967.

Sky Harbor, located approximately four miles east of the downtown Phoenix area, was established in 1935. Sky Harbor is the only Arizona airport designated as a large hub by the Federal Aviation Administration (the "*FAA*") and is the principal commercial service airport serving metropolitan Phoenix and most of the State's population. There is no other U.S. large-hub commercial service airport within a five-hour driving distance of Phoenix, with the closest being Las Vegas' McCarran International Airport (290 miles to the northwest). In fiscal year 2018-19, Sky Harbor served 22.8 million enplaned passengers more than any previous fiscal year. During fiscal year 2018-19 airline service at Sky Harbor was provided by Air Canada, Advanced Air, Alaska, American, Boutique Air, British Airways, Condor, Compass (Delta Connection), Contour, Delta, Frontier, Hawaiian, Jazz Aviation, JetBlue, Mesa (American Eagle and United Express), SkyWest (American Eagle, Delta Connection, and United Express), Southwest, Spirit, Sun Country, United, Volaris and WestJet. Sky Harbor served 434,942 commercial, general aviation and military aircraft operations in fiscal year 2018-19.

Sky Harbor currently has three passenger terminal buildings, Terminals 2, 3, and 4. Collectively, the three terminals provide a total of 100 passenger hold rooms and 100 associated aircraft parking positions (gates). Terminal 2 contains approximately 330,000 square feet and 9 gates. Terminal 3 contains approximately 639,000 square feet and 10 gates. Upon completion of the Terminal 3 Modernization project, it will contain approximately 710,000 square feet and 25 gates. Terminal 4 contains approximately 2.3 million square feet and 81 gates. American Airlines and Southwest Airlines, the two largest carriers at Sky Harbor, and all international carriers, operate exclusively from Terminal 4. As of August 2019, Sky Harbor had approximately 26,000 public and employee parking spaces. A consolidated rental car facility is located on a 141-acre site, with approximately 5,600 ready/return garage spaces and a 113,000 square foot customer service building (the "*Rental Car Center*"). Sky Harbor has three parallel air carrier runways supported by a network of taxiways, aprons, and hold areas.

The City also serves the area's general aviation traffic activity through the two reliever airports that it owns and operates. Phoenix-Deer Valley Airport is located in the northern part of the City and Phoenix-Goodyear Airport is located west of the City. These two general aviation facilities handled, in aggregate, 539,340 operations in fiscal year 2018-19. Phoenix-Deer Valley Airport and Phoenix-Goodyear Airport are part of the Airport for the purpose of issuing obligations payable from Net Airport Revenues (as defined herein). Such obligations payable from Net Airport Revenues ("*Senior Lien Obligations*"), as well as obligations payable from Designated Revenues (as defined herein) ("*Junior Lien Obligations*"), and Junior Subordinate Lien Obligations (as defined herein) payable from Junior Subordinate Lien Revenues (as defined herein) can be issued for improvements at Sky Harbor, as well as Phoenix-Deer Valley Airport and Phoenix-Goodyear Airport. The revenues of these two reliever airports, along with the revenues of Sky Harbor, are Airport Revenues (as defined herein) which form the basis of determining Net Airport Revenues, which are pledged to the payment of principal of and interest on Senior Lien Obligations, Designated Revenues, which are pledged to the payment of principal of and interest on Junior Lien Obligations, and Junior Subordinate Lien Revenues, which are pledged to the payment of Junior Subordinate Lien Obligations.

In fiscal year 2006-07, the City entered into an intergovernmental agreement with the City of Mesa, the Town of Queen Creek, the Town of Gilbert and the Gila River Indian Community to become a voting member of the Phoenix-Mesa Gateway Airport Authority, which owns and operates Phoenix-Mesa Gateway Airport. Phoenix-Mesa Gateway Airport is located approximately 30 miles east of Sky Harbor and serves as a commercial reliever airport offering an average of 16 daily flights to 38 cities on Allegiant Air, California Pacific Airlines, Flair Air, Swoop and WestJet, as of June 2019. The revenues of Phoenix-Mesa Gateway Airport are not included in the definition of Airport Revenues and cannot be pledged for the payment of principal and interest on the Senior Lien Obligations, Junior Lien Obligations or Junior Subordinate Lien Obligations.

The City has engaged the firm of LeighFisher Inc. to prepare a traffic and earnings report in connection with the issuance of the 2019 Junior Bonds. The report of LeighFisher Inc. is included as "APPENDIX A —Report of the Airport Consultant."

Airport Management

Direct supervision of the Airport is exercised by the Aviation Department. Management of the Airport is led by the Director of Aviation Services with 891 full-time equivalent employees as of July 1, 2019. The Director of Aviation Services currently reports to an Assistant City Manager.

Deanna Jonovich, Assistant City Manager, has worked for the City since 2000. Ms. Jonovich previously served as Deputy City Manager. Prior to joining the City Manager's office she was the Human Services Director and has worked in a variety of management positions in the Human Services Department. Prior to joining the City, she was the Community Services Director for four years in Gila County where she assisted with the creation of the first Arizona Fuel Fund to assist low-income individuals and families with utility assistance. Ms. Jonovich has a master's degree in administration and an undergraduate Bachelor of Science in Business Administration, both from Northern Arizona University. Ms. Jonovich remains very active in the community and currently serves on the Arizona Coalition to End Homelessness, Valley of the Sun United Way Hunger Council, Build Arizona Steering Committee, Local Initiative Support Corporation, Maricopa Association of Governments Technical Committee, and Neighborhood Housing Services.

James E. Bennett, Director of Aviation Services, began his current role for the City in October 2015. In a career spanning nearly 35 years, Mr. Bennett has served as President and Chief Executive Officer of the Metropolitan Washington Airports Authority, operating Ronald Reagan Washington National and Washington Dulles International Airports. He also worked in private industry as chief executive officer for the Abu Dhabi Airports Company overseeing five airports within the Emirate of Abu Dhabi and as president of his own consulting firm providing consultation for both foreign and domestic transportation companies. From 1988 to 1996, Mr. Bennett was Phoenix's Assistant Aviation Director assisting with successful community discussions leading to a third runway at Sky Harbor, overseeing the construction and development of Sky Harbor's Terminal 4 and supervising the Airport's finance, engineering, planning and maintenance operations, among other duties. Mr. Bennett has a Bachelor's of Aviation Management degree from Auburn University and a Master of Public Administration degree from the University of Michigan. His numerous professional affiliations include being the former chairman of the American Association of Airport Executives and past president of the Arizona Airports Association. Airports Council International – North America awarded Mr. Bennett with the 2019 Excellence in Visionary Leadership Award. This award recognizes the leadership of an airport CEO who best exemplifies nine core competencies, including people practice expertise, relationship management, consultation, leadership and navigation, communication, global and cultural effectiveness, ethical practice, critical evaluation, and business acumen.

Deborah Ostreicher, Assistant Aviation Director, was appointed to this position in 2015 and has been with the Aviation Department since 1996. In her role as Assistant Aviation Director, she oversees Air Service Development, Human Resources, Contracts and Services, Technology, Planning, Environmental and Public Relations. Prior to joining the airport, Ms. Ostreicher spent a decade working in Europe and the Middle East, holding positions that included Marketing Director for MicroAge Computers Central Europe and Marketing Manager for Prince Charles in London. Ms. Ostreicher serves on a variety of community and industry boards and is currently the incoming Chair of the Arizona Lodging and Tourism Association, Chair of the Tempe Tourism Office and Emeritus board member of New Pathways for Youth. She earned her Bachelor of Science degree at the University of Maryland and her MBA in International Business from the American University in Washington, D.C.

Charlene Reynolds, Assistant Aviation Director, was appointed to this position in September 2017. In her current role she oversees the Business & Properties and Contracts & Services divisions. Previously she was the Deputy Aviation Director for Contracts & Services. Prior to the Aviation Department, Ms. Reynolds served in various other positions with several City Departments including the Street Transportation Department, the Phoenix Convention Center, the Phoenix City Manager's Office and the Community and Economic Development Department. Before she began her employment with the City, Ms. Reynolds held positions at Entranco Engineers and Valley Metro. During her employment with the City, Ms. Reynolds has been awarded two Employee Excellence Awards for her work on the Take Back Your Neighborhood, Prevent Gun Violence and the Community and Engagement Task Force projects. In 2015, she was awarded the Jerome E. Miller Award which recognizes a single employee each year for their overall contributions to the City and their role as a mentor to others. Ms. Reynolds holds a bachelor's degree from the University of Phoenix and a Master of Business Administration degree from the Keller Graduate School of Management at DeVry University.

Sarah Demory, Assistant Aviation Director, was appointed to this position in November 2017. In this role, she oversees Operations, Public Safety Services, General Aviation, and Facilities and Services. Prior to joining the City, Ms. Demory served as Airport Deputy Director for Operations and Security at Boise Idaho Airport, and held positions in operations and emergency management at Seattle-Tacoma International Airport. Ms. Demory has a commercial pilot license and is an Accredited Airport Executive with the AAAE. She is also an AAAE Certified Member, Certified Airport Security Coordinator and Airport Certified Employee — Operations. Ms. Demory holds a Bachelor of Business Administration degree and a Master of Science in Aviation degree from the University of North Dakota.

Brad Holm, Assistant Aviation Director and General Counsel, began his current role in January 2019. Prior to joining the Aviation Department, Mr. Holm served as the Phoenix City Attorney from August 2015 through 2018. Before joining the City, Mr. Holm worked in private practice where he emphasized construction, architect and engineer liability, and environmental matters. Mr. Holm has served as a judge pro tem for Maricopa County Arizona Superior Court and is also an adjunct professor of law at Arizona State University Sandra Day O'Connor College of Law, where he teaches eDiscovery and digital evidence. Mr. Holm holds a Political Science degree and a Juris Doctor degree from Brigham Young University.

Finance Department Management

The City's Finance Department oversees the issuance of debt and performs certain accounting, financing, treasury and related functions for the Airport. The Finance Department is led by the Chief Financial Officer.

Denise Olson, Chief Financial Officer, was appointed Chief Financial Officer in November 2015. Ms. Olson began her career with the City in 1994 in the Finance Department, working as an economist in the Utilities Accounting Division and the Financial Accounting and Reporting Division. She became Deputy Finance Director in 2006, and was promoted to Assistant Finance Director in 2012. Throughout her career she has managed financial planning, financial systems applications and support, procurement, city controller functions, financial accounting and reporting and has been involved in the planning and issuances of debt to fund capital expenditures. Ms. Olson has a bachelor's degree in Business Administration with majors in Human Resources and Economics from New Mexico State University, and a Master of Public Administration degree from Arizona State University. Ms. Olson was named CFO of the Year by the Phoenix Business Journal in November 2018. This award recognizes top executives for their contribution and commitment to the community.

PLAN OF FINANCE*

Series 2019A Junior Bonds

Airport Improvements and Reserve Fund Deposit. A portion of the net proceeds of the Series 2019A Junior Bonds remaining after deduction of issuance costs related to the Series 2019A Junior Bonds and after a deposit to

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* Subject to Change.

the Junior Lien Parity Reserve Fund, will be deposited to a separate account of the Project Fund established under the City Purchase Agreement and used to pay costs, or to reimburse the City for costs, of various improvements at the Airport, consisting primarily of improvements to the PHX Sky Train automated transportation system at Sky Harbor and a police hangar at Phoenix-Deer Valley Airport. Monies held in the Project Fund are not pledged as security for the Series 2019A Junior Bonds or any other Junior Lien Obligation.

Payment of Outstanding Amounts Under Revolving Credit Agreement. The remaining portion of the net proceeds of the 2019A Junior Bonds will be used to prepay $100,000,000 in principal amount of a loan extended on March 28, 2019 (the "*2019 Loan*") under a Revolving Credit Agreement dated September 19, 2017 with Bank of America, N.A. Such outstanding principal amount was used to finance various Airport improvements. The City's obligations under the Revolving Credit Agreement constitute Junior Subordinate Lien Obligations. See "SECURITY AND SOURCES OF PAYMENT — Outstanding Junior Subordinate Lien Obligations."

Series 2019B Junior Bonds

A portion of the net proceeds of the Series 2019B Junior Bonds remaining after deduction of issuance costs related to the Series 2019B Junior Bonds and after a deposit to the Junior Lien Parity Reserve Fund, will be deposited to a separate account of the Project Fund established under the City Purchase Agreement and used to pay costs, or to reimburse the City for costs, of various improvements at the Airport, consisting primarily of improvements to Terminal 3 and Terminal 4 at Sky Harbor and capitalized interest on the Series 2019B Junior Bonds. Monies held in the Project Fund are not pledged as security for the Series 2019B Junior Bonds or any other Junior Lien Obligation.

Taxable Bonds

The net proceeds of the Taxable Bonds remaining after deduction of issuance costs and a deposit to the Junior Lien Parity Reserve Fund, together with certain other legally available funds of the City, will be placed in an irrevocable escrow account (the *"Escrow Account"*) with U.S. Bank National Association, Phoenix, Arizona, as bond trustee and escrow agent (the *"Escrow Agent"*), to be applied to the payment or redemption of the bonds (collectively, the *"Bonds Being Refunded"*) listed below in the Schedule of Maturities and Call Dates of Bonds Being Refunded.

Schedule of Maturities and Call Dates of Bonds Being Refunded*

Issue Series	Maturity Date July 1	Principal Amount Outstanding	Principal Amount Being Refunded	Coupon	Expected Call Date	Call Premium as a Percentage of Principal	Refunded CUSIPs**
Junior Series 2010C	2023	$10,175,000	$10,175,000	5.00%	07/01/20	0.0%	71883MHH0
	2024	10,685,000	10,685,000	5.00	07/01/20	0.0	71883MHJ6
	2025	11,220,000	11,220,000	5.00	07/01/20	0.0	71883MHK3
		$32,080,000	$32,080,000				

The escrow funds held by the Escrow Agent will be used to acquire obligations issued or guaranteed by the United States of America (*"Government Obligations"*) the principal of and interest on which, when due, are

* Subject to change.

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calculated to be sufficient, together with the initial cash balance in the Escrow Account, to provide moneys to pay the principal, premium, if any, and interest to become due on the Bonds Being Refunded. (See "VERIFICATION OF MATHEMATICAL COMPUTATIONS" herein.)

Such Government Obligations will be held by the Escrow Agent irrevocably in trust for the payment of such principal on the Bonds Being Refunded pursuant to the terms of an Escrow Agent Agreement between the City and the Escrow Agent dated as of December 1, 2019 (the *"Escrow Agent Agreement"*). Upon issuance of the Taxable Bonds and the establishment of the Escrow Account, the Bonds Being Refunded will no longer be outstanding under the bond indenture pursuant to which they were issued and will no longer be secured by Designated Revenues.

SOURCES AND APPLICATIONS OF FUNDS

	Junior Lien Airport Revenue Bonds, Series 2019A (Non-AMT)	Junior Lien Airport Revenue Bonds, Series 2019B (AMT)	Junior Lien Airport Revenue Refunding Bonds, Taxable Series 2019C	Total
Sources:				
Par Amount of the Bonds	$	$	$	$
Net Original Issue Premium (Discount)				
Debt Service Reserve Fund and Debt Service Fund for Bonds Being Refunded				
City Contributions				
Total	$	$	$	$
Applications:				
Project Fund for Airport Improvements	$	$	$	$
Project Fund for Capitalized Interest				
Escrow Account for Bonds Being Refunded				
Prepayment of 2019 Loan				
Deposit to Junior Lien Parity Reserve Fund				
Costs of Issuance				
Underwriters' Discount				
Total	$	$	$	$

2019 JUNIOR BONDS

Authorization and Purpose

The Series 2019A Junior Bonds are being issued by the Corporation under the terms of the Indenture for the purpose of (a) prepaying the 2019 Loan, (b) financing additional improvements to the Airport, (c) making a deposit to the Junior Lien Parity Reserve Fund and (d) paying the costs of issuance of the Series 2019A Junior Bonds. The Series 2019B Junior Bonds are being issued by the Corporation under the terms of the Indenture for the purpose of (a) financing additional improvements to the Airport including capitalized interest with respect to the Series 2019B Junior Bonds, (b) making a deposit to the Junior Lien Parity Reserve Fund and (c) paying the costs of issuance of the Series 2019B Junior Bonds. The Taxable Bonds are being issued by the Corporation under the terms of the Indenture for the purpose of (a) refunding the Bonds Being Refunded, (b) making a deposit to the Junior Lien Parity Reserve Fund and (c) paying the costs of issuance of the Taxable Bonds. Payments under the City Purchase Agreement related to debt service on the Series 2019A Junior Bonds are further secured by an irrevocable commitment of the PFC Revenues (as defined herein), to the extent received by the City in each Fiscal Year through and including June 30, 2026 (the *"Commitment Period"*), in an amount equal to 93% of the debt service on the Series 2019A Junior Bonds (the *"Series 2019A Junior Bonds Debt Service"*). See "SECURITY AND SOURCES OF PAYMENT – Pledge of Designated Revenues" and "-Irrevocable Commitment of Passenger Facility Charge Revenues to Debt Service on Certain Junior Bonds."

General Description

The 2019 Junior Bonds will be issued as fully registered bonds, without coupons, in book-entry-only form and will be registered to Cede & Co. as described below under "Book-Entry-Only System." AS LONG AS CEDE & CO. IS THE REGISTERED OWNER OF THE 2019 JUNIOR BONDS, AS NOMINEE OF THE DEPOSITORY TRUST COMPANY ("*DTC*"), REFERENCES HEREIN TO THE OWNERS OF THE 2019 JUNIOR BONDS (OTHER THAN UNDER THE CAPTION "TAX EXEMPTION") WILL MEAN CEDE & CO. AND WILL NOT MEAN THE BENEFICIAL OWNERS OF THE 2019 JUNIOR BONDS. PRINCIPAL, PREMIUM, IF ANY, AND INTEREST PAYMENTS ON THE 2019 JUNIOR BONDS ARE TO BE MADE TO DTC AND ALL SUCH PAYMENTS WILL BE VALID AND EFFECTIVE TO SATISFY FULLY AND TO DISCHARGE THE OBLIGATIONS OF THE CORPORATION AND THE CITY WITH RESPECT TO, AND TO THE EXTENT OF, THE AMOUNTS SO PAID.

The 2019 Junior Bonds will be dated the date of initial authentication and delivery thereof, will bear interest payable semiannually on January 1 and July 1 of each year (each an "*Interest Payment Date*"), commencing July 1, 2020. The 2019 Junior Bonds will bear interest at the rates and will mature on the dates and in the amounts set forth on the inside front cover of this Official Statement. The 2019 Junior Bonds will be delivered in fully registered form in amounts of $5,000 each or any whole multiple thereof (but no 2019 Junior Bond may represent installments of principal maturing on more than one date).

Subject to the provisions contained under the heading "Book-Entry-Only System" below, the principal of and premium, if any, and interest at maturity or redemption on each 2019 Junior Bond will be payable upon presentation and surrender of such 2019 Junior Bond at the designated corporate trust office of the Paying Agent. Interest on each 2019 Junior Bond, other than that due at maturity or redemption, will be paid on each Interest Payment Date by check of said Paying Agent, mailed to the person shown on the bond register of the Corporation maintained by the Registrar as being the registered owner of such 2019 Junior Bond (the "*Owner*") as of the fifteenth day of the month immediately preceding such Interest Payment Date (the "*Regular Record Date*") at the address appearing on said bond register or at such other address as is furnished to the Trustee in writing by such Owner before the fifteenth day of the month prior to such Interest Payment Date.

The Indenture provides that, with the approval of the Corporation, the Registrar and Paying Agent may enter into an agreement with any Owner of $1,000,000 or more in aggregate principal amount of 2019 Junior Bonds, as applicable, providing for making all payments to that Owner of principal of and interest and any premium on those 2019 Junior Bonds or any portion thereof (other than any payment of the entire unpaid principal amount thereof) at a place and in a manner other than as described above, without presentation or surrender of those 2019 Junior Bonds, upon any conditions which shall be satisfactory to the Trustee and the Corporation; provided that without a special agreement or consent of the Corporation, payment of interest on the 2019 Junior Bonds may be made by wire transfer to any Owner of $1,000,000 aggregate principal of 2019 Junior Bonds, upon two days prior written notice to the Trustee specifying a wire transfer address of a bank or trust company in the United States.

If the Corporation fails to pay the interest due on any Interest Payment Date, that interest shall cease to be payable to the person who was the Owner as of the Regular Record Date. When monies become available for payment of the interest, the Registrar will establish a special record date (the "*Special Record Date*") for such payment which will be not more than 15 nor fewer than 10 days prior to the date of the proposed payment and the interest will be payable to the persons who are Owners on the Special Record Date. The Registrar will mail notice of the proposed payment and of the Special Record Date to each Owner.

Book-Entry-Only System

The following information about the book-entry-only system applicable to the 2019 Junior Bonds has been supplied by DTC. None of the Corporation, the City, the Trustee, the Underwriters or the Financial Advisor makes any representations, warranties or guarantees with respect to its accuracy or completeness.

DTC, the world's largest depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("*Direct Participants*") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("*DTCC*"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("*Indirect Participants*" and together with Direct Participants, "*Participants*"). DTC has a rating from Standard & Poor's of AA+. The DTC rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com and www.dtc.org.

Purchases of 2019 Junior Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2019 Junior Bonds on DTC's records. The ownership interest of each actual purchaser of each 2019 Junior Bond ("*Beneficial Owner*") is in turn to be recorded on the Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct Participant or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the 2019 Junior Bonds are to be accomplished by entries made on the books of Direct Participants and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in 2019 Junior Bonds, except in the event that use of the book-entry system for the 2019 Junior Bonds is discontinued.

To facilitate subsequent transfers, all 2019 Junior Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of 2019 Junior Bonds with DTC and their registration in the name of Cede & Co. or such other nominee do not affect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the 2019 Junior Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such 2019 Junior Bonds are credited, which may or may not be the Beneficial Owners. The Direct Participants and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of 2019 Junior Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the 2019 Junior Bonds, such as redemptions, tenders, defaults, and proposed amendments to the 2019 Junior Bond documents. For example, Beneficial Owners of 2019 Junior Bonds may wish to ascertain that the nominee holding the 2019 Junior Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the Trustee and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the 2019 Junior Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the 2019 Junior Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Corporation as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts 2019 Junior Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Redemption proceeds, principal and interest payments on the 2019 Junior Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Corporation or the Trustee, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC nor its nominee, the Corporation or the Trustee, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, principal and interest payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Corporation or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct Participants and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the 2019 Junior Bonds at any time by giving reasonable notice to the Corporation or the Trustee. Under such circumstances, in the event that a successor depository is not obtained, bond certificates are required to be printed and delivered.

The Corporation may decide to discontinue the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, bond certificates will be printed and delivered to DTC.

SO LONG AS CEDE & CO., AS NOMINEE FOR DTC, IS THE SOLE REGISTERED OWNER, THE CORPORATION AND THE TRUSTEE WILL TREAT CEDE & CO. AS THE ONLY OWNER OF THE 2019 JUNIOR BONDS FOR ALL PURPOSES UNDER THE INDENTURE, INCLUDING RECEIPT OF ALL PRINCIPAL OF, REDEMPTION PREMIUM, IF ANY, AND INTEREST ON THE 2019 JUNIOR BONDS, RECEIPT OF NOTICES, VOTING AND REQUESTING OR DIRECTING THE CORPORATION AND THE TRUSTEE TO TAKE OR NOT TO TAKE, OR CONSENTING TO, CERTAIN ACTIONS UNDER SUCH INDENTURE. THE CORPORATION AND THE TRUSTEE HAVE NO RESPONSIBILITY OR OBLIGATION TO THE PARTICIPANTS OR THE BENEFICIAL OWNERS WITH RESPECT TO (A) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC OR ANY PARTICIPANT; (B) THE PAYMENT BY DTC OR ANY PARTICIPANT OF ANY AMOUNT DUE TO ANY BENEFICIAL OWNER WITH RESPECT TO THE PRINCIPAL OF AND INTEREST ON THE 2019 JUNIOR BONDS; (C) THE DELIVERY OR TIMELINESS OF DELIVERY BY DTC OR ANY PARTICIPANT OF ANY NOTICE TO ANY BENEFICIAL OWNER WHICH IS REQUIRED OR PERMITTED UNDER THE TERMS OF THE INDENTURE TO BE GIVEN TO 2019 JUNIOR BONDHOLDERS; (D) THE SELECTION BY DTC OR ANY

PARTICIPANT OR INDIRECT PARTICIPANT OF ANY BENEFICIAL OWNER TO RECEIVE PAYMENT IN THE EVENT OF A PARTIAL REDEMPTION OF THE 2019 JUNIOR BONDS; (E) CONSENTS OR OTHER ACTION TAKEN BY DTC OR CEDE & CO., AS REGISTERED OWNER OR (F) ANY OTHER MATTER.

Redemption Provisions

Optional Redemption — Series 2019A Junior Bonds. The Series 2019A Junior Bonds maturing on or prior to July 1, are not subject to optional redemption prior to maturity. The Series 2019A Junior Bonds maturing on and after July 1, are subject to redemption at the option of the Corporation, as directed by the City, on July 1, and thereafter, in whole or in part at any time, in increments of $5,000, in any order of maturity, as directed by the City, subject to the provisions contained under the heading "Book-Entry-Only System" above, by lot within a maturity, by payment of redemption price for each Series 2019A Junior Bond called for redemption equal to the principal amount thereof plus accrued interest to the date fixed for redemption, without premium.

Optional Redemption — Series 2019B Junior Bonds. The Series 2019B Junior Bonds maturing on or prior to July 1, are not subject to optional redemption prior to maturity. The Series 2019B Junior Bonds maturing on and after July 1, are subject to redemption at the option of the Corporation, as directed by the City, on July 1, and thereafter, in whole or in part at any time, in increments of $5,000, in any order of maturity, as directed by the City, subject to the provisions contained under the heading "Book-Entry-Only System" above, by lot within a maturity, by payment of redemption price for each Series 2019B Junior Bond called for redemption equal to the principal amount thereof plus accrued interest to the date fixed for redemption, without premium.

Optional Redemption — Taxable Bonds. The Taxable Bonds are subject to redemption, in whole or in part, at the option of the Corporation, as directed by the City, in increments of $5,000, in any order of maturity, as directed by the City, at any time or from time to time upon notice as provided in the Indenture, on any date prior to their maturity at a redemption price equal to 100% of the principal amount of such Taxable Bonds plus the Make-Whole Premium, if any, as described below, plus the accrued interest, if any, thereon to the redemption date.

The amount of the Make-Whole Premium with respect to any Taxable Bond to be redeemed will be equal to the excess, if any, of:

(i) the sum of the present values, calculated as of the redemption date, of:

(A) each interest payment that, but for such redemption, would have been payable on the Taxable Bond or portion thereof being redeemed on each interest payment date occurring after the redemption date (excluding any accrued interest for the period prior to the redemption date); and

(B) the principal amounts that, but for such redemption, would have been payable upon mandatory sinking fund redemption and at the final maturity of the Taxable Bond being redeemed; over

(ii) the principal amount of the Taxable Bond being redeemed.

The present values of interest and principal payments referred to in clause (i) above shall be determined in accordance with generally accepted principles of financial analysis. These present values will be calculated by discounting the amount of each payment of interest or principal from the date that each such payment would have been payable, but for the redemption, to the redemption date at a discount rate equal to the "comparable treasury yield" (as defined below) plus basis points. The Make-Whole Premium will be calculated by an independent investment banking institution of national standing appointed by the City (which may be Citigroup Global Markets Inc.). If the City fails to appoint an independent investment banker at least 35 days prior to the redemption date, or if the independent investment banker appointed by the City is unwilling or unable to make the calculation, the calculation will be made by an independent investment banking institution of national standing appointed by the Trustee.

For purposes of determining the Make-Whole Premium, "comparable treasury yield" means a rate of interest per annum equal to the weekly average yield to maturity of United States Treasury Securities that have a constant maturity that corresponds to the remaining term to maturity or mandatory sinking fund payment of the Taxable Bonds, calculated to the nearest 1/12th of a year. The comparable treasury yield will be determined as of a date which is not less than three business days and not more than 20 business days immediately preceding the applicable redemption date.

The weekly average yields of United States Treasury Securities will be determined by reference to the most recent statistical release published by the Federal Reserve Bank of New York and designated "H.15(519) Selected Interest Rates" or any successor release. If the H.15 statistical release sets forth a weekly average yield for United States Treasury Securities having a constant maturity that is the same as the remaining term calculated as set forth above, then the comparable treasury yield will be equal to such weekly average yield. In all other cases, the comparable treasury yield will be calculated by interpolation on a straight-line basis, between the weekly average yields on the United States Treasury Securities that have a constant maturity closest to and greater than the remaining term and the United States Treasury Securities that have a constant maturity closest to and less than the remaining term (in each case as set forth in the H.15 statistical release or any successor release). Any weekly average yields calculated by interpolation will be rounded to the nearest 1/100th of 1%, with any figure of 1/200th of 1% or above being rounded upward. If weekly average yields for United States Treasury Securities are not available in the H.15 statistical release or otherwise, then the comparable treasury yield will be calculated by interpolation of comparable rates selected by an independent investment banker selected in the manner described above.

Mandatory Sinking Fund Redemption. The Series 2019 Junior Bonds maturing on July 1, (the "*Term Bonds*") are subject to mandatory redemption and will be redeemed on July 1 of the respective years set forth below (the "*Sinking Fund Retirement Dates*") and in the amounts set forth below (the "*Sinking Fund Requirements*"), by payment of a redemption price of the principal amount of such Term Bonds called for redemption plus the interest accrued to the date fixed for redemption, but without premium, as follows:

Term Bonds Maturing July 1,

Sinking Fund Retirement Date	Sinking Fund Requirements
*	*

* Maturity

At the option of the Corporation, as directed by the City, whenever Term Bonds are purchased, redeemed (other than pursuant to the foregoing scheduled Sinking Fund Requirement) or delivered by the City or the Corporation to the Paying Agent for cancellation, the principal amount of such Term Bonds so retired will satisfy and be credited against the Sinking Fund Requirement (and the corresponding redemption requirements) relating to such Term Bonds of the same maturity as the Term Bond so purchased, redeemed or delivered in such manner as the City determines; *provided, however*, that following such reduction each Sinking Fund Requirement is an integral multiple of $5,000. Such option must be exercised on or before the 45th day preceding the applicable mandatory Sinking Fund Retirement Date, by furnishing the Paying Agent a certificate setting forth the extent of the credit to be applied with respect to the then current Sinking Fund Requirement. If the certificate is not timely furnished, the Sinking Fund Requirement (and the corresponding redemption requirement) will not be reduced.

Notice of Redemption. When redemption is authorized or required, the Trustee will give the Owners of the 2019 Junior Bonds to be redeemed notice of the redemption of such 2019 Junior Bonds. Such notice will specify (a) that the whole or part of the Bonds are to be redeemed and, if in part, the part to be redeemed; (b) the date of redemption; (c) the place or places where the redemption will be made; and (d) the redemption price to be paid. Any redemption of 2019 Junior Bonds in part will be from such series and maturities as directed by the City and by lot within a maturity in any manner the Trustee deems fair. Notwithstanding the foregoing, no notice of redemption shall be sent unless (i) the Trustee has on deposit sufficient funds to effect such redemption or (ii) the redemption notice states that redemption is contingent upon receipt of such funds on or prior to the redemption date.

Notice of such redemption will be given by mailing a copy of the redemption notice not more than 60 days nor less than 30 days prior to such redemption date, to the Owner of each 2019 Junior Bond subject to redemption in whole or in part at the Owner's address shown on the Register on the fifteenth day preceding that mailing. Neither failure to receive any such notice nor any defect therein will affect the sufficiency of the proceedings for the redemption of the 2019 Junior Bonds with respect to which there is no such defect.

Notice having been given in the manner provided above, the 2019 Junior Bonds or portions thereof called for redemption will become due and payable on the redemption date and if an amount of money sufficient to redeem all the 2019 Junior Bonds and portions thereof called for redemption is held by the Trustee or any paying agent on the redemption date, then the 2019 Junior Bonds or portions thereof to be redeemed will not be considered outstanding under the Indenture and will cease to bear interest from and after such redemption date.

SECURITY AND SOURCES OF PAYMENT

Pledge of Designated Revenues

General. The 2019 Junior Bonds are special revenue obligations of the Corporation payable solely from payments received under the City Purchase Agreement. Under the terms of the City Purchase Agreement, the City is to make payments to the Trustee in amounts sufficient to pay when due the principal of and interest on the 2019 Junior Bonds, fees of the Trustee and all other expenses enumerated in the City Purchase Agreement ("*Purchase Payments*").

Designated Revenues. The Purchase Payments relating to all of the 2019 Junior Bonds are secured by a pledge of the Designated Revenues. The City Purchase Agreement defines the term *"Net Airport Revenues"* to mean Airport Revenues, after provision for payment of all of the Cost of Maintenance and Operation and the term *"Designated Revenues"* to mean Net Airport Revenues, after payments required on any Senior Lien Obligations. Airport Revenues generally include all income and revenue received by the City directly or indirectly from the use and operation of the Airport, except for certain specifically excluded revenues. Airport Revenues also include, among other revenues, rentals, landing fees, use charges, income from sales of services, fuel oil and other supplies or commodities; fees from concessions and parking; fees from rental car, taxi and limousine services (other than customer facility charges such as those relating to Special Purpose Facilities, which are pledged to debt service on obligations incurred for such facilities, until released (to the extent available) to the Airport as Airport Revenues as reimbursement for eligible expenses (*"Recovered Revenue"*)); advertising revenues; and receipts derived from leases or other contractual agreements relating to the use of the Airport. Passenger Facility Charges, federal subsidy payments related to the Series 2010B Junior Bonds (as defined herein) (*"2010 RZEDB Subsidy Payments"*), federal grants and special facility revenues (such as customer facility charges relating to Special Purpose Facilities which remain pledged to debt service on obligations incurred for such facilities and do not represent Recovered Revenues) are specifically excluded from Airport Revenues. *"Cost of Maintenance and Operation"* generally includes all expenses (exclusive of depreciation and interest on money borrowed) which are necessary to the efficient maintenance and operation of the Airport. For a complete description of the irrevocable commitments of Passenger Facility Charges to payment of debt service on certain Junior Lien Obligations, see "Irrevocable Commitment of Passenger Facility Charge Revenues to Debt Service on Certain Junior Bonds" below. For complete definitions of Airport Revenues and Cost of Maintenance and Operation see "APPENDIX F — Summary of Certain Provisions of Legal Documents

—Certain Definitions.” The Purchase Payments to be made under the City Purchase Agreement will be, with respect to the Designated Revenues, (a) junior to the Senior Lien Obligations presently outstanding in the aggregate principal amount of $757,575,000 and (b) on a parity with Junior Lien Obligations presently outstanding in the aggregate principal amount of $652,955,000 (including the Bonds Being Refunded).

Irrevocable Commitment of Passenger Facility Charge Revenues to Debt Service on Certain Junior Bonds

Passenger Facility Charge Revenues. Debt service on the Junior Lien Obligations set forth in the Schedule of Outstanding and Offered Junior Bonds Supported by PFC Revenues below is further secured by an irrevocable commitment of net proceeds of a passenger facility charge (*“Passenger Facility Charge”*) imposed by the City and collected on behalf of the City by non-exempt passenger air carriers at Sky Harbor in the amounts and for the periods set forth below. The Passenger Facility Charge is currently imposed at the rate of $4.50 per qualifying enplaned passenger, and is required to be remitted to the City less the compensation (i.e. any accrued interest prior to remittance and $0.11 per Passenger Facility Charge collected) that air carriers are permitted to deduct prior to remittance. Such remittances, to the extent received in each Fiscal Year plus interest thereon, are referred to herein as *“PFC Revenues.”* See “Flow of Funds — Application of PFC Revenues.” Any of the Junior Lien Obligations described below not paid on payment dates on or before July 1, 2026 by PFC Revenues received during the Commitment Period would then be payable from Designated Revenues on a parity with any Junior Lien Obligations which may be outstanding.

Schedule of Outstanding and Offered Junior Bonds
Supported by PFC Revenue

Junior Series	Principal Amount Outstanding	Percent of Debt Service Secured	Commitment Period End Date(1)
2010A	$ 16,025,000	100%	June 30, 2026
2010B	21,345,000	100	June 30, 2026
2015A	90,125,000	30	June 30, 2026
2015B	18,655,000	100	June 30, 2026
2017D	474,725,000	100	June 30, 2026
2019A	337,000,000*	93	June 30, 2026

(1) Unless extended by the City, in its discretion, by written direction to the Trustee. PFC Revenues received during this period may be applied to debt service due on or before July 1, 2026.

Applicable Laws and the City’s Passenger Facility Charge Program. For a description of the laws relating to Passenger Facility Charges and the City’s Passenger Facility Charge Program, see “AIRPORT FINANCIAL INFORMATION — Passenger Facility Charge Program,” herein.

Investment Considerations. For a description of certain risks relating to the City’s Passenger Facility Charge Program, see “CERTAIN BONDHOLDERS’ RISKS — Certain Risks and Covenants Relating to the Amount and Timing of Receipt of Passenger Facility Charges.”

Irrevocable Commitment of 2010 RZEDB Subsidy Payments to Interest on Certain Junior Bonds

The interest requirements for the Corporation’s Junior Lien Airport Revenue Bonds, Taxable Series 2010B (Recovery Zone Economic Development Bonds-Direct Payment) (the *“Series 2010B Junior Bonds”*) are further secured by an irrevocable commitment of the 2010 RZEDB Subsidy Payments (as defined herein) through the final maturity of the Series 2010B Junior Bonds. The Corporation and the City expect to receive 2010 RZEDB Subsidy Payments rebating forty-five percent of the interest on the Series 2010B Junior Bonds, subject to

* Subject to change.

adjustments described below, from the United States Treasury, provided that the Corporation and the City comply with certain Code requirements. Any such cash subsidy payments received by the Corporation or the City will be deposited directly to the Series 2010B Interest Subaccount of the 2010 PFC Interest Account of the PFC Revenue Fund and will not constitute Airport Revenues. Effective October 1, 2013, the federal government implemented certain automatic budget cuts known as the sequester, which resulted in a reduction of the federal subsidy over the past several years. The reduction is 6.2% for the federal government's fiscal year ending September 30, 2019 and 5.9% for the federal government's fiscal year ending September 30, 2020 (the *"Sequester Reductions"*). The City does not expect the Sequester Reductions to have a material adverse effect on its ability to pay the interest requirements of the Series 2010B Junior Bonds.

Certain Covenants and Remedies

Covenants and agreements contained in the Airport Revenue Bond Ordinance are incorporated by reference in the City Purchase Agreement and are applicable to the 2019 Junior Bonds. The Trustee and the Corporation, as their respective interests appear, have the right to enforce these covenants and agreements. The City may, but is not required to, pay amounts due under the City Purchase Agreement from unrestricted grant money and other moneys available to the Airport, which are not included in the definition of Airport Revenues ("*Other Available Funds*"). For a discussion of certain financial covenants which the City has entered into with respect to the Airport, see "SECURITY AND SOURCES OF PAYMENT — Rate Covenants," "— Additional Senior Lien Obligations" and "— Additional Junior Lien Obligations" and "APPENDIX F — Summary of Certain Provisions of Legal Documents — The Airport Revenue Bond Ordinance."

During the term of the City Purchase Agreement, payments are to be made regardless of damage to the Airport or commercial frustration of purpose, without right of set-off or counterclaim, regardless of any contingencies and whether or not the City possesses or uses the Airport. The City's obligation to make Purchase Payments will continue until all Purchase Payments and all other amounts due under the City Purchase Agreement have been paid or otherwise provided for.

The obligation of the City to make Purchase Payments under the City Purchase Agreement does not constitute a debt or a pledge of the full faith and credit of the City, the State of Arizona or any other political subdivision thereof. The City has not pledged any form of ad valorem taxes to the payment of the 2019 Junior Bonds. The 2019 Junior Bonds are special revenue obligations of the Corporation secured only by the Purchase Payments which are to be paid from a pledge of the Designated Revenues and with respect to the Series 2019A Junior Bonds, an irrevocable commitment of the PFC Revenues received in each Fiscal Year during the Commitment Period in an amount equal to 93% of the Series 2019A Junior Bonds Debt Service due on or before July 1, 2026. The Purchase Payments are not secured by a lien of the Airport or any portion thereof. For a description of events of default and remedies under the City Purchase Agreement, see "APPENDIX F — Summary of Certain Provisions of Legal Documents."

Rate Covenants

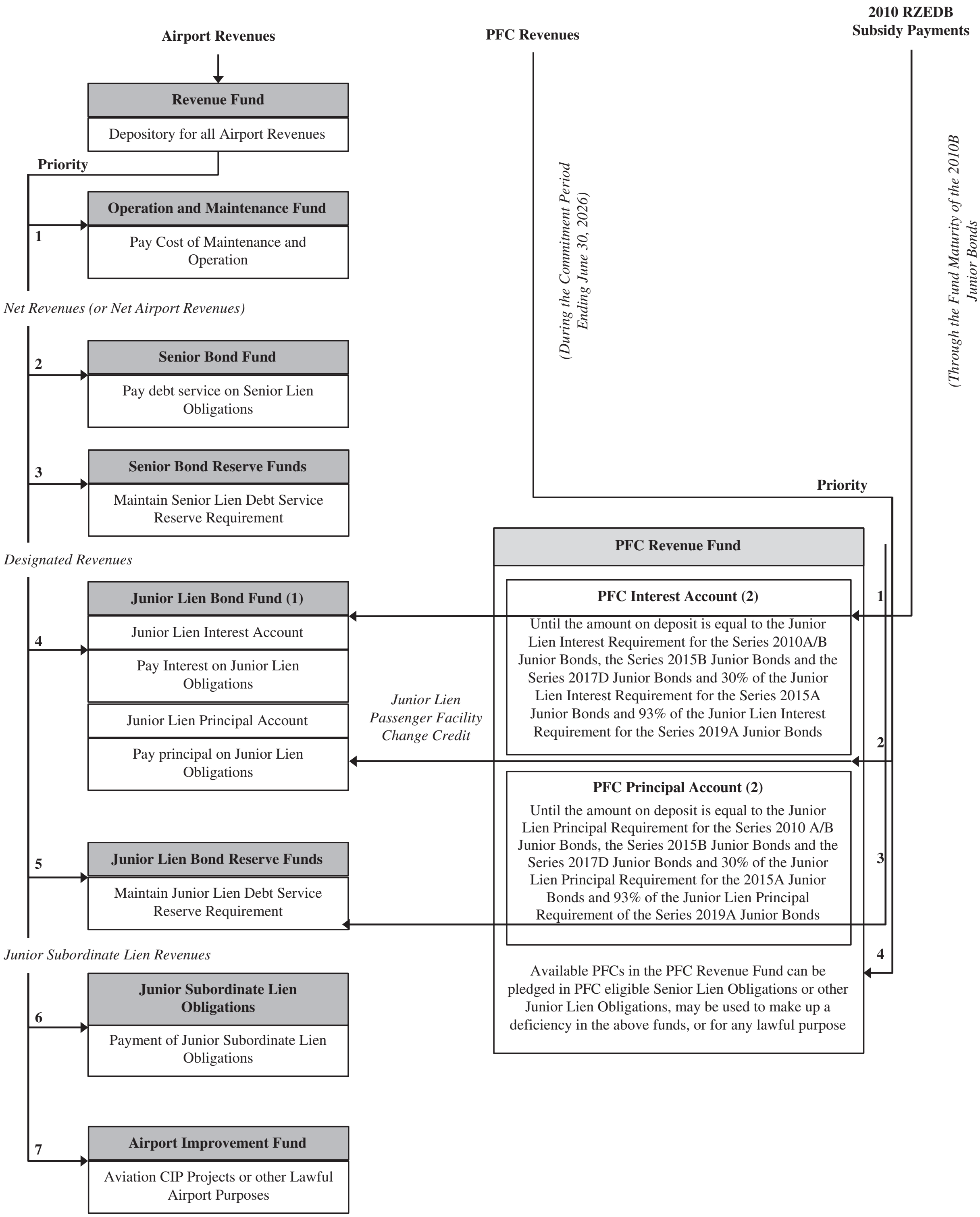
Junior Lien Rate Covenant. Pursuant to the Airport Revenue Bond Ordinance and the Junior Lien Obligation Documents, including the City Purchase Agreement, the City has covenanted to continuously maintain the Airport in good condition and operate the same in a proper and economical manner and on a revenue-producing basis, and will in each Fiscal Year establish, maintain and enforce schedules of rates, fees and charges for the use of the Airport (a) sufficient to produce Designated Revenues at least equal to 110% of the annual debt service requirements of Junior Lien Obligations (net of Other Available Funds deposited in the Bond Fund in such Fiscal Year and net of any Junior Lien Passenger Facility Charge Credit applicable, including the 2019 Junior Bonds, in such Fiscal Year) and (b) sufficient to produce any required payments to the Junior Lien Bond Reserve Fund or any separate reserve fund for such Fiscal Year. The City and the Corporation have irrevocably committed the 2010 RZEDB Subsidy Payments to the interest requirements of the Series 2010B Junior Bonds. "*Junior Lien Passenger Facility Charge Credit*" means the amount of principal of and/or interest to come due on specified Junior Lien Obligations during any Fiscal Year to which Passenger Facility Charges, state and/or federal grants or other moneys have received all required governmental approvals and have been irrevocably committed or are held in the Junior Lien Bond Fund or otherwise in trust by or on behalf of the Paying Agent and are to be set aside exclusively to be used to pay Junior Lien Interest Requirements and/or Junior Lien Principal Requirements on such specified Junior Lien Obligations, during the period of such commitment (unless such Passenger Facility Charges, state and/or federal grants or other moneys are subsequently included in the definition of Airport Revenues). **The City has irrevocably committed the PFC Revenues in the amounts and for the periods set forth in the Schedule of Outstanding Junior Bonds Supported by PFC Revenues above. See "Passenger Facility Charge Revenues" below. Such irrevocable commitments constitute a Junior Lien Passenger Facility Charge Credit (collectively, the *"2010-2019 Junior Lien Passenger Facility Charge Credits"*).** See "APPENDIX F — Summary of Certain Legal Documents — The City Purchase Agreement."

Senior Lien Rate Covenant. Pursuant to the Airport Revenue Bond Ordinance, the other Senior Lien Obligation Documents, and the City Purchase Agreement, the City has covenanted to continuously maintain the Airport in good condition and operate the same in a proper and economical manner and on a revenue-producing basis, and will in each Fiscal Year establish, maintain and enforce schedules of rates, fees and charges for the use of the Airport (i) sufficient to produce Net Airport Revenues at least equal to 125% of the annual debt service requirements of Senior Lien Obligations (net of Other Available Funds deposited in the Bond Fund in such Fiscal Year and net of any Passenger Facility Charge Credit applicable to Senior Lien Obligations) in such Fiscal Year and (ii) sufficient to produce any required payments to any debt service reserve fund established for Senior Lien Obligations, including the Senior Lien Parity Reserve Fund (as defined herein), for such Fiscal Year. "*Passenger Facility Charge Credit*" means the amount of principal of and/or interest to come due on specified Senior Lien Obligations during any Fiscal Year to which Passenger Facility Charges, state and/or federal grants or other moneys have received all required governmental approvals and have been irrevocably committed or are held in the Bond Fund or otherwise in trust by or on behalf of the Paying Agent and are to be set aside exclusively to be used to pay Interest Requirements and/or Principal Requirements on such specified Senior Lien Obligations, during the period of such commitment (unless such Passenger Facility Charges, state and/or federal grants or other moneys are subsequently included in the definition of Airport Revenues). There are currently no Senior Lien Obligations to which Passenger Facility Charges have been irrevocably committed. See "APPENDIX F — Summary of Certain Provisions of Legal Documents — The Airport Revenue Bond Ordinance — Section 4.3 Rate Covenant" and "— The City Purchase Agreement."

Flow of Funds

General. The application of Airport Revenues is governed by the Airport Revenue Bond Ordinance and the City Purchase Agreement. Such documents provide that so long as any Senior Lien Obligations or Junior Lien Obligations remain outstanding, all Airport Revenues shall be deposited as collected into a fund designated the "*Revenue Fund*" held by the City separate and apart from all other funds of the City. The following figure depicts the flow of funds under the Airport Revenue Bond Ordinance, the Senior Lien Obligation Documents and the Junior Lien Obligation Documents and the application of Airport Revenues, PFC Revenues and 2010 RZEDB Subsidy Payments:

Application of Revenues, PFC Revenues and 2010 RZEDB Subsidy Payments Under Airport Revenue Bond Ordinance and City Purchase Agreement



(1) PFC Revenues will be transferred to the 2010 Junior Lien Bond Reserve Fund, the Junior Lien Parity Reserve Fund and the 2015B Junior Lien Bond Reserve Fund to the extent amounts have been withdrawn to pay debt service on the Junior Lien Airport Revenue Bonds, Series 2010A (the "*Series 2010A Junior Bonds*"), the Series 2010B Junior Bonds, the Junior Lien Airport Revenue Bonds, Series 2015A (the "*Series 2015A Junior Bonds*"), the Junior Lien Airport Revenue Refunding Bonds, Series 2015B (the "*Series 2015B Junior Bonds*") and the Junior Lien Airport Revenue Refunding Bonds, Series 2017D (the "*Series 2017D Junior Bonds*") and the Series 2019A Junior Bonds, respectively.

(2) The PFC Interest Account and PFC Principal Account are accounts within the PFC Revenue Fund. Additionally, there is a Series 2010B Interest Subaccount of the PFC Interest Account where 2010 RZEDB Subsidy Payments are deposited for payment of interest on the Series 2010B Junior Bonds.

As set forth in the figure above, all monies in the Revenue Fund are to be transferred by the City to the following funds in the order listed:

(a) From time to time to the Operation and Maintenance Fund sufficient monies to pay Cost of Maintenance and Operation;

(b) Monthly to the Senior Bond Fund, (i) into the Principal Account amounts equal to one-twelfth of the next succeeding principal requirement (whether at maturity or pursuant to a sinking fund redemption requirement) on all Senior Lien Obligations, and (ii) into the Interest Account amounts equal to one-sixth of the next succeeding interest requirement, on all Senior Lien Obligations. Monies in the Bond Fund are to be transferred by the City to the respective paying agents for Senior Lien Obligations, at least one business day before each debt service payment is required to be made on the Senior Lien Obligations.

(c) From time to time to each separate or parity bond reserve fund established for Senior Lien Obligations (each, a "*Senior Lien Obligation Bond Reserve Fund*"), amounts then required to be deposited to such Senior Lien Obligation Bond Reserve Funds; provided that such deposits may be transferred to a Credit Facility in order to reimburse such Credit Facility for amounts paid out under any insurance policy or surety bond securing any of the Senior Lien Obligations. See "BOND RESERVE FUNDS — Senior Lien Obligation Bond Reserve Funds" for a discussion of such funds.

(d) Monthly to the Junior Lien Bond Fund, (i) into the Junior Lien Principal Account amounts equal to one-twelfth of the next succeeding principal requirements (whether at maturity or pursuant to a mandatory sinking fund redemption requirement) for the next succeeding principal payment date for Junior Lien Obligations and (ii) into the Junior Lien Interest Account amounts equal to one-sixth of the interest requirements for the next succeeding interest payment date for Junior Lien Obligations, in each case less any amounts to which an irrevocable commitment from another funding source has been made.

(e) From time to time into any reserve fund established for Junior Lien Obligations (each, a "*Junior Lien Obligation Bond Reserve Fund*"), amounts then required to be deposited therein under the terms of the Junior Lien Obligation Documents, provided that such deposits may be transferred to a credit facility provider for Junior Lien Obligations in order to reimburse such credit facility provider for amounts paid out under any insurance policy or surety bond securing any of the Junior Lien Obligations and related costs. See "BOND RESERVE FUNDS — Junior Lien Obligation Bond Reserve Funds" for more details.

(f) From time to time to such funds, as and to the extent required with respect to Junior Subordinate Lien Obligations.

(g) From time to time to the Airport Improvement Fund such funds as the City chooses to deposit therein. Amounts in the Airport Improvement Fund may be used for any lawful airport purpose including, but not limited to, the payment of other obligations of the City relating to the Airport.

Each of the above-referenced funds is created as a separate fund and, other than the Senior Lien Obligation Reserve Funds and the Junior Lien Obligation Bond Reserve Funds, is held by the City.

For a more complete discussion of the general flow of funds see "APPENDIX F — Summary of Certain Provisions of Legal Documents — The Airport Revenue Bond Ordinance" and "— The City Purchase Agreement."

2019 Junior Lien Bond Fund. Pursuant to the Indenture, the Trustee will create the 2019 Junior Lien Bond Fund which will contain the 2019 Principal Account, the 2019 Interest Account and the 2019 Redemption Account. So long as any 2019 Junior Bonds are outstanding, the Trustee will deposit the Purchase Payments transferred to it by the City from the Interest Account and Principal Account of the Bond Fund held by the City and established under the Airport Revenue Bond Ordinance into the 2019 Interest Account and the 2019 Principal Account, respectively, of the 2019 Junior Lien Bond Fund held by the Trustee. The portion of the Purchase Payments deposited into the 2019 Principal Account will be used by the Trustee to pay the next succeeding principal payment (whether at maturity or pursuant to a sinking fund redemption requirement) on the 2019 Junior Bonds and the portion of the Purchase Payments deposited in the 2019 Interest Account will be used by the Trustee to pay the next succeeding interest payment on the 2019 Junior Bonds.

If all required deposits to the debt service funds for all Junior Lien Obligations and to all of the Junior Lien Obligation Bond Reserve Funds, as discussed below, have been made and the City makes an optional prepayment of its Purchase Payments to be used to purchase or redeem 2019 Junior Bonds, such optional prepayment shall be deposited in the 2019 Redemption Account and promptly applied by the Trustee to retire 2019 Junior Bonds by purchase, redemption or both in accordance with the City's direction. Any balance remaining in the 2019 Redemption Account after the purchase or redemption of the 2019 Junior Bonds in accordance with the City's direction shall be transferred to the City.

For a more complete description of the 2019 Junior Lien Bond Fund and the use thereof see "APPENDIX F — Summary of Certain Provisions of Legal Documents — The Indenture."

Bond Reserve Funds

Senior Lien Obligation Bond Reserve Funds. The Airport Revenue Bond Ordinance and the Senior Lien Obligation Documents require that the City establish a bond reserve fund with respect to each concurrent issuance of Senior Lien Obligations in an amount equal to the applicable Debt Service Reserve Requirement. The Debt Service Reserve Requirement for each series of Senior Lien Obligations may be satisfied by a deposit into a Senior Lien Parity Reserve Fund established by the Airport Revenue Bond Ordinance and the Senior Lien Obligation Documents, which may secure the payment of additional series of additional Senior Lien Obligations, or into a separate Senior Lien Obligation Bond Reserve Fund securing the payment of only the series of Senior Lien Obligations being issued or incurred. Bond Reserve Funds have been established for Outstanding Senior Lien Obligation Bonds as set forth in the following table.

Table 1
Senior Lien Obligation Bond Reserve Funds

Senior Lien Obligation Bond Series	Funding Type	Value Credited to the Debt Service Reserve Requirement As of 09-01-19
Series 2013(1)	Cash and Permitted Investments on Deposit with Trustee	$16,250,750.00
Series 2017A, Series 2017B, Series 2017C and Series 2018 (Senior Lien Parity Reserve Fund)(2)	Cash and Permitted Investments on Deposit with Trustee	$47,239,514.37

(1) Represents a separate 2013 Senior Lien Bond Reserve Fund securing the payment of only Series 2013 Senior Lien Obligations.

(2) The Senior 2017A, 2017B, 2017C and 2018 Bonds are secured by the Senior Lien Parity Reserve Fund. At the direction of the City, without notice to or consent of the owners of the Senior Lien Obligations secured thereby, the Senior Lien Parity Reserve Fund may secure additional Senior Lien Obligations and the Senior Lien Parity Debt Service Reserve Requirement may be modified to the extent necessary to reflect on an aggregate basis the principal amount and annual debt service requirements of the Senior Lien Obligations to be secured by the Senior Lien Parity Reserve Fund.

Junior Lien Obligation Bond Reserve Funds. The Airport Revenue Bond Ordinance permits the City to, and the Junior Lien Obligation Documents require that, the City establish a bond reserve fund with respect to each concurrent issuance of Junior Lien Obligations in an amount equal to the applicable Debt Service Reserve Requirement. The Debt Service Reserve Requirement for each series of Junior Lien Obligations may be satisfied by a deposit into a Junior Lien Parity Reserve Fund established by the Airport Revenue Bond Ordinance and the Junior Lien Obligation Documents, which may secure the payment of additional series of additional Junior Lien Obligations, or into a separate Junior Lien Obligation Bond Reserve Fund securing the payment of only the series of Junior Lien Obligations being issued or incurred. Bond reserve funds will have been established for Outstanding Junior Lien Obligations as set forth in the following table.

Table 2
Junior Lien Obligation Bond Reserve Funds

Junior Lien Obligation Series	Funding Type	Value Credited to the Debt Service Reserve Requirement As of 09-01-19
Series 2010A, Series 2010B, and Series 2010C(1)	Cash and Permitted Investments on Deposit with Trustee	$ 8,855,134
Series 2015A and Series 2017D (Junior Lien Parity Reserve Fund)(2)	Cash and Permitted Investments on Deposit with Trustee	43,673,107
Series 2015B(3)	Cash and Permitted Investments on Deposit with Trustee	1,865,500

(1) Represents a separate 2010 Junior Lien Obligation Bond Reserve Fund securing the payment of only such Series 2010A, Series 2010B and Series 2010C Junior Lien Obligations. Includes amounts to be transferred to the Escrow Account for the Bonds Being Refunded, estimated to be $5,118,134.

(2) At the direction of the City, without notice to or consent of the owners of the Series 2015A Junior Bonds, the Series 2017D Junior Bonds or the 2019 Junior Bonds, the Junior Lien Parity Reserve Fund may secure additional Junior Lien Obligations and the Junior Lien Parity Debt Service Reserve Requirement may be modified to the extent necessary to reflect on an aggregate basis the principal amount and annual debt service requirements of the Junior Lien Obligations to be secured by the Junior Lien Parity Reserve Fund. Does not include amounts to be deposited at closing on behalf of the 2019 Junior Bonds, estimated to be $55,380,781.

(3) Represents a separate 2015B Junior Lien Obligation Bond Reserve Fund securing the payment of the Series 2015B Junior Bonds.

Outstanding Senior Lien Obligations

As of September 1, 2019, $757,575,000 in principal amount of the Corporation's Senior Lien Airport Revenue Bonds are outstanding, as shown on the following table, which are senior to the City's obligations under the City Purchase Agreement.

Table 3
City of Phoenix Civic Improvement Corporation
Senior Lien Airport Revenue Bonds Outstanding

Issue Date	Original Issuance	Purpose	Maturity Dates	Average Interest Rate	Bonds Outstanding As of 09-01-19
03-15-13	$196,600,000	Airport Improvements Refunding	07-01-14/32	4.99%	$152,620,000
11-21-17	190,930,000	Airport Improvements	07-01-18/47	5.00	186,095,000
11-21-17	173,440,000	Airport Improvements Refunding	07-01-21/38	5.00	173,440,000
11-21-17	35,745,000	Airport Improvements Refunding	07-01-18/21	1.99	21,190,000
11-28-18	226,180,000	Airport Improvements Refunding	07-01-19/48	4.87	224,230,000
Total Senior Lien Airport Revenue Bonded Debt Outstanding					$757,575,000

Schedule of Senior Lien Obligations Annual Debt Service Requirements

Fiscal Year	Principal	Interest	Total
2019-20	$ 31,575,000	$ 37,051,718	$ 68,626,718
2020-21	23,800,000	35,965,377	59,765,377
2021-22	24,855,000	34,910,000	59,765,000
2022-23	24,455,000	33,667,250	58,122,250
2023-24	25,690,000	32,444,500	58,134,500
2024-25	26,970,000	31,160,000	58,130,000
2025-26	28,325,000	29,811,500	58,136,500
2026-27	29,735,000	28,395,250	58,130,250
2027-28	31,225,000	26,908,500	58,133,500
2028-29	32,780,000	25,347,250	58,127,250
2029-30	34,425,000	23,708,250	58,133,250
2030-31	36,145,000	21,987,000	58,132,000
2031-32	37,955,000	20,179,750	58,134,750
2032-33	23,600,000	18,282,000	41,882,000
2033-34	24,785,000	17,102,000	41,887,000
2034-35	26,025,000	15,862,750	41,887,750
2035-36	27,325,000	14,561,500	41,886,500
2036-37	28,685,000	13,195,250	41,880,250
2037-38	30,120,000	11,761,000	41,881,000
2038-39	16,650,000	10,255,000	26,905,000
2039-40	17,480,000	9,422,500	26,902,500
2040-41	18,355,000	8,548,500	26,903,500
2041-42	19,275,000	7,630,750	26,905,750
2042-43	20,240,000	6,667,000	26,907,000
2043-44	21,250,000	5,655,000	26,905,000
2044-45	22,280,000	4,622,500	26,902,500
2045-46	23,365,000	3,538,500	26,903,500
2046-47	24,505,000	2,400,250	26,905,250
2047-48	25,700,000	1,205,000	26,905,000
	$757,575,000	$532,245,845	$1,289,820,845

Additional Senior Lien Obligations

The Airport Revenue Bond Ordinance and the City Purchase Agreement provide that additional Senior Lien Obligations may be issued if (1) an officer of the City shall certify that either the Net Airport Revenues of the most recently completed fiscal year for which audited financial statements are available or the Net Airport Revenues for 12 consecutive months out of the most recent 18 calendar months, in each case together with Other Available Funds deposited to the Bond Fund during such period (a) were equal to at least 125% of the actual debt service on outstanding Senior Lien Obligations during such period and (b) would have been at least equal to 120% of Maximum Annual Debt Service for all Senior Lien Obligations to be outstanding, including the obligations proposed to be issued, and (2) a Consultant provides a report which projects that Net Airport Revenues in each fiscal year will equal at least 125% of the debt service on Senior Lien Obligations to be outstanding, including the obligations proposed to be issued, which report addresses the period of time beginning with the first full fiscal year following the issuance of the Senior Lien Obligations through the later of (a) three fiscal years following the expected date of completion of the proposed project or (b) five fiscal years following the issuance of the Senior Lien Obligations. In making such projections, the Consultant's report may reduce assumed senior lien debt service by applying a Passenger Facility Charge Credit, if applicable. Under the City Purchase Agreement, Other Available Funds deposited to the Bond Fund are not taken into account for purposes of clause (1) in the preceding sentence. Additionally, Senior Lien Obligations may be issued for refunding purposes without compliance with any of the foregoing financial tests if Maximum Annual Debt Service immediately after issuance of the refunding obligations is not greater than 110% of Maximum Annual Debt Service immediately prior to such issuance. See "SECURITY AND SOURCE OF PAYMENT — Rate Covenants;" and "APPENDIX F — Summary of Certain Provisions of Legal Documents — The Airport Revenue Bond Ordinance."

For additional information on planned additional Senior Lien Obligations, see "AIRPORT FINANCIAL INFORMATION — Aviation Capital Improvement Program."

Outstanding Junior Lien Obligations

As of September 1, 2019, there are $652,955,000 principal amount of the Corporation's Junior Lien Airport Revenue Bonds outstanding, as shown in the following table which are on a parity with the City's obligations under the City Purchase Agreement.

Table 4
City of Phoenix Civic Improvement Corporation
Junior Lien Airport Revenue Bonds Outstanding

Issue Date	Original Issuance	Purpose	Maturity Dates	Average Interest Rate	Bonds Outstanding as of 09-01-19
09-01-10	$642,680,000	Airport Improvements	07-01-13/20	4.99%	$ 16,025,000(1)
09-01-10	21,345,000	Airport Improvements	07-01-40	6.60	21,345,000(1)(2)
09-01-10	32,080,000	Airport Refunding	07-01-23/25	5.00	32,080,000(3)
12-15-15	95,785,000	Airport Improvements	07-01-16/45	4.87	90,125,000(4)
12-15-15	18,655,000	Airport Refunding	07-01-34	5.00	18,655,000(1)
12-21-17	474,725,000	Airport Refunding	07-01-21/40	4.67	474,725,000(1)
Total Junior Lien Airport Revenue Bonded Debt Outstanding					$652,955,000

(1) 100% of Debt Service due on or before July 1, 2026 on these bonds is also currently secured by an irrevocable commitment of PFC Revenues.

(2) Subject to the City's compliance with certain requirements of the Code, the City expects to receive 2010 RZEDB Subsidy Payments rebating a portion of the interest on these bonds from the United States Treasury in an amount equal to 45% of the interest payable each respective interest payment date. Effective October 1, 2013, the federal government implemented Sequester Reductions, which has most recently resulted in a reduction of the federal subsidy payments by 6.2% for the federal government's fiscal year ending September 30, 2019 and 5.9% for the federal government's fiscal year ending September 30, 2020. The City does not expect the Sequester Reductions to have a material adverse effect on its ability to make payments of interest on the Series 2010B Junior Bonds.

(3) Represents the Bonds Being Refunded.

(4) 30% of Debt Service due on or before July 1, 2026 on these bonds is also secured by an irrevocable commitment of the PFC Revenues.

Schedule of Junior Lien Obligations Annual Debt Service Requirements(1)

Fiscal Year	Principal	Interest	Total
2019-20	$ 17,805,000	$ 31,766,251	$ 49,571,251
2020-21	17,545,000	30,917,776	48,462,776
2021-22	18,420,000	30,040,526	48,460,526
2022-23	29,515,000	29,119,527	58,634,527
2023-24	30,990,000	27,643,776	58,633,776
2024-25	32,545,000	26,094,276	58,639,276
2025-26	22,395,000	24,467,026	46,862,026
2026-27	23,510,000	23,347,277	46,857,277
2027-28	24,690,000	22,171,776	46,861,776
2028-29	25,920,000	20,937,276	46,857,276
2029-30	27,215,000	19,641,276	46,856,276
2030-31	28,570,000	18,280,527	46,850,527
2031-32	30,015,000	16,852,026	46,867,026
2032-33	31,510,000	15,351,276	46,861,276
2033-34	31,740,000	13,775,777	45,515,777
2034-35	34,565,000	12,368,120	46,933,120
2035-36	36,290,000	10,639,870	46,929,870
2036-37	38,090,000	8,843,820	46,933,820
2037-38	39,970,000	6,958,520	46,928,520
2038-39	41,595,000	5,337,320	46,932,320
2039-40	43,280,000	3,649,920	46,929,920
2040-41	4,845,000	1,339,000	6,184,000
2041-42	5,090,000	1,096,750	6,186,750
2042-43	5,345,000	842,250	6,187,250
2043-44	5,610,000	575,000	6,185,000
2044-45	5,890,000	294,500	6,184,500
	$652,955,000	$402,351,439	$1,055,306,439

(1) Includes debt service on the Bonds Being Refunded, but excludes debt service on the 2019 Junior Bonds.

Additional Junior Lien Obligations

The Airport Revenue Bond Ordinance and the City Purchase Agreement provide that additional Junior Lien Obligations may be issued if either (1) an officer of the City shall certify that either the Designated Revenues of the most recently completed fiscal year for which audited financial statements are available or the Designated Revenues for 12 consecutive months out of the most recent 24 calendar months, (a) were equal to at least 110% of the actual debt service on outstanding Junior Lien Obligations during such period and (b) would have been at least equal to 110% of Maximum Annual Junior Lien Debt Service for all Junior Lien Obligations to be outstanding, including the obligations proposed to be issued, or (2) a Consultant provides a report which projects that Designated Revenues in each Fiscal Year will equal at least 110% of the debt service on Junior Lien Obligations to be outstanding, including the obligations proposed to be issued, which report addresses the period of time beginning with the first full fiscal year following the issuance of the Junior Lien Obligations through the later of (a) three fiscal years following the expected date of completion of the proposed project or (b) five fiscal years following the issuance of the Junior Lien Obligations. In making such projections, the Consultant's report may reduce assumed senior lien debt service and junior lien debt service by applying a Passenger Facility Charge Credit or a Junior Lien Passenger Facility Charge Credit, if applicable, including the 2010/2019 Junior Lien Passenger Facility Charge Credits. Additionally, Junior Lien Obligations may be issued for refunding purposes without compliance with any of the foregoing financial tests if certain other conditions are met. See "APPENDIX F — Summary of Certain Provisions of Legal Documents — The City Purchase Agreement."

For information on planned additional Junior Lien Obligations see "AIRPORT FINANCIAL INFORMATION — Aviation Capital Improvement Program."

Outstanding Junior Subordinate Lien Obligations

The City entered into a Revolving Credit Agreement dated September 19, 2017 (the "*Revolving Credit Agreement*") with the Bank of America, N.A. (the "*Credit Agreement Provider*") in order to refinance certain airport commercial paper notes. The initial loans extended under the Revolving Credit Agreement were refinanced with proceeds of the Corporation's Senior Lien Airport Revenue Bonds, Series 2017A and Series 2018, respectively. The City obtained a subsequent loan described in the table below. The Revolving Credit Agreement provides for a three-year loan period, ending on September 18, 2020 (the "*Credit Commitment Period*"), during which the City may borrow, repay and re-borrow amounts, but not exceeding $200,000,000 outstanding in the aggregate at any one time (each a "*Loan*"). Loans made under the Revolving Credit Agreement (such loans, together with any obligations on a parity therewith, the "*Junior Subordinate Lien Obligations*") will be payable from Designated Revenues, junior and subordinate to the Junior Lien Obligations ("*Junior Subordinate Lien Revenues*"). Upon application of the proceeds of the 2019 Junior Bonds, there will be no amounts outstanding under the Revolving Credit Agreement or any other Junior Subordinate Lien Obligations outstanding. If the City elects to borrow additional amounts under the Revolving Credit Agreement that are outstanding at the end of the Credit Commitment Period, the City can, subject to certain conditions, convert the borrowing to a three-year term loan payable in twelve equal quarterly principal installments ending on September 18, 2023.

City of Phoenix Civic Improvement Corporation
Junior Subordinate Lien
Airport Revolving Credit Facility Loans Outstanding

Issue Date	Original Issuance	Purpose	Loans Outstanding As of 09-01-19
03-28-19	$100,000,000	Airport Improvements	$100,000,000(1)

(1) Represents loan to be prepaid by the Series 2019A Junior Bonds offered herein.

For more information on planned additional Junior Subordinate Lien Obligations to finance additional Airport improvements, see "AIRPORT FINANCIAL INFORMATION — Aviation Capital Improvement Program."

Upon an event of default under the Revolving Credit Agreement, the Credit Agreement Provider may declare all amounts due (collectively, "*Payment Obligations*") immediately due and payable. Events of default include, but are not limited to, failure to pay amounts to the Credit Agreement Provider by the applicable grace period, failure to perform certain covenants such as issuance of obligations in violation of additional bonds tests, sale of Airport property in violation of the Airport Revenue Bond Ordinance, acceleration of other obligations payable from Airport Revenues on any basis of lien in an amount of at least $5,000,000, certain litigation, bankruptcy and insolvency events related to the Airport and certain downgrades of Senior Lien Obligations. If Payment Obligations were to be accelerated, Airport Revenues would continue to be transferred to the extent available from the Revenue Fund to the Senior Bond Fund and the Junior Bond Fund on a monthly basis prior to payment of Payment Obligations as described under the caption "SECURITY AND SOURCE OF PAYMENT — Flow of Funds."

AIRPORT FINANCIAL INFORMATION

Aviation Department Financial Policies

The Aviation Department is focused on maintaining sound financial performance and has adopted specific financial and debt management policies to assist with the financial management of the Airport, including:

Debt Service Coverage. Management seeks to maintain a minimum debt service coverage for the Senior Lien Obligations between 1.75x-2.00x. Estimated fiscal year 2018-19 coverage of 2.73x was above the target range. Fiscal year 2017-18 debt service coverage of 2.75x was also above targeted coverage. Management seeks to maintain aggregate debt service coverage (coverage of Senior Lien Obligation debt service and Junior Lien Obligation debt service) of at least 1.50x. The City's aggregate debt service coverage is estimated to be 2.60x in fiscal year 2018-19 and was 2.48x in fiscal year 2017-18.

PFC Leveraging. Management has established a PFC leverage target of no greater than 65%-75% of annual collections in order to preserve PFC pay-as-you-go capacity and program flexibility. For fiscal year 2018-19, PFC revenues were 50.2% leveraged, well below the maximum target, and down slightly from 53% in fiscal year 2017-18.

Cash & Liquidity. Management has established a target of at least 475 days cash on hand to support extraordinary operating and capital needs. In fiscal year 2018-19 and fiscal year 2017-18, management exceeded the target and achieved 615 and 586 days of cash, respectively. Furthermore, management has a $200,000,000 Revolving Credit Agreement to provide liquidity and support short-term capital needs.

Cost Per Enplanement ("CPE"). The Airport maintains one of the industry's lowest CPE figures for similarly-sized U.S. airports. Management has the flexibility to increase CPE to maintain financial metrics and develop facilities. CPE is estimated at $6.45 for fiscal year 2018-19 and was $6.26 in fiscal year 2017-18.

Debt Service Requirements

The following schedule sets forth the estimated annual principal and interest requirements on the 2019 Junior Bonds offered herein.

SCHEDULE OF ESTIMATED PAYMENTS
UNDER THE CITY PURCHASE AGREEMENT(1)*

The City Purchase Agreement requires semi-annual Purchase Payments by the City to the Corporation in an amount equal to the annual principal of and interest on the 2019 Junior Bonds, which payments have been assigned to the Trustee under the Indenture in addition to certain other amounts payable thereunder. The Purchase Payments are due in immediately available funds on each December 31 and June 30 commencing June 30, 2020 and ending June 30, 2049. The Indenture requires that the Trustee deposit the Purchase Payments received from the City from Designated Revenues in the 2019 Junior Bond Fund and use such amounts to pay the principal of and interest on the 2019 Junior Bonds due on the following day. Set forth below is a schedule of the estimated annual Purchase Payments with respect to the 2019 Junior Bonds:

Fiscal	Series 2019A Junior Bonds			Series 2019B Junior Bonds			Taxable Bonds			Total 2019 Junior Bonds		
Year	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest (1)	Total
2019-20	$ —	$ 9,361,111	$ 9,361,111	$ 640,000	$ 11,119,306	$ 11,759,306	$ —	$ 461,057	$ 461,057	$ 640,000	$ 20,941,474	$ 21,581,474
2020-21	—	16,850,000	16,850,000	1,185,000	19,982,750	21,167,750	—	829,903	829,903	1,185,000	37,662,653	38,847,653
2021-22	—	16,850,000	16,850,000	1,245,000	19,923,500	21,168,500	—	829,903	829,903	1,245,000	37,603,403	38,848,403
2022-23	—	16,850,000	16,850,000	7,265,000	19,861,250	27,126,250	9,725,000	829,903	10,554,903	16,990,000	37,541,153	54,531,153
2023-24	—	16,850,000	16,850,000	7,630,000	19,498,000	27,128,000	9,985,000	571,218	10,556,218	17,615,000	36,919,218	54,534,218
2024-25	—	16,850,000	16,850,000	8,010,000	19,116,500	27,126,500	10,265,000	295,632	10,560,632	18,275,000	36,262,132	54,537,132
2025-26	—	16,850,000	16,850,000	8,410,000	18,716,000	27,126,000	—	—	—	8,410,000	35,566,000	43,976,000
2026-27	—	16,850,000	16,850,000	8,830,000	18,295,500	27,125,500	—	—	—	8,830,000	35,145,500	43,975,500
2027-28	—	16,850,000	16,850,000	9,275,000	17,854,000	27,129,000	—	—	—	9,275,000	34,704,000	43,979,000
2028-29	—	16,850,000	16,850,000	9,740,000	17,390,250	27,130,250	—	—	—	9,740,000	34,240,250	43,980,250
2029-30	—	16,850,000	16,850,000	10,225,000	16,903,250	27,128,250	—	—	—	10,225,000	33,753,250	43,978,250
2030-31	—	16,850,000	16,850,000	10,735,000	16,392,000	27,127,000	—	—	—	10,735,000	33,242,000	43,977,000
2031-32	—	16,850,000	16,850,000	11,275,000	15,855,250	27,130,250	—	—	—	11,275,000	32,705,250	43,980,250
2032-33	—	16,850,000	16,850,000	11,835,000	15,291,500	27,126,500	—	—	—	11,835,000	32,141,500	43,976,500
2033-34	—	16,850,000	16,850,000	12,425,000	14,699,750	27,124,750	—	—	—	12,425,000	31,549,750	43,974,750
2034-35	—	16,850,000	16,850,000	13,050,000	14,078,500	27,128,500	—	—	—	13,050,000	30,928,500	43,978,500
2035-36	—	16,850,000	16,850,000	13,700,000	13,426,000	27,126,000	—	—	—	13,700,000	30,276,000	43,976,000
2036-37	—	16,850,000	16,850,000	14,385,000	12,741,000	27,126,000	—	—	—	14,385,000	29,591,000	43,976,000
2037-38	—	16,850,000	16,850,000	15,105,000	12,021,750	27,126,750	—	—	—	15,105,000	28,871,750	43,976,750
2038-39	—	16,850,000	16,850,000	15,860,000	11,266,500	27,126,500	—	—	—	15,860,000	28,116,500	43,976,500
2039-40	—	16,850,000	16,850,000	16,650,000	10,473,500	27,123,500	—	—	—	16,650,000	27,323,500	43,973,500
2040-41	29,785,000	16,850,000	46,635,000	17,485,000	9,641,000	27,126,000	—	—	—	47,270,000	26,491,000	73,761,000
2041-42	31,275,000	15,360,750	46,635,750	18,365,000	8,766,750	27,131,750	—	—	—	49,640,000	24,127,500	73,767,500
2042-43	32,835,000	13,797,000	46,632,000	19,280,000	7,848,500	27,128,500	—	—	—	52,115,000	21,645,500	73,760,500
2043-44	34,480,000	12,155,250	46,635,250	20,240,000	6,884,500	27,124,500	—	—	—	54,720,000	19,039,750	73,759,750
2044-45	36,200,000	10,431,250	46,631,250	21,255,000	5,872,500	27,127,500	—	—	—	57,455,000	16,303,750	73,758,750
2045-46	40,005,000	8,621,250	48,626,250	22,320,000	4,809,750	27,129,750	—	—	—	62,325,000	13,431,000	75,756,000
2046-47	42,005,000	6,621,000	48,626,000	23,435,000	3,693,750	27,128,750	—	—	—	65,440,000	10,314,750	75,754,750
2047-48	44,105,000	4,520,750	48,625,750	24,605,000	2,522,000	27,127,000	—	—	—	68,710,000	7,042,750	75,752,750
2048-49	46,310,000	2,315,500	48,625,500	25,835,000	1,291,750	27,126,750	—	—	—	72,145,000	3,607,250	75,752,250
	$337,000,000	$437,033,861	774,033,861	$400,295,000	$386,236,556	$786,531,556	$29,975,000	$3,817,616	$33,792,616	$767,270,000	$827,088,033	$1,594,358,033

(1) Represents estimated debt service requirements on the 2019 Junior Bonds offered herein. For presentation purposes, interest is estimated at an average rate of 5.00% for the 2019A Junior Bonds, 5.00% for the Series 2019B Junior Bonds and 2.79% for the Taxable Bonds.

* Subject to change.

The following schedule sets forth the total debt service requirements on the Junior Lien Obligations to be outstanding after the issuance of the 2019 Junior Bonds*:

Schedule of Junior Lien Airport Revenue Bond Debt Service Requirements*

Fiscal Year	Outstanding Junior Lien Airport Revenue Bonds Debt Service(1)	Estimated Debt Service on the Series 2019 Junior Bonds(2)	Total Estimated Junior Lien Airport Revenue Bonds Debt Service
2019-20	$ 48,680,140	$ 21,581,474	$ 70,261,614
2020-21	46,858,776	38,847,653	85,706,429
2021-22	46,856,526	38,848,403	85,704,929
2022-23	46,855,526	54,531,153	101,386,679
2023-24	46,853,527	54,534,218	101,387,745
2024-25	46,858,276	54,537,132	101,395,408
2025-26	46,862,026	43,976,000	90,838,026
2026-27	46,857,277	43,975,500	90,832,777
2027-28	46,861,776	43,979,000	90,840,776
2028-29	46,857,276	43,980,250	90,837,526
2029-30	46,856,276	43,978,250	90,834,526
2030-31	46,850,527	43,977,000	90,827,527
2031-32	46,867,026	43,980,250	90,847,276
2032-33	46,861,276	43,976,500	90,837,776
2033-34	45,515,777	43,974,750	89,490,527
2034-35	46,933,120	43,978,500	90,911,620
2035-36	46,929,870	43,976,000	90,905,870
2036-37	46,933,820	43,976,000	90,909,820
2037-38	46,928,520	43,976,750	90,905,270
2038-39	46,932,320	43,976,500	90,908,820
2039-40	46,929,920	43,973,500	90,903,420
2040-41	6,184,000	73,761,000	79,945,000
2041-42	6,186,750	73,767,500	79,954,250
2042-43	6,187,250	73,760,500	79,947,750
2043-44	6,185,000	73,759,750	79,944,750
2044-45	6,184,500	73,758,750	79,943,250
2045-46	—	75,756,000	75,756,000
2046-47	—	75,754,750	75,754,750
2047-48	—	75,752,750	75,752,750
2048-49	—	75,752,250	75,752,250
	$1,015,867,078	$1,594,358,033	$2,610,225,111

(1) Net of the Bonds Being Refunded and does not include the 2019 Junior Bonds offered herein.

(2) Represents estimated debt service requirements on the 2019 Junior Bonds offered herein. For presentation purposes, interest is estimated at an average rate of 5.00% for the Tax-Exempt Bonds and 2.79% for the Taxable Bonds. For estimated Senior Lien Obligation and Junior Lien Obligation debt service coverage, see Exhibit H of "APPENDIX A – Report of the Airport Consultant – LeighFisher Inc." Capitalized interest will be applied to portions of the debt service on the Series 2019B Junior Bonds for fiscal years 2019-20, 2020-21 and 2021-22.

* Subject to change.

Historical Revenues, Expenditures and Changes in Fund Balances

Table 5 "CITY OF PHOENIX, AVIATION DEPARTMENT ENTERPRISE FUND COMPARATIVE SCHEDULE OF REVENUES, EXPENDITURES, HISTORICAL DEBT SERVICE COVERAGE AND CHANGES IN FUND BALANCES" presents historical results of the Airport on a budgetary basis for the last five fiscal years. This schedule is consistent with the City's Comprehensive Annual Financial Report ("*CAFR*") Exhibit E-4.

In fiscal year 2018-19, revenues for Sky Harbor increased by 2.3% compared to fiscal year 2017-18. This increase is primarily due to increases in airline fees, as well as increases in parking, car rentals and ground transportation. Passenger enplanements increased by 2.8% from fiscal year 2017-18 to fiscal year 2018-19, while originating passengers increased an estimated 4.5%, which contributed to increased terminal area and ground transportation revenues. Airline landing fees for fiscal year 2018-19 decreased to $1.97 per 1,000 pounds from $1.99 in fiscal year 2017-18.

In fiscal year 2018-19, operating expenditures increased by 3.1%. This increase is primarily due to increases in personal services related to salaries and employees benefits and contractual services.

Table 5
City of Phoenix, Aviation Department Enterprise Fund
Comparative Schedule of Revenues, Expenditures, Historical Debt Service Coverage and Changes in Fund Balances (non-GAAP)
(In Expense Priority Established by the Airport Bond Ordinance)
(Fiscal Years; in thousands)

	2014-15	2015-16	2016-17	2017-18	2018-19(1)
REVENUES					
Landing Area	$ 52,082	$ 54,954	$ 51,301	$ 52,218	$ 50,149
Terminal Area	127,641	129,242	136,064	147,184	154,002
Ground Transportation	127,039	130,764	132,477	139,866	145,281
Other	31,129	27,274	30,632	39,601	36,560
Interest	1,842	3,092	4,177	7,019	9,241
Total Revenues before Reimbursement	339,733	345,326	354,651	385,888	395,233
Transportation O&M Expense Reimbursement(2)	14,488	14,837	16,190	15,309	15,142
Total Revenues	354,221	360,163	370,841	401,197	410,375
EXPENDITURES AND ENCUMBRANCES					
Cost of Maintenance and Operation					
Personal Services	105,760	105,591	116,353	121,218	125,184
Contractual Services	105,198	108,376	113,745	113,318	116,721
Supplies	11,092	11,686	12,070	11,216	11,850
Equipment/Minor Improvements	4,115	4,583	2,948	3,861	3,590
Total Cost of Maintenance and Operation(2)	226,165	230,236	245,116	249,613	257,345
Net Airport Revenue Available for Revenue Bond Debt Service (Net Airport Revenues)	128,056	129,927	125,725	151,584	153,030
Total Senior Lien Airport Revenue Bond Debt Service	48,732	48,775	48,797	55,180	55,957
Senior Lien Revenue Bond Debt Service Coverage	2.63	2.66	2.58	2.75	2.73
Net Airport Revenue Available After Senior Lien Revenue Bond Debt Service (Designated Revenues)	79,324	81,152	76,928	96,404	97,073
Total Junior Lien Airport Revenue Bond Debt Service(3)	1,604	3,962	5,933	5,935	5,935
Junior Lien Revenue Bond Debt Service Coverage	49.45	20.48	12.97	16.24	16.36
Net Airport Revenue Available After Senior and Junior Lien Revenue Bond Debt Service	77,720	77,190	70,995	90,469	91,138
Other Expenditures					
Capital Improvements	17,719	54,493	42,693	57,596	168,013
General Obligation Bond Debt Service	206	197	197	197	4,717
Early Defeasance of Bonds	—	—	—	13,377	2,653
Interest on Short-Term Debt	—	—	—	810	1,176
Total Other Expenditures	17,925	54,690	42,890	71,980	176,559
Total Expenditures and Encumbrances	294,426	337,663	342,736	382,708	495,796
Excess of Revenues Over Expenditures and Encumbrances	59,795	22,500	28,105	18,489	(85,421)
OTHER FINANCING SOURCES (USES)					
Recovery of Prior Years Expenditures	2,368	1,192	1,498	3,363	5,117
Transfer to General Fund: Staff and Administrative—Central Service	(7,969)	(7,716)	(8,373)	(9,141)	(9,412)
Transfers (to) from Other Funds					
Transfers to Other Funds	(46,599)	(17,233)	(15,921)	(5,698)	(2,202)
Transfers from Other Funds	533	3	2,769	12,876	10,535
Net Transfers (to) from Other Funds	(46,066)	(17,230)	(13,152)	7,178	8,333
Total Other Financing Sources (Uses)	(51,667)	(23,754)	(20,027)	1,400	4,038
Net Increase in Fund Balance	8,128	(1,254)	8,078	19,889	(81,383)
FUND BALANCE, JULY 1	319,159	327,287	326,033	334,111	354,000
FUND BALANCE, JUNE 30	327,287	326,033	334,111	354,000	272,617
Non-Cash Budgetary Transactions(4)	(426)	49,578	31,341	46,673	161,048
Total Airport Cash on Hand, June 30	$326,861	$375,611	$365,452	$400,673	$433,665

(1) Fiscal Year 2018-19 data is preliminary and unaudited.

(2) Rental Car Center Transportation O&M Expenses as defined in the documents relating to the Corporation's Rental Car Facility Charge Revenue Bonds ("CFC Bonds"), which are secured by Customer Facility Charges ("CFC"), are included as a Cost of Maintenance and Operation. Amounts reimbursed to the City by the Trustee for the CFC Bonds to pay the rental car busing service expenses (included as a Cost of Maintenance and Operation) are included as revenues. The CAFR Exhibit E-4 provides a presentation of expenditures that are subsequently reimbursed as revenues.

(3) Debt service is net of the 2010/2017 Junior Lien Passenger Facility Charge Credits and 2010 RZEDB Subsidy Payments.

(4) Consists of budgetary encumbrances, revenue recoveries and other timing differences.

Enplaned Passenger Activity

The ten largest U.S. passenger airlines provide regular service at Sky Harbor. As of June, 2019, airlines at Sky Harbor provided nonstop passenger service to 115 airports, including 98 U.S. airports and 17 international airports located primarily in Mexico and Canada. According to Airports Council International ("*ACI*") statistics for calendar year 2018, Sky Harbor was the fourteenth largest airport in North America as measured by total passengers. Sky Harbor is a major connecting hub airport in the route network of American Airlines and one of the largest "focus city" airports in the route network of Southwest Airlines. The inland location of Sky Harbor allows connections that minimize circuity between the southwestern U.S. and points eastward. The following table sets forth the passenger and air cargo airlines that provided service at Sky Harbor during fiscal year 2018-19.

Table 6
Airlines Reporting Enplaned Passengers and Air Cargo
Phoenix Sky Harbor International Airport

Major/National
Alaska
American
Delta
Frontier
Hawaiian
JetBlue
Southwest
Spirit
Sun Country
United

Regional/Commuter
Advanced Air
Boutique Air
Compass (American Eagle, Delta Connection)
Contour
Mesa Airlines (American Eagle, United Express)
SkyWest (American Eagle, Delta Connection, United Express)

Foreign-Flag
Air Canada
British Airways
Condor
Jazz Aviation (Air Canada Express)
Volaris
WestJet

All-Cargo Airlines
ABX Air
Air Cargo Carriers (DHL)
Air Transport International
Ameriflight
Atlas Air (Amazon Air, DHL)
Empire
FedEx
Kalitta (DHL)
UPS

Source: City of Phoenix Aviation Department.

Table 7 presents total historical enplaned passengers by airline at Sky Harbor. Approximately 80% of all passengers enplaned at Sky Harbor in fiscal year 2018-19 boarded flights operated by either American Airlines (and its commuter affiliates) or Southwest Airlines. Delta and United ranked as the next largest airlines by enplaned passengers in fiscal year 2018-19, respectively.

Table 7
Total Enplaned Passengers by Airline
Phoenix Sky Harbor International Airport

	Fiscal Years				
Published Airline	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Enplaned Passengers					
American(1)	10,978,341	10,962,440	10,129,895	10,360,041	10,486,029
Southwest(2)	6,750,373	7,149,550	7,382,859	7,546,946	7,768,715
Delta	1,325,051	1,401,639	1,388,510	1,438,843	1,529,781
United	981,702	1,080,742	1,131,315	1,164,730	1,228,311
Alaska	370,801	376,264	420,940	432,478	474,431
Frontier	279,517	235,602	459,477	388,761	361,348
WestJet	214,812	219,614	229,727	234,570	232,839
Air Canada	101,417	104,995	117,966	140,171	162,610
British Airways	103,408	105,173	108,487	111,514	112,075
Spirit	148,673	165,376	146,760	96,545	121,595
JetBlue	90,195	91,947	92,321	92,201	114,125
Hawaiian	85,368	87,094	88,388	86,558	85,053
Sun Country	35,032	48,984	77,946	80,518	100,119
All Other	23,879	26,487	45,795	45,039	54,914
Total	21,488,569	22,055,907	21,820,386	22,218,915	22,831,945
Share of Total					
American(1)	51.0%	49.7%	46.4%	46.7%	46.0%
Southwest(2)	31.4	32.4	33.8	34.0	34.0
Delta	6.2	6.4	6.4	6.5	6.7
United	4.6	4.9	5.2	5.2	5.4
Alaska	1.7	1.7	1.9	1.9	2.1
Frontier	1.3	1.1	2.1	1.7	1.6
WestJet	1.0	1.0	1.1	1.1	1.0
Air Canada	0.5	0.5	0.5	0.6	0.7
British Airways	0.5	0.5	0.5	0.5	0.5
Spirit	0.7	0.7	0.7	0.4	0.5
JetBlue	0.4	0.4	0.4	0.4	0.5
Hawaiian	0.4	0.4	0.4	0.4	0.4
Sun Country	0.2	0.2	0.4	0.4	0.4
All Other	0.1	0.1	0.2	0.2	0.2
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Notes: Passengers reported by regional affiliates have been grouped with their respective code-sharing partners.

(1) Includes US Airways. American Airlines and US Airways merged on December 9, 2013. The two airlines operated separately until a single operating certificate was obtained on April 8, 2015.

(2) Includes AirTran Airways, which merged with Southwest in December 2014, for all years shown.

Source: City of Phoenix Aviation Department.

The total number of enplaned passengers at Sky Harbor increased an average of 2.0% per year from fiscal year 2009-10 through fiscal year 2018-19, as shown in Table 8. Origin-destination passengers accounted for the majority of the passenger growth in fiscal year 2018-19 compared to fiscal year 2017-18, increasing an average of 4.5% per year compared to a 0.9% decrease for connecting passengers. Total passenger enplanements at Sky Harbor increased 2.8% in fiscal year 2018-19 compared to fiscal year 2017-18.

Table 8
Historical Passenger Enplanements(1)
Phoenix Sky Harbor International Airport
(passengers in thousands)

	By Destination		By Type of Origin-Designation (O&D) Passenger				
Fiscal Year	**Domestic**	**International**	**Resident**	**Visitor**	**Total O&D**	**Connecting**	**Total**
2009-10	18,095	1,001	5,045	6,162	11,207	7,889	19,096
2010-11	18,593	1,088	5,127	6,161	11,288	8,393	19,681
2011-12	19,134	1,144	5,442	6,501	11,943	8,335	20,278
2012-13	19,094	1,142	5,513	6,462	11,975	8,261	20,236
2013-14	19,404	1,115	5,518	6,637	12,155	8,364	20,519
2014-15	20,349	1,140	5,751	6,987	12,738	8,751	21,489
2015-16	20,984	1,072	6,147	7,391	13,538	8,518	22,056
2016-17	20,812	1,008	6,558	7,827	14,385	7,435	21,820
2017-18	21,178	1,041	6,846	8,201	15,047	7,172	22,219
2018-19(2)	21,769	1,063	7,129	8,598	15,727	7,105	22,832
Compound annual growth rate:							
2009-10 to 2018-19	2.1%	0.7%	3.9%	5.8%	3.8%	(1.2)%	2.0%
2017-18 to 2018-19	2.8%	2.1%	4.1%	4.8%	4.5%	(0.9)%	2.8%

(1) Historical resident, visitor and connecting numbers were restated to reflect methodological improvements in the compilation of DOT O&D Survey sample data by Data Base Products (a third-party vendor) and are believed to be more accurate.
(2) Domestic and international subtotals for 2018-19 reflect actual results; originating and connecting subtotals are estimated based on three quarters of actual data.

Sources: City of Phoenix Aviation Department; U.S. DOT, Air Passenger Origin-Destination Survey, reconciled to Schedules T100 and 298C T1.

Sky Harbor's Role as a Connecting Hub

As discussed above under "Enplaned Passenger Activity," Sky Harbor serves as a major connecting hub in the route system of American Airlines and is also one of the major "focus cities" in Southwest Airlines' system. For the 12 months ended March 31, 2019 (the most recent data available), American Airlines and Southwest Airlines combined to account for 80% of total enplaned passengers at Sky Harbor and 98.4% of the connecting passengers at Sky Harbor. American Airlines (including its regional affiliates) accounted for 46.0% of the total enplaned passengers at Sky Harbor and 69.9% of the connecting traffic, and Southwest Airlines accounted for 34.0% of total enplanements and 29.0% of the connecting traffic. US Airways, prior to its merger with American Airlines had a long history at Sky Harbor, as America West Airlines (America West merged with US Airways in September 2005), located its headquarters in Tempe and began commercial service in 1983. Southwest Airlines also has a long history at Sky Harbor, as it began service at Sky Harbor in 1982. As of June 2019, Southwest Airlines offers more seats at Sky Harbor than at all but five airports in its system—Chicago Midway International Airport, Baltimore Washington International Thurgood Marshall Airport, Las Vegas McCarran International Airport, Denver International Airport and Dallas-Love Field Airport. For a description of recent trends, see "CERTAIN BONDHOLDERS' RISKS—Activity Level and Financial Condition of Airlines Serving the Airport."

Aviation Capital Improvement Program

The Aviation Department has developed an Aviation Capital Improvement Program ("Aviation CIP") through fiscal year 2025-26 with project costs totaling approximately $2.7 billion. The Aviation Department has included selected projects from their Comprehensive Asset Management Plan ("CAMP") in the Aviation CIP. CAMP is a Master Plan that addresses a 20-year period and helps identify and refine future demand forecasts and development opportunities. Given the dynamic conditions of the industry and preliminary assumptions, recurring updates will be required to reflect changing activity and future needs.

The Aviation CIP is reevaluated annually and the scope and phasing of projects may be modified by considering financial capacity, government regulations, current needs and other relevant factors. The City has a long-standing practice of updating the five-year Aviation CIP and financial forecast each year for review by the Mayor and Council of the City as part of the financial planning process.

Table 9 "Aviation Capital Improvement Program Through Fiscal Year 2025-26" provides for $2,673,037,000 in capital improvements for Phoenix-Sky Harbor International Airport, Phoenix-Goodyear Airport and Phoenix-Deer Valley Airport. This amount represents the total approved funding for the projects, some of which has been spent in prior years. The Aviation CIP is expected to be funded from $310,496,000 in capital grants, $384,649,000 in PFC pay-as-you-go, $276,072,000 in CFC pay-as-you-go and the Corporation's CFC-secured Rental Car Facility Charge Revenue Bonds, Series 2019A (Non-AMT) and Rental Car Facility Charge Revenue Refunding Bonds, Taxable Series 2019B (together the "2019 CFC Bonds"), $432,000,000 in prior bonds, $757,000,000 in the Airport 2019 Junior Bonds, $227,000,000 in future non-PFC revenue bonds, $10,761,000 in private funding, and $275,059,000 in airport operating funds.

Major projects of the Aviation CIP include the Terminal 3 Modernization, a new Terminal 4 concourse and Stage 2 of the PHX Sky Train. The Terminal 3 Modernization project is a multiyear program to enhance the customer experience and provide a more efficient terminal for passengers. Major features of the project include a consolidated security checkpoint (completed fall 2016), new common use ticket counters (completed fall 2016), additional baggage processing capacity, baggage carousels, replacement of gates, and expanded passenger drop-off curb. The multi-phase, design-build project includes three major components: the Terminal Processor, the South Concourse, and the North Concourse. The project is expected to be completed in 2020.

The Terminal 3 Modernization project includes a gate replacement and infrastructure upgrade that will allow Sky Harbor to close an aging Terminal 2 and relocate airlines to Terminal 3. Terminal 2 and Terminal 3 rely on systems that are over 30 years old and have capacity deficiencies or operational inefficiencies that will be significantly improved by the renewal of these systems. The upgrades are expected to lower operating costs, raise the level of service, and increase system reliability. Greater efficiency will be achieved by converting to common use ticket counters and gates that increase utilization though technology. The project is expected to be constructed to a LEED Silver standard and will move passengers to their gate in a way that is faster, more pleasant, and in a fashion that drives increased revenue through food, beverage, and retail concessions.

On March 8, 2017, Southwest Airlines President Tom Nealon announced that Southwest Airlines would be increasing service to the Phoenix area. This announcement came with the request for the Airport to construct the final concourse at Terminal 4 and a commitment by Southwest Airlines to occupy the associated gates upon its completion. The future S1 concourse, expected to be completed in early 2022, will be located on the southwest corner of Terminal 4. With approximately eight planned gates, the S1 concourse will provide Southwest Airlines with the additional capacity the airline needs to continue to grow in the Phoenix market. The project scope will also include a second bridge connector from the south concourses at Terminal 4 to the north. This connection will enable greater security efficiency and flexibility as passengers will be able to access any of the north or south gates from any one of the terminal's 4 security checkpoints.

The PHX Sky Train is an automated people mover system that will connect all of the Airport's terminals and parking facilities to VALLEY METRO Light Rail (regional public transit system) and to the Rental Car Center ("*RCC*"). The train is an integral part of the airport's transportation infrastructure plan and an important link to the regional transportation system. It is designed to be a long-term solution to growing traffic congestion in and around the Airport. The project will be completed in three stages (Stage 1, Stage la, and Stage 2). The first two stages are complete and in service, connecting the light rail system and the Airport's largest parking facility to Terminals 3 and 4, with a walkway to Terminal 2. These two project stages were finished on schedule and nearly $45 million under the combined budget of $884 million. By mid-2022, the PHX Sky Train will connect to the future West Ground Transportation Center (*"West GTC Station"*) and the RCC. The PHX Sky Train's electric train cars run twenty-four hours a day arriving at a station approximately every three minutes during peak periods, delivering passengers to their destinations within five minutes after boarding. Since its opening in April 2013, the PHX Sky Train has carried over 20 million passengers and replaced busing as the mode of transportation between terminals and parking facilities.

The West GTC Station is planned to be an approximately 20-acre commercial development, potentially featuring a mix of hotel, commercial office building, and parking garage uses. The development will be located on airport property with direct access to a PHX Sky Train station. The West GTC Station will be at the center of the future development. The completed 5-mile train system is expected to transport a total of more than 80,000 passengers per day when the Rental Car Center extension opens in 2022. The Airport issued a Request for Information from interested developers with concepts for commercial development of the 20-acre campus. It subsequently released a Request for Qualifications to solicit proposals during fiscal year 2019-20.

The City's investment in the West GTC Station is included in the PHX Sky Train budget which is part of the Aviation CIP. Ancillary developments described above (e.g., hotel, commercial, parking) may be delivered using public-private-partnerships and therefore are not included in the Aviation CIP. Potential revenues from such ancillary developments, such as land lease or 3rd party payments, are not reflected in the forecast of Net Airport Revenues contained in the Report of the Airport Consultant. The City plans to advance with this development only if Net Airport Revenues are enhanced above and beyond baseline conditions.

Union Pacific Railroad tracks run through Sky Harbor property. This railroad adds congestion and prevents ease of access to property that the Airport owns. The UPRR Trench project will include the placement of the Union Pacific Railroad in a 30-foot deep trench to allow a secure airfield connection to the proposed North Cargo and North Aero Support Complex and to provide an underpass for roadway crossings. The project will be completed in two phases starting in 2021. Additionally, the Airport and Union Pacific Railroad have begun conversations regarding this trenching plan and entered into an agreement for the Airport to reimburse the railroad for its design review expenses.

Terminal 3 2nd North Concourse is a six-narrow body gate concourse for Terminal 4 or Terminal 3 airlines. Passenger connectors to each terminal would be constructed separately, allowing the terminal to function as a bus-gate facility in the interim. The concourse includes approximately 75,000 square feet of passenger area hold rooms, commercial area, amenities, passenger circulation.

Table 9
Aviation Capital Improvement Program Through Fiscal Year 2025-26
City of Phoenix Aviation Department
(in thousands)

	Total	Funding Sources							
		Capital Grants	PFC Pay-as-you-go	CFC Pay-as-you-go and 2019 CFC Bonds	Prior Bonds	Series 2019 Junior/ Improvement Bonds	Future Bonds	Private Funding	Airport Operating Funds
Major Capital Projects(1)									
Terminal 3 Modernization	$ 580,000	$ —	$ 68,000	$ —	$432,000	$ 80,000	$ —	$ —	$ —
Terminal 4 Concourse S1	310,000	—	—	—	—	310,000	—	—	—
PHX Sky Train Stage 2	745,000	—	130,000	273,000	—	342,000	—	—	—
UPRR Trench - Phase 1	220,000	55,000	55,000	—	—	—	110,000	—	—
Terminal 3 2nd North Concourse	180,000	—	63,000	—	—	—	117,000	—	—
Subtotal Major Capital Projects	$2,035,000	$ 55,000	$316,000	$273,000	$432,000	$732,000	$227,000	$ —	$ —
Other Capital Projects									
Development Studies	$ 5,150	$ —	$ 264	$ —	$ —	$ —	$ —	$ —	$ 4,886
Fire Department	2,300	—	—	—	—	—	—	—	2,300
General Aviation	140	—	—	—	—	—	—	—	140
Infrastructure	3,438								3,438
Land Acquisition	1,219								1,219
Parking Facilities	6,859	—	—	572	—	—	—	—	6,287
Roadways	616	—	—	—	—	—	—	—	616
Runway and Taxiway Improvements	106,657	71,101	30,600	—	—	—	—	—	4,956
Security Facilities	693	79	223	—	—	—	—	—	391
Terminal 2	26,127	—	—	—	—	—	—	—	26,127
Terminal 3	1,036	773	—	—	—	—	—	—	263
Terminal 4	5,332	—	—	—	—	—	—	—	5,332
Deer Valley Airport	54,139	25,827	—	—	—	25,000	—	—	3,312
Goodyear Airport	21,173	18,576	—	—	—	—	—	—	2,597
Phoenix-Mesa Gateway Airport	3,900	—	—	—	—	—	—	—	3,900
Other Miscellaneous and Contingency	120,133	77,945	12,262	2,500	—	—	—	—	27,426
Subtotal Other Projects	$ 358,912	$194,301	$ 43,349	$ 3,072	$ —	$ 25,000	$ —	$ —	$ 93,190
Additional Contingency	$ 85,900	$ —	$ 25,300	$ —	$ —	$ —	$ —	$ —	$ 60,600
Other CAMP/1	$ 193,224	$ 61,195	$ —	$ —	$ —	$ —	$ —	$10,761	$121,269
Total Capital Projects	$2,673,036	$310,496	$384,649	$276,072	$432,000	$757,000	$227,000	$10,761	$275,059

Source: City of Phoenix Aviation Department

(1) The Comprehensive Asset Management Plan ("CAMP") is a multiyear development plan that extends beyond the forecast period; therefore, a partial list of projects is included as described in the accompanying text. Certain "Major Capital Projects" are separately identified and are also included in the CAMP.

Airport Rates and Charges

In 1981, the Mayor and Council of the City formally adopted a compensatory (cost of services) rate-setting policy which provides (1) that charges to aviation users be established on the basis of the costs to provide, maintain and operate Airport facilities and services and (2) that these costs be recovered from aviation users on a basis not to exceed their proportional use thereof. Under this compensatory rate-setting methodology, the City bears the risk of any revenue shortfall and retains any surplus revenue for its own discretionary expenditures. Rates and charges are typically adjusted at the beginning of each Fiscal Year after the City has reviewed proposed rate changes and capital expenditures with airline representatives. However, the City retains its proprietary right to adjust fees and to determine its capital expenditures without airline approval, and the City has the unilateral right to adjust terminal rates and landing fees at any time to reflect changes in cost. Any such adjustment is subject to federal law and regulations. On December 13, 2017, the Mayor and Council of the City authorized the Aviation Director to set airport rates and charges, provided the resulting cost per enplanement falls below the large hub airport median CPE as reported by the FAA. In establishing any new schedule of rates, fees and charges for the use of the Airport, the City intends to comply with federal law and regulations.

The City uses short-term (month-to-month) Letters of Authorization (each, a "*LOA*") for airline space within its terminal facilities. Such LOA can be terminated by either party upon 30-days' notice, providing the City with the flexibility to maximize the use of its terminal facilities.

The following table provides the historical average airline cost per enplaned passenger.

Table 10
Historical Average Cost Per Enplanement
Phoenix Sky Harbor International Airport
Fiscal Years

	Fiscal Years		
	2016-17	**2017-18**	**2018-19**
Total Airline Revenues (000's)	$133,581	$139,033	$147,348
Enplanements (000's)	21,820	22,219	22,832
Cost per Enplanement	$ 6.12	$ 6.26	$ 6.45

Passenger Facility Charge Program

Authorization for the Passenger Facility Charge. The PFC is currently collected by non-exempt air carriers using Sky Harbor and remitted to the City pursuant to Section 1113(e) of the Federal Aviation Act, as amended, and the regulations promulgated thereunder (collectively, the "*PFC Laws*"). The PFC Laws empower the FAA to authorize a public agency that controls an airport to impose a passenger facility charge of $1.00, $2.00, $3.00, $4.00 or $4.50 (the current maximum level) for each enplaned passenger at such airport, subject to certain exceptions described below. Proceeds of an authorized PFC may be used only to pay "allowable costs" of specific airport projects approved by the FAA, including debt service and other financing costs on bonds issued to finance such specific projects. Projects for which the FAA may authorize a PFC must (i) preserve or enhance safety, security or capacity of the national air transportation system, (ii) reduce noise or mitigate noise impacts resulting from an airport or (iii) furnish opportunities for enhanced competition between or among air carriers.

Under the PFC Laws, substantially all air carriers serving an airport for which the FAA has authorized the collection of a PFC must collect such PFC at the time they sell an airline ticket to a passenger to be enplaned at the airport. Passenger enplanements subject to the charge include passengers originating their travel itineraries on departing flights out of the collecting airport or connecting passengers at the collecting airport whose itineraries originated in other cities, provided the airport is among the first two or last two airports collecting a PFC on such connecting passenger's itinerary. An authorized PFC may only be collected for "revenue passengers" enplaned at a collecting airport, including passengers using scheduled and non-scheduled airline service. "Revenue passengers" do not include passengers who do not pay for the air transportation which resulted in their enplanement, including passengers using frequent flyer awards.

Under the PFC Laws, the air carriers collecting a PFC on behalf of a public agency must remit the proceeds of the PFC to the public agency on a monthly basis, not later than the last day of the month following the month in which such proceeds were collected or the first business day thereafter. Prior to such remittance, however, collecting air carriers are entitled to retain any interest accrued on the investment of the proceeds of the PFC they collect, as well as $0.11 of each PFC collected as compensation for administering the collection process.

Under the PFC Laws, the FAA may terminate a public agency's ability to impose, collect and apply the proceeds of a previously authorized PFC if the FAA finds that the public agency has violated the PFC Laws, including a violation of the agency's obligation under the PFC Laws to expend proceeds of its authorized PFC only on FAA-approved projects. A public agency's ability to impose, collect and apply the proceeds of a previously authorized PFC may also be terminated by the FAA if the agency is found to have violated the Airport Noise and Capacity Act of 1990 or its implementing regulations (collectively, the "*Noise Law*"). Both the PFC Laws and the Noise Law contain a variety of procedural safeguards, including an informal resolution procedure, and in the case of the PFC Laws, a public hearing, which would apply before a public agency's PFC program could be terminated. Under the PFC Laws and the Noise Law, termination proceedings would include a period of time to allow the airport agency to correct any violation identified by the FAA or otherwise settle any alleged violation. The public agency would also subject certain other of its funds, including federal airport improvement grants, to termination by violating the PFC Laws or the Noise Law. While the City is not aware of any action by the FAA to terminate its ability to impose, collect and apply the proceeds of its PFC program, there can be no assurance that the FAA will not terminate the PFC program in the future.

The City's Passenger Facility Charge Program. From January 26, 1996, when the City initiated the collection of the Passenger Facility Charge at the Airport, through June 30, 2019, the City's Passenger Facility Charge collections when measured on a cash basis, is estimated to be $1,615.1 billion (excluding interest). The City's most recent application, PFC9, was approved by the FAA in the amount of $22.5 million in April 2019. PFC 9 provides approval for various PFC eligible projects, including Terminal 4 Fire Alarm Replacement and Terminal 2 Concourse Demolition and Apron Construction.

Table 11 shows PFC collections at Sky Harbor in fiscal year 2016-17 through fiscal year 2018-19.

Table 11
Historical PFC Collections
Phoenix Sky Harbor International Airport
Fiscal Years

	2016-17	2017-18	2018-19
PFC Rate	$ 4.50	$ 4.50	$ 4.50
Airline Administrative Fee	0.11	0.11	0.11
Net PFC Rate	4.39	4.39	4.39
Total Enplanements (000's)	21,820	22,219	22,832
PFC Eligible Enplanements	87.3%	86.0%	85.5%
Total PFC Collections (000's)	$83,600	$83,917	$85,724

Source: City of Phoenix Aviation Department

Table 12 shows active and closed PFC approvals and the remaining collection authority. Table 13 shows the various projects approved for funding in the four active PFC approvals.

Table 12
PFC Approvals and Revenues
Phoenix Sky Harbor International Airport
(as of June 30, 2019; in millions)

	Approval Amount	PFC Revenues Collected	Remaining Authority
Closed PFC Approvals(1)	$ 875.2	$ 875.2	$ —
Active PFC Approvals(2) PFC 6, PFC 7, PFC 8, PFC 9	2,147.1	826.5	1,320.6
Total All PFC Approvals	$3,022.3	$1,701.7	$1,320.6

(1) PFC 1, PFC 2, PFC 3, PFC 4 and PFC 5 are closed and no longer active.

(2) Active PFC approvals include PFC 6 applications 09-09-C-00-PHX ($1,858.6 million), 09-09-C-01-PHX ($81.9 million), and 09-09-C-02-PHX ($31.9 million). PFC 7 application 15-10-C-00-PHX ($82.2 million) was approved July 17, 2015. PFC 8 application 18-11-C-00-PHX ($70.0 million) was approved February 23, 2018. PFC 9 application 19-12-C-00-PHX ($22.5 million) was approved April 19, 2019.

Source: Federal Aviation Administration and City of Phoenix Aviation Department.

Table 13
Active PFC Approvals by Project
Phoenix Sky Harbor International Airport
(as of June 30, 2019; in millions)

PFC 6	
PHX Sky Train	$ 1,788.6
Community Noise Reduction Program	120.2
Terminal 4 Rehabilitation	15.1
Airfield Lighting and Runway Sign Relocation	2.1
Terminal Capacity Improvements	37.8
South Infield Paving	8.6
Subtotal PFC 6	$ 1,972.4
PFC 7	
East Air Cargo and Apron Reconstruction	$ 0.7
Perimeter Gates Security Enhancements	1.5
T3 NE Transition Ramp Reconstruction	1.2
Terminal 4 North Apron Reconstruction	13.5
Terminal 4 South Apron Reconstruction	4.6
Terminal 4 TSA EDS Enhancements	0.7
Taxiway A Reconstruction (Phase I and II)	3.4
Taxiway Connector G5 Construction	1.3
Terminal Window Glazing	1.2
West Hold Bay Reconstruction	0.8
Airfield Lighting Enhancements	1.5
Terminal 4 International Facility Improvements	20.0
Jetbridge Enhancements	2.9
Terminal Development Concept Design	26.9
Airport Compatible Land Rescue Plan	2.0
Subtotal PFC 7	$ 82.2
PFC 8	
Utility Vault Upgrade and Infield Paving	$ 7.5
Runway 8-26 Keel Reconstruction	2.6
Reconstruct Terminal 3 South Transition Apron and Section of Taxiway D	2.3
Terminal 3 North Inner PCCP Ramp Reconstruction	4.4
Airport Compatible Land Redevelopment Program	1.3
Conduct Runway Incursion Mitigation (RIM) Analysis	0.3
Conduct Airport Master Plan Study	1.1
Terminal 3 Modernization and Expansion—Construction	46.1
Perimeter Gates Security Enhancements—Phase II	1.0
Security Master Plan	1.3
Update Airport AGIS Survey and Airspace Analysis	0.3
PIPS Replacement and Installation of Checkpoint Wait Time System	1.8
Subtotal PFC 8	$ 70.0
PFC 9	
Terminal 2 Concourse Demolition & Apron Construction	$ 8.9
Terminal 4S1 Apron Construction	5.2
Terminal 4 Infrastructure Fire Alarm Replacement	8.4
Subtotal PFC 9	$ 22.5
Total PFC Approval Amount(1)	$2,147.10
Less PFC 6, 7, 8 and 9 Revenues Collected as of June 30, 2019	(826.5)
Remaining Authority	$ 1,320.6

(1) Includes PFC approval for $561.5 million pay-as-you-go, $772.6 million bond funds, and $790.5 million interest.

Sources: Federal Aviation Administration and City of Phoenix Aviation Department

REPORT OF THE AIRPORT CONSULTANT

The Report of the Airport Consultant (the "*Report*") prepared by LeighFisher Inc. is included herein as Appendix A. The Report presents certain enplaned passenger and financial forecasts for Fiscal Years 2020 through 2024 and sets forth the assumptions upon which the forecasts are based. The financial forecasts are based on assumptions that were provided by, or reviewed with and adopted by, the Aviation Department of the City. The Report should be read in its entirety for an understanding of the forecasts and the underlying assumptions contained therein. As noted in the Report, any forecast is subject to uncertainties. Inevitably, some assumptions used to develop the forecasts will not be realized, and unanticipated events and circumstances may occur. Therefore, the actual results achieved during the forecast period may vary, and the variations may be material. See "CERTAIN BONDHOLDERS' RISKS — Report of the Airport Consultant."

CERTAIN BONDHOLDERS' RISKS

Investment in the 2019 Junior Bonds involves risk. The City's ability to generate Designated Revenues and PFC Revenues to pay debt service on the 2019 Junior Bonds, as well as to generate other funds important to the operation of the Airport depends upon many factors, most of which are not under the control of the City. This section describes some of the risks associated with investing in the 2019 Junior Bonds; however, prospective purchasers of the 2019 Junior Bonds should give careful consideration to all of the information in this Official Statement.

Certain Factors Affecting the Air Transportation Industry and the Airport

General. No assurance can be given with respect to the levels of aviation activity that will be achieved at the Airport in future fiscal years. Traffic at the Airport is sensitive to a variety of factors including (1) the growth in the population and economy of the Air Service Area served by the Airport, (2) national and international economic conditions, (3) air carrier economics and air fares, (4) the availability and price of aviation fuel, (5) air carrier service and route networks, (6) the capacity of the air traffic control system, (7) the capacity of the Airport/airways system, and (8) safety concerns arising from international conflicts and the possibility of additional terrorist attacks. Since early 2000, several factors including slow or negative traffic growth in certain areas, increased fuel, labor, equipment and other costs, health concerns such as Severe Acute Respiratory Syndrome (SARS) and Ebola, costs of compliance with new security regulations and requirements, threat of possible future terrorist attacks and an increase in the cost of debt, have reduced profits and caused significant losses for all but a few air carriers.

Aviation Security Requirements and Related Costs. The FAA, as a result of the events of September 11, 2001, instituted numerous safety and security measures for all U.S. airports including Sky Harbor. The provision of and cost of airport security was transferred to and now is administered by the federal government through the Transportation Security Administration (the "*TSA*") instead of private companies. Like many other airport operators, Sky Harbor experienced increased operating costs due to compliance with the new federally mandated security and operating requirements. Sky Harbor is currently in compliance with all federally mandated security requirements.

The City cannot predict the effect of any future government-required security measures on passenger activity at Sky Harbor. Nor can the City predict how the government will staff security screening functions or the effect on passenger activity of government decisions regarding its staffing levels.

Aviation Safety Concerns, International Conflict and the Threat of Terrorism. Concerns about the safety of airline travel and the effectiveness of security precautions, particularly in the context of potential international hostilities and terrorist attacks, may influence passenger travel behavior and air travel demand. These concerns intensified in the aftermath of the events of September 11, 2001 and again in 2014 following the high profile disappearance of Malaysia Airlines Flight 370 and the crash of Malaysia Airlines Flight 17 and recent crashes of Boeing 737MAX aircraft. Travel behavior may be affected by anxieties about the safety of flying and by the inconveniences and delays associated with more stringent security screening procedures, both of which may give rise to the avoidance of air travel generally and the switching from air to surface travel modes.

Although the U.S. government, airlines and airport operators have upgraded security measures to guard against terrorist incidents and maintain confidence in the safety of airline travel since the attacks of September 11, 2001, no assurance can be given that these precautions will be successful. The possibility of intensified international hostilities and further terrorist attacks involving or affecting commercial aviation are a continuing concern that may affect future travel behavior and airline passenger demand.

Further, future enhanced securities procedures may significantly increase inconvenience and delays at airports, including Sky Harbor, again impacting passenger demand for air travel.

Cyber Security. Computer networks and data transmission and collection are vital to the efficient operation of the airline industry. Air travel industry participants, including airlines, the FAA, the TSA, the City, concessionaires and others collect and store sensitive data, including intellectual property, proprietary business information, information regarding customers, suppliers and business partners, and personally identifiable information of customers and employees. The secure processing, maintenance and transmission of this information is critical to air travel industry operations. Despite security measures, information technology and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance or other disruptions. Any such breach could compromise networks and the information stored there could be disrupted, accessed, publicly disclosed, lost or stolen. Any such disruption, access, disclosure or other loss of information could result in disruptions in the efficiency of the air travel industry, legal claims or proceedings, liability under laws that protect the privacy of personal information, regulatory penalties, operations and the services provided, and cause a loss of confidence in the air travel industry, which could ultimately adversely affect Net Airport Revenues.

Capacity of National Air Traffic Control and Airport Systems. Demands on the nation's air traffic control system continue to cause aircraft delays and restrictions, both on the number of aircraft movements in certain air traffic routes and on the number of landings and takeoffs at certain airports. These restrictions affect airline schedules and passenger traffic nationwide. In addition, increasing demands on the national air traffic control and airport systems could cause increased delays and restrictions in the future.

Cost and Availability of Aviation Fuel

Airline earnings are significantly affected by the price of aviation fuel. According to Airlines for America, fuel is the second largest cost component for most airline operations, and therefore an important and uncertain determinant of an air carrier's operating economics. There has been no shortage of aviation fuel since the "fuel crisis" of 1974, but there have been significant increases and fluctuations in the price of fuel.

Any increase in fuel prices causes an increase in airline operating costs. Fuel prices continue to be susceptible to, among other factors, political unrest in various parts of the world, Organization of Petroleum Exporting Countries' policy, increased demand for fuel caused by rapid growth of economics such as China and India, the levels of fuel inventory maintained by certain industries, the amounts of reserves maintained by governments, currency fluctuations, disruptions to production and refining facilities and weather. In recent years, the cost of aviation fuel has fluctuated in response to changes in demand for and supply of oil worldwide. Significant fluctuations and prolonged increases in the cost of aviation fuel may result in an adverse impact on air transportation industry profitability, causing airlines to reduce capacity, fleet and personnel as well as to increase airfares and institute fuel, checked baggage and other extra surcharges, all of which may decrease demand for air travel.

Economic Conditions

Historically, the financial performance of the air transportation industry has correlated with the state of the national and global economies. Following significant and dramatic changes which occurred in the financial markets in September 2008, the U.S. economy experienced a recession followed by weak growth. As a result of concerns about the U.S. government's ability to resolve long-term deficits, S&P downgraded the credit rating of the U.S. sovereign debt in August 2011 from AAA to AA+. While the rate of national and global economic growth has since strengthened, it is not known at this time whether such growth will persist beyond 2019. There can be no assurances that future weaker economic conditions, the U.S. federal government's credit rating, or other national and international fiscal concerns will not have an adverse effect on the air transportation industry.

Passenger Facility Charge collections are dependent upon the number of enplaned passengers using Sky Harbor Airport. (For a summary of historical passenger enplanements at Sky Harbor, see "Table 11" herein. In addition, the City's ability to recognize PFC Revenues in each Fiscal Year that are sufficient to pay debt service for the applicable amounts and commitment periods to the applicable Junior Lien Obligations will require (a) that the air carriers collecting the Passenger Facility Charge remit the net proceeds thereof to the City in accordance with the PFC Laws, (b) that the maximum amount of Passenger Facility Charge collections authorized by the FAA (either under the current authorization or as may be amended) not be exceeded prior to the payment, or provision for the payment, of the applicable Junior Lien Obligations (c) that the City's ability to impose and collect the Passenger Facility Charge not be terminated by the FAA prior to the payment, or provision for the payment, of all such bonds and (d) PFC Revenues are received in each Fiscal Year in amounts at least equal to the amounts pledged for such year. See also "CERTAIN BONDHOLDERS' RISKS — Bankruptcy and Financial Considerations — Passenger Facility Charges."

To help ensure that each of these requirements is satisfied, the City has covenanted (1) to take all action reasonably necessary to cause the collection and remittance to the City of all PFC Revenues required by Federal law to be so collected and remitted, (2) to apply PFC Revenues, to the extent received in any Fiscal Year, to payments in a dollar amount equal to, but not to exceed debt service for the applicable amounts and commitment periods to the applicable Junior Lien Obligations.

Despite the foregoing covenants, no assurance can be given that the PFC Laws will not be modified or restricted by the FAA or the U.S. Congress so as to reduce the amount of PFC Revenues available to the City. Further, even if the City takes all reasonably necessary action to cause the collection and remittance of PFC Revenues, there can be no assurance that the FAA will not terminate the City's PFC program.

PFC Revenues received in a Fiscal Year during the Commitment Period which exceed the amount irrevocably committed in that Fiscal Year may be applied by the City for any lawful purpose. Under the current PFC Laws, such purposes are limited to eligible projects or debt service related to eligible projects. Consequently, if PFC Revenues were received in excess of the amount irrevocably committed to debt service on the applicable Junior Lien Obligations in a Fiscal Year during the applicable Commitment Period and the City had other permitted uses for excess PFC Revenues received in prior years, but collections in a subsequent Fiscal Year were less than the amount pledged to debt service, the City would be permitted, but not required, to apply such excess PFC Revenues towards debt service on the applicable Junior Lien Obligations.

Activity Level and Financial Condition of Airlines Serving the Airport

The Airport derives a substantial portion of its operating revenues from landing and facility rental fees. The financial strength and stability of the airlines using Sky Harbor, together with numerous other factors, influence the level of aviation activity at, and the revenues of, the Airport. Individual airline decisions regarding level of service also affect total enplanements. Financial or operational difficulties of any of the airlines operating at Sky Harbor will have an adverse impact, directly or indirectly on Net Airport Revenues, Airport operations and PFC Revenues. In some cases, such an impact may be material.

The operating revenues from the landing and facility fees of American Airlines and Southwest Airlines are especially important to the Airport. For the fiscal year ended June 30, 2019, American Airlines and Southwest Airlines represented approximately 46% and 34%, respectively, of the total enplaned passengers at Sky Harbor. No other airline represented over 7% of Sky Harbor's enplaned passengers. American Airlines continues to maintain 50 of the Airport's 100 current gates and enplanements for Sky Harbor's largest carrier increased by 1.2% in fiscal year 2019. Similarly, Southwest Airlines enplanements increased by 2.9%. While Frontier Airlines recorded enplanement decline of 7.1%, the Airport recorded an overall net gain for the fiscal year of 613,030 enplanements, an increase of 2.8%. Southwest Airlines President, Tom Nealon, announced on March 8, 2017 that the airline would require eight additional gates at Sky Harbor to accommodate their plans for continued growth in Phoenix. No assurance can be given that American Airlines will continue its hubbing operations at Sky Harbor or that Southwest Airlines will continue to allocate a significant portion of its system capacity to Sky Harbor. In the event American Airlines discontinues or reduces its hubbing operations at Sky Harbor or Southwest Airlines discontinues or reduces the current allocation of its system capacity, other carriers may not step in to maintain the current level of activity at Sky Harbor. It is reasonable to assume that any significant financial or operational difficulties incurred by American Airlines or Southwest Airlines could have a material adverse effect on Sky Harbor.

Airline Consolidations, Bankruptcy and Financial Considerations

Since September 11, 2001, substantially all domestic airlines were downgraded by the rating agencies, and a number of them have filed for bankruptcy, including, but not limited to, American, United, Delta, Frontier, Hawaiian, Mesa, Sun Country and Air Canada. By 2008, all major and regional airlines that had filed for Chapter 11 of the U.S. Bankruptcy Code had emerged from bankruptcy. Certain other airlines including ATA, Aloha, Midway, Vanguard and Skybus have ceased operations. None of the airlines that ceased operations had significant enplanement levels at Sky Harbor. Additional bankruptcies, liquidations or major restructurings of other airlines could occur. However, it is not possible to predict the potential impact on Sky Harbor of any of these future events at this time.

In response to competitive pressures, the U.S. airline industry has continued to consolidate. In 2008, Delta and Northwest merged. In 2010, United and Continental completed the merger of the two airlines. In 2011, Southwest Airlines completed its acquisition of AirTran Airways. In 2013, US Airways and American Airlines completed the merger of the two airlines. Further airline consolidation is possible and could continue to change airline service patterns, particularly at the connecting hub airports of the merged airlines. The City cannot predict what impact, if any, such consolidation will have on airline traffic at Sky Harbor.

Letters of Authorization. To date, all airlines that have filed for bankruptcy protection have remitted all material payments due to the Airport for use of terminal facilities under their respective LOA. In the event a bankruptcy case is filed by an airline in the future, under current law the bankruptcy court could terminate the LOA at the expiration of its 30-day term. In such event, the City would be permitted to remove such airline from use and occupancy of the terminal and provide the premises to another airline. In such circumstances, while passenger demand may not be affected, revenue collections could be affected until other airlines absorb the unmet demand of the departing airline. The City cannot make any assurance regarding how a bankruptcy court will interpret the LOA.

Passenger Facility Charges. The PFC Laws provide that PFCs collected by the airlines constitute a trust fund held for the beneficial interest of the eligible agency (i.e., the Airport) imposing the PFCs except for any handling fee or retention of interest collected on unremitted proceeds. In addition, federal regulations require airlines to account for PFC collections separately and to disclose the existence and amount of funds regarded as trust funds for financial statements. Airlines are permitted to commingle PFC collections with other revenues. Airlines that have filed for Chapter 7 or 11 bankruptcy protection, however, are required to segregate PFC revenue in a separate account for the benefit of the applicable airport and cannot grant a third party any security or other interest in PFC revenue. PFCs collected by those airlines are required by the bankruptcy court to be placed in accounts separate from other airline revenue accounts and paid to airports monthly in accordance with the PFC regulations. However, the City cannot predict whether an airline that files for bankruptcy protection will properly account for the PFC whether the bankruptcy estate will have sufficient monies to pay the Airport in full for the PFCs owed by such airline. The airlines are entitled to retain interest earned collections on PFCs until such PFCs collections are remitted.

Airline Agreements and Federal Regulation Regarding Rates and Charges

The current form of month-to-month LOA for the exclusive use of space at Sky Harbor gives the Airport great flexibility in adjusting to the varying demands of the airlines. It also means that the airlines can seek to increase or decrease their space on a monthly basis. The City cannot offer any assurance that airlines will be willing to maintain their use of Airport space on terms that are similar to their existing terms of use.

The FAA Authorization Act of 1994 establishes that airline rates and charges set by airports be "reasonable" and mandates an expedited administrative process by which the Secretary of Transportation (the "*Secretary*") shall review rates and charges complaints that are not under an agreement with the carriers. An affected air carrier may file a written complaint requesting a determination of the Secretary as to reasonableness within 60 days after such carrier receives written notice of the establishment or increase of such fee. During the pendency of the review, the airlines must pay the disputed portion of the fee to the airport under protest, subject to refund to the extent such fees are found to be unreasonable by the Secretary. The airport must obtain a letter of credit, surety bond or other suitable credit facility equal to the amount in dispute unless the airport and the complaining carriers agree otherwise.

Competition, Travel Alternatives and Other Issues

Sky Harbor has no significant competition in the Phoenix-Mesa-Scottsdale Metropolitan Statistical Area. Phoenix-Mesa Gateway Airport provides limited passenger service and is not expected to provide significant competition in the foreseeable future. However, teleconference, video-conference and web-based meetings continue to improve in quality and price and are often considered a satisfactory alternative to face-to-face business meetings. While the effects of these developments cannot be quantified, it is possible that business travel to and from Sky Harbor may be adversely affected as a result.

Delays and Cost Increases to Capital Improvement Program

The ability of the Airport to complete its on-going Aviation CIP may be adversely affected by various factors including: (1) incorrect assumptions made to complete the Aviation CIP, (2) design and engineering oversights, (3) changes to the scope of the projects, including changes to federal security regulations, (4) delays in contract awards, (5) material and/ or labor shortages, (6) unforeseen site conditions, (7) adverse weather conditions and other force majeure events, (8) contractor defaults, (9) labor disputes, (10) unanticipated economic events such as inflation and (11) environmental issues. No assurance can be made that the projects will not exceed the currently budgeted amounts. Any schedule delays or cost increases could result in the need to issue additional indebtedness and may result in increased costs per enplaned passenger to the airlines, increased parking rates, or other rate increases.

Uncertainties of Projections, Forecasts and Assumptions

This Official Statement, and particularly the information contained in the Report incorporated by reference herein, contain statements relating to future results that are "forward looking statements" as defined in the Private Securities Litigation Reform Act of 1995. When used in this Official Statement and its appendices, the words "estimate," "budget," "forecast," "intend," "expect," "projected," and similar expressions identify forward looking statements. Such statements are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated in such forward looking statements. Among many factors that may cause projected revenues and expenditures to be materially different from those anticipated include an inability to incur debt at assumed interest rates, construction delays, increases in construction costs, general economic downturns, factors affecting the airline industry in general or specific airlines, federal, state or local legislation and/or regulations, changes in the Airport's operational plans and procedures, and regulatory and other restrictions, including but not limited to those that may affect the ability to undertake, the timing or the costs of certain projects or operations. Any forecast is subject to such uncertainties. Therefore, there are likely to be differences between forecasts and actual results, and those differences may be material.

Report of the Airport Consultant

The Report included as Appendix A to this Official Statement contains certain assumptions and forecasts. The Report should be read in its entirety for a discussion of historical and forecast results of the Airport and the assumptions and rationale underlying the forecasts. As noted in the Report, any forecast is subject to uncertainties. There will usually be differences between actual and forecast results because not all events and circumstances occur as expected, and those differences may be material.

Accordingly, the projections contained in the Report or that may be contained in any future certificate of the City or a consultant are not necessarily indicative of future performance, and neither the Airport Consultant nor the City assumes any responsibility for the failure to meet such projections. In addition, certain assumptions with respect to future business and financing decisions of the Airport are subject to change. No representation is made or intended, nor should any representation be inferred, with respect to the likely existence of any particular future set of facts or circumstances, and prospective purchasers of the 2019 Junior Bonds are cautioned not to place undue reliance upon the Report or upon any projections or requirements for projections. If actual results are less favorable than the results projected or if the assumptions used in preparing such projections prove to be incorrect, the amount of Designated Revenues may be materially less than expected and consequently, the ability of the City to make timely payment of the principal of and interest on the 2019 Junior Bonds may be materially adversely affected.

Neither the City's independent auditors, nor any other independent accountants have compiled, examined or performed any procedures with respect to the Designated Revenues forecast in the Report, nor have they expressed any opinion or any form of assurance on such information or its achievability, and assume no responsibility for, and disclaim any association with, the Designated Revenues forecast in the Report, nor have they expressed any opinion or any form of assurance on such information or its achievability.

Limitation of Rights and Remedies

The Airport Revenue Bond Ordinance, the City Purchase Agreement and the Indenture provide limited remedies for Owners if defaults occur relating to the 2019 Junior Bonds the most significant of which is specific performance. Such documents and agreements do not provide for acceleration prior to maturity. The availability of those remedies may be limited by bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar laws affecting creditors' rights generally; the application of equitable principles and the exercise of judicial discretion in appropriate cases; common law and statutes affecting the enforceability of contractual obligations generally; principles of public policy concerning, affecting or limiting the enforcement of rights or remedies against governmental entities such as the City. The City cannot assure Owners that the remedies provided in the Airport Revenue Bond Ordinance, City Purchase Agreement and the Indenture will be available or effective to make Owners whole if a default occurs.

Future Legislation and Regulation

The operation of the Airport and the ability of the City to generate Designated Revenues and PFC Revenues sufficient to pay the 2019 Junior Bonds may be adversely affected by future federal, state or local legislation that affects the Airport directly, or activities at the Airport. Federal legislation that could adversely affect the Designated Revenues and PFC Revenues includes, but is not limited to, legislation limiting the use of Airport properties, legislation imposing additional liabilities or restrictions on the operation of the Airport or the airlines and other persons using the Airport, changes in environmental laws, reductions in federal funding for the Airport, elimination or reduction of the ability of the City to impose fees and charges for use of Airport products or services and legislation or executive orders imposing travel restrictions on foreign passengers. In addition, the United States Congress could enact legislation making interest earned on the Tax-Exempt Bonds includable in a bondholder's gross income for federal income tax purposes or limit the tax benefits associated with ownership of the Tax-Exempt Bonds. See "TAX EXEMPTION — General" herein. No assurance can be given that the PFC Laws will not be modified or restricted by the FAA or the U.S. Congress so as to reduce the amount of PFC Revenues available to the City. Further, even if the City takes all reasonably necessary action to cause the collection and remittance of PFC Revenues, there can be no assurance that the FAA will not terminate the City's PFC program.

With respect to an airline in bankruptcy proceedings in a foreign country, the City is unable to predict what types of orders and/or relief could be issued by foreign bankruptcy tribunals, or the extent to which any such orders would be enforceable in the United States.

Growth of Transportation Network Companies

Transportation network companies ("*TNCs*"), such as Uber Technologies, Inc. and Lyft, Inc., connect paying passengers with drivers who provide the transportation using their own commercial and non-commercial vehicles. The popularity of this type of ride-sourcing has increased because of the convenience of requesting a ride through a mobile application, the ability to pay for this service without providing cash or other payment to the hired driver and competitive pricing.

As described in the Report, effective June 2016, the City eliminated collection of permit fees at the Airport, and implemented a per trip fee structure in which a fee is collected for each revenue-producing trip. During the first three years of operations, the TNCs have had a significant impact on competing ground transportation modes as their share of commercial trips has increased to approximately 67%, largely at the expense of taxis, limos, and shuttles. During the same period, parking revenues have grown due to a rate increase in fiscal year 2018, though transactions have leveled off. The City plans to monitor all modes of ground transportation to assess the potential impacts from TNCs, however, at this time, the City cannot predict what impact, adverse or otherwise, those operations will have on other ground transportation services, parking at the Airport and the impact on Designated Revenues. One option the City is considering to mitigate the potential risk to parking revenues posed by TNCs is to enter into a long-term lease of Airport parking facilities to one or more private operators. In response to a recent Request for Qualifications, the City qualified four respondents. The City expects that any long-term lease agreements or other privatization arrangements with private parties would not be pursued if they were not in the best economic interests of the Airport, but in any event, the City would not enter into a lease or other arrangement that would materially adversely affect bondholders.

The current TNC trip fee is $2.66 for pick-ups only. In December 2019, the City Council will consider increasing the TNC trip fee to $4.00 for pick-ups and drop-offs, effective January 2020. The financial forecast in the Report of the Airport Consultant assumes the City Council will approve the new TNC trip fees effective January 2020 and includes estimated revenues from the new TNC trip fees at the $4.00 rate, approximately $16 million in additional revenue in the first full year.

AIRLINE INFORMATION

The major and national airlines serving Sky Harbor or their respective parent corporations are subject to the periodic reporting requirements of the Securities Exchange Act of 1934 and, in accordance therewith, file reports and other information with the Securities and Exchange Commission (the "*Commission*"). Certain information, including financial information, as of particular dates concerning such airlines or their respective parent corporations is disclosed in certain reports and statements filed with the Commission. Such reports and statements can be inspected and copied at the public reference facilities maintained by the Commission, which can be located by calling the Commission at 1-800-SEC-0330 or from the Commission's EDGAR database on the internet. In addition, each airline is required to file periodic reports of financial and operating statistics with the U.S. Department of Transportation. Such reports of financial operating statistics can be obtained from the Office of Airline Information, Bureau of Transportation Statistics, Department of Transportation, Room 4201, 400 7th Street, S.W., Washington D.C. 20590 and copies of such reports can be obtained at prescribed rates. The foreign airlines also provide certain information concerning their operations and financial affairs, which may be obtained from the respective airlines. None of the Corporation, the City, the Financial Advisor or the Underwriters make any representation with respect to, and assume no responsibility for, the accuracy or completeness of, any information filed or provided by the airlines.

The City undertakes no responsibility for and makes no representation as to the accuracy or completeness of (i) any reports and statements filed with the SEC or U.S. Department of Transportation as described in this section or (ii) any material contained on the SEC's website as described in this section, including, but not limited to, updated information on the SEC website or links to other Internet sites accessed through the SEC's website. Any such information is not part of this Official Statement nor has such information been incorporated by reference herein, and such information should not be relied upon in deciding whether to invest in the 2019 Junior Bonds.

THE CITY

The City is a municipal corporation duly organized and validly existing under the laws of the State of Arizona. Pursuant to the City Purchase Agreement, the City will agree to make payments sufficient to pay amounts due on the 2019 Junior Bonds. Detailed information on the City and the Airport is set forth in Appendices A through E.

THE CORPORATION

The Corporation is a nonprofit corporation organized under the laws of the State of Arizona for the purpose of assisting the City in the acquisition and financing of municipal property and equipment.

The Corporation will enter into the City Purchase Agreement and the Indenture to facilitate the funding of the Airport improvements, the prepayment of the 2019 Loan and the refunding of the Bonds Being Refunded. The Corporation is not financially liable for the payment of the principal of or interest on the 2019 Junior Bonds and the Owners will have no right to look to the Corporation for payment the 2019 Junior Bonds except to the extent of the payments received from the City under the City Purchase Agreement.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

Samuel Klein and Company, a firm of independent public accountants, will deliver to the City and the Trustee, on or before the settlement date of the Taxable Bonds, its verification report indicating that is has verified the mathematical accuracy of (i) the mathematical computations of the adequacy of the cash and the maturing principal of and interest on the Government Obligations, to pay, when due, the maturing principal of, interest on and related call premium requirements, if any, of the Bonds Being Refunded and (b) the mathematical computations of yield used by Bond Counsel to conclude the yield on the Government Obligations does not exceed that permitted under the Code with respect to the Bonds Being Refunded.

The verification performed by Samuel Klein and Company will be solely based upon data, information and documents provided to Samuel Klein and Company by the City and its representatives and it has not evaluated or examined the assumptions or information used in the computations.

LITIGATION

The City is contingently liable in respect to lawsuits and other claims incidental to the ordinary course of its operations. The City Attorney has advised City management of the nature and extent of pending and threatened claims against the City. In the opinion of City management, such matters will not have a materially adverse effect on the City's ability to comply with the requirements of the City Purchase Agreement.

To the knowledge of the City Attorney, no pending or threatened litigation or administrative action or proceeding has (i) restrained or enjoined the City from entering into the City Purchase Agreement or approving the issuance and delivery of the 2019 Junior Bonds or (ii) contested or questioned the validity of the 2019 Junior Bonds or the proceedings and authority under which the 2019 Junior Bonds have been authorized and are to be issued, secured, sold, executed or delivered. Certificates of the City to that effect will be delivered at the time of delivery of the 2019 Junior Bonds.

To the knowledge of counsel to the Corporation, no pending or threatened litigation or administrative action or proceeding has (i) restrained or enjoined the Corporation from entering into the Indenture or the City Purchase Agreement or approving the issuance and delivery of the 2019 Junior Bonds or (ii) contested or questioned the validity of the 2019 Junior Bonds or the proceedings and authority under which the 2019 Junior Bonds have been authorized and are to be issued, secured, sold, executed or delivered. Certificates of the Corporation to that effect will be delivered at the time of delivery of the 2019 Junior Bonds.

TAX EXEMPTION

General

The Code includes requirements which the Corporation and the City must continue to meet after the issuance of the Tax-Exempt Bonds in order that interest thereon be and remain excludable from gross income of the holders thereof for federal income tax purposes. The Corporation's or the City's failure to meet these requirements may cause the interest on the Tax-Exempt Bonds to be included in gross income for federal income tax purposes retroactively to the date of issuance of the Tax-Exempt Bonds. The Corporation and the City have covenanted in the City Purchase Agreement to take the actions required by the Code in order to maintain the excludability from gross income for federal income tax purposes of interest on the Tax-Exempt Bonds and not to take any actions that would adversely affect that excludability.

In the opinion of Bond Counsel, assuming continuing compliance by the Corporation and the City with the tax covenants referred to above and the accuracy of certain representations of the Corporation and the City, under existing statutes, regulations, rulings and court decisions, interest on the Tax-Exempt Bonds will be excludable from gross income for federal income tax purposes, except for interest on any Series 2019B Junior Bond for any period during which such Series 2019B Junior Bond is owned by a person who is a substantial user of the property financed or refinanced with proceeds of the Series 2019B Junior Bonds (the *"AMT Property"*) or any person considered to be related to such person (within the meaning of Section 147(a) of the Code). Interest on the Series 2019A Junior Bonds will not be an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals, but interest on the Series 2019B Junior Bonds will be treated as an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals. Bond Counsel is further of the opinion that assuming interest on the Tax-Exempt Bonds is excludable from gross income for federal income tax purposes, interest on the Tax-Exempt Bonds will be exempt from income taxation under the laws of the State of Arizona.

Except as described above, Bond Counsel will express no opinion regarding the federal income tax consequences resulting from the receipt or accrual of interest on the Tax-Exempt Bonds or the ownership or disposition of the Tax-Exempt Bonds. Prospective purchasers of Tax-Exempt Bonds should be aware that the ownership of Tax-Exempt Bonds may result in other collateral federal tax consequences, including (i) the denial of a deduction for interest on indebtedness incurred or continued to purchase or carry Tax-Exempt Bonds or, in the case of a financial institution, that portion of the owner's interest expense allocable to interest on the Tax-Exempt Bonds, (ii) the reduction of the loss reserve deduction for property and casualty insurance companies by the applicable statutory percentage of certain items, including interest on the Tax-Exempt Bonds, (iii) the inclusion of interest on the Tax-Exempt Bonds in the earnings of certain foreign corporations doing business in the United States for purposes of a branch profits tax, (iv) the inclusion of interest on the Tax-Exempt Bonds in the passive income subject to federal income taxation of certain Subchapter S corporations with Subchapter C earnings and profits at the close of the taxable year, and (v) recipients of certain Social Security and Railroad Retirement benefits being required to take into account receipts and accrual of interest on the Tax-Exempt Bonds in determining whether a portion of such benefits are included in gross income for federal income tax purposes.

From time to time, there are legislative proposals in Congress or in the State legislature which, if enacted, could alter or amend one or more of the federal income tax matters or state tax matters, respectively, described above or adversely affect the market value of the Tax-Exempt Bonds. It cannot be predicted whether or in what form any such proposal might be enacted or whether, if enacted, it would apply to obligations (such as the Tax-Exempt Bonds), executed and delivered prior to enactment.

The discussion of tax matters in this Official Statement applies only in the case of purchasers of the Tax-Exempt Bonds at their original issuance and at the respective prices indicated on the inside front cover page of this Official Statement. It does not address any other tax consequences, such as, among others, the consequence of the existence of any market discount to subsequent purchasers of the Tax-Exempt Bonds. Purchasers of the Tax-Exempt Bonds should consult their own tax advisers regarding their particular tax status or other tax considerations resulting from ownership of the Tax-Exempt Bonds.

Information Reporting and Backup Withholding

Interest paid on tax-exempt obligations such as the Tax-Exempt Bonds is subject to information reporting to the Internal Revenue Service in a manner similar to interest paid on taxable obligations. This reporting requirement does not affect the excludability of interest on the Tax-Exempt Bonds from gross income for federal income tax purposes. However, in conjunction with that information reporting requirement, the Code subjects certain non-corporate owners of Tax-Exempt Bonds, under certain circumstances, to "backup withholding" at the rates set forth in the Code, with respect to payments on the Tax-Exempt Bonds and proceeds from the sale of Tax-Exempt Bonds. Any amount so withheld would be refunded or allowed as a credit against the federal income tax of such owner of Tax-Exempt Bonds. This withholding generally applies if the owner of Tax-Exempt Bonds (i) fails to furnish the payor such owner's social security number or other taxpayer identification number ("*TIN*"), (ii) furnished the payor an incorrect TIN, (iii) fails to properly report interest, dividends, or other "reportable payments" as defined in the Code, or (iv) under certain circumstances, fails to provide the payor or such owner's securities broker with a certified statement, signed under penalty of perjury, that the TIN provided is correct and that such owner is not subject to backup withholding. Prospective purchasers of the Tax-Exempt Bonds may also wish to consult with their tax advisors with respect to the need to furnish certain taxpayer information in order to avoid backup withholding.

Original Issue Discount and Original Issue Premium

Certain of the Tax-Exempt Bonds, as indicated on the inside front cover page of this Official Statement ("*Discount Bonds*"), were offered and will be sold to the public at an original issue discount ("*Original Issue Discount*"). Original Issue Discount is the excess of the stated redemption price at maturity (the principal amount) over the "issue price" of a Discount Bond. The issue price of a Discount Bond is the initial offering price to the public (other than to bond houses, brokers or similar persons acting in the capacity of underwriters or wholesalers) at which a substantial amount of the Discount Bonds of the same maturity will be sold pursuant to that offering. For federal income tax purposes, Original Issue Discount accrues to the owner of a Discount Bond over the period to maturity based on the constant yield method, compounded semiannually (or over a shorter permitted compounding interval selected by the owner). The portion of Original Issue Discount that accrues during the period of ownership of a Discount Bond (i) will be interest excludable from the owner's gross income for federal income tax purposes to the same extent, and subject to the same considerations discussed above, as interest on the Tax-Exempt Bonds, and (ii) will be added to the owner's tax basis for purposes of determining gain or loss on the maturity, prior sale or other disposition of that Discount Bond. A purchaser of a Discount Bond in the initial public offering at the price for that Discount Bond stated on the inside front cover of this Official Statement who holds that Discount Bond to maturity will realize no gain or loss upon the retirement of that Discount Bond.

Certain of the Tax-Exempt Bonds, as indicated on the inside front cover page of this Official Statement (the "*Premium Bonds*"), were offered and will be sold to the public at a price in excess of their stated redemption price at maturity. That excess constitutes bond premium. For federal income tax purposes, bond premium is amortized over the period to the maturity of a Premium Bond, based on the yield to the maturity date of that Premium Bond, compounded semiannually (or over a shorter permitted compounding interval selected by the owner). No portion of that bond premium is deductible by the owner of a Premium Bond. For purposes of determining the owner's gain or loss on the sale, redemption (including redemption at maturity) or other disposition of a Premium Bond, the owner's tax basis in the Premium Bond is reduced by the amount of bond premium that accrues during the period of ownership. As a result, an owner may realize taxable gain for federal income tax purposes from the sale or other disposition of a Premium Bond for an amount equal to or less than the amount paid by the owner for that Premium Bond. A purchaser of a Premium Bond in the initial public offering at the price for that Premium Bond stated on the inside front cover of this Official Statement who holds that Premium Bond to maturity will realize no gain or loss upon the retirement of that Premium Bond.

Owners of Discount Bonds and Premium Bonds should consult their own tax advisors as to the determination for federal income tax purposes of the amount of Original Issue Discount or bond premium properly accruable in any period with respect to the Discount Bond or Premium Bond and as to other federal tax consequences, and the treatment of Original Issue Discount and bond premium for purposes of state and local taxes on, or based on, income.

CERTAIN UNITED STATES FEDERAL CONSIDERATIONS WITH RESPECT TO THE TAXABLE BONDS

General

Bond Counsel expresses no opinion regarding the excludability of interest on the Taxable Bonds from gross income for federal or State of Arizona income tax purposes.

The discussion below is generally limited to "U.S. Owners," (as defined herein). The discussion below is based upon current provisions of the Code, current final, temporary and proposed Treasury regulations, judicial authority and current administrative rulings and pronouncements of the IRS. There can be no assurance that the IRS will not take a contrary view, and no ruling from the IRS has been, or is expected to be, sought on the issues discussed herein. Legislative, judicial, or administrative changes or interpretations may occur that could alter or modify the statements and conclusions set forth herein. Any such changes or interpretations may or may not be retroactive and could affect the tax consequences discussed below.

The summary is not a complete analysis or description of all potential U.S. federal tax considerations that may be relevant to, or of the actual tax effect that any of the matters described herein will have on, particular holders of Taxable Bonds and does not address U.S. federal gift or (for U.S. Owners) estate tax consequences or alternative minimum, foreign, state, local or other tax consequences. This summary does not purport to address special classes of taxpayers (such as S corporations, mutual funds, insurance companies, financial institutions, small business investment companies, regulated investment companies, real estate investment trusts, grantor trusts, former citizens of the United States, broker-dealers, traders in securities and tax-exempt organizations) that are subject to special treatment under the federal income tax laws, or persons that hold Taxable Bonds that are a hedge against, or that are hedged against, currency risk or that are part of a hedge, straddle, conversion or other integrated transaction, or persons whose functional currency is not the U.S. dollar. This summary also does not address the tax consequences to an owner of Taxable Bonds held through a partnership or other pass-through entity treated as a partnership for U.S. federal income tax purposes. In addition, this discussion is limited to persons purchasing the Taxable Bonds for cash in this offering at their "issue price" within the meaning of Section 1273 of the Code (i.e., the first price at which a substantial amount of Taxable Bonds are sold to the public for cash), and it does not address the tax consequences to holders that purchase the Taxable Bonds after their original execution and delivery. This discussion assumes that the Taxable Bonds will be held as capital assets within the meaning of Section 1221 of the Code.

As used herein, the term "U.S. Owner" means a beneficial owner of Taxable Bonds that is (i) an individual citizen or resident of the United States for U.S. federal income tax purposes, (ii) a corporation (or other entity classified as a corporation for U.S. federal tax purposes) created or organized in or under the laws of the United States or any state thereof or the District of Columbia, (iii) an estate, the income of which is includible in gross income for U.S. federal income tax purposes regardless of its source, or (iv) a trust if (a) a U.S. court can exercise primary supervision over the administration of such trust and one or more United States persons (within the meaning of the Code) has the authority to control all of the substantial decisions of such trust or (b) the trust has made a valid election under applicable Treasury regulations to be treated as a United States person (within the meaning of the Code).

BECAUSE INDIVIDUAL CIRCUMSTANCES MAY DIFFER, PROSPECTIVE HOLDERS OF THE TAXABLE BONDS ARE STRONGLY URGED TO CONSULT THEIR OWN TAX ADVISORS WITH RESPECT TO THEIR PARTICULAR TAX SITUATIONS AND AS TO ANY FEDERAL, FOREIGN, STATE, LOCAL OR OTHER TAX CONSIDERATIONS (INCLUDING ANY POSSIBLE CHANGES IN TAX LAW) AFFECTING THE PURCHASE, HOLDING AND DISPOSITION OF THE TAXABLE BONDS.

Certain U.S. Federal Income Tax Consequences to U.S. Owners

Interest. In general, interest paid or accrued on the Taxable Bonds, generally will be taxable to a U.S. Owner as ordinary interest income at the time such amounts are accrued or received, in accordance with the U.S. Owner's method of accounting for federal income tax purposes. Under recently-enacted legislation known as the Tax Cuts and Jobs Act, U.S. Owners that use an accrual method of accounting for U.S. federal income tax purposes generally are required to include certain amounts in income no later than the time such amounts are reflected on certain financial statements. This rule generally is effective for tax years beginning after December 31, 2017, (or, for debt securities issued with original issue discount, for tax years beginning after December 31, 2018). Accrual method U.S. Owners should consult their tax advisors regarding the potential applicability of this rule to their particular situation.

Disposition of the Taxable Bonds. Upon the sale, exchange, retirement, or other taxable disposition of a Bond, a U.S. Owner, in general, will recognize gain or loss equal to the difference between the amount realized from the sale, exchange, retirement, or other disposition and the U.S. Owner's adjusted basis, or applicable portion of the adjusted basis, in the Taxable Bond. The U.S. Owner's adjusted basis generally will equal the U.S. Owner's cost of the Taxable Bond, reduced by any principal payments (and any other payments on the Taxable Bonds not treated as qualified stated interest). Any such gain or loss generally will be long-term capital gain or loss, provided that the Taxable Bonds have been held for more than one year at the time of disposition. Net long-term capital gain recognized by an individual U.S. Owner generally will be subject to tax at a lower rate than that for net short-term capital gain or ordinary income. The deductibility of capital losses is subject to limitations.

Additional Tax on Net Investment Income. An additional 3.8% tax is imposed on the "net investment income" of certain U.S. citizens and residents, and on the undistributed "net investment income" of certain estates and trusts. Among other items, "net investment income" generally includes gross income from interest and certain net gain from the sale, exchange, redemption, or other taxable disposition of a debt instrument that produces interest, minus certain deductions. **A U.S. Owner that is an individual, estate, or trust should consult its tax advisor regarding the applicability of this additional tax.**

Information Reporting and Backup Withholding. The Bond Trustee must report annually to the IRS and to each U.S. Owner any interest payable to the U.S. Owner, subject to certain exceptions. A non-corporate U.S. Owner of the Taxable Bonds may be subject to backup withholding (currently at a rate of 24%) with respect to "reportable payments," which include interest paid on the Taxable Bonds and the gross proceeds of a sale, exchange, redemption, or retirement of the Taxable Bonds, unless the U.S. Owner provides an accurate taxpayer identification number and certifies on an IRS Form W-9, under penalties of perjury, that the U.S. Owner is not subject to backup withholding and otherwise complies with applicable requirements of the backup rules or otherwise establishes an exemption.

LEGAL MATTERS

Legal matters incident to the issuance of the 2019 Junior Bonds and with regard to the tax-exempt status of the interest thereon (see "TAX EXEMPTION — General") are subject to the legal opinion of Greenberg Traurig, LLP, Phoenix, Arizona, Bond Counsel, who has been retained by, and is acting as Bond Counsel to the Corporation and the City. Signed copies of the opinion, dated and speaking only as of the date of delivery of the 2019 Junior Bonds, will be delivered to the Underwriters. Certain legal matters will be passed upon for the Underwriters by Squire Patton Boggs (US) LLP, Phoenix, Arizona, as Counsel to the Underwriters.

The text of the proposed legal opinion is set forth as Appendix G. The actual legal opinion to be delivered may vary from that text if necessary to reflect facts and law on the date of delivery. The opinion will speak only as of its date, and subsequent distribution of it by recirculation of the Official Statement or otherwise shall create no implication that Bond Counsel has reviewed or expresses any opinion concerning any of the matters referred to in the opinion subsequent to its date.

RATINGS

Moody's Investors Service, Inc. ("*Moody's*") has assigned a rating of "A1" to the 2019 Junior Bonds. S&P Global Ratings, a division of Standard & Poor's Financial Services LLC ("*S&P*") has assigned a rating of "A+" to the 2019 Junior Bonds. No application has been made to any other rating service for the purpose of obtaining ratings on the 2019 Junior Bonds. The City furnished these rating agencies with certain information and materials with respect to the 2019 Junior Bonds. The ratings will reflect only the views of the rating services. An explanation of the significance of the ratings may be obtained from Moody's at 7 World Trade Center, 250 Greenwich Street, 23rd Floor, New York, New York 10007 and from S&P at 55 Water Street, New York, New York 10041. There is no assurance that such ratings will continue for any given period of time or that the ratings will not be revised downward or withdrawn entirely by Moody's or S&P if, in their judgment, circumstances so warrant. Any such downward revision or withdrawal of such ratings by Moody's or S&P may have an adverse effect on the market price of the 2019 Junior Bonds.

UNDERWRITING

The 2019 Junior Bonds are being purchased for reoffering by Citigroup Global Markets Inc. and the other underwriters shown on the cover (the "*Underwriters*"). The Underwriters have agreed to purchase the 2019 Junior Bonds, subject to certain conditions, at an aggregate purchase price of $. If the 2019 Junior Bonds are sold to produce the yields shown on the inside front cover hereof, the underwriters' compensation will be $.

The Underwriters are committed to purchase all of the 2019 Junior Bonds if any are purchased. The 2019 Junior Bonds are offered for sale initially at the approximate yields set forth on the inside front cover of this Official Statement, which yields may be changed, from time to time, by the Underwriters. The 2019 Junior Bonds may be sold to certain dealers (including underwriters and dealers depositing the 2019 Junior Bonds into investment trusts) at prices lower than the public offering price.

Citigroup Global Markets Inc., an underwriter of the Bonds, has entered into a retail distribution agreement with Fidelity Capital Markets, a division of National Financial Services LLC, (together with its affiliates, "Fidelity"). Under this distribution agreement, Citigroup Global Markets Inc. may distribute municipal securities to retail investors at the original issue price through Fidelity. As part of this arrangement Citigroup Global Markets Inc. will reimburse Fidelity for its selling efforts.

On October 3, 2019, Siebert Cisneros Shank & Co., L.L.C. and The Williams Capital Group, L.P. announced their plan to merge, with an expected effective date of early-November 2019 (the "Effective Date"). As of the Effective Date, Siebert Cisneros Shank & Co., L.L.C. will change its name to Siebert Williams Shank & Co., LLC, and its holding company will be renamed Shank Williams Cisneros, LLC.

CONTINUING DISCLOSURE

The City will enter into a Continuing Disclosure Undertaking (the "*Undertaking*") with respect to the 2019 Junior Bonds for the benefit of the beneficial owners of such 2019 Junior Bonds to send certain information annually and to provide notice of certain events to the Municipal Securities Rulemaking Board through the Electronic Municipal Market Access (EMMA) system pursuant to the requirements of Section (b)(5) of Rule 15c2-12 (the "*Rule*") adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934. The specific nature of the information to be provided on an annual basis, the events which will be noticed on an occurrence basis and other terms of the Undertaking, are set forth in "APPENDIX H — Form of Continuing Disclosure Undertaking."

The City has represented that during the last five years it is in compliance in all material respects with each and every undertaking previously entered into by it pursuant to the Rule. A failure by the City to comply with the Undertaking will not constitute a default under the City Purchase Agreement or the Indenture and beneficial owners of the 2019 Junior Bonds are limited to the remedies described in the Undertaking. See "APPENDIX H — Form of Continuing Disclosure Undertaking." A failure by the City to comply with the Undertaking must be reported in accordance with the Rule and must be considered by any broker, dealer or municipal securities dealer before recommending the purchase or sale of the 2019 Junior Bonds in the secondary market. Consequently, such a failure may adversely affect the transferability and liquidity of the 2019 Junior Bonds and their market price.

INDEPENDENT AUDITORS AND INCORPORATION BY REFERENCE OF CITY'S COMPREHENSIVE ANNUAL FINANCIAL REPORT

The financial statements of the City as of June 30, 2018 for its fiscal year then ended have been audited by BKD, LLP, independent auditors, as stated in their report. The financial statements and auditor's report are part of the City's comprehensive annual financial report (the "*CAFR*"), which may be obtained from EMMA, free of charge at http://emma.msrb.org or from the City, free of charge, at the following location: 251 West Washington Street, 9th Floor, Phoenix, Arizona 85003, Attention: Finance Department, Telephone: (602) 262-7166. The CAFR may also be downloaded from the City's website at www.phoenix.gov under Departments-Finance-Comprehensive Annual Financial Report. The CAFR so filed with EMMA as part of the City's continuing disclosure undertakings pursuant to the Rule is hereby incorporated by reference.

MISCELLANEOUS

Any statements in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. This Official Statement is not to be construed as a contract or agreement between the Corporation, the City or the Underwriters and the purchasers or holders of any of the 2019 Junior Bonds.

This Official Statement has been approved, executed and delivered by the Corporation and the City.

CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

By ____
President

CITY OF PHOENIX, ARIZONA

By ____
Chief Financial Officer

Appendix A

REPORT OF THE AIRPORT CONSULTANT

on the proposed issuance of

CITY OF PHOENIX CIVIC IMPROVEMENT CORPORATION

JUNIOR LIEN AIRPORT REVENUE BONDS, SERIES 2019

Prepared for

City of Phoenix Aviation Department
Phoenix, Arizona

Prepared by
LeighFisher
Cincinnati, Ohio

October 22, 2019

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Leigh|Fisher

October 22, 2019

Mr. James E. Bennett, A.A.E.
Director of Aviation Services
City of Phoenix
Aviation Department
Phoenix Sky Harbor International Airport
3400 Sky Harbor Boulevard
Phoenix, Arizona 85034

Re: Report of the Airport Consultant on behalf of the City of Phoenix, Arizona, concerning the issuance of Junior Lien Airport Revenue Bonds, Series 2019

Dear Mr. Bennett:

We are pleased to submit this Report of the Airport Consultant (Report) on certain aspects of the proposed issuance of Junior Lien Airport Revenue Bonds, Series 2019A (Non-AMT) (2019A Junior Bonds), Series 2019B (AMT) (2019B Junior Bonds, and collectively with the 2019A Junior Bonds, the Improvement Bonds), and Junior Lien Airport Revenue Refunding Bonds, Series 2019C (Taxable) (the Series 2019C Junior Bonds or Refunding Bonds, and collectively with the Improvement Bonds, the 2019 Junior Bonds). The Series 2019 Junior Bonds are to be issued by the City of Phoenix Civic Improvement Corporation (CIC) of the City of Phoenix, Arizona (the City), for and on behalf of its Aviation Department (the Aviation Department).* This letter and the accompanying attachment and exhibits constitute our Report.

The purpose of the Report is to evaluate the ability of the City to satisfy the requirements of the Rate Covenant and the Junior Lien Rate Covenant during the forecast period taking into account the proposed 2019 Junior Bonds, planned future bonds, and outstanding Senior and Junior Lien Bonds. The forecast covers the fiscal year (FY) ending June 30, 2020 (FY 2020) through FY 2026, inclusive (the Forecast Period).

The City owns and, through the Aviation Department, operates Phoenix Sky Harbor International Airport (Sky Harbor), which is the primary air carrier airport serving the Phoenix region and the State of Arizona. The City also owns and operates Phoenix-Deer Valley (DVT) and Phoenix-Goodyear (GYR) general aviation airports (collectively with Sky Harbor, the Airport) and is a member of the Phoenix-Mesa Gateway Airport Authority, which owns and operates Phoenix-Mesa Gateway Airport.

*Capitalized terms not otherwise defined in this Report have the meanings given in the Bond Ordinance, City Purchase Agreements, Senior Lien Obligation Documents, Junior Lien Obligation Documents, or the Official Statement to which this Report is attached.

AVIATION CAPITAL IMPROVEMENT PROGRAM

The Aviation Department has developed an Aviation Capital Improvement Program (Aviation CIP)* through FY 2026 with project costs totaling $2.7 billion. For the purposes of this Report, the Aviation Department has included selected projects from their Comprehensive Asset Management Plan (CAMP) in the Aviation CIP. CAMP is a Master Plan that addresses a 20-year period and helps identify and refine future demand forecasts and development opportunities. Given the dynamic conditions of the industry and preliminary assumptions, recurring updates will be required to reflect changing activity and future needs.

The largest projects in the Aviation CIP are the PHX Sky Train Stage 2, Terminal 3 Modernization, Terminal 4 Concourse S1 and two CAMP projects (Union Pacific Railroad (UPRR) Trench Phase 1 and Terminal 3 2nd North Concourse), which are estimated to cost $745.0 million, $580.0 million, $310.0 million, $220.0 million, and $180.0 million respectively. The Improvement Bonds will be used to repay the Short-Term Financing Program as well as fund ongoing expenditures related to the PHX Sky Train Stage 2, Terminal 4 Concourse S1, the Terminal 3 Modernization, and Police Hangar at DVT. The project categories in the Aviation CIP and their estimated costs by year are shown on Exhibit A-1. The project categories in the Aviation CIP and their estimated funding sources are shown on Exhibits A-2 and A-3. Major categories of projects are explained below.

The Aviation Department plans to fund certain project costs of the Aviation CIP through Airport Improvement Program (AIP) grants administered by the Federal Aviation Administration (FAA), State grants, Passenger Facility Charge (PFC) revenues, Customer Facility Charge (CFC) revenues, Airport Improvement Funds (or local funds), Private Funding, and the proceeds of bonds. The City uses a Short-Term Financing Program to provide interim funding for large Aviation CIP projects, which is currently being utilized on the PHX Sky Train Stage 2 project. The City plans to issue additional bonds during the Forecast Period.

*For purposes of this Report, the Major Capital Projects identified on Exhibit A-1 were adjusted to be represented on a cash flow basis rather than a budgetary basis.

2019 JUNIOR BONDS – PLAN OF FINANCE

The City intends to issue the Improvement Bonds, in the par amount of $737,295,000.* Proceeds are expected to be used for the following purposes:

- PHX Sky Train Stage 2: Fund $342 million of ongoing expenditures including repayment of $100 million of Short-Term Financing Program funds.
- Police Hangar (DVT): Fund $25 million of ongoing expenditures.
- Terminal 4 Concourse S1: Fund $310 million of ongoing expenditures including a $17.9 million reimbursement of internal funds previously expended as well as fund capitalized interest during construction.
- Terminal 3 Modernization: Fund $80 million of ongoing expenditures including a $47.7 million reimbursement of internal funds previously expended.
- Reserve funds: Fund the required bond fund reserves.
- Issuance costs: Pay the costs of issuing the Improvement Bonds, including underwriters' discount and financing, legal, and other costs.

Additionally, the City plans to issue the Refunding Bonds in the par amount of $29,975,000* to refund portions of the Series 2010C Junior Bonds for savings.

FUTURE BONDS

For the purposes of this Report, additional Senior Lien Obligations are assumed to be issued during the Forecast Period.

- Senior Lien Obligations are assumed to be issued in July 2022 (Series 2022 Senior Improvement Bonds) to fund portions of UPRR Trench Phase 1.
- Senior Lien Obligations are assumed to be issued in January 2024 (Series 2024 Senior Improvement Bonds) to fund portions of Terminal 3 2nd North Concourse.

For the purposes of this Report no other projects in the Aviation CIP assume funding from additional bonds. Given the dynamic conditions of the industry and preliminary assumptions related to the Aviation CIP and CAMP, recurring updates will be required to reflect changing activity and future needs and additional bonds may be required during the Forecast Period.

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*Preliminary and subject to change.

MAJOR PROJECTS IN THE AVIATION CIP

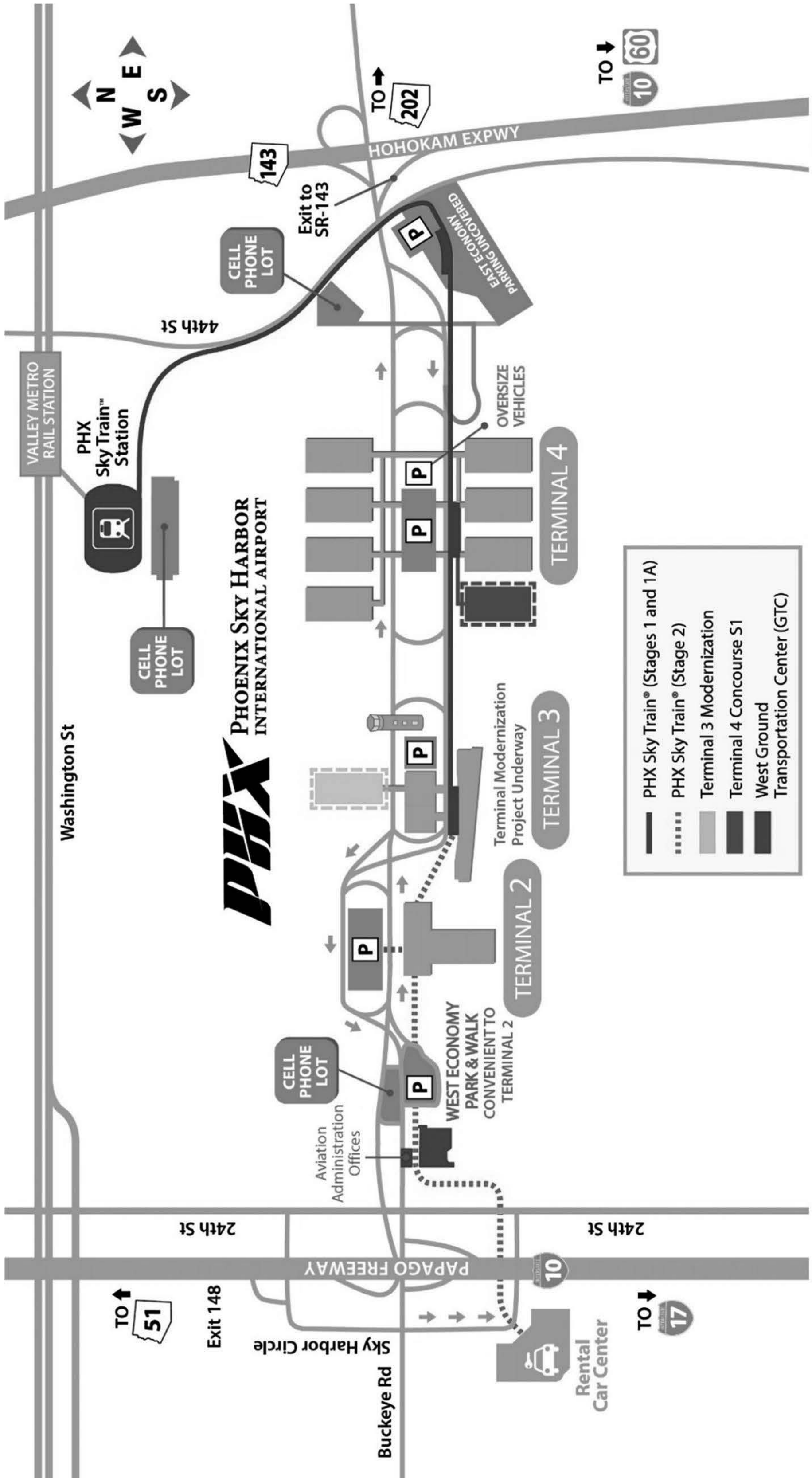
Terminal 3 Modernization

The Terminal 3 Modernization project is a multiyear program to enhance the customer experience and provide a more efficient terminal for passengers. Major features of the project include a consolidated security checkpoint (completed fall 2016), new common use ticket counters (completed fall 2016), additional baggage processing capacity, baggage carousels, replacement of gates, and expanded passenger drop-off curb (completed spring 2019). The multi-phase, design-build project includes three major components: Terminal Processor (completed spring 2019), South Concourse, and North Concourse. The project is expected to be complete in the fall of 2020.

PHX Sky Train

The PHX Sky Train is an automated people mover system that will connect all terminals and parking facilities to VALLEY METRO Light Rail (regional public transit system) and the Consolidated Rental Car Center (RCC) as shown in the diagram on the next page. The train is an integral part of the airport's transportation infrastructure plan and an important link to the regional transportation system. It is designed to be a long-term solution to growing traffic congestion in and around Sky Harbor. The project will be completed in three stages (Stage 1, Stage 1a, and Stage 2). The first two stages are complete and in service, connecting the light rail system and Sky Harbor's largest parking facility to Terminals 3 and 4, with a walkway to Terminal 2. These two project stages were finished on schedule and nearly $45 million under the combined budget of $884 million. By mid-2022, Stage 2 will link Stage 1 and Stage 1a with the future West Ground Transportation Center Station (West GTC Station) and the RCC.

The PHX Sky Train's electric train cars run twenty-four hours a day arriving at a station approximately every three minutes during peak periods, delivering passengers to their destinations within five minutes after boarding. Since its opening in April 2013, the PHX Sky Train has carried over 20 million passengers and replaced busing as the mode of transportation between terminals and parking facilities.


PHX
PHOENIX SKY HARBOR
INTERNATIONAL AIRPORT
N
E
S
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Washington St
VALLEY METRO RAIL STATION
PHX Sky Train™ Station
CELL PHONE LOT
CELL PHONE LOT
CELL PHONE LOT
44th St
24th St
24th St
HOHOKAM EXPWY
143
Exit to SR-143
TO 202
TO 10 60
EAST ECONOMY PARKING UNCOVERED
OVERSIZE VEHICLES
TERMINAL 4
TERMINAL 3
Terminal Modernization Project Underway
TERMINAL 2
WEST ECONOMY PARK & WALK CONVENIENT TO TERMINAL 2
Aviation Administration Offices
PAPAGO FREEWAY
10
TO 51
Exit 148
Sky Harbor Circle
Buckeye Rd
TO 17
Rental Car Center
PHX Sky Train® (Stages 1 and 1A)
PHX Sky Train® (Stage 2)
Terminal 3 Modernization
Terminal 4 Concourse S1
West Ground Transportation Center (GTC)
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Terminal 4 Concourse S1

On March 8, 2017, Southwest Airlines announced that it would be increasing service to the Phoenix area. This announcement came with the request to construct the final concourse at Terminal 4 and a commitment to occupy the associated gates upon its completion. The future S1 concourse will be located on the southwestern corner of Terminal 4 when it is completed in early 2022. With approximately 8 planned gates, the S1 concourse will allow Southwest the additional capacity the airline needs to continue to grow in the Phoenix market. The project scope will also include a second bridge connector from the south concourses at Terminal 4 to the north. This connection will enable greater security efficiency and flexibility as passengers will be able to access any of the north or south gates from any one of the terminal's 4 security checkpoints.

UPRR Trench Phase 1

A portion of Union Pacific Railroad runs through Sky Harbor property. This railroad adds congestion and prevents ease of access to property that the Airport owns. This project will include the placement of the Union Pacific Railroad in a 30-foot deep trench to allow a secure airfield connection to proposed North Cargo and North Aero Support Complex and provide an overpass for roadway crossings. The project will be completed in two phases starting in 2021. Additionally, the Airport and Union Pacific Railroad have begun conversations regarding this trenching plan and entered into an agreement for the Airport to reimburse the railroad for its design review expenses.

Terminal 3 2nd North Concourse

Terminal 3 2nd North Concourse is a six-gate concourse able to accommodate narrow-body aircraft for Terminal 4 or Terminal 3 airlines. Passenger connectors to each terminal would be constructed separately, allowing the terminal to function as a bus-gate facility in the interim. The concourse includes approximately 75,000 square feet of passenger area (i.e., hold rooms, commercial area, amenities, passenger circulation).

West GTC Station

The West GTC Station is planned to be an approximately 20-acre commercial development, potentially featuring a mix of hotel, commercial office building, and parking garage uses. The development will be located on airport property with direct access to a PHX Sky Train station. The West GTC Station will be at the center of the future development. The completed 5-mile train system is expected to transport a total of more than 80,000 passengers per day when the Rental Car Center extension opens in 2022. The Airport has issued a Request for Information from interested developers with development concepts to be evaluated and potentially pursued through a future procurement and subsequently released a Request for Qualifications. The current procurement is in the review phase and a selection is expected in the Summer 2020. The City's investment in the West GTC Station is included in the PHX Sky Train budget.

Ancillary developments described (e.g., hotel, commercial, parking) may be delivered using public-private-partnerships and therefore are not included in the Aviation CIP. Potential revenues from such ancillary developments (i.e., land lease or 3rd party payments) are not reflected in the forecast of Net Revenues contained in this Report. The City plans to advance with said developments only in circumstances where Net Revenues are enhanced above and beyond baseline conditions assuming no ancillary developments advance.

LEGAL FRAMEWORK

Bonds and Other Obligations

Outstanding Airport Bonds consist of Senior Bonds, Junior Bonds, and Other Airport Bond Obligations. The Airport also has outstanding the Rental Car Facility Charge Revenue Bonds, Series 2004, that are special revenue obligations.

The City has utilized the City of Phoenix Civic Improvement Corporation (CIC) to issue airport bonds on its behalf. The CIC enters into a Bond Indenture with the Bond Trustee and the City is obligated to make payments to the CIC through a City Purchase Agreement with the CIC. The payment obligations are limited to: (1) with respect to Senior Bonds, certain available Net Airport Revenues, Passenger Facility Charges, to the extent irrevocably committed, and Other Available Funds*, and (2) with respect to Junior Bonds, certain available Designated Revenues, 2010 Recovery Zone Economic Development Bonds (RZEDB) Subsidy Payments (Series 2010B Junior Bonds only), and Passenger Facility Charges, to the extent irrevocably committed, and Other Available Funds*. There is no obligation or pledge of the full faith and credit or the ad valorem taxing powers of the City.

Senior Lien Obligations

All outstanding Bonds and Parity Bonds (or Senior Lien Obligations), including the 2018 Senior Bonds, are issued under (1) City Ordinance No. S-21974, as amended (the Bond Ordinance), (2) Bond Indentures between the CIC and the Bond Trustee, and (3) the respective City Purchase Agreements between the City and the CIC. Bonds are secured by a pledge of Net Airport Revenues.

In Section 4.3 of the Bond Ordinance (and Section 4.6(a) of the Junior Lien City Purchase Agreement) (the Rate Covenant) the City covenants that:

> it will in each Fiscal Year establish, maintain and enforce schedules of rates, fees and charges for the use of the Airport (i) sufficient to produce Net Revenues at least equal to 125% of the amount required to be paid into the Bond Fund from the Revenue Fund, after subtracting Other Available Funds* deposited in the Bond Fund, in such Fiscal Year and after subtracting any Passenger Facility Charge Credit applicable to such Fiscal Year…and (ii) sufficient to [fund the required bond fund reserves].

To issue additional Senior Lien Obligations for other than refunding purposes, the City is required under Section 3.3 of the Bond Ordinance to meet an historical and a prospective test (together, the Additional Bonds Test):

> An officer of the City shall certify that either the Net Revenues for the most recently completed Fiscal Year for which audited financial statements** are available or the Net [Airport] Revenues for 12 consecutive months out of the most recent 18 calendar months, in each case together with Other Available Funds deposited in the Bond Fund

*The term Other Available Funds means unrestricted grant money and other moneys available to the Airport which are not included in the definition of Revenues or Airport Revenues. Under the City Purchase Agreements for the Junior Lien obligations, no credit is allowed for Other Available Funds so deposited.

**Also known as Comprehensive Annual Financial Report (CAFR).

> during such period, (i) were sufficient to satisfy the rate covenant set forth in Section 4.3 and (ii) would have been at least equal to 120% of Maximum Annual Debt Service for all Bonds to be Outstanding, including the Parity Bonds [i.e., Senior Lien Obligations] proposed to be issued; and
>
> A Consultant provides a report which projects that Net [Airport] Revenues will be sufficient to satisfy the rate covenant set forth in Section 4.3 (including any Parity Bonds [i.e., Senior Lien Obligations] to be issued) in each Fiscal Year after subtracting from the amount required to be paid into the Bond Fund from the Revenue Fund any applicable Passenger Facility Charge Credit*, which report addresses the period of time beginning with the first full Fiscal Year following the issuance of the Parity Bonds [i.e., Senior Lien Obligations] through the later of (i) three Fiscal Years following the expected date of completion (as provided to the Consultant by an officer of the City) of any construction projects to be financed at the Airport with the proceeds of the relevant Parity Bonds [i.e., Senior Lien Obligations] or (ii) five Fiscal Years following the issuance of the Parity Bonds [i.e., Senior Lien Obligations].

Senior Lien Obligations may be issued for refunding purposes without meeting the Additional Bonds Test described above, if the following conditions are met: an officer of the City certifies "that the Maximum Annual Debt Service…of all series to be Outstanding immediately after the date of…delivery of such refunding bonds is not greater than 110% of the Maximum Annual Debt Service…prior to…delivery of such refunding bonds…" and, the "bonds being refunded will no longer be Outstanding upon issuance of the refunding bonds."

The City reserved the right in the Bond Ordinance to provide for the issuance of obligations payable from Net Airport Revenues on a basis subordinate to the Senior Lien Obligations (i.e., Junior Lien Obligations and other Airport obligations as described below), but the Bond Ordinance does not specify terms and conditions applicable to such subordinate obligations other than to recognize that the flow of funds set forth therein may be altered to allow for payments to be made on a subordinate basis to the Bonds.

Junior Lien Obligations

Through the issuance of the 2010 Junior Bonds, the City re-established a Junior Lien, with the terms and conditions of the Junior Lien defined in (1) Bond Indentures between the CIC and the Bond Trustee, and (2) a Junior Lien City Purchase Agreement dated August 1, 2010, (2010 Junior Lien City Purchase Agreement), a Junior Lien City Purchase Agreement dated December 1, 2015 (2015 Junior Lien City Purchase Agreement), a Junior Lien City Purchase Agreement dated December 1, 2017 (2017 Junior Lien City Purchase Agreement), and the Junior Lien City Purchase Agreement dated December 1, 2019 (2019 Junior Lien City Purchase Agreement), each between the City and the CIC (Junior Lien City Purchase Agreements). As required in the Junior Lien City Purchase Agreements, the City will

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*The Passenger Facility Charge Credit is defined to be "the amount of principal of and/or interest to come due on specified Bonds during any Fiscal Year to which Passenger Facility Charges…have received all required governmental approvals and have been irrevocably committed…to be used to pay [Debt Service] on such specified Bonds…unless such Passenger Facility Charges…are subsequently included in the definition of Airport Revenues."

make payments to the CIC in an amount that is sufficient to pay principal and interest on the Junior Bonds. Payment on the Junior Bonds are made from (1) Designated Revenues (Net Airport Revenues after making all payments required for the benefit of the Senior Lien Obligations) and (2) PFC Revenues, and (3) with respect to the Series 2010B Junior Bonds, 2010 Recovery Zone Economic Development Bonds (RZEDB) Payments.

Upon the issuance of the 2019 Junior Bonds, annual PFC Revenues will be irrevocably committed to pay debt service in an amount equal to:

- 100% of the Junior Lien Airport Revenue Bonds Series 2010A and Series 2010B,
- 30% of the Junior Lien Airport Revenue Bonds Series 2015A,
- 100% of the Junior Lien Airport Revenue Refunding Bonds Series 2015B, and
- 100% of the Junior Lien Airport Revenue Refunding Bonds Series 2017D,
- 93% of the Junior Lien Airport Revenue Bonds Series 2019A.

PFCs are not irrevocably committed to pay debt service on any other series of Bonds

PFC Revenues are not Airport Revenues, rather PFC Revenues are irrevocably committed to pay debt service. The irrevocable commitment of annual PFC Revenues is, to the extent received by the City in any Fiscal Year, beginning on the date of issuance and ending June 30, 2026 (the Commitment Period), unless subsequently extended or reestablished by the City in its discretion. Junior Bonds are secured by Designated Revenues, irrevocably committed PFC Revenues, and irrevocably committed 2010 RZEDB Subsidy Payments pertaining to the Series 2010B Junior Bonds.

In Section 4.6(b) of the Junior Lien City Purchase Agreement (the Junior Lien Rate Covenant) the City covenants that, in addition to meeting the terms and conditions of the Rate Covenant pertaining to Senior Bonds, it will in each Fiscal Year establish, maintain, and enforce schedules of rates, fees, and charges for the use of the Airport (i) sufficient to produce Designated Revenues at least equal to 110% of the annual debt service requirements of the Junior Lien Obligations (net of Other Available Funds deposited into the Bond Fund in such Fiscal Year and after subtracting any Passenger Facility Charge Credit applicable to such Fiscal Year), and (ii) sufficient to fund the required bond fund reserves.

To issue additional Junior Lien Obligations for other than refunding purposes, including the 2019 Junior Lien Bonds, the City is required under Section 4.3 of the Junior Lien City Purchase Agreement to meet an historical <u>or</u> a prospective test (together, the Junior Lien Additional Bonds Test):

> An officer of the City shall certify that either the Designated Revenues for the most recently completed Fiscal Year for which audited financial statements are available or the Designated Revenues for any 12 consecutive months out of the most recent 24 calendar months were sufficient to satisfy the rate covenant set forth in Section 4.6(b) hereof and would have been at least equal to 110% of the Maximum Annual Junior Lien Debt Service for all Junior Lien Obligations to be Outstanding, including the Junior Lien Obligations proposed to be issued; or

> A Consultant provides a report which projects that Designated Revenues will be sufficient to satisfy the rate covenant set forth in Section 4.6(b) (including any Junior Lien Obligations to be issued) in each Fiscal Year after subtracting from the amount required to be paid into the Junior Lien Bond Fund from the Revenue Fund any applicable Passenger Facility Charge Credit, which report addresses the period of time beginning with the first full Fiscal Year following the issuance of the Junior Lien Obligations through the later of (i) three Fiscal Years following the expected date of completion (as provided to the Consultant by an officer of the City) of any construction projects to be financed at the Airport with the proceeds of the relevant Junior Lien Obligations or (ii) five Fiscal Years following the issuance of the Junior Lien Obligations.

Junior Lien Obligations may be issued for refunding purposes without meeting the Junior Lien Additional Bonds Test described above, if certain conditions are met.

Other Airport Obligations

Other Airport obligations are subordinate to the Senior Lien Obligations and Junior Lien Obligations and currently consist of General Obligation Bonds and the lender under Short-Term Financing Program.

- Airport General Obligation Bonds are general obligations of the City, but no Airport Revenues are formally pledged to such bonds. Although the City's payment obligations are secured by secondary ad valorem property taxes without limit as to rate or amount, the City has historically paid the principal and interest on these obligations from the Airport Improvement Fund, consistent with the provisions of the Bond Ordinance pertaining to the priority of payments from Net Airport Revenues. The City has approximately $3.3 million outstanding General Obligation Bonds that are expected to be paid in full during FY 2020.

- The City has a $200 million Short-Term Financing Program under a revolving credit agreement (Short-Term Financing Program). The Short-Term Financing Program previously utilized commercial paper and may do so in the future. The Short-Term Financing Program is supported by Net Airport Revenues on a basis subordinate to the Senior Lien Obligations and the Junior Lien Obligations, consistent with the provisions of the Bond Ordinance pertaining to the priority of payments from Net Airport Revenues. As of the date of this Report, the City's outstanding principal balance on draws was $100 million [PHX Sky Train Stage 2] (to be repaid with proceeds from the 2019 Junior Bonds). The City intends to continue the Short-Term Financing Program and use it to fund the major projects in the Aviation CIP on an interim basis.

Special Revenue Obligations

The City is the obligor with respect to one issue of Special Revenue Obligations that relates to Special Purpose Facilities, which is the Rental Car Facility Charge Revenue Bonds, Series 2004 (Series 2004 CFC Bonds), issued to fund construction of the RCC. These obligations are not secured by Net Airport Revenues and are payable solely from Customer Facility Charges related to the operational activity at the RCC. Debt service relating to the Special Revenue Obligations is excluded from annual debt service. The City plans to issue new Special Revenue Obligations to refund the Series 2004 Bonds and fund portions of PHX Sky Train Stage 2. Special Revenue Obligations debt service is excluded from annual debt service.

AIRLINE RATES AND CHARGES

The Phoenix City Code defines the terms and conditions by which airlines at Sky Harbor may use the airfield in common with other users and may occupy and use exclusive, joint, and common space in the terminal buildings. The City does not have long-term lease agreements with the airlines governing the use and occupancy of terminal space or the airfield at Sky Harbor. The terms are formalized in letters from the City authorizing month-to-month occupancy until otherwise terminated.

Sky Harbor does not have a formal agreement with the airlines governing the rates and charges methodology for landing, terminal, and other fees. The Phoenix City Code provides that airline rents, fees, and charges be calculated pursuant to a compensatory rate-setting methodology. The City bears the risk of any shortfall in non-airline revenues and retains the benefit of any surplus in non-airline revenues for its own discretionary Airport-related use. The Director of Aviation Services has the authority, within certain limits, to adjust airline fees pursuant to Ordinance G-6394.

Airline Revenues consist of landing fees, terminal rentals, and other charges paid to the City by airlines for use and occupancy of the Airport. The following table provides the forecasted Airline Revenues per Enplaned Passenger, or Cost per Enplaned Passenger (CPE).

FORECAST COST PER ENPLANED PASSENGER (CPE)
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ending June 30; in thousands except CPE)

The forecasts presented in this table were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

	2020	2021	2022	2023	2024	2025	2026
Total Airline Revenues (a)	$ 157,953	$ 156,300	$ 162,976	$ 183,184	$ 190,616	$ 197,016	$ 208,103
Enplaned Passengers	23,325	23,625	23,925	24,225	24,525	24,825	25,125
CPE	$ 6.77	$ 6.62	$ 6.81	$ 7.56	$ 7.77	$ 7.94	$ 8.28

(a) Excludes cargo landing fees.

Source: City of Phoenix Aviation Department and LeighFisher.

KEY ASSUMPTIONS

The section of the Report entitled " Airline Passenger Demand" describes the Sky Harbor facilities, airport service region, the demographic and economic profile of the region, and the economic outlook. The section of the Report entitled “Airline Traffic Analysis” describes the role of the Airport, including airline service, passenger traffic, and top markets; the key factors affecting future airline traffic; and the air traffic forecasts. The section of the Letter Report entitled "Financial Analysis" provides a summary of the legal framework governing the financial operation of the City, the Aviation CIP, the Passenger Facility Charge program, debt service, O&M Expenses, Revenues, debt service coverage and rate covenant compliance.

Certain key assumptions relating to the forecasts are summarized here, and described more fully in the accompanying text:

- Air Traffic. Total enplaned passengers are projected to increase 2.2% in FY 2020, and forecasts average annual growth of 1.3% per year between FY 2021 and FY 2023, and 1.2% per year between FY 2024 and FY 2026.

- Aviation CIP. The forecasts are based upon the City's funding plan for its current Aviation CIP and assumes the issuance of future bonds. Given the dynamic conditions of the industry and preliminary assumptions related to the Aviation CIP and CAMP, recurring updates will be required to reflect changing activity and future needs and additional bonds may be required during the Forecast Period.

- Improvement Bonds. The Improvement Bonds do not reflect final pricing and assume a principal amount of $757,000,000, final maturity in 2049, and a true interest cost of 5.0%, as prepared by the City and its financial advisor (Frasca & Associates, LLC).

- Airline Rates and Charges. For the purpose of the Report, it is assumed that the City will annually calculate and adjust airline fees during the Forecast Period using a compensatory rate-setting methodology, and that airlines at Sky Harbor would pay such fees. The forecasts do not take into account space changes related to the completion of Terminal 4 Concourse S1 or the portions of the CAMP projects planned for completion during the forecast period.*

- Passenger Facility Charge (PFC) Program. The City has submitted and received FAA approval for 9 PFC applications, as amended, authorizing the collection and use $2,147 million of PFC revenue. The City's largest application, known as PFC 6, as amended, provides collection authority in the amount of $1,972 million and approval for use of PFC revenues to fund construction and interest and financing costs for the PHX Sky Train Stage 1, Stage 1a, and Stage 2 in the amount of $1,788 million.

  The City continues to submit new PFC applications for eligible projects and the Aviation CIP assumes PFCs are utilized as a funding source for projects which are not yet FAA approved. For purposes of this Report, it is assumed that the Airport will continue to submit PFC applications as required and receive FAA approval when necessary based on project cash flow needs.

- PFC Commitment. At this time, the Airport plans to utilize PFC approvals, in accordance with the existing PFC 6 FAA approval, to pay all of the Series 2019A Junior Bonds debt service that is associated with the PHX Sky Train Stage 2 through an irrevocable

*Such projects will increase the total amount of space in the terminals but are not expected to impact the distribution of airline rentable (to total rentable) or airline rented (to total rented) space in the terminals.

commitment during the Forecast Period. Additionally, the Airport plans to reinstate and extend their irrevocable commitment to utilize PFC revenues to pay approved portions of prior Junior Lien Obligation debt service.

- Operating Expenses. Costs of Maintenance and Operation including capital outlays are budgeted at $274.9 million in FY 2020 and are forecast to grow annually at a 3.0% base growth rate through FY 2026. In addition to the base growth rate, the Airport accounts for incremental expenses or savings resulting from planned capital expenditures or payment of unfunded pension liabilities.

- Parking Revenue. Total Parking revenues are forecast at $90.3 million in FY 2020 and forecasted to growth 0.3% in FY 2021, then 7.0% in FY 2022 (due to additional revenues generated by new marketing efforts, rate changes, or increased demand), then grow at approximately 0.7% per year through the remainder of the forecast.

- Rental Car Revenue. Total Rental Car revenues are forecast at $45.0 million in FY 2020, then are forecast to increase 0.7% per year through FY 2023, then are forecast to increase approximately 1.8% per year through the remainder of the forecast.

- Other Ground Transportation Revenue. Other Ground Transportation (GT) revenues are forecast at $10.4 million in FY 2020, are forecast to increase to $26.6 million in FY 2021 (primarily due to a new TNC fee per drop off and increased rates for TNC pick up that is assumed and expected to be approved in December 2019), then are forecast to increase 5.5% and 5.3% in FY 2022 and FY 2023, respectively, then increase 1.3% per year through the remainder of the forecast.

SCOPE OF REPORT

This Report was prepared to evaluate the ability of the City to satisfy the requirements of the Rate Covenant and the Junior Lien Rate Covenant during the Forecast Period. In preparing this Report, we analyzed:

- The status and estimated costs of the Aviation CIP, including the facilities expected to be provided, and the estimated completion dates of the projects in the Aviation CIP.

- Forecast airline traffic demand at Sky Harbor, giving consideration to the demographic and economic characteristics of Sky Harbor's service region, historical trends in airline traffic, recent airline service developments and airfares, and other key factors that may affect future airline traffic.

- Estimated sources and uses of funds for the Aviation CIP, the annual Debt Service Requirements for the proposed 2019 Junior Bonds and the estimated annual debt service for the planned future bonds, provided by the City's Financial Advisor (Frasca & Associates, LLC).

- Historical relationships among Airport Revenues, Cost of Maintenance and Operation (Expenses), airline traffic, and other factors that may affect future Airport Revenues and Expenses.

- Historical Expense trends using the City's budgetary and actual results from FY 2017-2019 as published in the Aviation Department's audited Comprehensive Annual Financial Report (CAFR), Schedule 1, adjusted to comply with the Bond Ordinance* and the City's budget of Expenses for FY 2020.

- Historical trends in Airport Revenues from FY 2017-2019 using the Aviation Department's audited CAFR, Schedule 1, as adjusted to comply with the Bond Ordinance.*

- The City's policies and contractual agreements relating to use of the Airport; calculation and adjustment of airline rentals, fees, and charges; operation of public automobile parking and other concession and service privileges; and leasing of buildings and grounds.

- The historical and estimated future PFC Revenues and the City's intended use of PFC Revenues during the Forecast Period for funding portions of the Aviation CIP on a pay-as-you-go basis and as a source for repayment of certain Junior Lien Obligations.

We also identified key factors upon which the future financial results of the Airport may depend and formulated assumptions about those factors with the City. On the basis of those assumptions, we assembled the financial forecasts presented in the accompanying exhibits provided at the end of this Report and summarized in this letter.**

FORECAST DEBT SERVICE COVERAGE

Exhibit H and the table below summarize forecasts of Net Airport Revenues, Debt Service Requirements, and debt service coverage, taking into consideration debt service on outstanding Senior Lien Obligations, Junior Lien Obligations, debt service on the proposed 2019 Junior Bonds, and estimated debt service on future obligations.

The calculation of debt service coverage through the Forecast Period indicates compliance with the Rate Covenant of the Bond Ordinance and the Junior Lien Rate Covenant in each year of the Forecast Period.

*As of the date of this Report, Airport Revenues for the most recent fiscal year 2019 were unaudited. See the Official Statement, Airport Financial Information, Historical Revenues, Expenditures and Changes in Fund Balances and accompanying Table 5 for more information.

**The scope of this report does not include Special Revenue Obligations being utilized to fund portions of PHX Sky Train Stage 2. A separate Report of the Airport Consultant in conjunction with the issuance of the Special Revenue Obligations will be provided.

FORECAST DEBT SERVICE COVERAGE
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ending June 30; in thousands except coverage ratios)

The forecasts presented in this table were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

	2020	2021	2022	2023	2024	2025	2026
SENIOR LIEN OBLIGATIONS							
Net Revenues and Other Available Funds	$ 145,681	$ 172,079	$ 181,682	$ 198,487	$ 203,012	$ 200,496	$ 201,931
Senior Lien Debt Service Requirements							
Existing Senior Lien Debt Service	$ 68,627	$ 59,765	$ 59,765	$ 58,122	$ 58,135	$ 58,130	$ 58,137
Plus: Future Senior Improvement Bonds							
UPRR Trench - Phase 1	-	-	-	-	9,443	9,438	9,443
Terminal 3 2nd North Concourse	-	-	-	-	-	-	10,405
Existing and Future Senior Lien Debt Service	$ 68,627	$ 59,765	$ 59,765	$ 58,122	$ 67,578	$ 67,568	$ 77,984
Senior Lien Debt Service Coverage Ratios (on Net Revenues and Other Available Funds)							
Coverage including Future Senior Improvement Bonds	2.12	2.88	3.04	3.41	3.00	2.97	2.59
JUNIOR LIEN OBLIGATIONS							
Designated Revenues	$ 77,055	$ 112,314	$ 121,917	$ 140,365	$ 135,435	$ 132,928	$ 123,947
Junior Lien Debt Service Requirements							
Existing Junior Lien Debt Service	$ 49,141	$ 47,689	$ 47,686	$ 57,410	$ 57,410	$ 57,419	$ 46,862
2019 Junior Lien Obligations							
PHX Sky Train Stage 2	$ 8,723	$ 15,702	$ 15,702	$ 15,702	$ 15,702	$ 15,702	$ 15,702
Police Hangar (DVT)	638	1,148	1,148	1,148	1,148	1,148	1,148
Terminal 4 Concourse S1	-	-	-	22,254	22,256	22,253	22,254
Terminal 3 Modernization	2,707	4,874	4,875	4,873	4,873	4,874	4,872
Subtotal 2019 Junior Lien Obligations	$ 12,068	$ 21,724	$ 21,725	$ 43,976	$ 43,978	$ 43,977	$ 43,976
Less: Junior Lien Passenger Facility Charge Credit	(51,764)	(57,633)	(57,634)	(57,631)	(57,631)	(57,635)	(57,637)
Less: 2010 RZEDB Subsidy Payment	(597)	(597)	(597)	(597)	(597)	(597)	(597)
Existing and Future Net Junior Lien Debt Service	$ 8,849	$ 11,183	$ 11,181	$ 43,159	$ 43,160	$ 43,164	$ 32,604
Junior Lien Debt Service Coverage Ratios (on Designated Revenues)							
Existing and Future Net Junior Lien Debt Service Coverage	8.71	10.04	10.90	3.25	3.14	3.08	3.80
AGGREGATE							
Net Revenues and Other Available Funds	$ 145,681	$ 172,079	$ 181,682	$ 198,487	$ 203,012	$ 200,496	$ 201,931
Aggregate Senior Lien and Junior Lien Net Debt Service	77,476	70,948	70,946	101,281	110,737	110,733	110,588
Aggregate Debt Service Coverage Ratios (on Net Revenues and Other Available Funds)							
Total Aggregate Net Debt Service Coverage	1.88	2.43	2.56	1.96	1.83	1.81	1.83

Source: City of Phoenix Aviation Department and LeighFisher.

ASSUMPTIONS UNDERLYING THE FINANCIAL FORECASTS

The forecasts in this Report are based on information and assumptions that were provided by or reviewed with and agreed to by the City. The forecasts reflect the City's expected course of action during the Forecast Period and, in the City's judgment, present fairly the expected financial results of the Aviation Department. Those key factors and assumptions that are significant to the forecasts are set forth in the attachment, "Background, Assumptions, and Rationale for the Financial Forecasts." The attachment should be read in its entirety for an understanding of the forecasts and the underlying assumptions.

In our opinion, the underlying assumptions provide a reasonable basis for the forecasts. However, any forecast is subject to uncertainties. Inevitably, some assumptions will not be realized, and unanticipated events and circumstances may occur. Therefore, there will be differences between the forecast and actual results, and those differences may be material. Neither LeighFisher nor any person acting on our behalf makes any warranty, expressed or implied, with respect to the information, assumptions, forecasts, opinions, or conclusions disclosed in the Report. We have no responsibility to update this Report to reflect events and circumstances occurring after the date of the Report.

*   *   *   *   *

We appreciate the opportunity to serve as the Airport Consultant in connection with this proposed financing.

Respectfully submitted,

LeighFisher

LeighFisher

Attachment

BACKGROUND, ASSUMPTIONS, AND RATIONALE FOR THE FINANCIAL FORECASTS

City of Phoenix, Arizona

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CONTENTS

CONTENTS *(continued)*

TABLES

FIGURES

EXHIBITS

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AIRLINE PASSENGER DEMAND

This section presents a review of: (1) Sky Harbor facilities; (2) the Sky Harbor service region; (3) the demographic and economic profile of the region, including demographic trends, economic trends, tourism, attractions, and conventions, all of which contribute to air travel demand; (4) the economic outlook for the nation and the Phoenix-Mesa-Chandler Metropolitan Statistical Area (MSA); (5) Sky Harbor rankings and roles; (6) historical passenger and airline activity at Sky Harbor; (7) air cargo trends at Sky Harbor; (8) key factors affecting the future of airline traffic at Sky Harbor; and (9) forecasts of airline traffic at Sky Harbor through FY 2026, including enplaned passengers, aircraft operations, and landed weight.

SKY HARBOR FACILITIES

The City of Phoenix (the City or Phoenix) owns and operates, through its Aviation Department, Sky Harbor and two general aviation airports, Phoenix-Deer Valley Airport and Phoenix-Goodyear Airport (collectively, with Sky Harbor, the Airport). Sky Harbor is the only Arizona airport classified as a large hub by the FAA and is the principal commercial service airport serving metropolitan Phoenix and surrounding areas. Sky Harbor occupies approximately 3,000 acres of land located entirely within the City and is accessible within 10-15 minutes from the central business district.

Sky Harbor has three parallel air carrier runways (8/26 is 11,490 feet in length, 7L/25R is 10,300 feet in length, and 7R/25L is 7,800 feet in length) supported by a network of taxiways, aprons, and hold areas. Sky Harbor airfield facilities can accommodate the operations of all commercial jet aircraft currently in use, while Sky Harbor jetbridges can accommodate all but FAA Airplane Design Group VI (e.g., A380) aircraft.

Sky Harbor has three passenger terminal buildings, Terminals 2, 3, and 4*. The terminals are located on Sky Harbor Boulevard, which forms an east-west spine through the middle of Sky Harbor connecting with 24th Street and Interstate 10 (I-10) on the west and the Hohokam Expressway (SR 143) and the Red Mountain Freeway (SR 202) on the east.

Collectively, Terminals 2, 3, and 4 provide a total of 100 passenger holdrooms and associated aircraft parking positions (gates). Terminal 2, opened in 1962, is situated south of Sky Harbor Boulevard, and contains approximately 330,000 square feet and 9 gates. Terminal 3, opened in 1979, is situated in the center of Sky Harbor Boulevard with a concourse on either side of the roadway, and currently contains approximately 639,000 square feet and 10 gates. Upon completion of the Terminal 3 Modernization project, Terminal 3 will contain approximately 710,000 square feet and 25 gates, and Terminal 2 will be closed. Terminal 4, opened in 1990, is situated in the center of Sky Harbor Boulevard with four concourses extending north of the roadway and three concourses extending south of the roadway, and contains approximately 2.3 million square feet and 81 gates.** Southwest Airlines, American Airlines, and all international airlines operate exclusively from Terminal 4. The Terminal 4 Concourse S1 project will add approximately 8 new gates when it is completed in early 2022. Table 1 shows the current distribution and use of gates by airline.

*After the opening of Terminal 4 in November 1990, Terminal 1 was vacated and later razed.

**Terminal 4 was opened with four concourses and three additional concourses were added in 1994, 1998, and 2004. An additional concourse is expected to be completed in early 2022.

Table 1
Gate Distribution and Use by Airline
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(July 2019)

		Average daily departures		Average daily departing seats	
	Gates *(a)*	Number	Per gate	Number	Per departure
Terminal 2					
Advanced		1.5		13	9
Alaska	2	9.0	4.5	1,334	148
Boutique		3.5		28	8
Contour		1.0		30	30
Spirit	1	1.0	1.0	182	182
United	6	22.6	3.8	3,141	139
Terminal 2	9	37.1	4.1	4,714	127
Terminal 3					
Delta		29.7		4,610	155
Frontier		4.6		909	196
Hawaiian		1.0		278	278
JetBlue		3.0		462	154
Sun Country		0.5		100	183
Common Use	10	-		-	-
Terminal 3	10	38.9	3.9	6,359	164
Terminal 4					
American	51	251.5	4.9	33,250	132
Southwest	24	163.9	6.8	24,941	152
Common Use/Foreign-flag	6	6.3	1.1	1,127	178
Terminal 4	81	421.6	5.2	59,318	141
SKY HARBOR TOTAL	100	497.6	5.0	70,392	141

Notes: Departures and departing seats include those by regional affiliate airlines. Numbers may not add to totals shown because of rounding. Certain airlines operating from Terminal 2 make use of remote parking positions.

(a) Gate assignments as of December 2018.

Sources: City of Phoenix Aviation Department; OAG Aviation Worldwide Ltd, OAG Analyser database, accessed July 2019.

Sky Harbor provides approximately 26,000 public and employee parking spaces in garages adjacent to or above the terminal buildings, in an economy lot west of the terminal buildings, and in economy lots and garages east of the terminal buildings. A consolidated Rental Car Center (RCC) is on a 141-acre site, west of the terminals, with approximately 5,600 ready/return garage spaces and a 113,000-square-foot customer service building.

The PHX Sky Train, which began service in 2013, is an automated people mover system that will, when completed, connect all the Airport's terminals and parking facilities to VALLEY METRO Light Rail (regional public transit system) and the RCC. The Sky Train Stage 1 is complete and connects the light rail system and the Airport's largest parking facility to Terminals 3 and 4, with a walkway to Terminal 2. When complete in mid-2022 (estimated), Stage 2 will link the Sky Train with the future West Ground Transportation Center (GTC) and the RCC. The Sky Train's electric train cars run twenty-four hours a day arriving at a station approximately every three minutes during peak periods, delivering passengers to their destinations within five minutes of boarding the train.

AIRPORT SERVICE REGION

The primary region served by Sky Harbor is the Phoenix-Mesa-Chandler MSA, a large population center in south-central Arizona. Arizona is in the southwestern region of the continental United States, bordering Mexico. As shown in Figure 1, there are no other U.S. large-hub commercial service airports within a 5-hour driving distance of Phoenix, with the closest being Las Vegas McCarran International Airport (approximately 290 miles to the northwest). The only other commercial service airport located within the Airport service region is Phoenix-Mesa Gateway Airport, a small-hub airport discussed in the later section "Sky Harbor and Phoenix-Mesa Gateway Airport."

The MSA comprises Maricopa and Pinal counties and contains Phoenix and the cities of Chandler, Glendale, Mesa, Scottsdale, and Tempe, among others. The MSA also includes Sun City, a major retirement community in unincorporated Maricopa County, and the Gila River and Salt River Pima-Maricopa Indian communities.

The MSA ranks as the 11th most populous metropolitan area in the United States with an estimated 2018 population of 4,857,000, accounting for two-thirds of Arizona's population. The Bureau of the Census reports an estimated 2018 Phoenix population of 1,660,000, making it the fifth largest city in the United States, as well as the largest U.S. state capital in terms of population.

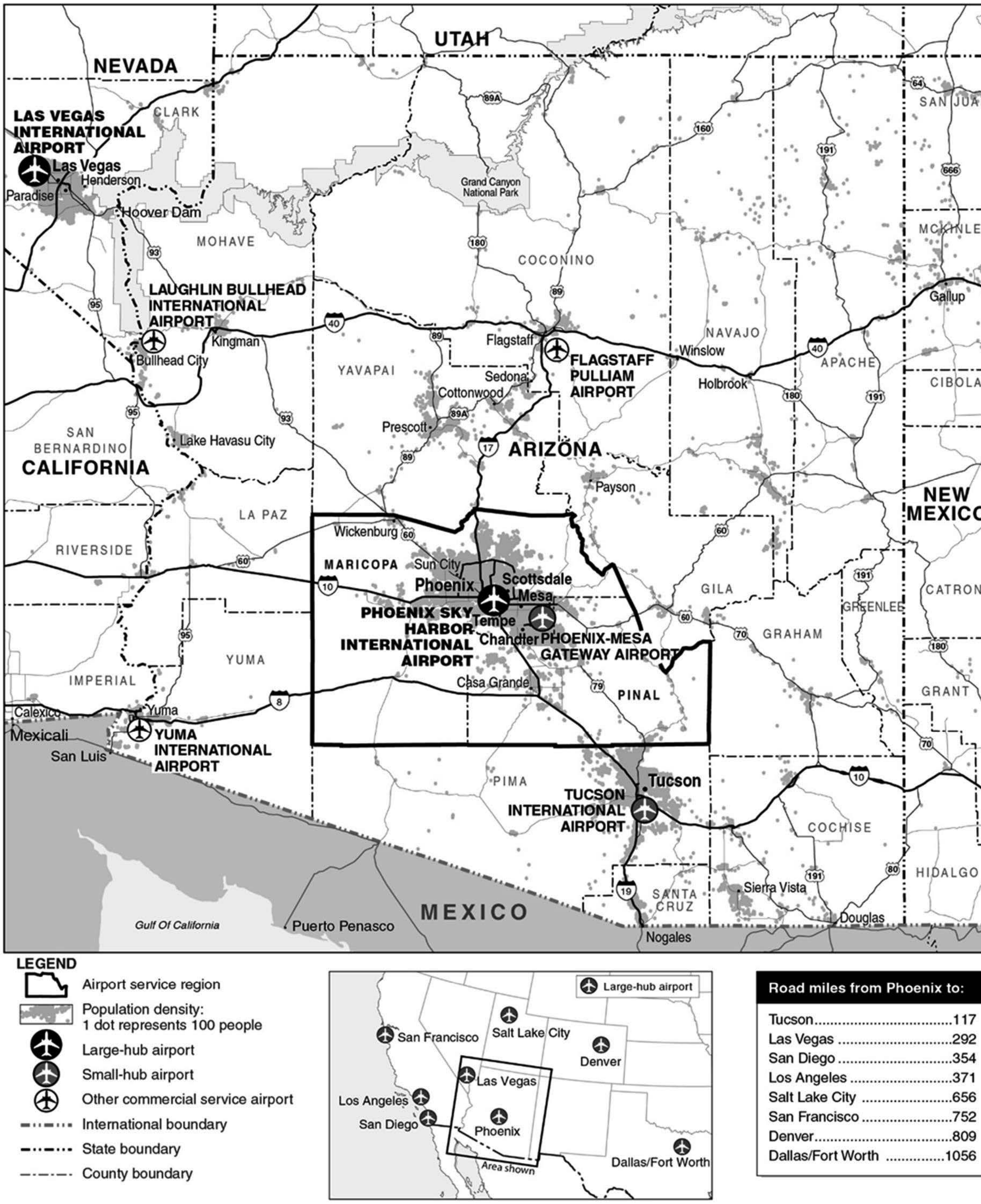
Historically, growth in air travel demand to and from the Airport service region has been fostered by strong population growth, the economic health and expansion of the MSA, and the attractiveness of the area as a business and leisure destination.

DEMOGRAPHIC AND ECONOMIC PROFILE

The level of air travel demand is highly correlated with the economic profile of an airport's service region, particularly with socioeconomic trends and tourism appeal. The demographic variables with the strongest influence on airline travel demand are the MSA population, employment, and per capita income. In addition to these factors, tourism has a significant role in generating visitor airline travel demand to the MSA.

Growth in employment and income, along with an expanding population base, generate demand for airline travel to and from the MSA. Similarly, unique natural resources and cultural attractions make the MSA and the rest of Arizona popular travel destinations.

Figure 1
Airport Service Region
Phoenix Sky Harbor International Airport



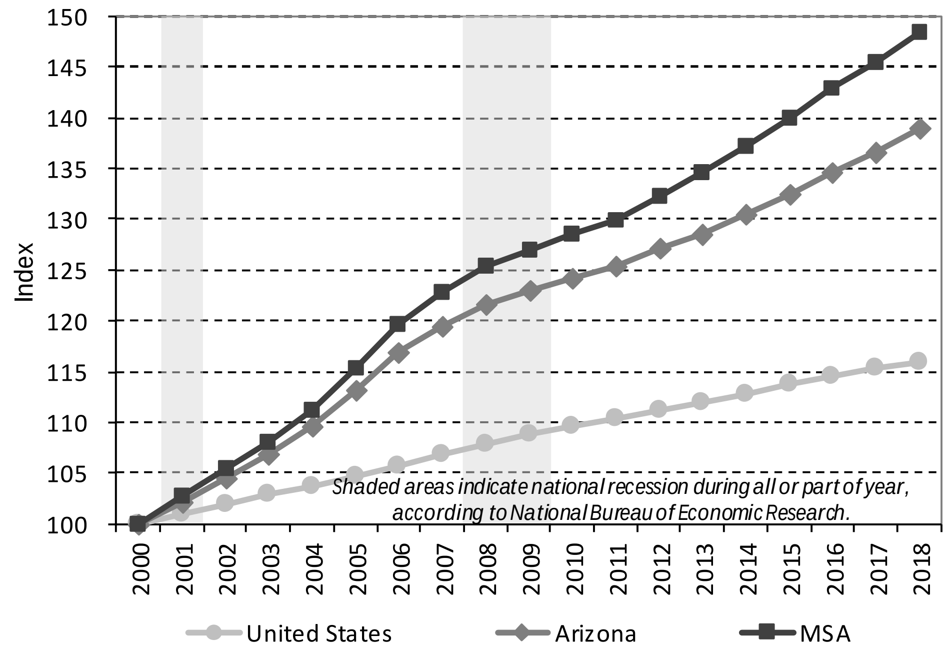
Road miles from Phoenix to:	
Tucson	117
Las Vegas	292
San Diego	354
Los Angeles	371
Salt Lake City	656
San Francisco	752
Denver	809
Dallas/Fort Worth	1056

Source: 2010 U.S. Census data.

Population

Figure 2 shows that the population of the MSA increased an average of 2.2% annually between 2000 and 2018, compared with a 1.8% average annual increase for Arizona and a 0.8% increase for the nation. Since 1980, the population of the MSA has tripled, driven primarily by domestic in-migration. This rate of growth was three times the national rate of growth over the same period. The MSA was the third fastest growing among the nation's 20 most populous MSAs between 2010 and 2018, and the fastest from 2017 to 2018.

Figure 2
Comparative Index of Population Trends
(2000 = 100)



Population	2000	2010	2015	2018
United States	282,162,411	309,326,085	320,742,673	327,167,434
Arizona	5,160,586	6,407,774	6,833,596	7,171,646
MSA	3,273,477	4,204,738	4,581,122	4,857,962
Average annual percent increase (decrease)	**2000-2010**	**2010-2015**	**2015-2018**	**2000-2018**
United States	0.9%	0.7%	0.7%	0.8%
Arizona	2.2	1.3	1.6	1.8
MSA	2.5	1.7	2.0	2.2

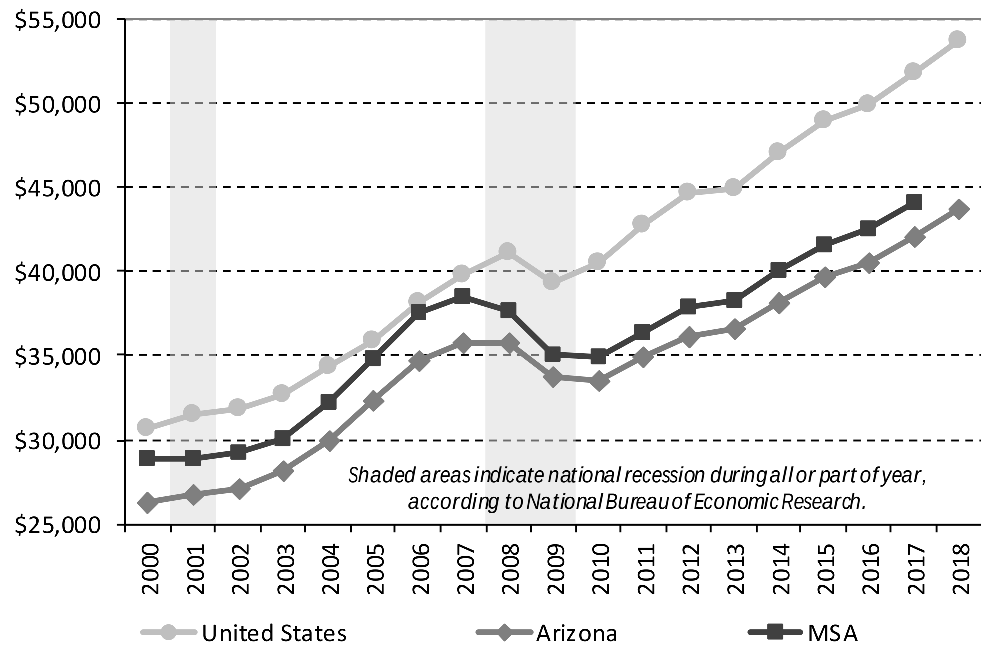
Note: Values represent July 1 population estimates.

Source: U.S. Department of Commerce, Bureau of the Census website, www.census.gov, accessed May 2019.

Per Capita Income

Figure 3 shows that per capita income trends in the MSA have generally mirrored nationwide trends since 2000, albeit at a somewhat lower rate of growth. The 2008-2009 recession had a more substantial impact on per capita income in Arizona and the MSA than in the nation overall, due in part to the effects of a substantial downturn in the local housing market. In 2017 (the most recent year for which MSA income data was available), per capita income in the MSA was 4.8% higher than in Arizona, but 14.8% lower than the national average. It is worth noting, however, that the MSA's cost of living is approximately 5% lower than the national average according to the Council for Community and Economic Research Cost of Living Index.

Figure 3
Per Capita Personal Income



Per Capita Personal Income	2000	2010	2015	2018 *(a)*
United States	$30,602	$40,546	$48,985	$53,712
Arizona	26,232	33,555	39,629	43,650
MSA	28,847	34,874	41,624	44,096
Average annual percent increase (decrease)	**2000-2010**	**2010-2015**	**2015-2018 *(b)***	**2000-2018 *(c)***
United States	2.9%	3.9%	3.1%	3.2%
Arizona	2.5	3.4	3.3	2.9
MSA	1.9	3.6	2.9	2.5

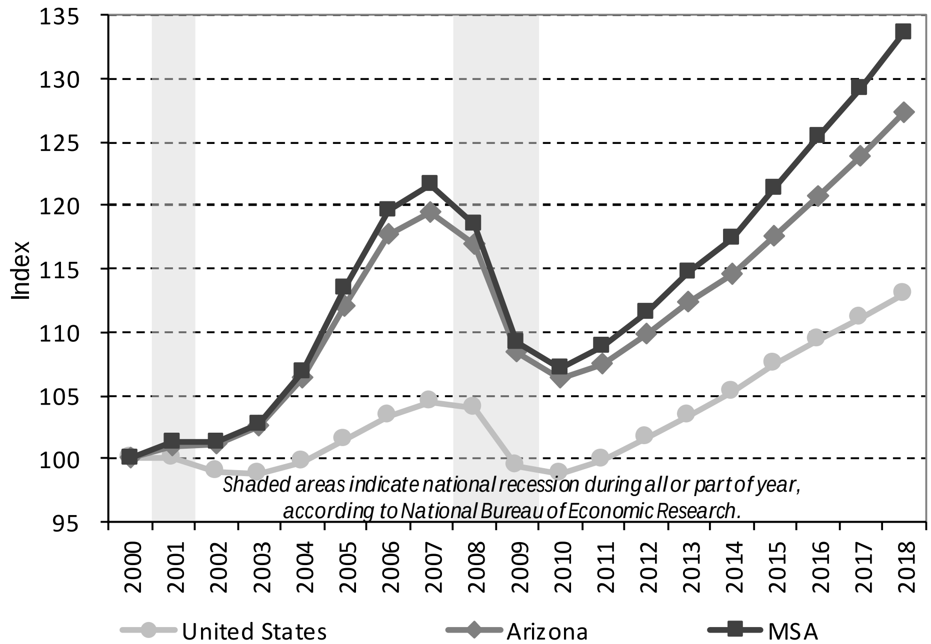
(a) Per capita personal income for the MSA is for 2017, the most recent data available.
(b) The percentage shown for the MSA is for 2015-2017.
(c) The percentage shown for the MSA is for 2000-2017.

Source: U.S. Department of Commerce, Bureau of Economic Analysis website, www.bea.gov, accessed May 2019.

Employment

Figure 4 shows that employment in the MSA increased at a rate more than double that of the nation between 2000 and 2018. In 2008 and 2009, it declined to a much greater extent than the nation, reflecting a more substantial impact from the housing and real estate decline and related construction slowdown. By 2016, however, employment in the MSA had rebounded to exceed its 2007 peak. In terms of employment growth, the MSA was the fifth fastest growing among the nation's 20 most populous MSAs between 2010 and 2018, and the second fastest from 2017 to 2018.

Figure 4
Comparative Index of Total Non-Agricultural Employment
(2000 = 100)



Employment	2000	2010	2015	2018
United States	132,024	130,362	141,843	149,074
Arizona	2,243	2,386	2,636	2,856
MSA	1,578	1,692	1,914	2,107
Average annual percent increase (decrease)	2000-2010	2010-2015	2015-2018	2000-2018
United States	(0.1%)	1.7%	1.7%	0.7%
Arizona	0.6	2.0	2.7	1.4
MSA	0.7	2.5	3.3	1.6

Source: U.S. Department of Labor, Bureau of Labor Statistics website, Current Employment Statistics survey, www.bls.gov, accessed May 2019.

Table 2 shows shares of employment by industry sector in the MSA, Arizona, and the United States. The MSA has a higher percentage of jobs in Trade, Transportation, and Utilities; Professional and Business Services; Financial Activities; and Construction than the United States overall, and a lower percentage in Government; Manufacturing; Education and Health Services; Other Services; and Mining and Logging. Sector shares for Leisure and Hospitality and Information for the MSA are similar to those for the nation. Employment growth of the MSA outpaced U.S. employment growth from 2000 through 2018 in every sector except Construction.

Table 2
Average Annual Nonagricultural Employment Growth, 2000-2018, and Employment Share by Industry, 2018

	Average annual percent increase (decrease) 2000-2018			2018 percent share *(a)*		
Industry	MSA	Arizona	United States	MSA	Arizona	United States
Trade, Transportation, and Utilities	1.3%	1.1%	0.3%	19.2%	18.7%	18.6%
Professional and Business Services	1.7	1.6	1.3	16.8	15.1	14.1
Education and Health Services	4.9	4.2	2.5	15.4	15.6	15.9
Government	1.1	0.7	0.4	11.3	14.5	15.1
Leisure and Hospitality	2.4	2.0	1.8	10.9	11.4	11.0
Financial Activities	2.4	2.1	0.5	9.1	7.7	5.7
Manufacturing	(1.3)	(1.2)	(1.7)	6.1	6.0	8.5
Construction	0.1	(0.3)	0.4	5.9	5.6	4.9
Other Services	1.3	1.0	0.7	3.3	3.2	3.9
Information	(0.5)	(0.7)	(1.4)	1.8	1.7	1.9
Mining and Logging	2.3	1.6	1.1	0.2	0.5	0.5
TOTAL	1.6%	1.4%	0.7%	100.0%	100.0%	100.0%

(a) Columns may not add to totals shown because of rounding.

Source: U.S. Department of Labor, Bureau of Labor Statistics website, Current Employment Statistics survey, www.bls.gov, accessed May 2019.

Arizona State University is one of the largest public research universities in the nation, with two primary campuses in the MSA—its main campus in Tempe (approximately 52,000 students) and its downtown Phoenix campus (approximately 12,000 students) which focuses on the fields of health care, journalism, public service, and law. The MSA is also home to one of the two campuses of Creighton University School of Medicine, and to the Arizona Biomedical Corridor—a 600-acre collaborative development involving the City of Phoenix, Arizona State University, and the Mayo Clinic.

Table 3 shows the top 25 private-sector employers in Arizona. Fifteen of the companies listed are on the *Fortune* 500 list of largest U.S. companies, including American Airlines—the largest provider of passenger air service at Sky Harbor.

Table 3
Major Private-Sector Employers in Arizona
(ranked by number of employees)

Company	Employment	Type of business
Banner Health	36,210	Health care
Walmart Inc. *(a)*	33,810	Retail
Wells Fargo & Co. *(a)*	15,060	Financial services
Raytheon Missile Systems *(a)*	12,000	Aerospace and defense
Honor Health	11,310	Health care
Dignity Health	11,210	Health care
JPMorgan Chase & Co. *(a)*	10,200	Financial services
Bank of America *(a)*	10,000	Financial services
Intel Corp. *(a)*	10,000	Technology
Freeport-McMoRan Inc. *(a)*	8,500	Mining
American Airlines Group Inc. *(a)*	7,500	Aviation
American Express Co. *(a)*	7,170	Financial services
Honeywell *(a)*	6,810	Aerospace
Mayo Clinic	6,650	Health care
United Healthcare of Arizona *(a)*	6,470	Health care
Fry's Food Stores	6,260	Retail
Amazon.com Inc. *(a)*	6,000	Online retail
Arizona Public Service Co.	6,000	Utilities
Salt River Project	5,140	Utilities
Basha's Family of Stores	4,420	Retail
Phoenix Children's Hospital	4,280	Health care
Charles Schwab & Co. *(a)*	4,000	Financial services
Grand Canyon University	4,000	Higher education
The Boeing Co. *(a)*	4,000	Aerospace
Cigna *(a)*	3,100	Health care

(a) Ranked in 2019 Fortune 500 list of largest U.S. companies (based on 2018 revenue).

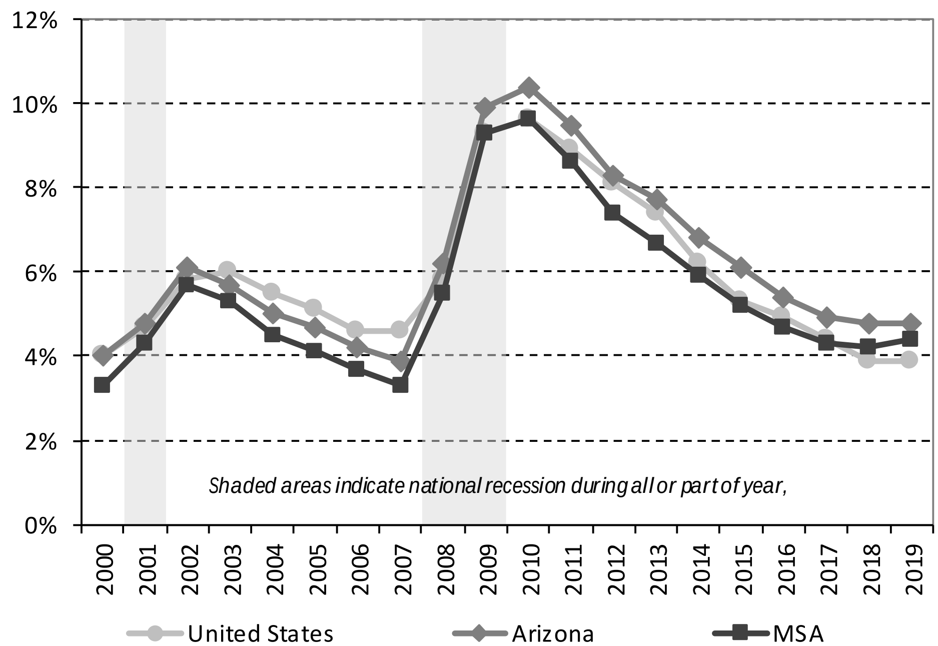
Source: Phoenix Business Journal, *2018-19 Book of Lists*.

The MSA is the headquarters location for six Fortune 500 companies (Avnet, Freeport-McMoRan, Republic Services, Insight Enterprises, Magellan Health, and ON Semiconductor). In addition, Mesa Airlines is headquartered in the MSA. As measured by enplaned passengers, Mesa is the largest regional affiliate of American Airlines, which serves Sky Harbor.

Unemployment Rate

Figure 5 shows that unemployment in the MSA was equal to or lower than in the United States in every year between 2000 and 2017. In the first four months of 2019, unemployment in the MSA was 4.4%, compared to 3.9% in the nation and 4.8% in Arizona as a whole.

Figure 5
Civilian Unemployment Rate



Unemployment Rate	2000	2010	2015	2019 *(a)*
United States	4.0%	9.6%	5.3%	3.9%
Arizona	4.0	10.4	6.1	4.8
MSA	3.3	9.6	5.2	4.4

Note: Values represent seasonally unadjusted unemployment rates.

(a) 2019 data represents the average for January-April 2019.

Source: U.S. Department of Labor, Bureau of Labor Statistics website, Current Population Survey and Local Area Unemployment Statistics, www.bls.gov, accessed May 2019.

Tourism, Attractions, and Conventions

Demand for air service at Sky Harbor is driven not only by the demographic and economic characteristics of the local population, but also by the appeal of the Airport service region and the rest of Arizona as a business and tourism destination. Phoenix and its surrounding cities constitute an area known as the Valley of the Sun, an area with attractions including resorts, spas, professional sports, shopping, and golf, located in the Sonoran Desert. The Airport service region also offers museums, galleries, sporting events, Old West and Native American history, and outdoor recreation with more than 300 days of sunshine per year. According to Visit Phoenix, the region's convention and visitors bureau, the Airport service region has more than 475 hotels which collectively offer more than 65,000 guest rooms.

In addition to the attractions within the Airport service region, the northern part of Arizona is home to Grand Canyon National Park, Red Rock Country of Sedona, the Painted Desert, the Petrified Forest, Meteor Crater, ancient Native American ruins, and the Navajo and Hopi reservations. Many visitors to these world-renowned destinations utilize Sky Harbor as the most convenient large hub airport servicing the region.

Total direct travel spending in Arizona was approximately $24.4 billion in 2018, 34% above a pre-recessionary peak of $18.2 billion in 2007 and 7% above the 2016 level, according to the Arizona Office of Tourism. Nearly two-thirds of all travel spending in Arizona occurs in the Airport service region. The Arizona Office of Tourism estimates that the State hosted 45.4 million visitors in 2018 (39.6 million domestic and 5.8 million international), arriving via all modes of travel.

Major sporting events also draw tourists to the Airport service region. The MSA has been a three-time host (1996, 2008, and 2015) of the Super Bowl, the National Football League's championship game, and hosted the 2016 College Football Playoff (CFP) National Championship game and 2017 National Collegiate Athletic Association (NCAA) Division I Men's Basketball Final Four and Championship games. In the future, the MSA is scheduled to host the Super Bowl again in 2023 and the NCAA Final Four in 2024. The Airport service region is also the location of the annual PlayStation Fiesta Bowl and Cactus Bowl college football bowl games and the annual Waste Management Phoenix Open PGA golf tournament.

The Airport service region is home to five major league professional sports teams: (1) Arizona Diamondbacks Major League Baseball team, (2) Arizona Cardinals National Football League team, (3) Phoenix Suns National Basketball Association team, (4) Phoenix Mercury Women's National Basketball Association team, and (5) Arizona Coyotes National Hockey League team. At the college level, the Arizona State University Sun Devils compete within the Pac-12 Conference in several sports, including baseball, basketball, and football.

The favorable Arizona climate brings 15 Major League Baseball teams, collectively known as the Cactus League, to the Airport service region each February and March for spring training and preseason play. In 2018, spring training events generated an estimated $644 million in economic impact for the state of Arizona, according to the league's website. The teams include the Arizona Diamondbacks, Chicago Cubs, Chicago White Sox, Cincinnati Reds, Cleveland Indians, Colorado Rockies, Kansas City Royals, Los Angeles Angels, Los Angeles Dodgers, Milwaukee Brewers, Oakland Athletics, San Diego Padres, San Francisco Giants, Seattle Mariners, and Texas Rangers.

ISM Raceway, formerly the Phoenix International Raceway, is a National Association for Stock Car Auto Racing (NASCAR) venue hosting several auto racing events annually, two of which involve distances of 500 kilometers: the TicketGuardian 500, held in March, and Bluegreen Vacations 500, held in November.

Convention visitors are another important component of tourism in the Airport service region. The Phoenix Convention Center offers 900,000 square feet of meeting and event space. According to the most recent data available, the Phoenix Convention Center hosted 67 events in 2017 with a combined attendance of approximately 240,000.

ECONOMIC OUTLOOK

Outlook for the U.S. Economy

Following real (inflation-adjusted) gross domestic product (GDP) growth averaging 2.5%, per year, between 2013 and 2018, the Congressional Budget Office forecasts real GDP growth of 2.6% in 2019, and an average of 1.7% per year thereafter.

Continued U.S. economic growth will depend on, among other factors, stable financial and credit markets, a stable value of the U.S. dollar versus other currencies, stable energy and other commodity prices, the ability of the federal government to reduce historically high fiscal deficits, inflation remaining within the range targeted by the Federal Reserve, and growth in the economies of foreign trading partners.

Outlook for the Arizona and MSA Economies

The economic outlook for Arizona and the MSA generally depends on the same factors as those for the nation, although population inflows will have a relatively greater effect on economic growth and employment. Population growth in the MSA is a key variable influencing local demand for residential and commercial construction, and demand for goods and services in general which, in turn, drives employment.

In its May 2019 publication, *Arizona's Economy: Still Strong After All These Years*, the University of Arizona noted that the State continued its recovery, adding residents and jobs at rates faster than the nation in 2017 and 2018, and so far in 2019. George Hammond, author of the study, summarized: "The Arizona economy continues its long winning streak. Employment is expanding, population growth is solid, and wages are rising. Further, Arizona continues to far outpace national growth rates.… The current national expansion is very much on track to be the longest on record. However, gains are expected to slow from above trend rates last year to below trend rates by 2020. This implies that recession risks are elevated beginning in 2020. Nonetheless, the most likely scenario remains continued gains in the near term, with more jobs, residents, and income in Arizona."

Table 4 shows socioeconomic forecasts for Arizona and the MSA as developed by the University of Arizona's Eller College of Management. Projections of the same variables for the United States are presented for comparative purposes. Growth in population, employment, and personal income in both Arizona and the MSA is forecast to exceed national rates.

Table 4
Socioeconomic Projections
(Phoenix-Mesa-Chandler MSA, Arizona, and the United States)

	Average annual percent increase (decrease)	
	Historical 2000-2018	Projected 2018-2022
Population		
MSA	2.2%	1.7%
Arizona	1.8	1.5
United States	0.8	0.7
Non-agricultural employment		
MSA	1.6%	2.4%
Arizona	1.4	2.0
United States	0.7	0.7
Per capita personal income		
MSA	2.5% (a)	4.4%
Arizona	2.9	4.3
United States	3.2	3.7

(a) The percentage shown is for 2000-2017, the most recent data available.

Sources: Historical—U.S. Department of Commerce, Bureau of the Census website, www.census.gov; U.S. Department of Labor, Bureau of Labor Statistics website, Current Employment Statistics survey, www.bls.gov; U.S. Department of Commerce Bureau of Economic Analysis website, www.bea.gov.

Projection—MSA, Arizona: University of Arizona, Eller College of Management, Economic & Business Research Center, May 2019.

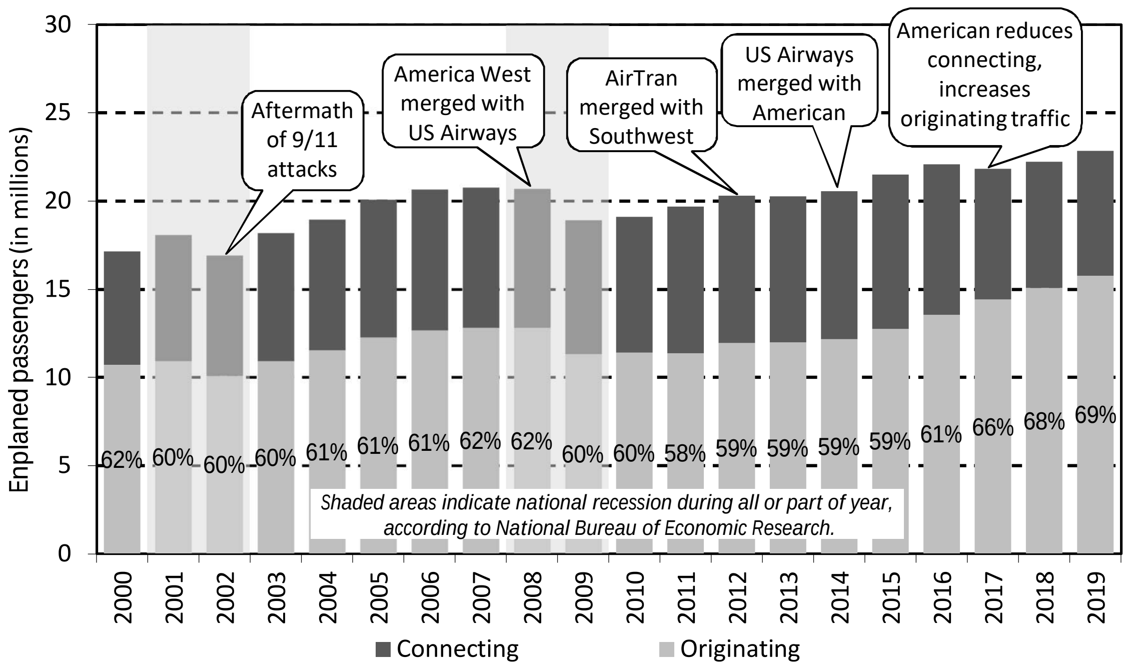
United States: U.S. Department of Commerce, Bureau of the Census website, *2017 National Population Projections*, September 2018; U.S. Department of Labor, Bureau of Labor Statistics website, *Employment Projections: 2016-2026*, October 2017.

Arizona State University's W.P. Carey School of Business prepares the Greater Phoenix Blue Chip Forecast, an aggregation of 2-year demographic and economic projections developed by ten different organizations. The latest Blue Chip Forecast, based upon second quarter 2019 data, reflects projections for the MSA generally in line with those shown in Table 4.

AIRLINE TRAFFIC ANALYSIS

Sky Harbor serves one of the nation’s largest metropolitan areas, with a substantial base of originating passenger traffic. The Airport is also a connecting hub airport in the route network of American Airlines and is one of the largest “focus city” airports in the route network of Southwest Airlines.* The geographic location of Sky Harbor allows connecting trip routings that minimize circuity between the southwestern United States and points eastward.

Figure 6
Historical Enplaned Passengers
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30)



Notes: FY 2019 total reflects actual results, originating and connecting values are estimated on the basis of 3 quarters of U.S. DOT O&D Survey data.
Percentages reflect originating passengers as a percent of total enplaned passengers.

Sources: City of Phoenix Aviation Department; U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedules T100 and 298C T1.

*In all discussions of historical airline service and passenger traffic by airline in this Report, unless otherwise noted, data for merged airlines are accounted for with the surviving airline (i.e., America West Airlines, Trans World Airlines, and US Airways with American Airlines; Northwest Airlines with Delta Air Lines; Continental Airlines with United Airlines; Midwest Airlines with Frontier Airlines; AirTran Airways with Southwest Airlines; and Virgin America with Alaska Airlines).

Figure 6 shows that 22.8 million passengers enplaned at Sky Harbor in FY 2019. Between FY 2000 and FY 2019, the number of enplaned passengers increased at a 1.5% average annual growth rate. Following shifts in American's network strategy initiated in FY 2017, which reflected an increased focus on stimulating originating passenger demand as opposed to filling available seat capacity with less profitable connecting passengers, Sky Harbor's share of originating passengers increased to a record high of approximately 69% in FY 2019.

Airline Roles at Sky Harbor

Table 5 shows the composition of enplaned passengers at Sky Harbor for the 12 months ended March 31, 2019 (the most recent data available), summarizing the types of traffic accommodated by the primary airline groups.

Table 5
Composition of Enplaned Passengers, by Airline Group
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(for the 12 months ended March 31, 2019; passengers in thousands)

	Enplaned passengers				Distribution by airline			
	American	Southwest	All other airlines	Total—all airlines	American	Southwest	All other airlines	Total—all airlines
Total	10,472	7,771	4,470	22,713	100.0%	100.0%	100.0%	100.0%
By sector:								
Domestic	9,963	7,771	3,920	21,653	95.1%	100.0%	87.7%	95.3%
International	509	-	550	1,060	4.9	--	12.3	4.7
By type of passenger:								
Originating	5,513	5,711	4,398	15,622	52.6%	73.5%	98.4%	68.8%
Resident (a)	*2,723*	*2,704*	*1,659*	*7,086*	*26.0*	*34.8*	*37.1*	*31.2*
Visitor (b)	*2,790*	*3,007*	*2,739*	*8,536*	*26.6*	*38.7*	*61.3*	*37.6*
Connecting	4,960	2,059	72	7,091	47.4	26.5	1.6	31.2
Airline share of Sky Harbor total:								
Total	46.1%	34.2%	19.7%	100.0%				
Originating	35.3	36.6	28.2	100.0				
Connecting	69.9	29.0	1.0	100.0				

Notes: Figures may not add to totals shown because of rounding.

(a) Resident passengers are defined as those passengers whose flight itineraries began at Phoenix.
(b) Visitor passengers are defined as those passengers whose flight itineraries began at airports other than Phoenix.

Sources: U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedule T100; City of Phoenix Aviation Department.

Although American accounted for 46.1% of total enplaned passengers at Sky Harbor, the airline accommodated most (69.9%) of the connecting traffic (47.4% of American's enplaned passengers were connecting whereas 52.6% were originating). Southwest, by comparison, accounted for 34.2% of total enplaned passengers and 29.0% of total connecting passengers (26.5% of Southwest's enplaned passengers were connecting whereas 73.5% were originating). The other airlines together accommodated the remaining 19.7% of total enplaned passengers but boarded only 1.0% of Sky Harbor's connecting passengers. In addition to the enplaned passenger numbers shown in Table 5, for the 12 months ended March 31, 2019, Southwest carried approximately 190,000 transit passengers (i.e., passengers on through flights who did not deplane or enplane at Sky Harbor during the stopover).

Ranking Among Other U.S. Airports

Table 6 shows the 30 largest U.S. airports ranked by enplaned passengers. By this measure, in 2018, Sky Harbor ranked 13th. The number of enplaned passengers increased 14.6% (2.8 million) at Sky Harbor between 2010 and 2018.

Table 7 shows the 30 largest U.S. airports ranked by enplaned originating passengers. By this measure, in 2018, Sky Harbor ranked 14th. The number of originating passengers increased 34.3% (3.7 million) at Sky Harbor between 2010 and 2018.

Table 8 shows the 30 largest U.S. airports ranked by connecting passengers. By this measure, in 2018, Sky Harbor ranked 8th. The number of connecting passengers decreased 12.1% (1.0 million) at Sky Harbor between 2010 and 2018.

Table 9 shows the 30 largest U.S. gateway airports ranked by international enplaned passengers. By this measure, in 2018, Sky Harbor ranked 23rd. The number of international enplaned passengers at Sky Harbor showed little change between 2010 and 2018.

Table 6
Enplaned Passengers at Top-Ranking U.S. Airports
(calendar years)

2018 Rank	City (airport)	Enplaned passengers (millions) 2010	2015	2018	Percent increase (decrease) 2010-2018	Increase (decrease) 2010-2018 (millions)
1	Atlanta	43.0	49.3	51.9	20.6%	8.9
2	Los Angeles (International)	28.9	36.5	42.8	48.3	13.9
3	Chicago (O'Hare)	32.2	36.4	39.9	24.1	7.8
4	Dallas/Fort Worth	27.0	31.6	32.8	21.4	5.8
5	Denver	25.2	26.3	31.4	24.3	6.1
6	New York (Kennedy)	22.9	28.0	30.7	33.7	7.7
7	San Francisco	19.3	24.2	27.9	44.2	8.5
8	Seattle	15.4	20.1	24.0	56.3	8.7
9	Las Vegas	18.9	21.7	23.7	25.4	4.8
10	Orlando (International)	17.0	18.8	23.2	36.4	6.2
11	Newark	16.6	18.7	22.9	38.1	6.3
12	Charlotte	18.6	21.9	22.3	19.6	3.7
13	Phoenix (Sky Harbor)	18.9	21.4	21.7	14.6	2.8
14	Houston (Bush)	19.5	20.6	21.2	8.5	1.7
15	Miami	17.0	21.0	21.1	23.9	4.1
16	Boston	13.6	16.3	20.1	47.9	6.5
17	Minneapolis-St. Paul	15.5	17.6	18.4	18.9	2.9
18	Fort Lauderdale	10.8	13.1	17.6	62.7	6.8
19	Detroit	15.6	16.3	17.4	11.5	1.8
20	Philadelphia	14.9	15.1	15.3	2.3	0.3
21	New York (LaGuardia)	12.0	14.3	15.1	25.6	3.1
22	Baltimore	10.8	11.7	13.3	23.6	2.6
23	Salt Lake City	9.9	10.6	12.2	23.4	2.3
24	San Diego	8.4	10.0	12.2	44.6	3.8
25	Washington DC (Dulles)	11.3	10.4	11.7	3.3	0.4
26	Washington DC (Reagan)	8.7	11.2	11.4	30.1	2.6
27	Chicago (Midway)	8.5	10.8	10.7	25.3	2.2
28	Tampa	8.1	9.2	10.4	27.5	2.2
29	Honolulu	8.7	9.6	9.9	13.8	1.2
30	Portland, Oregon	6.6	8.3	9.8	49.0	3.2
	Total—top 30 airports	504.1	581.1	642.9	27.5%	138.8

Notes: Airports shown are the top 30 U.S. airports ranked by number of passengers for 2018. Percentages were calculated using unrounded numbers.

Source: U.S. DOT, Schedule T100.

Table 7
Originating Passengers at Top-Ranking U.S. Airports
(calendar years)

2018 Rank	City (airport)	Originating passengers (millions) 2010	2015	2018	Percent increase (decrease) 2010-2018	Increase (decrease) 2010-2018 (millions)
1	Los Angeles (International)	22.2	28.4	35.1	58.3%	12.9
2	New York (Kennedy)	18.1	22.4	26.0	43.3	7.8
3	Chicago (O'Hare)	15.6	19.5	23.3	49.6	7.7
4	San Francisco	15.0	19.2	22.1	47.3	7.1
5	Orlando (International)	16.0	17.8	22.1	38.0	6.1
6	Las Vegas	16.0	18.2	20.6	28.7	4.6
7	Denver	12.9	16.0	20.3	56.8	7.3
8	Atlanta	13.9	16.2	20.2	45.8	6.4
9	Boston	13.0	15.4	18.9	45.6	5.9
10	Newark	11.8	13.5	18.2	54.8	6.5
11	Seattle	11.3	13.7	17.1	51.7	5.8
12	Dallas/Fort Worth	11.0	13.0	15.5	41.4	4.5
13	Fort Lauderdale	10.0	11.8	14.8	47.9	4.8
14	Phoenix (Sky Harbor)	10.9	12.4	14.6	34.3	3.7
15	Miami	9.6	12.4	14.1	46.5	4.5
16	New York (LaGuardia)	11.1	12.6	13.7	24.0	2.7
17	San Diego	8.0	9.4	11.5	43.6	3.5
18	Minneapolis-St. Paul	8.1	9.4	11.4	41.8	3.4
19	Houston (Bush)	7.7	9.6	10.9	40.9	3.2
20	Philadelphia	8.8	9.3	10.6	20.1	1.8
21	Detroit	7.5	8.4	10.4	39.0	2.9
22	Washington DC (Reagan)	7.2	9.4	10.1	40.0	2.9
23	Tampa	7.5	8.7	10.0	32.8	2.5
24	Baltimore	8.3	8.1	9.7	16.7	1.4
25	Portland, Oregon	5.6	7.1	8.7	54.0	3.0
26	Honolulu	7.0	7.8	8.4	20.2	1.4
27	Washington DC (Dulles)	6.5	6.8	7.8	20.0	1.3
28	Salt Lake City	5.0	5.9	7.6	50.3	2.5
29	Austin	4.0	5.5	7.4	84.8	3.4
30	Charlotte	4.9	5.8	7.0	41.1	2.0
	Total—top 30 airports	314.5	373.7	448.1	42.5%	133.6

Notes: Airports shown are the top 30 U.S. airports ranked by number of originating passengers for 2018.
Percentages were calculated using unrounded numbers.
Includes a small number of passengers on foreign-flag airlines making connections between international flights.

Sources: U.S. DOT, Schedule T100; U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedule T100.

Table 8
Connecting Passengers at Top-Ranking U.S. Airports
(calendar years)

2018 Rank	City (airport)	Connecting passengers (millions) 2010	2015	2018	Percent increase (decrease) 2010-2018	Increase (decrease) 2010-2018 (millions)
1	Atlanta	29.1	33.2	31.6	8.6%	2.5
2	Dallas/Fort Worth	16.1	18.6	17.3	7.7	1.2
3	Chicago (O'Hare)	16.6	16.8	16.6	0.1	0.0
4	Charlotte	13.7	16.1	15.3	11.9	1.6
5	Denver	12.3	10.3	11.1	(9.8)	(1.2)
6	Houston (Bush)	11.8	11.0	10.3	(12.8)	(1.5)
7	Los Angeles (International)	6.7	8.1	7.7	15.3	1.0
8	Phoenix (Sky Harbor)	8.0	9.0	7.1	(12.1)	(1.0)
9	Detroit	8.1	7.8	7.0	(13.9)	(1.1)
10	Minneapolis-St. Paul	7.4	8.2	7.0	(5.9)	(0.4)
11	Miami	7.4	8.6	7.0	(5.5)	(0.4)
12	Seattle	4.1	6.4	6.9	68.9	2.8
13	San Francisco	4.3	5.1	5.8	33.4	1.4
14	Philadelphia	6.2	5.8	4.7	(23.2)	(1.4)
15	New York (Kennedy)	4.8	5.6	4.7	(2.3)	(0.1)
16	Newark	4.8	5.2	4.7	(2.8)	(0.1)
17	Salt Lake City	4.9	4.7	4.7	(4.4)	(0.2)
18	Washington DC (Dulles)	4.8	3.6	3.8	(19.4)	(0.9)
19	Chicago (Midway)	3.0	4.2	3.8	25.1	0.8
20	Baltimore	2.5	3.6	3.7	46.5	1.2
21	Las Vegas	2.9	3.5	3.1	7.0	0.2
22	Fort Lauderdale	0.8	1.3	2.8	238.6	2.0
23	Dallas (Love)	1.1	2.2	2.6	132.1	1.5
24	Houston (Hobby)	1.2	1.9	2.5	103.9	1.3
25	St. Louis	0.9	1.0	1.8	96.2	0.9
26	Honolulu	1.7	1.8	1.5	(12.8)	(0.2)
27	New York (LaGuardia)	0.9	1.8	1.3	44.7	0.4
28	Washington DC (Reagan)	1.5	1.8	1.3	(15.9)	(0.2)
29	Boston	0.6	0.9	1.2	97.9	0.6
30	Portland, Oregon	0.9	1.2	1.1	19.4	0.2
	Total—top 30 airports	189.3	209.4	199.9	5.6%	10.7

Notes: Airports shown are the top 30 U.S. airports ranked by number of connecting passengers for 2018.
Percentages were calculated using unrounded numbers.
Excludes a small number of passengers on foreign-flag airlines making connections between international flights.

Sources: U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedule T100.

Table 9
International Passengers at Top-Ranking U.S. Airports
(calendar years)

2018 Rank	City (airport)	Enplaned international passengers (millions) 2010	2015	2018	Percent increase (decrease) 2010-2018	Increase (decrease) 2010-2018 (millions)
1	New York (Kennedy)	11.39	14.81	16.64	46.1%	5.25
2	Los Angeles (International)	7.67	9.89	12.77	66.4	5.10
3	Miami	8.37	10.54	10.56	26.2	2.19
4	Newark	5.68	5.82	6.96	22.6	1.29
5	San Francisco	4.19	5.44	6.88	64.3	2.69
6	Chicago (O'Hare)	5.16	5.81	6.78	31.3	1.61
7	Atlanta	4.51	5.42	6.15	36.3	1.64
8	Houston (Bush)	4.18	5.17	5.27	26.0	1.09
9	Fort Lauderdale	1.62	2.60	4.18	158.2	2.56
10	Dallas/Fort Worth	2.52	3.77	4.17	65.1	1.64
11	Washington DC (Dulles)	2.99	3.49	3.91	30.6	0.92
12	Boston	1.85	2.55	3.64	96.9	1.79
13	Orlando (International)	1.56	2.48	3.19	104.1	1.63
14	Honolulu	1.80	2.51	2.67	47.7	0.86
15	Seattle	1.36	2.17	2.64	93.8	1.28
16	Philadelphia	1.88	2.00	1.93	2.6	0.05
17	Detroit	1.43	1.60	1.87	30.2	0.43
18	Las Vegas	1.07	1.70	1.84	71.3	0.77
19	Charlotte	1.32	1.49	1.55	17.2	0.23
20	Minneapolis-St. Paul	1.13	1.29	1.48	30.6	0.35
21	Denver	0.96	1.09	1.47	53.6	0.51
22	New York (LaGuardia)	0.54	0.94	1.13	110.7	0.60
23	Phoenix (Sky Harbor)	1.05	1.14	1.05	0.3	0.00
24	Baltimore	0.20	0.51	0.62	205.4	0.42
25	Houston (Hobby)	0.00	0.08	0.52	n.a.	0.52
26	San Diego	0.13	0.35	0.52	304.3	0.39
27	Tampa	0.20	0.32	0.49	148.1	0.29
28	Salt Lake City	0.23	0.28	0.49	107.5	0.25
29	San Jose	0.07	0.20	0.48	622.4	0.41
30	Oakland	0.11	0.16	0.47	335.0	0.36
	Total—top 30 airports	75.19	95.64	112.31	49.4%	37.11

Notes: Airports shown are the top 30 U.S. airports (excluding airports in Puerto Rico, the islands of the Pacific Trust, and the U.S. Virgin Islands) ranked by number of international passengers for 2018.
Percentages were calculated using unrounded numbers. n.a. = not applicable.

Source: U.S. DOT, Schedule T100.

Sky Harbor and Phoenix-Mesa Gateway Airport

The only other airport with commercial service located within the Airport service region is Phoenix-Mesa Gateway Airport (Gateway), located approximately 30 miles southeast of Sky Harbor. Gateway enplanes just 4% of the passenger volume of Sky Harbor, through a single 106,000 square foot terminal (roughly one-third the size of Sky Harbor's smallest terminal) and 10 aircraft parking positions (compared with Sky Harbor's 100).

Allegiant Air began scheduled service at Gateway in 2007. In July 2019, Gateway was the 4th-ranked airport in the Allegiant system as measured by departing seats (after Orlando-Sanford, St. Pete-Clearwater, and Las Vegas). Allegiant's business model focuses on providing leisure travelers with less-than-daily, point-to-point service from communities in the northern and Midwest U.S. to popular Sunbelt vacation destinations. This business model results in a relatively high number of destinations served nonstop, but lower average numbers of daily flights and seats. Due to the leisure-oriented focus of most passengers using Gateway, it has somewhat greater seasonal variation in activity relative to Sky Harbor.

WestJet began scheduled service at Gateway in January 2017 and operates seasonal service to Calgary. By comparison, WestJet offers year-round service from Sky Harbor to Calgary and seasonal service to seven other Canadian destinations. Canadian airline Swoop (a low-cost subsidiary of WestJet) operates seasonal service from Gateway to Edmonton and is scheduled to start service from Gateway to Winnipeg in December 2019.

Table 10 compares the number of cities served nonstop, average daily aircraft departures, and average daily departing seats at Sky Harbor and Gateway in July 2019. Of the total domestic capacity in the combined Phoenix market at that time, Sky Harbor accounted for 96% and Gateway for the remaining 4%.

Table 10
Domestic Airline Service
Phoenix Sky Harbor International and Phoenix-Mesa Gateway Airports
(as scheduled for July 2019)

	Number of cities served nonstop *(a)*	Average daily aircraft departures	Average daily departing seats
By airport			
Sky Harbor	85	481	67,597
Mesa-Gateway	38	16	2,806
By airline type			
Low-cost carriers			
Sky Harbor	48	173	26,594
Mesa-Gateway	38	16	2,806
All other airlines			
Sky Harbor	74	308	41,003
Mesa-Gateway	--	--	--
By aircraft type			
Large jet			
Sky Harbor	60	382	60,718
Mesa-Gateway	38	16	2,806
Regional jet			
Sky Harbor	36	94	6,838
Mesa-Gateway	--	--	--
Turboprop and piston			
Sky Harbor	4	5	41
Mesa-Gateway	--	--	--

(a) Some cities are served by more than one airport and some airports are served by more than one airline type or aircraft type. Not every city is served daily.

Source: OAG Aviation Worldwide Ltd, OAG Analyser database, accessed August 2019.

Role in American's System

America West Airlines, which was headquartered just east of Sky Harbor in Tempe, began commercial service in 1983 and established its primary hub at Sky Harbor. In September 2005, America West merged with US Airways and, although the merged airline adopted the US Airways name, the company kept its corporate headquarters in the Airport service region. In December 2013, US Airways merged with American and the airline began operating as American under a single operating certificate in April 2015.

Table 11 shows that in July 2019, Sky Harbor was the sixth-largest of American's ten hub airports in terms of departing seats (4.8% of its total systemwide capacity). American and its regional code-sharing affiliates accounted for 45.9% of enplaned passengers at Sky Harbor in FY 2019—the largest share of any airline. American's Oneworld alliance and joint venture partner, British Airways, also serves Sky Harbor and accounted for 10.5% of its international enplaned passengers in FY 2019. Between FY 2010 and FY 2019, the number of passengers enplaned on American at Sky Harbor increased an average of 0.7% per year, while American's average load factor has increased from 78% to 87%.

Table 11
Scheduled Departing Seats on American
Top U.S. Airports in the American Airlines System
(as scheduled for the month of July)

		2010		2015		2019	
Rank	Airport	Seats	% of total	Seats	% of total	Seats	% of total
1	Dallas/Fort Worth	2,682,225	13.8%	2,944,389	14.4%	3,373,262	15.7%
2	Charlotte	1,893,284	9.8	2,114,448	10.3	2,264,044	10.5
3	Chicago-O'Hare	1,395,491	7.2	1,442,372	7.0	1,643,831	7.6
4	Miami	1,361,521	7.0	1,554,682	7.6	1,458,875	6.8
5	Philadelphia	1,316,157	6.8	1,309,244	6.4	1,266,115	5.9
6	Phoenix	1,037,360	5.4	1,209,931	5.9	1,030,764	4.8
7	Los Angeles	590,608	3.0	769,479	3.8	893,837	4.2
8	Washington-Reagan	642,340	3.3	638,845	3.1	623,422	2.9
9	New York-LaGuardia	566,427	2.9	459,150	2.2	455,769	2.1
10	Boston	444,335	2.3	401,407	2.0	323,815	1.5
	All other	7,459,749	38.5	7,638,457	37.3	8,194,363	38.1
	Total—U.S. system	19,389,497	100.0%	20,482,404	100.0%	21,528,097	100.0%

Note: Represents seats on scheduled domestic and international flights and includes regional code-sharing affiliates.

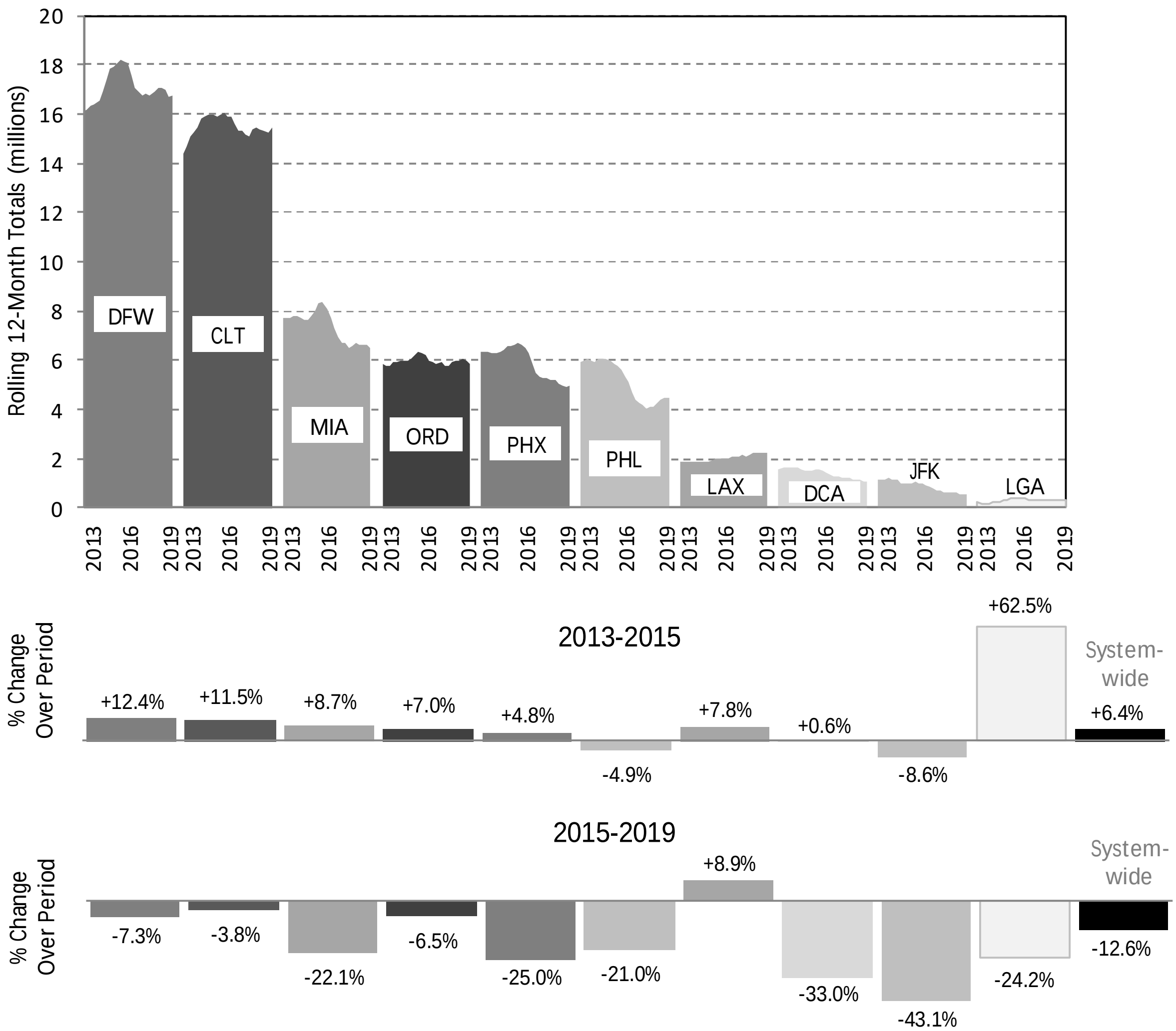
Source: OAG Aviation Worldwide Ltd, OAG Analyser database, accessed August 2019.

American's connecting passenger flows at Sky Harbor are governed by its geographic location. Of passengers connecting between domestic flights on American at Sky Harbor, 78% are traveling between the Northeastern, Southern, and Midwestern U.S. on the one hand, and the Southwestern U.S. and Hawaii on the other. An additional 14% are connecting between the Southwestern U.S. and Hawaii, or on itineraries within the Southwestern U.S. Among American's hub airports, Sky Harbor competes most directly with Dallas/Fort Worth International Airport (DFW) for connecting flow. Sky Harbor is the more optimal connecting location for routes between Southern California and the Northeast United States, and Sky Harbor and DFW accommodate connections between Southern

California and the Southeast United States equally well. However, DFW's more easterly location makes it the more optimal connecting point for routes between the central United States and the East Coast.

Since 2015, American has focused on allotting more seat capacity to more profitable originating passengers than to less profitable connecting traffic across its route network, which has resulted in lower seat capacity at Sky Harbor. At Sky Harbor, this strategic shift resulted in American's connecting passengers decreasing 25.0% between 2015 and March 2019, while its originating passengers increased 19.7%. Figure 7 shows that, over the same period, five other American hub airports recorded decreases in connecting passengers approximately equal to or greater than that recorded at Sky Harbor, in percentage terms. In absolute terms, Miami recorded greater decreases than Sky Harbor.

Figure 7
Connecting Passengers on American Airlines
at American's U.S. Hub Airports



Source: U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedule T100.

Role in Southwest's System

Table 12 shows that in July 2019, Sky Harbor was the sixth-largest airport in Southwest's system in terms of departing seats (4.2% of its total systemwide capacity). Southwest accounted for 34.0% of enplaned passengers at Sky Harbor in FY 2019, ranking second to American. Between FY 2010 and FY 2019, the number of passengers enplaned on Southwest at Sky Harbor increased an average of 3.6% per year, while Southwest's average enplaned passenger load factor has increased from 64% to 83%. The inclusion of transit passengers (who do not deplane or enplane at Sky Harbor) would add an estimated additional 2.0 percentage points of seat occupancy to Southwest's FY 2019 load factor at Sky Harbor.

Table 12
Scheduled Departing Seats on Southwest Airlines
Top U.S. Airports in the Southwest System
(as scheduled for the month of July)

		2010		2015		2019	
Rank	Airport	Seats	% of total	Seats	% of total	Seats	% of total
1	Chicago-Midway	946,879	5.8%	1,211,218	7.3%	1,075,006	5.9%
2	Denver	561,386	3.4	838,131	5.0	1,011,937	5.6
3	Baltimore	959,995	5.9	997,664	6.0	987,067	5.4
4	Las Vegas	936,059	5.7	977,096	5.9	907,931	5.0
5	Dallas-Love Field	498,717	3.1	691,748	4.1	875,103	4.8
6	Phoenix	714,942	4.4	753,677	4.5	773,160	4.2
7	Houston-Hobby	550,388	3.4	672,347	4.0	769,223	4.2
8	Orlando	687,546	4.2	562,778	3.4	559,243	3.1
9	Oakland	444,851	2.7	463,140	2.8	555,231	3.1
10	San Diego	404,312	2.5	440,920	2.6	548,262	3.0
	All other	9,611,367	58.9	9,082,976	54.4	10,136,548	55.7
	Total—U.S. system	16,316,442	100.0%	16,691,695	100.0%	18,198,711	100.0%

Note: Represents seats on scheduled domestic and international flights.

Source: OAG Aviation Worldwide Ltd, OAG Analyser database, accessed August 2019.

Sky Harbor serves much the same role in Southwest's route network as it does in the route network of American. Of passengers connecting on Southwest at Sky Harbor, 81% are traveling between the Northeastern, Southern, and Midwestern U.S. on the one hand, and the Southwestern U.S. and Hawaii on the other. An additional 9% are connecting on itineraries within the Southwestern U.S. Among Southwest's top airports, Sky Harbor competes most directly with Denver International Airport (DEN) for connecting flow. Sky Harbor and DEN accommodate connections between Southern California and the Northeast United States equally well, and Sky Harbor is the more optimal connecting location for routes between Southern California and the Southeast United States. However, DEN is the more optimal connecting location for routes between the Northwest United States and the East Coast, as well as for routes between the central United States and the East Coast.

HISTORICAL AIRLINE SERVICE AND TRAFFIC

Table 13 lists the passenger and cargo airlines that provided service at Sky Harbor in FY 2019.

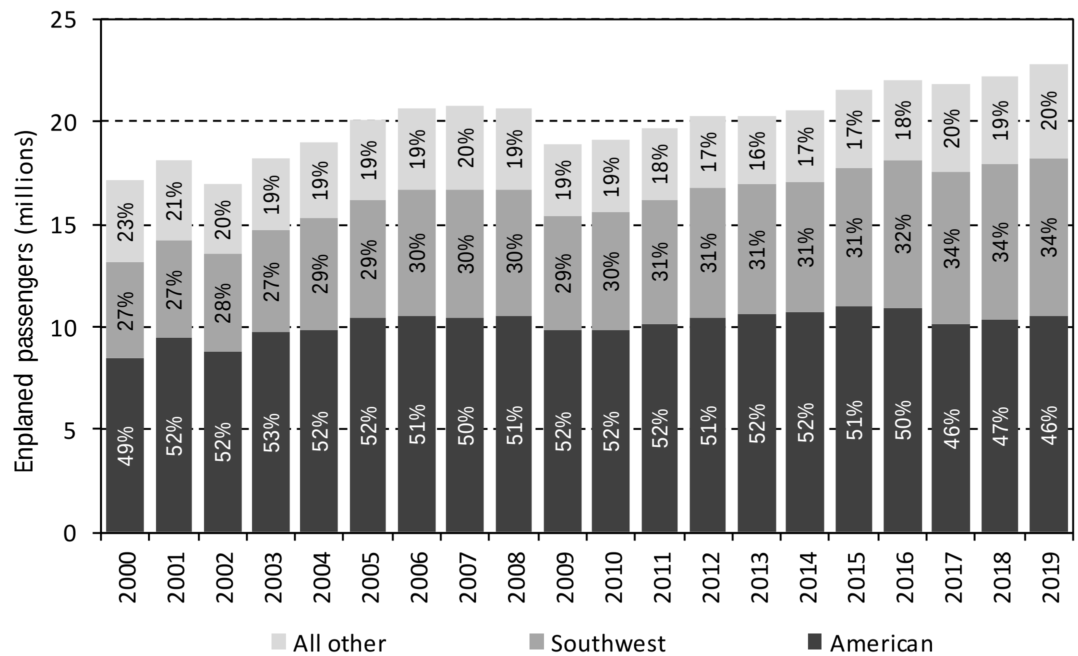
Table 13
Airlines Serving the Airport
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Year 2019)

Major/national	Foreign-flag
Alaska	Air Canada
American	British Airways
Delta	Condor
Frontier	Jazz Aviation (Air Canada Express)
Hawaiian	Volaris
JetBlue	WestJet
Southwest	
Spirit	**All-cargo airlines**
Sun Country	ABX Air
United	Air Cargo Carriers (DHL)
	Air Transport International
Regional/commuter	Ameriflight
Advanced Air	Atlas Air (Amazon Air, DHL)
Boutique Air	DHL
Compass (American Eagle, Delta Connection)	Empire
Contour	FedEx
Mesa (American Eagle, United Express)	Kalitta Air (DHL)
SkyWest (American Eagle, Delta Connection, United Express)	UPS

Source: City of Phoenix Aviation Department.

Figure 8 shows the airline passenger shares at Sky Harbor since FY 2000. Over the past 19 years, Southwest gained 7 percentage points of market share, while both American and all other airlines, considered together, lost market share.

Figure 8
Total Enplaned Passengers by Airline Grouping
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30)

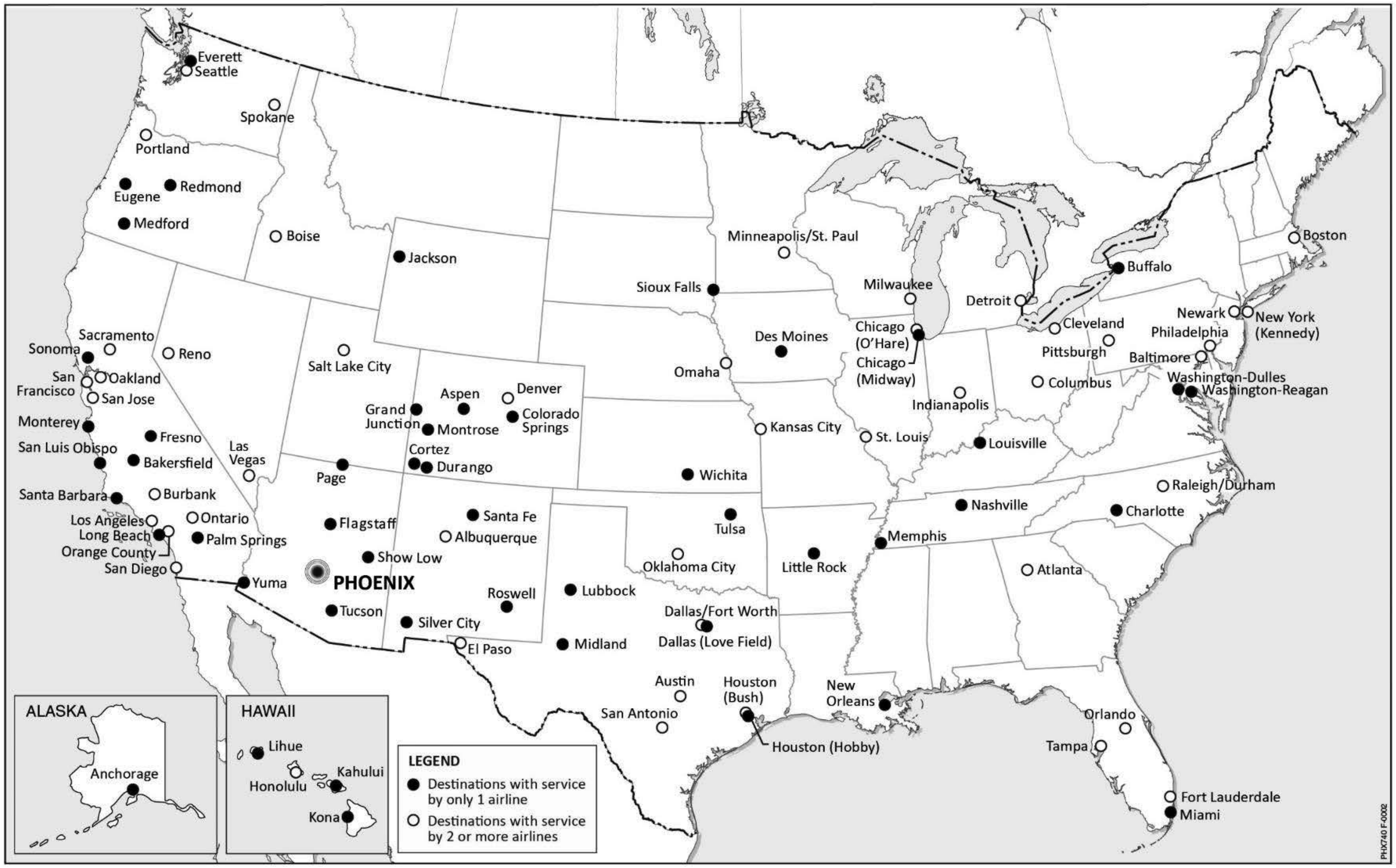


Source: City of Phoenix Aviation Department.

Domestic Service

Figure 9 shows the U.S. airports served by scheduled daily nonstop roundtrip flights from Sky Harbor in July 2019.

Figure 9
U.S. Airports Served by Daily Scheduled Nonstop Roundtrip Passenger Flights
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(as scheduled for July 2019)



Source: OAG Aviation Worldwide Ltd, OAG Analyser database, accessed August 2019.

Table 14 shows the number of cities served nonstop at Sky Harbor increased from 71 to 85 between 2010 and 2019. The increase in the number of cities served nonstop was largely attributable to the launch of service by American to several smaller communities in the West (e.g., Jackson, Wyoming; St. George, Utah; Montrose, Colorado; Everett, Washington; Redmond, Oregon; and Sonoma County, California). Lower volume markets such as these typically rely on connecting feed through a hub such as Sky Harbor to maximize aircraft load factors. Between 2010 and 2019, the number of average daily departing seats increased, while the number of flights decreased, indicating a trend toward larger aircraft serving Sky Harbor.

Numbers of seats on regional jet and mainline jet aircraft increased between 2010 and 2019, offsetting decreases in turboprop activity. The types of routes offered at Sky Harbor shifted over the 9-year period as well, with the total number of daily scheduled seats decreasing on short-haul routes but increasing on medium- and long-haul routes.

Table 15 shows how airline service has changed over the past 10 years in the top 15 domestic originating city-pair markets for Sky Harbor. The top 15 routes accounted for 55% of all scheduled flight departures at Sky Harbor in July 2019. Competing nonstop service was offered in all of the top 15 markets in July 2019, with 6 markets served by 4 or more airlines and another 7 markets served by 3 airlines. Nonstop service was provided in all of Sky Harbor’s top 15 originating passenger markets by both American and Southwest.

Table 14
Daily Scheduled Domestic Passenger Service
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(as scheduled for the month of July)

	2010	2015	2019
NUMBER OF CITIES SERVED NONSTOP *(a)*	71	66	85
Change from previous year shown		(5)	19
By aircraft type:			
Total jet	66	64	82
Mainline jet	*59*	*52*	*60*
Regional jet	*23*	*26*	*36*
Turboprop and piston	7	2	4
By stage length:			
Short-haul (<600 mi.)	19	19	28
Medium-short haul (600-1200 mi.)	18	18	26
Medium-long haul (1200-1800 mi.)	17	14	16
Long-haul (>1800 mi.)	17	15	15
AVERAGE DAILY DEPARTING FLIGHTS	502	513	481
Change from previous year shown		10	(31)
By aircraft type:			
Total jet	481	510	476
Mainline jet	*405*	*397*	*382*
Regional jet	*76*	*113*	*94*
Turboprop and piston	21	3	5
By stage length:			
Short-haul (<600 mi.)	200	188	175
Medium-short haul (600-1200 mi.)	162	177	169
Medium-long haul (1200-1800 mi.)	88	90	80
Long-haul (>1800 mi.)	53	58	57
AVERAGE DAILY SCHEDULED SEATS	63,597	69,660	67,597
Change from previous year shown		6,064	(2,063)
By aircraft type:			
Total jet	62,875	69,609	67,556
Mainline jet	*58,045*	*62,048*	*60,718*
Regional jet	*4,830*	*7,561*	*6,838*
Turboprop and piston	722	51	41
By stage length:			
Short-haul (<600 mi.)	21,384	20,833	19,818
Medium-short haul (600-1200 mi.)	20,820	24,880	24,675
Medium-long haul (1200-1800 mi.)	13,063	14,198	13,371
Long-haul (>1800 mi.)	8,328	9,749	9,732

Note: Columns may not add to totals shown because of rounding.

(a) Some cities are served by more than one airport and some airports are served by more than one airline type or aircraft type.

Source: OAG Aviation Worldwide Ltd, OAG Analyser database, accessed August 2019.

Table 15
Comparison of Nonstop Service in the
Top 15 Domestic Originating Passenger Markets
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(as scheduled for the month of July)

Rank *(a)*	City market / *Airport*	Nonstop mileage	Airlines offering nonstop service *(b)*	Number of carriers serving *(c)* 2010	2015	2019	Daily scheduled flight departures 2010	2015	2019
1	Los Angeles	350	AA,AN,DL,UA,WN	3	4	5	65	64	57
	Los Angeles		*AA,DL,UA,WN*	*3*	*4*	*4*	*22*	*26*	*22*
	Orange County		*AA,WN*	*2*	*2*	*2*	*14*	*11*	*11*
	Burbank		*AA,WN*	*2*	*2*	*2*	*12*	*10*	*10*
	Ontario		*AA,WN*	*2*	*2*	*2*	*12*	*11*	*11*
	Long Beach		*AA,UA*	*1*	*1*	*2*	*4*	*5*	*3*
	Hawthorne (d)		*AN*	--	--	*1*	--	--	*0*
2	San Francisco *(e)*	638	AA,UA,WN	3	4	3	34	36	32
3	Chicago *(f)*	1,438	AA,F9,UA,WN	3	4	4	20	19	20
4	Denver	600	AA,F9,UA,WN	4	5	4	23	20	19
5	New York *(g)*	2,137	AA,B6,DL,UA,WN	4	5	5	12	13	15
6	Seattle	1,105	AA,AS,DL,WN	3	4	4	13	18	17
7	Minneapolis-St Paul	1,273	AA,DL,SY,WN	2	3	4	10	12	10
8	Dallas/Ft. Worth *(h)*	871	AA,NK,WN	1	3	3	14	19	19
9	Washington DC/Baltimore *(i)*	1,972	AA,UA,WN	3	3	3	9	10	7
10	Portland	1,008	AA,AS,WN	3	3	3	10	11	9
11	Las Vegas	254	AA,WN	2	2	2	23	17	14
12	San Diego	303	AA,WN	2	2	2	18	15	16
13	Salt Lake City	507	AA,DL,WN	3	3	3	18	16	13
14	Detroit	1,666	AA,DL,WN	3	3	3	8	10	6
15	Atlanta	1,583	AA,DL,WN	3	3	3	11	12	10
	Total—top 15 markets			7	8	9	289	291	264
	All other markets			7	7	10	214	221	217
	Total—all markets			9	10	13	502	513	481

(a) Top 15 city markets ranked by domestic outbound originating passengers for the 12 months ended March 31, 2019.
(b) For July 2019. Carrier legend: AA = American, AN=Advanced Air, AS = Alaska, B6 = JetBlue, DL = Delta, F9 = Frontier, NK = Spirit, UA = United, WN = Southwest.
(c) Each mainline carrier and its regional code-sharing affiliates were counted as one airline.
(d) Less than daily service (three times weekly).
(e) Market includes San Francisco, Oakland, and San Jose airports.
(f) Market includes O'Hare and Midway airports.
(g) Market includes LaGuardia, Newark, and Kennedy airports.
(h) Market includes Dallas/Fort Worth Airport and Love Field.
(i) Market includes Dulles, Reagan, and Baltimore airports.

Source: OAG Aviation Worldwide Ltd, OAG Analyser database, accessed August 2019.

International Service

Figure 10 shows the international destinations with nonstop service from Sky Harbor in July 2019. American, Air Canada, British Airways, Condor, Volaris, and WestJet operate such service to 15 destinations in Canada, Mexico, Costa Rica, the United Kingdom, and Germany. Competing service is offered to four of the destinations (Guadalajara, London, Puerto Vallarta, and Vancouver) year-round and an additional two (Calgary and Toronto) seasonally. Additionally, American has announced service to Chihuahua, Mexico, scheduled to begin in December 2019.

Figure 10
International Destinations Served by Scheduled Roundtrip Passenger Flights
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(as scheduled for July 2019)

Source: OAG Aviation Worldwide Ltd, OAG Analyser database, accessed August 2019.

Passenger Traffic by Segment

Table 16 shows historical enplaned passenger numbers at Sky Harbor by originating and connecting components. Between FY 2010 and FY 2015, the number of originating passengers nearly recovered to its pre-recessionary level while the number of connecting passengers reached a record high level. Between FY 2015 and FY 2019 (since the American-US Airways merger), an estimated 3.0 million increase in the number of originating passengers more than offset an estimated 1.6 million decrease in the number of connecting passengers. The recent decrease in the number of connecting passengers at Sky Harbor is primarily attributable to American Airlines, as described earlier.

Originating passengers represent an estimated 68.9% of total enplaned passengers at Sky Harbor in FY 2019, up from 59.7% in FY 2010. Table 16 shows that domestic passengers account for most of the originating passengers. The other passenger segment at Sky Harbor—connecting passengers—represent an estimated 31.1% of total enplaned passengers in FY 2019. Connecting passengers are categorized into two groups: (1) connections from one domestic flight to another and (2) connections between a domestic flight and an international flight. In FY 2019, domestic-domestic connections accounted for an estimated 90% of all connecting passengers at Sky Harbor, while domestic-international connections accounted for the remaining 10%.

Table 16
Historical Enplaned Passengers by Component
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30; passengers in thousands)

	Originating passengers			Connecting passengers			Total
Year	Domestic	International	Total	Domestic-domestic	Domestic-international *(a)*	Total	enplaned passengers
2010	10,436	958	11,394	6,728	975	7,703	19,097
2011	10,356	1,005	11,361	7,223	1,098	8,321	19,681
2012	10,854	1,089	11,943	7,300	1,035	8,335	20,278
2013	10,860	1,115	11,975	7,263	998	8,261	20,236
2014	11,012	1,143	12,155	7,465	898	8,363	20,519
2015	11,572	1,166	12,738	7,877	873	8,751	21,489
2016	12,401	1,138	13,538	7,678	839	8,517	22,056
2017	13,232	1,154	14,385	6,702	733	7,435	21,820
2018	13,835	1,212	15,047	6,475	697	7,172	22,219
2019	14,484	1,243	15,727	6,430	675	7,105	22,832
	Average annual percent increase (decrease)						
2010-2015	2.1%	4.0%	2.3%	3.2%	(2.2%)	2.6%	2.4%
2015-2019	5.8	1.6	5.4	(4.9)	(6.2)	(5.1)	1.5
2010-2019	3.7	2.9	3.6	(0.5)	(4.0)	(0.9)	2.0
	Annual percent increase (decrease)						
2015-2016	7.2%	(2.4%)	6.3%	(2.5%)	(4.0%)	(2.7%)	2.6%
2016-2017	6.7	1.4	6.3	(12.7)	(12.6)	(12.7)	(1.1)
2017-2018	4.6	5.1	4.6	(3.4)	(4.9)	(3.5)	1.8
2018-2019	4.7	2.5	4.5	(0.7)	(3.1)	(0.9)	2.8
	Share of Airport total						
2010	54.6%	5.0%	59.7%	35.2%	5.1%	40.3%	100.0%
2015	53.9	5.4	59.3	36.7	4.1	40.7	100.0
2019	63.4	5.4	68.9	28.2	3.0	31.1	100.0

Notes: Domestic and international subtotals for FY 2019 reflect actual results; originating and connecting subtotals are estimated on the basis of 3 quarters of U.S. DOT O&D Survey data.
Rows may not add to totals shown because of rounding.
Percentages were calculated using unrounded numbers.

(a) Passengers connecting from domestic flights to international flights, and vice versa.

Sources: City of Phoenix Aviation Department; U.S. DOT, *Air Passenger Origin-Destination* Survey, reconciled to Schedule T100.

Table 17 shows that the number of passengers departing Sky Harbor on international flights has increased since FY 2010. The gain was entirely attributable to increases in passengers bound for Canada and the United Kingdom. Passengers to Mexico and elsewhere decreased, primarily due to reductions in service by American.

Table 17
Departing Passengers by Major International Passenger Market
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30; passengers in thousands)

International market area	2010	2015	2018	Average annual percent increase (decrease) 2010-2015	2015-2018	2010-2018
Canada	357	528	470	8.1%	(3.8%)	3.5%
Mexico	547	492	435	(2.1%)	(4.0%)	(2.8%)
United Kingdom	73	100	108	6.5%	2.4%	4.9%
Other *(a)*	24	12	17	(12.8%)	12.2%	(4.1%)
Total	1,001	1,132	1,029	2.5%	(3.1%)	0.3%

Notes: Columns may not add to totals shown because of rounding.
Includes both originating and connecting passengers departing from Sky Harbor on scheduled and non-scheduled international flights.

(a) Mostly passengers to Costa Rica.

Source: U.S. DOT, Schedule T100.

Passenger Traffic by Airline

Table 18 shows that 80.0% of all passengers enplaned at Sky Harbor in FY 2019 boarded flights operated by either American (including its regional affiliates) or Southwest, a smaller share than in FY 2015 (82.5%) and in FY 2010 (81.4%). Delta and United were the third and fourth ranking airlines in FY 2019, enplaning 6.7% and 5.4% of Sky Harbor's passengers, respectively. In FY 2019, the number of enplaned passengers at Sky Harbor increased 2.8%, year-over-year (613,000 passengers). Southwest, American, Delta, and United accounted for most of the increase, increasing 2.9%, 1.2%, 6.3%, and 5.5% year-over-year, respectively. Frontier, by contrast, experienced a decrease of 7.1% (27,000 passengers) as the airline reduced service to Sky Harbor.

Table 18
Airline Shares of Total Enplaned Passengers
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30; listed in descending order for FY 2019)

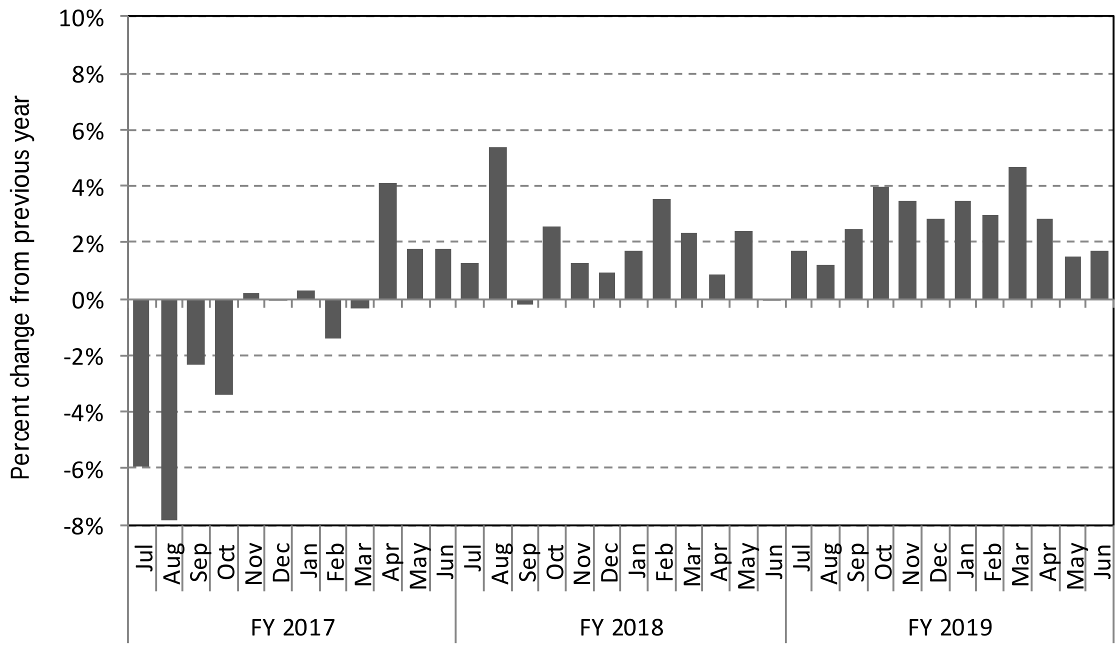
	Fiscal Years			
Airline	2010	2015	2018	2019
American	9,886,705	10,978,341	10,360,041	10,486,029
Southwest	5,665,452	6,750,373	7,546,946	7,768,715
Delta	1,250,333	1,325,051	1,438,843	1,529,781
United	1,236,187	981,702	1,164,730	1,228,311
Alaska	326,624	370,801	432,478	474,431
Frontier	276,521	279,517	388,761	361,348
WestJet	89,400	214,812	234,570	232,839
Air Canada	57,468	101,417	140,171	162,610
Spirit		148,673	96,545	121,595
JetBlue	80,861	90,195	92,201	114,125
British Airways	75,619	103,408	111,514	112,075
Sun Country	31,842	35,032	80,518	100,119
Hawaiian	84,912	85,368	86,558	85,053
All Other	34,605	23,879	45,039	54,914
Total	19,096,529	21,488,569	22,218,915	22,831,945
	Share of total			
American	51.8%	51.1%	46.6%	45.9%
Southwest	29.7	31.4	34.0	34.0
Delta	6.5	6.2	6.5	6.7
United	6.5	4.6	5.2	5.4
Alaska	1.7	1.7	1.9	2.1
Frontier	1.4	1.3	1.7	1.6
WestJet	0.5	1.0	1.1	1.0
Air Canada	0.3	0.5	0.6	0.7
Spirit	--	0.7	0.4	0.5
JetBlue	0.4	0.4	0.4	0.5
British Airways	0.4	0.5	0.5	0.5
Sun Country	0.2	0.2	0.4	0.4
Hawaiian	0.4	0.4	0.4	0.4
All Other	0.2	0.1	0.2	0.2
Total	100.0%	100.0%	100.0%	100.0%

Notes: Passengers reported by regional affiliates are grouped with their respective code-sharing partners.
Columns may not add to totals shown because of rounding.

Source: City of Phoenix Aviation Department.

Figure 11 shows that, following decreases in passengers in early FY 2017, increases in passengers resumed in late FY 2017 and generally continued throughout FY 2018 and FY 2019.

Figure 11
Percent Change in Monthly Enplaned Passengers
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport



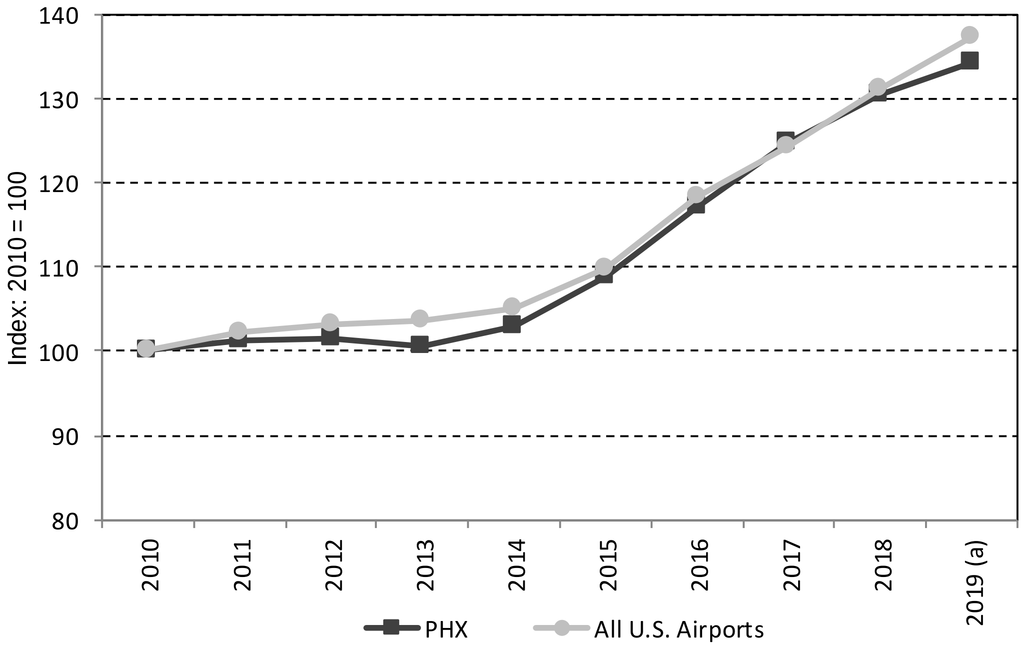
Note: In December 2017 and June 2018, there was no net change, year-over-year.

Source: City of Phoenix Aviation Department.

Domestic Originating Passengers

Figure 12 shows that the trend in domestic originating passengers at Sky Harbor closely mirrors the nationwide pattern of growth. Since 2015, growth in domestic originating passengers at Sky Harbor has averaged 5.3% per year, compared to nationwide growth of 5.7%.

Figure 12
Index of Outbound Domestic Originating Passengers
Phoenix Sky Harbor International Airport and All U.S. Airports
(for the 12 months ended June 30, unless otherwise noted)



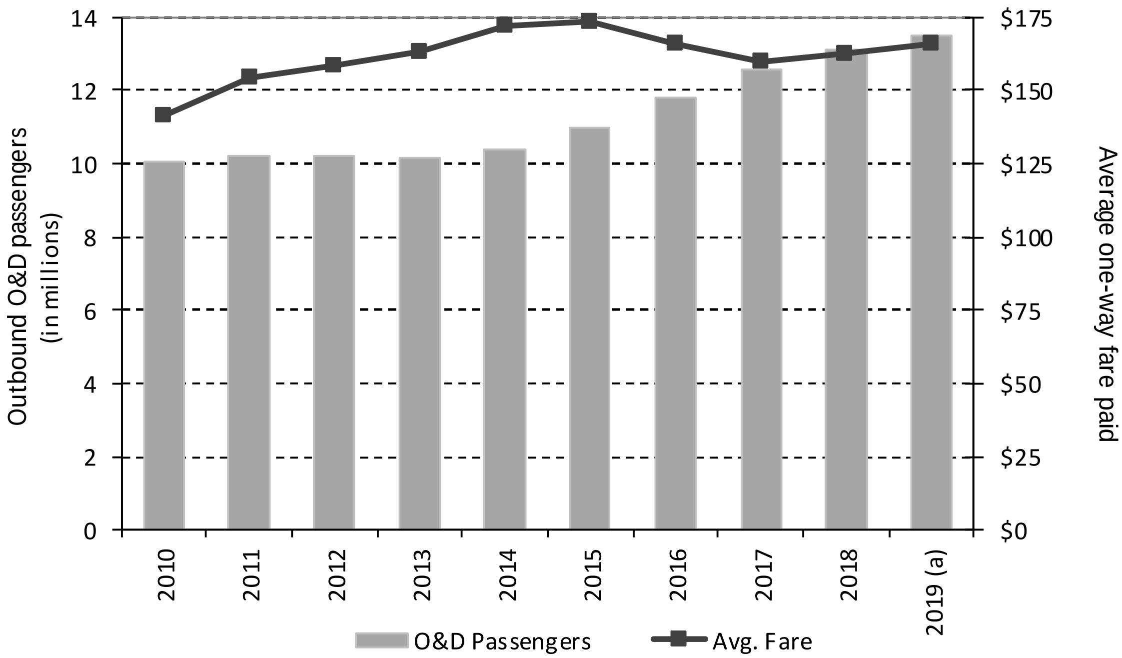
(a) Data for the 12 months ended March 31, 2019, the most recent data available.

Source: U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedule T100.

Figure 13 shows domestic originating passengers and average domestic airfares at Sky Harbor from FY 2010 to FY 2019. In general, fare increases dampen passenger traffic while fare decreases tend to stimulate traffic. From FY 2010 through FY 2014, average airfares at Sky Harbor increased steadily while the number of originating passengers experienced little net change. Between FY 2015 and FY 2019, however, average airfares declined, coinciding with strong growth in the number of domestic originating passengers.

The average airfares shown in Figure 13, as reported by the airlines to the U.S. DOT, exclude charges for optional services, such as checked baggage, preferred seating, in-flight meals, entertainment, and ticket changes. Such charges have become widespread in the airline industry since 2006. As a result, the average airfares shown understate the amount actually paid by airline passengers for their travel. Optional service charges that were previously included in the ticket price are not all separately reported to the U.S. DOT. They have been estimated by industry analysts to amount to an effective average surcharge on domestic airfares of approximately 5% of ticket fare revenues, although the percentage varies widely by airline.

Figure 13
Domestic Originating Passengers and Average Fare Paid
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30, unless otherwise noted)



Note: Average one-way fares shown are net of all taxes, fees, and passenger facility charges and exclude ancillary fees charged by the airlines.

(a) Data for the 12 months ended March 31, 2019, the most recent data available.

Source: U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedule T100.

Table 19 presents data on domestic originating passengers and average airfares for the top 15 domestic originating passenger markets from Sky Harbor. For the top 15 domestic markets taken together, average airfares decreased 4.7% while passenger numbers increased 23.5% between FY 2015 and FY 2019, though trends varied by market. Four of the markets with the largest decreases in average airfares (San Francisco, Seattle, Portland, and Detroit) experienced strong growth in originating passengers. Markets with moderate increases in airfares (Denver and Salt Lake City) experienced somewhat less pronounced growth in passengers, though strong demand to and from Sky Harbor, in general, forestalled passenger decreases in any of the top markets.

Table 19

Comparison of Passengers and Fares Paid in Sky Harbor's Top 20 Domestic Originating Markets

City of Phoenix Aviation Department

Phoenix Sky Harbor International Airport

(Fiscal Years ended June 30, unless otherwise noted; ranked by 2019 passengers)

Rank	City market / *Airport*	Airports included	Domestic outbound O&D passengers 2015	2019 *(a)*	% of total 2015	% of total 2019 *(a)*	2015-2019 Increase (decrease) Number	Percent	Average one-way fare paid *(b)* 2010	2015 *(a)*	2015-2019 Increase (decrease) Number	Percent
1	Los Angeles		885,502	1,093,854	8.1%	8.1%	208,352	23.5%	$124.09	$114.92	($9.17)	(7.4)%
	Los Angeles	*LAX*	*325,239*	*477,799*	*3.0*	*3.5*	*152,560*	*46.9*	*123.00*	*102.93*	*(20.07)*	*(16.3)*
	Orange County	*SNA*	*253,848*	*267,526*	*2.3*	*2.0*	*13,678*	*5.4*	*127.94*	*137.10*	*9.16*	*7.2*
	Burbank	*BUR*	*164,403*	*183,457*	*1.5*	*1.4*	*19,054*	*11.6*	*119.25*	*110.23*	*(9.02)*	*(7.6)*
	Ontario	*ONT*	*109,678*	*131,124*	*1.0*	*1.0*	*21,446*	*19.6*	*126.20*	*114.58*	*(11.62)*	*(9.2)*
	Long Beach	*LGB*	*32,334*	*33,948*	*0.3*	*0.3*	*1,614*	*5.0*	*122.26*	*135.53*	*13.27*	*10.9*
	Hawthorne	*HHR*	--	*63*	--	*0.0*	*63*	*n.a.*	*n.a.*	*127.15*	*n.a.*	*n.a.*
2	San Francisco	OAK,SFO,SJC	679,535	814,847	6.2	6.0	135,312	19.9	148.80	126.87	(21.93)	(14.7)
3	Chicago	MDW,ORD	627,429	800,407	5.7	5.9	172,978	27.6	167.42	160.11	(7.31)	(4.4)
4	Denver	DEN	644,779	752,251	5.9	5.6	107,472	16.7	94.82	102.10	7.29	7.7
5	New York	EWR,JFK,LGA	516,527	607,352	4.7	4.5	90,825	17.6	223.44	224.19	0.75	0.3
6	Seattle	SEA	440,672	592,606	4.0	4.4	151,934	34.5	155.21	136.42	(18.79)	(12.1)
7	Minneapolis-St Paul	MSP	400,478	492,494	3.6	3.6	92,016	23.0	147.44	137.82	(9.62)	(6.5)
8	Dallas/Ft. Worth	DAL,DFW	365,080	482,693	3.3	3.6	117,613	32.2	150.25	154.53	4.28	2.8
9	Washington DC/Baltimore	BWI,DCA,IAD	304,737	357,334	2.8	2.6	52,597	17.3	245.35	235.35	(10.00)	(4.1)
10	Portland	PDX	266,027	350,659	2.4	2.6	84,632	31.8	146.33	130.25	(16.08)	(11.0)
11	Las Vegas	LAS	299,470	346,094	2.7	2.6	46,624	15.6	107.79	101.76	(6.03)	(5.6)
12	San Diego	SAN	268,665	326,469	2.4	2.4	57,804	21.5	122.41	113.66	(8.75)	(7.1)
13	Salt Lake City	SLC	247,982	291,630	2.3	2.2	43,648	17.6	129.26	136.86	7.60	5.9
14	Detroit	DTW	196,555	264,742	1.8	2.0	68,187	34.7	221.94	197.10	(24.85)	(11.2)
15	Atlanta	ATL	195,840	253,570	1.8	1.9	57,730	29.5	202.42	205.05	2.63	1.3
	Total—top 15 markets		6,339,278	7,827,002	57.7%	57.9%	1,487,724	23.5%	$152.87	$145.61	($7.26)	(4.7)%
	All other markets		4,648,362	5,701,333	42.3	42.1	1,052,971	22.7	202.47	194.00	(8.47)	(4.2)
	Total—all markets		10,987,640	13,528,335	100.0%	100.0%	2,540,695	23.1%	$173.85	$166.00	($7.85)	(4.5)%

Note: Figures may not add to totals shown because of rounding.

Airport legend: LAX=Los Angeles, SNA=Orange County, BUR=Burbank, ONT=Ontario, LGB=Long Beach, HHR=Hawthorne, OAK=Oakland, SFO=San Francisco, SJC=San Jose, MDW=Chicago-Midway, ORD=Chicago-O'Hare, DEN=Denver, EWR=Newark, JFK=New York-Kennedy, LGA=New York-LaGuardia, SEA=Seattle, MSP=Minneapolis/St. Paul, DAL=Dallas-Love Field, DFW=Dallas/Fort Worth, BWI=Baltimore, DCA=Washington-Reagan, IAD=Washington-Dulles, PDX=Portland, LAS=Las Vegas, SAN=San Diego, SLC=Salt Lake City, DTW=Detroit, ATL=Atlanta.

(a) Data shown is for the 12 months ended March 31, 2019, the most recent data available.

(b) Average one-way fares shown are net of all taxes, fees, and passenger facility charges and exclude ancillary fees charged by the airlines.

Source: U.S. DOT, Air Passenger Origin-Destination Survey, reconciled to Schedule T100.

PASSENGER FACILITY CHARGE-ELIGIBLE PASSENGERS

Airport sponsors are allowed to impose a passenger facility charge (PFC) on eligible enplaned passengers to generate revenues for airport projects that preserve or enhance safety, security, or capacity; mitigate noise impacts; or provide opportunities for enhanced competition among air carriers.

According to federal regulation, certain enplaned passengers are exempt from paying a PFC. The exemption with widest application at most airports, including Sky Harbor, is for passengers who are traveling on frequent flyer award tickets and flight crews. During the 12 months ended March 31, 2019 (the most recent data available), an estimated 11.2% of originating passengers were exempted due to flying on frequent-flyer program award tickets. Additional federal exclusions include: certain passengers on multi-segment connecting flights (based on a maximum charge of $18.00 per round trip ticket – or four flight segments)*; certain passengers using tickets purchased outside the United States; and passengers flying "Essential Air Service" routes. Additionally, the City currently excludes certain other small classes of users providing nonscheduled service at Sky Harbor. Transit, or through, passengers also do not pay a PFC, but this class of passengers is not included in the definition of enplaned passengers.

PFC-eligible enplaned passengers by fiscal year are imputed based upon annual PFC collections, enplaned passengers, and the net PFC rate charged. Table 20 shows that the estimated PFC-eligible percentage was 85.5% in FY 2019.

Table 20
PFC-Eligible Enplaned Passengers
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30; passengers and PFC collections in thousands)

Fiscal Year	Enplaned passengers	PFC collections	Net PFC rate *(a)*	Estimated PFC-eligible enplaned passengers	Estim. PFC-eligible percentage
2017	21,820	$83,600	$4.39	19,043	87.3%
2018	22,219	83,917	4.39	19,116	86.0
2019	22,832	85,724	4.39	19,527	85.5

(a) The City imposes a $4.50 charge; however, per federal regulation 11 cents of each PFC is held by the airlines as compensation for collecting, handling, and remitting the PFC revenue. Airlines withhold this collection fee even on PFCs refunded as a result of ticket cancellations or changes.

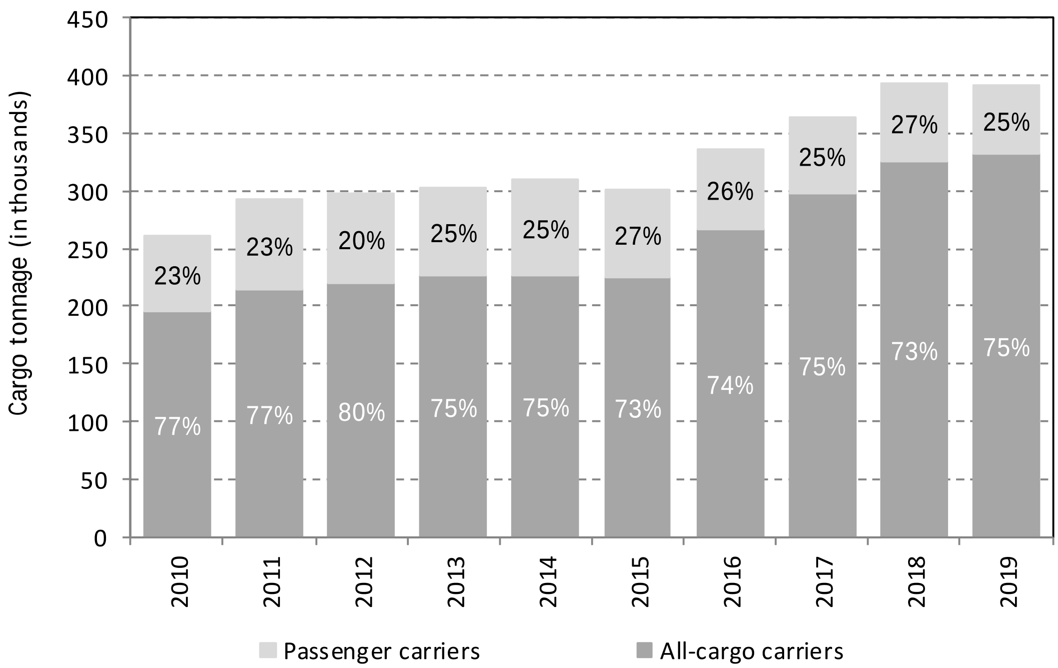
Source: City of Phoenix Aviation Department.

*Passengers are required to pay PFCs to the first two airports at which they enplane on an outbound trip, and the last two airports at which they enplane on a return trip. For example, a passenger traveling between Los Angeles and Miami on the round trip LAX-PHX-DFW-MIA-DFW-PHX-LAX would pay PFCs to LAX and PHX for the outbound leg and DFW and PHX on the return leg.

AIR CARGO ACTIVITY

Figure 14 shows that air cargo activity at Sky Harbor has increased over the past 10 years, from approximately 261,000 tons in FY 2010 to 391,000 tons in FY 2019. The top two all-cargo carriers at Sky Harbor in FY 2019 were FedEx (34% market share) and UPS (28%), while American (8%) and Southwest (4%) represented the largest passenger airlines by cargo tonnage.

Figure 14
Total Air Cargo Tonnage by Type of Carrier
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30)



Notes: Enplaned and deplaned freight and mail shown in tons.
Figures may not add to totals shown because of rounding.

Source: City of Phoenix Aviation Department.

KEY FACTORS AFFECTING FUTURE AIRLINE TRAFFIC

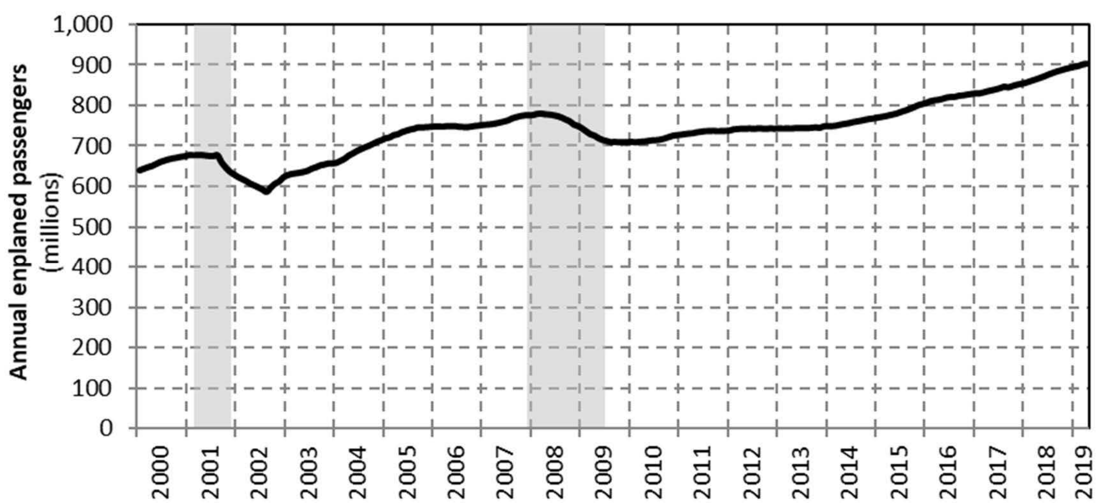
In addition to the demographics and economy of the Airport service region, as discussed earlier, key factors that will affect future airline traffic at Sky Harbor include:

- Economic, political, and security conditions
- Financial health of the airline industry
- Airline service and routes
- Airline competition and airfares
- Availability and price of aviation fuel
- Aviation safety and security concerns
- Capacity of the national air traffic control system
- Capacity of Sky Harbor
- Air service at Phoenix-Mesa Gateway Airport

Economic, Political, and Security Conditions

Historically, airline passenger traffic nationwide has correlated closely with the state of the U.S. economy and levels of real disposable income. As illustrated on Figure 15, recessions in the U.S. economy in 2001 and 2008-2009 and associated high unemployment reduced discretionary income and resulted in reduced airline travel. Future increases in domestic passenger traffic at Sky Harbor will depend, in part, on national economic growth.

Figure 15
Historical Enplaned Passengers on U.S. Airlines



Notes: Data shown are 12-month moving averages of enplaned passengers on scheduled and non-scheduled flights to domestic and international destinations.
Shaded areas indicate months of economic recession.

Sources: Bureau of Transportation Statistics, T100 Market and Segment, www.transtats.bts.gov, accessed August 2019; National Bureau of Economic Research, U.S. Business Cycle Expansions and Contractions, www.nber.com.

With the globalization of business and the increased importance of international trade and tourism, international economics, trade balances, currency exchange rates, government policies, and geopolitical relationships all influence passenger traffic at major U.S. airports.

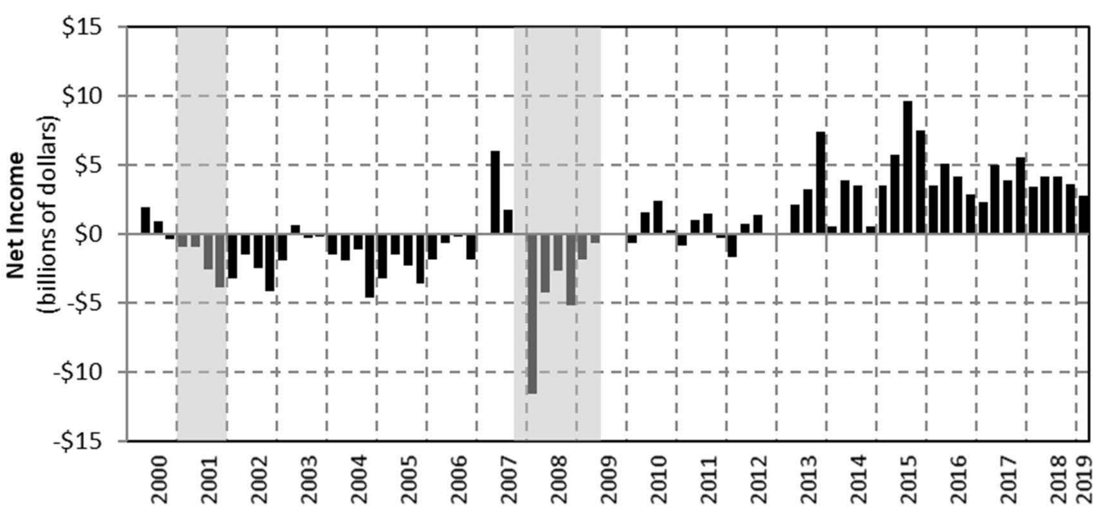
Concerns about hostilities, terrorist attacks, other perceived security and public health risks, and associated travel restrictions also affect travel demand to and from particular international destinations. Beginning in March 2017, the Trump administration issued various orders seeking to restrict travel to the United States from certain countries, mainly in the Middle East and Africa. Following court challenges, in June 2018, the U.S. Supreme Court upheld the administration's most recent travel restrictions. As the restrictions are implemented, increased scrutiny by U.S. Customs and Border Protection may prevent or discourage some airline travel.

Future increases in international passenger traffic at Sky Harbor will partly depend on global economic growth, a stable and secure travel environment, and government policies that do not unreasonably restrict or deter travel.

Financial Health of the Airline Industry

The number of passengers at Sky Harbor will depend partly on the profitability of the U.S. airline industry and the associated ability of the industry and individual airlines, particularly American and Southwest, to make the necessary investments to provide service. Figure 16 shows historical net income for U.S. airlines.

Figure 16
Quarterly Net Income (Loss) for U.S. Airlines



Notes: Includes scheduled service on U.S. carriers only.
Shaded areas indicate quarters of economic recession.
Data for the fourth quarter of 2005 and the first quarter of 2006 were adjusted to account for United bankruptcy claims which were settled for less than had been originally reported.

Source: Bureau of Transportation Statistics, Net Income, F41 Schedule P12, www.transtats.bts.gov, accessed August 2019.

As a result of the 2001 economic recession, the disruption of the airline industry that followed the September 2001 attacks, increased fuel and other operating costs, and price competition, the industry experienced financial losses from 2001 through 2006. To mitigate those losses, all of the major airlines reduced their route networks and flight schedules and reached agreements with their employees, lessors, vendors, and creditors to cut costs. Between 2002 and 2005, Delta, Northwest, United, and US Airways filed for bankruptcy protection and restructured their operations.

In 2007, the U.S. passenger airline industry was profitable, but in 2008, as oil and aviation fuel prices increased to unprecedented levels and the U.S. economy contracted, the industry experienced a profitability crisis. In 2008 and 2009, the U.S. passenger airline industry recorded net losses of approximately $26 billion. The industry responded by, among other actions, grounding less fuel-efficient aircraft, eliminating unprofitable routes and hubs, reducing seat capacity, and increasing airfares. Between 2007 and 2009, U.S. passenger airlines collectively reduced domestic available seat-mile capacity by approximately 10%.

From 2010 to 2013, the U.S. passenger airlines recorded net income of approximately $18 billion, notwithstanding sustained high fuel prices, by controlling capacity and nonfuel expenses, increasing airfares, achieving high load factors, and increasing ancillary revenues. Between 2009 and 2013, the airlines collectively increased domestic seat-mile capacity by an average of 1.0% per year. American filed for bankruptcy protection in 2011.

In 2014, the U.S. passenger airline industry reported net income of $9 billion, assisted by reduced fuel prices. In 2015, the industry achieved record net income of $26 billion as fuel prices decreased further, demand remained strong, and capacity control allowed average fares and ancillary charges to remain high. Strong industry profitability continued from 2016 through 2018.

Recent agreements between the major airlines and their unionized employees have resulted in increased labor costs. According to Airlines for America, a trade organization representing the industry, U.S. airlines increased wages and benefits per full-time employee by 28% between 2013 and 2018. Contributing to the increased costs is a shortage of qualified airline pilots resulting from retirements and changed FAA qualification standards and duty and rest rules. The pilot shortage has required the airlines to increase salaries and improve benefits to attract and retain qualified pilots.

Sustained industry profitability will depend on, among other factors, economic growth to support airline travel demand, continued capacity control to enable increased airfares, and stable fuel prices and labor costs.

Consolidation of the U.S. airline industry has resulted from the acquisition of Trans World by American (2001), the merger of US Airways and America West (2005), the merger of Delta and Northwest (2009), the merger of United and Continental (2010), the acquisition of AirTran by Southwest (2011), the merger of American and US Airways (2013), and the acquisition of Virgin America by Alaska (2016).

Such consolidation has resulted in four airlines (American, Delta, Southwest, and United) and their regional affiliates now accounting for approximately 86% of domestic seat-mile capacity. Consolidation has also contributed to recent airline industry profitability. However, any resumption of financial losses could cause one or more U.S. airlines to seek bankruptcy protection or liquidate. The liquidation of any of the large network airlines could drastically affect airline service at certain connecting hub airports and change airline travel patterns nationwide.

Airline Service and Routes

Sky Harbor accommodates travel demand to and from the Airport service region and serves as a connecting hub. The number of origin and destination passengers at Sky Harbor depends primarily on the intrinsic attractiveness of the region as a business and leisure destination, the propensity of its residents to travel, and the airfares and service provided at Sky Harbor and at other competing airports. The number of connecting passengers, on the other hand, depends entirely on the airline fares and service provided at Sky Harbor.

The large network airlines have developed hub-and-spoke systems that allow them to offer high-frequency service to many destinations. Because most connecting passengers have a choice of airlines and intermediate airports, connecting traffic at an airport depends primarily on the route networks and flight schedules of the airlines serving that airport and competing hub airports. Since 2003, as the U.S. airline industry has consolidated, airline service has been reduced at many former connecting hub airports, including those serving St. Louis (American, 2003-2005), Dallas-Fort Worth (Delta, 2005), Pittsburgh (US Airways, 2006-2008), Las Vegas (US Airways, 2007-2010), Cincinnati (Delta, 2009-2012), Memphis (Delta, 2011-2013), and Cleveland (United, 2014).

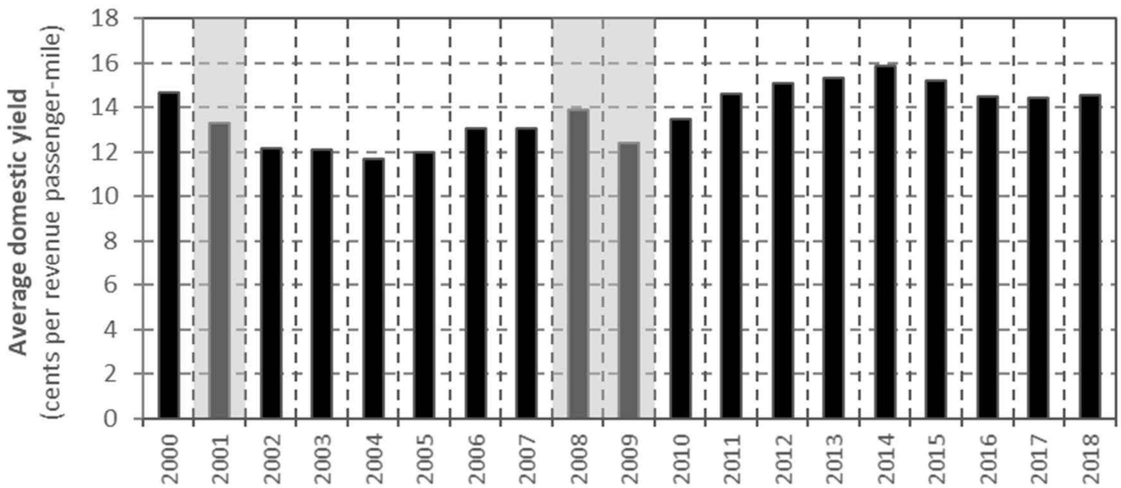
As discussed in earlier sections, Sky Harbor serves as a connecting hub for American and one of the largest focus cities in Southwest's route network. As a result, much of the connecting passenger traffic at Sky Harbor results from the route networks and flight schedules of American and, to a lesser extent, Southwest, rather than the economy of the Airport service region. If either or both of these airlines were to reduce connecting service at Sky Harbor, such service would not necessarily be replaced by other airlines, although reductions in service by any airline would create business opportunities for others. A hypothetical reduction in passenger traffic as a result of reduced connecting airline service at Sky Harbor is discussed in the later section "Stress Test Forecast."

Airline Competition and Airfares

Airline fares have an important effect on passenger demand, particularly for short trips for which automobile and other surface travel modes are potential alternatives, and for price-sensitive "discretionary" travel. The price elasticity of demand for airline travel increases in weak economic conditions when the disposable income of potential airline travelers is reduced. Airfares are influenced by airline capacity and yield management; passenger demand; airline market presence; labor, fuel, and other airline operating costs; taxes, fees, and other charges assessed by governmental and airport agencies; and competitive factors. Future passenger numbers, both nationwide and at Sky Harbor, will depend partly on the level of airfares.

Figure 17 shows the historical average domestic yield (airfare per passenger-mile) for U.S. airlines. Overcapacity in the industry, the ability of consumers to compare airfares and book flights easily via the Internet, and the 2001 recession combined to reduce the average yield between 2000 and 2004. The average yield then increased between 2004 and 2008 before again decreasing during the 2008-2009 recession. It then increased between 2009 and 2014 as airline travel demand strengthened, the airlines collectively reduced available seat capacity, and the airlines were able to sustain airfare increases. Between 2014 and 2016, the average yield decreased and since 2016 has been fairly stable.

Figure 17
Historical Domestic Yield for U.S. Airlines



Notes: Average yields shown are net of all taxes, fees, and passenger facility charges and exclude fees charged by the airlines for optional services.
Shaded areas indicate economic recession during all or part of year.

Source: U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedule T100, accessed August 2019.

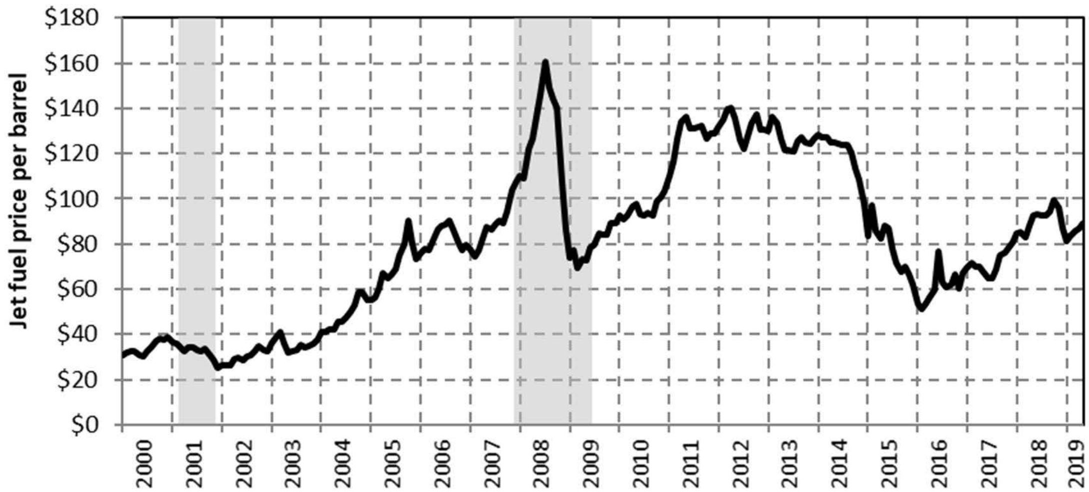
Beginning in 2006, charges were introduced by most airlines for optional services such as checked baggage, preferred seating, in-flight meals, and entertainment, thereby increasing the effective price of airline travel more than yield figures indicate.

Availability and Price of Aviation Fuel

The price of aviation fuel is a critical and uncertain factor affecting airline operating economics. Figure 18 shows the historical fluctuation in aviation fuel prices caused by the many factors influencing global demand for and supply of oil.

Between 2011 and 2014, aviation fuel prices were relatively stable, partly because of increased oil supply from U.S. domestic production made possible by the hydraulic fracturing of oil-bearing shale deposits and other advances in extraction technologies. As of mid-2014, average fuel prices were approximately three times higher than they were at the end of 2003 and accounted for between 30% and 40% of expenses for most airlines.

Figure 18
Historical Aviation Fuel Prices



Notes: Data shown are monthly averages and were converted from gallons to barrels. Shaded areas indicate months of economic recession.

Source: Bureau of Transportation Statistics, Airline Fuel Costs and Consumption, F41 Schedule P12A, www.transtats.bts.gov, accessed August 2019.

Beginning in mid-2014, an imbalance between worldwide demand and supply resulted in a precipitous decline in the price of oil and aviation fuel through the end of 2015. Fuel prices have since increased, but the average price of aviation fuel at the end of 2018 was still approximately 30% below the price at mid-2014. Lower fuel prices have a positive effect on airline profitability as well as far-reaching implications for the global economy.

Airline industry analysts hold differing views on how oil and aviation fuel prices may change in the near term, although, absent unforeseen disruptions, prices are expected to remain stable. There is widespread agreement that fuel prices are likely to increase over the long term as global energy demand increases in the face of finite oil supplies that are becoming more expensive to extract. Some economists predict that the development of renewable sources of energy, pressures to combat global climate change, the widespread use of electric cars, and other trends will eventually result in a decline in the demand for oil and associated downward pressure on fuel prices.

Aviation fuel prices will continue to affect airfares, passenger numbers, airline profitability, and the ability of airlines to provide service. Airline operating economics will also be affected as regulatory costs are imposed on the airline industry as part of efforts to reduce aircraft emissions contributing to climate change.

Aviation Safety and Security Concerns

Concerns about the safety of airline travel and the effectiveness of security precautions influence passenger travel behavior and airline travel demand. Anxieties about the safety of flying and the inconveniences and delays associated with security screening procedures lead to both the avoidance of travel and the switching from air to surface modes of transportation for short trips.

Safety concerns in the aftermath of the September 2001 attacks were largely responsible for the steep decline in airline travel nationwide in 2002. Since 2001, government agencies, airlines, and airport operators have upgraded security measures to guard against changing threats and maintain confidence in the safety of airline travel. These measures include strengthened aircraft cockpit doors, changed flight crew procedures, increased presence of armed federal air marshals, federalization of airport security functions under the Transportation Security Administration (TSA), more effective dissemination of information about threats, more intensive screening of passengers and baggage, and deployment of new screening technologies. The TSA has introduced "pre-check" service to expedite the screening of passengers who have submitted to background checks.

Following the fatal crashes of B-737 MAX aircraft suspected to have been caused by the malfunction of the aircraft's automated flight control system, all B-737 MAX aircraft were grounded in March 2019. Among North American airlines, Air Canada, American, Southwest, United, and WestJet are affected. Delta does not operate B-737 MAX aircraft. At the time of the grounding, B-737 MAX aircraft accounted for approximately 1.5% of U.S. airline seat capacity and 1.9% of seat capacity at Sky Harbor. The grounding has not caused significant numbers of flight cancellations at Sky Harbor. The grounding may last several more months while the flight control system software is updated and approved by the FAA and international regulators and pilot training is completed. Deliveries of new MAX aircraft have been halted until the aircraft is cleared to fly. The delay in aircraft deliveries is negatively affecting airline fleet renewal and expansion plans, particularly those of Southwest.

Historically, airline travel demand has recovered from temporary decreases resulting from terrorist attacks or threats, hijackings, aircraft crashes, and other aviation safety concerns. If precautions taken by government agencies, airlines, and airport operators are able to maintain confidence in the safety of commercial aviation without imposing unacceptable inconveniences for airline travelers, future demand for airline travel will depend primarily on economic, rather than safety or security, factors.

Capacity of the National Air Traffic Control System

Demands on the national air traffic control system have, in the past, caused delays and operational restrictions affecting airline schedules and passenger traffic. The FAA is gradually implementing its Next Generation Air Transportation System (NextGen) air traffic management programs to modernize and automate the guidance and communications equipment of the air traffic control system and enhance the use of airspace and runways through improved air navigation aids and procedures. Since 2007, airline traffic delays have decreased because of reduced numbers of aircraft operations (down approximately 15% between 2007 and 2018). However, as airline travel increases in the future, flight delays and restrictions can be expected.

Capacity of Sky Harbor

In addition to any future constraints that may be imposed by the capacity of the national air traffic control and national airport systems, future growth in airline traffic at Sky Harbor will depend on the capacity of Sky Harbor itself. The Aviation Department believes Sky Harbor's airfield and terminal capacity – including the improvements contained in the Aviation CIP – are sufficient to accommodate forecast growth through the forecast period as described in this report.

Air Service at Phoenix-Mesa Gateway Airport

The City is a member government in the Phoenix-Mesa Gateway Airport Authority, which owns and operates Phoenix-Mesa Gateway Airport, located approximately 30 miles southeast of Sky Harbor. In FY 2019, approximately 850,000 passengers enplaned at Gateway, far fewer than the 22.8 million passengers enplaned at Sky Harbor. However, Gateway presents an alternative for existing or future airline service to the Airport service region.

AIRLINE TRAFFIC FORECASTS

Forecasts of airline traffic at Sky Harbor through FY 2026 were developed on the basis of the economic outlook for the Airport service region, trends in historical airline traffic, and key factors likely to affect future traffic, all as discussed earlier in this Report. Forecasts for Sky Harbor included in the FAA's *Terminal Area Forecast* (TAF), issued in February 2019, were also reviewed.

In developing the forecasts in this Report, it was assumed that, over the long term, airline traffic at Sky Harbor will increase as a function of growth in the economy of the Airport service region and continued airline service. It was assumed that airline service at Sky Harbor will not be constrained by the availability of aviation fuel, the capacity of the air traffic control system or the Airport, charges for the use of aviation facilities, or government policies or actions that restrict growth.

The traffic forecasts for Sky Harbor were developed on the basis of the assumptions that:

1. The U.S. economy will experience sustained growth in GDP averaging between 2.0% and 2.5% per year, a range generally consistent with that projected by the Congressional Budget Office, as described in the earlier section "Economic Outlook."

2. The economy of the Airport service region will grow at a faster rate than the U.S. economy as a whole.

3. Demand for passenger travel to and from the Airport service region will remain strong based on the strength of the local economy, population growth, and the region's relative attractiveness as a tourist and convention destination.

4. Sky Harbor will continue to serve primarily domestic originating passengers and, secondarily, as a connecting hub for the operations of American and as one of the key airports in the route system of Southwest.

5. Airlines will add service to meet travel demand at Sky Harbor and competition among airlines will ensure competitive airfares for flights from the airport.

6. A generally stable international political environment and safety and security precautions will ensure airline traveler confidence in aviation without imposing unreasonable inconveniences.

7. There will be no major disruption of airline service or airline travel behavior as a result of international hostilities, terrorist acts or threats, or government policies restricting or deterring travel.

8. Airlines at Phoenix-Mesa Gateway Airport will continue to serve primarily leisure visitors to the Airport service region, and will not capture a materially increased share of the passenger market currently served by the airlines at Sky Harbor.

Enplaned Passenger Forecast

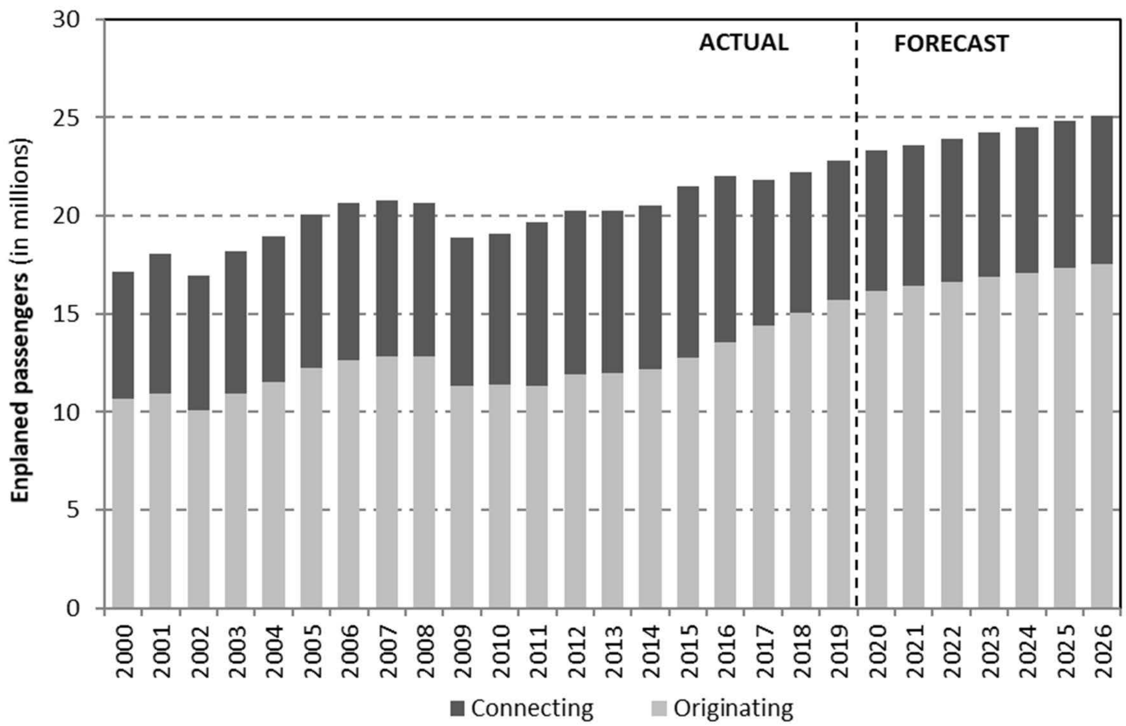
The number of enplaned passengers increased 2.8% at Sky Harbor in FY 2019. Advance schedule filings by the airlines (which are subject to change) indicate a 2.4% increase in the number of departing seats at Sky Harbor between the first half of FY 2019 and the first half of FY 2020 (compared with an estimated nationwide increase of 4.0%). On the basis of advance airline schedules and projected trends in airline capacity, passenger load factors, and flight completion factors, the number of enplaned passengers at Sky Harbor is forecast to be 23.3 million in FY 2020, up 2.2% from the number enplaned in FY 2019.

Between FY 2020 and FY 2026, the number of enplaned passengers is forecast to increase 300,000 enplaned passengers per year, in line with historical trends, which equates to an average growth rate of 1.2%. This is lower than the average rate forecast by the FAA for Sky Harbor in the TAF (1.8% per year). A higher rate of growth is not unusual in passenger forecasts prepared for purposes of facility and operational planning, such as the TAF, compared with forecasts such as the one presented herein, prepared for purposes of financial planning.

The number of enplaned passengers at Sky Harbor is forecast to be 25.1 million in FY 2026, a cumulative increase of 10.0% from FY 2019. Connecting passengers are forecast to account for a slightly smaller share of enplaned passengers in FY 2026 (30.2%) than is estimated for FY 2019 (31.1%). Figure 19 presents the forecast of enplaned passengers graphically. Table 21 presents historical and forecast enplaned passengers at Sky Harbor by originating and connecting components, and provides domestic and international subtotals.

Figure 19
Enplaned Passenger Forecast
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30)

This forecast was prepared on the basis of the information and assumptions given in the text. The achievement of any forecast is dependent upon the occurrence of future events which cannot be assured. Therefore, the actual results may vary from the forecast, and the variance could be material.



Note: FY 2019 total reflects actual results; originating and connecting values are estimated on the basis of 3 quarters of U.S. DOT O&D Survey data.

Sources: Actual—City of Phoenix Aviation Department; U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedules T100 and 298C T1.
Forecast—LeighFisher, October 2019.

Table 21
Historical and Forecast Enplaned Passengers by
Sector and by Type of Passenger
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30; passengers in thousands)

This forecast was prepared on the basis of the information and assumptions given in the text. The achievement of any forecast is dependent upon the occurrence of future events which cannot be assured. Therefore, the actual results may vary from the forecast, and the variance could be material.

Fiscal	By flight destination		By type of passenger					Annual percent
			Originating					increase
Year	Domestic	International	Resident	Visitor	Total	Connecting	Total	(decrease)
2015	20,349	1,140	5,751	6,987	12,738	8,751	21,489	
2016	20,984	1,071	6,147	7,391	13,538	8,517	22,056	2.6%
2017	20,813	1,008	6,558	7,827	14,385	7,435	21,820	(1.1)
2018	21,178	1,041	6,846	8,201	15,047	7,172	22,219	1.8
2019A	21,769	1,063	7,129	8,598	15,727	7,105	22,832	2.8
2020F	22,270	1,055	7,334	8,851	16,185	7,140	23,325	2.2
2021	22,545	1,080	7,436	8,974	16,410	7,215	23,625	1.3
2022	22,820	1,105	7,538	9,097	16,635	7,290	23,925	1.3
2023	23,095	1,130	7,640	9,220	16,860	7,365	24,225	1.3
2024	23,370	1,155	7,742	9,343	17,085	7,440	24,525	1.2
2025	23,645	1,180	7,844	9,466	17,310	7,515	24,825	1.2
2026	23,920	1,205	7,946	9,589	17,535	7,590	25,125	1.2
	Average annual percent increase (decrease)							
2015-2018	1.3%	(3.0%)	6.0%	5.5%	5.7%	(6.4%)	1.1%	
2018-2019	2.8	2.0	4.1	4.8	4.5	(0.9)	2.8	
2019-2026	1.4	1.8	1.6	1.6	1.6	0.9	1.4	

Notes: A = Actual; F = Forecast.
Domestic and international subtotals for FY 2019 reflect actual results; originating and connecting subtotals are estimated on the basis of 3 quarters of U.S. DOT O&D Survey data.
Figures may not add to totals shown because of rounding.

Sources: Actual—City of Phoenix Aviation Department; U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedule T100.
Forecast—LeighFisher, October 2019.

It was assumed that the ratio of PFC–eligible passengers to total enplaned passengers would be 85.5% throughout the Forecast Period. Table 22 presents the PFC-eligible passenger forecast derived from the enplaned passenger forecast.

Table 22
Actual and Forecast PFC-Eligible Enplaned Passengers
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30; passengers in thousands)

This forecast was prepared on the basis of the information and assumptions given in the text. The achievement of any forecast is dependent upon the occurrence of future events which cannot be assured. Therefore, the actual results may vary from the forecast, and the variance could be material.

Year	Enplaned passengers	Estimated PFC-eligible percentage	Estimated PFC-eligible enplaned passengers
2017	21,820	87.3%	19,043
2018	22,219	86.0	19,116
2019A	22,832	85.5	19,527
2020F	23,325	85.5	19,949
2021	23,625	85.5	20,205
2022	23,925	85.5	20,462
2023	24,225	85.5	20,718
2024	24,525	85.5	20,975
2025	24,825	85.5	21,232
2026	25,125	85.5	21,488

Notes: A = Actual; F = Forecast.

Sources: Actual—City of Phoenix Aviation Department.
Forecast—LeighFisher, October 2019.

Forecast Aircraft Departures and Landed Weight

Table 23 shows forecasts of aircraft departures and landed weight at Sky Harbor, which were derived from the passenger forecasts using assumed trends in average seat occupancy, aircraft seat capacity, and aircraft size.

Between FY 2019 and FY 2026, average aircraft seating capacity and passenger load factors at Sky Harbor were assumed to increase. As a result, the number of aircraft departures is forecast to increase an average of 0.9% per year and landed weight is forecast to increase an average of 1.3% per year—both slower rates of growth than forecast for enplaned passengers.

Table 23
Historical and Forecast Flight Operations and Landed Weight
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30; enplaned passengers and departing seats in thousands)

This forecast was prepared on the basis of the information and assumptions given in the text. The achievement of any forecast is dependent upon the occurrence of future events which cannot be assured. Therefore, the actual results may vary from the forecast, and the variance could be material.

Fiscal Year	Enplaned passengers	Departing seats *(a)*	Flight operations *(b)*	Landed weight (millions)
2015	21,489	25,773	395,482	25,601
2016	22,056	26,282	401,390	26,002
2017	21,820	26,226	398,130	25,853
2018	22,219	26,173	393,968	26,108
2019A	22,832	26,618	395,900	26,516
2020F	23,325	27,471	406,000	27,418
2021	23,625	27,794	409,450	27,728
2022	23,925	28,061	411,700	27,979
2023	24,225	28,325	414,150	28,228
2024	24,525	28,589	416,600	28,490
2025	24,825	28,850	418,850	28,744
2026	25,125	29,110	421,100	28,980
	Average annual percent increase (decrease)			
2015-2018	1.1%	0.5%	(0.1%)	0.7%
2018-2019	2.8	1.7	0.5	1.6
2019-2026	1.4	1.3	0.9	1.3

Notes: A = Actual; F = Forecast.
Includes passenger and all-cargo airline operations and landed weight.
Excludes general aviation and military operations.

(a) FY 2019 value is estimated.
(b) Sum of flight arrivals and departures.

Sources: Historical—City of Phoenix Aviation Department; U.S. DOT, Schedule T100.
Forecast—LeighFisher, October 2019.

Stress Test Forecast

A stress test forecast of enplaned passengers was developed to provide the basis for conducting a sensitivity analysis of Sky Harbor's financial results to hypothetical reductions in passenger numbers. Such reductions could occur under conditions of weak economic growth or recession, restricted seat capacity, high airfares, and reduced connecting airline service (which could result from changes in airline network strategies). For the purpose of this stress test forecast, it was assumed that reduced airline flight activity would more adversely affect traffic connecting through Sky Harbor than traffic originating in or destined for the Airport service region.

The reduction in passengers forecast in FY 2020 and FY 2021 in this stress test depicts the potential effect of a more substantial hub "downsizing" by the primary airline accommodating connecting traffic at Sky Harbor, American, than occurred between FY 2016 and FY 2018. In the stress test scenario, additional air service reductions by American result in fewer connecting opportunities and a consequent further reduction in connecting traffic. For the 12 months ended March 31, 2019, American's enplaned passengers were split approximately 47% connecting and 53% originating (see Table 5 in "Airline Traffic Analysis"). If such a stress scenario were to occur, American's originating passengers would likely increase to nearly 60% of its total enplaned passengers. Even in that situation, Sky Harbor would continue to retain some level of connecting activity by virtue of: (1) its large population of local travelers which supports frequent air service and, thereby, incidental connections; (2) its favorable geographic location for connecting passenger flow to and from the southwest United States with minimal circuity; and (3) other airline responses, most notably by Southwest Airlines, which accommodated 2.1 million connecting passengers during the 12 months ended March 31, 2019—more than one quarter of Sky Harbor's total.

The number of enplaned passengers for the stress test in FY 2026 is forecast to be 21.1 million, compared with 25.1 million for the base forecast. Relative to the base forecast for FY 2026, originating passenger numbers are forecast to be 10% lower and connecting passenger numbers are forecast to be 30% lower. Originating passengers account for approximately 75% of the FY 2026 total for the stress test forecast, compared with 70% for the base forecast.

Table 24 presents the stress test forecast relative to the base forecast. Figure 20 depicts the stress test forecast graphically. As shown in Figure 20, stress test passenger numbers forecast for FY 2026 are close to the numbers in FY 2015, simulating 11 years of no net growth in passenger volumes. The decline in originating passengers between FY 2019 and FY 2021 is of approximately the same magnitude as the decline in originating passengers experienced at Sky Harbor in FY 2002, following the events of 9/11. The more substantial reduction in connecting activity is nearly twice that which occurred in FY 2017 and returns connecting passenger levels to those last recorded in FY 1999, prior to America West's merger with US Airways (now American).

The summary of projected financial results using the stress test forecast of enplaned passengers is included in Exhibit I-2.

Table 24
Base Case and Stress Test Forecasts
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30)

The base case forecast was prepared on the basis of the information and assumptions given in the text. The stress test forecast was based upon hypothetical assumptions. The achievement of any forecast is dependent upon the occurrence of future events which cannot be assured. Therefore, the actual results may vary from the forecast, and the variance could be material.

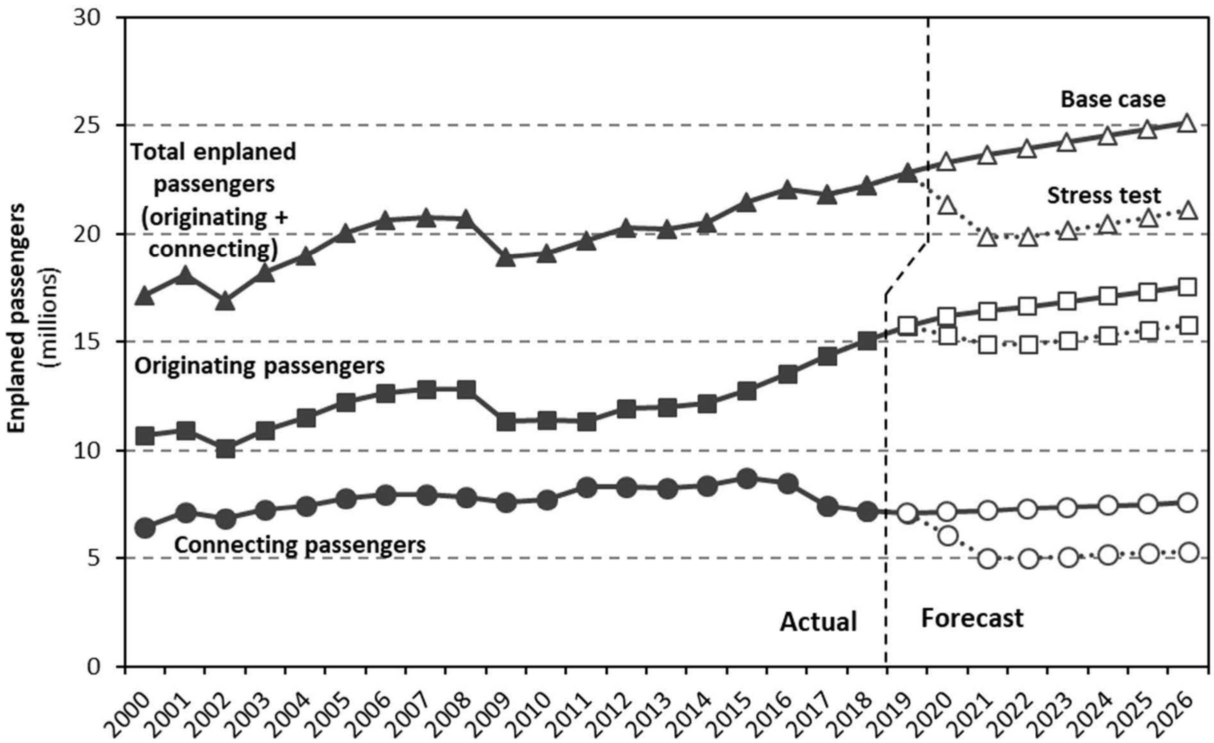
	Actual					Forecast						
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Base case												
Enplaned passengers	21,489	22,056	21,820	22,219	22,832	23,325	23,625	23,925	24,225	24,525	24,825	25,125
Originating passengers	12,738	13,538	14,385	15,047	15,727	16,185	16,410	16,635	16,860	17,085	17,310	17,535
Connecting passengers	8,751	8,517	7,435	7,172	7,105	7,140	7,215	7,290	7,365	7,440	7,515	7,590
Stress test												
Enplaned passengers	21,489	22,056	21,820	22,219	22,832	21,355	19,880	19,880	20,180	20,480	20,780	21,080
Originating passengers	12,738	13,538	14,385	15,047	15,727	15,295	14,865	14,865	15,090	15,315	15,540	15,765
Connecting passengers	8,751	8,517	7,435	7,172	7,105	6,060	5,015	5,015	5,090	5,165	5,240	5,315
Percent reduction from Base												
Enplaned passengers					-	(8%)	(16%)	(17%)	(17%)	(16%)	(16%)	(16%)
Originating passengers					-	(5)	(9)	(11)	(10)	(10)	(10)	(10)
Connecting passengers					-	(15)	(30)	(31)	(31)	(31)	(30)	(30)

Note: FY 2019 total reflects actual results; originating and connecting values are estimated on the basis of 3 quarters of U.S. DOT O&D Survey data.

Sources: Historical—City of Phoenix Aviation Department; U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedules T100. Forecast—LeighFisher, October 2019.

Figure 20
Base Case and Stress Test Forecasts of Enplaned Passengers
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ended June 30)

The base case forecast was prepared on the basis of the information and assumptions given in the text. The stress test forecast was based upon hypothetical assumptions. The achievement of any forecast is dependent upon the occurrence of future events which cannot be assured. Therefore, the actual results may vary from the forecast, and the variance could be material.



Note: FY 2019 total reflects actual results; originating and connecting values are estimated on the basis of 3 quarters of U.S. DOT O&D Survey data.

Sources: Historical—City of Phoenix Aviation Department; U.S. DOT, *Air Passenger Origin-Destination Survey*, reconciled to Schedules T100 and 298C T1.
Forecast—LeighFisher, October 2019.

FINANCIAL ANALYSIS

The purpose of the Report is to evaluate the ability of the City to satisfy the requirements of the Rate Covenant and the Junior Lien Rate Covenant during the Forecast Period taking into account the proposed 2019 Junior Bonds, planned future bonds, and outstanding Senior and Junior Lien Bonds. The forecast covers the fiscal year ending June 30, 2020 (FY 2020) through FY 2026, inclusive (the Forecast Period).

FRAMEWORK FOR AIRPORT SYSTEM FINANCIAL OPERATIONS

The City accounts for Airport system financial operations as a separate Aviation Enterprise Fund according to generally accepted accounting principles for governmental entities, federal regulations related to airlines rates and related City ordinances, the requirements of the City bond ordinances, and the City Purchase Agreements, as discussed below.

Organization and Management

The Airport is operated as a self-supporting enterprise through the City's Aviation Department.* The Phoenix City Council establishes the major policies attendant to the development and operation of the Airport. The City operates under a Council-Manager form of government. The City Council consists of a Mayor and eight Council members. The Mayor is elected at-large. Council members are elected for 4-year staggered terms from separate districts on a non-partisan ballot. The Mayor and each member of Council have equal voting powers. The City Council appoints the City Manager who administers the policies relative to the Airport. The City Manager appoints the Director of Aviation Services. The City Council adopts ordinances establishing fee structures for use of Airport facilities, including airline rates and charges.

The Phoenix Aviation Advisory Board (PAAB) is made up of nine members appointed by the City Council to 4-year terms and meets on a monthly basis. The PAAB provides non-binding advisory recommendations regarding Airport fees, including airline rates and charges, concession agreements, leases, master plans, noise studies, and development plans for the Airport.

The Aviation Department is headed by the Director of Aviation Services who reports to an assistant City Manager. The Director of Aviation Services is responsible for executing the aviation policies of the City Council and administering the operations of the Airport. Reporting to the Director of Aviation Services are four Assistant Aviation Directors, who together with the Director of Aviation Services head the Aviation Department staff. Certain accounting, bond financing, treasury, and related financial functions are performed by the City's Finance Department.

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*The City owns Sky Harbor and two general aviation airports that are collectively defined as "Airport" in the City Ordinances and City Purchase Agreements. References in this section of the Report to "Airport" include all three airports. The City also is a fifth member government in the Phoenix-Mesa Gateway Airport Authority, which owns and operates Phoenix-Mesa Gateway Airport, however Phoenix-Mesa Gateway Airport is excluded from the definition of Airport.

Airline Rates and Charges

The Phoenix City Code defines the terms and conditions by which airlines at Sky Harbor may use the airfield in common with other users and may occupy and use exclusive, joint, and common space in the terminal buildings. The City does not have long-term lease agreements with the airlines governing the use and occupancy of terminal space or the airfield at Sky Harbor. The terms are formalized in letters from the City authorizing month-to-month occupancy until otherwise terminated.

Sky Harbor does not have a formal agreement with the airlines governing the rates and charges methodology for landing, terminal, and other fees. The Phoenix City Code provides that airline rents, fees, and charges be calculated pursuant to a compensatory rate-setting methodology. The City bears the risk of any shortfall in non-airline revenues and retains the benefit of any surplus in non-airline revenues for discretionary Airport-related use. The Director of Aviation Services has the authority, within certain limits, to adjust airline fees pursuant to Ordinance G-6394.

Customarily, the rate budget is established at the beginning of the fiscal year, but the Aviation Director has the authority to change rates at any time during a fiscal year as necessary, provided the resulting Cost Per Enplanement (CPE) remains below the large hub median. The median large hub CPE was $10.52 as calculated using FAA Compliance Activity Tracking System (CATS) Operating and Financial Summary Report 127 for each airport's fiscal year 2018 (2018 Median). In FY 2018 the Airport's CPE was $6.26 and is forecast to remain below the 2018 Median. The City reviews proposed rate changes and capital expenditures with airline representatives. Following the end of each fiscal year, the actual information for such fiscal year replaces the budgeted and estimated amounts used in the rate calculation to determine actual airline requirements for such fiscal year. The difference between these actual airline requirements and the amounts actually paid by the airlines is cleared through a settlement process.

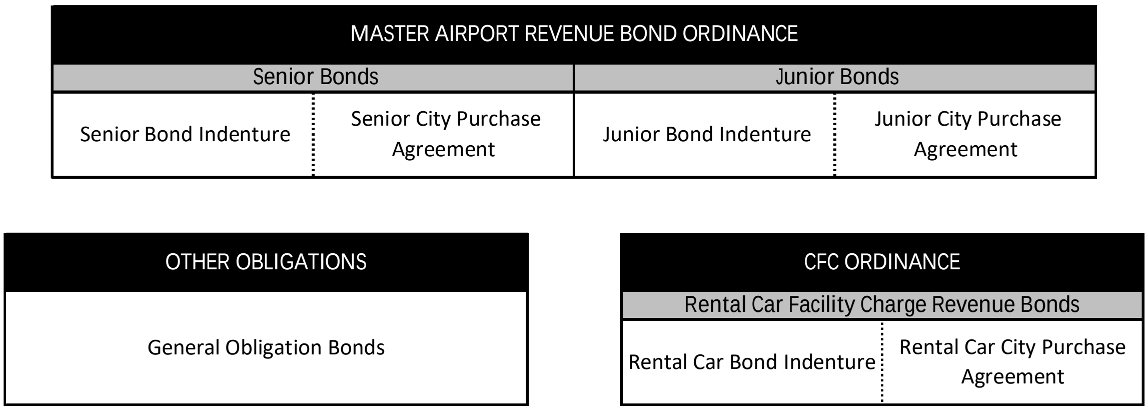
Airline Revenues consist of landing fees, terminal rentals, and other charges paid to the City by airlines for use and occupancy of the Airport. For the purpose of the Report, it is assumed that the City will annually calculate and adjust airline fees during the Forecast Period using a compensatory rate-setting methodology, and that airlines at Sky Harbor will pay such fees.

Bonds and Other Obligations

Outstanding Airport Bonds consist of Senior Bonds, Junior Bonds, and Other Airport Bond Obligations. The Airport also has outstanding the Rental Car Facility Charge Revenue Bonds, Series 2004, that are special revenue obligations as described later.

The City has utilized the City of Phoenix Civic Improvement Corporation (CIC) to issue airport bonds on its behalf. The CIC enters into a Bond Indenture with the Bond Trustee and the City is obligated to make payments to the CIC through a City Purchase Agreement with the CIC. The payment obligations are limited to: (1) with respect to Senior Bonds, certain available Net Airport Revenues, Passenger Facility Charges, to the extent irrevocably committed, and Other Available Funds, and (2) with respect to Junior Bonds, certain available Designated Revenues, 2010 Recovery Zone Economic Development Bonds (RZEDB) Subsidy Payments (Series 2010B Junior Bonds only), and Passenger Facility Charges, to the extent irrevocably committed, and Other Available Funds. There is no obligation or pledge of the full faith and credit or the ad valorem taxing powers of the City. Relevant bond documents are identified on Figure 21.

Figure 21
Bonds and Authorizing Documents
City of Phoenix Aviation Department



Source: City of Phoenix Aviation Department.

Senior Lien Obligations

All outstanding Bonds and Parity Bonds (Senior Lien Obligations) were issued under (1) City Ordinance No. S-21974, as amended (the Bond Ordinance), (2) Bond Indentures between the CIC and the Bond Trustee, and (3) the respective City Purchase Agreements between the City and the CIC. Bonds are secured by a pledge of Net Airport Revenues.*

In Section 4.3 of the Bond Ordinance (and Section 4.6(a) of the Junior Lien City Purchase Agreement) (the Rate Covenant) the City covenants that:

> it will in each Fiscal Year establish, maintain and enforce schedules of rates, fees and charges for the use of the Airport (i) sufficient to produce Net [Airport] Revenues at least equal to 125% of the amount required to be paid into the Bond Fund from the Revenue Fund, after subtracting Other Available Funds deposited in the Bond Fund, in such Fiscal Year and after subtracting any Passenger Facility Charge Credit applicable to such Fiscal Year…and (ii) sufficient to [fund the required bond fund reserves].

To issue additional Senior Lien Obligations for other than refunding purposes, the City is required under Section 3.3 of the Bond Ordinance to meet an historical <u>and</u> a prospective test (together, the Additional Bonds Test):

> An officer of the City shall certify that either the Net [Airport] Revenues for the most recently completed Fiscal Year for which audited financial statements** are available or the Net Revenues for 12 consecutive months out of the most recent 18 calendar months,

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*The term Net Airport Revenues means Revenues of the Airport, after provision for payment of all Cost of Maintenance and Operation.

**This is also known as the Comprehensive Annual Financial Report (CAFR).

in each case together with Other Available Funds* deposited in the Bond Fund during such period, (i) were sufficient to satisfy the rate covenant set forth in Section 4.3 and (ii) would have been at least equal to 120% of Maximum Annual Debt Service for all Bonds to be Outstanding, including the Parity Bonds [i.e., Senior Lien Obligations] proposed to be issued; and

A Consultant provides a report which projects that Net [Airport] Revenues will be sufficient to satisfy the rate covenant set forth in Section 4.3 (including any Parity Bonds [i.e., Senior Lien Obligations] to be issued) in each Fiscal Year after subtracting from the amount required to be paid into the Bond Fund from the Revenue Fund any applicable Passenger Facility Charge Credit**, which report addresses the period of time beginning with the first full Fiscal Year following the issuance of the Parity Bonds [i.e., Senior Lien Obligations] through the later of (i) three Fiscal Years following the expected date of completion (as provided to the Consultant by an officer of the City) of any construction projects to be financed at the Airport with the proceeds of the relevant Parity Bonds [i.e., Senior Lien Obligations] or (ii) five Fiscal Years following the issuance of the Parity Bonds [i.e., Senior Lien Obligations].

Senior Lien Obligations may be issued for refunding purposes without meeting the Additional Bonds Test described above, if the following conditions are met: an officer of the City certifies "that the Maximum Annual Debt Service…of all series to be Outstanding immediately after the date of…delivery of such refunding bonds is not greater than 110% of the Maximum Annual Debt Service…prior to…delivery of such refunding bonds…" and, the "bonds being refunded will no longer be Outstanding upon issuance of the refunding bonds."

The City reserved the right in the Bond Ordinance to provide for the issuance of obligations payable from Net Airport Revenues on a basis subordinate to the Senior Lien Obligations (i.e., Junior Lien Obligations and other Airport obligations as described below), but the Bond Ordinance does not specify terms and conditions applicable to such subordinate obligations other than to recognize that the flow of funds set forth therein may be altered to allow for payments to be made on a subordinate basis to the Bonds.

Junior Lien Obligations

Through the issuance of the 2010 Junior Bonds, the City re-established a Junior Lien, with the terms and conditions of the Junior Lien defined in (1) Bond Indentures between the CIC and the Bond Trustee, and (2) a Junior Lien City Purchase Agreement dated August 1, 2010, (2010 Junior Lien City Purchase Agreement), a Junior Lien City Purchase Agreement dated December 1, 2015 (2015 Junior Lien City Purchase Agreement), a Junior Lien City Purchase Agreement dated December 1, 2017 (2017 Junior Lien City Purchase Agreement), and Junior Lien City Purchase Agreement dated December 1,

*The term Other Available Funds means unrestricted grant money and other moneys available to the Airport which are not included in the definition of Revenues or Airport Revenues. Under the City Purchase Agreements, no credit is allowed for Other Available Funds so deposited.

**The Passenger Facility Charge Credit is defined to be "the amount of principal of and/or interest to come due on specified Bonds during any Fiscal Year to which Passenger Facility Charges…have received all required governmental approvals and have been irrevocably committed…to be used to pay [Debt Service] on such specified Bonds…unless such Passenger Facility Charges…are subsequently included in the definition of Airport Revenues."

2019, each between the City and the CIC (Junior Lien City Purchase Agreements). The Junior Bonds are secured by a pledge of Designated Revenues.

In Section 4.6(b) of the Junior Lien City Purchase Agreement (the Junior Lien Rate Covenant) the City covenants that, in addition to meeting the terms and conditions of the Rate Covenant pertaining to Senior Bonds, it will in each Fiscal Year establish, maintain, and enforce schedules of rates, fees, and charges for the use of the Airport (i) sufficient to produce Designated Revenues at least equal to 110% of the annual debt service requirements of the Junior Lien Obligations (net of Other Available Funds deposited into the Bond Fund in such Fiscal Year and after subtracting any Passenger Facility Charge Credit applicable to such Fiscal Year), and (ii) sufficient to fund the required bond fund reserves.

To issue additional Junior Lien Obligations for other than refunding purposes, including the 2019 Junior Bonds, the City is required under Section 4.3 of the Junior Lien City Purchase Agreement to meet an historical <u>or</u> a prospective test (together, the Junior Lien Additional Bonds Test):

> An officer of the City shall certify that either the Designated Revenues for the most recently completed Fiscal Year for which audited financial statements are available or the Designated Revenues for any 12 consecutive months out of the most recent 24 calendar months were sufficient to satisfy the rate covenant set forth in Section 4.6(b) hereof and would have been at least equal to 110% of the Maximum Annual Junior Lien Debt Service for all Junior Lien Obligations to be Outstanding, including the Junior Lien Obligations proposed to be issued; or
>
> A Consultant provides a report which projects that Designated Revenues will be sufficient to satisfy the rate covenant set forth in Section 4.6(b) (including any Junior Lien Obligations to be issued) in each Fiscal Year after subtracting from the amount required to be paid into the Junior Lien Bond Fund from the Revenue Fund any applicable Passenger Facility Charge Credit, which report addresses the period of time beginning with the first full Fiscal Year following the issuance of the Junior Lien Obligations through the later of (i) three Fiscal Years following the expected date of completion (as provided to the Consultant by an officer of the City) of any construction projects to be financed at the Airport with the proceeds of the relevant Junior Lien Obligations or (ii) five Fiscal Years following the issuance of the Junior Lien Obligations.

Junior Lien Obligations may be issued for refunding purposes without meeting the Junior Lien Additional Bonds Test described above, if certain conditions are met.

Other Airport Obligations

Other Airport obligations are subordinate to the Senior Lien Obligations and Junior Lien Obligations and currently consist of General Obligation Bonds and the lender under Short-Term Financing Program.

- Airport General Obligation Bonds are general obligations of the City, but no Airport Revenues are formally pledged to such bonds. Although the City's payment obligations are secured by secondary ad valorem property taxes without limit as to rate or amount, the City has historically paid the principal and interest on these obligations from the Airport Improvement Fund, consistent with the provisions of the Bond Ordinance pertaining to the priority of payments from Net Airport Revenues. The City has approximately $3.3 million outstanding General Obligation Bonds that are expected to be paid during FY 2020.

- The City has a $200 million Short-Term Financing Program under a revolving credit agreement (Short-Term Financing Program). The Short-Term Financing Program previously utilized commercial paper and may do so in the future. The Short-Term Financing Program is supported by Net Airport Revenues on a basis subordinate to the Senior Lien Obligations and the Junior Lien Obligations, consistent with the provisions of the Bond Ordinance pertaining to the priority of payments from Net Airport Revenues. As of the date of this Report, the City's outstanding principal balance on draws was $100 million PHX Sky Train Stage 2 (to be repaid with proceeds from the 2019 Junior Bonds). The City intends to continue the Short-Term Financing Program and use it to fund the major projects in the Aviation CIP on an interim basis.

Special Revenue Obligations

The City is the obligor with respect to one issue of Special Revenue Obligations that relates to Special Purpose Facilities, which is the Rental Car Facility Charge Revenue Bonds, Series 2004 (Series 2004 CFC Bonds), issued to fund construction of the RCC. These obligations are not secured by Net Airport Revenues and are payable solely from Customer Facility Charges related to the operational activity at the RCC. Debt service relating to the Special Revenue Obligations is excluded from annual debt service. The City plans to issue new Special Revenue Obligations to refund the Series 2004 Bonds and fund portions of PHX Sky Train Stage 2. Special Revenue Obligations debt service is excluded from annual debt service.

AVIATION CAPITAL IMPROVEMENT PROGRAM

The Aviation Department has developed an Aviation Capital Improvement Program (Aviation CIP)* through FY 2026 with project costs totaling $2.7 billion. For the purposes of this Report, the Aviation Department has included selected projects from their Comprehensive Asset Management Plan (CAMP) in the Aviation CIP. CAMP is a Master Plan that addresses a 20-year period and helps identify and refine future demand forecasts and development opportunities. Given the dynamic conditions of the industry and preliminary assumptions, recurring updates will be required to reflect changing activity and future needs.

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*The Aviation Department has developed an Aviation Capital Improvement Program (Aviation CIP) through FY 2026 with project costs totaling $2.7 billion. For purposes of this Report, the Major Capital Projects identified on Exhibit A-1 were adjusted to be represented on a cash flow basis rather than a budgetary basis.

The largest projects in the Aviation CIP are the PHX Sky Train Stage 2, Terminal 3 Modernization, Terminal 4 Concourse S1 and two CAMP projects (Union Pacific Railroad (UPRR) Trench Phase 1 and Terminal 3 2^{nd} North Concourse), which are estimated to cost \$745.0 million, \$580.0 million, \$310.0 million, \$220.0 million, and \$180.0 million respectively. The Improvement Bonds will be used to repay the Short-Term Financing Program as well as fund ongoing expenditures related to the PHX Sky Train Stage 2, Terminal 4 Concourse S1, the Terminal 3 Modernization, and Police Hangar at DVT. The project categories in the Aviation CIP and their estimated costs by year are shown on Exhibit A-1. The project categories in the Aviation CIP and their estimated funding sources are shown on Exhibits A-2 and A-3. Major categories of projects are explained below.

The Aviation Department plans to fund certain project costs of the Aviation CIP through Airport Improvement Program (AIP) grants administered by the Federal Aviation Administration (FAA), State grants, Passenger Facility Charge (PFC) revenues, Customer Facility Charge (CFC) revenues, Airport Improvement Funds (or local funds), Private Funding, and the proceeds of bonds. The City uses a Short-Term Financing Program to provide interim funding for large Aviation CIP projects, which is currently being utilized on the PHX Sky Train Stage 2 project. The City plans to issue additional bonds during the Forecast Period.

The Aviation Department monitors demand forecasts and facility capacity frequently and is obliged periodically to respond to unanticipated requirements for capital investments. Management is responsive to a rapidly changing aviation industry that is affected by global, national, and local economic and other factors (see the chapter “Airline Traffic Analysis” and caption “Key Factors Affecting Future Airline Traffic”). Such factors could affect the traffic levels at Sky Harbor and thus could affect the demand and need for certain capital projects. Therefore, the Aviation CIP as presented in this Report may be modified in future years.

Terminal 3 Modernization

The Terminal 3 Modernization project is a multiyear program to enhance the customer experience and provide a more efficient terminal for passengers. Major features of the project include a consolidated security checkpoint (completed fall 2016), new common use ticket counters (completed fall 2016), additional baggage processing capacity, baggage carousels, replacement of gates, and expanded passenger drop-off curb (completed spring 2019). The multi-phase, design-build project includes three major components: Terminal Processor (completed spring 2019), South Concourse, and North Concourse. The project is expected to be complete in the fall of 2020.

PHX Sky Train

The PHX Sky Train is an automated people mover system that will connect all terminals and parking facilities to VALLEY METRO Light Rail (regional public transit system) and the Consolidated Rental Car Center (RCC). The train is an integral part of the airport's transportation infrastructure plan and an important link to the regional transportation system. It is designed to be a long-term solution to growing traffic congestion in and around Sky Harbor. The project will be completed in three stages (Stage 1, Stage 1a, and Stage 2). The first two stages are complete and in service, connecting the light rail system and Sky Harbor's largest parking facility to Terminals 3 and 4, with a walkway to Terminal 2. These two project stages were finished on schedule and nearly $45 million under the combined budget of $884 million. By mid-2022, Stage 2 will link Stage 1 and Stage 1a with the future West Ground Transportation Center Station (West GTC Station) and the RCC.

The PHX Sky Train's electric train cars run twenty-four hours a day arriving at a station approximately every three minutes during peak periods, delivering passengers to their destinations within five minutes after boarding. Since its opening in April 2013, the PHX Sky Train has carried over 20 million passengers and replaced busing as the mode of transportation between terminals and parking facilities.

Terminal 4 Concourse S1

On March 8, 2017, Southwest Airlines announced that they would be increasing service to the Phoenix area. This announcement came with the request to construct the final concourse at Terminal 4 and a commitment to occupy the associated gates upon its completion. The future S1 concourse will be located on the southwestern corner of Terminal 4 when it is completed in early 2022. With approximately 8 planned gates, the S1 concourse will allow Southwest the additional capacity the airline needs to continue to grow in the Phoenix market. The project scope will also include a second bridge connector from the south concourses at Terminal 4 to the north. This connection will enable greater security efficiency and flexibility as passengers will be able to access any of the north or south gates from any one of the terminal's 4 security checkpoints.

UPRR Trench Phase 1

A portion of Union Pacific Railroad runs through Sky Harbor property. This railroad adds congestion and prevents ease of access to property that the Airport owns. This project will include the placement of the Union Pacific Railroad in a 30-foot deep trench to allow a secure airfield connection to proposed North Cargo and North Aero Support Complex and provide an overpass for roadway crossings. The project will be completed in two phases starting in 2021. Additionally, the Airport and Union Pacific Railroad have begun conversations regarding this trenching plan and entered into an agreement for the Airport to reimburse the railroad for its design review expenses.

Terminal 3 2nd North Concourse

Terminal 3 2nd North Concourse is a six narrow body gate concourse for Terminal 4 or Terminal 3 airlines. Passenger connectors to each terminal would be constructed separately, allowing the terminal to function as a bus-gate facility in the interim. The concourse includes approximately 75,000 square feet of passenger area (i.e., hold rooms, commercial area, amenities, passenger circulation).

West GTC Station

The West GTC Station is planned to be an approximately 20-acre commercial development, potentially featuring a mix of hotel, commercial office building, and parking garage uses. The development will be located on airport property with direct access to a PHX Sky Train station. The West GTC Station will be at the center of the future development. The completed 5-mile train system is expected to transport a total of more than 80,000 passengers per day when the Rental Car Center extension opens in 2022. The Airport has issued a Request for Information from interested developers with development concepts to be evaluated and potentially pursued through a future procurement and subsequently released a Request for Qualifications. The current procurement is in the review phase and a selection is expected in the Summer 2020. The City's investment in the West GTC Station is included in the PHX Sky Train budget.

Ancillary developments described (e.g., hotel, commercial, parking) may be delivered using public-private-partnerships and therefore are not included in the Aviation CIP. Potential revenues from such ancillary developments (i.e., land lease or 3rd party payments) are not reflected in the forecast of Net Revenues contained in this Report. The City plans to advance with said developments only in circumstances where Net Revenues are enhanced above and beyond baseline conditions assuming no ancillary developments advance.

Police Hangar (DVT)

The City plans to construct a hangar and office building to be leased to the police at Deer Valley airport. The project includes a 9,651 square foot single story Office Building and a 27,630 square foot hangar.

Other Aviation CIP Projects

Other Aviation CIP projects are listed below:

- Development Studies ($5.2 million): Projects in this category include planning and development studies.
- Fire Department ($2.3 million): Includes fire truck acquisition.
- General Aviation ($140 thousand): Includes hangar repair projects.
- Infrastructure ($3.4 million): Project to create the Geographic Information System (GIS) data and Airport Airspace analysis report for FAA, hardware upgrades, and customer self-service additions.
- Land Acquisition ($1.2 million): Acquisition of land near the Airport.
- Parking Facilities ($6.9 million): Includes lighting upgrades and other improvements.
- Roadways ($616 thousand): Includes roadway landscaping, wastewater management, and Terminal 4 roadway lighting improvements.
- Runway and Taxiway Improvements ($106.7 million): Projects include Terminal 4 north apron reconstruction, Terminal 3 Apron construction, Terminal 2 concourse demo and apron reconstruction, runway 8-26 Keel reconstruction, and utility access upgrades.
- Security Facilities ($693 thousand): Projects related to Sky Harbor security include construction of command center and emergency operations center, Terminal 3 and 4 surveillance camera upgrades, and a comprehensive airport security action plan.
- Terminal 2 ($26.1 million): Includes demolition of Terminal 2, Mural Relocation, and Apron reconstruction.
- Terminal 3 ($1.0 million): Projects include South Concourse electric GSE chargers and terminal development concept design.
- Terminal 4 ($5.3 million): Projects in this category include carpet replacement with Terrazzo flooring, retail infrastructure improvements, Terminal 4 retrofit study, Terminal 4 transfer bridges, Terminal 4 International facilities, Master Plan signage implementation, nursing stations, and restroom remodeling.
- Deer Valley Airport ($54.1 million): Projects include aircraft run-up area improvements, taxiway connector improvements and relocation, hangar replacement, taxiway construction, DVT West Perimeter Road phase 1, tie-down ramp construction, and North Ramp reconstruction.
- Goodyear Airport ($21.2 million): Projects include hangar and apron rehabilitation, reconstruction of public access road, property purchases, master plan updates, drainage improvements, and taxiway rehabilitation and strengthening.

- Phoenix-Mesa Gateway Airport ($3.9 million): The City is providing limited capital funding as part of its investment in Mesa Gateway.

- Other Miscellaneous and Contingency ($120.1 million): This amount is funding for aviation contingency, including planned terminal and airfield modifications, security and communication enhancement, and potential grant projects. Funds ($85.9 million) are also established for certain years in the forecast. Contingency funds and projects have not yet been adopted by City Council.

- Other Comprehensive Action Management Plan ($193.2): This amount is estimated using preliminary assumptions as a part of CAMP or Master Planning efforts. The CAMP addresses development needs for a 20-year period. Given the dynamic conditions of the industry recurring updates will be required to reflect changing activity and future needs.

PLAN OF FINANCE

The major sources of funds for projects in the Aviation CIP are shown in Exhibit A-2 and Exhibit B. The Aviation Department plans to fund certain project costs of the Aviation CIP through Airport Improvement Program (AIP) grants administered by the FAA, passenger facility charge (PFC) revenues, customer facility charges (CFCs), Airport Improvement Funds, and the proceeds of borrowings.

The City is eligible to receive FAA grants under the AIP for up to 75% of the costs of eligible projects. Grants are received as either entitlement grants, based on the number of enplaned passengers, program funding and formulas, or as discretionary grants, based on FAA determination of the priority of projects at airports nationally. FAA authorization and AIP funding have been approved through the FAA Reauthorization Act of 2018.

In the future the City may issue additional Senior Lien Obligations under the Bond Ordinance on parity with other outstanding Senior Lien Obligations. Additionally, the City may issue additional Junior Lien Obligations on parity with outstanding Junior Lien Obligations. The City may also issue other obligations. The plan of finance for the 2019 Junior Bonds and future bonds is described below.

2019 JUNIOR BONDS – PLAN OF FINANCE

The City intends to issue the Improvement Bonds, in the par amount of $737,295,000.* Proceeds are expected to be used for the following purposes:

- PHX Sky Train Stage 2: Fund $342 million of ongoing expenditures including repayment of $100 million of Short-Term Financing Program funds.
- Police Hangar (DVT): Fund $25 million of ongoing expenditures.
- Terminal 4 Concourse S1: Fund $310 million of ongoing expenditures including a $17.9 million reimbursement of internal funds previously expended as well as fund capitalized interest during construction.
- Terminal 3 Modernization: Fund $80 million of ongoing expenditures including a $47.7 million reimbursement of internal funds previously expended.
- Reserve funds: Fund the required bond fund reserves.
- Issuance costs: Pay the costs of issuing the Improvement Bonds, including underwriters' discount and financing, legal, and other costs.

Additionally, the City plans to issue the Refunding Bonds in the par amount of $29,975,000* to refund portions of the Series 2010C Junior Bonds for savings

FUTURE BONDS

For the purposes of this Report, additional Senior Lien Obligations are assumed to be issued during the Forecast Period.

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*Preliminary and subject to change.

- Senior Lien Obligations are assumed to be issued in July 2022 (Series 2022 Senior Improvement Bonds) to fund portions of UPRR Trench Phase 1.

- Senior Lien Obligations are assumed to be issued in January 2024 (Series 2024 Senior Improvement Bonds) to fund portions of Terminal 3 2nd North Concourse.

For the purposes of this Report no other projects in the Aviation CIP assume funding from additional bonds. Given the dynamic conditions of the industry and preliminary assumptions related to the Aviation CIP and CAMP, recurring updates will be required to reflect changing activity and future needs and additional bonds may be required during the Forecast Period.

PASSENGER FACILITY CHARGES

The City's PFC program is administered in accordance with regulations set forth in 14 Code of Federal Regulations (CFR) Part 158. As discussed in the previous section under the caption "Historical Passengers and Airline Activity" under the subsection "PFC Eligible Passengers," PFCs are fees imposed on enplaned passengers up to a $4.50 level for the purpose of generating revenues for airport projects that preserve or enhance safety, security, or capacity; mitigate noise impacts; or provide opportunities for enhanced competition among air carriers. Allowable costs under the regulations include reasonable and necessary costs to carry out approved projects, including payment of debt service.

PFC Approvals

The City imposes a $4.50 PFC per eligible enplaned passenger at Sky Harbor. The City has the authority to collect and use $3.0 billion for PFC-eligible projects. The City's largest application, known as PFC 6, as amended, provides collection authority in the amount of $1,972 million. (See Table 25.)

Table 25
Summary of PFC 6 Approval
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(in thousands)

	Pay-as-you-go	Bond Funds	Total
PHX Sky Train *(a)*			
Construction	$ 270,000	$ 753,072	$ 1,023,072
Interest	-	765,564	765,564
Subtotal	$ 270,000	$ 1,518,636	$ 1,788,636
Other Projects			
Construction	$ 139,308	$ 19,525	$ 158,833
Interest	-	24,936	24,936
Subtotal	$ 139,308	$ 44,461	$ 183,769
Total	$ 409,308	$ 1,563,097	$ 1,972,405

(a) Includes funding for PHX Sky Train Stage 1, Stage 1a, and Stage 2.

Source: FAA Final Agency Decision for 09-09-C-02-PHX, February 20, 2015.

The PFC 6 application provided approval for the PHX Sky Train project in the amount of $1,788.6 million to fund Stage 1, Stage 1a, and Stage 2. The PHX Sky Train was approved at a $4.50 PFC level as a single project, although it was recognized that construction would be sequenced based upon available financial capacity and other considerations. The approval included amounts for construction, as well as interest and financing costs associated with the planned issuance of bonds.

The City's most recently approved application, known as PFC 9, was approved by the FAA in the amount of $22.5 million in April 2019. PFC 9 provides approval for various PFC eligible projects including Terminal 2 Concourse Demolition & Apron Construction, Terminal 4 S1 Apron Construction, and Terminal 4 Infrastructure Fire Alarm Replacement.

The City continues to submit new PFC applications for eligible projects and the Aviation CIP assumes PFCs are utilized as a funding source for projects which are not yet FAA approved. For purposes of this Report, it is assumed that the Airport will continue to submit PFC applications as required and receive FAA approval when necessary based on project cash flow needs. See Exhibit D for a forecast of PFC revenues and expenditures by year.

Through June 30, 2019, the City had applied $1,701.7 million in PFC Revenues. (See Table 26.)

Table 26
PFC Authority and Revenues
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(as of June 30, 2019; in millions)

PFC Applications	Approval Amount	Revenues Applied	Remaining Authority
Closed PFCs *(a)*	$ 875.2	$ 875.2	$ -
Open PFCs			
PFC 6	$ 1,972.4	$ 695.4	$ 1,277.0
PFC 7	82.2	77.0	5.2
PFC 8	70.0	54.1	15.9
PFC 9	22.5	-	22.5
Subtotal Open PFCs	$ 2,147.0	$ 826.5	$ 1,320.5
PFC Future *(b)*	153.6	-	153.6
Total All PFC Applications	$ 3,175.8	$ 1,701.7	$ 1,474.0

(a) Closed PFCs are PFC applications that have been physically and financially completed and therefore closed and are no longer active.
(b) Future PFC to be submitted to the FAA.

Sources: Federal Aviation Administration and City of Phoenix Aviation Department.

PFC Framework

Under the Bond Ordinance and Senior and Junior Lien City Purchase Agreements, PFCs are excluded from the definition of Airport Revenues and Designated Revenues (Net Airport Revenues after making all payments required for the benefit of the Senior Lien Obligations), respectively. Principal and interest due on specified Senior Lien Obligations* and Junior Lien Obligations, to which PFCs have been irrevocably committed or otherwise held in trust and set aside to pay debt service (the Passenger Facility Charge Credit and Junior Lien Passenger Facility Charge Credit, respectively) are excluded from debt service for the purposes of the Additional Bonds Test, Junior Lien Additional Bonds Test, Rate Covenant, and Junior Lien Rate Covenant.

Annual PFC Revenues are irrevocably committed to pay debt service during the Forecast Period in an amount equal to:

- 100% of the Junior Lien Airport Revenue Bonds Series 2010A and Series 2010B,
- 30% of the Junior Lien Airport Revenue Bonds Series 2015A,
- 100% of the Junior Lien Airport Revenue Refunding Bonds Series 2015B, and
- 100% of the Junior Lien Airport Revenue Refunding Bonds Series 2017D,
- 93% of the Junior Lien Airport Revenue Bonds Series 2019A.

PFCs are not irrevocably committed to pay debt service on any other series of Bonds

The irrevocable commitment of annual PFC Revenues is to the extent received by the City in any Fiscal Year, beginning on the date of issuance and ending June 30, 2026 (the Commitment Period), unless subsequently extended or reestablished by the City in its discretion, to pay debt service. Junior Bonds are secured by Designated Revenues, irrevocably committed PFC Revenues, and irrevocably committed 2010 RZEDB Subsidy Payments pertaining to the Series 2010B Junior Bonds.

2010 RZEDB Subsidy Payments

The CIC and the City expect to receive cash subsidy payments rebating a portion of the interest on the Series 2010B Junior Bonds from the United States Treasury (the 2010 RZEDB Subsidy Payments). The City covenants that it will take reasonable actions necessary to apply for and receive the 2010 RZEDB Subsidy Payments and, irrevocably commits, for the life of the bonds, to transfer such amounts to the Series 2010B Interest Subaccount of the PFC Interest Account (the depository for the Junior Lien Passenger Facility Charge Credit). Any 2010 RZEDB Subsidy Payments received by the CIC or the City will not constitute Airport Revenues but will be irrevocably committed by the City and CIC towards the interest payments on the 2010B Junior Bonds. Sequestration reductions were 6.6% of the subsidy payment for the federal government's fiscal year ending September 30, 2018, 6.2% for federal fiscal year ending September 30, 2019, and will be 5.9% for federal fiscal year ending September 30, 2020.

RZEDB and PFC Revenue Forecast Assumptions

The Debt Service Requirements for the Junior Lien Obligations to be paid from the 2010 RZEDB Subsidy Payments and PFC Revenues during the Forecast Period (see Exhibit C) in this Report are

*Currently there are no Senior Lien Obligations to which PFCs have been irrevocably committed.

excluded from the calculation of debt service coverage as permitted by the Bond Ordinance and Junior Lien City Purchase Agreement. For the purposes of this Report, we assumed the City will continue to collect a $4.50 PFC per eligible enplaning passenger (net fee of $4.39 after airline compensation). Exhibit D contains the Application and Use of PFC Revenues assuming the 2010 RZEDB Subsidy Payments (45% of interest) less a sequestration reduction (5.9%) are received on a timely basis through the Forecast Period. Should the subsidy be less than the full amount, the City plans to transfer additional PFC Revenues for payment of the Series 2010B Junior Bonds.

PFC Revenues were assumed to be used in the following manner during the Forecast Period:

- To pay debt service on eligible bonds as irrevocably committed and specified above, through June 30, 2026 (the Commitment Period and Forecast Period).
- For existing approved projects contained in PFC 6, PFC 7, PFC 8 and PFC 9.
- For other PFC-eligible projects contained in the Aviation CIP, for which PFC approval will be obtained before utilizing PFC revenues on such projects. For example, certain projects or contingency identified in the Aviation CIP are funded in whole or part using future PFC funds, which are not yet approved by the FAA. For the purposes of this Report, we classify such projects as Future PFC funded, and we assume the PFC funds will be approved as necessary during the Forecast Period such that PFCs can be utilized as a funding source.

DEBT SERVICE REQUIREMENTS

Exhibit C presents estimated debt service requirements on the Senior Lien Obligations and Junior Lien Obligations.

Exhibit C also presents estimated debt service requirements on the outstanding Airport General Obligation bonds. Outstanding principal on this obligation as of July 1, 2019 was $3.3 million.

The Short-Term Financing Program is subordinate to the Senior Lien Obligations and the Junior Lien Obligations. The Short-Term Financing Program is supported by Junior Subordinate Lien Revenues.* Costs associated with the Short-Term Financing Program were estimated by Frasca & Associates, LLC based on the following assumptions: no amortization of principal throughout the Forecast Period; an interest rate of 3.0 %; and commitment fees based upon the terms of the existing revolving loan agreement. Short-Term Financing Program requirements are not included in the debt service requirements on Exhibit C and are reflected as an Airport Improvement Fund expenditure on Exhibit G.

*Junior Subordinate Lien Revenues is defined in the Short-Term Financing Program documents.

COST OF MAINTENANCE AND OPERATION

In the Bond Ordinance, the term Cost of Maintenance and Operation (or operating expenses) means "all expenditures (exclusive of depreciation and interest on money borrowed) which are necessary to the efficient maintenance and operation of the Airport and its facilities, such expenditures to include the items normally included as essential expenditures in the operating budgets of municipally owned airports." This Report relies upon the City's actual expenditures on a budgetary basis as reported in the Aviation Department's audited CAFR, Schedule 1, as adjusted to comply with the Bond Ordinance for the best representation of historical Cost of Maintenance and Operation (See section "Accounting Bases" below).

Recent Historical Trends

Operating expenses in FY 2017, FY 2018, and FY 2019 grew 6.5%, 1.8%, and 6.8% respectively. Total expenses increased in FY 2019 primarily due to Net Pension Liability which increased personal services.

FY 2020 Budget

Operating expenses in the FY 2020 budget are expected to increase 6.8% over the FY 2019 estimated actual. The largest increases are in Contractual Services, which are expected to increase approximately $10.6 million. This increase is primarily due to difference between budgeted and actual expenses incurred relative to airfield pavement maintenance and security requirements (see Tables 27 and 28).

Table 27
Operating Expenses by Character
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ending June 30; in thousands)

	Actual 2017	Actual 2018	Estimate *(a)* 2019	Budget *(a)* 2020	% Change FY '17-'18	FY '18-'19	FY '19-'20
Personal Services	$ 116,353	$ 121,218	$ 125,184	$ 132,065	4.2%	3.3%	5.5%
Contractual Services	113,745	113,318	116,721	127,338	(0.4)	3.0	9.1
Supplies	12,070	11,216	11,850	12,108	(7.1)	5.7	2.2
Equipment/Minor Improvements	2,948	3,861	3,590	3,384	31.0	(7.0)	(5.7)
Total Budgeted Operating Expenditures	$ 245,116	$ 249,613	$ 257,345	$ 274,894	1.8%	3.1%	6.8%

% Total	2017	2018	2019	2020
Personal Services	47.5%	48.6%	48.6%	48.0%
Contractual Services	46.4	45.4	45.4	46.3
Supplies	4.9	4.5	4.6	4.4
Equipment/Minor Improvements	1.2	1.5	1.4	1.2
Total Budgeted Operating Expenditures	100%	100%	100%	100%

Notes: Figures may not add to totals shown due to rounding.

(a) Amounts represent the Aviation Department's estimate for FY 2019 and budget for FY 2020.

Source: City of Phoenix Aviation Department.

Table 28
Operating Expenses by Division
2020 Budget
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Year ended June 30, 2019; in thousands)

	Personal Services	Contractual Services	Supplies	Equipment/ Minor Imp.	Other Services	Total
Aviation Divisions						
Facilities & Services	$ 40,261	$ 52,784	$ 7,519	$ 1,296	$ -	$ 101,860
Operations	14,778	28,500	1,173	370	-	44,822
Technology	6,175	10,142	2,058	830	-	19,204
Aviation Administration	3,166	3,271	20	-	-	6,458
Business & Properties	4,038	12,874	42	-	-	16,954
Public Relations	2,473	3,820	98	-	-	6,391
Financial Management	2,999	502	14	-	160	3,674
General Aviation	3,234	1,375	223	-	-	4,832
Planning & Environmental & CMD	2,285	2,858	0	-	-	5,143
Design & Construction	(592)	3,382	14	108	-	2,912
Contracts & Services	2,410	2,293	15	-	-	4,717
Public Safety & Security	5,647	5,537	931	269	350	12,734
Aviation Divisions: Subtotal	$ 86,871	$ 127,338	$ 12,108	$ 2,873	$ 510	$ 229,701
Inter-Departmental Services						
Police	$ 23,588	$ -	$ -	$ -	$ -	$ 23,588
Fire	15,412	-	-	-	-	15,412
Parks & Recreation	18	-	-	-	-	18
Information Technology	648	-	-	-	-	648
Law & Civil	1,232	-	-	-	-	1,232
Audit	580	-	-	-	-	580
Other	3,716	-	-	-	-	3,716
Inter-Departmental Services: Subtotal	$ 45,193	$ -	$ -	$ -	$ -	$ 45,193
Total Expenses	$ 132,065	$ 127,338	$ 12,108	$ 2,873	$ 510	$ 274,894

Note: Amounts represent the Aviation Department's budget for FY 2020.

Source: City of Phoenix Aviation Department.

Personal Services

Personal services are budgeted at $132.1 million in FY 2020, or 48.0% of total operating expenses making it the largest expense category. Personal services operating expenses are directly related to salaries and employee benefits. Overall, personal services expense is budgeted to increase $6.9 million compared to FY 2019.

Interdepartmental charges/credits, which are included in personal services, are budgeted at $45.2 million in FY 2020, or 16.4% of total operating expenses. Interdepartmental charges/credits include the cost of City services related to the Airport. Major services include: police ($23.6 million), fire ($15.4 million), direct City administrative services ($5.0 million, including internal audit, information technology, finance, and others), and City legal services ($1.2 million).

Personal services includes the Aviation Department's share toward funding of a net pension liability. The Aviation Department's unfunded portion of net pension liability is approximately 75% of total annual contributions. The City contributes an actuarially determined percentage of payroll to City of Phoenix Employees' Retirement System (COPERS), as required by City Charter, to fully fund benefits for active members and to amortize any unfunded actuarial liability as a level percent of projected member payroll over a closed 21-year period. In 2018, actuarial assumptions assumed an investment rate of return of 7.25%, 2.5% inflation, individual salary increases ranging from 5% to 9.6%, cost of living adjustments of 1.25%, and administrative expenses increase of 3%.

Contractual Services

In FY 2020, contractual services are budgeted at $127.3 million, or 46.3% of total operating expenses, making it the largest expense category. Major elements of the contractual services category are summarized below.

- Utilities. Utilities are $19.4 million in the FY 2020 budget and include electricity, water, solid waste disposal, and gas, telephone, and sewer services.

- Public Parking. Parking contracts are budgeted at $13.6 million in the FY 2020 budget and major contractors includes Ace Parking Management and Scheidt & Bachmann USA. Ace Parking Management provides general parking management oversight, cleaning, maintenance, and security monitoring services. Scheidt & Bachmann provides revenue control services. The City retains all revenues from the public parking operations.

- Baggage Handling. Elite Line Services operates, maintains, and repairs certain baggage handling systems at a FY 2020 budgeted cost of $2.2 million.

- Bus Service. Transfer Services provides the airport-wide shuttle bus services at Sky Harbor for a FY 2020 budgeted cost of $14.3 million. Services covered under the contract include Rental Car Center and emergency busing. The contract expires June 2020 and is based on a per hour fee which includes overhead.

- Custodial Services. The budgeted amount for contractual custodial services in FY 2020 is $9.1 million.

- PHX Sky Train Operations. Bombardier Transportation Holding USA, Inc. was awarded a 10-year contract to Design-Build-Operate-Maintain the PHX Sky Train Stage 1 and 1a. The budgeted amount for operating and maintenance services in FY 2020 is $9.9 million.

Supplies and Equipment/Minor Improvements

Remaining operating expenses are primarily related to supplies and equipment/minor improvements. In FY 2020, these two expense categories are collectively budgeted at $15.5 million, or 5.6% of total operating expenses.

FY 2020-2026 Forecast

Base Cost of Maintenance and Operation

Cost of Maintenance and Operation expenses, after adjustment for the assumed repayment of portions of the net pension liability, are forecast to increase at an annual rate of 3.0% in FY 2020 through FY 2026. The Aviation Department expects to continue to constrain expense growth over the Forecast Period to help offset the impact of the Aviation CIP on airline tenants that are charged on the basis of cost recovery, as described earlier.

The City plans to pay off certain unfunded portions of a net pension liability which contributed to increases in personal services expenses in FY 2020. The forecast assumes that personal services expenses will decrease by $11.7 million in FY 2021 as a direct result of savings related to paying back a portion ($150 million) of the net pension liability ($172 million). Thereafter personal services expenses are forecast to grow 3%.

Incremental Cost of Maintenance and Operation

The forecast assumes the following for incremental expenses and savings:

- No additional incremental costs of Maintenance and Operation related to the Terminal 3 Modernization project since the South Concourse is already in operation and incremental increases with the North Concourse would be offset by savings related to the closure of Terminal 2 for airline operations.

- Terminal 3 Modernization project includes a number of investments that enable the Aviation Department to operate and maintain Terminal 3 more efficiently when Terminal 2 is closed. For these reasons the Aviation Department assumes incremental savings of $4.0 million in FY 2021 (full year).

- Incremental costs of $2.5 million in FY 2022 (partial year) and $5.2 million in FY 2023 (full year) related to the Terminal 4 Concourse S1 project.

- No additional incremental costs of Maintenance and Operation related to the PHX Sky Train Stage 2 project since incremental increases would be offset by savings related to the rental car busing operations which are projected to be $15.5 million in FY 2020.

- Incremental costs of $5.9 million in FY 2025 and $12.3 in FY 2026 related to CAMP projects.

Total Cost of Maintenance and Operation

The total Cost of Maintenance and Operation are shown in Exhibit E. The City believes the forecast rate of expense growth (3%) is reasonable based upon (1) historical trends, (2) the FY 2020 budget, (3) projected O&M costs (and savings) for new facilities, and (4) Management objectives relative to future growth and expectations regarding internal staffing and contracted services.

Central Service Cost Allocation

Central service cost allocation expenses are charges for certain City services provided to the Aviation Department and not otherwise directly charged to the Aviation Department. The amount of allocation is determined on an annual basis by the City Finance Department. The Aviation Department does not directly pay these expenditures through its operating budget nor does it plan for these costs through its operation and maintenance budget.

The Cost of Maintenance and Operation as defined in the Bond Ordinance and clarified by bond counsel does not include the central service cost allocation. The forecast of Net Airport Revenues, Designated Revenues, Rate Covenant, and Additional Bonds Test do not include this allocation, which is directly paid using the Airport Improvement Fund to the extent funds are available. In FY 2020 the allocation is budgeted at $10.5 million. Thereafter, the allocation is forecast to grow at a rate of 2.0% per year.

AIRPORT REVENUES

The term Revenues (or Airport Revenues) means all revenues or income received by the City directly or indirectly from the use and operation of the Airport, except for certain exclusions. (See Table 29.) Revenues also include interest on invested money and profits realized from the sale of investments held in funds established pursuant to the Bond Ordinance, except for the Construction Fund, the Project Fund, and the Rebate Fund.* This Report relies upon the Aviation Department's audited CAFR, Schedule 1, as adjusted to comply with the Bond Ordinance, as the best representation of actual historical Revenues (See section "Accounting Bases" below).

Excluded from Revenues are monies received from state and federal grants, proceeds received from property damage insurance claims that are used to repair or replace Airport facilities or property, PFC Revenues, 2010 RZEDB Subsidy Payments, proceeds received from the sale of any bonds or other obligations, and Special Purpose Facilities revenues.

Landing and Terminal Fees

Landing and terminal fees include airline revenues; nonairline terminal revenues; and miscellaneous other landing and terminal fees.

Airline Revenues

As noted earlier under the caption "Framework for Airport System Financial Operations" under the subsection "Airline Rates and Charges" the rate budget is established at the beginning of the fiscal year. For purposes of this Report, it is assumed that the City will annually calculate and adjust airline fees during the Forecast Period using its current compensatory rate-setting methodology, and that airlines at Sky Harbor will pay such charges.

*The Construction Fund is a special fund into which proceeds of Senior Lien Obligations issued for the purpose of improving and extending the Airport are deposited. The Rebate Fund is a special fund created to collect interest earnings subject to "rebate" under United States Treasury Regulations.

Table 29
Total Revenues
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ending June 30; in thousands)

The forecasts presented in this table were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

	2019 Estimate		2026 Forecast		'19-'26
	Revenues	% Ttl	Revenues	% Ttl	CAGR
Operating Revenues					
Landing and Terminal Fees					
Airline Landing Fees	$ 50,149	12.2%	$ 68,971	13.0%	5.5%
Airline Terminal Fees	83,758	20.4	124,522	23.5	6.8
Total Airline Revenues (less Baggage System Fees)	$ 133,906	32.6%	$ 193,493	36.6%	6.3%
Baggage System Fees	5,117	1.2	6,194	1.2	3.2
Jetway Rental	702	0.2	702	0.1	0.0
Common Use	7,030	1.7	10,869	2.1	7.5
FIS Fees	2,258	0.6	2,509	0.5	1.8
Total Airline Revenues	$ 149,013	36.3%	$ 213,767	40.4%	6.2%
Nonairline Terminal Revenues	39,166	9.5	43,490	8.2	1.8
Misc. other Landing and Terminal Fees	16,657	4.1	19,718	3.7	2.9
Total Landing and Terminal Fees	$ 204,835	49.9%	$ 276,975	52.3%	5.2%
Ground Transportation					
Parking (public and Employee)	$ 90,687	22.1%	$ 99,732	18.8%	1.6%
Car Rentals	43,884	10.7	48,485	9.2	1.7
Total parking and Car Rentals	$ 134,571	32.8%	$ 148,216	28.0%	1.6%
other	9,213	2.2	30,814	5.8	22.3
Total Ground Transportation	$ 143,784	35.0%	$ 179,030	33.8%	3.7%
Hangars	$ 4,198	1.0%	$ 6,664	1.3%	8.0%
Land Rental	14,110	3.4	19,799	3.7	5.8
Building and Facility Rentals	3,263	0.8	3,517	0.7	1.3
Facility Lease Reimbursement (RCC)	8,833	2.2	8,947	1.7	0.2
other	6,968	1.7	7,316	1.4	0.8
Total other Revenues	$ 37,372	9.1%	$ 46,242	8.7%	3.6%
Total operating Revenues	$ 385,992	94.1%	$ 502,247	94.9%	4.5%
Interest Income	9,241	2.3	7,440	1.4	-3.5
Total Revenues prior to RCC Reimbursement	$ 395,233	96.3%	$ 509,687	96.3%	4.3%
RCC Busing Service Reimbursement (a)	15,142	3.7	19,574	3.7	4.4
Total Revenues	$ 410,375	100.0%	$ 529,261	100.0%	4.3%

Notes: Columns may not add to total due to rounding.

(a) Reimbursement of Transportation O&M Expenses for Rental Car busing using available CFC revenues.

Sources: City of Phoenix Aviation Department and LeighFisher.

Common Use and Federal Inspection Services Fees

Common use fee revenues are determined by the number of departures (turns) on common use gates at the Airport. The common use fee charge is indexed to the terminal rental rate and assumes the average cost of a typical gate. The full service charge for domestic users is $838 per turn.

Airlines also pay a Federal Inspection Services (FIS) fee per passenger for all international passengers arriving at the Airport at a rate of $4.00.

Nonairline Terminal Revenues

In general, concession revenues are related to the following factors: (1) the rental provisions set out in concession agreements; (2) the level and mix of passenger traffic and spending patterns; (3) inflation; (4) the ability of concessionaires to increase revenues by increasing prices or increasing volume; and (5) various other factors, such as concessions environment, store locations and merchandise mix.

Except as specifically noted below, the forecasts of concession revenues apply the following assumptions: (1) prevailing rental provisions will remain in effect over the Forecast Period; (2) concession revenues will increase in relation to enplaned passengers; (3) increases in concession prices will be constrained below the general level of inflation; and (4) the development of concession revenue will not be constrained by facilities or new development.

Food and Beverage. Food and beverage revenues consist mainly of rents and concession fees paid by concessionaires for in-terminal operations. Most contracts provide for a concession fee equal to scheduled percentages of gross sales subject to a minimum annual guarantee. The City has major exclusive concession agreements at Sky Harbor as follows: (1) Host International, Inc. and SSP America, Inc. covering food and beverage operations in Terminal 3 (expires in 2030) (2) Kind Hospitality, JMJ-LLC, First Class Concessions covering food and beverage operations in Terminal 2 (month-to-month), (3) Host International, Inc. and SSP America covering food and beverage operations in Terminal 4 (expires in 2025). Revenues were forecast in relation to enplaned passengers, assuming no material change in contract terms or any expansion of space devoted to concessionaires. Terminal 3 is undergoing a modernization that will result in various temporary closures of existing food service, however such closures will be managed in phases to ensure continuity of service and revenues. For purposes of this Report no adjustment was made to decrease revenues associated with Terminal 3 due to temporary closures, nor were increases assumed due to new food and beverage options.

General Merchandise. General merchandise revenues consist of concession fees paid by news, gift, duty free, and specialty retail shops. Revenues were forecast in relation to enplaned passengers, assuming no material change in contract terms with concessionaires or any expansion of space devoted to concessionaires. The City has over 45 contracts with different vendors including Paradies, Stellar Partners, Casa Unlimited, Hudson Group, and others. Nearly all of the agreements have substantially similar terms providing for concession fees equal to scheduled percentages of gross sales subject to a minimum annual guarantee. The agreements for general merchandise operations in Terminal 2 are month-to-month. The agreements for general merchandise operations in Terminal 3 are also month to month. Terminal 3 is undergoing a modernization that will result in various temporary closures of general merchandise vendors, however such closures will be managed in phases to ensure continuity of service and revenues. New contracts are anticipated for Terminal 3 sometime in FY 2019. For purposes of this Report no adjustment was made to decrease revenues associated with Terminal 3 due to temporary closures, nor were increases assumed due to new merchandise options. General merchandise contracts for Terminal 4 expire FY 2025.

Advertising. The Aviation Department currently has contracts with Alliance/Lamar for advertising in Terminal 2, Terminal 3, Terminal 4, and both Clear Channel Outdoor for outdoor/billboard advertising and American Outdoor for outdoor/billboard advertising. The contracts provide for a concession fee equal to a percentage of gross receipts or a minimum annual guarantee, whichever is greater. Advertising revenues were approximately $3.2 million in FY 2019. Thereafter, revenues are expected to increase with enplaned passengers and an assumed consumer price growth rate of 1.5%.

Miscellaneous Other Landing and Terminal Fees

This revenue category comprised around $16.7 million of annual revenues in FY 2019. This category generally relates to non-signatory airlines and includes tenant office rent, commercial use permit fees, and air cargo fees.

Ground Transportation

Ground transportation includes public parking, employee parking, car rentals, and other ground transportation such as per trip fees generated from taxis, Transportation Network Companies (TNCs), and other ground transportation providers. Table 30 summarizes historical ground transportation transactions recorded at the Airport. Note this data does not include pick-ups and drop-offs from personal vehicles.

Public Parking is the largest single generator of ground transportation transactions for the Airport, accounting for 36% of total transactions and 60% of revenues in 2019. Rental car transactions accounted for 24% of ground transportation transactions and 33% of revenues in 2019. TNCs, taxis, and other ground transportation accounted for 27%, 5%, and 8% of transactions and 5%, 1%, and 2% of revenues, respectively.

Recent quantitative and qualitative evidence from across the country indicates that the entrance of TNCs have adversely affected four airport industry segments: taxis, shared-ride van operators, rental car companies, and parking operators. National trends also show that TNCs accounted for an increasing share of ground transportation transactions. On the subsequent pages we describe the trends and forecast assumptions related overall to the Ground Transportation market including Other Ground Transportation (such as TNCs, taxis, and other), Parking and Rental Car.

Table 30
Ground Transportation Transactions and Market Share
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(Fiscal Years ending June 30; in thousands except % change)

	2017	2018	2019	% Change '17-'18	% Change '18-'19
Originating Passengers	14,385	15,047	15,727	4.6%	4.5%
Resident Passengers	6,558	6,846	7,129	4.4%	4.1%
Visitor Passengers	7,827	8,201	8,598	4.8%	4.8%
Transactions					
Airport Parking					
T-2 Garages	189	184	180	-2.7%	-1.9%
T-3 Garages	258	229	224	-11.2%	-2.3%
T-4 Garages	1,667	1,658	1,624	-0.5%	-2.1%
T-2 Other	102	91	89	-10.4%	-2.3%
East Economy Garages	413	411	406	-0.5%	-1.3%
West Economy	64	64	63	-0.7%	-1.5%
East Economy	320	314	310	-1.9%	-1.3%
Subtotal	3,013	2,951	2,895	-2.1%	-1.9%
Rental Car	1,917	1,877	1,954	-2.1%	4.1%
Other GT					
Taxi	596	489	423	-18.0%	-13.6%
TNC	1,022	1,611	2,168	57.6%	34.6%
Other	850	699	652	-17.7%	-6.8%
Subtotal	2,468	2,799	3,243	13.4%	15.8%
Total GT Transactions	7,398	7,627	8,092	3.1%	6.1%
Share of Total Transactions					
Airport Parking	40.7%	38.7%	35.8%		
Rental Car	25.9%	24.6%	24.2%		
Taxi	8.1%	6.4%	5.2%		
TNC	13.8%	21.1%	26.8%		
Other	11.5%	9.2%	8.1%		
Total GT Transactions	100.0%	100.0%	100.0%		

Columns may not add to totals shown because of rounding. Percentages were calculated using unrounded numbers.

Source: City of Phoenix Aviation Department, LeighFisher.

Other Ground Transportation

Other ground transportation services include commercial vehicles, most notably taxicabs, limos, and hotel/motel shuttles, as well as the (June 2016) introduction of transportation network companies (TNCs) such as Uber and Lyft into the Airport market (collectively defined as the Other Ground Transportation Market).

Effective June 2016, the City eliminated collection of permit fees at the Airport and implemented a per trip fee structure in which a fee is collected for each revenue-producing trip. Table 31 illustrates current and historical per trip fee structure.

Table 31
Ground Transportation per Trip Fee Structure 2017-2019
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport

(1) Vehicle Size	Beginning January 1, 2017	Beginning January 1, 2018	Beginning January 1, 2019
1 - 8 seats	$2.25	$2.56	$2.66
9 - 23 Seats	$2.75	$3.25	$3.48
24+ Seats	$6.50	$6.97	$7.38

(2) Vehicle Size	Beginning January 1, 2017	Beginning January 1, 2018	Beginning January 1, 2019
1 - 8 seats	$3.25	$3.02	$2.66
9 - 23 Seats	$4.25	$3.95	$3.48
24+ Seats	$9.00	$8.37	$7.38

Notes:
(1) All authorized providers permitted prior to June 18, 2016.
(2) All authorized providers permitted on or after June 18, 2016

Source: City of Phoenix Aviation Department.

The City committed to collecting only the amount necessary to cover its cost of administering the ground transportation program during the first 3 years of the program, and established revenue targets in 2017, 2018, and 2019 of $7.0 million, $7.8 million, and $8.7 million, respectively. If revenue exceeds the annual target, the trip fees for the subsequent year may be adjusted lower based upon the actual trip data in order to stay at or below the target for that year.

While there is still limited historical data to draw upon, preliminary indications are that, in addition to capturing portions of existing ground transportation and car rental markets, TNCs are also, due to their convenience, expanding the size of the ground transportation market by accommodating passengers who may have otherwise relied upon nonrevenue modes of transportation to and from the Airport (e.g. family, friends). TNCs now represent the largest portion of the Airport's other ground transportation transactions, and are estimated to have accounted for 66.9% in FY 2019, an increase from 57.5% in FY 2018.

As TNC market share has increased, the market shares of other ground transportation services, most notably taxicabs, van services, and prearranged pickup services, have decreased. For example, taxicabs accounted for 13% of the other ground transportation transactions in FY 2019, down from 44% in FY 2016 (prior to the introduction of TNCs).

The forecast assumes that:

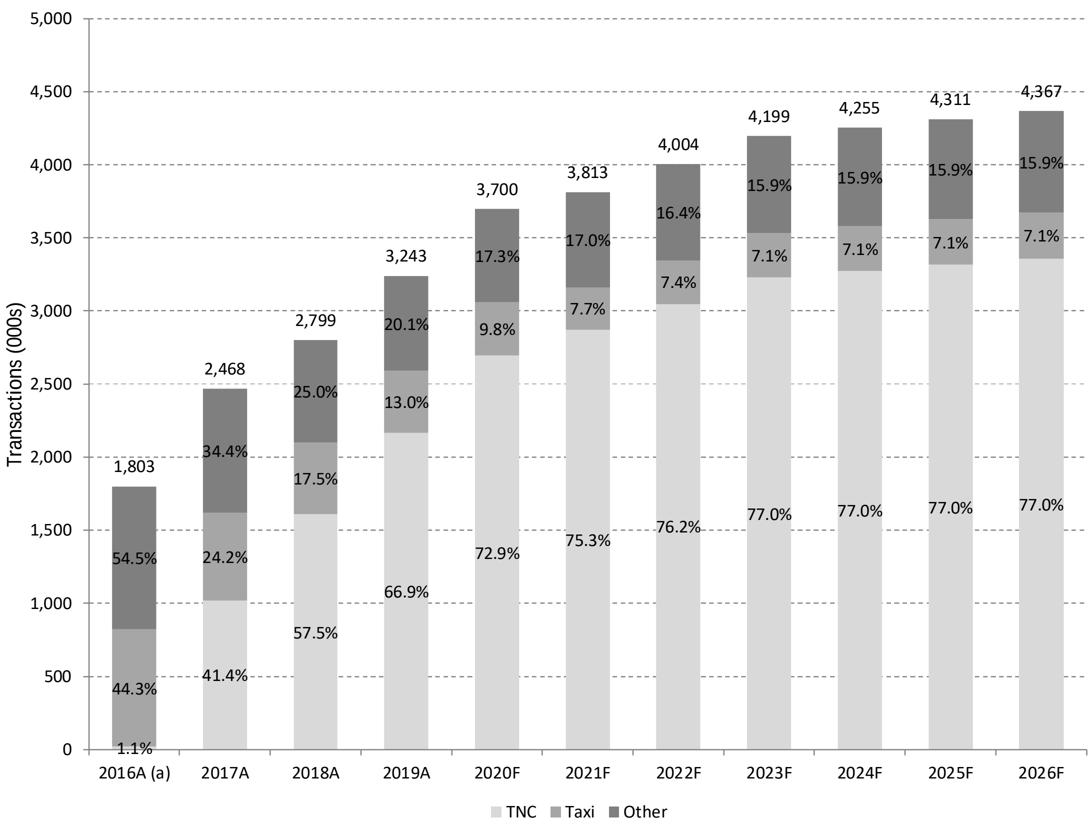
- The total for other ground transportation transactions will continue to increase, driven primarily by strong growth in TNCs. FY 2019 there were 3.2 million total pick-up transactions and by FY 2026 there are forecast to be 4.4 million.

- TNCs will be charged a $4.00 pick-up and $4.00 drop-off fee beginning in FY 2021 (currently only a pick-up fee is assessed), which is assumed and expected to be approved in December, 2019. TNCs are forecast to grow from 67% of the other ground transportation pick-up transactions to approximately 77% by FY 2026. Over this same period of time other providers are forecast to decrease in absolute amounts as well as in overall market share. For the purposes of this Report, it was assumed that the number of drop-off transactions for TNCs would be equal to the number of pick-up transactions.

- As a result of these assumptions, and primarily due to the changes associated with the increased TNC rate and new drop-off fee, total revenues are forecast to increase from $10.4 million in FY 2020 to $30.8 million by FY 2026.

Figure 22
Ground Transportation Pick-Up Transactions
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(for the 12 months ending June 30; transactions in thousands)

The forecasts presented in this table were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.



(a) TNCs commenced service at the Airport on 6/18/2016, and accounted for 1.1% of ground transportation transactions in FY 2016.

Sources: City of Phoenix Aviation Department, LeighFisher.

Public Parking

Public parking at Sky Harbor is accommodated in three types of facilities: terminal garages, economy garages, and economy surface lots. Parking customers are divided into two distinct groups determined by their duration of stay: hourly customers and daily customers.

Hourly customers stay for less time than required to reach the daily maximums per parking structure and primarily park in the terminal garages. Hourly customers constitute the majority of the parking transactions (52%), but only 8% of the overall public parking revenues.

Daily customers stay for more time than needed to reach the daily maximum per parking structure. Daily customers park in all of the parking structures and are a smaller portion of total parking transactions (48%), but produce 92% of the overall public parking revenues. Table 32 summarizes the daily rates, total capacity, and revenues for each of Sky Harbor's parking facilities.

FY 2017 public parking revenues decreased, from $75.3 million in FY 2016 to $75.1 million in FY 2017 or 0.2%. Originating enplaned passengers increased 6.0% over this period, meaning that a smaller percentage of originating enplaned passengers utilized the parking facilities, and/or those passengers utilizing the parking facilities parked on average for shorter durations, and/or those passengers parked in more cost-effective locations. For example, revenues in the Terminal 4 garage decreased whereas revenues in the East Economy Garage and Surface Lot both increased.

Table 32
Public Parking Facility Rates, Revenues, and Capacity
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport

	Prior Daily Rates ($)	Current Daily Rates ($)	Revenues FY2018 ($)	Revenues FY2019 ($)	Revenues Change ($)	Approx. Public Spaces	Spaces as % of Total (%)	FY'19 Rev. as % of Total (%)
Parking Facilities								
Terminal Garages								
T-2	25.00	26.00	$ 895	$ 1,013	$ 118	244	1.1	1.2
T-3	25.00	27.00	3,818	3,971	153	1,874	8.8	4.9
T-4	25.00	27.00	37,510	38,925	1,415	6,406	30.0	47.8
Subtotal			$ 42,223	$ 43,909	$ 1,686	8,524	39.9	53.9
T-2 Other	9.00/11.00	10.00/12.00	$ 3,412	$ 3,815	$ 404	1,957	9.2	4.7
East Economy Garages	11.00	14.00	$ 18,568	$ 18,377	$ (191)	5,840	27.3	22.6
Economy Surface Lots								
West Economy	7.00	7.00	$ 1,643	$ 1,364	$ (278)	1,368	6.4	1.7
East Economy	9.00	12.00	13,163	13,939	776	3,687	17.2	17.1
Subtotal			$ 14,806	$ 15,304	$ 498	5,055	23.6	18.8
Total Parking			$ 79,008	$ 81,405	$ 2,397	21,376	100.0	100.0
Customer Groups								
Hourly Parking			$ 6,466	$ 6,366	$ (100)			7.8
Daily Parking			72,542	75,039	2,497			92.2
Total			$ 79,008	$ 81,405	$ 2,397			100.0

Note: Hourly rates in all locations are $4.00 per hour.

Source: City of Phoenix Aviation Department, LeighFisher.

FY 2017 was the first full year affected by the legal operation of TNC service at the Airport, which likely contributed to the FY 2017 revenue growth lagging originating enplaned passenger growth. Additionally, in FY 2017 the City entered into 2-year agreements with two valet companies to provide scheduled and on-demand valet service. The service is being offered only in Terminal 4 on a limited basis, and on a pilot basis to be reevaluated during the 2-year timeframe. The agreements require each company to contribute to a Minimum Annual Guarantee (MAG) or a percentage of their gross sales.

In November 2017, the City adjusted the daily parking rates in all of the locations as shown in Table 33. This contributed to an increase in FY 2018 of $4.1 million. Since the rate increase was only effective for 8 months of the fiscal year, there was an additional increase in revenues in FY 2019 of $2.4 million.

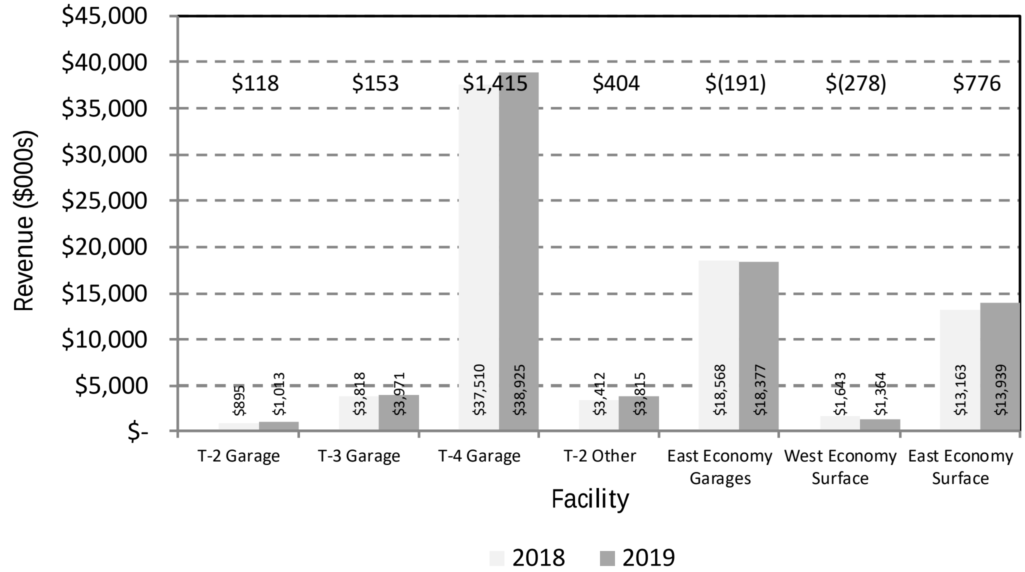
Future parking revenues are generally forecast on the basis of (1) historical trends in parking revenue per originating resident passenger and per transaction broken into two duration types (hourly and daily customers) and (2) forecast increases in the number of originating resident passengers. Total Parking revenues are forecast at $90.3 million in FY 2020 and forecasted to growth 0.3% in FY 2021, then 7.0% in FY 2022 (due to additional revenues generated by new marketing efforts and rate changes), then grow at approximately 0.7% per year through the remainder of the forecast.

The Aviation Department has the authority to adjust rates pursuant to an existing City Council approval dating back to April 2008, so long as the daily rates remain below the maximum authorized approved level for each parking location.

Table 33
Daily Parking Facility Rates Approvals
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport

	Approved by Council	Current
Terminal Garages		
T-2	$ 35.00	$ 26.00
T-3	35.00	27.00
T-4	35.00	27.00
T-2 Other	14.00	10.00/12.00
East Economy Garages	16.00	14.00
Economy Surface Lots		
West Economy	14.00	7.00
East Economy	14.00	12.00

Figure 23
Parking Facility Performance – 2018 and 2019
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport



Source: City of Phoenix Aviation Department, LeighFisher.

Employee Parking

Employee parking includes paid parking for approximately 12,000 permitted employees that are provided access to designated employee parking locations at Sky Harbor. Employee parking revenues were estimated at $9.3 million in FY 2019. Revenues are forecast assuming no change to the number of permitted employees and no change to employee parking rates during the Forecast Period.

Rental Car

Rental car revenues are derived from: (1) on-Airport concession agreements at Sky Harbor that specify the greater of 10% of revenues or minimum annual guarantees (MAGs) to be remitted over the term of a contract year ($34.5 million for FY 2019), and (2) ordinances requiring off-Airport rental car companies doing business at Sky Harbor to remit 7% of airport-derived revenues ($0.1 million for FY 2018).

On-Airport Concession Revenues. The City has on-Airport rental car concession agreements with the following fourteen rental car brands that are owned by six parent companies operating at Sky Harbor: Avis, Budget, Payless, Zipcar (owned by Avis Budget Group); Hertz, Dollar, Thrifty (owned by the Hertz Corp); Enterprise, National, Alamo (owned by Enterprise Holdings, Inc.); Advantage, E-Z (owned by Advantage OPCO, LLC); and Sixt and Fox which are independent. The prior concession agreements expired at the end of June 2017, and new agreements were executed extending through June 30, 2029 with the three major parent companies and through December 31, 2022 with an option to extend until December 31, 2027 with the other three. These concession agreements authorize the companies to operate automobile rental businesses at Sky Harbor subject to various conditions, including the payment of a concession fee equal to the greater of 10% of gross receipts or a minimum annual guarantee. The MAG for the majority of the brands is subject to automatic adjustment to the greater of 85% of the previous year's concession fees or the current MAG. The rental car agreements do not allow assignment in the event of consolidation, or reductions in minimum annual guarantee. (See Table 34)

Table 34
Rental Car Minimum Annual Guarantee
City of Phoenix Aviation Department
Phoenix Sky Harbor International Airport
(for contract year ending June 30; in thousands)

	2020
ABG TTL (Avis,Budget, Payless)	$ 8,849
Hertz (Hertz, Dollar, Thrifty)	9,309
EHI (Enterprise, National, Alamo)	11,812
Sixt	1,701
Fox	1,300
Advantage	1,576
Total	$ 34,547

On-Airport rental car concession revenues are forecast as a function of visitor enplaned passengers, rental car transactions, transaction days, rental car rates per transaction day, company market share, and MAGs. In FY 2018, rental car rates per transaction day were $50.11 per day on average, the average length of rental was 4.37 days, and there were 1.877 million transactions. In FY 2019, rental car rates per transaction day increased to $51.5 per day on average, the average length of rental decreased to 4.30 days, and transactions increased to 1.954 million (or 4.1%). Total Rental Car revenues are forecast at $45.0 million in FY 2020, then are forecast to increase 0.7% per year through FY 2023, then are forecast to increase approximately 1.8% per year through the remainder of the forecast.

Off-Airport Rental Car Revenues. Off-Airport rental car companies are subject to a 7% fee on the share of gross revenues derived from customers transported between Sky Harbor and the RCC. Revenues are forecast to increase with the rate of growth in visitor enplaned passengers.

Other Revenues

Other revenues include the following:

- Hangars, Land Rentals, and Building and Facility Rentals. Hangars, land, and building, and facilities are leased from the Airport by tenants including Greyhound Lines, JP Morgan Chase, FedEx, UPS, and various rental car companies doing business at the Airport. The leases are adjusted annually based on CPI. Hangar, Land Rental, and Building and Facility Rental revenues are assumed to continue to grow based on an assumed inflation rate ranging from 1.5% to 3.0% throughout the Forecast Period. Additional rental revenues as a result of the Police Hangar at DVT of $1.5 million are assumed beginning in FY 2022. The Airport assumes any new or expiring lease agreements will not have a material effect on future revenues.

- **Facility Lease Reimbursements.** The RCC sits within the Sky Harbor boundary on a 141-acre site west of the terminal buildings and has 5,613 ready/return garage spaces and a 113,000 square-foot customer service building. The facility houses on-Airport rental car companies at one location (including a parcel for small operators). Additionally, off-Airport rental car companies are required to transport Sky Harbor customers to and from the rental car center. Facility lease reimbursements are made by tenants pursuant to long term ground leases. The reimbursements are calculated annually by the Aviation Department to recover the costs of operating and maintaining the common areas of the rental car center. Reimbursements are forecast to increase at the base rate of growth in Operating and Maintenance expenses.

- **Other.** This minor category of revenue includes fuel sales, security badge fees, delinquent fees, certain fuel sales, recovery of damage claims, and other miscellaneous income.

Non-Operating Revenues

Non-operating revenues include the Rental Car busing reimbursement amounts and interest income. The busing service reimbursement is provided using available customer facility charge (CFC) funds and is forecast as a function of the operating expenses eligible for such reimbursement contained in the forecast Cost of Maintenance and Operation for a given year. Interest income is forecast based upon available fund balances at earnings rates of 1.0%.

Funding of the Busing Service Reimbursement

The CIC, on behalf of the City, issued the Rental Car Facility Charge Revenue Bonds, Series 2004, (CFC Bonds) for the rental car center project. As noted above under the section “Framework for Airport Financial System Operations” under the caption “Bonds and Other Obligations” and under the subsection “Special Revenue Obligations,” the CFC Bonds are not payable from Airport Revenues but are secured from a CFC imposed by City Council, paid by rental car customers, and remitted by rental car companies obtaining customers from Sky Harbor. Both on-Airport and off-Airport rental car companies are currently required to collect and remit a $6.00 CFC per transaction day.

The City deposits CFC receipts with a trustee for the benefit of the CFC Bonds. The total CFC receipts to be deposited during FY 2019 with the CFC trustee are estimated to be approximately $51.1 million. The CFC trustee uses the deposited CFC receipts and interest earnings thereon to pay debt service on the CFC Bonds, pay certain costs, make monthly transfers to the City to fund payment of the rental car busing service operating expenses described above in the “Cost of Maintenance and Operation” section, maintain reserves at their required balances, and fund certain related capital expenditures. The Aviation Department’s FY 2020 budget for Cost of Maintenance and Operation expenses contained rental car busing service operating expenses of $15.4 million, which are being reimbursed by the CFC trustee. This reimbursement is forecast to continue in the future and when rental car busing is no longer necessary with the implementation of the PHX Sky Train Stage 2, the reimbursement will be utilized for paying an allocable share of the PHX Sky Train Stage 2 operating costs.

The CFCs are pledged in priority to (1) certain incidental administrative costs, (2) debt service on CFC Bonds and related reserve funds, and (3) certain CFC-eligible operating expenses, generally related to the rental car buses or PHX Sky Train (described earlier) defined as Transportation O&M Expenses in the documents relating to the CFC Bonds, and (4) related reserve funds. Since the CFC Bonds are special obligations of the CIC secured by CFCs, the debt service is excluded from the Additional Bonds

Test, Junior Lien Additional Bonds Test, and Rate Covenant, and Junior Lien Rate Covenant calculations in this Report. Additional operating expenses, such as facility operations costs, are charged annually to the rental car companies using a cost-based methodology through the facility lease and are not reimbursed with CFCs.

The City plans to issue new Special Revenue Obligations to defease the Series 2004 Bonds and fund portions of PHX Sky Train Stage 2.

ACCOUNTING BASES

The Aviation Department, through the Aviation Enterprise fund within the City, reports its financial operations as a governmental enterprise in accordance with generally accepted accounting principles (GAAP) for governmental entities and the accrual basis of accounting.

Under the accrual basis of accounting, revenues and expenses are recognized and recorded when earned or incurred. Budgetary accounting is on a modified accrual basis plus encumbrances. Differences between the two bases of reporting include the treatment of (1) central service cost allocations; (2) encumbrances; (3) grant revenues; (4) investment income; and (5) reserves on fund balances. As a result, differences exist between the treatment of accounting transactions under the budgetary and accrual basis of accounting and some of the differences may be material.

This Report relies primarily upon the Bond Ordinance as a basis for presentation. Therefore, references to certain terms such as Cost of Maintenance and Operation, and Revenues, have meanings that are defined under the Bond Ordinance, which may be different than as set forth in GAAP. In certain cases, for the purposes of debt service coverage and rate covenant compliance, the City may rely upon Other Available Funds as defined in the Bond Ordinance, though not included in the definition of Revenues, essentially has an impact similar to a revenue in calculating debt service coverage and rate covenant compliance. For example, Other Available Funds may include grant funds that are not typically included as revenue under GAAP.

Additionally, while Airport Revenues as defined in the Bond Ordinance do not include CFC receipts, amounts reimbursed to the City by the CFC trustee to pay the rental car busing service operating expenses included as a Cost of Maintenance and Operation under the Bond Ordinance are included as Airport Revenues or Revenues.

The Bond Ordinance should be read in its entirety for an understanding of the defined terms as references contained in this Report do not purport to be comprehensive.

The Aviation Department's audited CAFR, Schedule 1, as adjusted to comply with the Bond Ordinance, is used as the best representation of historical Cost of Maintenance and Operation expenses and Revenues.

APPLICATION OF REVENUES

The Bond Ordinance in Section 2.2, and the 2010 Junior Lien City Purchase Agreement in Section 2.6 and pursuant to Section 2.5 of the 2015 Junior Lien City Purchase Agreement, Section 2.5 of the 2017 Junior Lien City Purchase Agreement, and Section 2.6 of the 2019 Junior Lien City Purchase Agreement, defines the application of Revenues with respect to priority and amount. The City is permitted by subsequent ordinance to establish additional funds or subaccounts relating to the payment of obligations subordinate in lien to the payment of the Senior Lien Obligations.

As depicted on Figure 24, the City is required to deposit all Revenues into the Revenue Fund and apply Revenues in the following amounts and order of priority:

1. Operation and Maintenance Fund. The City shall from time to time deposit into the Operation and Maintenance Fund amounts sufficient to pay the Cost of Maintenance and Operation.

2. Senior Bond Fund. The City shall deposit monthly into the Principal Account and the Interest Account of the Bond Fund amounts equal to the Principal Requirement and the Interest Requirement, respectively.

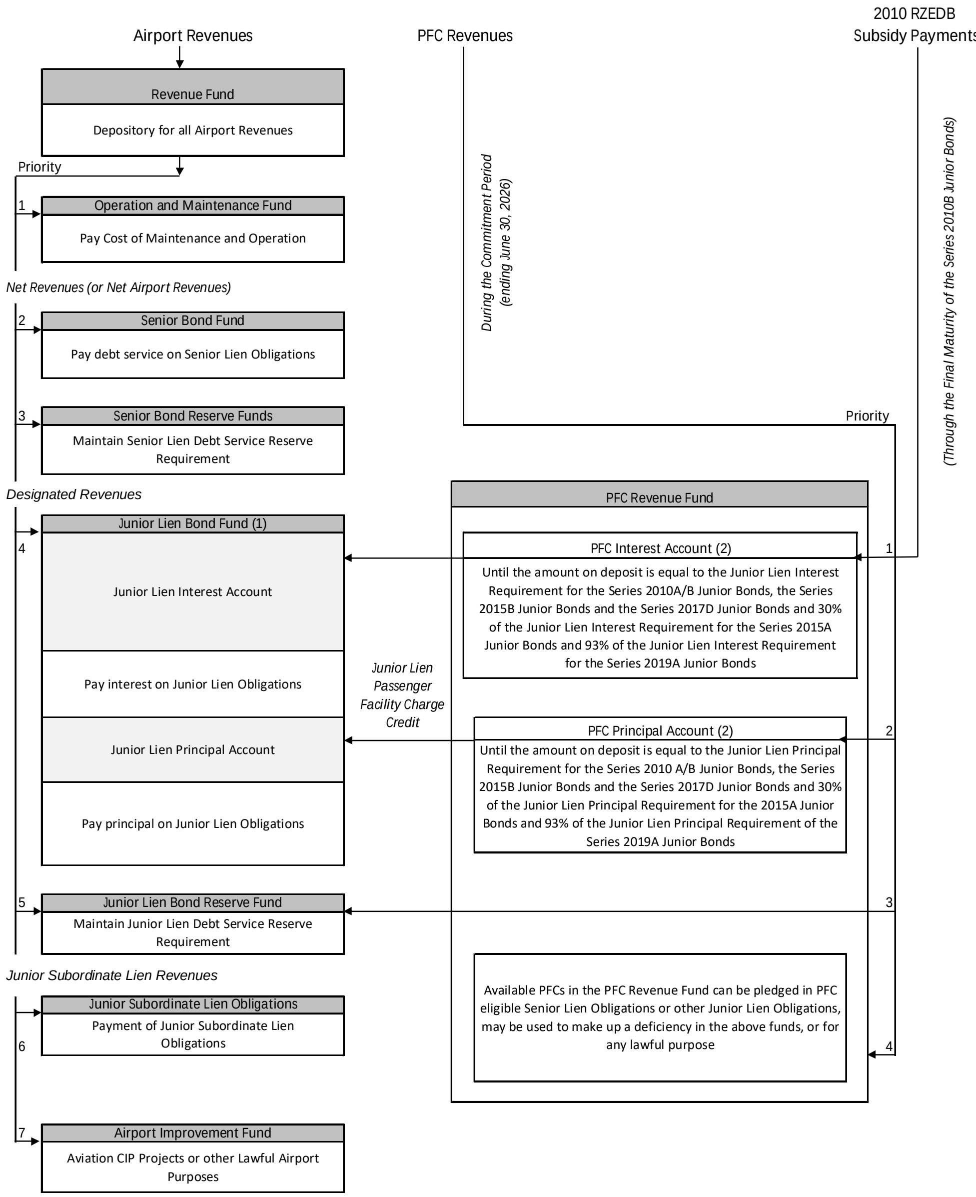
3. Senior Bond Reserve Funds. The City shall, from time to time, deposit into the Bond Reserve Fund and every separate bond reserve fund established for Senior Lien Obligations not secured by the Bond Reserve Fund, amounts then required to be deposited to the Bond Reserve Fund or any separate bond reserve fund.

4. Junior Bond Fund and Reserve Funds. In Section 2.4 of the 2010 Junior Lien City Purchase Agreement and pursuant to Section 2.3 of the 2015 Junior Lien City Purchase Agreement, Section 2.3 of the 2017 Junior Lien City Purchase Agreement, and Section 2.4 of the 2019 Junior Lien City Purchase Agreement, the City established a Junior Lien Bond Fund for the payment of Junior Lien Obligations, which contains a Junior Lien Interest Account and a Junior Lien Principal Account. The City shall deposit into the Junior Bond Funds the amounts necessary to pay Junior Lien Interest and Principal Requirements and make required reserve fund deposits after taking into account the Junior Lien Passenger Facility Charge Credit.

5. Junior Subordinate Lien Obligations. The City has not previously established a specific fund for payment of debt service on Junior Subordinate Lien Obligations, but Junior Subordinate Lien Revenues would be applied to such payment when due prior to deposit to the Airport Improvement Fund.

6. Airport Improvement Fund. The City may from time to time deposit into the Airport Improvement Fund such amounts as it determines. Amounts in the Airport Improvement Fund may be used for any lawful purpose. Under Section 2.6 of the Bond Ordinance, the City is allowed to pay obligations for general obligation bonds and lease or installment purchase agreements from the Airport Improvement Fund. Additionally, the Airport Improvement Fund is used to hold adequate discretionary reserves for Cost of Maintenance and Operation Expenses, internal Capital Reserves, and debt service reserves for Senior Lien Obligations (none required under the Ordinance).

Figure 24
Application of Revenues and PFC Revenues
Bond Ordinance and Junior Lien City Purchase Agreement
City of Phoenix Aviation Department



(1) PFC Revenues will be transferred to the 2010 Junior Lien Bond Reserve Fund, the Junior Lien Parity Reserve Fund and the 2015B Junior Lien Bond Reserve Fund to the extent amounts have been withdrawn to pay debt service on the Junior Lien Airport Revenue Bonds, Series 2010A (the "Series 2010A Junior Bonds"), the Series 2010B Junior Bonds, the Junior Lien Airport Revenue Bonds, Series 2015A (the "Series 2015A Junior Bonds"), the Junior Lien Airport Revenue Refunding Bonds, Series 2015B (the "Series 2015B Junior Bonds") and the Junior Lien Airport Revenue Refunding Bonds, Series 2017D (the "Series 2017D Junior Bonds") and the Series 2019A Junior Bonds, respectively.

(2) The PFC Interest Account and PFC Principal Account are accounts within the PFC Revenue Fund. Additionally, there is a Series 2010B Interest Subaccount of the PFC Interest Account where 2010 RZEDB Subsidy Payments are deposited for payment of interest on the 2010B Junior Bonds.

Source: City of Phoenix Aviation Department.

APPLICATION OF PFC REVENUES

In Section 2.4 of the Junior Lien City Purchase Agreement and pursuant to Section 2.5 of the 2010 Junior Lien City Purchase Agreement, the City established a PFC Revenue Fund, which contains a PFC Interest Account (including a Series 2010B Interest Subaccount) and a PFC Principal Account. Annually, the City shall deposit, during the Commitment Period, all PFC Revenues into the PFC Revenue Account for application in the following amounts and order of priority:

1. PFC Interest Account. The City shall deposit monthly into the PFC Interest Account of the PFC Revenue Fund until the amount on deposit is equal to 100% of the 2010 Junior Lien Interest Requirements with respect to the Series 2010A and Series B Junior Bonds, 30% of the Junior Lien Interest Requirements of the Series 2015A Junior Bonds, 100% of the Junior Lien Interest Requirements of the Series 2015B Junior Bonds, 100% of the Junior Lien Interest Requirements of the Series 2017D Junior Bonds for the then current Bond Year, and 93% of the Junior Lien Interest Requirements of the Series 2019A Junior Bonds.

2. PFC Principal Account. The City shall deposit monthly into the PFC Principal Account of the PFC Revenue Fund until the amount on deposit is equal to (i) the 2010 Junior Lien Principal Requirement with respect to the Series 2010A and Series 2010B Junior Bonds for the then current Bond Year and (ii) 30% of the Junior Lien Principal Requirements of the Series 2015A Junior Bonds, 100% of the Junior Lien Principal Requirements of the Series 2015B Junior Bonds, 100% of the Junior Lien Principal Requirements of the Series 2017D Junior Bonds and 93% of the Junior Lien Principal Requirements of the Series 2019A Junior Bonds.

3. 2010 Junior Lien Bond Reserve Fund, Junior Lien Parity Reserve Fund and 2015B Junior Lien Bond Reserve Fund. The City shall deposit monthly the amounts necessary to maintain the amount on deposit in the 2010 Junior Lien Bond Reserve Fund (Series 2010A, Series 2010B and Series 2010C Junior Bonds), the Junior Lien Parity Reserve Fund (Series 2015A and Series 2017D Junior Bonds) and the 2015B Junior Lien Bond Reserve Fund (Series 2015B and Series 2019 Junior Bonds) reserve requirement to the extent amounts have been withdrawn to pay debt service on Junior Bonds secured by that fund.

Additionally, to the extent PFC Revenues in any month exceed the requirements of the PFC Interest Account, the PFC Principal Account, the 2010 Junior Lien Bond Reserve Fund, the Junior Lien Parity Reserve Fund, and the 2015B Junior Lien Bond Reserve Fund, remaining PFCs may be applied to any other fund or account as permitted under the Junior Lien City Purchase Agreement or for any lawful purpose.

Amounts on deposit in the PFC Interest Account and the PFC Principal Account shall be transferred to the Junior Lien Bond Fund to pay Junior Lien Interest Requirements and Junior Lien Principal Requirements, respectively, as provided for in Section 2.4 of the 2010 Junior Lien City Purchase Agreement, pursuant to Section 2.3 of the 2015 Junior Lien City Purchase Agreement and pursuant to Section 2.3 of the 2017 Junior Lien City Purchase Agreement.

As described in Section 5.3 of the Junior Lien Bond Indentures, payments transferred to the Junior Lien Bond Fund shall be applied in the following manner and order of priority:

1. 2010/2019 Junior Lien Interest Accounts. The Bond Trustee shall deposit in December and June an amount equal to the interest to be paid on the Outstanding 2010/2019 Junior Bonds as it becomes due.

2. 2010/2019 Junior Lien Principal Accounts. The Bond Trustee shall deposit in June of each year in each Bond Year in which 2010/2015/2017/2019 Junior Bonds mature or are subject to mandatory redemption an amount equal to the principal amount at maturity plus an amount equal to any mandatory sinking fund redemption requirements.

3. 2010/2015/2017/2019 Junior Lien Redemption Accounts. Optional prepayments made by the City of any installment of principal that is to be applied to redeem 2010/2015/2017/2019 Junior Bonds shall be credited to the Junior Lien Redemption Account.

2010 RZEDB Subsidy Payments are to be deposited to the Series 2010B Subaccount of the PFC Interest Account and applied to interest on the Series 2010B Junior Bonds.

Exhibit G presents the application of Revenues during the Forecast Period.

DEBT SERVICE COVERAGE AND RATE COVENANT COMPLIANCE

Debt service coverage and rate covenant compliance are discussed below for Senior Lien Obligations and Junior Lien Obligations.

Senior Lien Obligations

In Section 4.3 of the Bond Ordinance (the Rate Covenant), the City covenants that "it will in each Fiscal Year establish, maintain and enforce schedules of rates, fees and charges for the use of the Airport (i) sufficient to produce Net [Airport] Revenues at least equal to 125% of the amount required to be paid into the Bond Fund from the Revenue Fund, net of Other Available Funds deposited in the Bond Fund, in such Fiscal Year and net of any Passenger Facility Charge Credit applicable to such Fiscal Year…and (ii) sufficient to produce amounts required to be deposited in the Bond Reserve Fund and any separate bond reserve fund for such Fiscal Year."

Exhibit H demonstrates satisfaction of the Rate Covenant during the Forecast Period.

Junior Lien Obligations

In Section 4.6(b) of the Junior Lien City Purchase Agreements, the City covenants that "it will in each Fiscal Year establish, maintain, and enforce schedules of rates, fees, and charges for the use of the Airport (i) sufficient to produce Designated Revenues at least equal to 110% of the amount required to be paid into the Junior Lien Bond Fund from the Revenue Fund, net of Other Available Funds deposited in the Junior Lien Bond Fund, in such Fiscal Year after subtracting any Junior Lien Passenger Facility Charge Credit applicable to such Fiscal Year"…"and (ii) sufficient to produce amounts required to be deposited in the 2010 Junior Lien Bond Reserve Fund and any separate reserve fund for the Junior Lien Obligations for such Fiscal Year."

Exhibit H demonstrates satisfaction of the Junior Lien Rate Covenant during the Forecast Period.

STRESS TEST FINANCIAL PROJECTIONS

Exhibit I-1 summarizes forecast financial results through FY 2026 as presented in Exhibits A through H and discussed in the preceding sections. Revenues were estimated assuming the baseline forecasts of enplaned passengers and aircraft landed weight presented in Tables 21-23 in the earlier chapter. (See the chapter "Airline Traffic Analysis" and caption "Airline Traffic Forecasts" and the subsection "Enplaned Passenger Forecast.")

Exhibit I-2 summarizes projected financial results through FY 2026 associated with the stress test passenger forecasts of enplaned passengers and aircraft landed weight presented in Table 24. (See the chapter "Airline Traffic Analysis" and caption "Airline Traffic Forecasts" and the subsection "Stress Test Forecast.") All assumptions underlying the stress scenario financial projections are the same as those for the baseline financial forecasts, except revenues forecast based on passenger numbers, such as PFC revenues, concession revenues, parking revenues, and rental car revenues. If such a scenario were to occur, the Aviation Department could evaluate additional actions such as facility closure(s), revisions to the Aviation CIP, or increases to non-airline revenues. Notwithstanding the reduced passenger traffic, no adjustment is made to the estimated funding plan or the Aviation CIP though the Airport would likely defer or delay spending, especially on projects funding with internal cash or PFCs in order to sustain fund balances.

Under the stress test scenario, the Aviation Department is able to satisfy the requirements of the Rate Covenant and Junior Lien Rate Covenant.

Exhibit A-1

ESTIMATED COSTS AND CASH FLOW
AVIATION CAPITAL IMPROVEMENT PROGRAM
CITY OF PHOENIX AVIATION DEPARTMENT
(Fiscal Years ending June 30; in thousands)

Group Category	Total Costs (incl. prior)	Subtotal '20-'26	Prior	2020	2021	2022	2023	2024	2025	2026
Major Capital Projects /1										
Terminal 3 Modernization	$ 580,000	$ 92,279	$ 487,721	$ 92,279	$ -	$ -	$ -	$ -	$ -	$ -
Terminal 4 Concourse S1	310,000	292,018	17,982	76,351	142,848	72,819	-	-	-	-
PHX Sky Train Stage 2	745,000	518,368	226,632	314,877	150,742	29,677	23,073	-	-	-
UPRR Trench - Phase 1	220,000	220,000	-	-	73,333	73,333	73,333	-	-	-
Terminal 3 2nd North Concourse	180,000	180,000	-	-	-	-	60,000	60,000	60,000	-
Subtotal Major Capital Projects	$ 2,035,000	$ 1,302,666	$ 732,334	$ 483,508	$ 366,923	$ 175,829	$ 156,406	$ 60,000	$ 60,000	$ -
Other Capital Projects ('20-'24)										
Development Studies	$ 5,150	$ 5,150		$ 5,150	$ -	$ -	$ -	$ -	$ -	$ -
Fire Department	2,300	2,300		2,300	-	-	-	-	-	-
General Aviation	140	140		140	-	-	-	-	-	-
Infrastructure	3,438	3,438		3,438	-	-	-	-	-	-
Land Acquisition	1,219	1,219		1,219	-	-	-	-	-	-
Parking Facilities	6,859	6,859		6,859	-	-	-	-	-	-
Roadways	616	616		616	-	-	-	-	-	-
Runway and Taxiway Improvements	106,657	106,657		69,774	20,366	6,731	3,100	6,686	-	-
Security Facilities	693	693		693	-	-	-	-	-	-
Terminal 2	26,127	26,127		2,200	700	23,227	-	-	-	-
Terminal 3	1,036	1,036		1,036	-	-	-	-	-	-
Terminal 4	5,332	5,332		5,332	-	-	-	-	-	-
Deer Valley Airport	54,139	54,139		41,659	12,479	-	-	-	-	-
Goodyear Airport	21,173	21,173		11,240	7,330	232	2,370	-	-	-
Phoenix-Mesa Gateway Airport	3,900	3,900		1,300	1,300	1,300	-	-	-	-
Other Miscellaneous and Contingency	120,134	120,134		24,900	15,166	31,274	28,194	20,600	-	-
Subtotal Other Capital Projects	$ 358,912	$ 358,912		$ 177,857	$ 57,341	$ 62,764	$ 33,664	$ 27,286	$ -	$ -
Additional Contingency	$ 85,900	$ 85,900		$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 30,000	$ 30,900
Other CAMP /1	$ 193,224	$ 193,224		$ 31,294	$ 45,985	$ 45,985	$ 34,980	$ 34,980	$ -	$ -
Total All Projects	$ 2,673,036	$ 1,940,702	$ 732,334	$ 697,658	$ 475,249	$ 289,578	$ 230,050	$ 127,267	$ 90,000	$ 30,900

Source: City of Phoenix Aviation Department.

Note: 1. The Comprehensive Asset Management Plan (CAMP) is a multiyear development plan that extends beyond the forecast period; therefore, a partial list of projects is included as described in the accompanying text. Certain "Major Capital Projects" are separately identified and are also included in the CAMP.

Exhibit A-2

PLANNED FUNDING
AVIATION CAPITAL IMPROVEMENT PROGRAM
CITY OF PHOENIX AVIATION DEPARTMENT
(in thousands)

Group / Category	Total	Grants	PFC Paygo	CFC Paygo and 2019 CFC Bonds	Prior Bonds	Series 2019 Junior / Improvement Bonds	Future Bonds	Private Funding	Airport Improvement Fund
Major Capital Projects /1									
Terminal 3 Modernization	$ 580,000	$ -	$ 68,000	$ -	$ 432,000	$ 80,000	$ -	$ -	$ -
Terminal 4 Concourse S1	310,000	-	-	-	-	310,000	-	-	-
PHX Sky Train Stage 2	745,000	-	130,000	273,000	-	342,000	-	-	-
UPRR Trench - Phase 1	220,000	55,000	55,000	-	-	-	110,000	-	-
Terminal 3 2nd North Concourse	180,000	-	63,000	-	-	-	117,000	-	-
Subtotal Major Capital Projects	$ 2,035,000	$ 55,000	$ 316,000	$ 273,000	$ 432,000	$ 732,000	$ 227,000	$ -	$ -
Other Capital Projects ('20-'24)									
Development Studies	$ 5,150	$ -	$ 264	$ -	$ -	$ -	$ -	$ -	$ 4,886
Fire Department	2,300	-	-	-	-	-	-	-	2,300
General Aviation	140	-	-	-	-	-	-	-	140
Infrastructure	3,438	-	-	-	-	-	-	-	3,438
Land Acquisition	1,219	-	-	-	-	-	-	-	1,219
Parking Facilities	6,859	-	-	572	-	-	-	-	6,288
Roadways	616	-	-	-	-	-	-	-	616
Runway and Taxiway Improvements	106,657	71,101	30,600	-	-	-	-	-	4,956
Security Facilities	693	79	223	-	-	-	-	-	391
Terminal 2	26,127	-	-	-	-	-	-	-	26,127
Terminal 3	1,036	773	-	-	-	-	-	-	262
Terminal 4	5,332	-	-	-	-	-	-	-	5,332
Deer Valley Airport	54,139	25,827	-	-	-	25,000	-	-	3,312
Goodyear Airport	21,173	18,576	-	-	-	-	-	-	2,597
Phoenix-Mesa Gateway Airport	3,900	-	-	-	-	-	-	-	3,900
Other Miscellaneous and Contingency	120,134	77,945	12,262	2,500	-	-	-	-	27,426
Subtotal Other Capital Projects	$ 358,912	$ 194,301	$ 43,349	$ 3,072	$ -	$ 25,000	$ -	$ -	$ 93,190
Additional Contingency	$ 85,900	$ -	$ 25,300	$ -	$ -	$ -	$ -	$ -	$ 60,600
Other CAMP /1	$ 193,224	$ 61,195	$ -	$ -	$ -	$ -	$ -	$ 10,761	$ 121,269
Total Capital Projects	$ 2,673,036	$ 310,496	$ 384,649	$ 276,072	$ 432,000	$ 757,000	$ 227,000	$ 10,761	$ 275,059

Source: City of Phoenix Aviation Department.
Note: 1. The Comprehensive Asset Management Plan (CAMP) is a multiyear development plan that extends beyond the forecast period; therefore, a partial list of projects is included as described in the accompanying text. Certain "Major Capital Projects" are separately identified and are also included in the CAMP.

Exhibit B

PLAN OF FINANCE
CITY OF PHOENIX AVIATION DEPARTMENT
(in thousands)

	Series 2019 Junior Bonds /1							Future Senior Bonds /2	
	Series 2019A (Non-AMT)			Series 2019B (AMT)			Series 2019C (Taxable)		
	PHX Sky Train Stage 2	Police Hangar	Total	Terminal 4 Concourse S1	Terminal 3 Modernization	Total	2010C Refunding	UPRR Trench Phase 1	Terminal 3 2nd North Concourse
SOURCES OF FUNDS									
Par Amount of Bonds	$ 314,045	$ 22,955	$ 337,000	$ 325,870	$ 74,425	$ 400,295	$ 29,975	$ 128,300	$ 141,410
Premium / (Discount)	53,234	3,891	57,125	51,785	11,495	63,279	-	-	-
Reserve Fund Release	-	-	-	-	-	-	5,118	-	-
Debt Service Fund Release	-	-	-	-	-	-	713	-	-
Total All Sources	$ 367,279	$ 26,846	$ 394,125	$ 377,655	$ 85,920	$ 463,574	$ 35,806	$ 128,300	$ 141,410
USES OF FUNDS									
Project Fund Deposit	$ 342,000	$ 25,000	$ 367,000	$ 310,000	$ 80,000	$ 390,000	$ -	$ 110,000	$ 117,000
Escrow Deposit	-	-	-	-	-	-	33,343	-	-
Parity Reserve Fund Deposit	22,764	1,664	24,428	23,408	5,325	28,733	2,219	9,443	10,407
Capitalized Interest Fund Deposit	-	-	-	41,639	-	41,639	-	7,698	12,727
Cost of Issuance	2,514	182	2,696	2,608	594	3,202	244	1,159	1,276
Total Uses of Funds	$ 367,279	$ 26,846	$ 394,125	$ 377,655	$ 85,920	$ 463,574	$ 35,806	$ 128,300	$ 141,410

Source: City of Phoenix Aviation Department; Frasca & Associates.
Notes: 1. Interest rates as of September 20, 2019 plus 50 basis points.
2. Interest rate of 6.00%.

Exhibit C

DEBT SERVICE
CITY OF PHOENIX AVIATION DEPARTMENT
(Fiscal Years ending June 30; in thousands)

The forecasts presented in this exhibit were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

	Historical 2017	2018	Estimate 2019	Forecast 2020	2021	2022	2023	2024	2025	2026
Revenue Bond Obligations										
Senior Lien Obligations										
Existing Senior Lien Obligations	$ 48,797	$ 55,179	$ 55,957	$ 68,627	$ 59,765	$ 59,765	$ 58,122	$ 58,135	$ 58,130	$ 58,137
Future Senior Lien Obligations										
UPRR Trench - Phase 1 /1	-	-	-	-	-	-	-	9,443	9,438	9,443
Terminal 3 2nd North Concourse /2	-	-	-	-	-	-	-	-	-	10,405
Total Senior Lien Obligations	$ 48,797	$ 55,179	$ 55,957	$ 68,627	$ 59,765	$ 59,765	$ 58,122	$ 67,578	$ 67,568	$ 77,984
Junior Lien Obligations										
2010 Junior Lien Obligations (incl. 2017 adv. ref.)										
Series 2010A / 2017D Advance Refunding	$ 42,458	$ 40,867	$ 39,443	$ 39,439	$ 38,330	$ 38,331	$ 38,328	$ 38,329	$ 38,332	$ 38,334
Series 2010B	1,409	1,409	1,409	1,409	1,409	1,409	1,409	1,409	1,409	1,409
Series 2010C / 2019C Refunding	1,604	1,604	1,604	1,174	830	830	10,555	10,556	10,561	-
Subtotal 2010 / 2017D Junior Lien Obligations	$ 45,471	$ 43,880	$ 42,455	$ 42,022	$ 40,569	$ 40,570	$ 50,292	$ 50,294	$ 50,301	$ 39,743
2015 Junior Lien Obligations										
Series 2015A Junior Improvement Bonds	$ 6,184	$ 6,187	$ 6,186	$ 6,186	$ 6,187	$ 6,184	$ 6,186	$ 6,183	$ 6,185	$ 6,186
Series 2015B Junior Refunding Bonds	-	933	933	933	933	933	933	933	933	933
Subtotal 2015 Junior Lien Obligations	$ 6,184	$ 7,120	$ 7,119	$ 7,119	$ 7,120	$ 7,117	$ 7,119	$ 7,116	$ 7,118	$ 7,119
2019 Junior Lien Obligations										
Series 2019A (Non-AMT)										
PHX Sky Train Stage 2	$ -	$ -	$ -	$ 8,723	$ 15,702	$ 15,702	$ 15,702	$ 15,702	$ 15,702	$ 15,702
Police Hangar (DVT)	-	-	-	638	1,148	1,148	1,148	1,148	1,148	1,148
Subtotal Series 2019A (Non-AMT)	$ -	$ -	$ -	$ 9,361	$ 16,850	$ 16,850	$ 16,850	$ 16,850	$ 16,850	$ 16,850
Series 2019B (AMT)										
Terminal 4 Concourse S1	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,254	$ 22,256	$ 22,253	$ 22,254
Terminal 3 Modernization	-	-	-	2,707	4,874	4,875	4,873	4,873	4,874	4,872
Subtotal Series 2019B (AMT)	$ -	$ -	$ -	$ 2,707	$ 4,874	$ 4,875	$ 27,126	$ 27,128	$ 27,127	$ 27,126
Subtotal 2019 Junior Lien Obligations	$ -	$ -	$ -	$ 12,068	$ 21,724	$ 21,725	$ 43,976	$ 43,978	$ 43,977	$ 43,976
Total Junior Lien Obligations	$ 51,654	$ 50,999	$ 49,574	$ 61,210	$ 69,413	$ 69,411	$ 101,387	$ 101,388	$ 101,395	$ 90,838
Other Airport Bond Obligations / General Obligation Bonds	$ 197	$ 197	$ 4,717	$ 3,428	$ -	$ -	$ -	$ -	$ -	$ -
Total Bond Obligations	$ 100,648	$ 106,376	$ 110,248	$ 133,264	$ 129,178	$ 129,176	$ 159,509	$ 168,965	$ 168,964	$ 168,822
Summary										
Senior Lien Obligations (including future obligations)	$ 48,797	$ 55,179	$ 55,957	$ 68,627	$ 59,765	$ 59,765	$ 58,122	$ 67,578	$ 67,568	$ 77,984
Junior Lien Obligations (including future obligations)	51,654	50,999	49,574	61,210	69,413	69,411	101,387	101,388	101,395	90,838
Other Airport Bond Obligations / General Obligation Bonds	197	197	4,717	3,428	-	-	-	-	-	-
Total Bond Obligations	$ 100,648	$ 106,376	$ 110,248	$ 133,264	$ 129,178	$ 129,176	$ 159,509	$ 168,965	$ 168,964	$ 168,822

Source: City of Phoenix Aviation Department; Frasca & Associates.
Notes: 1. For the purposes of this forecast future bonds issued for the UPRR Trench - Phase 1 and Terminal 3 2nd North Concourse are assumed to be in parity with Senior Bonds.
2. Includes debt service in FY 2026.

Exhibit D

APPLICATION AND USE OF PASSENGER FACILITY CHARGE (PFC) REVENUES
CITY OF PHOENIX AVIATION DEPARTMENT
(Fiscal Years ending June 30; in thousands except for per passenger fees)

The forecasts presented in this exhibit were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

	% PFC Applied to Debt Service	Historical 2017	2018	Estimate 2019	Forecast 2020	2021	2022	2023	2024	2025	2026
PFC collections and PFC debt service											
Enplaned passengers		21,820	22,219	22,832	23,325	23,625	23,925	24,225	24,525	24,825	25,125
Multiplied by: Percent of PFC eligible passengers /1		87.3%	86.0%	85.5%	85.5%	85.5%	85.5%	85.5%	85.5%	85.5%	85.5%
PFC eligible enplaned passengers		19,043	19,116	19,527	19,943	20,199	20,456	20,712	20,969	21,225	21,482
PFC per passenger fee		$ 4.50	$ 4.50	$ 4.50	$ 4.50	$ 4.50	$ 4.50	$ 4.50	$ 4.50	$ 4.50	$ 4.50
Less: PFC airline collection fee		0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
Net PFC per passenger fee		$ 4.39	$ 4.39	$ 4.39	$ 4.39	$ 4.39	$ 4.39	$ 4.39	$ 4.39	$ 4.39	$ 4.39
PFC Collections (or passenger fees)		$ 83,600	83,917	$ 85,724	$ 87,549	$ 88,675	$ 89,801	$ 90,927	$ 92,053	$ 93,179	$ 94,305
PFC applied to Debt Service											
2010 Junior Lien Obligations (incl. 2017 adv. ref.)											
Series 2010A / 2017D Advance Refunding	100%	$ (42,458)	$ (40,867)	$ (39,443)	$ (39,439)	$ (38,330)	$ (38,331)	$ (38,328)	$ (38,329)	$ (38,332)	$ (38,334)
Series 2010B (Net of 2010 RZEDB Subsidy Payments)	100%	(819)	(817)	(814)	(812)	(812)	(812)	(812)	(812)	(812)	(812)
Subtotal 2010 Junior Lien Obligations		$ (43,276)	$ (41,684)	$ (40,257)	$ (40,252)	$ (39,142)	$ (39,143)	$ (39,140)	$ (39,141)	$ (39,144)	$ (39,146)
2015 Junior Lien Obligations											
Series 2015A Junior Improvement Bonds	30%	$ (1,855)	$ (1,856)	$ (1,856)	$ (1,856)	$ (1,856)	$ (1,855)	$ (1,856)	$ (1,855)	$ (1,855)	$ (1,856)
Series 2015B Junior Refunding Bonds	100%	-	(933)	(933)	(933)	(933)	(933)	(933)	(933)	(933)	(933)
Subtotal 2015 Junior Lien Obligations		$ (1,855)	$ (2,789)	$ (2,789)	$ (2,789)	$ (2,789)	$ (2,788)	$ (2,788)	$ (2,788)	$ (2,788)	$ (2,789)
2019 Junior Lien Obligations - Series 2019A (Non-AMT)	93%	$ -	$ -	$ -	$ (8,723)	$ (15,702)	$ (15,702)	$ (15,702)	$ (15,702)	$ (15,702)	$ (15,702)
PFC collections net of debt service		$ 38,468	$ 39,445	$ 42,678	$ 35,785	$ 31,042	$ 32,168	$ 33,296	$ 34,422	$ 35,545	$ 36,668
Application and use of net PFCs											
PFC Fund beginning balance					$ 28,879	$ 30,057	$ 27,036	$ 37,339	$ 28,385	$ 35,660	$ 40,294
Deposits											
PFC collections net of debt service					$ 35,785	$ 31,042	$ 32,168	$ 33,296	$ 34,422	$ 35,545	$ 36,668
Interest Income					89	78	80	83	86	89	92
Total Deposits					$ 35,875	$ 31,119	$ 32,248	$ 33,379	$ 34,508	$ 35,634	$ 36,760
Withdrawals											
Pay-as-you-go expenditures											
Major Capital Projects											
PHX Sky Train Stage 2 (PFC 6)					$ (15,000)	$ -	$ -	$ -	$ -	$ -	$ -
UPRR Trench - Phase 1					-	(18,333)	(18,333)	(18,333)	-	-	-
Terminal 3 2nd North Concourse					-	-	-	(21,000)	(21,000)	(21,000)	-
Subtotal Major Capital Projects					$ (15,000)	$ (18,333)	$ (18,333)	$ (39,333)	$ (21,000)	$ (21,000)	$ -
Other Capital Projects											
PFC 7					$ (2,850)	$ (5,950)	$ (1,134)	$ -	$ -	$ -	$ -
PFC 8					(4,681)	(500)	(500)	(500)	(3,733)	-	-
PFC 9					(11,254)	(1,233)	(752)	-	-	-	-
Future Applications and Additional Contingency					(912)	(8,124)	(1,226)	(2,500)	(2,500)	(10,000)	(10,300)
Subtotal Other Capital Projects					$ (19,697)	$ (15,807)	$ (3,612)	$ (3,000)	$ (6,233)	$ (10,000)	$ (10,300)
Total Withdrawals					$ (34,697)	$ (34,140)	$ (21,945)	$ (42,333)	$ (27,233)	$ (31,000)	$ (10,300)
PFC Fund ending balance			$ 71,861	$ 28,879	$ 30,057	$ 27,036	$ 37,339	$ 28,385	$ 35,660	$ 40,294	$ 66,753

Source: City of Phoenix Aviation Department and LeighFisher.
Notes: 1. Imputed from enplaned passengers, net PFC rate, and total PFC collections for historical years. Timing variances exist between when PFCs are collected by airlines and when they are remitted to the airport, which can result in annual fluctuations of PFC collections and percent eligible passengers.

Exhibit E

EXPENSES
CITY OF PHOENIX AVIATION DEPARTMENT
(Fiscal Years ending June 30; in thousands)

The forecasts presented in this exhibit were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

	Historical 2017	2018	Estimate 2019	Budget 2020	Forecast 2021	2022	2023	2024	2025	2026
Cost of Maintenance and Operation /1										
Base Expenses										
Personal Services /2	$ 116,353	$ 121,218	$ 125,184	$ 132,065	$ 124,003	$ 127,443	$ 131,267	$ 135,205	$ 139,261	$ 143,439
Contractual Services	113,745	113,318	116,721	127,338	131,158	135,093	139,145	143,320	147,619	152,048
Supplies	12,070	11,216	11,850	12,108	12,471	12,845	13,231	13,628	14,036	14,457
Equipment/Minor Improvements and Other Services	2,948	3,861	3,590	3,384	3,485	3,590	3,697	3,808	3,923	4,040
Subtotal Base Expenses	$ 245,116	$ 249,613	$ 257,345	$ 274,894	$ 271,117	$ 278,971	$ 287,340	$ 295,960	$ 304,839	$ 313,984
% Growth	6.5%	1.8%	3.1%	6.8%	-1.4%	2.9%	3.0%	3.0%	3.0%	3.0%
Incremental Expenses (Savings)										
Terminal 2 Closure	$ -	$ -	$ -	$ -	$ (4,000)	$ (4,116)	$ (4,239)	$ (4,367)	$ (4,585)	$ (4,814)
Terminal 4 Concourse S1	-	-	-	-	-	2,500	5,150	5,305	5,570	5,848
CAMP projects /3	-	-	-	-	-	-	-	-	5,919	12,312
Subtotal Incremental Expenses	$ -	$ -	$ -	$ -	$ (4,000)	$ (1,616)	$ 911	$ 938	$ 6,904	$ 13,346
Total Expenses	$ 245,116	$ 249,613	$ 257,345	$ 274,894	$ 267,117	$ 277,355	$ 288,251	$ 296,898	$ 311,743	$ 327,330
% Growth	6.5%	1.8%	3.1%	6.8%	-2.8%	3.8%	3.9%	3.0%	5.0%	5.0%
Rates and Charges Operating Budget and Forecast										
Total Expenses				$ 274,894	$ 267,117	$ 277,355	$ 288,251	$ 296,898	$ 311,743	$ 327,330
Central Services Staff and Administration				10,497	10,707	10,921	11,140	11,362	11,590	11,821
Pension Contribution Adjustment				-	12,832	12,832	12,832	12,832	12,832	12,832
Less: Equipment/Minor Improvements and Other Services				(3,384)	(3,485)	(3,590)	(3,697)	(3,808)	(3,923)	(4,040)
Rates and Charges Operating Budget and Forecast				$ 282,007	$ 287,171	$ 297,518	$ 308,525	$ 317,284	$ 332,242	$ 347,943
Rates and Charges Operating Budget and Forecast - Allocation by Cost Center										
Terminal 2				$ 15,151	$ -	$ -	$ -	$ -	$ -	$ -
Terminal 3				21,889	23,997	24,652	25,351	26,070	27,297	28,586
Terminal 4				82,606	90,558	95,533	100,818	103,686	108,584	113,726
Subtotal Terminals				$ 119,646	$ 114,554	$ 120,185	$ 126,168	$ 129,755	$ 135,882	$ 142,312
Runways				34,950	37,158	38,173	39,255	40,368	42,269	44,265
Apron				7,158	7,611	7,818	8,040	8,268	8,657	9,066
SR Channel				882	937	963	990	1,018	1,066	1,117
West Air Cargo				2,031	2,160	2,219	2,281	2,346	2,457	2,573
South Air Cargo				2,209	2,348	2,412	2,481	2,551	2,671	2,797
All Other				115,131	122,403	125,748	129,310	132,977	139,240	145,814
Total				$ 282,007	$ 287,171	$ 297,518	$ 308,525	$ 317,284	$ 332,242	$ 347,943

Source: City of Phoenix Aviation Department and LeighFisher.

Notes:
1. Includes Transportation O&M Expenses for Rental Car busing reimbursed using available CFC revenues.
2. The City plans to fund certain pension obligations in FY 2021 which are forecast to result in personal services reductions; however, for the purposes of Airline rates and charges the payment of said pension obligations will be amortized over 25 years.
3. In fiscal year 2025 and fiscal year 2026 the City assumes total expenses will grow 5% (3% growth in base expenses and 2% for CAMP projects).

Exhibit F

REVENUES
CITY OF PHOENIX AVIATION DEPARTMENT
(Fiscal Years ending June 30; in thousands)

The forecasts presented in this exhibit were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

	Historical 2017	2018	Estimate 2019	Forecast 2020	2021	2022	2023	2024	2025	2026
Operating Revenues										
Landing and Terminal Fees										
Airline Landing Fees	$ 49,889	$ 52,090	$ 50,149	$ 54,167	$ 55,456	$ 56,517	$ 59,278	$ 64,958	$ 67,549	$ 68,971
Airline Terminal Fees	73,086	81,245	83,758	92,221	89,898	94,415	110,666	112,417	115,822	124,522
Subtotal Airline Landing and Terminal Revenues	$ 122,975	$ 133,334	$ 133,906	$ 146,388	$ 145,354	$ 150,932	$ 169,944	$ 177,375	$ 183,371	$ 193,493
Baggage System Fees	3,140	3,870	5,117	5,423	5,348	5,503	5,669	5,839	6,014	6,194
Jetway Rental	719	703	702	702	702	702	702	702	702	702
Common Use	5,660	6,965	7,030	7,559	7,091	8,091	9,319	9,586	9,997	10,869
FIS Fees	1,557	2,219	2,258	2,329	2,359	2,389	2,419	2,449	2,479	2,509
Total Airline Revenues	$ 134,052	$ 147,091	$ 149,013	$ 162,402	$ 160,854	$ 167,618	$ 188,052	$ 195,951	$ 202,563	$ 213,767
Nonairline Terminal Revenues	35,534	36,976	39,166	40,061	40,627	41,195	41,766	42,338	42,913	43,490
Misc. Other Landing and Terminal Fees	15,328	15,843	16,657	16,399	16,912	17,441	17,985	18,546	19,123	19,718
Total Landing and Terminal Fees	$ 184,914	$ 199,909	$ 204,835	$ 218,862	$ 218,393	$ 226,254	$ 247,803	$ 256,835	$ 264,599	$ 276,975
Ground Transportation										
Parking (Public and Employee)	$ 84,171	$ 87,948	$ 90,687	$ 90,255	$ 90,510	$ 96,846	$ 97,536	$ 98,280	$ 99,012	$ 99,732
Car Rentals	41,885	41,716	43,884	45,019	45,355	45,691	46,020	46,834	47,656	48,485
Total Parking and Car Rentals	$ 126,056	$ 129,664	$ 134,571	$ 135,274	$ 135,866	$ 142,537	$ 143,556	$ 145,114	$ 146,668	$ 148,216
Other Ground Transportation Revenues	5,340	8,776	9,213	10,389	26,649	28,123	29,628	30,023	30,419	30,814
Total Ground Transportation	$ 131,396	$ 138,440	$ 143,784	$ 145,663	$ 162,515	$ 170,661	$ 173,184	$ 175,137	$ 177,086	$ 179,030
Other Revenues										
Hangars	$ 3,922	$ 4,079	$ 4,198	$ 4,324	$ 4,454	$ 6,088	$ 6,225	$ 6,367	$ 6,513	$ 6,664
Land Rental	11,084	18,209	14,110	14,533	15,169	16,156	18,140	18,677	19,230	19,799
Building and Facility Rentals	5,673	3,281	3,263	2,945	3,034	3,125	3,219	3,315	3,415	3,517
Facility Lease Reimbursement (RCC)	8,044	8,140	8,833	7,833	7,725	7,949	8,188	8,433	8,686	8,947
Other	5,440	6,811	6,968	6,742	6,814	6,908	7,005	7,106	7,210	7,316
Total Other Revenues	$ 34,163	$ 40,520	$ 37,372	$ 36,378	$ 37,196	$ 40,225	$ 42,777	$ 43,899	$ 45,053	$ 46,242
Total Operating Revenues	$ 350,474	$ 378,869	$ 385,992	$ 400,903	$ 418,105	$ 437,140	$ 463,763	$ 475,871	$ 486,739	$ 502,247
Interest Income	4,177	7,019	9,241	4,184	4,827	5,162	5,737	6,285	6,859	7,440
Total Revenues prior to RCC Reimbursement	$ 354,651	$ 385,888	$ 395,233	$ 405,086	$ 422,932	$ 442,302	$ 469,500	$ 482,156	$ 493,598	$ 509,687
RCC Busing Service Reimbursement /1	16,190	15,309	15,142	15,489	16,264	16,735	17,237	17,754	18,642	19,574
Total Revenues	$ 370,841	$ 401,197	$ 410,375	$ 420,575	$ 439,196	$ 459,037	$ 486,738	$ 499,910	$ 512,240	$ 529,261

Source: City of Phoenix Aviation Department and LeighFisher.

Notes: 1. Reimbursement of Transportation O&M Expenses for Rental Car busing using available CFC revenues.

Exhibit F-1

AIRLINE REVENUES AND COST PER ENPLANED PASSENGER
CITY OF PHOENIX AVIATION DEPARTMENT
(Fiscal Years ending June 30; in thousands except CPE)

The forecasts presented in this exhibit were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

	Budget 2020	Forecast 2021	2022	2023	2024	2025	2026
Airline Revenues*							
Airline Landing Fees	$ 54,167	$ 55,456	$ 56,517	$ 59,278	$ 64,958	$ 67,549	$ 68,971
Airline Terminal Fees							
Exclusive Space	$ 60,897	$ 60,884	$ 65,315	$ 77,160	$ 78,403	$ 80,777	$ 86,769
Joint Use Fees	31,324	29,014	29,100	33,506	34,014	35,045	37,752
Subtotal Airline Terminal Fees	$ 92,221	$ 89,898	$ 94,415	$ 110,666	$ 112,417	$ 115,822	$ 124,522
Subtotal Airline Landing and Terminal Revenues	$ 146,388	$ 145,354	$ 150,932	$ 169,944	$ 177,375	$ 183,371	$ 193,493
Baggage System Fees	5,423	5,348	5,503	5,669	5,839	6,014	6,194
Jetway Rental	702	702	702	702	702	702	702
Common Use	7,559	7,091	8,091	9,319	9,586	9,997	10,869
FIS Fees	2,329	2,359	2,389	2,419	2,449	2,479	2,509
Overnight Parking Fees	655	674	694	715	737	759	782
Total Airline Revenues	$ 163,056	$ 161,528	$ 168,312	$ 188,767	$ 196,688	$ 203,322	$ 214,548
Less: Est. Cargo Landing Fees	(4,237)	(4,338)	(4,421)	(4,636)	(5,081)	(5,283)	(5,395)
Less: Est. Cargo Overnight Parking Fees	(655)	(674)	(694)	(715)	(737)	(759)	(782)
Less: Est. G.A. Landing Fees	(212)	(217)	(221)	(232)	(254)	(264)	(270)
Other Misc. Adj.	-	-	-	-	-	-	-
Airline Revenues for CPE Calculation	$ 157,953	$ 156,300	$ 162,976	$ 183,184	$ 190,616	$ 197,016	$ 208,103
% Change	7.8%	-1.0%	4.3%	12.4%	4.1%	3.4%	5.6%
Enplaned Passengers	23,325	23,625	23,925	24,225	24,525	24,825	25,125
% Change	2.2%	1.3%	1.3%	1.3%	1.2%	1.2%	1.2%
Cost per Enplaned Passenger	$ 6.77	$ 6.62	$ 6.81	$ 7.56	$ 7.77	$ 7.94	$ 8.28
% Change	5.6%	-2.3%	3.0%	11.0%	2.8%	2.1%	4.4%

Source: City of Phoenix Aviation Department and LeighFisher.

Exhibit G

FORECAST APPLICATION OF REVENUES
CITY OF PHOENIX AVIATION DEPARTMENT
(Fiscal Years ending June 30; in thousands)

The forecasts presented in this exhibit were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

		2020	2021	2022	2023	2024	2025	2026
APPLICATION OF REVENUES								
Revenues	[A]	$ 420,575	$ 439,196	$ 459,037	$ 486,738	$ 499,910	$ 512,240	$ 529,261
Application of Revenues								
Operation and Maintenance Fund		$ 274,894	$ 267,117	$ 277,355	$ 288,251	$ 296,898	$ 311,743	$ 327,330
Senior Lien Bond Fund		68,627	59,765	59,765	58,122	67,578	67,568	77,984
Subtotal		$ 343,521	$ 326,882	$ 337,120	$ 346,373	$ 364,476	$ 379,311	$ 405,314
Junior Lien Bond Fund (incl. Future Bonds)		61,210	69,413	69,411	101,387	101,388	101,395	90,838
Less: Junior Lien Passenger Facility Charge Credit		(51,764)	(57,633)	(57,634)	(57,631)	(57,631)	(57,635)	(57,637)
Less: 2010 RZEDB Subsidy Payments		(597)	(597)	(597)	(597)	(597)	(597)	(597)
Total	[B]	$ 352,370	$ 338,065	$ 348,301	$ 389,532	$ 407,636	$ 422,476	$ 437,918
Deposit to Airport Improvement Fund	[C=A-B]	$ 68,205	$ 101,131	$ 110,736	$ 97,206	$ 92,275	$ 89,764	$ 91,343
Total Application of Revenues		$ 420,575	$ 439,196	$ 459,037	$ 486,738	$ 499,910	$ 512,240	$ 529,261
AIRPORT IMPROVEMENT FUND ACTIVITY								
Beginning balance		$ 433,665	$ 287,622	$ 332,866	$ 366,389	$ 424,087	$ 478,909	$ 536,284
Deposits:								
Available Revenues	[=C]	68,205	101,131	110,736	97,206	92,275	89,764	91,343
Uses of Funds:								
Short-Term Financing Program - Annual Fee		(800)	(800)	(800)	(800)	(800)	(800)	(800)
Short-Term Financing Program - Interest on Draws		(3,189)	(3,971)	(1,952)	(762)	-	-	-
General Obligation Bonds		(3,428)	-	-	-	-	-	-
Central Services Staff and Administration		(10,497)	(10,707)	(10,921)	(11,140)	(11,362)	(11,590)	(11,821)
Prior Year Commitments		(33,560)	-	-	-	-	-	-
Pay-as-you-go funding								
Other Capital Projects		(54,132)	(12,454)	(35,584)	(6,268)	(4,752)	(20,000)	(20,600)
Terminal 3 Modernization		47,658	-	-	-	-	-	-
Terminal 4 Concourse S1		17,982	-	-	-	-	-	-
Pension Contribution		(150,000)	-	-	-	-	-	-
Other CAMP Projects		(24,282)	(27,955)	(27,955)	(20,538)	(20,538)	-	-
Ending balance		$ 287,622	$ 332,866	$ 366,389	$ 424,087	$ 478,909	$ 536,284	$ 594,406

Source: City of Phoenix Aviation Department and LeighFisher.

Exhibit H

FORECAST NET REVENUES AND DEBT SERVICE COVERAGE
CITY OF PHOENIX AVIATION DEPARTMENT
(Fiscal Years ending June 30; in thousands except for coverage calculations)

The forecasts presented in this exhibit were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

		2020	2021	2022	2023	2024	2025	2026
Net Airport Revenues								
Revenues		$ 420,575	$ 439,196	$ 459,037	$ 486,738	$ 499,910	$ 512,240	$ 529,261
Less: Cost of Maintenance and Operation		274,894	267,117	277,355	288,251	296,898	311,743	327,330
Net Airport Revenues	[A]	$ 145,681	$ 172,079	$ 181,682	$ 198,487	$ 203,012	$ 200,496	$ 201,931
Senior Lien Obligations								
Principal and Interest Requirements	[B]	$ 68,627	$ 59,765	$ 59,765	$ 58,122	$ 67,578	$ 67,568	$ 77,984
Senior Lien Obligation Debt Service Coverage	[A/B]	**2.12**	**2.88**	**3.04**	**3.41**	**3.00**	**2.97**	**2.59**
Required Deposits to Senior Bond Reserve Fund	[C]	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Designated Revenues	[D=A-B-C]	$ 77,055	$ 112,314	$ 121,917	$ 140,365	$ 135,435	$ 132,928	$ 123,947
Junior Lien Obligations								
Principal and Interest Requirements		$ 61,210	$ 69,413	$ 69,411	$ 101,387	$ 101,388	$ 101,395	$ 90,838
Less: Junior Lien Passenger Facility Charge Credit		(51,764)	(57,633)	(57,634)	(57,631)	(57,631)	(57,635)	(57,637)
Less: 2010 RZEDB Subsidy Payments		(597)	(597)	(597)	(597)	(597)	(597)	(597)
Net Principal and Interest Requirements	[E]	$ 8,849	$ 11,183	$ 11,181	$ 43,159	$ 43,160	$ 43,164	$ 32,604
Required Deposits to Junior Bond Reserve Fund	[F]	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Junior Lien Obligation Debt Service Coverage	[D/E]	**8.71**	**10.04**	**10.90**	**3.25**	**3.14**	**3.08**	**3.80**
Revenues Net of Junior and Senior Lien Debt Service	[G=D-E-F]	$ 68,205	$ 101,131	$ 110,736	$ 97,206	$ 92,275	$ 89,764	$ 91,343
Other Airport Obligations								
Airport General Obligation Bonds		$ 3,428	$ -	$ -	$ -	$ -	$ -	$ -
Total Debt Service on Other Airport Obligations	[H]	$ 3,428	$ -	$ -	$ -	$ -	$ -	$ -
Aggregate Debt Service Coverage Ratios								
Senior and Junior Lien Obligations	[A/(B+E)]	**1.88**	**2.43**	**2.56**	**1.96**	**1.83**	**1.81**	**1.83**
All Obligations	[A/(B+E+H)]	**1.80**	**2.43**	**2.56**	**1.96**	**1.83**	**1.81**	**1.83**

Source: City of Phoenix Aviation Department and LeighFisher.

Exhibit I-1

SUMMARY OF PROJECTED FINANCIAL RESULTS: BASE CASE PASSENGER FORECAST
CITY OF PHOENIX AVIATION DEPARTMENT
(Fiscal Years ending June 30; in thousands except for CPE and coverage calculations)

The forecasts presented in this exhibit were prepared using information from the sources indicated, and assumptions listed below, and as provided in the accompanying text. Inevitably, some of the assumptions used to develop the forecasts will not be realized and unanticipated events and circumstances could occur. Therefore, there are likely to be differences between the forecasts and actual results, and those differences may be material.

	2020	2021	2022	2023	2024	2025	2026
ENPLANED PASSENGERS	23,325	23,625	23,925	24,225	24,525	24,825	25,125
% Growth	2.2%	1.3%	1.3%	1.3%	1.2%	1.2%	1.2%
FORECAST NET REVENUES AND DEBT SERVICE COVERAGE							
Net Airport Revenues							
Revenues							
Airline Landing Fees	$ 54,167	$ 55,456	$ 56,517	$ 59,278	$ 64,958	$ 67,549	$ 68,971
Airline Terminal Fees	92,221	89,898	94,415	110,666	112,417	115,822	124,522
Baggage System Fees	5,423	5,348	5,503	5,669	5,839	6,014	6,194
Jetway Rental	702	702	702	702	702	702	702
Common Use	7,559	7,091	8,091	9,319	9,586	9,997	10,869
FIS Fees	2,329	2,359	2,389	2,419	2,449	2,479	2,509
Subtotal Airline Revenues	$ 162,402	$ 160,854	$ 167,618	$ 188,052	$ 195,951	$ 202,563	$ 213,767
% Growth	9.0%	-1.0%	4.2%	12.2%	4.2%	3.4%	5.5%
Cost Per Enplaned Passenger (CPE)	$ 6.77	$ 6.62	$ 6.81	$ 7.56	$ 7.77	$ 7.94	$ 8.28
% Growth	5.6%	-2.3%	3.0%	11.0%	2.8%	2.1%	4.4%
Parking	90,255	90,510	96,846	97,536	98,280	99,012	99,732
Car Rentals	45,019	45,355	45,691	46,020	46,834	47,656	48,485
All Other	122,900	142,476	148,882	155,130	158,845	163,009	167,278
Total Revenues	$ 420,575	$ 439,196	$ 459,037	$ 486,738	$ 499,910	$ 512,240	$ 529,261
Less: Cost of Maintenance and Operation	(274,894)	(267,117)	(277,355)	(288,251)	(296,898)	(311,743)	(327,330)
Net Airport Revenues	$ 145,681	$ 172,079	$ 181,682	$ 198,487	$ 203,012	$ 200,496	$ 201,931
Less: Net Senior Lien Obligations Requirements	(68,627)	(59,765)	(59,765)	(58,122)	(67,578)	(67,568)	(77,984)
Designated Revenues	$ 77,055	$ 112,314	$ 121,917	$ 140,365	$ 135,435	$ 132,928	$ 123,947
Less: Net Junior Lien Obligations Requirements	(8,849)	(11,183)	(11,181)	(43,159)	(43,160)	(43,164)	(32,604)
Junior Subordinate Lien Revenues / Deposit to AIF	$ 68,205	$ 101,131	$ 110,736	$ 97,206	$ 92,275	$ 89,764	$ 91,343
Debt Service Coverage Ratios Per Bond Documents							
Senior Lien Obligations	**2.12**	**2.88**	**3.04**	**3.41**	**3.00**	**2.97**	**2.59**
Junior Lien Obligations	**8.71**	**10.04**	**10.90**	**3.25**	**3.14**	**3.08**	**3.80**
Aggregate Debt Service Coverage Ratios							
Senior and Junior Lien Obligations	**1.88**	**2.43**	**2.56**	**1.96**	**1.83**	**1.81**	**1.83**
All Obligations	**1.80**	**2.43**	**2.56**	**1.96**	**1.83**	**1.81**	**1.83**

Source City of Phoenix Aviation Department and LeighFisher.

Exhibit I-2

SUMMARY OF PROJECTED FINANCIAL RESULTS: STRESS TEST SCENARIO PASSENGER FORECAST
CITY OF PHOENIX AVIATION DEPARTMENT
(Fiscal Years ending June 30; in thousands except for CPE and coverage calculations)

This scenario was based upon hypothetical assumptions, as described in the text.

	2020	2021	2022	2023	2024	2025	2026
ENPLANED PASSENGERS	21,355	19,880	19,880	20,180	20,480	20,780	21,080
% Growth	-6.5%	-6.9%	0.0%	1.5%	1.5%	1.5%	1.4%
FORECAST NET REVENUES AND DEBT SERVICE COVERAGE							
Net Airport Revenues							
Revenues							
Airline Landing Fees	$ 54,167	$ 55,456	$ 56,517	$ 59,278	$ 64,958	$ 67,549	$ 68,971
Airline Terminal Fees	92,221	89,898	94,415	110,666	112,417	115,822	124,522
Baggage System Fees	5,423	5,348	5,503	5,669	5,839	6,014	6,194
Jetway Rental	702	702	702	702	702	702	702
Common Use	6,921	5,967	6,723	7,763	8,005	8,368	9,119
FIS Fees	2,132	1,985	1,985	2,015	2,045	2,075	2,105
Subtotal Airline Revenues	$ 161,567	$ 159,356	$ 165,846	$ 186,092	$ 193,966	$ 200,530	$ 211,613
% Growth	8.4%	-1.4%	4.1%	12.2%	4.2%	3.4%	5.5%
Cost Per Enplaned Passenger (CPE)	$ 7.36	$ 7.79	$ 8.11	$ 8.98	$ 9.21	$ 9.38	$ 9.77
% Growth	14.7%	5.8%	4.1%	10.7%	2.6%	1.9%	4.1%
Parking	85,775	82,816	88,613	88,158	88,949	89,728	90,495
Car Rentals	42,732	41,409	41,186	41,529	42,290	43,057	43,831
All Other	118,828	133,186	138,333	144,186	147,622	151,502	155,483
Total Revenues	$ 408,902	$ 416,767	$ 433,978	$ 459,965	$ 472,826	$ 484,817	$ 501,422
Less: Cost of Maintenance and Operation	(274,894)	(267,117)	(277,355)	(288,251)	(296,898)	(311,743)	(327,330)
Net Airport Revenues	$ 134,008	$ 149,650	$ 156,623	$ 171,715	$ 175,928	$ 173,074	$ 174,092
Less: Net Senior Lien Obligations Requirements	(68,627)	(59,765)	(59,765)	(58,122)	(67,578)	(67,568)	(77,984)
Designated Revenues	$ 65,381	$ 89,884	$ 96,858	$ 113,592	$ 108,350	$ 105,505	$ 96,108
Less: Net Junior Lien Obligations Requirements	(8,849)	(11,183)	(11,181)	(43,159)	(43,160)	(43,164)	(32,604)
Junior Subordinate Lien Revenues / Deposit to AIF	$ 56,532	$ 78,701	$ 85,677	$ 70,434	$ 65,190	$ 62,341	$ 63,504
Debt Service Coverage Ratios Per Bond Documents							
Senior Lien Obligations	**1.95**	**2.50**	**2.62**	**2.95**	**2.60**	**2.56**	**2.23**
Junior Lien Obligations	**7.39**	**8.04**	**8.66**	**2.63**	**2.51**	**2.44**	**2.95**
Aggregate Debt Service Coverage Ratios							
Senior and Junior Lien Obligations	**1.73**	**2.11**	**2.21**	**1.70**	**1.59**	**1.56**	**1.57**
All Obligations	**1.66**	**2.11**	**2.21**	**1.70**	**1.59**	**1.56**	**1.57**

Source: City of Phoenix Aviation Department and LeighFisher.

APPENDIX B
City of Phoenix, Arizona — Description
OVERVIEW

Phoenix is the fifth largest city in the United States, the state capital of Arizona and the center of the metropolitan area encompassed by Maricopa County (the "*County*"). This metropolitan area also includes the cities of Mesa, Chandler, Glendale, Scottsdale, Tempe, Peoria, Surprise, Avondale, Goodyear, Buckeye and El Mirage; the towns of Gilbert, Queen Creek, Fountain Hills, and Paradise Valley as well as several smaller cities and towns and all unincorporated areas of the County. It is situated 1,117 feet above sea level in the semi-arid Salt River Valley. The area is well known for its mild, sunny winters and hot summers and receives average rainfall of 7.70 inches annually.

Phoenix was founded in 1870 as an agricultural community. In 1881, it was incorporated as a city. The City Charter under which it is presently governed was adopted in 1913 and has been amended from time to time. The City has grown steadily since its inception and has shown especially strong growth since 1950. The 1900 census recorded Phoenix's population at 5,544. In 1950, the City occupied 17 square miles with a population of almost 107,000 ranking it 99th among American cities. The 2010 census recorded Phoenix's population at 1,447,128. As of August 1, 2019 the City encompasses 519.68 square miles.

Population Statistics
Phoenix, Maricopa County and Arizona

							Percent Change	
Area	**1950**	**1970**	**1990**	**2000**	**2010**	**2018**	**1950-18**	**1990-18**
Phoenix	106,818	584,303	983,403	1,321,045	1,447,128	1,660,272	1,454.3%	68.8%
Maricopa County	331,770	971,228	2,122,101	3,072,149	3,817,117	4,410,824	1,229.5	107.9
State of Arizona	749,587	1,775,399	3,665,228	5,130,632	6,392,017	7,171,646	856.7	95.7

Source: Population figures are from the U.S. Department of Commerce Census Bureau.

Phoenix is served by main lines of the Union Pacific and Burlington Northern Santa Fe Railroads, a busline (Greyhound Trailways), and 10 transcontinental, 34 interstate and 39 intrastate truck lines. Phoenix Sky Harbor International Airport, located approximately 4 miles from downtown Phoenix, is served by the following scheduled airlines: Advanced Air, Air Canada, Alaska, American, Boutique Air, British Airways, Jazz Aviation (Air Canada Express), Compass (Delta Connection), Condor, Contour, Delta, Frontier, Hawaiian, JetBlue, Mesa (American Eagle, United Express), SkyWest (American Eagle, Delta Connection, and United Express), Southwest, Spirit, Sun Country, United, Volaris and WestJet. Interstate 10, Interstate 17, U.S. Highway 60, State Routes 51, 74, 85, 87, 88, 143 and Loops 101, 202, and 303 all traverse the metropolitan area.

The metropolitan area is presently served by 34 elementary school districts, 6 high school districts, 15 unified school districts and 2 technical institutes, operating almost 800 schools. Education is also provided by public charter schools and private and parochial schools located throughout the metropolitan area. Maricopa County Community College District serves the educational needs of the Phoenix area through 10 institutions. Arizona State University (ASU) houses 17 colleges and schools and has a total full-time equivalent (FTE) enrollment of more than 103,000 undergraduate, graduate and professional students on four campuses in Metro Phoenix and online. ASU's main campus is located just east of Phoenix in the city of Tempe. The Arizona State University West campus opened in 1991, is located in northwest Phoenix, and has an enrollment of over 10,000 students. The Arizona State University Polytechnic campus opened in 1996, is located in southeast Metro Phoenix in the city of Mesa, and has an enrollment of more than 7,500 students. The Arizona State University Downtown Phoenix campus opened in 2006 and has an enrollment of more than 19,200 students. Grand Canyon University, a private university offering undergraduate and postsecondary degree programs, has a main campus located northwest of downtown Phoenix. In 2018, enrollment at Grand Canyon University was over 90,253 including both on-campus and online students. The City also contains a private graduate school and a number of private universities, colleges, and technical institutions. The U.S. Census Bureau's 2017 American Community Survey, the most recently available, estimated that more than 64.3% of the adult residents of the Maricopa County attended college, compared to 60.0% nationally.

SIGNIFICANT DEVELOPMENTS

Downtown Development

In 1979, the City adopted the Downtown Redevelopment Area plan for a 1.5 square mile area of downtown to revitalize the urban center of the City. Redevelopment efforts to date have resulted in the construction of residential units as well as numerous public and private redevelopment projects that have produced several amenities and services for employers, residents and visitors.

In 1984, a group of downtown business leaders founded the Phoenix Community Alliance. The group's express purpose is to work with government and other development interests to accomplish the highest quality downtown revitalization possible. They have been involved in a program of cooperative planning between government and private interests and have been focusing their attention on bringing increased housing, especially ownership housing, to downtown. The Phoenix Community Alliance's 2011-2016 Action Plan provided three goals: facilitating quality land development in downtown Phoenix, attracting investment to downtown Phoenix, and sharpening downtown Phoenix's competitive advantage.

In December 2004, the City Council adopted a ten-year plan for downtown entitled "Downtown Phoenix: A Strategic Vision and Blueprint for the Future" (the "*Downtown Strategic Plan*"). The Downtown Strategic Plan was developed by the combined efforts of the City, Phoenix Community Alliance, Downtown Phoenix Partnership, and Arizona State University. The Downtown Strategic Plan served as a framework for the City to pursue the comprehensive revitalization of downtown Phoenix and serves as a guide for decision-making as specific plans and projects are pursued.

The Downtown Phoenix Urban Form Project (the "*Urban Project*") was a collaborative planning process to revise downtown zoning, to shape future growth and to help realize the City's vision for a livelier, more integrated and sustainable downtown. The City embarked on this Urban Project due to heightened development interest in downtown Phoenix while acknowledging the unique development challenges of the infill urban environment. The Urban Project was completed in April 2010 when the City Council approved Chapter 12 of the Phoenix Zoning Ordinance (the "*Downtown Code*").

Downtown Phoenix Inc. ("*DPI*"), a nonprofit entity formed in 2013, was created for the purpose of enhancing the economic and cultural vitality of downtown Phoenix. It serves as an umbrella organization to "broaden the tent" of the downtown community and improve coordination amongst downtown focused organizations, resulting in greater efficiency and effectiveness among nonprofits, such as Downtown Phoenix Partnership, Phoenix Community Alliance and the Downtown Phoenix Community Development Corporation. DPI serves as a City liaison to downtown stakeholders, including neighborhood and business organizations, assisting the City in communicating with the community by providing guidance and advice as needed. DPI also collaborates with the City to expand and enhance special events downtown, in addition to working on assignments, such as studying the potential expansion of the Enhanced Municipal Services District boundaries.

General Plan

In 1985, the City Council adopted the General Plan, a long-range plan based on the Urban Village Concept. The overall goal of the Urban Village Concept (now referred to as the Urban Village Model) is to offer Phoenix residents a choice of lifestyles in which residents may live, work and enjoy leisure time activities within the same urban village. The Urban Village Model also gives residents the opportunity to play a major role in shaping these choices. It is a unique concept that has provided a high degree of citizen participation in local land use planning processes.

The General Plan guides future development in Phoenix through the establishment of fifteen urban villages, each with an approximate population of 125,000. Each village has its own village planning committee. The committees, guided by and responsible to the City Council, are comprised of 15-21 citizens, most of whom live in their respective villages. Planning activities include identifying the attitudes, problems, and issues impacting their village; formulating goals and policies that reflect the unique needs of their planning area; developing land use plans that will guide future growth in their village, and reviewing rezoning applications and development proposals.

In 1998, the State of Arizona passed the Growing Smarter legislation and in 2000 passed the Growing Smarter Plus legislation. The legislation required that the City update its General Plan, and amend or readopt the General Plan every ten years. It also requires that any changes to the General Plan be presented by public hearing to the citizens, be approved by at least two-thirds of the City Council and then be voted upon by the citizens. The City's General Plan was adopted by the City Council on December 5, 2001 and was approved by voters on March 12, 2002. In the opinion of management, the Growing Smarter and Growing Smarter Plus legislation provides processes and tools that can contribute to better planned, coordinated and balanced development. While the original legislation set a ten year deadline to readopt or amend the General Plan, in 2010 the State legislature extended the deadline to July 1, 2015.

On July 1, 2009, the City Council approved plans to implement a public participation process in developing the Phoenix General Plan Update. In August 2012, the Planning and Development Department, in partnership with the Mayor and City Council, launched PlanPHX in an effort to enhance community outreach. In order to facilitate public participation, the PlanPHX project included the debut of www.myplanphx.com. The website served as an interactive and innovative way for Phoenix residents to be involved in the Phoenix General Plan Update. In addition to the website, the Planning and Development Department conducted meetings throughout the community to obtain input and ideas from residents. The Phoenix General Plan Update focuses on five Core Values — Connecting People and Places, Building the Sustainable Desert City, Creating an Even More Vibrant Downtown, Celebrating our Diverse Communities and Neighborhoods, and Strengthening Our Local Economy. The General Plan Update was unanimously approved by the Phoenix Planning Commission on January 13, 2015. The General Plan Update was approved by the City Council on March 4, 2015 and was approved by voters in the August 25, 2015 Citywide election.

Phoenix Convention Center

Redevelopment of the downtown Phoenix area has accompanied the construction and expansion of the Phoenix Convention Center (previously Phoenix Civic Plaza). Opened in 1972, the original convention and cultural center facility encompassed eight city-blocks in downtown Phoenix, having a capacity of 10,000 persons and containing a variety of meeting and exhibition halls in addition to Symphony Hall.

In 1980, the City Council authorized the first expansion of the Phoenix Convention Center, adding a new structure connected directly to the existing facility. The additional space expanded the total convention space to 306,000 square feet. Construction of the $55 million addition commenced in late 1982 and was completed in June 1985, effectively doubling the size of the facility. In November 1995, the City completed a $31.5 million modernization and refurbishing program for the Phoenix Convention Center.

In 1998, construction began on the Civic Plaza East Garage, a 2,891-space parking facility to serve Phoenix Convention Center patrons and other downtown visitors. Included within the garage is approximately 25,000 square feet of commercial space. The garage was completed in the fall of 1999.

On June 22, 2001, the Arizona Legislature appointed the Ad Hoc Study Committee on Phoenix Civic Plaza/ Convention Facility Expansion (the "*Committee*") to make recommendations on several issues regarding Phoenix Convention Center expansion, including potential funding sources and State involvement. The membership included four State Senators, four State Representatives and nine public members. The Committee recognized the significant statewide benefit of convention business and unanimously recommended that the State develop a program to provide matching funds for major convention center improvements.

On November 6, 2001, City of Phoenix voters approved a ballot proposition authorizing the City to incur debt and expend public funds in an amount up to $300 million from City funding sources and in an amount up to $300 million in State or other non-City funding sources for the construction, expansion, modification and improvement of the Phoenix Convention Center. In June 2003, the Arizona Legislature approved spending up to $300 million in State money to match the City's contribution. Combined, the $600 million expansion project effectively tripled the size of the facility by adding approximately 600,000 square feet of meeting and exhibition space.

In 2001, City of Phoenix voters approved an additional $18.5 million in general obligation bonds for the renovation of the adjacent Symphony Hall. In order to minimize disruption to event activity, the construction schedule for Symphony Hall was aligned with the first phase of the Phoenix Convention Center expansion. In June 2003, the City Council approved the final development concept and selected the design team and the construction management team for the Phoenix Convention Center expansion and Symphony Hall renovation.

Construction of phase one of the Phoenix Convention Center expansion and the Symphony Hall renovation began in June 2004. Symphony Hall re-opened September 3, 2005 after renovations were completed during phase one. Significant improvements to Symphony Hall included a new entrance, plaza facing, wall paneling, carpeting, seating, roofing and an upgraded lobby. Phase one of the Phoenix Convention Center expansion, known as the West Building, was completed in July 2006. The four-level West Building includes a 45,000 square feet ballroom, an Executive Conference Center, 64,000 square feet of exhibition hall space and 27,000 square feet of meeting space.

Phase two construction on the new Phoenix Convention Center North Building was completed in December 2008. The four-level North Building features amenities such as a 46,000 square feet street-level ballroom, 56 meeting rooms, over 300,000 square feet of exhibition hall space on the lower level, 190,000 square feet of exhibition hall space on the upper level and a food court with six themed eateries. The North Building is connected to the West Building via a pedestrian bridge on the third level and below ground through the lower level exhibition hall. The fully expanded Phoenix Convention Center, which welcomed its first convention in January 2009, now offers approximately 900,000 square feet of rentable convention space and is one of the top 25 facilities in the country in terms of size.

The Phoenix Convention Center expansion had a significant impact on Arizona during the five-year construction period. From December 18, 2003 through November 30, 2008, 95 percent of the work was performed by Arizona residents, 11,684 people were employed on the project, $89.0 million was paid in wages and $26.9 million was paid in state construction taxes.

The expanded Phoenix Convention Center surpassed its projected goals for 2009, hosting 68 conventions with approximately 309,379 delegates, which equated to an economic impact of approximately $449 million in direct spending. Since its expansion in 2009, the Phoenix Convention Center has hosted 627 conventions, or an average of 62 conventions per year, with an estimated 2,226,000 delegates through 2018. The Phoenix Convention Center is projected to host over 65 conventions in 2019 with an estimated economic impact of over $550 million.

Business Development

The City of Phoenix Community and Economic Development Department (CEDD) strategically positions Phoenix as a globally competitive and sustainable city. Developing a modern economy is rooted in aligning economic development initiatives around Phoenix's core strengths: focusing on targeted industry sectors with the highest impact and opportunity for sustained growth, expanding the pipeline of job-creating businesses, enhancing the Phoenix business climate and improving Phoenix's competitive position in the new economic environment.

CEDD works to attract and grow quality businesses that strengthen and diversify Phoenix's economy through job growth, private investment and creating a sense of place for our community. The Arizona Commerce Authority, Greater Phoenix Economic Council and the Greater Phoenix Chamber of Commerce are strong allies in these endeavors. With these partners, the City continues several initiatives aimed at workforce development, creating and maintaining high quality jobs and industry diversification. These partnerships also establish sound economic development programs that enhance regional and statewide competitiveness.

In July 2019, the U.S. Bureau of Labor Statistics announced that Greater Phoenix led the nation in new jobs created from May 2018 to May 2019. The metropolitan area added 66,500 non-farms jobs, representing growth of 3.2%. From fiscal year 2008-09 through fiscal year 2018-19, CEDD and its partners have directly assisted in the attraction of 237 new employers to the City of Phoenix. These companies represent more than 39,772 new jobs and approximately $2.9 billion in new capital investment.

Arts, Cultural and Sports Facilities

The Orpheum Theatre was built in 1929 in downtown Phoenix for vaudeville performances and movie exhibitions. The City purchased the theatre in 1984 and it was listed on the National Register of Historic Places the following year. In 1988, citizens approved funding $7 million towards a renovation of the theatre, with the Orpheum Theatre Foundation providing additional funding of $7 million. The theatre, built in the Spanish Baroque Revival architectural style, reopened in early 1997 and is the last remaining example of theatre palace architecture in Phoenix. The 1,364-seat Orpheum Theatre is now an internationally recognized showcase for arts and entertainment and hosts a variety of productions which draw thousands of people to the vibrant downtown venue annually.

The Herberger Theater Center, a performing arts facility, opened in October 1989 adjacent to the Phoenix Convention Center. Located on a one-block site immediately north of the original Phoenix Convention Center, the Herberger Theater Center was financed with $18 million in public and private funds. Renovations to the Herberger Theater were performed during the summer of 2010 and included refurbishment of seating, platforms, lighting, carpet and paint on the 801-seat Center Stage and 343-seat Stage West. The renovations included the addition of exterior public space, upgraded outdoor signage and a new private second floor lounge and balcony for theater VIPs. The renovations were completed in October 2010 at a cost of approximately $16 million.

The Phoenix Art Museum, located at Central Avenue and McDowell Street began an expansion in December 2004. The $50 million project added nearly 30,000 square feet to the museum complex, most of which is utilized for exhibition space to benefit the museum's 290,000 annual visitors. $18.2 million of the total project cost was financed with bond funds approved by Phoenix voters in 2001. The remaining funds were raised from individuals and philanthropic organizations. The expansion was completed in November 2006.

The Arizona Science Center is located in Heritage and Science Park, a multi-block downtown cultural center, and received City funding from general obligation bonds approved by the voters in 1988. The Arizona Science Center, which cost $47 million, encompasses nearly 127,000 square feet including a 200-seat planetarium and a 285-seat IMAX Theater. The City contributed land and $20 million to the project, with the balance funded by private contributions. The Arizona Science Center opened in April 1997. In addition, an 800-space parking garage was developed. The parking garage was completed in November 1995.

In January 2000, an agreement between the City and a private company was reached for development of a 4,800-seat entertainment facility on a City owned site at the northwest corner of Washington Street and Fourth

Avenue. The Comerica Theatre (formerly Dodge Theatre) totals 165,000 square feet and cost approximately $39 million. Construction began in September 2000 and was completed in April 2002.

In November 1988, the City entered into negotiations with the Phoenix Suns Limited Partnership (the "*Suns*") for the development and operation of a 20,000-seat downtown sports arena to be located immediately south of the Phoenix Convention Center. Final agreements between the City and the Suns were approved by the City Council in July 1989. The construction cost of the arena and adjacent garage was $100 million. The City acquired and cleared the land for the project at a cost of $12.8 million and contributed $35 million toward construction. The Suns contributed an additional $515,000 for land acquisition and were responsible for the balance of the construction costs (approximately $52 million). Construction began in November 1990 and America West Arena (currently Talking Stick Resort Arena) opened in June 1992.

A multi-phased renovation of Talking Stick Resort Arena began in the spring of 2001 and was completed in early 2005. Exterior renovations included the addition of a 15,000 square feet climate controlled pavilion on the main entrance plaza, expansion of the north façade to accommodate street level restaurants along Jefferson Street and the construction of a pedestrian passageway from Jefferson Street to Jackson Street. The interior renovations consisted of concourse improvements, seating enhancements and additional restrooms. The second phase of renovations brought significant technology improvements including a new scoreboard and wraparound LED boards, as well as expansion of the Platinum Club, and other core building improvements, all of which ensure the Center's continued state of the art status. The renovations were completed at a total cost of approximately $57 million funded jointly by the City and the Suns.

In January 2019, the Phoenix City Council authorized the City to amend its agreement with the Suns to facilitate the renovation of Talking Stick Resort Arena. The arena renovation will be funded by the City and the Suns, with the City contributing $150 million and the Suns contributing $80 million plus any cost overruns. Major building systems including electrical, mechanical, plumbing and technology infrastructure will be updated or replaced. Additional plans include upgrades to social spaces, suite renovations, retail space improvements, and modernization of locker rooms. The renovations are expected to begin in 2019 and be completed in 2021. The new agreement will commit the Suns to stay in the arena until at least 2037.

Major League Baseball owners awarded a Phoenix-based ownership group a major league baseball franchise in March 1995. The team, the Arizona Diamondbacks, began play in March 1998. A $354 million, 48,500-seat, natural grass baseball stadium was constructed at the southwest corner of Jefferson Street and Seventh Street in downtown Phoenix through a public/private partnership. Public participation was authorized in early 1994, when the Maricopa County Stadium District approved the expenditure of $238 million for the development of the stadium. The balance of the construction costs were financed by the team ownership group.

In April 2009, the City completed construction on the Civic Space Park. The 2.77-acre park in the heart of downtown Phoenix, bounded by First and Central Avenues and Van Buren and Fillmore Streets, offers residents, workers, students and visitors a unique urban design. The park contains sustainable features such as solar panel shade structures, which generate power for the park's lighting and electrical needs and pervious concrete and pavers to reduce heat reflection and allow rainfall to seep through to the ground. The park also includes interactive water and light features, green spaces and a 100-foot aerial art sculpture. The historic 1926 A.E. England Building is located inside Civic Space Park and hosts an auditorium as well as office, meeting and retail space.

On August 31, 2011 the Community and Economic Development and Phoenix Convention Center Department entered into a 20 year public private partnership with the Legends Entertainment District. The district, which utilizes digital signage to stimulate activity within downtown, is generally bounded on the north and south sides of Jefferson Street from First Avenue to Seventh Street and includes sites such as Chase Field, Talking Stick Resort Arena, the Phoenix Convention Center South Building and the Phoenix Convention Center East Garage.

In 2011, the City's Community and Economic Development Department acquired a site on Central Avenue across from the Phoenix Art Museum for the construction of the Arizona Opera Center. The new building, which opened in March 2013, is a 28,000 square-foot performing arts facility that includes performance and rehearsal space, administrative offices, and educational and public meeting facilities. The City contributed $3.2 million of general obligation bonds towards the $5.2 million facility. The Arizona Opera Center building is owned by the City and operated by Arizona Opera.

In 2015, the City facilitated the creation of an entertainment district in downtown Phoenix (the "*Entertainment District*"). The Entertainment District encompasses about one-square mile of downtown Phoenix and is intended to foster economic development by bringing more businesses to the area. Previously, potential businesses were prohibited from applying for a liquor license if they were within 300 feet of a church or school, per Arizona State law. The Phoenix City Council now has the option to consider an exemption for liquor licenses within the district. The creation of the Entertainment District serves as a development tool that supports the growth of a vibrant downtown with a mix of businesses and nightlife.

Commercial Development

In the 1970s, Arizona's three major commercial banks (at that time The Valley National Bank of Arizona, First Interstate Bank, and The Arizona Bank) located their high-rise headquarters buildings in the downtown area. In addition, the Citibank building (now Compass Bancshares), consisting of 113,000 square feet of space situated on the northwest corner of Van Buren Street and First Avenue, was opened on August 1, 1989.

The 1970s also saw the development of two downtown high-rise hotels. The Hyatt and Renaissance (formerly the Wyndham) properties combine to provide 1,242 hotel rooms in downtown Phoenix. As an outgrowth of the many downtown development and redevelopment projects during the 1990s and 2000s, there was a rapid increase in hotel room demand from business, leisure and convention travelers visiting the area. To meet this demand, the City constructed a new 1,000-room hotel on the northwest corner of Third Street and Van Buren Street. Adjacent to the Arizona Center and several office and entertainment venues, the hotel contains approximately 10,000 square feet of retail space, including a coffee shop, lounge, restaurant, and fitness facilities; a 30,000 square-foot ballroom; and additional meeting space. Starwood Hotels and Resorts was selected as the hotel's operator under the company's Sheraton flag. Design of the hotel began in early 2005 and construction began in March 2006. The Sheraton Grand Phoenix Hotel opened September 2008 and supports the additional hotel demand generated by the expansion of the Phoenix Convention Center. The City sold the hotel to Marriott in 2018.

The Trammell Crow Company completed construction of an $80 million, 26-story, 450,000 square-foot high-rise office building (currently called One Renaissance), including 40,000 square feet of retail, in the center of downtown Phoenix in 1988. In conjunction with this project, the City constructed a 1,456 space underground public parking garage to support the parking needs generated by the Trammell Crow building and other downtown projects. This $15 million project was dedicated in December 1988. In response to a successful leasing effort, Trammell Crow Company constructed a second office building (called Two Renaissance) which opened in January 1990 on the half-block immediately north of their first building, consisting of 475,000 square feet including 15,000 square feet of retail.

Culminating an effort initiated by the Phoenix Community Alliance, the City entered into an agreement with The Rouse Company in September 1987 to develop a $515 million mixed-use development project to the north of the Phoenix Convention Center known as the Arizona Center. The development includes office and retail use as well as a three-acre public plaza. Arizona Public Service occupies a 450,000 square-foot office tower, which was completed in March 1989. In March 1998, a 5,000-seat 24-screen movie theater opened.

The Barron Collier Company and Opus West initiated a mixed-use downtown development project in 1998. The plans for Collier Center included three high-rise towers with 1.5 million square feet of office space, 200,000 square feet of retail shops and restaurants, and parking for 2,400 vehicles. The project is located on a

7.2-acre site bounded by Washington, Jefferson, First and Third Streets. Collier Center's Phase I, a $500 million, 23-story office tower, was completed in September 2000 and is the Arizona headquarters for Bank of America. The tower contains over 500,000 square feet of office space, 85,000 square feet of retail space and a 1,500-space underground parking garage.

Construction of the 20-story, 410,000 square-foot One North Central Building (formerly the Phelps Dodge Building), including 10,000 square feet of retail and 975 on-site parking spaces, began in February 2000. The building is located on the northeast corner of Washington Street and Central Avenue in downtown Phoenix. Construction was completed in November 2001.

In 2005, the City exchanged the City-owned historic Hanny's Building located at First and Adams Streets for the historic A.E. England Building located next to the ASU Downtown Phoenix campus at 424 North Central. The A.E. England Building, owned and operated by the City Parks and Recreation Department, was renovated for mixed retail and community use. The 30,000 square-foot Hanny's Building was renovated into a restaurant that opened in December 2008. The Historic Preservation Commission and the City assisted with approximately $400,000 of the estimated $4 million renovation costs.

The City entered into an agreement with One Central Park East Associates LLC to develop a $185 million 26-story office tower at the northwest corner of First and Van Buren streets. The Freeport McMoRan Center houses the world headquarters for Freeport-McMoRan Copper & Gold Inc. (formerly Phelps Dodge Corporation) and the Westin Hotel. The City provided property tax assistance and abandonment of right-of-way for the 485,700 square-foot building of Class A office space, 8,500 square feet of ground level retail space and 590 parking spaces. Construction began in October 2007 and was completed in November 2009. The Westin, which opened in March 2011, occupies nine floors of the Freeport McMoRan Center and includes 242 over sized guest rooms averaging 550 square feet.

In March 2012, the office space vacated by Freeport McMoRan at One North Central Avenue, (the former Phelps Dodge Building) was leased to the Arizona Summit Law School, formerly the Phoenix School of Law. The school relocated its private law school from the Phoenix mid-town corridor into the downtown area to improve student and faculty access to the various courts and for convenient access and close proximity to retail and entertainment venues.

CityScape is an approximately 5-acre, mixed-use development that blends urban living with work, shopping and entertainment and includes restaurants, a hotel, offices and outdoor event space. The project encompasses two blocks in downtown Phoenix and is one block from the Talking Stick Resort Arena and within two blocks of Chase Field. Construction on CityScape began in the fall of 2007 and the first phase opened in March 2010. The first phase includes 660,000 square feet of Class A office space, 200,000 square feet of retail, 1,300 parking spaces and redevelopment of Patriot's Square Park. Construction of the second phase commenced in February 2011 and included construction of the 242 room Hotel Palomar which was completed in June 2012. The final phase of the project, The Residences at CityScape, is comprised of 224 high-rise apartment units, constructed above the Hotel Palomar. The Residences at CityScape opened in the spring of 2014.

In 2010, the City entered into a development agreement with Hansji Hotels to develop the Luhrs City Center Marriott at the Northwest corner of Central Avenue and Madison Street. Construction on the hotel, which houses two brands, Residence Inn by Marriott and Courtyard by Marriott, began in late 2014. The two hotels share a lobby and other amenities, such as the fourth-floor pool. The 19-story Luhrs City Center Marriott offers 320 guest rooms and ground-floor retail space, while retaining the existing historic buildings on the same city block. The project incorporated the 10-story Luhrs Building, built in 1924, the 14-story Luhrs Tower, built in 1929, along with the one-story Luhrs Post Office Station & Arcade that connects the two high-rises. Construction was completed in April 2017 and resulted in $85,000,000 in capital investment.

In 2017, RED Development and Streetlights commenced construction of a dense, vibrant, urban development in the heart of downtown, with a capital investment of nearly $160 million. The project will include approximately 300 multi-family, for rent, high-rise residential units in one tower with 150,000 square feet of creative, open, office space attractive to technology and innovative tenants and 50,000 square feet of commercial space including an urban Fry's grocery store in the other tower, plus 1,000 above and below grade structured parking stalls and streetscape improvements. This project is expected to be completed in 2020.

In the spring of 2018, a 210-room, 11-story Hampton Inn hotel opened in downtown Phoenix. This $44 million hotel is well positioned to serve both the Phoenix Convention Center and the Arizona State University downtown campus.

In the summer of 2018, True North Holdings entered into a development agreement to construct the $151 million Ro2 development featuring 305,000 square-foot of office space and 77,000 square-foot of commercial retail space on City-owned land on 2nd Street north of Roosevelt. In the fall of 2018, True North closed escrow on the first phase of the development, acquiring the historic Knipe House for $80,000. The historic house will be renovated and adaptively reused for retail space in late 2019. Completion of the full project is anticipated in 2021.

Biotechnology and Education

In spring of 2002, the City and the State of Arizona, in partnership with the County's three State universities, various foundations and the private sector, formalized two proposals to the International Genomics Consortium (IGC) and the Translational Genomics Research Institute (TGen) to locate their new headquarters in downtown Phoenix. The City agreed to construct a six-story, 170,000 square-foot research facility for IGC and TGen located at Fifth and Van Buren Streets. Construction began in late July 2003 with occupancy occurring in December 2004. In September 2017 TGen, now an affiliate of City of Hope, agreed to a 20-year Lease-to-Purchase transaction for the building that is home to its headquarters and several other long-term tenants.

In August 2004, the Arizona Board of Regents, the University of Arizona (U of A) and ASU (collectively, the Arizona Biomedical Collaborative) entered into a memorandum of understanding outlining a combined vision to expand the U of A's colleges of medicine and pharmacy in downtown Phoenix, perform complementary research and develop facilities at the Phoenix Biomedical Campus (PBC) located on Van Buren Street between Fifth and Seventh Streets. The U of A College of Medicine has renovated three historic former Phoenix Union High School buildings located on the PBC for the first phase of the medical school. The $27 million renovation project began in March 2005 and was completed in September 2006. The first Arizona Biomedical Collaborative building (ABC I) is a four-story, 85,000 square-foot building located just north of the historic Phoenix Union High School buildings along Fifth Street. Research within ABC I focuses on several areas including cancer, diabetes, neurological and cardiovascular diseases. The $30 million facility includes academic space for the ASU Department of Biomedical Informatics on floors one and two and wet lab space for the U of A College of Medicine on floors three and four. Construction began in September 2005 and was completed July 2007.

In July 2012, the U of A Health Sciences Education Building (HSEB) opened and now houses the U of A College of Pharmacy and Northern Arizona University's Allied Healthcare Programs. This approximately $140 million, 260,000 square-foot six-story academic facility has provided space for the expansion of the U of A College of Medicine in downtown Phoenix. The U of A was also the recipient of a $15 million American Recovery and Reinvestment Act stimulus grant for the development of a below-grade research core. At build-out, the 30-acre PBC is expected to include more than six million square feet of research, academic and clinical development.

In the fall of 2015 the University of Arizona Cancer Center at Dignity Health St. Joseph's opened. The 220,000 square-foot, five-story, $100 million facility offers comprehensive cancer services, including infusion, radiation oncology, diagnostic imaging, endoscopic/interventional radiology, a women's center, specialized cancer clinics, patient wellness and support services, a prevention/executive health clinic, clinical lab space and other related support areas. The center is the only National Cancer Institute-designated Comprehensive Cancer

Center located in Phoenix. This outpatient clinical facility hosts approximately 60,000 patient visits and 500,000 annual visitors.

In February 2017, the U of A Biosciences Partnership Building (BSPB) opened. The 10-story, 245,000 square-foot building is connected to HSEB through a walkway. Research in BSPB will focus on flow cytometry, physics, materials science, nanotechnology, cancer drug therapies, molecular medicine, pediatric vaccines, building platforms for DNA and Biomarker Testing. At full occupancy, the facility will employ an estimated 360 healthcare professionals.

The next phase of construction at the PBC commenced in February 2013 with the groundbreaking of the Arizona Cancer Center. The $100 million, five-story, 220,000 square-foot facility is located on the northwest corner of 7th and Fillmore Streets and opened in the fall of 2015. This outpatient clinical facility is anticipated to host approximately 60,000 patient visits and 500,000 annual visitors.

To help serve the growing PBC, construction began in the fall of 2014 on a 1,200-car parking structure at 5th and Fillmore Streets. The eight-level privately developed project will provide parking for the neighboring institutions in the Phoenix Biomedical Campus, as well as paid public parking. The $19.0 million facility was opened in November 2015.

In March 2019, construction began on the first phase of Arizona State University's planned Health Solutions Campus at the Phoenix Biomedical Campus. ASU aims to develop its campus under a long-term agreement with the City for development rights for seven acres of land on the campus. The first phase of this development is the PBC Innovation Center, a 225,000-square-foot building being constructed by Wexford Science and Technology. The project cost of the first phase is $77 million and is expected to be completed in 2021.

In order to meet the additional business needs of the growing biomedical sector, the City is looking beyond the 30-acre downtown PBC. The City is collaborating with the Arizona State Land Department, ASU and the Mayo Clinic to develop the 600-acre Arizona Biomedical Corridor in north Phoenix. The City is assisting ASU with infrastructure on their 24-acre Health Solutions Campus. Groundbreaking for the first building occurred in April 2019. The Mayo Clinic completed its $314 million proton beam therapy facility within the Corridor in February 2016.

In 2004, ASU and the City of Phoenix entered into a partnership to develop the ASU Downtown Phoenix campus. Phoenix voters committed $223 million to the ASU Downtown Phoenix campus in the 2006 bond election. The campus is located in downtown Phoenix between Van Buren and Fillmore Streets on the north and south and First Avenue and Seventh Street on the west and east, respectively. Over 11,400 students were enrolled in degree programs at the ASU Downtown Phoenix campus during the fall 2017 semester.

As part of the first phase of the ASU Downtown Phoenix campus, which opened in August 2006, ASU began to offer a wide range of undergraduate and graduate programs from the College of Public Programs and the University College. The second phase brought programs from the state-of-the-art Walter Cronkite School of Journalism and Mass Communications, KAET/Channel 8 and the College of Nursing & Healthcare Innovation to the ASU Downtown Phoenix campus.

As part of the second phase of the ASU Downtown Phoenix campus expansion, construction was completed on the 82,000 square-foot ASU College of Nursing and Healthcare Innovation II facility. The innovative design creates a sense of arrival for the northeast corner of the campus and downtown. With over a third of the materials utilized for this project containing recycled content, the new facility achieved the Leadership in Energy and Environmental Design (LEED) certified Gold status and has received 14 awards including Best Education Facility in America and the LEED Building of the Year. ASU invested $1.5 million in tenant improvements to finish the remaining fifth floor space of the ASU Nursing and Health Innovation II facility for executive offices, meeting space and staff workstations, which were completed in July 2013.

The second phase was completed with the addition of a student union and a student residence hall. The U.S. Post Office building at Central Avenue and Fillmore Street houses the student union for the ASU Downtown Phoenix campus. Retail postal services remain in the building, and a veranda was added along the south side of the building to be used for concerts, outdoor films and other activities. The conversion of the U.S. Post Office building was completed in March 2010. Taylor Place, a new student residence hall was constructed on the campus between First and Second Streets on Taylor Street. Taylor Place was completed in August 2009 and accommodates 1,294 beds. In early 2012, ASU began construction on the 18,870 square-foot Student Center @ the Post Office located on the lower and first floors of the historic post office. Construction was completed in time for the 2013 spring semester.

In August 2012, construction of the new ASU student recreation center began. The Sun Devil Fitness Complex is a five-story, 64,000 square-foot facility with state-of-the-art weight and fitness areas, three multi-purpose studios for group fitness and mind/body classes, a two-court gymnasium, a rooftop outdoor leisure pool and a multi-purpose area for student clubs to utilize. The $25 million facility is located on First Avenue north of Van Buren Street, next to the YMCA. With classroom space for the Exercise and Wellness academic program on the second floor, the new facility adds to the existing YMCA services and serves both ASU students and YMCA members. The Sun Devil Fitness Complex opened to students and members in August 2013.

The ASU Sandra Day O'Connor College of Law relocated to downtown Phoenix from the Tempe main campus with the completion of the Beus Center for Law and Society building. The City of Phoenix invested $12 million in the project, located on a square block bounded by First, Second, Taylor and Polk Streets. Construction on the $129 million, 280,000-square-foot facility began in June 2014 and completed in August 2016.

In 2018, ASU committed to relocate the ASU Thunderbird School of Global Management (Thunderbird) from Glendale, Arizona to a new building on the square block also containing the ASU Sandra Day O'Connor College of Law. Thunderbird is moving to a temporary space at the Arizona Center before moving the graduate school to a new $60 million, 100,000 square-foot, four-story building at the corner of Second and Polk Streets in 2020. The City of Phoenix has agreed to invest $13.5 million into the project.

The anticipated economic impact of the ASU Downtown Phoenix campus is estimated to be $570 million, including the creation of 7,700 jobs. The City and ASU are working together to develop the State's workforce through education, generating academic and intellectual capital.

In July 2019, Creighton University, based in Omaha, Nebraska, began construction on a new health sciences campus at Park Central in midtown Phoenix. Creighton has estimated the total development cost to be $99,000,000. Expected to open in 2021, the 180,000-square-foot Phoenix campus will serve nearly 900 students. It will include a four-year medical school and schools for nursing, occupational and physical therapy, pharmacy, physician assistants and an emergency medical services program. In conjunction with the new Creighton campus and other development at Park Central, a $30 million parking garage is being constructed by the Park Central Community Facilities District, formed for this purpose. The new ten-story parking garage will have a capacity of 2,001 spaces and is expected to open in the summer of 2020.

Neighborhood Revitalization and Downtown Housing

The City's downtown redevelopment efforts are complemented by Neighborhood Services Department (NSD) programs through which NSD works to preserve and improve the physical, social and economic health of Phoenix neighborhoods. NSD has created programs to assist neighborhoods citywide and aggressively works to revitalize targeted neighborhoods. City projects are complemented by neighborhood-based programs such as clean-ups, blight elimination and graffiti prevention that are often led by neighborhood stakeholders, including businesses, residents and schools.

Targeted neighborhood strategies are more comprehensive and concentrated in approach, involving redevelopment of blighted or under-used properties, proactive code enforcement, housing rehabilitation, infill housing development, infrastructure improvements, neighborhood capacity building and economic development. Targeted neighborhoods include Neighborhood Initiative Areas, Redevelopment Areas, West Phoenix Revitalization Area, Rental Renaissance Neighborhoods and other City designated revitalization areas.

In order to make a meaningful impact towards the revitalization of distressed neighborhoods, NSD uses a strategic approach to address citywide needs and revitalization activities to enhance the physical environment and to improve neighborhoods. Federal programs that address blight elimination and neighborhood revitalization priorities including owner occupied housing rehabilitation and homeownership opportunities support the NSD strategies while enhancing the quality of life of Phoenix residents.

Beginning in the late 1990s, downtown Phoenix saw the development of several market rate projects for the first time in nearly a decade. From 1997 through 2003, nearly 1,300 housing units were built and available for occupancy in downtown. The units included apartments, lofts, condominiums and multi-family housing.

In the summer of 2003, Post Properties and Desert Viking Properties, LLC completed a rehabilitation project of a 12,300 square-foot retail structure located at Roosevelt Street and Third Avenue. The Gold Spot Market was reopened on July 17, 2003.

In August 2003, Artisan Homes, Inc. began building 105 ownership housing units on a 5.5 acre site bounded by Fifth and Seventh Streets and Roosevelt and Portland Streets. Artisan Village is an urban, mixed-use row house and townhouse residential project featuring ownership and unique live/work units with 3,000 square feet of street level retail opportunities, streetscapes, green belts, open spaces and 1,200 square feet dedicated for cultural use. The total project cost approximately $18 million and was completed in March 2006.

In March 2004, the City entered into an agreement with Portland Place Partners to develop vacant land on Portland Street between Third Avenue and Central Avenue. Portland Place is an urban residential development that consists of 54 units in a six-story condominium tower and brownstones. Construction of Portland Place was completed in July 2007. The next phase of development, Portland on the Park, began construction in the spring of 2015 and was completed in the spring of 2017. This luxury condominium project sits adjacent to the City's Hance Park on Portland Ave, between 1st and 2nd Ave. The $54,000,000 Portland on the Park project has added 170 condos to the historic Roosevelt neighborhood.

Since 2004, residential housing projects have been developed in downtown Phoenix with several additional projects currently under construction. Over the past ten years, downtown has gained over 3,300 market rate units and 1,200 affordable units. These new units have been developed as urban infill and adaptive reuse as well as low, mid and high-rise development projects.

On July 1, 2004, the City Council authorized staff to enter into a disposition and development agreement with Urban Form Development, LLC for a mixed-use residential project on City-owned property located at 215/217 East McKinley Street. Named 215 East McKinley, the development includes 14 residential units. Construction began in March 2006 and was completed in the fall of 2007.

WP South Acquisitions, LLC began construction in the spring of 2005 of a mixed-use residential project on a City-owned parcel and adjacent privately-owned property at the northwest corner of Fourth and Fillmore Streets. Alta Phoenix Lofts consists of approximately 325 market-rate rental residential units in an eight-story building with up to 10,000 square feet of street level commercial space and live/work units and a six-story parking structure with 450 parking spaces. Occupancy began in March 2009.

The Summit at Copper Square, a $32 million project adjacent to Chase Field, was completed in late 2007. The 22-story residential project on the southwest corner of Fourth Street and Jackson Street, consists of 167 ownership loft, studio, and luxury condominium units.

Grace Communities completed demolition of an office building located at the northeast corner of First Avenue and Monroe Street in June 2005 and constructed the tallest residential tower in Arizona. 44 Monroe consists of a 34-story mixed-use high-rise with 196 ownership condominium units, a recreation area, fitness center, theater, parking and approximately 3,300 square feet of commercial development. The $140 million project was completed in August 2008. In June 2010, ST Residential purchased 44 Monroe and converted the condominiums into rental units.

The City of Phoenix obtained a HOPE VI (Home Ownership Opportunities for People Everywhere) grant from the U.S. Department of Housing and Urban Development (HUD) to fund the revitalization of the Matthew Henson public housing site and surrounding community. The overall goals of HOPE VI are to assist public housing authorities in replacing severely distressed housing, increasing resident self-sufficiency and home ownership opportunities, creating incentives to encourage investment, and lessening concentrations of poverty by promoting mixed-income communities. The HOPE VI Special Redevelopment Area encompasses the area between Seventh and Fifteenth Avenues and Grant and Pima Streets. The project is a concentrated, mixed-income development of 611 affordable housing units with a community resource center, youth activity center, public parks, community gardens and swimming pools. Demolition and reconstruction began in December 2003. Eligible residents began to return to the communities in December 2005 and final occupancy occurred in the fall of 2008.

Concord Eastridge began development of a major multi-family, mixed-use residential project in 2011. The $52 million project, Roosevelt Point, occupies a three acre site in downtown Phoenix located between Roosevelt and McKinley Streets and Third and Fourth Streets. The privately funded project consists of 327 units and a 5-level parking garage and several thousand square feet of street-level retail. The project is intended to serve the growing population of students attending classes at the ASU Downtown Phoenix campus and the Phoenix Biomedical Campus. Construction began in the spring of 2012 and was completed in September 2013.

In January 2013, the developer of the CityScape project began construction on a 242 luxury apartment complex, Residences at CityScape, situated atop the 10-story Hotel Palomar at the intersection of Jefferson Street and Central Avenue. Construction was completed in the spring of 2014. The Residences at CityScape extends 25 stories above street level and provides the apartment residents access to all of the hotel’s amenities, including a private pool deck.

Art HAUS is a market rate residential project that completed construction in July 2016. The project includes twenty-five urban dwellings located in Midtown Phoenix consisting of simple yet bold forms organized around inter-connected semi-private resident courtyards. Dwellings consist of seven three-level townhomes, fifteen two-level lofts and three single-level flats ranging from 560 to 1,800 square feet. The project was constructed on the remnant parcel behind the Arizona Opera Center at Central Avenue and McDowell Road. The $5.5 million project is within walking distance of the Midtown Arts District.

Cloquet Metrowest, LLC completed a $17 million, five-story mixed-use development, named Union, in the summer of 2017. The Union includes 8,000 square feet of street-level restaurant/retail space, structured parking and 80 market-rate, multifamily residential units on a 0.9 acre site in the Historic Roosevelt neighborhood, at the southwest corner of Roosevelt Street and First Avenue.

In the summer of 2017, Alliance Residential completed the Broadstone Arts District project, a $49 million four-story, multi-family, rental residential infill project with 280 apartments. This development is on a 4.0 acre site at the northeast corner of McDowell Road and Alvarado Street.

In the fall of 2017, CA Ventures broke ground on The Link PHX. The Link PHX is a 30-story high-rise residential rental project with ground floor commercial space. This is the first phase of a three phase project that will ultimately generate $175 million of new investment in downtown Phoenix.

In the fall of 2018, Akara Partners broke ground on a $45-million, 20-story high rise residential project featuring 299 rental units with 17,000 square feet of ground floor retail. The project is anticipated to be completed in the fall of 2020.

Government Facilities

A 601,000 square-foot Phoenix City Hall was built on Washington Street between Second and Third Avenues, immediately north of the existing Calvin C. Goode Municipal Building. The project, completed in 1994, includes a 1,500-space parking structure that contains 43,000 square feet of office and retail space and is located between Washington and Jefferson Streets and Third and Fourth Avenues.

The Burton Barr Central Library celebrated its grand opening in May 1995. The five-story, 284,000 square-foot library accommodates more than 1 million volumes and has seating for up to 800 patrons. The facility was designed to meet the needs of library patrons well into the 21st century.

Construction of the Phoenix Municipal Court Valdemar A. Cordova Building, a nine-story, 375,000 square-foot City criminal justice facility, was completed in the fall of 1999. The building is located on the northwest corner of Washington Street and Third Avenue, directly west of Phoenix City Hall. The project cost $79 million. It is estimated that between 3,000 and 4,000 customers per day visit this facility, making it the largest volume court in the State.

The Federal government completed construction of a 550,000 square-foot federal courthouse in September 2000. The Sandra Day O'Connor U.S. Courthouse is located on two blocks bounded by Jefferson and Washington Streets and Fourth and Sixth Avenues in downtown Phoenix. The project cost approximately $110 million and includes courtrooms and related office space.

The County constructed a new courthouse in downtown Phoenix at First Avenue and Madison Street. The new 16-story courthouse provides 683,000 square feet of space, including 32 criminal courtrooms. Construction of the $340 million courthouse was completed in February 2012.

Maricopa County began construction of a new Maricopa County Sheriff's Office (MCSO) Headquarters in June 2012. Completed in 2014, the five-story, $92.5 million facility is located on Fifth Avenue and Jefferson Street and houses MCSO administrative staff, and the 911 call center operations. The building contains approximately 128,000 square feet of space with 75 parking spaces below ground.

In late 2017, Maricopa County began a $65-million remodel of the former Madison Street Jail located east of 3rd Avenue between Madison and Jackson Streets. The space will be the future home of the Maricopa County Attorney's Office, consolidating offices from around the county in downtown Phoenix.

Downtown Streetscape

Construction on an $8.9 million streetscape project in downtown Phoenix was completed in February 1995. The project added pedestrian lighting, landscaping and street furniture to pedestrian-oriented streets in the downtown area. The improvements are concentrated along Adams Street between Second Avenue and Second Street, Monroe Street between Third Avenue and Seventh Street, Second Street from Van Buren to Jefferson Streets, and Third Street between Van Buren and Monroe Streets. Project boundaries were chosen to create a pedestrian link between Phoenix City Hall, the Orpheum Theater, Talking Stick Resort Arena, the Arizona Center and the Heritage and Science Park.

In the fall of 2000, the City and the County reached an agreement wherein the County would be responsible for funding the streetscape build out of Jackson Street from First Avenue to Ninth Avenue and the City would be responsible for its maintenance. The $3.2 million project included a three-month community input process to identify the parameters of the street layout, landscape, sidewalk, lighting and design elements. Construction began March 2004 and was completed in November 2004.

In the fall of 2006, the City began construction of two streetscape projects on the ASU Downtown Phoenix campus. The projects, which included Taylor Mall and First Street, were completed in January 2009. Taylor Mall is a tree-lined, pedestrian-friendly sidewalk and street between the Civic Space Park and Arizona Center that contains public art, inviting benches, and sustainable water features. A traffic signal and crosswalk allows pedestrians to cross Central Avenue and light rail tracks to enter the Civic Space Park safely from Taylor Mall. In addition, the west side of First Street from Polk Street to McKinley Street has been improved with lighting, shade and landscaping.

In late 2012, the City completed construction of a 2006 voter approved bond project which improved downtown streetscapes on First Street from Fillmore to McKinley streets. The City received an award from the Arizona Community Tree Council for the First Street streetscape project for the beautification of the urban environment through the use of trees.

In 2015, the City completed construction on a streetscape project improvement on Roosevelt Street between Central Avenue and Fourth Street. The project was funded through a $750,000 Federal Transportation Enhancement Grant. The improvements include new sidewalks, bike lanes, street lights, shade trees, benches, public art and other amenities. A second phase of this project on Roosevelt Street, from Fourth Street to Seventh Street was completed in August 2016.

In 2017, the Renaissance Hotel, which fronts Adams Street from Central Ave to 1st Street, began a $9.5M capital improvement program that took recommendations from the Adams Street Activation Study. The improvements included relocating the valet area from Adams St. to 1st Street, structured shade elements along the south façade, drought tolerant landscaping and decorative street pavers. This investment transformed Adams Street into a more pedestrian friendly space and set a high standard for future development along Adams Street.

In 2019, the Hyatt Hotel, which fronts Adams Street from 1st Street to 2nd Street, began a $40 million capital improvement project to renovate the hotel and enhance the streetscape consistent with recommendations from the Adams Street activation study. Work is expected to be completed in 2020.

Transit/Light Rail

Central Station, the City's downtown transit center located on the northwest corner of Central Avenue and Van Buren Street was constructed in 1997. The 2.7-acre site includes a 4,000 square-foot passenger services building for ticket sales, security, and restrooms; a 16,000 square-foot passenger plaza that includes passenger information, seating and shade; and bus loading and circulation areas for 6 bus routes, Dial-a-Ride and DASH (Downtown Area Shuttle), as well as east and westbound light rail services. The total cost of the project was approximately $9.3 million, with the Federal Transit Administration funding 80% and the City funding 20% of the project. Central Station received a $3.7 million renovation, completed in July 2011, to modernize the facility, improve security, and incorporate sustainable elements. The transit center improvements were one of five major transit capital projects funded by the American Recovery and Reinvestment Act (ARRA). The other four projects include a $1.4 million expansion of the 40th Street and Pecos Road park-and-ride that was completed in June 2010, the construction of a new $3.4 million park-and-ride at the southwest corner of Interstate 17 and Happy Valley Road that was completed in January 2011, the construction of a new $2.7 million park-and-ride at the southwest corner of 27th Avenue and Baseline Road that was completed in February 2012 and a $4.0 million project to make Americans with Disabilities Act (ADA) related improvements to 400 bus stops in Phoenix that was completed in October 2012.

On March 14, 2000, City of Phoenix voters approved a 0.4% sales tax increase to be levied for a period of twenty years to provide funding for a light rail system as well as mass transit, including expanded bus service and other transportation improvements. Construction of an approximately $1.4 billion, 20-mile light rail system connecting north central Phoenix (19th Avenue and Bethany Home Road) with Sky Harbor International Airport (via the PHX Sky Train®), Tempe and Mesa (Main Street and Sycamore Road) began in the fall of 2004 and opened for operations in December 2008. The total cost of the project was funded with Federal grant funds, City sales tax revenues and other local funding sources.

In March 2008, the City entered into an intergovernmental agreement with Valley Metro Rail, Inc. (METRO) to design, build, operate and maintain an extension to the light rail system. The Northwest Extension (NWE) as initially planned would extend the original light rail system 4.9 miles northwest from 19th Avenue and Montebello (just south of Bethany Home Road) to 25th Avenue and Mountain View Road. The project will be completed in two phases. Construction of Phase I, which extended the light rail system 3.2 miles from 19th Avenue and Montebello to 19th Avenue and Dunlap, began in January 2013 and opened for service to the public in March 2016. Phase II will extend the light rail system another 1.7 miles from 19th Avenue and Dunlap over the I-17 freeway on Mountain View Road with a terminus on the west side of the freeway near Metrocenter mall to be completed in 2023. The City, in partnership with Valley Metro, began the environmental assessment for phase II during the spring of 2015. The Transit Excise Tax has already funded 33% of the construction costs for the NWE and the Maricopa County Transportation Excise Tax is funding the remaining 67% of the construction costs. No additional borrowing by the City is expected to be required for the City to fund capital costs of the NWE. The NWE operating costs will be funded with Transit Excise Tax revenues, fares, advertising revenues, and Federal preventive maintenance funds. The first new station along the existing Valley Metro Rail line was completed in April 2019 and serves the communities near 50^{th} and Washington Streets, and supports transit-oriented development planned for the area. A South Central Extension is anticipated to be completed in the next few years which will connect with the current light rail system in downtown Phoenix and run south to Baseline Road.

The city of Mesa received local and regional approval in August 2010 to move forward with the Central Mesa Extension, which extended the System 3.1 miles from Sycamore Drive and Main Street to Mesa Drive and Main Street. Construction on the Central Mesa Extension began in May 2012, with service beginning in August 2015. The Federal Transit Administration funded 64% of the Central Mesa Extension construction costs and the Maricopa County Transportation Excise Tax funded the remaining 36% of the construction costs. The Gilbert Road Extension was completed in late spring 2019 and extends the light rail on Main Street from Mesa Drive to Gilbert Road in Mesa. The city of Tempe began construction in 2017 on the Tempe Streetcar. Tempe Streetcar is the first modern streetcar line in the Valley and will connect riders to the light rail system, neighborhoods, major business centers, and regional events. Streetcar vehicles are smaller than light rail vehicles and operate individually, not linked together in trains. Streetcar stops are similar to bus stops and occur more frequently than light rail stations. The Tempe Streetcar is scheduled to be completed in 2021.

The City has also made major renovations to two of its bus transit centers. Renovations to the Sunnyslope Transit Center and the Paradise Valley Mall Transit Center were completed in June 2007 and June 2009, respectively. The renovations provided much needed improvements to the facilities, including security upgrades. The City recently developed a new park-and-ride facility along the Baseline Road corridor at 24th Street, which opened in April 2015. In addition, the City upgraded and expanded the Desert Sky Mall Transit Center to serve residents in West Phoenix. This much needed facility, which provides shade, security, covered parking and public art opened to the public in December 2015. The new Desert Sky Mall Transit Center cost $8.2 million for land, design and construction.

The City has also made substantial improvements to its bus operating and maintenance facilities. These facilities are the backbone of the transit system, as they provide fueling, cleaning, and maintenance for the City's bus fleet, as well as administrative space for the bus operations contract service providers. In November 2007, a new $50 million West Transit Facility was completed and opened for operations. This facility provides additional capacity to operate and maintain buses for the Phoenix transit system. The facility was designed to accommodate 250 buses and replace a rented facility, which could only accommodate 75 buses. The additional capacity will help address future expansion of the Phoenix bus system with the passage of Prop 104.

Improvement plans for the bus operating and maintenance facilities also includes renovations to the two existing facilities, the North Transit Facility and the South Transit Facility. Upgrades to these facilities include improvements to life safety, security, building code upgrades, roofing replacements, HVAC equipment replacement, and fueling system upgrades. The North Transit Facility renovation was completed in November 2013, while work at the South Transit Facility began in the summer of 2015 and is scheduled to be completed in the fall of 2019, with a total cost of $23 million for design and construction.

In August 2014, a 34-person group, the Citizens Committee on the Future of Phoenix Transportation, was created to address the 2020 expiration of the transit tax and to review the public transit and street transportation needs of the City. After six months of meetings and over 100 public engagement events, the committee forwarded their recommendations to the City Council, whom approved the plan in March 2015 and placed Prop 104 on the ballot. On August 25, 2015, voters approved a new comprehensive transportation plan and funding tax proposal that increased the existing tax rate dedicated for transportation. The dedicated sales tax rate was increased from the previous 0.4% sales tax rate to 0.7% and became effective January 1, 2016, with a sunset date of December 31, 2050. Only the revenue collected from the original 0.4% transit sales tax is currently pledged to the Transit Excise Tax Bonds. The increased tax will continue to fund expanded local bus and Dial-A-Ride service, bus rapid transit service, neighborhood circulators and the operation of the light rail system. In addition, funding will provide for expanded bus and light rail service hours and routes, high capacity transit corridors, and infrastructure improvements to bus stops, maintenance facilities and transit centers. Street improvements will also be funded by the increased tax including pavement maintenance, new bicycle lanes, sidewalk installation and traffic signal enhancements.

Phoenix Sky Harbor Center

The creation of Phoenix Sky Harbor Center was approved by the City Council in 1984, and in 1985, $19,150,000 in City bonds were issued for the development of 550 City-owned acres into a high quality business office, technological and industrial center. Located immediately west of Phoenix Sky Harbor International Airport, Phoenix Sky Harbor Center is generally bordered by I-17 to the south, 16th Street to the west, the Southern Pacific Railroad to the north and 24th Street to the east. Phoenix Sky Harbor Center is bisected by I-10, which provides convenient transportation access to the site and to Phoenix Sky Harbor International Airport.

The initial acquisition and infrastructure development phase of Phoenix Sky Harbor Center was completed in 1993. Among the earliest occupants were Honeywell, Sky Chefs Inc., Miller Brands of Phoenix and Arrow Electronics. These initial tenants built distribution space, office buildings, warehouses and manufacturing facilities totaling over 1.16 million square feet. The office park has since added Bank of America's credit card operations center, America West Airlines (now American Airlines) flight training center, and Bank One (now JPMorgan Chase) regional processing center. Other sizeable tenants at Phoenix Sky Harbor Center include First Group America dba Greyhound Lines, Charlie Case dba Community Tire, Century Link, Grand Stable & Carriage Co. LLC, LTJ Skyline, the City of Phoenix, Horseheads Industrial Capital II, LLC, 801 S. 16th Industrial, LLC, Honeywell International Inc., and Watson Properties.

In July 1993, the City received approval for the relocation and expansion of Foreign Trade Zone (FTZ) No. 75 to a 375-acre site at Sky Harbor Center. The FTZ was established to allow companies who import large amounts of foreign products to defer paying duties on these products until they are shipped to retail outlets. The FTZ boundaries were modified to include air cargo operations at the Airport.

In July 2001, the City Council approved the concept of a consolidated rental car center (RCC) for Phoenix Sky Harbor International Airport. On June 1, 2002, the City initiated a daily Customer Facility Charge (CFC) collected by the rental car companies on all rentals to be used to fund the construction, operation and maintenance of the RCC. The RCC is located on approximately 141 acres within Sky Harbor Center and opened on January 19, 2006. The development includes a customer service building, car service facility, a 5,651 space parking garage, bus fleet, bus maintenance facility, and associated site improvements, infrastructure, roadways, landscaping and signage. The project was funded with CFC revenues and bond funds, and cost approximately $285 million.

Phoenix Sky Harbor International Airport

In November 1990, construction was completed on Terminal 4 at Phoenix Sky Harbor International Airport at a cost of $276 million. The original facility included 4 domestic concourses housing 44 gates, one international concourse with 4 gates, and a 3,400-space parking facility. In July 1994, the City Council approved expansion of Terminal 4 to add 10 domestic gates to the international concourse. Construction of the new facilities was completed in February 1996. In September 1995, America West Airlines (now American Airlines) announced plans to expand its Phoenix operations over the next several years. In March 1998, the City Council approved an airport capital expansion program funded primarily by passenger facility charges and airport revenue bonds. Approved and completed projects included rebuilding runways in concrete, construction of two new airport fire stations, a new Terminal 4 concourse to provide more capacity for American Airlines and additional parking facilities at Terminal 4. The airport is currently constructing the final concourse at Terminal 4, which Southwest Airlines has already committed to utilize. The new concourse will add 8 gates, and is expected to be completed in mid-2022.

In February 2007, the City Council approved a $2.9 billion, ten-year Airport Development Program (ADP). The ADP included the design and construction of the PHX Sky Train®, development of additional gates and facility rehabilitation and maintenance. The national economic recession ending in 2009 negatively impacted the airline industry and resulted in reductions to passenger traffic at the airport. As a result of traffic and revenue declines, Airport management reduced operating expenditures and deferred some non-essential capital projects. Even with these reductions and deferrals, management continued design and construction of phase one of the PHX Sky Train® project and other vital airport projects. In 2010, air passenger traffic at Sky Harbor International Airport stabilized and began to recover. On June 11, 2019, the Phoenix City Council approved the Airport's Comprehensive Asset Management Plan (the *"CAMP"*), which is a 20-year blueprint for Airport investments. The CAMP is projected to cost $5.7 billion during the 20-year period. Funding for the first few projects of the CAMP were approved by the City Council, and funding for future projects will require additional approval as the time frames for those projects reach the planning stages.

Terminal 3, which opened in 1979, contains approximately 639,000 square feet and 10 gates. The Terminal 3 Modernization project, which began construction in 2014, consists of incremental improvements to Terminal 3 with the purpose of removing Terminal 2 from service, providing for passenger growth in Terminal 3, increasing passenger flow efficiencies and increasing concession revenue. The $580 million modernization project has three independent phases that allow the project to be completed as demand requires and finances allow. When complete, airlines currently operating in Terminal 2 will be moved into the expanded Terminal 3 facilities. The Airport opened the new south concourse for passenger service in January 2019, offering 12 new gates. When all three phases are complete in 2020, Terminal 3 will contain approximately 710,000 square feet and 25 gates.

PHX Sky Train® is an automated people mover designed to carry over 35 million riders annually through seven stations at Sky Harbor along an elevated guideway spanning approximately five miles. The PHX Sky Train® provides a new front door to the Airport, offering a seamless connection with the light rail transit station at 44th Street and Washington. Stage 1 of the PHX Sky Train® connects Phoenix's light rail system, Sky Harbor's east economy parking garages and Terminal 4 and began service on April 8, 2013. Stage 1a (the Terminal 3 Line Extension) began service on December 8, 2014 and runs from Terminal 4 to Terminal 3 with a walkway connection to Terminal 2. The two stages were completed more than $45 million under the combined budget of $884 million.

Construction of the final extension of the PHX Sky Train®, which will extend service from Terminal 3 to the Rental Car Center commenced construction in February 2018. The train extension project has a budget of $745 million and is scheduled to open for service in mid-2022.

Property Tax Supported Bond Program

In order to help meet the City's future capital financing needs, a comprehensive property tax supported general obligation bond program was initiated in the summer of 2005. A citizens bond committee consisting of approximately 700 private citizens was appointed by the Mayor and City Council to review the City's capital requirements and recommend a total bond program to the voters. This is the traditional approach used by the City for bond elections since 1950. The program culminated in a special bond election on March 14, 2006 when the voters approved all seven propositions totaling $878.5 million in new general obligation bond authorizations. The propositions and the amount of bonds authorized are shown in the following table. There is currently $152.3 million of authorized bonds that have not yet been issued.

2006 Bond Program	Amount Authorized
Police, Fire and Homeland Security	$177,000,000
Education Facilities	198,700,000
Library and Youth, Senior and Cultural Facilities	133,800,000
Parks, Open Space and Recreational Facilities	120,500,000
Streets, Storm Sewers and Flood Protection	147,400,000
Affordable Housing and Neighborhood Revitalization	85,000,000
Computer Technology	16,100,000
Total	$878,500,000

PHOENIX CITY GOVERNMENT

Phoenix operates under a Council-Manager form of government as provided by its Charter which was adopted in 1913. The City Council consists of a Mayor and eight Council members, elected by the people on a non-partisan ballot. At a special election held on October 3, 1989, Phoenix voters passed Proposition 105 which amended the City Charter to provide for four year staggered terms and a limit of two such terms for the Mayor and Council members. On November 6, 2001, Phoenix voters passed Proposition 101 which amended the City Charter to allow Council members to serve up to three consecutive four-year terms, with no limit on the number of terms that could be served over a lifetime. On August 28, 2018, Phoenix voters passed Proposition 411 which amended the City Charter by changing City Council elections from the fall of odd-numbered years to November of even-numbered years to coincide with county and statewide elections. The initial implementation of Proposition 411 will extend current Council members' terms by a year, so the next elections can occur in even-numbered years. The Mayor is elected at-large, while Council members are elected by voters in each of eight separate districts they represent. The Mayor and each Council member have equal voting power.

The Council is responsible for policy making. It appoints advisory boards, commissions and committees and also appoints Municipal Court Judges and the City Manager.

The City Manager is responsible for executing Council policies and administering City operations. Reporting to the City Manager is an Assistant City Manager, a Special Assistant, the Budget and Research Director, the Chief Financial Officer, the City Auditor and the City Attorney.

The City government is responsible for furnishing basic municipal services. Primary services delivered by the City's 30 departments/functions, 19 initiatives/projects and 14,560 employees include police, Municipal Court, fire protection, parks, recreation, libraries, sanitation, water, sewer, transportation (including streets and public transit), airports, building safety, public works, neighborhood improvement and housing, community and economic development and convention and cultural services. These services are being provided in fiscal year 2019-20 through an adopted operating budget of $4,554.9 million. Of this, the general purpose funds budget totals $1,374.4 million, which is for general municipal services and excludes enterprise activities such as water, sewer, refuse and airports and special revenue funds such as grants, secondary property taxes, Arizona Highway User Revenues, impact fees and voter-approved dedicated sales taxes.

Elected Officials

KATE GALLEGO, MAYOR

Mayor Gallego began her first term as Mayor in March 2019. Prior to being elected Mayor, Ms. Gallego served on the City Council representing District 8 for nearly five years before resigning in August 2018 to run for Mayor. Ms. Gallego has been an active member of the community and held several volunteer positions including Chair of the Environmental Quality Commission, Chair of the Solar Energy Subcommittee, Vice Chair of MyPlanPHX.com, and as a member of the Central City Village Planning Commission. Additionally, Ms. Gallego is a member of the Board of Directors of the Arizona Latino Arts and Culture Center and serves on the Arizona Commission on Service and Volunteerism. Ms. Gallego has a bachelor's degree in environmental studies from Harvard University and holds a Master of Business Administration in Entrepreneurial Management from the Wharton School of Business at the University of Pennsylvania.

JIM WARING, VICE MAYOR, DISTRICT 2

Councilmember Waring began his second consecutive full term on the City Council in January 2018. Mr. Waring has been an active member of the community for many years and has volunteered on many City and charitable organizations, including the Paradise Valley Village Planning Committee, Phoenix Planning Commission and Neighborhood Block Watch Committee. For his contributions, he has earned awards from the Arizona Federation of Taxpayers (Champion of the Taxpayer), National Federation of Independent Business

(Guardian of Small Business), and the Arizona Chamber of Commerce (Senator of the Year). In addition, he was recognized for his work fighting domestic violence by the Arizona Coalition Against Domestic Violence (Legislator of the Year twice) and the Men's Anti Violence Network (Man of the Year). Councilmember Waring was awarded the Arizona Veterans Hall of Fame Copper Shield Award and the National Guard Association of the United States Medal of Merit. Mr. Waring was an Arizona State Senator for seven years and has served on the staffs at Arizona State University, the Arizona Board of Regents and Northern Arizona University. Mr. Waring received his PhD in Public Administration from Arizona State University's School of Public Affairs and his undergraduate degree from Northern Illinois University.

THELDA WILLIAMS, COUNCILMEMBER, DISTRICT 1

Councilmember Williams began her third consecutive term on the City Council in January 2016, having previously served on the Council from 1989 to 1996 and as interim mayor in 1994, as well as 2018 and 2019. Before rejoining the City Council, Ms. Williams served on the Maricopa County Animal Care and Control Agency, the Governor's Commission to Prevent Violence Against Women and the Phoenix Sky Harbor International Airport Master Plan Committee. Currently, Ms. Williams serves on the Phoenix-Mesa Gateway Airport Authority, the Luke (AFB) West Valley Council and the Childhelp USA Advisory Board.

DEBRA STARK, COUNCILMEMBER, DISTRICT 3

Councilmember Stark began her first term on the City Council in March 2017 to fill the District 3 position left vacant upon the resignation of Bill Gates. Ms. Stark has spent her entire career in local government working for the City of Phoenix, the County, and the City of Peoria. At the City of Phoenix, Ms. Stark was the Planning and Development Director from 2005 to 2012. She is currently the President of the Arizona Chapter of the American Planning Association and serves as a Board Member for the Arizona Council of the Urban Land Institute and Southwest Center for HIV/AIDS. Ms. Starks holds a bachelor's degree in sociology from Western Kentucky University and a master's degree in planning from Arizona State University.

LAURA PASTOR, COUNCILMEMBER, DISTRICT 4

Councilmember Pastor began her second consecutive term on the City Council in January 2018. Ms. Pastor is Director of Achieving a College Education Program at South Mountain Community College and was a classroom elementary teacher for four years. Previously, Ms. Pastor was with the Department of Employment and Rehabilitation Services at the Arizona Department of Economic Security and was Special Assistant to the Arizona Director of Insurance. Ms. Pastor is a member of the Phoenix Union High School District Board and serves on the O'Connor House Speak Out Against Domestic Violence and Mi Familia Vota advisory boards. She is a former member of the Hispanic Advisory Board of Maricopa Community Colleges, Maricopa Transportation Advisory Board, the Homeless Task Force, and Phoenix Day. Ms. Pastor has a bachelor's degree in education from Arizona State University and a Master of Public Administration from City University of New York.

BETTY GUARDADO, COUNCILMEMBER, DISTRICT 5

Councilmember Betty Guardado began her first term on the City Council in June 2019. Ms. Guardado has been an active member of the community and has served as the director of union organizing in Phoenix for UNITE HERE Local 11, where she has conducted campaigns and negotiated contracts for thousands of hotel and food-service workers around Maricopa County. Currently, she is a vice president of Local 11. Ms. Guardado has been instrumental in leading successful independent voter turnout campaigns to elect several Phoenix City Council members, developing young leaders, and empowering working-class families.

SAL DICICCIO, COUNCILMEMBER, DISTRICT 6

Councilmember DiCiccio began his third consecutive full term on the City Council in January 2018. Mr. DiCiccio previously served on the City Council from 1994 to 2000. Mr. DiCiccio currently works with state, tribal, county and municipal governments as well as national business entities to develop business opportunities in Arizona. Mr. DiCiccio has served on several boards and committees including the Arizona Municipal Tax Code Commission, the State Land Conservation Task Force, the Arizona Growing Smarter Working Advisory Committee, the Maricopa County Planning Commission and the Arizona FARE Committee. Mr. DiCiccio was also a member of the Fiesta Bowl Committee and the Board of Directors for the Arizona Center for the Blind. Mr. DiCiccio is a member of the South East Valley Regional Association of Realtors and the National Association of Realtors. Mr. DiCiccio is a small business professional and holds a bachelor's degree in business from Arizona State University.

MICHAEL NOWAKOWSKI, COUNCILMEMBER, DISTRICT 7

Councilmember Nowakowski began his third consecutive full term on the City Council in January 2016. Mr. Nowakowski is currently the Vice President of Communications of a non-profit radio station, coming from previous work with the Catholic Diocese of Phoenix where he served as Assistant Director of the Office of Youth and Young Adult Ministry. Mr. Nowakowski has served on several boards and committees including co-chairman of the 2006 City of Phoenix Historic Preservation Bond Committee, member of the City of Phoenix Police Chief's Advisory Board, founding member of the Mayor's Anti-Graffiti Task Force, City of Phoenix Census 2000 Committee, Phoenix Union High School Superintendent's Advisory Board, chairman of Santa Rosa Neighborhood Council and in 2008 was appointed commissioner for the Western Maricopa Enterprise Zone. Mr. Nowakowski holds a bachelor's degree in liberal arts in religious studies from Arizona State University.

CARLOS GARCIA, COUNCILMEMBER, DISTRICT 8

Councilmember Carlos Garcia began his first term on the City Council in June 2019. Prior to being elected to the Phoenix City Council, Mr. Garcia spent 16 years advocating social justice in Arizona and across the country. Mr. Garcia serves on the U.S. Human Rights Network Board and co-founded Puente Human Rights Movement, an immigrant rights organization, as well as One Arizona, a non-profit coalition focused on civic engagement. Mr. Garcia is also a co-founder and board member of Mijente, a national political home for Latinx and Chicanx.

Administrative Staff

ED ZUERCHER
City Manager

Ed Zuercher was appointed City Manager in February 2014, after serving as Acting City Manager since October 2013. Prior to his appointment as City Manager, Mr. Zuercher had been the Assistant City Manager since November 2009 and served as a Deputy City Manager since November 2007. Before working in the City Manager's Office, Mr. Zuercher served as Co-Chief of Staff to the Mayor, Executive Assistant to the City Manager, Assistant to the City Manager, Public Transit Director and Management Assistant in the City Manager's Office and Budget & Research Department. Originally from Kansas, he participated in the City of Phoenix Management Intern Program from 1993 to 1994. Mr. Zuercher served as chairperson of the Public Safety Pension Retirement System from 2005-2009 and currently serves on the Greater Phoenix Convention and Visitors Bureau board. He has a Master of Public Administration from the University of Kansas and an undergraduate degree from Goshen College.

MILTON DOHONEY, JR
Assistant City Manager

Mr. Dohoney was appointed Assistant City Manager on April 21, 2014. Mr. Dohoney brings nearly 30 years of executive experience leading organizations in three cities. He worked for seven years as City Manager of Cincinnati, Ohio and for three years as Chief Administrative Officer of Lexington Fayette Urban County

Government in Kentucky. He also served nearly 20 years with the City of Louisville, Kentucky in the capacities of an Assistant Community Services Director, Chief Administrative Officer and Public Safety Director. Mr. Dohoney is the recipient of many awards, including Administrator of the Year in 2013 from the American Society for Public Administration Greater Cincinnati Chapter; YMCA Black Achievers Award in 2010; and Kentucky Commission on Human Rights Spirit for Justice Medal in 2012. He earned his master's degree in Personnel Management/Human Resources from the University of Louisville and his bachelor's degree in Psychology from Indiana University Southeast.

DEANNA JONOVICH
Assistant City Manager

Ms. Jonovich has worked for the City since 2000. She previously served a Deputy City Manager, as the Human Services Director and has worked in a variety of management positions in the Human Services Department. Prior to joining the City, she was the Community Services Director for four years in Gila County where she assisted with the creation of the first Arizona Fuel Fund to assist low-income individuals and families with utility assistance. Ms. Jonovich has a master's degree in administration and an undergraduate Bachelor of Science in Business Administration, both from Northern Arizona University. Ms. Jonovich remains very active in the community and currently serves on the Arizona Coalition to End Homelessness, Valley of the Sun United Way Hunger Council, Build Arizona Steering Committee, Local Initiative Support Corporation, Maricopa Association of Governments Technical Committee, and Neighborhood Housing Services.

CRIS MEYER
City Attorney

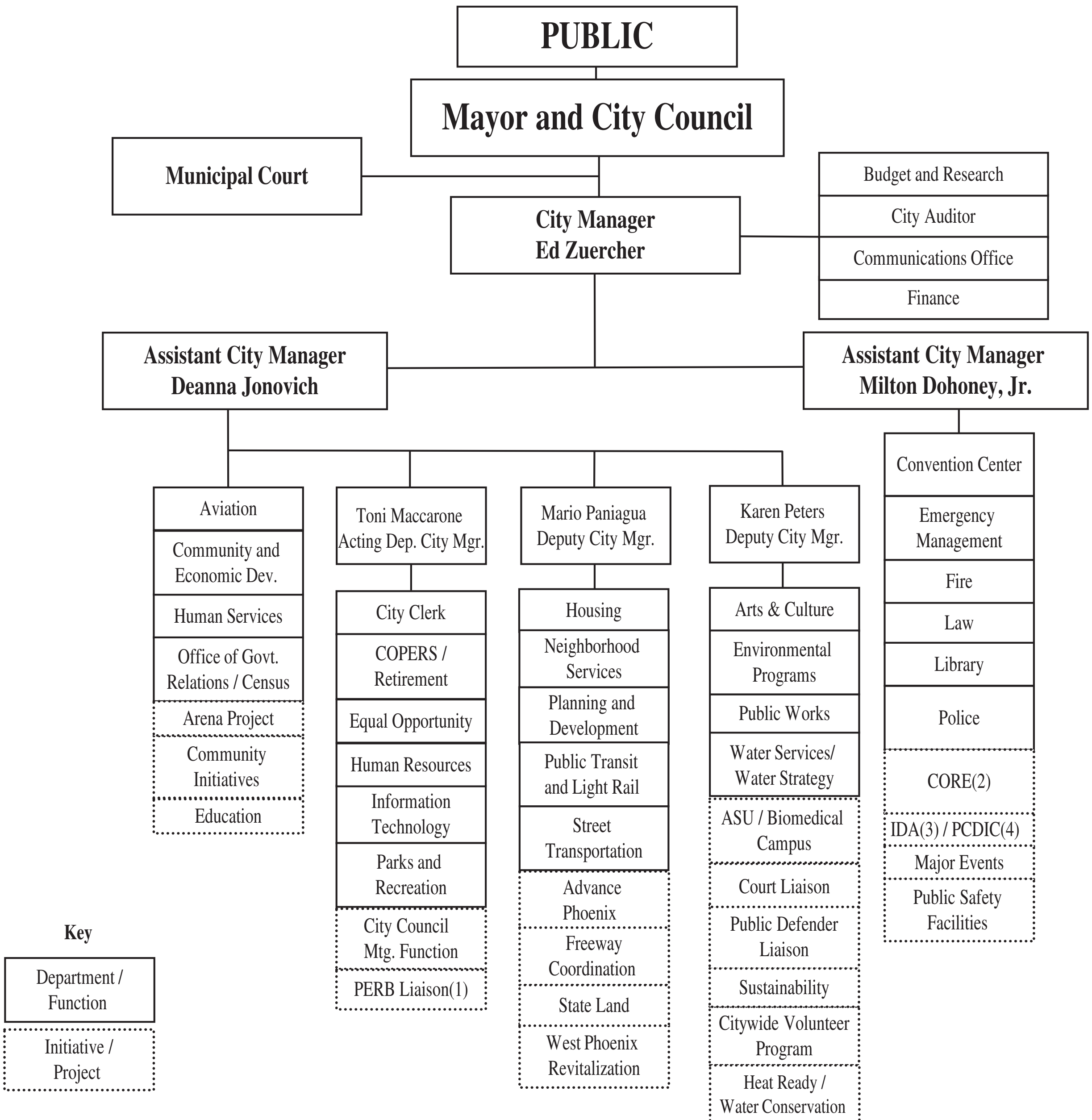
Mr. Meyer was named City Attorney in December 2018 after serving as Chief Assistant City Attorney. Mr. Meyer has more than 25 years of experience in City administration, management and municipal law in the areas of elections and initiative, referendum and recall petitions, campaign finance, public records, open meeting law and public meetings, ethics, conflicts of interest, annexation, regulatory licensing, and municipal administration. Mr. Meyer is a member of the State Bar of Arizona and the State Bar of Illinois. He received his bachelor's degree in Psychology from Wheaton College in Illinois and his law degree from the University of Illinois College of Law.

DENISE OLSON
Chief Financial Officer

Ms. Olson was appointed Chief Financial Officer in November 2015. She began her career with the City in 1994 in the Finance Department, working as an economist in the Utilities Accounting Division and the Financial Accounting and Reporting Division. She became Deputy Finance Director in 2006, and was promoted to Assistant Finance Director in 2012. Throughout her career she has managed financial planning, financial systems applications and support, procurement, city controller functions, financial accounting and reporting and has been involved in the planning and issuances of debt to fund capital expenditures. Ms. Olson has a bachelor's degree in Business Administration with majors in Human Resources and Economics from New Mexico State University, and a Master of Public Administration from Arizona State University. Ms. Olson was named CFO of the Year by the Phoenix Business Journal in November 2018. This award recognizes top executives for their contribution and commitment to the community.

JAMES E. BENNETT
Director of Aviation Services

Mr. Bennett began his current role for the City in October 2015. In a career spanning nearly 35 years, Mr. Bennett has served as President and Chief Executive Officer of the Metropolitan Washington Airports Authority, operating Ronald Reagan Washington National and Washington Dulles International Airports. He also worked in private industry as chief executive officer for the Abu Dhabi Airports Company overseeing five airports within the Emirate of Abu Dhabi and as president of his own consulting firm providing consultation for both foreign and domestic transportation companies. From 1988 to 1996, Mr. Bennett was Phoenix's Assistant Aviation Director assisting with successful community discussions leading to a third runway at Sky Harbor, overseeing the construction and development of Sky Harbor's Terminal 4 and supervising the Airport's finance, engineering, planning and maintenance operations, among other duties. Mr. Bennett has a Bachelor of Aviation Management degree from Auburn University and a Master of Public Administration degree from the University of Michigan. His numerous professional affiliations include being the former chairman of the American Association of Airport Executives and past president of the Arizona Airports Association. Airports Council International – North America awarded Mr. Bennett with the 2019 Excellence in Visionary Leadership Award. This award recognizes the leadership of an airport CEO who best exemplifies nine core competencies, including people practice expertise, relationship management, consultation, leadership and navigation, communication, global and cultural effectiveness, ethical practice, critical evaluation, and business acumen.



1 - Phoenix Employee Relations Board

2 - Comprehensive Organization Review Evaluation.

3 - Phoenix Industrial Development Authority.

4 - Phoenix Community Development and Investment Corporation.

Effective March 4, 2019

Awards

The City of Phoenix and its employees have been recognized professionally for numerous awards including the following accomplishments:

- **Certificate of Achievement for Excellence in Financial Reporting**

This award (formerly the Certificate of Conformance in Financial Reporting) recognizes the completeness, accuracy and understandability of the City's Comprehensive Annual Financial Reports. Awarded to the City of Phoenix by the Government Finance Officers Association each year since 1976, and to the City of Phoenix Aviation Department each year since 2016, the first year of the Aviation CAFR.

- **Employees' Retirement Plan Certificate of Achievement for Excellence in Financial Reporting**

Awarded to the City of Phoenix by the Government Finance Officers Association for its component unit financial report each year since 1985. The Certificate of Achievement is the highest form of recognition in the area of public employee retirement system accounting and financial reporting.

- **Distinguished Budget Presentation Award**

Awarded to the City of Phoenix Budget and Research Department each year since 1990 by the Government Finance Officers Association for the completeness and understandability of its budget document.

- **2018 Illuminating Engineering Society Award of Excellence Winner**

The Illuminating Engineering Society (IES) and Smith Group recognized Phoenix Sky Harbor International Airport for its Terminal 3 Modernization Project. The 2018 Illuminating Engineering Society Awards celebrates design excellence worldwide and selected Phoenix Sky Harbor as an Award of Excellence Winner. This award was provided to the airport due to an exceptional contribution to the art and science of light.

- **2017 Arizona Forward — Governor's Award for Arizona's Future**

Arizona Forward awarded its prestigious Governor's Award for Arizona's Future to the City of Phoenix for its landmark 2017 agreement with the Gila River Indian Community to preserve endangered Colorado River water in Lake Mead. In all, Phoenix received nine awards at Arizona Forward's 37th Annual Environmental Excellence Awards, including four Crescordia Awards, the highest honor in each category. Mayor Greg Stanton and the Phoenix City Council unanimously approved the Colorado River Conservation Agreement in June 2017 in partnership with the Gila River Indian Community, the U.S. Bureau of Reclamation and the Walton Family Foundation. Under the agreement, Phoenix works with the Tribe to preserve 13 billion gallons of its annual portion of Colorado River water in Lake Mead, which helps preserve water levels in the dangerously over-allocated reservoir.

- **2017 Nations's Highest Performing City**

The City of Phoenix has been named the nation's highest performing city by Governing Magazine and Living Cities through the first-ever national "Equipt to Innovate" survey. Equipt to Innovate is a new initiative launched by Governing and Living Cities. It is an integrated, collaborative framework of seven essential elements that define high-performance government and empower innovation. It is also an invitation for cities to work together, learn from each other and help drive better outcomes for their communities. The seven Equipt elements are: Dynamically Planned; Broadly Partnered; Resident-Involved; Race-Informed; Smartly Resourced; Employee-Engaged; and Data-Driven. Cities from across the country participated in the inaugural 2016 Equipt survey, assessing their capacity and competence in these seven key areas.

- **ICMA Program Excellence Awards**

  – **2019 ICMA Certificate of Distinction in Performance Management**

The International City/County Management Association (ICMA) has recognized the City of Phoenix for its data-driven management and reporting efforts with a Certificate of Distinction for 2019. Certificates of Distinction are awarded to those who provide comparative and benchmarking information to the public, use performance data in strategic planning and operational decision-making, and share their knowledge with other local governments through presentations, site visits, and other networking activities. Phoenix is among 19 jurisdictions receiving the Certificate of Distinction and one of 63 recognized overall. This is the 18th year the City's performance management efforts have been recognized by ICMA.

- **2017 Community Partnership Award**

The City of Phoenix was awarded the Community Partnership Award for the Phoenix/Tucson water exchange program. This award recognizes innovative programs or processes between and/or among a local government and other governmental entities, private sector businesses, individuals, or nonprofit agencies to improve the quality of life for residents or provide more efficient and effective services. The exchange agreement between Phoenix and Tucson takes advantage of the unique infrastructure of each city's water system. Tucson's system relies on wells, Phoenix relies on surface water, and a canal connects the two cities.

- **2017 Water Resource Utility of the Future Today Award**

The City of Phoenix Water Services Department was honored as a 'Utility of the Future Today' for the department's forward-thinking initiatives. The recognition program is administered by four water sector organizations — the National Association of Clean Water Agencies (NACWA), the Water Environment Federation (WEF), the Water Environment & Reuse Foundation (WE&RF) and WateReuse — with input from the U.S. Environmental Protection Agency (EPA). The Phoenix Water Department was one of just 25 water utilities in the country to receive this recognition. The Utility of the Future Today recognition celebrates the achievements of forward-thinking, innovative water utilities that are providing resilient value-added service to communities. The recognition focuses specifically on community engagement, watershed stewardship and recovery of resources such as water, energy and nutrients.

- **2017 AAAE Airport Innovation Award**

The Airport Innovation Accelerator – established by the American Association of Airport Executives (AAAE) as a hub for innovation to drive creative approaches and build airports of the future – has selected Phoenix Sky Harbor International Airport to receive the second annual Airport Innovation Award for its creative work to improve the passenger experience and deploy cutting-edge technologies. The Airport Innovation Award was established by the Airport Innovation Accelerator to honor Innovative developments that are a model for airports around the country. Phoenix secured the award for a portfolio of creative innovation to enhance the passenger experience and make airport operations more efficient. The award was presented to Phoenix officials at the third Annual Airport Innovation Forum in Seattle.

- **Outstanding Achievement in Innovation**

  - **2017 Outstanding Achievement in Innovation**

The Alliance for Innovation awarded the City of Phoenix an Outstanding Achievement in Innovation Award for PHXteens Program. Developed to help teenagers better connect with the community and to realize their full potential, the PHXteens program launched in September 2016 and is facilitated out of eight community and recreation centers located throughout the city. During its inaugural year, 233 teens registered for the program. Additionally, teens participated in 31 cultural and 24 recreational field trips, 70 teen council meetings, 28 workshops, and 2,439 volunteer hours.

  - **2016 Outstanding Achievement in Innovation**

FitPHX is the recipient of the Alliance for Innovation's Outstanding Achievement in Local Government Innovation Award. FitPHX is a citywide initiative with the goal of improving health and wellness in the region and making Phoenix area one of the healthiest in the nation. The initiative has created innovative collaboration between government, private sector, non-profits and universities to develop programming that gives citizens tools and education to be healthier. In 2015, FitPHX provided services to nearly 14,000 participants and raise $350,000 to support its programming.

– **2013 Outstanding Achievement in Innovation**

The Alliance for Innovation awarded the City of Phoenix an Outstanding Achievement in Innovation Award for its organizational review, which resulted in a leaner work force and more efficient delivery of services. The goals of the organizational review were to eliminate layers of supervision, broaden the span of control, streamline services, identify efficiencies and reduce the size of government. Through these goals, the City was able to improve services to residents by providing for faster decision making and enhanced organizational flexibility and communications, leading to the smallest City government in 40 years, as measured by employees per capita.

– **2012 Outstanding Achievement in Innovation**

The Alliance for Innovation awarded the City of Phoenix an Outstanding Achievement in Innovation Award for the Innovation and Efficiency Task Force. Created in January 2010, the task force is comprised of City staff and public members who explore, develop and implement innovative processes that result in a more efficient delivery of City services and maximize the use of limited taxpayer dollars.

- **2016 President's "E" Award for Export Service**

The City of Phoenix was a 2016 winner of the President's "E" Award for Export Service. The President's "E" Award was initiated in 1962 by President John F. Kennedy to recognize excellence by companies and municipalities for contributions to U.S. exporting. Phoenix is only the fifth city to earn the honor in 54 years. It is typically reserved for companies and private sector entities. The City earned the award by demonstrating a sustained commitment to export expansion with significant and broad-based support to grow exports from Phoenix, which is responsible for more than half of the exports from the State of Arizona. The support included the launch of the City's export boot camp initiative, which teaches local small- and medium-sized businesses how to trade abroad.

- **2016 Platinum Award for Utility Excellence**

The City of Phoenix Water Services Department was honored for utility excellence by the Association of Metropolitan Water Agencies (AMWA) at its 2016 Executive Management Conference. The City's Water Department was one of ten water utilities in the country to receive the Platinum Award for Utility Excellence. The Platinum Award recognizes outstanding achievement in implementing the nationally recognized Attributes of Effective Utility Management.

- **2015 Mayors' Climate Protection Awards**

Awarded to the City by the U.S. Conference of Mayors, the annual Mayors' Climate Protection award recognizes mayors for innovative programs that increase energy efficiency and reduce greenhouse gas emissions. The City earned the award for the Energize Phoenix Program, a large-scale, three-year building energy efficiency program, which catalyzed $56 million in energy upgrades along a ten-square-mile urban corridor of Phoenix surrounding the newly-constructed Metro light rail. Phoenix partnered with Arizona State University and APS, Arizona's largest electricity provider, to leverage $25 million in program funding from the U.S. Department of Energy and $31 million in utility funding to transform the downtown core into a green corridor. It focused on a diverse mix of single- and multi-family residential buildings and small commercial buildings offering significant rebates and financing for energy efficient upgrades.

- **2015 Sister Cities Best Overall Sister City Program Award**

In July 2015, the Phoenix Sister Cities Commission received the Sister Cities International Best Overall Sister City Program in the U.S. for cities with a population of 500,000 or more award, its highest honor. This is the eight time in the past 21 years that Phoenix has won this award. Phoenix Sister Cities highlights include a new and improved Youth Ambassador Exchange Program; a significant increase in arts and culture projects including the second annual WorldFEST celebration promoting its 10 sister cities; the Vincenzo Bellini Opera project with Catania, Italy; a police training program for Hermosillo, Mexico; and economic development projects with Chengdu, China; Catania, Italy; and Calgary, Canada as well as trade missions with Calgary and Catania.

- **National Association of Clean Water Agencies (NACWA) Awards**

  – **2015 NACWA Platinum Peak Performance Award**

The National Association of Clean Water Agencies (NACWA) honored the City of Phoenix Water Services Department with the Platinum Award for seven consecutive years of perfect National Pollutant Discharge Elimination System permit compliance. NACWA is a nationally recognized leader in water quality, environmental policy and ecosystem protection issues. The City treats wastewater from 2.5 million people in Phoenix, Glendale, Mesa, Scottsdale and Tempe.

  – **2012 NACWA Gold Peak Performance Award**

The NACWA honored the City of Phoenix Water Services Department with the Gold Award for consistently meeting all National Pollutant Discharge Elimination System permit limits during the calendar year. The City's 23rd Avenue Wastewater Treatment Plant and 91st Avenue Multi-Cities Wastewater Treatment Plant were presented the award to recognize 100 percent compliance with regulatory discharge limits.

- **2014 World Airport Award (WAA)**

SkyTrax World Airport Awards (WAA) recognized Phoenix Sky Harbor International Airport as the 7th best airport in the world serving 40-50 million passengers. WAA is the leading global award for the world's best airports, as voted by travelers from over 160 countries and 410 airports worldwide, in the largest airport customer satisfaction survey. The ranking was determined by airline customers and evaluates traveler experiences across key performance indicators: check-in, arrivals, transfers, shopping, security, immigration processing and departure.

- **2014 Top Ten Digital Cities Award**

In November 2014, the City of Phoenix was named a Top Ten City in the Center for Digital Government's 2014 Digital Cities Survey. The award honors cities with best practices in public sector information and communications technology.

- **National Association of Housing and Redevelopment Officials (NAHRO) Award**

  – **2014 NAHRO Award**

In August 2014, the City's Neighborhood Services Department (NSD) received the Award of Merit for designing the Neighborhood Stabilization Program as an innovative, multi-faceted delivery approach to revitalize communities affected by the foreclosure crisis. With funding from the U.S. Department of Housing and Urban Development, accomplishments of the program include 395 homes rehabilitated to energy efficiency building standards, 191 homebuyers receiving down-payment assistance, 102 demolition projects completed using green methods and strategies, and a rescued subdivision featuring 14 newly constructed, solar-powered, single-family homes Gold certified to the National Green Building Standard.

  – **2011 NAHRO Award**

In October 2011, NSD received three Awards of Merit. NSD was honored for a pilot program that allows residents to use mobile devices to report blight, a code violation resolution volunteer assistance program and the Isaac Neighborhood Initiative Area. Since 1993, the City has used the Neighborhood Initiative Area strategy in the Isaac community to do comprehensive and concentrated neighborhood revitalization which continues to make significant progress in improving the economic, physical and social health of the neighborhood.

  – **2010 NAHRO Award**

In November 2010, the City received an Award of Excellence for the Housing Department's McCarty on Monroe senior housing development. McCarty on Monroe consists of 34 public housing units and 35 low-income housing tax credit units. All units are clustered around a central, landscaped courtyard, creating a sense of community and interaction among the residents. McCarty on Monroe combines quality affordable housing for seniors and immediate access to light-rail while preserving history and adding green design.

- **2014 NBC-LEO City Cultural Diversity Award**

  In March 2014, the City of Phoenix was recognized by the National Black Caucus of Local Elected Officials (NBC-LEO) of the National League of Cities for its "Phoenix Against Domestic Violence - A Roadmap to Excellence" Program. The Roadmap to Excellence Program is a five-year strategic plan to end domestic violence in the City. More than 50 community partners, including private and nonprofit organizations, collaborated to create a plan that includes a community and media campaign focusing on five strategies: community awareness, coordinated service delivery, systems reform, "Phoenix as a Model," and community partnerships.

- **2013 Sunny Award**

  Awarded to the City of Phoenix by Sunshine Review, a national nonprofit organization dedicated to government transparency. The award honors the most transparent government websites in the nation. This is the fourth time the City has won the award.

- **2013 NGWA Outstanding Groundwater Protection Award**

  The National Ground Water Association (NGWA) annually awards the Groundwater Protection Award to the organization that exhibits outstanding science, engineering, or innovation in the area of protecting groundwater. The City of Phoenix Water Services Department received the award for incorporating innovative technologies in the aquifer restoration program. Phoenix was the first city in the country to use the technology, which has reduced annual operations and maintenance costs by over $110,000.

- **2013 Technology "Best of the Web" Award**

  The City of Phoenix Information Technology Services Department received a "Best of the Web" award from the Multi-State Information Sharing and Analysis Center for the City's Information Security and Privacy website.

- **2013 National Institute of Senior Centers (NISC)**

  A Program of Excellence Award was received by the City of Phoenix Human Services Department for its FitPHX Senior Champions Passport Program in the Nutrition, Fitness and Health Promotion category. The program is offered at the City's fifteen senior centers.

- **2012 NBC-LEO City Cultural Diversity Award**

  In March 2012, the City of Phoenix was recognized by the National Black Caucus of Local Elected Officials (NBC-LEO) of the National League of Cities for the City Manager's Community Engagement and Outreach Task Force. The task force was established in 2010 as a community-based, long-term effort to enhance the relationship between the Phoenix Police Department and the community.

- **2010 Desert Peaks Award**

  In June 2010, the City of Phoenix received an award from Maricopa Association of Governments for its Urban Education Initiatives, on which it collaborated with Arizona State University and the University of Arizona to create the ASU Downtown Phoenix Campus and the Phoenix Biomedical Campus. The award recognizes excellence in regionalism.

- **2010 LEED Platinum Certification Award**

  In June 2010, the City of Phoenix Nina Mason Pulliam Rio Salado Audubon Center was the recipient of the U.S. Green Building Council's award for its use of the Leadership in Energy and Environmental Design (LEED) rating system. Located in the heart of the Rio Salado Habitat Restoration Area, the center received the award for the environmental friendliness and sustainability of the facility. The center is a gateway to a lush Sonoran riparian habitat used by more than 200 species of birds and other wildlife.

- **2009 All-America City Award**

  The City of Phoenix was the recipient of the National Civic League's All-America City award, the fifth time the City has earned the recognition, for its collaborative projects that involve the community and address critical issues. The City highlighted the newly developed urban education campuses (Arizona State University Downtown Phoenix Campus and Phoenix Biomedical Campus), the Phoenix Parks and Preserve Initiative and the innovative library teen spaces.

- **Carl Bertelsmann Prize**

Awarded in 1993 to the City of Phoenix and Christchurch, New Zealand, recognizing each as being the best managed city governments in the world. The international competition for the most efficiently operated city was sponsored by the Bertelsmann Foundation, a research and philanthropic arm of Bertelsmann AG, the second largest media organization in the world. Cities were judged on several categories including customer service, decentralized management, planning and financial controls, employee empowerment and administrative innovation.

ECONOMY & DEMOGRAPHICS (1)

Overview

In 1912, Arizona was admitted as the 48th state of the United States of America. At that time, less than 300,000 people lived in Arizona. The state has experienced tremendous growth over the last century. Now the sixth largest state in terms of area, the estimated 2018 population was over 7 million people. The majority of the population resides in urban areas. Nearly 4.9 million people lived within the Phoenix-Mesa-Chandler Metropolitan Statistical Area (the Phoenix MSA) in 2018, and 23.2% of the state's population was concentrated in the City of Phoenix. Nationally, Phoenix is ranked as the fifth most populous city, and the Phoenix MSA ranked as the 11th most populous metro area.

At the beginning of the 20th century, the Arizona economy relied heavily on copper, cattle, cotton, climate, and citrus. Today, the local economy is far more diversified. It includes many significant value-added sectors such as aerospace and defense, financial services, and the semi-conductor industry.

Over two thirds of the Arizona population resides in the Phoenix MSA. In terms of land area, the Phoenix MSA is often described as a sprawling metropolitan area with a low-density population. The City of Phoenix, the state capital and largest city in the Phoenix MSA, is generally flat and surrounded by scattered, low mountain ranges. The subtropical desert climate is conducive to a variety of outdoor recreation activities during all twelve months. Both the topography and climate attract many visitors and out-of-state tourists, further bolstering the economy. The Phoenix MSA accounted for approximately 70% of total state employment in 2018. Professional and business services was the largest source of employment in the MSA, with other major sources including retail and wholesale trade, education and health services, leisure and hospitality, and financial activities.

Approximately 300,000 jobs were lost between 2008 and 2010, the peak of the Great Recession. Many of these job losses occurred in sectors such as construction, business services and retail, which had previously helped the state to grow pre-recession. The residential real estate market also suffered as population inflows stalled. However, both population and construction is on the rise, and the real estate markets are optimistic. Low business costs and business-friendly regulatory systems entice businesses to locate in the area. The state's advantageous location in the Canada-Mexico corridor and its abundance of skilled and available workers have contributed to the Phoenix MSA's recovery from the 2008 recession and its bright outlook for future growth.

The Arizona economy has experienced steady growth in recent years. More than 88,000 new jobs were filled in the Phoenix MSA between 2017 and 2018. This equates to a 4% growth rate in civilian labor force employment over the previous year. Local economists expect 2019 to result in additional wage and salary employment growth of 3.1%.

Key Phoenix MSA Statistics:

- 11th most populous MSA in the nation in 2018 with a population of 4,857,962.
- Civilian labor force above 2.4 million in 2018.
- Unemployment rate of 4.2% in 2018.
- High compound annual growth rates in multiple industries including 6.0% compound annual growth rate in construction, 4.6% in transportation, warehousing, and utilities, and 4.1% in financial activities, 2011 through 2018.
- Compound annual growth rates of more than 3.5% in several other industries, including education and health services, information, leisure and hospitality, and professional and business services.

(1) The economic information contained herein was prepared for the City of Phoenix by the L. William Seidman Research Institute, W.P. Carey School of Business, Arizona State University on August 30, 2019.

- 3.3% increase in total nonfarm jobs in 2018 compared to 2017.
- Annual total nonfarm job growth rates higher than the State of Arizona and the nation.
- Accounted for 74.4% of annual statewide Gross Domestic Product (GDP) in 2017, and real GDP per capita of $44,534 (in 2009 chained dollars).
- 23rd largest U.S. exporter by merchandise export value ($13.2 billion in 2017).
- Mexico (22.8%), Canada (9.5%), and China (7.9%) were the top foreign markets for goods exports in 2017.
- Total annual number of housing permits upwards of 30,000 in 2018.
- Over 75% of housing permits in 2018 were for single residential units.
- Decreasing vacancy rates, increasing wages, and a strengthening housing market signal a strong start for the retail market during 2019.
- Demand continued to outpace supply in the office market during the first quarter of 2019, particularly in the Chandler, South Tempe/Ahwatukee, and South Scottsdale submarkets
- Users in the industry market continue to diversify, and net absorption reached the highest first-quarter total on record.

Key City of Phoenix Statistics:

- Population of 1,660,272 as of July 1, 2018, remaining the 5th most populous U.S. city.
- Accounts for nearly a quarter of the state's population and over 34% of the population of the Phoenix MSA.
- Nearly 30% of residents between the ages of 25 and 44 in 2017, with the median age being 33.8 years.
- 737,289 residents ages 16 and older were members of the civilian labor force in 2017.
- 33.7% of working residents held jobs in management, business, science and the arts in 2017.
- An additional 45.7 % of jobs held in service, sales and office occupations in 2017.
- Median household income of $52,080 in 2017 dollars.
- 89.4% of housing units occupied.
- On average, 2.9 people per unit in owner occupied hosing, and 2.8 people average household size in renter occupied housing.

Population

The Phoenix MSA encompasses 14,565 square miles, containing both Maricopa County (9,199 square miles) and Pinal County (5,365 square miles). Phoenix is the principal city of the Phoenix MSA, measuring 517.7 sq. miles and with 1.66 million residents in 2018, according to the Census Bureau. Within the Phoenix MSA, eight cities have populations in excess of 125,000: Mesa, Chandler, Gilbert, Glendale, Scottsdale, Tempe, Peoria, and Surprise. The U.S. Census Bureau ranked Phoenix the 11th most populous MSA as of July 1, 2018.

The following table compares the population of the Phoenix MSA with 21 peer MSAs. The peer MSAs consist of every western metro of more than one million people, plus other Sun Belt metros of more than 2 million people. The population continued to increase in metro Phoenix during 2018. The Phoenix MSA ranked 7th in population growth between 2010 and 2018 compared to the 22 MSAs listed in the table.

In recent years, the Phoenix MSA has been home to the majority of the Arizona population. Furthermore, population growth for the Phoenix MSA outpaces population growth for the state as a whole. In 1990 the Phoenix MSA accounted for 61.1% of the State of Arizona's total population. In 2000, it accounted for 63.4% of the State of Arizona's total population. In 2010, the Phoenix MSA accounted for 65.4% of the State of Arizona's total population. In 2018, it accounted for 67.7% of the State of Arizona's total population. The Tucson MSA (Pima County) was home to 14.5% of the state's residents in 2018. Five other metro areas combined (Flagstaff, Lake Havasu City-Kingman, Prescott, Sierra Vista-Douglas, and Yuma) accounted for 12.9% of the state's population, with the remaining 4.9% living in nonmetropolitan areas.

It is important to note that in 1994, the U.S. Office of Management and Budget (OMB) redefined the Phoenix MSA to include both Maricopa and Pinal counties. The rate of population growth in the Phoenix MSA has continued to outpace the rate of population growth in the State of Arizona.

Population
Metropolitan Statistical Areas
(In thousands)

	Census	Population Estimates as of July 1								Percent Growth
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2010-18
Phoenix-Mesa-Chandler, AZ	4,192.9	4,253.8	4,331.1	4,404.7	4,491.4	4,581.1	4,676.0	4,761.7	4,858.0	15.9%
Atlanta-Sandy Springs-Roswell, GA	5,286.7	5,366.3	5,444.8	5,511.3	5,594.5	5,688.3	5,790.3	5,874.2	5,950.0	12.5
Austin-Round Rock, TX	1,716.3	1,780.6	1,834.9	1,883.9	1,943.4	2,002.6	2,062.2	2,115.2	2,168.3	26.3
Charlotte-Concord-Gastonia, NC-SC	2,217.0	2,254.5	2,292.2	2,332.7	2,374.7	2,422.4	2,474.5	2,524.9	2,569.2	15.9
Dallas-Fort Worth-Arlington, TX	6,426.2	6,570.6	6,706.4	6,817.5	6,955.3	7,109.3	7,263.0	7,407.9	7,539.7	17.3
Denver-Aurora-Lakewood, CO	2,543.5	2,603.0	2,650.5	2,700.8	2,754.6	2,813.5	2,857.5	2,893.0	2,932.4	15.3
Houston-The Woodlands-Sugar Land, TX	5,920.4	6,056.4	6,184.9	6,330.7	6,503.6	6,676.6	6,812.3	6,905.7	6,997.4	18.2
Las Vegas-Henderson-Paradise, NV	1,951.3	1,962.0	1,989.7	2,018.0	2,054.3	2,098.1	2,140.5	2,183.3	2,231.6	14.4
Los Angeles-Long Beach-Anaheim, CA	12,828.8	12,927.6	13,018.9	13,106.1	13,178.7	13,251.0	13,291.2	13,298.7	13,291.5	3.6
Miami-Fort Lauderdale-West Palm Beach, FL	5,564.6	5,693.5	5,771.7	5,849.4	5,921.0	5,998.3	6,086.9	6,149.7	6,198.8	11.4
Orlando-Kissimmee-Sanford, FL	2,134.4	2,176.0	2,225.8	2,270.5	2,324.9	2,387.6	2,453.0	2,512.9	2,573.0	20.5
Portland-Vancouver-Hillsboro, OR-WA	2,226.0	2,262.6	2,288.5	2,311.3	2,344.6	2,382.4	2,427.5	2,456.5	2,478.8	11.4
Riverside-San Bernardino-Ontario, CA	4,224.9	4,295.3	4,336.2	4,371.9	4,418.7	4,465.2	4,516.7	4,570.4	4,622.4	9.4
Sacramento-Roseville-Arden-Arcade, CA	2,149.1	2,172.9	2,190.6	2,211.1	2,236.6	2,264.1	2,292.4	2,320.4	2,345.2	9.1
Salt Lake City, UT	1,087.9	1,106.7	1,123.8	1,140.2	1,151.7	1,165.2	1,185.2	1,205.2	1,222.5	12.4
San Antonio-New Braunfels, TX	2,142.5	2,193.9	2,237.4	2,280.6	2,329.8	2,380.6	2,428.3	2,474.3	2,518.0	17.5
San Diego-Carlsbad, CA	3,095.3	3,137.4	3,175.2	3,211.2	3,251.0	3,284.1	3,310.3	3,325.5	3,343.4	8.0
San Francisco-Oakland-Hayward, CA	4,335.4	4,395.9	4,456.4	4,521.3	4,587.3	4,649.5	4,689.1	4,710.7	4,729.5	9.1
San Jose-Sunnyvale-Santa Clara, CA	1,836.9	1,868.1	1,895.0	1,924.6	1,950.9	1,975.7	1,988.8	1,993.6	1,999.1	8.8
Seattle-Tacoma-Bellevue, WA	3,439.8	3,499.1	3,554.5	3,610.8	3,672.1	3,738.3	3,814.4	3,884.5	3,939.4	14.5
Tampa-St. Petersburg-Clearwater, FL	2,783.2	2,828.7	2,845.7	2,870.4	2,912.9	2,969.3	3,034.2	3,091.2	3,142.7	12.9
Tucson, AZ	980.3	988.4	993.2	997.4	1,004.7	1,009.7	1,017.6	1,027.5	1,039.1	6.0

Source: U.S. Census Bureau

Based on July 1, 2018 estimates, the U.S. Census Bureau ranks the City of Phoenix as the 5th most populous city in the United States. Phoenix held this same ranking in both 2016 and 2017.

Ten Most Populous U.S. Cities, July 1, 2018

Rank	City	State	Total Population
1	New York	New York	8,398,748
2	Los Angeles	California	3,990,456
3	Chicago	Illinois	2,705,994
4	Houston	Texas	2,325,502
5	Phoenix	Arizona	1,660,272
6	Philadelphia	Pennsylvania	1,584,138
7	San Antonio	Texas	1,532,233
8	San Diego	California	1,425,976
9	Dallas	Texas	1,345,047
10	San Jose	California	1,030,119

Source: U.S. Census Bureau.

City of Phoenix Population
As a Percent of the Phoenix MSA and the State (1)

Year	City of Phoenix	Maricopa and Pinal Population (Combined)	Percentage of State of Arizona Population
2018	1,660,272	34.2%	23.2%
2017	1,634,984	34.3	23.2
2016	1,613,581	34.5	23.2
2015	1,584,927	34.6	23.2
2014	1,556,552	34.7	23.1
2013	1,527,336	34.7	23.0
2012	1,499,839	34.6	22.9
2011	1,470,052	34.6	22.7
2010	1,449,295	34.5	22.6

(1) The estimates are based on the 2010 Census and reflect changes to the April 1, 2010 population due to the Count Question Resolution program and geographic program revisions.

Source: U.S. Census Bureau

Employment

When Arizona was granted statehood in 1912, it primarily depended on extraction-based operations such as copper, cattle, cotton, climate, and citrus. However, rapid population growth post World War II attributed to a diversification of the state's economy into higher value-added sectors such as advanced manufacturing, aerospace and defense, bioscience, and financial services.

Between 1990 and 2008, Arizona's civilian labor force saw growth of more than 80%. On average, approximately 95.7% of Arizona's civilian labor force was employed each year between 1990 and 2008. Civilian labor force employment has again been on the rise since 2011. In 2018, a total of 2,306,482 people in the civilian labor force in the Phoenix MSA were employed. This was a 4.0% increase in Phoenix MSA employment compared to the previous year, and represented 70.5% of the state's total employment in 2018.

Civilian Labor Force Employment:
Phoenix, State of Arizona, and U.S.
(not seasonally adjusted)

Year	Phoenix MSA Employment	State of Arizona Employment (1)	U.S. Employment
2018	2,306,482	3,273,550	155,761,000
2017	2,218,394	3,165,127	153,337,000
2016	2,139,833	3,066,011	151,436,000
2015	2,065,815	2,974,540	148,834,000
2014	1,991,115	2,889,380	146,305,000
2013	1,918,061	2,794,697	143,929,000
2012	1,893,596	2,776,349	142,469,000
2011	1,867,553	2,748,470	139,869,000
2010	1,874,006	2,769,454	139,064,000

(1) The 2013-2017 data reflects revised population controls and model re-estimation.

Source: U.S. Bureau of Labor Statistics.

The following table compares the labor force of the Phoenix MSA with 21 peer MSAs. The peer MSAs consist of every western metro of more than one million people, plus other Sun Belt metros of more than 2 million people. Six of the peer MSAs had a total labor force higher than the Phoenix MSA in 2018.

Comparison of the Phoenix MSA's Labor Force
Status with 21 Peer MSAs (1)
(not seasonally adjusted)

	Labor Force (in thousands)							
MSA	2011	2012	2013	2014	2015	2016	2017	2018
Phoenix-Mesa-Chandler, AZ	2,044.3	2,044.3	2,055.4	2,115.7	2,179.4	2,244.5	2,317.2	2,407.7
Atlanta-Sandy Springs-Roswell, GA	2,760.2	2,791.0	2,789.9	2,800.4	2,839.0	2,941.6	3,035.6	3,071.6
Austin-Round Rock, TX	960.8	987.7	1,019.5	1,049.0	1,074.0	1,119.2	1,160.1	1,197.1
Charlotte-Concord-Gastonia, NC-SC	1,153.9	1,173.8	1,185.4	1,205.0	1,241.1	1,278.2	1,312.2	1,333.1
Dallas-Fort Worth-Arlington, TX	3,374.4	3,420.2	3,474.2	3,539.3	3,585.3	3,703.3	3,810.8	3,900.5
Denver-Aurora-Lakewood, CO	1,431.2	1,448.2	1,463.9	1,487.8	1,507.5	1,543.2	1,592.6	1,646.3
Houston-The Woodlands-Sugar Land, TX	3,041.2	3,112.3	3,182.6	3,243.3	3,260.5	3,300.5	3,337.4	3,390.6
Las Vegas-Henderson-Paradise, NV	995.1	999.5	1,004.3	1,015.1	1,034.0	1,046.1	1,069.5	1,098.1
Los Angeles-Long Beach-Anaheim, CA	6,474.9	6,477.4	6,532.5	6,561.6	6,575.6	6,640.2	6,706.3	6,761.8
Miami-Fort Lauderdale-W. Palm Beach, FL	2,859.2	2,906.7	2,937.8	2,984.5	2,985.0	3,036.4	3,125.0	3,150.5
Orlando-Kissimmee-Sanford, FL	1,146.9	1,162.6	1,179.4	1,202.5	1,219.0	1,257.9	1,304.3	1,337.8
Portland-Vancouver-Hillsboro, OR-WA	1,214.8	1,198.8	1,180.6	1,199.2	1,229.3	1,272.7	1,303.2	1,313.1
Riverside-San Bernardino-Ontario, CA	1,867.0	1,879.3	1,893.1	1,916.5	1,954.2	1,983.3	2,017.7	2,053.4
Sacramento-Roseville-Arden-Arcade, CA	1,045.2	1,047.9	1,046.5	1,044.7	1,053.8	1,069.3	1,076.5	1,095.8
Salt Lake City, UT	573.6	584.2	598.1	604.2	614.9	632.7	647.3	653.5
San Antonio-New Braunfels, TX	1,039.1	1,053.3	1,072.8	1,090.2	1,106.8	1,143.1	1,170.0	1,189.7
San Diego-Carlsbad, CA	1,524.6	1,540.4	1,543.2	1,540.7	1,550.1	1,564.3	1,574.6	1,592.2
San Francisco-Oakland-Hayward, CA	2,345.5	2,392.6	2,413.6	2,442.0	2,480.2	2,523.7	2,550.0	2,584.3
San Jose-Sunnyvale-Santa Clara, CA	968.1	987.0	1,000.8	1,019.1	1,042.9	1,059.2	1,070.6	1,079.7
Seattle-Tacoma-Bellevue, WA	1,879.9	1,895.3	1,910.4	1,943.3	1,978.5	2,030.8	2,071.9	2,113.3
Tampa-St. Petersburg-Clearwater, FL	1,398.4	1,410.6	1,420.4	1,432.5	1,439.4	1,474.7	1,510.9	1,530.8
Tucson, AZ	466.9	462.9	457.0	463.1	465.2	469.6	476.8	486.3

Source: U.S. Bureau of Labor Statistics.

In 2018, the top source of total nonfarm employment, expressed as a percentage of total employment in the Phoenix MSA, was professional and business services (16.8%). Professional and business services include professional, scientific and technical services, the management of companies and enterprises, administrative, and waste management services. Other notable sources of employment were education and health services (15.4%), retail and wholesale trade (15.0%), government (11.3%), and leisure and hospitality (10.9%). The industries listed in the following table are referred to as "supersectors" by the U.S. Bureau of Labor Statistics.

2018 Wage & Salary Employment:
Phoenix MSA, Arizona, and U.S.

	Total Employed (in thousands)			Percent of Employed		
Industry	**Phoenix MSA**	**State of Arizona**	**U.S.**	**Phoenix MSA**	**State of Arizona**	**U.S.**
Mining & Logging	3.6	13.1	732	0.2%	0.5%	0.5%
Construction	124.4	158.8	7,289	5.9	5.6	4.9
Manufacturing	127.9	170.1	12,689	6.1	6.0	8.5
Total Goods Producing	255.9	342.0	20,710.0	12.2	12.1	13.9
Retail & Wholesale Trade	315.8	423.5	21,685.8	15.0	14.8	14.5
Transportation, Warehousing, Utilities	87.9	111.0	5,973.2	4.2	3.9	4.0
Information	38.7	47.4	2,828	1.8	1.7	1.9
Financial Activities	192.6	220.8	8,569	9.1	7.7	5.7
Professional & Business Services	354.2	431.1	20,999	16.8	15.1	14.1
Education & Health Services	324.6	445.7	23,667	15.4	15.6	15.9
Leisure and Hospitality	229.1	326.6	16,348	10.9	11.4	11.0
Other Services	69.4	92.7	5,845	3.3	3.2	3.9
Government	239.0	415.2	22,449	11.3	14.5	15.1
Total Services Providing	1,851.3	2,514.0	128,364.0	87.8	87.9	86.1
Total Non-farm	2,107.2	2,856.0	149,074.0	100.0%	100.0%	100.0%

Source: U.S. Bureau of Labor Statistics.

Comparing industries, the Phoenix MSA's employment within goods-producing sectors (i.e. mining, manufacturing, and construction) was marginally higher than the State of Arizona as a share of total employment, but lower than the nation in 2018. This reflected an emphasis within the Phoenix MSA on services. Approximately 87.9% of the employment within the Phoenix MSA in 2018 was in service providing industries. Government accounted for approximately 239,000 of the 1.85 million services employments in the Phoenix MSA.

The following table presents the number of annual employees by industry in the Phoenix MSA, 2011 through 2018. Also included is a table comparing the Phoenix MSA compound annual growth rate by industry to the State of Arizona and the U.S. The highest compound annual growth rates in the Phoenix MSA occurred in construction (6.0%), transportation, warehousing, and utilities (4.6%), and financial activities (4.1%). There were also compound annual growth rates of more than 3.5% in information, education and health services, leisure and hospitality, and professional and business services.

Non-Farm Wage and Salary Employment
Phoenix MSA
(annual employees in thousands)

	2011	2012	2013	2014	2015	2016	2017	2018
Mining & Logging	3.2	3.5	3.6	3.4	3.3	3.2	3.3	3.6
Construction	83.0	88.0	93.4	95.4	99.0	105.3	113.8	124.4
Manufacturing	112.8	116.7	117.1	118.5	119.7	120.4	123.1	127.9
Retail & Wholesale Trade	283.7	285.0	287.0	293.6	300.8	305.7	311.0	315.8
Transportation, Warehousing, Utilities	64.2	66.6	67.5	69.8	74.9	79.8	82.2	87.9
Information	29.6	32.2	34.5	36.1	37.1	37.2	37.7	38.7
Financial Activities	145.1	150.3	158.2	161.6	167.6	177.8	186.8	192.6
Professional & Business Services	275.5	284.3	300.1	307.8	322.1	336.3	342.1	354.2
Education & Health Services	249.5	257.6	263.0	271.0	284.4	296.6	311.1	324.6
Leisure and Hospitality	177.7	183.3	191.6	199.1	208.2	215.6	223.4	229.1
Other Services	63.8	62.3	63.7	63.5	63.6	65.6	66.7	69.4
Government	228.7	229.9	231.2	232.6	233.6	235.4	238.0	239.0
Total Non-farm	1,716.8	1,759.7	1,810.9	1,852.4	1,914.3	1,978.9	2,039.2	2,107.2

Source: U.S. Bureau of Labor Statistics.

Non-Farm Wage and Salary Employment
Phoenix MSA
(2011 to 2018 compound annual growth rate)

	Phoenix MSA	State of Arizona	U.S.
Mining & Logging	1.7%	1.8%	-1.0%
Construction	6.0	5.3	4.0
Manufacturing	1.8	1.8	1.1
Retail & Wholesale Trade	1.5	1.3	1.1
Transportation, Warehousing, Utilities	4.6	3.9	3.0
Information	3.9	2.7	0.8
Financial Activities	4.1	3.7	1.5
Professional & Business Services	3.7	3.2	2.7
Education & Health Services	3.8	3.2	2.2
Leisure and Hospitality	3.7	3.4	2.9
Other Services	1.2	0.8	1.2
Government	0.6	0.3	0.2
Total Non-farm	3.0%	2.4%	1.8%

Source: U.S. Bureau of Labor Statistics.

The compound annual growth for total nonfarm industries in the Phoenix MSA from 2011 to 2018 was higher than both the state's and the nation's compound annual growth for total nonfarm industries. In fact, compound annual growth in the Phoenix MSA was higher than or equal to the state's compound annual growth in all categories examined except mining and logging. Compound annual growth in the Phoenix MSA was also higher than the nation's compound annual growth in all categories examined except other services. Between 2011 and 2018, the compound annual growth rate for employment in goods producing industries was 3.7% in the Phoenix MSA, a higher growth rate than the state's 3.3% and the nation's 2.0%. For service providing industries, the compound annual growth rate in the Phoenix MSA was 2.9% - a higher growth rate than the state's 2.3%, and the nation's 1.7%. The table below shows that the Phoenix MSA's total nonfarm job growth in percent terms was higher than the growth rates for the State of Arizona and the nation from 2011 through 2018.

Comparison of Total Annual Job Growth Rates

Year	Phoenix MSA	State of Arizona	U.S.
2018	3.3%	2.8%	1.7%
2017	3.0	2.5	1.6
2016	3.4	2.7	1.8
2015	3.3	2.6	2.1
2014	2.3	2.0	1.9
2013	2.9	2.3	1.6
2012	2.5	2.1	1.7
2011	1.5	1.1	1.2

Source: U.S. Bureau of Labor Statistics.

The following table estimates the top 50 major employers in the Phoenix MSA in 2018.

Phoenix MSA Top 50 Employers, 2018

Employer	Employees	Sector
Banner Health	27,578	Health
State of Arizona	26,456	Government
Walmart	16,759	Retail
Fry's Food Stores	15,408	Retail
Wells Fargo	14,021	Finance & Insurance
Maricopa County	13,436	Government
City of Phoenix	12,062	Government
Intel Corporation	10,290	Manufacturing
JPMorgan Chase Bank National Association	10,194	Finance & Insurance
Arizona State University	9,770	Education
Bank of America	9,576	Finance & Insurance
Dignity Health	9,373	Health
Honeywell	8,706	Manufacturing
Mesa Unified School District 4	8,691	Education
United States Department of the Air Force	8,051	Government
HonorHealth	7,810	Health Care
McDonalds	7,635	Accommodation & Food Services
State Farm Insurance	7,596	Finance & Insurance
Amazon	7,567	Retail
United States Postal Service	7,323	Government
Home Depot	6,785	Retail
American Express	6,754	Finance & Insurance
Safeway Stores Inc	6,652	Retail
Mayo Clinic	6,529	Health
U Haul	5,873	Management of Companies & Enterprises
Bashas' Inc	5,601	Retail
Maricopa County Community College District	5,407	Education
Pinnacle West Capital Corporation	5,299	Utilities
Chandler Unified School District 80	5,190	Education
SRP	5,154	Utilities
CVS Pharmacy Inc	5,149	Retail
Target Stores Inc	5,021	Retail
Walgreens Co	4,963	Retail
UnitedHealth Group	4,736	Finance & Insurance
Starbucks Corp	4,376	Accommodation & Food Services
Phoenix Children's Hospital	4,323	Health
Paradise Valley Unified School District 69	4,185	Education
Vanguard	4,067	Finance & Insurance
Costco Wholesale	4,002	Retail
Abrazo Healthcare	3,990	Health
Deer Valley Unified School District 97	3,945	Education
USAA Phoenix Office	3,892	Finance & Insurance
Peoria Unified School District 11	3,892	Education
Gilbert Unified School District 41	3,839	Education
Grand Canyon University	3,689	Education
City of Mesa	3,683	Government
The Boeing Company	3,600	Manufacturing
Sprouts Farmers Market	3,477	Retail
Circle K Stores Inc	3,437	Retail
Phoenix Union High School District 210	3,382	Education

Source: Maricopa Association of Governments 2018 Employer Database.

Unemployment

The following table summarizes the proportion of the civilian labor force unemployed each year in the Phoenix MSA since 2011. Unemployment declined steadily between 2011 and 2017 but increased slightly in 2018. While the Phoenix unemployment rate remains below the unemployment rate for the State of Arizona, unemployment in the Phoenix MSA was higher than unemployment in the nation for the first time in the period considered.

Civilian Labor Force Unemployment
Phoenix MSA, State of Arizona, and the U.S.
(not seasonally adjusted)

Year	Phoenix MSA Unemployment Number	Phoenix MSA Unemployment Rate	State of Arizona Unemployment Rate	U.S. Unemployment Rate
2018	101,259	4.2%	4.8%	3.9%
2017	98,782	4.3	4.9	4.4
2016	104,635	4.7	5.4	4.9
2015	113,537	5.2	6.1	5.3
2014	124,630	5.9	6.8	6.2
2013	137,385	6.7	7.7	7.4
2012	150,728	7.4	8.3	8.1
2011	176,738	8.6	9.5	8.9

Source: U.S. Bureau of Labor Statistics.

The following table compares the unemployment rate in the Phoenix MSA with 21 peer MSAs. The peer MSAs consist of every western metro of more than one million people, plus other Sun Belt metros of more than 2 million people. The Phoenix MSA ties for fourth in the ranking of MSAs with the highest unemployment rate. This is a sharp increase from its previous ranking of eighth.

Comparison of the Phoenix MSA'S Labor Force And Unemployment Status with 21 peer MSAs (not seasonally adjusted)

	Unemployment rate (percent of labor force)							
MSA	2011	2012	2013	2014	2015	2016	2017	2018
Phoenix-Mesa-Chandler, AZ	8.6%	7.4%	6.7%	5.9%	5.2%	4.7%	4.3%	4.2%
Atlanta-Sandy Springs-Roswell, GA	9.9	8.8	7.8	6.7	5.7	5.1	4.5	3.8
Austin-Round Rock, TX	6.6	5.7	5.2	4.2	3.4	3.3	3.1	2.9
Charlotte-Concord-Gastonia, NC-SC	10.6	9.3	7.9	6.2	5.5	4.8	4.3	3.6
Dallas-Fort Worth-Arlington, TX	7.6	6.6	6.1	5.0	4.1	3.9	3.7	3.5
Denver-Aurora-Lakewood, CO	8.3	7.7	6.6	4.8	3.7	3.0	2.6	3.2
Houston-The Woodlands-Sugar Land, TX	7.8	6.6	6.0	4.9	4.6	5.3	5.0	4.3
Las Vegas-Henderson-Paradise, NV	13.2	11.3	9.7	8.0	6.8	5.9	5.3	4.8
Los Angeles-Long Beach-Anaheim, CA	11.4	10.2	9.0	7.6	6.1	5.0	4.5	4.2
Miami-Fort Lauderdale-West Palm Beach, FL	9.6	8.2	7.1	6.3	5.4	4.8	4.3	3.6
Orlando-Kissimmee-Sanford, FL	10.0	8.4	7.0	6.0	5.2	4.5	3.9	3.3
Portland-Vancouver-Hillsboro, OR-WA	9.0	8.0	7.1	6.1	5.2	4.6	3.9	3.9
Riverside-San Bernardino-Ontario, CA	13.0	11.5	9.8	8.1	6.6	6.0	5.1	4.2
Sacramento-Roseville-Arden-Arcade, CA	11.8	10.3	8.7	7.1	5.9	5.3	4.5	3.7
Salt Lake City, UT	6.6	5.3	4.4	3.7	3.4	3.2	3.1	3.0
San Antonio-New Braunfels, TX	7.1	6.3	5.8	4.6	3.8	3.8	3.5	3.3
San Diego-Carlsbad, CA	10.3	9.1	7.8	6.4	5.2	4.7	4.0	3.3
San Francisco-Oakland-Hayward, CA	9.1	7.8	6.5	5.2	4.3	3.8	3.3	2.7
San Jose-Sunnyvale-Santa Clara, CA	9.5	8.0	6.6	5.3	4.2	3.9	3.3	2.7
Seattle-Tacoma-Bellevue, WA	8.7	7.2	5.9	5.2	4.8	4.4	4.1	3.9
Tampa-St. Petersburg-Clearwater, FL	9.9	8.2	6.9	6.0	5.2	4.6	4.0	3.5
Tucson, AZ	8.5	7.4	6.8	6.0	5.5	5.0	4.5	4.5

Source: U.S. Bureau of Labor Statistics.

Gross Domestic Product

Gross Domestic Product, or GDP, is the monetary value of all finished goods and services produced in the U.S. on an annual or quarterly basis. GDP includes all public and private sector purchases, government expenditures, investments, and the difference between exports and imports. This metric is often used by economists to describe the health of the U.S. economy. Between 2001 and 2008, the Phoenix MSA was a major contributor to the state's GDP, accounting for more than 75% of the value. In 2009 and 2010, the Phoenix MSA's annual contribution to state GDP fell to approximately 74%. Since 2011, the GDP of the Phoenix MSA has increased steadily, along with its contribution to the overall state GDP.

Phoenix MSA
Annual Contribution to GDP
In the State of Arizona

Year	Gross Domestic Product (millions of current dollars) Phoenix MSA	State of Arizona	Phoenix MSA Percent Contribution to State.
2017	$242,951	$326,446	74.4%
2016	231,011	310,929	74.3
2015	221,570	297,116	74.6
2014	209,596	284,574	73.7
2013	199,871	275,199	72.6
2012	195,630	268,289	72.9
2011	186,383	257,948	72.3

Source: U.S. Bureau of Economic Analysis.

Between 2001 and 2007, private industries were the top contributor to total GDP. Private Industries contributed on average 90.3% of the Phoenix MSA's total GDP, while the average annual government contribution was 9.7%. When the recession began in 2008, the GDP contribution of the Phoenix MSA's private industries fell, hitting 88.8% in 2010. The following table estimates the percent contribution (in current dollars) of different Phoenix MSA industry sectors to GDP in the State of Arizona. In 2017, private industries in total contributed 90.4% of GDP in the Phoenix MSA. Finance, insurance, real estate, rental, and leasing accounted for 25.4% of the Phoenix MSA's total GDP in 2017. Professional and business services accounted for 12.7% of total GDP that same year. Education and health care accounted for 9.3% of total GDP in 2018—the third highest contribution in the Phoenix MSA.

Phoenix MSA
GDP Contribution by Industry Sector

Industry Sector	GDP Contribution (millions of dollars) 2011	2012	2013	2014	2015	2016	2017
Private Industries							
Agriculture, Forestry, Fishing, and Hunting	$ 787	$ 755	$ 936	$ 1,010	$ 638	$ 687	$ 658
Mining	2,259	2,387	2,059	2,430	2,002	1,945	2,360
Utilities	4,342	3,835	3,841	3,931	4,086	4,265	4,348
Construction	6,959	7,578	8,500	8,701	9,626	10,676	11,687
Manufacturing	16,661	17,729	15,849	17,633	19,138	19,154	19,906
Wholesale Trade	12,887	13,999	13,775	13,928	14,372	14,927	15,723
Retail Trade	15,111	15,497	15,257	16,593	17,302	17,897	18,642
Transportation and Warehousing	5,648	6,014	5,842	6,168	6,765	6,973	7,437
Information	5,249	5,470	6,142	6,805	7,236	7,629	7,634
Finance, Insurance, Rental, Real Estate & Leasing	43,916	47,001	49,453	51,750	56,308	59,022	61,667
Professional & Business Services	22,798	23,829	25,236	26,565	27,865	29,351	30,883
Education & Health Care	17,244	17,812	18,155	18,872	19,878	21,049	22,661
Arts, Entertainment & Recreation, and Accommodations & Food Services	8,096	8,557	9,242	9,154	9,620	10,027	10,833
Other Services (excluding Government)	3,845	4,056	4,100	4,390	4,616	4,823	5,145
Total Private Industries	$165,802	$174,519	$178,387	$187,930	$199,452	$208,425	$219,584
Government	20,582	21,112	21,482	21,665	22,118	22,588	23,367
Total All Industries	$186,383	$195,631	$199,869	$209,595	$221,570	$231,013	$242,951

Source: U.S. Bureau of Economic Analysis.

The following table compares the Phoenix MSA's real GDP with 21 peer MSAs, expressed in 2009 dollars. The table suggests that the Phoenix MSA's average annual real GDP from 2011 through 2017 was $195.1 billion in chained 2009 dollars. In 2017, the Phoenix MSA ranked 9th among the 22 MSAs examined in this report, while the neighboring Tucson, MSA ranked last in the group. However, the primary measure of economic performance internationally is per capita GDP. The second GDP table therefore compares the real GDP per capita contributions of the Phoenix MSA with the 21 peer MSAs.

Real GDP
Peer Metropolitan Statistical Areas

	Real GDP (millions of chained 2009 dollars)						
	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Phoenix-Mesa-Chandler, AZ	$182,412	$187,477	$188,075	$193,215	$199,361	$204,015	$210,968
Atlanta-Sandy Springs-Roswell, GA	274,623	278,536	288,394	299,830	311,373	324,971	334,488
Austin-Round Rock, TX	93,413	98,992	104,902	110,557	119,728	126,329	135,072
Charlotte-Concord-Gastonia, NC-SC	122,523	125,472	126,707	129,875	136,631	141,622	146,631
Dallas-Fort Worth-Arlington, TX	372,205	391,231	412,264	431,147	454,716	461,752	479,678
Denver-Aurora-Lakewood, CO	153,031	157,916	159,968	169,525	177,321	179,516	185,942
Houston-The Woodlands-Sugar Land, TX	385,027	408,515	425,042	436,083	452,353	436,221	436,369
Las Vegas-Henderson-Paradise, NV	83,297	83,380	84,768	85,858	92,309	93,517	96,062
Los Angeles-Long Beach-Anaheim, CA	760,055	781,151	796,341	826,980	869,246	880,453	904,899
Miami-Fort Lauderdale-West Palm Beach, FL	247,940	254,161	251,020	267,698	281,369	289,602	296,486
Orlando-Kissimmee-Sanford, FL	98,899	99,420	108,641	106,521	110,717	112,806	114,969
Portland-Vancouver-Hillsboro, OR-WA	148,621	142,586	138,916	141,344	146,689	151,966	156,553
Riverside-San Bernardino-Ontario, CA	115,863	114,559	119,237	122,297	128,573	132,105	135,986
Sacramento-Roseville-Arden-Arcade, CA	94,869	95,520	97,554	99,800	103,625	106,232	108,732
Salt Lake City, UT	64,477	65,892	66,175	67,969	71,143	72,554	74,363
San Antonio-New Braunfels, TX	83,814	88,033	93,734	100,494	109,081	113,035	118,241
San Diego-Carlsbad, CA	179,174	181,171	186,674	189,042	190,899	197,641	201,986
San Francisco-Oakland-Hayward, CA	321,282	337,674	350,305	368,129	389,201	411,340	425,358
San Jose-Sunnyvale-Santa Clara, CA	172,532	178,727	188,543	202,567	224,908	238,384	256,419
Seattle-Tacoma-Bellevue, WA	245,216	256,930	264,336	273,733	286,317	297,254	312,587
Tampa-St. Petersburg-Clearwater, FL	109,930	112,552	118,058	117,768	121,877	125,260	127,432
Tucson, AZ	33,855	34,979	33,905	33,431	32,792	32,879	33,841

Source: U.S. Bureau of Economic Analysis.

Real GDP Per Capita:
Peer Metropolitan Statistical Areas

	Real GDP per Capita (chained 2009 dollars)							Compound Annual Growth Rate
	2011	2012	2013	2014	2015	2016	2017	
Phoenix-Mesa-Chandler, AZ	$42,942	$43,381	$42,836	$ 43,218	$ 43,737	$ 43,888	$ 44,534	0.6%
Atlanta-Sandy Springs-Roswell, GA	51,111	51,093	52,273	53,492	54,605	56,071	56,840	1.8
Austin-Round Rock, TX	52,461	53,959	55,694	56,922	59,840	61,308	63,839	3.3
Charlotte-Concord-Gastonia, NC-SC	54,305	54,700	54,287	54,658	56,363	57,209	58,064	1.1
Dallas-Fort Worth-Arlington, TX	56,639	58,340	60,474	62,029	64,035	63,660	64,824	2.3
Denver-Aurora-Lakewood, CO	58,867	59,678	59,328	61,649	63,166	62,947	64,379	1.5
Houston-The Woodlands-Sugar Land, TX	63,557	66,063	67,152	67,122	67,878	64,169	63,311	-0.1
Las Vegas-Henderson-Paradise, NV	42,357	41,767	41,839	41,578	43,741	43,361	43,584	0.5
Los Angeles-Long Beach-Anaheim, CA	58,739	59,897	60,640	62,605	65,436	66,059	67,763	2.4
Miami-Fort Lauderdale-West Palm Beach, FL	43,527	43,966	42,814	45,039	46,692	47,418	48,140	1.7
Orlando-Kissimmee-Sanford, FL	45,441	44,635	47,814	45,758	46,305	45,981	45,807	0.1
Portland-Vancouver-Hillsboro, OR-WA	65,796	62,396	60,155	60,340	61,578	62,715	63,817	-0.5
Riverside-San Bernardino-Ontario, CA	26,956	26,387	27,235	27,633	28,745	29,203	29,687	1.6
Sacramento-Roseville-Arden-Arcade, CA	43,638	43,562	44,071	44,565	45,712	46,284	46,769	1.2
Salt Lake City, UT	58,218	58,609	57,974	58,964	60,962	61,176	61,809	1.0
San Antonio-New Braunfels, TX	38,208	39,364	41,113	43,160	45,851	46,589	47,794	3.8
San Diego-Carlsbad, CA	57,066	56,975	58,036	58,044	58,023	59,581	60,517	1.0
San Francisco-Oakland-Hayward, CA	73,032	75,658	77,352	80,098	83,556	87,536	89,978	3.5
San Jose-Sunnyvale-Santa Clara, CA	92,270	94,138	97,777	103,656	113,729	119,736	128,308	5.6
Seattle-Tacoma-Bellevue, WA	70,124	72,329	73,211	74,644	76,789	78,170	80,833	2.4
Tampa-St. Petersburg-Clearwater, FL	38,856	39,531	41,099	40,375	40,984	41,251	41,222	1.0
Tucson, AZ	34,290	35,278	34,083	33,401	32,618	32,472	33,088	-0.6

Source: U.S. Bureau of Economic Analysis.

The average annual real GDP per capita contribution in the Phoenix MSA from 2011 through 2017 was $43,505. For the most recent year available (2017), real GDP per capita in the Phoenix MSA was $44,534, expressed in chained 2009 dollars. The Phoenix MSA ranks 18th among the MSAs when considering real GDP per capita in 2017. This ranking is lower than when considering nominal real GDP. The compound annual growth rate for real GDP per capita in the Phoenix MSA from 2011 through 2017 was 0.6%.

Income

Exclusively focused on money, per capita income is derived by dividing the total aggregate income by the total population. In the table below, per capita income in 2017 dollars in the Phoenix MSA was $31,096. The Phoenix MSA ranked 14th out of the 22 peer MSAs on this measure.

Per Capita Income
Peer Metropolitan Statistical Areas

	Per Capita Income (2017 dollars)
Phoenix-Mesa-Chandler, AZ	$31,096
Atlanta-Sandy Springs-Roswell, GA	33,693
Austin-Round Rock, TX	37,823
Charlotte-Concord-Gastonia, NC-SC	33,209
Dallas-Fort Worth-Arlington, TX	33,404
Denver-Aurora-Lakewood, CO	39,832
Houston-The Woodlands-Sugar Land, TX	32,441
Las Vegas-Henderson-Paradise, NV	29,479
Los Angeles-Long Beach-Anaheim, CA	33,996
Miami-Fort Lauderdale-West Palm Beach, FL	30,408
Orlando-Kissimmee-Sanford, FL	28,512
Portland-Vancouver-Hillsboro, OR-WA	36,303
Riverside-San Bernardino-Ontario, CA	25,528
Sacramento-Roseville-Arden-Arcade, CA	33,548
Salt Lake City, UT	31,039
San Antonio-New Braunfels, TX	27,280
San Diego-Carlsbad, CA	36,697
San Francisco-Oakland-Hayward, CA	52,261
San Jose-Sunnyvale-Santa Clara, CA	51,857
Seattle-Tacoma-Bellevue, WA	43,203
Tampa-St. Petersburg-Clearwater, FL	30,738
Tucson, AZ	28,655

Source: American Community Survey 2017 (One-Year Estimate).

The next table shows total personal income and per capita personal income in current dollars for the Phoenix MSA for 2011 through 2017. The Bureau of Economic Analysis defines personal income as "…the income received by, or on behalf of, all persons from all sources: from participation as laborers in production, from owning a home or unincorporated business, from the ownership of financial assets, and from government and business in the form of transfer receipts".

By including income from global, as well as domestic sources, personal income is a measurement far wider in scope than the American Community Survey's concept of per capita income shown in the previous table. Per capita personal income is derived by calculating the total personal income divided by total population. The 2017 per capita personal income estimate in the Phoenix MSA of $44,096 was $2,011 greater than the state per capita personal income of $42,085. It was also $1,622 greater than the previous year.

Phoenix MSA
Total Personal and per Capita Personal Income

Year	Total Personal Income (in millions of dollars)	Per Capita Personal Income (in current dollars)	Per Capita Personal Income Annual Percent Change
2017	208,896	44,096	3.8%
2016	197,441	42,474	2.0
2015	189,729	41,624	3.9
2014	179,116	40,064	4.7
2013	168,082	38,283	1.1
2012	163,675	37,873	4.0
2011	154,623	36,400	4.4

Source: U.S. Bureau of Economic Analysis.

The Greater Phoenix Blue Chip Consensus Panel forecasts that current personal income in the Greater Phoenix area (the Phoenix MSA, Maricopa County, and Pinal County) will increase by 5.7% in 2019.

Exports

In 2018, the Phoenix MSA was the 24th largest U.S. exporter by merchandise export value based on origin of movement zip code data collected by the International Trade Administration. In total, the Phoenix MSA exported more than $13.6 billion in goods that year. This was a 3% increase over 2017, but still $207 million less than the peak value in 2015.

Mexico was the top foreign market, accounting for 21.3% of the Phoenix MSA's total goods exports in 2018. Canada accounted for 9.1% of the Phoenix MSA's total goods exports, and China 7.3%.

Phoenix MSA
Annual Exports

Year	Value (millions of dollars)	Annual Growth Rate
2018	$13,614,869,197	3.0%
2017	13,223,063,245	3.0
2016	12,838,188,632	-7.1
2015	13,821,528,121	8.3
2014	12,764,439,477	11.3
2013	11,473,532,187	5.9
2012	10,834,262,990	-0.7
2011	10,914,400,733	16.8
2010	9,342,732,987	17.6
2009	7,947,525,373	-37.0

Source: International Trade Administration.

Real Estate Market

The 2008-2009 recession hit the real estate market particularly hard. An overabundance of single-family residential buildings in conjuncture with a high foreclosure rate between 2008 and 2011 and a decline in population growth wounded the Phoenix MSA. However, the Phoenix real estate market has significantly improved since the recession.

New Privately-Owned Housing Units Authorized
Phoenix MSA and Arizona

	1 Unit		2 Units		3 or 4 Units		5+ Units		Total	
Year	**MSA**	**AZ**	**MSA**	**AZ**	**MSA**	**AZ**	**MSA**	**AZ**	**MSA**	**AZ**
2018	23,526	32,127	466	646	203	264	7,148	8,627	31,343	41,664
2017	20,471	28,072	302	432	212	273	8,327	10,695	29,312	39,472
2016	18,433	24,853	410	484	161	168	9,579	10,073	28,583	35,578
2015	16,621	22,311	168	222	186	225	5,427	6,152	22,402	28,910
2014	11,557	16,841	156	230	125	137	8,503	9,789	20,341	26,997
2013	12,959	18,386	128	214	201	213	5,449	6,396	18,737	25,209
2012	11,931	16,189	176	244	161	210	3,699	5,083	15,967	21,726
2011	7,297	10,306	18	54	80	115	1,686	2,532	9,081	13,007

Source: U.S. Census Bureau.

The total number of permits issued in the Phoenix MSA increased 245.1% compared to 2011. Permits issued in the state increased 220.3% over the same period. Over 75.0% of the permitting in the Phoenix MSA in 2018, and 77.0% of the permitting in the State of Arizona in 2018, was for single units. Permitting always occurs before housing starts. However, a stronger indicator of economic conditions is housing completions.

An estimated 89.4% of housing units were occupied in the City of Phoenix in 2017. 53.4% of the occupied housing units in the City of Phoenix in 2017 were owner occupied, and 46.6% renter occupied. The average household size in each was very similar, 2.9 for owner-occupied units, and 2.8 for renter-occupied units. The median dollar value of an owner-occupied home in the City of Phoenix was $197,800 in 2017. The gross median rent for an occupied unit in 2017 was $954 per month. *

Population and Housing Units (1)
City of Phoenix

Year	Population (2)	Change in Population	Housing	Change in Housing Units (3)
2018	1,597,738	18,485	619,052	5,589
2017	1,579,253	19,233	613,463	4,060
2016	1,560,020	24,005	609,403	6,070
2015	1,536,015	29,576	603,333	2,744
2014	1,506,439	20,688	600,589	3,913
2013	1,485,751	19,528	596,676	2,486
2012	1,466,223	14,257	594190	2,063
2011	1,451,966	6,334(4)	592,127	1,978(4)

(1) The population and housing unit figures reflect the change to the 2010 decennial census that resulted from the census count question resolution program, which added 463 housing units and 1,496 residents to the previously published figures.

(2) Maricopa Association of Governments uses a different methodology and different data to estimate population.

(3) The change in the number of housing units is equal to the number of housing completions plus the number of units annexed less the number of units demolished.

(4) Change over five quarters from the decennial census figure on April 1, 2010.

Source: Maricopa Association of Governments

* Data for 2018 is currently unavailable.

New Housing Starts (1)

Year	City of Phoenix
2018	7,262
2017	6,832
2016	6,972
2015	4,611
2014	5,138
2013	3,131
2012	4,434
2011	1,628
2010	1,695
2009	1,706
2008	4,040

(1) Reflects housing permits authorized, by units, including single-family, multi-family and mobile homes.

Source: U.S. Census Bureau.

According to CB Richard Ellis, outlook is positive for the 2019 Phoenix retail market. Phoenix remains one of the fastest growing metros in the nation in terms of both population and employment, supporting demand for retail space. Despite several big-box store move-outs in 2018, big-box retailers, especially those in the fitness industry, remained active. The vacancy rate decreased slightly to 8.3% while the average asking lease rate also decreased to $16.57 per square foot during the first quarter of 2019. Over 730,000 square feet of retail space was under construction at the end of the quarter. Increased wages and the strengthening housing market are expected to generate demand for retail, but analyst do warn that competition from e-commerce will require traditional brick-and-mortar stores to adapt to changing consumer preferences.

Retail Real Estate Market
Phoenix MSA

Year	Vacancy Rate	Net Absorption (square feet)	Change in Inventory (square feet)
2019 (1)	8.3%	280,186	52,470
2018	8.4	1,181,675	997,933
2017	8.1	1,601,498	580,776
2016	8.9	1,321,833	1,204,766
2015	9.1	1,150,192	164,859
2014	9.6	1,487,313	-49,225
2013	10.2	1,579,202	-325,959
2012	11.0	1,879,005	184,392
2011	12.2	-152,647	24,353

(1) Year-to-date data through June 2019.

Source: CB Richard Ellis.

Office Real Estate Market
Phoenix MSA

Year	Vacancy Rate	Net Absorption (square feet)	Change in Inventory (square feet)
2019 (Q1)	15.0%	582,309	604,918
2018	15.2	2,473,034	-15,597
2017	16.4	2,839,559	2,731,217
2016	17.	3,219,853	1,045,155
2015	19.3	3,779,039	3,763,828
2014	21.1	1,969,716	1,107,906
2013	22.4	1,712,366	-35,566
2012	23.9	2,020,529	973,282
2011	25.5	1,857,433	3,144,910

Source: CB Richard Ellis.

Industrial/Commercial Real Estate Market
Phoenix MSA

Year	Vacancy Rate	Net Absorption (square feet)	Change in Inventory (square feet)
2019 (1)	6.1%	3,020,086	832,425
2018	6.5	9,781,257	8,966,852
2017	6.8	9,898,893	6,988,240
2016	8.0	9,497,677	5,136,644
2015	10.1	7,046,663	3,966,434
2014	11.0	6,214,680	6,791,313
2013	11.4	8,783,982	8,902,571
2012	10.9	7,405,168	3,358,724
2011	12.4	7,753,111	1,954,037

(1) Year-to-date data through June 2018.

Source: CB Richard Ellis

Demand continued to outpace supply for new office space during the first quarter of 2019. This is a continuation of the healthy growth in the Phoenix office market seen during 2018. Activity was particularly notable in the Chandler, South Tempe/Ahwatukee, and South Scottsdale submarkets. Approximately 435,000 square feet of office space was completed during the first quarter with an additional 300,000 square feet of construction breaking ground. The vacancy rate continued to decline while the asking rental rate remained relatively constant at $26.68 per square foot. Outlook in the office market remains positive for the remainder of the year. *

The positive momentum of the 2018 industrial market continued into the first quarter of 2019. The vacancy rate continued to decrease, settling at 6.1%, while net absorption reached the highest first-quarter total on record. Industrial users continued to diversify, and manufacturing, third party logistics, pharmaceutical, and e-commerce industries remained particularly active. Data center users are also significantly expanding their footprint in the area. The remainder of 2019 is expected to see continued growth of tenant demand and falling vacancy. **

Outlook/Summary

The Greater Phoenix Blue Chip Economic Forecast shows that growth is expected to continue throughout the Phoenix MSA in 2019. Population is forecast to grow 2.0%, while current personal income is expected to increase 5.7%, and wage and salary employment is calculated to rise by 3.1 %. Retail sales are also predicted to rise 5.5%.

The construction industry is often described as a measurement of economic health because it tends to gain strength during economic upswings. The Greater Phoenix Blue Chip Economic Forecast projects construction employment to increase 8.1% in the remainder of 2019. Manufacturing employment is also expected to increase during 2019, with consensus suggesting a 3.6% increase in employment.

* CBRE Phoenix Office Market View, Phoenix Office, Q2 2019

** CBRE Phoenix Industrial & Logistics Market View, Phoenix Office, Q2 2019

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APPENDIX C
State Expenditure Limitation

Since fiscal year 1982-83, the City has been subject to an annual expenditure limitation imposed by the Arizona Constitution. This limitation is based upon the City's actual 1979-80 expenditures adjusted annually for subsequent growth in population and inflation. The 2019-20 expenditure limit supplied by the Economic Estimates Commission was $1,574,234,282. The City increased this limit to $8,122,071,000 to adjust for additional voter-approved modifications, as described below.

The Constitution exempts certain expenditures from the limitation. The principal exemptions for the City of Phoenix are payments for debt service and other long-term obligations, as well as expenditures of federal funds and certain State-Shared Revenues. Exemptions associated with revenues not expended in the year of receipt may be carried forward and used in later years. The 1979-80 expenditure base may also be adjusted for the transfer of functions between governmental jurisdictions.

The Constitution provides four processes, all requiring voter approval, to modify the expenditure limitation:

1. A four-year home rule option.
2. A permanent adjustment to the 1979-80 base.
3. A one-time override for the following fiscal year.
4. An accumulation for pay-as-you-go capital expenditures.

Phoenix voters have approved four-year home rule options on a regular basis since the implementation of the expenditure limitation. The current home rule option which was approved in 2015 allows the City Council, after hearings are held for each council district, to establish the annual budget as the limit. This four-year home rule option is in effect through 2019-20. In 2018, voters approved a proposition that moved regular City candidate elections from the fall of odd-numbered years to November of even-numbered years. State legislation allows the four-year home rule option to be extended in conjunction with the change of election dates. The new expiration date for the most recently approved home rule option will be at the end of 2020-21. The City plans to seek voter approval for an additional four-year option at an election to be held on November 2020.

On November 3, 1981, Phoenix voters approved four propositions that allow the City to accumulate and expend local revenues for "pay-as-you-go" capital improvements without being subject to the State spending limit. These capital improvement exclusions include annual amounts of up to $5,000,000 for Aviation, $6,000,000 for Sanitary Sewers, $2,000,000 for Streets and $6,000,000 for Water. These exclusions were approved on a permanent basis and do not require voter reapproval except to raise or lower the annual amounts.

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APPENDIX D

Retirement and Pension Plans

Substantially all full-time employees and elected officials of the City are covered by one of three contributory pension plans: the City of Phoenix Employees' Retirement System, the State of Arizona Public Safety Personnel Retirement System or the Elected Officials' Retirement Plan.

City of Phoenix Employees' Retirement System

The City of Phoenix Employees' Retirement System ("*COPERS*") is a single-employer defined benefit pension plan established by the Phoenix City Charter. COPERS covers all eligible full-time employees of the City, with the exception of elected officials and sworn City police and fire personnel. COPERS provides retirement, disability retirement and survivor benefits to its members. The plan can be amended or repealed by a vote of the people.

The general administration, management and operation of COPERS is vested in a nine-member Retirement Board consisting of three elected employee members, four statutory members, a citizen member and a retiree member. The Retirement Board appoints the Retirement Program Administrator and contracts investment counsel and other services necessary to properly administer the plan. Additional information regarding the City's financial statements, including reporting of the City's net position and the net pension liability, is available in the City's Comprehensive Annual Financial Report (CAFR). The CAFR is available at http://emma.msrb.org or www.phoenix.gov under Departments-Finance-Comprehensive Annual Financial Report or by calling the City at (602) 262-7166. The most recent report of the Actuary and the plan's annual financial reports are available online at https://phoenix.gov/copers/pension-plan-reports.

Employees participate in the plan upon beginning employment with the City. COPERS' membership data is as follows:

	June 30	
	2019	**2018**
Active Members		
Tier 1	5,197	5,638
Tier 2	657	737
Tier 3	2,087	1,602
Total	7,941	7,977
Deferred Vested Members	1,008	943
In Pay Members		
Service Retirees	6,013	5,813
Beneficiaries	1,110	1,076
Disabled Retirees	245	249
Total	7,368	7,138
Total Members	16,317	16,058

The City contributes an actuarially determined percentage of payroll to COPERS, as required by City Charter, to fully fund benefits for active members and to amortize any unfunded actuarial liability as a level percent of projected member payroll over a closed 19-year period. For the fiscal year ended June 30, 2019, the total contribution rate was 37.98% of compensation. Tier 1 employees contributed 5% of their compensation, Tier 2 and Tier 3 employees contributed 11.0% and the City contributed the remainder, which amounted to $165.8 million for the fiscal year.

The City's actuarially determined contribution, actual contribution and covered payroll for the last three fiscal years follows:

Schedule of Employer Contributions
(in thousands)

Fiscal Year Ended June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Percentage Contributed	Covered Payroll	Actual Contribution as a percentage of Covered Payroll
2019	$ 165,796	$ 165,796	—	100%	$ 561,938	29.50%
2018	159,006	229,006	(70,000)	144	526,667	43.48
2017	152,153	152,153	—	100	521,295	29.19

The actuarially determined recommended pension contribution rate is 31.77% for fiscal year 2019-20 and 31.60% for fiscal year 2020-21.

The following schedule shows the funding progress of the plan for the last three fiscal years. The total pension liability increased $96,594,000 from 2017 to 2018 and $175,779,000 from 2018 to 2019.

Schedule of Changes in Net Pension Liability and Related Ratios
(in thousands)

	Fiscal Year End 2019	Fiscal Year End 2018	Fiscal Year End 2017
Total Pension Liability			
Service cost	$ 73,255	$ 73,072	$ 72,876
Interest on the total pension liability	300,543	293,883	293,258
Changes of benefit terms	—	—	—
Differences between expected and actual experience of the total pension liability	39,370	(42,785)	429
Changes of assumptions	—	—	2,420
Benefit payments, including refunds of employee contributions	(237,389)	(227,576)	(223,668)
Net change in total pension liability	175,779	96,594	145,315
Total pension liability—beginning	4,226,046	4,129,452	3,984,137
Total pension liability—ending	$4,401,825	$4,226,046	$4,129,452
Plan Fiduciary Net Position			
Employer contributions	$ 165,796	$ 229,006	$ 152,153
Employee contributions	35,042	33,340	30,870
Pension plan net investment income	142,963	166,514	243,211
Benefit payments, including refunds of employee contributions	(237,389)	(227,576)	(223,668)
Pension plan administrative expense	(793)	(377)	(380)
Net change in plan fiduciary net position	105,619	200,907	202,186
Plan fiduciary net position—beginning	2,554,514	2,353,607	2,151,421
Plan fiduciary net position—ending	$2,660,133	$2,554,514	$2,353,607
Net pension liability	$1,741,692	$1,671,532	$1,775,845
Plan fiduciary net position as a percentage of the total pension liability	60.43%	60.45%	57.00%
Covered payroll	$ 561,938	$ 526,667	$ 521,295
Net pension liability as a percentage of covered payroll	309.94%	317.38%	340.66%

Actuarial assumptions used to determine the total pension liability in the June 30, 2019 valuation were based on the results of the actuarial experience study covering the period from July 1, 2009 through June 30, 2014. Those assumption, applied to all periods included in the measurement, are as follows:

Investment Rate of Return	7.25%
Inflation	2.5%
Salary Increase Rate	Individual salary increases are composed of a price inflation component, a real wage growth component, and a merit or longevity component that varies by age. Total salary increases range from 9.6% at age 20 to 3.0% for members age 65 and older.
Cost of Living Adjustment	1.25%
Administrative Expenses	Assumed to be equal to the prior year's amount, increased by 3.0%.
Mortality	CalPERS Employee Mortality and CalPERS Healthy Annuitant tables both without Scale BB Projection, and also the RP-2014 Disabled Retiree Mortality table without MP-2014 Projection
Amortization	Closed

Based on the assumption that employee and City contributions to COPERS will continue to follow the established contribution policy and the sufficiency of the Fiduciary Net Position, the long-term expected rate of return on the plan's investments, 7.25%, was applied as the single rate to all periods of projected benefit payments to determine the total pension liability.

City of Phoenix Pension Reform

In January 2011, the Mayor and City Council appointed members of a Pension Reform Task Force (the "*Task Force*") to work with management, outside consultants and other stakeholders to review and possibly recommend changes to COPERS. On September 25, 2012, after several revisions, the Task Force presented a final report to the Mayor and City Council, including recommended amendments to the City Charter. At the September 25, 2012 meeting, the Mayor and City Council directed staff to draft proposed revisions to City Charter language for referral to the March 2013 ballot based on the Task Force's recommendations.

At a special election held on March 12, 2013, voters approved changes to COPERS. The changes affected new employees hired on and after July 1, 2013 and are expected to save the City approximately $829 million over 25 years. The changes exclude public safety employees and elected officials, each covered under separate pension plans. The following is a summary of the voter-approved changes:

- The retirement eligibility age will increase an average of approximately 3.5 years
- The employer and employee contribution rates will be based on a 50/50 split of the actuarially determined rate necessary to fully fund the annual required contribution (ARC)
- The benefit formula components will be changed to a graduated multiplier based on years of service, matching the State of Arizona retirement plan
- Prior to these changes, the City Charter required full funding of the ARC, but prohibited the City from contributing an amount greater than the ARC. The voter-approved changes allow the City to contribute an amount greater than the ARC
- The Investment Policy for COPERS will be updated to allow for investments that meet the Prudent Investor Rule

On July 1, 2013 as a result of the voter approved changes, a two-tier system was created for COPERS. A Tier 1 employee is any employee hired by the City before July 1, 2013, or any employee hired by the City on or after July 1, 2013 who participated in the Arizona State Retirement System prior to July 1, 2011. A Tier 2 employee is any employee hired by the City on or after July 1, 2013 who is not a Tier 1 employee. Effective July 1, 2013, Tier 1 employees continued to contribute 5.0% of their compensation to the plan, and Tier 2 employees contributed one-half of the total required actuarial percentage. The contribution rate for the City is the total projected percentage less the member contribution rates for each tier.

In November 2014, the Mayor created the Civilian Retirement Security Ad Hoc Committee (the "*Committee*") to address further pension reform. The Committee, which included members of the City Council along with community and business leaders, met over three months to consider several options for reform. In February 2015, the Committee unanimously recommended a stacked hybrid plan ("Prop 103") that was expected to save the City over $38 million over 20 years starting January 1, 2016. The most significant changes under this plan are for employees hired after January 1, 2016 to be classified as Tier 3 employees. Tier 3 employees would be subject to the following benefit changes:

- Final Average Salary calculation changed to a five-year average
- Pension multiplier reduced to 1.85% of salary per year of service through the first 10 years of employment, gradually increasing to 2.0% at 20 years of service
- Elimination of the sick leave service credit
- Eliminates the ability for employees previously employed by the state or other cities in Arizona to join the City of Phoenix as Tier 1 employees
- Makes compensation above $125,000 per year non-pensionable; the cap would increase each year to match inflation.

Prop 103 continues the 50/50 split in the contribution rate for new hires, but created a ceiling in the employee rate of 11.0% of their compensation. The ceiling applies to both Tier 2 and Tier 3 employees to help improve the recruitment and retention of employees. The City Council approved the plan on March 4, 2015, and on August 25, 2015 voters also approved Prop 103, which became effective on January 1, 2016.

Citizen Pension Reform Initiative

On November 4, 2014, Phoenix voters considered and rejected an initiative known as Proposition 487 — The Phoenix Pension Reform Act of 2014 that if approved, would have amended the Phoenix City Charter and changed City retirement benefits for both current and future employees. The City is unable to predict whether and in what form, future initiatives may be proposed regarding COPERS and what the impact of such initiatives might be.

State of Arizona Public Safety Personnel Retirement System

The City of Phoenix also contributes to an agent multiple-employer defined benefit pension and health insurance premium subsidy plan, the Arizona Public Safety Personnel Retirement System (APSPRS), for sworn police officers and firefighters. The APSPRS functions as an investment and administrative agent for the City of Phoenix with respect to the plans for police officers and firefighters.

Periodic employer contributions to the pension and health insurance premium subsidy plans are determined on an actuarial basis using the entry age normal cost method. Normal cost is funded on a current basis. The City's unfunded actuarial accrued liability is funded over a closed period, and as of June 30, 2016, the City had 20 years remaining in the amortization period. Senate Bill 1442, passed by the State Legislature on April 17, 2017, authorized the governing body of an employer to make a one-time request to increase the amortization to a closed period not exceeding 30 years. On June 21, 2017, the City Council voted to submit a request to the APSPRS Board of Trustees to increase the City's amortization period from 20 years to 30 years. The change was reflected in the employer contribution rate beginning with the July 1, 2018 contribution, and represents the minimum required contribution percentage. Periodic contributions for both normal cost and the amortization of the unfunded actuarial accrued liability are based on the entry age normal cost method. The funding strategy for normal cost and the unfunded actuarial accrued liability should provide sufficient resources to pay employee pension benefits on a timely basis.

The System, for both police and fire personnel, is funded via member contributions of 7.65% of compensation for employees whose membership date was prior to July 20, 2011, and 11.65% of compensation for employees whose membership date began on or after July 20, 2011. Employees whose membership date was on or after January 1, 2012 have the option of participating in the hybrid plan for non-social security positions with contributions of 14.65%, of which 3.0% goes toward a defined contribution plan and is matched by the employer. Employer rates are set by an actuarial valuation and expressed as a percent of compensation. For fiscal year ended June 30, 2019, the required employer contribution rates were as follows:

	Police	**Fire**
Tier 1	59.76%	57.48%
Tier 2	59.76%	57.48%
Tier 3	10.15%	10.15%
Tier 3 Legacy	44.41%	41.57%

For Fiscal year ended June 30, 2019, the City chose to contribute $151.9 million and $84.8 million for Police and Fire, respectively and were based on the following contribution rates:

	Police	**Fire**
Tier 1	65.00%	62.39%
Tier 2	65.00%	62.39%
Tier 3	10.15%	10.15%
Tier 3 Legacy	49.65%	46.48%

The City’s APSPRS membership data is as follows:

	June 30, 2018	
	Police	**Fire**
Retirees and Beneficiaries	2,374	1,102
Inactive and Non-Retired Members	768	253
Active Members	2,501	1,426
Total	5,643	2,781

Schedule of Changes in Net Pension Liability and Related Ratios
for Reporting Date ended June 30,
(thousands)

	POLICE		
	Fiscal Year 2019	**Fiscal Year 2018**	**Fiscal Year 2017**
Total Pension Liability			
Service cost	$ 49,601	$ 58,148	$ 47,232
Interest on the total pension liability	231,824	217,244	199,120
Changes of benefit terms	—	22,618	171,696
Difference between expected and actual experience of the total pension liability	(906)	1,601	3,644
Changes of assumptions	—	107,195	100,323
Benefit payments, including refunds of employee contributions	(168,682)	(164,031)	(170,877)
Net change in total pension liability	111,837	242,775	351,138
Total pension liability—beginning	3,192,300	2,949,525	2,598,387
Total pension liability—ending	$3,304,137	$3,192,300	$2,949,525
Plan Fiduciary Net Position			
Employer contributions	$ 124,618	$ 113,645	$ 92,298
Employee contributions	22,728	31,289	31,061
Pension plan net investment income	89,411	139,676	7,019
Hall/Parker Settlement	(42,201)	—	—
Benefit payments, including refunds of employee contributions	(168,682)	(164,031)	(170,877)
Pension plan administrative expense	(1,364)	(1,236)	(1,010)
Other(1)	(443)	652	411
Net change in plan fiduciary net position	24,067	119,995	(41,098)
Plan fiduciary net position—beginning	1,291,612	1,171,617	1,212,715
Plan fiduciary net position—ending	$1,315,679	$1,291,612	$1,171,617
Net pension liability	$1,988,458	$1,900,688	$1,777,908
Plan fiduciary net position as a percentage of the total pension liability	39.82%	40.46%	39.72%
Covered payroll	$ 221,105	$ 231,023	$ 225,236
Net pension liability as a percentage of covered valuation payroll	899.33%	822.73%	789.35%

(1) Other changes include adjustments for prior year GASB 68 and reserve transfer to/from employer and employee reserves.

Schedule of Changes in Net Pension Liability and Related Ratios for Reporting Date ended June 30,

(thousands)

	FIRE		
	Fiscal Year 2019	**Fiscal Year 2018**	**Fiscal Year 2017**
Total Pension Liability			
Service cost	$ 30,634	$ 31,155	$ 25,101
Interest on the total pension liability	123,038	114,721	107,388
Changes of benefit terms	—	9,098	95,865
Difference between expected and actual experience of the total pension liability	21,387	5,985	(22,672)
Changes of assumptions	—	61,290	51,468
Benefit payments, including refunds of employee contributions	(89,735)	(88,133)	(108,988)
Net change in total pension liability	85,324	134,116	148,162
Total pension liability–beginning	1,692,224	1,558,108	1,409,946
Total pension liability–ending	$1,777,548	$1,692,224	$1,558,108
Plan Fiduciary Net Position			
Employer contributions	$ 73,288	$ 56,671	$ 49,932
Employee contributions	13,413	16,694	16,039
Pension plan net investment income	49,178	76,651	3,927
Hall/Parker Settlement	(21,840)	—	—
Benefit payments, including refunds of employee contributions	(89,735)	(88,133)	(108,988)
Pension plan administrative expense	(751)	(679)	(565)
Other(1)	251	11	1,050
Net change in plan fiduciary net position	23,804	61,215	(38,605)
Plan fiduciary net position–beginning	710,511	649,296	687,901
Plan fiduciary net position–ending	$ 734,315	$ 710,511	$ 649,296
Net pension liability	$1,043,233	$ 981,713	$ 908,812
Plan fiduciary net position as a percentage of the total pension liability	41.31%	41.99%	41.67%
Covered payroll	$ 132,503	$ 127,530	$ 124,322
Net pension liability as a percentage of covered valuation payroll	787.33%	769.79%	731.02%

(1) Other changes include adjustments for prior year GASB 68 and reserve transfer to/from employer and employee reserves.

Actuarial assumptions used to determine the total pension liability in the June 30, 2017 actuarial valuation were based on the results of the actuarial experience study covering the period from July 1, 2011 through June 30, 2016. Those assumptions, applied to all periods included in the measurement, are as follows:

Actuarial Cost Method	Entry Age Normal
Asset Valuation Method	Fair Value of Assets
Payroll Growth	3.5%
Price Inflation	2.5%
Salary Increases	3.5% to 7.5% including inflation
Tier 1 and 2 Investment Rate of Return	7.4%, net of investment and administrative expense
Tier 3 Investment Rate of Return	7.0%, net of investment and administrative expense
Retirement Age	Experience-based table of rates that is specific to the type of eligibility condition. Last updated for the 2017 valuation pursuant to an experience study of the period July 1, 2011 – June 30, 2016.
Mortality	RP-2014 mortality tables projected backwards 1 year to 2013 with MP-2014 (110% of female healthy annuitant mortality table.) Future mortality improvements are assumed each year using 75.0% of scale MP-2016.

The cost-of-living adjustment will be based on the average annual percentage change in the Metropolitan Phoenix-Mesa Consumer Price Index published by the United States Department of Labor, Bureau of Statistics. The assumed future permanent benefit increase used for this valuation is 1.75%.

Schedule of Contributions for Measurement Date ended June 30,
(thousands)

	Year Ended June 30,	Actuarially Determined Contribution	Actual Contribution(1)	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a % of Covered Valuation Payroll
POLICE	2019	$ —	$151,919	$ —	$221,105	56.36%
	2018	124,618	124,618	—	221,105	56.36
	2017	113,645	113,645	—	231,023	49.19
	2016	92,298	92,298	—	225,236	40.98
FIRE	2019	$ —	$ 84,790	$ —	$ —	—%
	2018	73,288	73,288	—	132,503	55.31
	2017	56,671	56,671	—	127,530	44.44
	2016	49,932	49,932	—	124,322	40.16

(1) Actual contributions are based on covered payroll at the time of contribution. It is the actuary's understanding that the City's practice is to contribute the percent-of-payroll employer contribution rate (or flat dollar amount if there are no active employees) shown in the actuarial valuation report. Because of this understanding, the Actuarially Determined Contributions shown in the Schedule of Contributions are the actual contributions made by the City in the fiscal year. Fiscal year 2018 actual contributions represent contributions made subsequent to the measurement date.

The actuarially determined recommended pension contribution rates for Police was 67.30% for fiscal year 2017-18, and is 59.76% for fiscal year 2018-19 and 64.64% for fiscal year 2019-20. The actuarially determined recommended pension contribution rates for Fire was 62.69% for fiscal year 2017-18, and is 57.48% for fiscal year 2018-19 and 58.95% for fiscal year 2019-20.

APSPRS Pension Reform

On April 29, 2011, the Governor signed into law Senate Bill 1609 ("SB 1609"), which created significant pension reform to the APSPRS.

The following is a summary of changes to the APSPRS required by SB 1609:

- Revise the formula used to calculate cost of living adjustments (COLA)
- Increase member contribution rate from 7.65% to 11.65% by fiscal year 2015-16
- Eliminate the Deferred Retirement Option Plan (DROP) for employees hired after January 1, 2012
- Increase the number of years of service required to become retirement eligible from 20 to 25
- Increase the number of consecutive years of salary used to compute pension from three to five
- Calculated pension cannot exceed 80.0% of the five consecutive years' average

On February 20, 2014, the Arizona Supreme Court upheld a lower court ruling that provisions of SB 1609 revising the formula used to calculate cost of living adjustments of members of the Arizona Elected Officials Retirement Plan (EORP) violated the Arizona Constitution to the extent those provisions applied to elected officials hired prior to January 1, 2012. Because that Supreme Court ruling applies to invalidate the same language in similar provisions of SB 1609 which relate to APSPRS, COLA increases for members hired prior to January 1, 2012 and affected by SB 1609 will be restored retroactively, which required rate increases from employers, including the City. The APSPRS Board allowed employers to phase-in the pension contribution rate increase over 3 years beginning with the 2015-16 fiscal year. The City's contribution rate for fiscal year 2015-16 increased 7.96% for fire and 9.31% for police due the phase-in. In fiscal year 2016-17 the City's contribution rate increased 4.93% for fire and 6.05% for police. The City is unable to determine the rate increase for the last year of the phase-in or any potential savings due to other provisions of SB 1609.

On November 10, 2016, the Arizona Supreme Court upheld another lower court ruling that provisions of SB 1609 which increased employee contribution rates and curtailed certain benefit increases were also unconstitutional. The decision means that many current employees will receive refunds, while some retirees will receive retroactive benefit increases. The issuance of refunds by the City will have minimal effect on contribution rates. Neither of the Supreme Court decisions will impact the ability of the City to fulfill its obligations on its bonds. The City is not aware of any other pending lawsuits regarding SB 1609.

In February 2016, the Governor signed Senate Bills 1428 and 1429 to further reform the APSPRS. Most of the changes only affect new hires who start after June 30, 2017. Those changes include requiring new public safety employees to serve until age 55 before being eligible for full pension benefits, splitting the annual pension cost 50/50 between employers and new employees, and providing new hires the option of choosing a 100% defined contribution plan in place of a defined benefit (or pension) plan. The one change that could affect current retirees and those hired both before and after June 30, 2017, is a 2.0% annual cap on cost-of-living adjustments, which would be tied to the metropolitan Phoenix-Mesa Consumer Price Index. For the cost-of-living cap to apply to current members of APSPRS, it needed to be approved by voters. Proposition 124, which capped the cost of living adjustments for current and new members, was approved by voters on May 17, 2016.

Elected Officials' Retirement Plan

The Elected Officials' Retirement Plan (EORP) is a cost sharing multiple-employer defined benefit pension plan of which the City of Phoenix is a contributing employer and covers the Mayor and City Council, effective January 4, 1988. As a condition of coverage, members are required to contribute a percentage of their compensation.

The City contributed an actuarially determined rate of 32.99% for fiscal year 2012 and 36.44% for fiscal year 2013, to fully fund benefits for active members. For the first six months of fiscal year 2014, the City contribution rate was 39.62%. Effective January 1, 2014, the State Legislature closed the EORP to new members and changed the contribution rate to 23.50% for both the EORP and for the newly created Elected Officials' Defined Contribution Retirement System (EODCRS). All elected officials, appointed or elected on or after January 1, 2014 and not previously a member of the EORP, become members of the EODCRS, a defined contribution plan.

In 2017, a trial court ruled that the 23.50% level per cent employer contribution rate for the defined benefit plan was unconstitutional without supplemental funding because it was insufficient to cover the actuarial computed unfunded liabilities.

In March 2018, the Arizona State Legislature introduced Senate Bill 1478 ("SB 1478"), which proposed to eliminate the 23.50% employer contribution rate and replace it with an actuarially determined employer contribution rate. SB 1478 requires the contribution rate to be sufficient to meet both the normal cost and the unfunded accrued liability amortized over a closed period of at least 20 years, but not more than 30 years, beginning July 1, 2018. The Governor signed SB 1478 into law on May 16, 2018. Effective July 1, 2018, the EORP employer contribution rate was 61.5% and 61.625% for EODCRS. Effective July 1, 2019, the EORP employer contribution rate was 61.43% and 61.555% for EODCRS.

Pension reform for EORP was approved by voters in November 2018. The reform requires a replacement of the permanent benefit increase, or PBI, with a cost-of-living-adjustment based on annual changes recognized by the U.S. Department of Labor, Bureau of Labor Statistics' Consumer Price Index for the Phoenix-Mesa-Scottsdale CBSA. The PBI could increase as much as 4.0% per year, while the new cost-of-living adjustment increase has a cap of 2.0% per year.

No additional disclosures regarding EORP are provided due to the immateriality to the City's finances as a whole. EORP financial statements are available online at www.psprs.com.

Additional Information

Additional information regarding the City's Retirement and Pension Plans, including trend information and detailed assumptions, is available in the City's Comprehensive Annual Financial Report (CAFR) under the headings "Pension Plans" and "Required Supplementary Information". The CAFR is available at http://emma.msrb.org or www.phoenix.gov under Departments-Finance-Comprehensive Annual Financial Report or by calling the City at (602) 262-7166.

Additional information regarding the APSPRS and the Elected Officials Retirement Plan, including annual financial reports, actuary reports, trend information and detailed assumptions is available at www.psprs.com/investments--financials/annual-reports.

APPENDIX E

Health Care Benefits for Retired Employees

The City provides certain postemployment health care benefits for its retirees. City retirees meeting certain qualifications are eligible to participate in the City's health insurance program along with the City's active employees. As of August 1, 2007, separate unblended rates have been established for active and retiree health insurance.

In June 2004, the Governmental Accounting Standards Board (GASB) issued Statement No. 45 (GASB 45) which addresses how state and local governments should account for and report costs and obligations related to post-employment health care and other post-employment non-pension benefits (OPEB). GASB 45 generally requires that the annual cost of OPEB and the outstanding obligations and commitments related to OPEB be accounted for and reported in essentially the same manner as pensions. The City implemented GASB Statement No. 45, Accounting and Financial Reporting by Employers for Post-employment Benefits Other Than Pensions, effective July 1, 2007.

GASB 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, replaces GASB Statement No. 45 and establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expense/expenditures. The new GASB statement requires the presentation of liability for OPEB obligations in the employer's financial statements. The Statement identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about defined benefit OPEB also are addressed. The City implemented GASB 75 effective July 1, 2017.

Medical Expense Reimbursement Plan

Employees eligible to retire in 15 years or less from August 1, 2007, will receive a monthly subsidy from the City's Medical Expense Reimbursement Plan (MERP) when they retire. The MERP is a single-employer, defined benefit OPEB plan.

The subsidy provides an offset to out of pocket healthcare expenses such as premiums, deductibles and co-pays, whether the retiree or survivor elects to purchase coverage through city sponsored retiree plans or other sources. City sponsored health plans are provided to eligible non-Medicare retirees and dependents. The subsidy varies with length of service or bargaining unit, from $117 to $202 per month. Retirees may be eligible for additional subsidies depending on their bargaining unit, retirement date, or enrollment in the City's medical insurance program. Current and future eligible retirees who purchase health insurance through the City's plan will receive an additional subsidy to minimize the impact of unblending health insurance rates for active and retired employees.

In December 2007, the City established the City of Phoenix MERP Trust to fund all or a portion of the City's share of liabilities incurred in providing the benefits as reflected in Administrative Regulation 2.42 — Medical Expense Reimbursement Plan for Retirees and Eligible Surviving Spouses or Qualified Domestic Partners. A five-member Board of Trustees was delegated fiduciary responsibility for the MERP Trust, subject to oversight of the City Council.

The employees covered by MERP at June 30, 2019 are:

	2019
Plan Members Currently Receiving Benefits	9,352
Active Plan Members	3,527
Total Plan Members	12,879

Contributions by the City (plus earnings thereon) are the sole source of funding for the MERP. The City's Board of Trustees, subject to oversight by the City Council has the authority to establish and amend the contribution requirements of the City and active employees. The Board of Trustees establishes the rates based on an actuarially determined rate recommended by an independent actuary. The actuarial determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. For the year ended June 30, 2019, the City contributed $24.1 million. Employees are not required to contribute to the MERP.

The MERP actuarially determined contribution, actual contribution and covered payroll for the last two fiscal years follows:

MERP
Schedule of Employer Contributions
(in thousands)

Fiscal Year Ended June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a percentage of Covered Payroll
2019	$ 22,465	$ 24,100	$ (1,635)	$ 270,600	8.9%
2018	22,465	25,881	(3,416)	329,982	7.84

The City's net OPEB liability for MERP was measured as of June 30, 2019, and the total MERP OPEB liability used to calculate the net OPEB liability for MERP was determined by an actuarial valuation as of June 30, 2019. The net OPEB liability for MERP is measured as the total MERP OPEB liability, less the amount of the plan's fiduciary net position. In actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations based on the Board's adopted assumptions and methods).

A single discount rate of 7.0% was used to measure the total MERP OPEB liability as of June 30, 2019. This single discount rate was based on an expected rate of return on MERP OPEB plan investments of 7.0%. Based on the stated assumptions and the projection of cash flows, the MERP OPEB fiduciary net position and future contributions were projected to be sufficient to finance all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on MERP OPEB plan investments was applied to all periods of projected benefit payments to determine the total MERP OPEB liability.

The following schedule shows the funding progress of the plan for the last two fiscal years. The total MERP OPEB liability increased $4,969,000 from 2018 to 2019.

Schedule of Changes in Net OPEB Liability and Related Ratios
(in thousands)

	MERP	
	Fiscal Year End 2019	**Fiscal Year End 2018**
Total OPEB Liability		
Service cost	$ 4,282	$ 4,690
Interest on the total OPEB liability	25,141	24,826
Changes of benefit terms	19,835	—
Differences between expected and actual experience	(18,132)	—
Changes of assumptions	(637)	—
Benefit payments, including refunds of employee contributions	(25,520)	(24,107)
Net change in total OPEB liability	4,969	5,409
Total OPEB liability–beginning	369,774	364,365
Total OPEB liability–ending	$374,743	$369,774
Plan Fiduciary Net Position		
Employer contributions	$ 24,100	$ 25,881
OPEB plan net investment income	8,734	9,761
Benefit payments, including refunds of employee contributions	(25,520)	(24,107)
Other	(17)	6
Net change in plan fiduciary net position	7,297	11,541
Plan fiduciary net position–beginning	170,869	159,328
Plan fiduciary net position–ending	$178,166	$170,869
Net OPEB liability–ending	$196,577	$198,905
Plan fiduciary net position as a percentage of total OPEB liability	47.54%	46.21%
Covered payroll	$270,600	$329,982
Net OPEB liability as a percentage of covered payroll	72.64%	60.28%

Post Employment Health Plan

Benefit eligible employees with more than 15 years until retirement eligibility, as of August 1, 2007, receive $150 per month while employed by the City as a defined contribution to the Post Employment Health Plan (PEHP). This is a 100% employer-paid benefit. The program provides employees who have a payroll deduction for City medical insurance coverage (single or family) with a PEHP account. This account is to be used by the employee when he/she retires or separates employment with the City for qualified medical expenses (including health insurance premiums).

Long-Term Disability Program

In November 2008, the City established the City of Phoenix Long-Term Disability (LTD) Trust to fund all or a portion of the City's liabilities incurred in providing the benefits as reflected in Administrative Regulation 2.323 — City of Phoenix Long-Term Disability Program. The LTD Trust is a single-employer, defined benefit plan. A five-member Board of Trustees was delegated fiduciary responsibility for the LTD Trust, subject to oversight by the City Council. The LTD Trust issues a separate report that can be obtained through the City of Phoenix, Finance Department, Financial Accounting and Reporting Division, 251 W. Washington Street, 9th Floor, Phoenix, Arizona, 85003.

Long-term disability benefits are available to regular, full-time, benefit-eligible employees who have been employed by the City for at least 12 consecutive months. The program provides income protection of 2/3 of an employee's monthly base salary following a continuous three-month waiting period from the last day worked and the use of all leave accruals. The benefit continues to age 80 for those disabled prior to July 1, 2013 and age 75 for those disabled on or after July 1, 2013. The City pays 100% of the cost of this benefit.

The number of participants as of June 30, 2018, the effective date of the biennial OPEB valuation, follows:

	Fire	Police	General City	Total
Active Employees	3,038	1,685	7,910	12,633
Disabled Employees	19	5	264	288
Total Covered Participants	3,057	1,690	8,174	12,921

Contributions by the City (plus earnings thereon) are the sole source of funding for the LTD program. The LTD Trust's Board of Trustees, subject to oversight by the City Council has the authority to establish and amend the contribution requirements of the City and active employees. The Board of Trustees establishes the rates based on an actuarially determined rate recommended by an independent actuary. The actuarial determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. For the years ended June 30, 2019, the City contributed $1.8 million. Employees are not required to contribute to the LTD program.

The LTD actuarially determined contribution, actual contribution and covered payroll for the last two fiscal years follows:

LTD
Schedule of Employer Contributions
(in thousands)

Fiscal Year Ended June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a percentage of Covered Payroll
2019	$ 1,772	$ 1,758	$ 14	$ 831,706	0.21%
2018	1,772	1,643	129	832,952	0.20

The City's net OPEB liability for LTD was measured as of June 30, 2019, and the total LTD OPEB liability used to calculate the net LTD OPEB liability was determined by an actuarial valuation as of June 30, 2019. The net LTD OPEB liability is measured as the total OPEB liability, less the amount of the plan's fiduciary net position. In actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations based on the LTD Trust's Board of Trustees adopted assumptions and methods).

A single discount rate of 7.00% was used to measure the total OPEB liability for LTD as of June 30, 2019. This single discount rate was based on an expected rate of return on LTD OPEB plan investments of 7.00%. Based on the stated assumptions and the projection of cash flows, the LTD OPEB plan's fiduciary net position and future contributions were projected to be available to finance all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on LTD OPEB plan investments was applied to all periods of projected benefit payments to determine the total LTD OPEB liability.

The following schedule shows the funding progress of the plan for the last two fiscal years. The total LTD OPEB liability decreased $7,624,000 from 2018 to 2019.

Schedule of Changes in Net OPEB Liability and Related Ratios
(in thousands)

	LTD	
	Fiscal Year End 2019	**Fiscal Year End 2018**
Total OPEB liability/(asset)		
Service cost	$ 3,679	$ 3,554
Interest on the total OPEB liability/(asset)	3,614	3,407
Differences between expected and actual experience	(2,778)	—
Changes of assumptions	(8,013)	—
Benefit payments, including refunds of employee contributions	(4,126)	(3,993)
Net change in total OPEB liability/(asset)	(7,624)	2,968
Total OPEB liability/(asset)–beginning	51,854	48,886
Total OPEB liability/(asset)–ending	$ 44,230	$ 51,854
Plan Fiduciary Net Position		
Employer contributions	$ 1,758	$ 1,643
OPEB plan net investment income	3,983	4,611
Benefit payments, including refunds of employee contributions	(4,126)	(3,993)
OPEB plan administrative expense	(380)	(409)
Other	(86)	167
Net change in plan fiduciary net position	1,149	2,019
Plan fiduciary net position–beginning	78,930	76,911
Plan fiduciary net position–ending	$ 80,079	$ 78,930
Net OPEB liability/(asset)–ending	$ (35,849)	$ (27,076)
Plan fiduciary net position as a percentage of total OPEB liability/(asset)	181.05%	152.23%
Covered payroll	$831,706	$832,952
Net OPEB liability/(asset) as a percentage of covered payroll	(4.31)%	(3.25)%

APSPRS—OPEB

The Arizona Public Safety Personnel Retirement System (APSPRS) administers an agent multiple-employer defined benefit retirement system established by Title 38, Chapter 5, Article 4 of the Arizona Revised Statutes that provides retirement benefits, as well as death and disability benefits to public safety employees of certain state and local governments. Authority to make amendments to the plan rests with the Arizona State Legislature. The APSPRS acts as a common investment and administrative agent that is jointly administered by a Board of Trustees and participating local boards.

A post-retirement health insurance subsidy is payable on behalf of retired members and survivors who elect coverage provided by the state or participating employer. The monthly subsidy ranges between $100 and $260 depending on Medicare eligibility and dependents.

The City's APSPRS membership data is a follows:

	June 30, 2018	
	Police	**Fire**
Retirees and Beneficiaries	2,374	1,102
Inactive, Non-Retired Members	405	224
Active Members	2,501	1,426
Total	5,280	2,752

APSPRS has the authority to establish and amend the contribution requirements of the City and active employees. APSPRS establishes rates based on an actuarially determined rate recommended by an independent actuary. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance an unfunded accrued liability.

For the year ended June 30, 2019, there were no employer contributions. Employees are not required to contribute to the APSPRS OPEB Plan.

APSPRS
Schedule of Employer Contributions
(in thousands)

	Fiscal Year Ended June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll	Actual Contribution as a percentage of Covered Payroll
Police	2018	$ —	$ —	$ —	$ 221,105	— %
Fire	2018	—	—	—	132,503	—

The following schedule shows the funding progress of the APSPRS OPEB plan for the last two fiscal years. The City's net OPEB liability for APSPRS was measured as of June 30, 2018, and the total APSPRS OPEB liability used to calculate the net OPEB liability for APSPRS was determined by an actuarial valuation as of the same date.

Schedule of Changes in Net OPEB Liability and Related Ratios for Reporting Date Ended June 30,
(in thousands)

	APSPRS	
	Police 2019	**Fire 2019**
Total OPEB Liability		
Service cost	$ 647	$ 338
Interest on the total OPEB liability	3,440	1,755
Changes of benefit terms	—	—
Differences between expected and actual experience of the Total OPEB Liability	(632)	(116)
Changes of assumptions	—	—
Benefit payments, including refunds of employee contributions	(3,253)	(1,766)
Net change in total OPEB liability	202	211
Total OPEB liability–beginning	47,791	24,430
Total OPEB liability–ending	$ 47,993	$ 24,641
Plan Fiduciary Net Position		
Contributions–employer	$ —	$ —
Contributions–employee	5	1
Net Investment Income	4,483	2,529
Benefit payments, including refunds of employee contributions	(3,253)	(1,766)
OPEB Plan administrative expense	(68)	(39)
Other	—	—
Net change in Plan fiduciary net position	1,167	725
Plan fiduciary net position–beginning	65,659	37,001
Plan fiduciary net position–ending	$ 66,826	$ 37,726
Net OPEB liability/(asset)	$ (18,833)	$ (13,085)
Plan fiduciary net position as a percentage of total OPEB liability	139.24%	153.10%
Covered payroll	$221,105	$132,503
Net OPEB liability as a percentage of covered payroll	(8.52)%	(9.88)%

Actuarial Valuations

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual required contributions of the City are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the City and plan members) and include the types of benefits provided at the time of each valuation. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

Additional Information

Additional information regarding the City's Health Care Benefits for Retired Employees, including the actuarial methods and detailed assumptions used to calculate the ARC, is available in the City's Comprehensive Annual Financial Report (CAFR) under the heading "Other Postemployment Benefits (OPEB)". The CAFR is available at http://emma.msrb.org or www.phoenix.gov under Departments-Finance-Comprehensive Annual Financial Report or by calling the City at (602) 262-7166.

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APPENDIX F

Summary of Certain Provisions of Legal Documents

The following information summarizes or paraphrases certain provisions of the Airport Revenue Bond Ordinance, the City Purchase Agreement and the Indenture. Such information is not a full statement of the terms of such documents and, accordingly, is qualified by reference to the full text thereof.

CERTAIN DEFINITIONS

The following are definitions in summary form of certain terms used in the Airport Revenue Bond Ordinance, the City Purchase Agreement and the Indenture:

"Airport" means the airports of the City presently known as "Phoenix — Sky Harbor International Airport," "Phoenix — Goodyear Airport," and "Phoenix — Deer Valley Airport," including all additions, extensions and improvements thereto which may be made while any Bonds remain Outstanding, including all property and facilities of every nature owned or operated by the City and used in connection with its airports or for airport purposes, including but without limitation, lands, rights-in-land, terminals and other buildings and facilities, hangars, runways, ramps, shops, stores and similar facilities located in the terminal building areas, parking meters and facilities, facilities for limousine, taxi and car rental services, restrooms, sinks, showers, toilets, luggage lockers, repair shops, facilities for the sale of oil and fuel, communication facilities, restaurant and bar facilities, and all other property and facilities of every nature located on or used in connection with the airports and the land on which each is located, and including airport facilities not described in this definition if such facilities have been added to the definition of Airport by subsequent resolution or ordinance of the City.

"Airport Improvement Fund" means the fund of that name created in Article II of the Airport Revenue Bond Ordinance.

"Airport Revenue Bond Ordinance" means Ordinance No. S-21974 adopted by the Mayor and Council of the City on April 20, 1994, as amended to date and as further supplemented and amended from time to time.

"Airport Revenues" or *"Revenues"* means all income and revenue received by the City directly or indirectly from the use and operation of the Airport, including but without limitation, revenues pledged, dedicated or allocated for the benefit of the Airport, rentals, landing fees, use charges, income from the sale of services, fuel, oil and other supplies or commodities, income from the use for agricultural purposes of portions of the Airport not currently used for Airport purposes, fees from concessions, amounts received from or in behalf of the Arizona National Guard, parking meter and parking lot receipts, storage locker and restroom income, income from communication services, fees or income from limousine, taxi and car rental services, bar and restaurant income, advertising revenues, receipts derived from the lease or any other contractual arrangement with respect to the use of the Airport, receipts from the sale of any property of the Airport, proceeds of any insurance covering business interruption loss. Airport Revenues and Revenues also includes income received from the investment of any moneys held in the funds and accounts (other than the Construction Fund and the Rebate Fund) created under the Airport Revenue Bond Ordinance. Airport Revenues and Revenues shall not include the following: (i) money received as grants or gifts from the United States of America or the State of Arizona, except to the extent that any such money shall be received as payments for use of the Airport or its facilities; (ii) proceeds received on insurance resulting from casualty damage to assets of the Airport to the extent such proceeds are used to repair or replace facilities or property of the Airport; (iii) rentals or other charges derived by the City under and pursuant to a lease or leases relating to Special Purpose Facilities; (iv) the proceeds of the sale of any Bonds or other obligations issued for Airport purposes; or (v) receipts from Passenger Facility Charges.

"AMT Property" means the property actually funded with proceeds of the Series 2019B Junior Bonds, consisting of portions of the project so described in Exhibit A hereto.

"*Bondholder*" means the registered owner of one or more Bonds.

"*Bond Fund*" means the fund of that name described in Article II of the Airport Revenue Bond Ordinance.

"*Bond Payment Date*" means the dates established for the payment of interest on any Bonds or Principal Requirement on any Bonds as set forth in the Series Ordinance authorizing such Bonds.

"*Bond Reserve Fund*'' means a common reserve for the Bonds as may be secured thereby under their terms.

"*Bond Year*" means a twelve-month period beginning July 2 of the calendar year and ending on the next succeeding July 1, or such other period as set forth in a Series Ordinance.

"*Bonds*" or "*Parity Bonds*" or "*Senior Lien Obligations*" means obligations payable from Net Airport Revenues.

"*Bonds Being Refunded*" means the Corporation's Junior Lien Airport Revenue Refunding Bonds, Series 2010C maturing July 1, 2023 through and including July 1, 2025.

"*Chief Financial Officer*" means the official of the City performing the duties now performed by the actual, acting or interim Chief Financial Officer.

"*City*" means the City of Phoenix, Arizona.

"*City Manager*" means the official of the City performing the duties now performed by the City Manager.

"*City Purchase Agreement*" or "*Agreement*" means, the Junior Lien City Purchase Agreement dated as of December 1, 2019 between the City and the Corporation.

"*Clerk*" or "*City Clerk*" means the official of the City performing the duties now performed by the City Clerk.

"*Code*" means the Internal Revenue Code of 1986, as amended and supplemented from time to time, and shall be deemed to include the United States Treasury Regulations, including temporary and proposed regulations, to the extent applicable to the Bonds for the use of proceeds of the Bonds or the Airport.

"*Commercial Paper*" means Senior Lien Obligations or Junior Lien Obligations, as applicable, with a maturity of not more than 270 days from the date of issuance and which are issued and reissued from time to time.

"*Commitment Period*" means (i) with respect to the Series 2010A/B Junior Bonds, the period beginning on the date of issuance of the Series 2010A/B Junior Bonds through and including June 30, 2026, (ii) with respect to the Series 2015 Junior Bonds, the period beginning on the date of issuance of the Series 2015 Junior Bonds through and including June 30, 2026, (iii) with respect to the Series 2017D Junior Bonds, the period beginning on the date of issuance of the Series 2017D Junior Bonds through and including June 30, 2026, (iv) with respect to the Series 2019A Junior Bonds, the period beginning on the date of issuance of the Series 2019A Junior Bonds through and including June 30, 2026 and (v) with respect to other obligations, such other period as may be established. The City, in its discretion, by written direction to the Trustee may establish, extend or reestablish any Commitment Period.

"*Compound Interest Bonds*" means Bonds which for a stated period of time bear interest which interest is calculated based on regular compounding, payable only (i) at maturity or earlier redemption or (ii) on a specified date, from and after which such Bonds bear interest payable on a regularly scheduled basis. Bonds described in clause (ii), above, shall be deemed to be "*Compound Interest Bonds*" until the specified date on which the compounded interest ceases to accrue.

“*Consultant*” means a firm of consultants or professionals experienced in the development, planning, financing, operation or management of airports or airport facilities.

“*Cost of Maintenance and Operation*” means all expenditures (exclusive of depreciation and interest on money borrowed) which are necessary to the efficient maintenance and operation of the Airport and its facilities, such expenditures to include the items normally included as essential expenditures in the operating budgets of municipally owned airports.

“*Council*” means the Mayor and Council of the City of Phoenix or such other body as may from time to time be acting as the body which governs said City.

“*Credit Facility*” means a bank, financial institution, insurance company or indemnity company enhancing the credit of any Bonds by assuring holders of such Bonds that principal of and interest on said Bonds will be paid promptly when due and includes the issuance of an insurance policy, surety bond or other form of security for the Bond Reserve Fund as described in Article II, Section 2.5 of the Airport Revenue Bond Ordinance.

“*Debt Service Reserve Requirement*” means, with respect to the Senior Lien Obligations, Maximum Annual Debt Service, provided that if the Debt Service Reserve Requirement is satisfied with the proceeds of obligations the interest on which is excludible from gross income for federal income tax purposes, then the amount of proceeds used in order to satisfy the Debt Service Reserve Requirement shall not exceed any restrictions relating to the use of such funds for such purpose set forth in the Code. The Debt Service Reserve Requirement may be recalculated from time to time as Bonds are rendered no longer Outstanding.

“*Derivative Product*” means an agreement of the City entered into in accordance with Section 2.13 of the Airport Revenue Bond Ordinance.

“*Event of Default*” means one of the events defined as such in the City Purchase Agreement or Indenture as the case may be.

“*Financed Property*” means, collectively, the Governmental Property and the AMT Property.

“*Fiscal Year*” means the 12-month period used by the City for its general accounting purposes as the same may be changed from time to time, said fiscal year currently extending from July 1 to June 30.

“*Governmental Property*” means the property actually funded with proceeds of the Series 2019A Junior Bonds, consisting of portions of the projects so described on Exhibit A to the City Purchase Agreement.

“*Indenture*” means, the Bond Indenture dated as December 1, 2019 between the Corporation and the Trustee.

“*Independent Certified Public Accountant*” means a firm of certified public accountants which is not in the regular employ of the City on a salary basis.

“*Interest Account*” means the account of that name established in Article II of the Airport Revenue Bond Ordinance.

“*Interest Requirement*” means the amount of interest falling due on the next Bond Payment Date, net of any amounts deposited in the Interest Account or Construction Fund which are available to pay interest on Bonds.

“*Investment Earnings*” means all interest received on and profits derived from investments made with any money held under the Indenture.

"Junior Lien Bond Fund" means the Junior Lien Bond Fund established pursuant to the Junior Lien Obligation Documents.

"Junior Lien Compound Interest Bonds" means Junior Lien Obligations which for a stated period of time bear interest which interest is calculated based on regular compounding, payable only (i) at maturity or earlier redemption or (ii) on a specified date, from and after which such Junior Lien Obligations bear interest payable on a regularly scheduled basis. Junior Lien Obligations described in clause (ii), above, shall be deemed to be *"Junior Lien Compound Interest Bonds"* until the specified date on which the compounded interest ceases to accrue.

"Junior Lien Credit Facility" means a Credit Facility with respect to the Junior Lien Obligations.

"Junior Lien Derivative Product" means a swap agreement, forward agreement, interest rate agreement or other similar agreement of the City entered into in accordance with the Junior Lien Obligation Documents.

"Junior Lien Interest Account" means the Junior Lien Interest Account of the Junior Lien Bond Fund established pursuant the Junior Lien Obligation Documents.

"Junior Lien Interest Payment Date" means the dates established for the payment of Junior Lien Interest Requirements.

"Junior Lien Interest Requirement" means the amount of interest due on Junior Lien Obligations.

"Junior Lien Obligation Documents" means any ordinance, indenture, contract or agreement of the City constituting or authorizing Junior Lien Obligations.

"Junior Lien Obligations" means obligations payable from Designated Revenues.

"Junior Lien Parity Debt Service Reserve Requirement" means, initially $, which is the least of: (i) Maximum Annual Junior Lien Debt Service for the Series 2015A Junior Bonds, the Series 2017D Junior Bonds and the 2019 Junior Bonds, (ii) 10% of the stated principal amount of the Series 2015A Junior Bonds, the Series 2017D Junior Bonds and the 2019 Junior Bonds and (iii) 125% of the average annual Principal Requirements and Interest Requirements with respect to the Series 2015A Junior Bonds, the Series 2017D Junior Bonds and the 2019 Junior Bonds, in each case without regard to any applicable Junior Lien Passenger Facility Charge Credit. The Junior Lien Parity Debt Service Reserve Requirement may be recalculated from time to time as Junior Lien Obligations secured by the Junior Lien Parity Reserve Fund are rendered no longer Outstanding or in the event the City elects to make the Junior Lien Parity Reserve Fund a parity reserve fund for the benefit of additional Junior Lien Obligations. In that event, as set forth in Section 2.7(d) of the City Purchase Agreement, the requirements set forth above shall be determined on an aggregate basis according to the Junior Lien Obligations secured by the Junior Lien Parity Reserve Fund.

"Junior Lien Parity Reserve Fund" means the Junior Lien Parity Reserve Fund established pursuant to Section 2.7 of the 2015 Junior Lien City Purchase Agreement, Section 2.7 of the 2017 Junior Lien City Purchase Agreement and Section 2.7 of the City Purchase Agreement, and assigned to the 2015 Trustee under the 2015 Indenture, the 2017 Trustee under the 2017 Indenture and the Trustee under the Indenture and as may be further assigned in the event such fund shall become a parity reserve fund for the benefit of additional Junior Lien Obligations.

"Junior Lien Passenger Facility Charge Credit" means the amount of principal of and/or interest to come due on specified Junior Lien Obligations during any Fiscal Year to which Passenger Facility Charges, state and/or federal grants or other moneys have received all required governmental approvals and have been irrevocably committed or are held by the Trustee or another fiduciary and are to be set aside exclusively to be used to pay

Junior Lien Interest Requirements and/or Junior Lien Principal Requirements on such specified Junior Lien Obligations during the period of such commitment (unless such Passenger Facility Charges, state and/or other moneys are subsequently included in the definition of Airport Revenues).

"Junior Lien Principal Account" means the Junior Lien Principal Account established pursuant to the Junior Lien Obligation Documents.

"Junior Lien Principal Payment Date" means the dates established for the payment of Principal Requirements on Junior Lien Obligations.

"Junior Lien Principal Requirement" means, as of any date of calculation, the sum of (a) the principal amount due on Junior Lien Obligations plus (b) the amount of principal of Junior Lien Obligations required to be redeemed pursuant to a mandatory redemption feature. In computing the Junior Lien Principal Requirement, an amount of Junior Lien Obligations required to be redeemed pursuant to mandatory redemption in each year shall be deemed to fall due in that year and (except in case of default in observing a mandatory redemption requirement) shall be deducted from the amount of Junior Lien Obligations maturing on the scheduled maturity date. In the case of Junior Lien Obligations supported by a Junior Lien Credit Facility, the Junior Lien Principal Requirements for such Junior Lien Obligations shall be determined in accordance with the principal retirement schedule specified in the Junior Lien Obligation Documents authorizing the issuance or providing for the sale of Junior Lien Obligations, rather than any amortization schedule set forth in such Junior Lien Credit Facility. Junior Lien Obligation Documents authorizing Junior Lien Obligations which are Junior Lien Compound Interest Bonds may amend the definition of *"Junior Lien Principal Requirement.*"

"Maximum Annual Debt Service" means an amount of money equal to the highest aggregate Principal Requirement and Interest Requirements to fall due and payable in the current or any future Bond Year of all Outstanding Bonds, as adjusted for any Derivative Product entered into with a Qualified Counterparty in accordance with Section 2.13 of the Airport Revenue Bond Ordinance and less any applicable Passenger Facility Charge Credit. For purposes of the Senior Lien Obligation Documents, an adjustment for a Derivative Product with a Qualified Counterparty pursuant to Section 2.13 of the Airport Revenue Bond Ordinance means: (i) the City shall treat the amount or rate of interest payable with respect to the Parity Bonds to which such Derivative Product relates as the interest rate payable under such Derivative Product; and (ii) the City may disregard the notional principal amount of any such Derivative Product with a Qualified Counterparty. In case any Bonds outstanding or proposed to be issued shall bear interest at a variable rate, the Interest Requirement of such Bonds in each Bond Year during which such variable rate applies shall be computed at the lesser of (i) the maximum rate which such Bonds may bear under the terms of their issuance or (ii) the rate of interest established for long-term bonds by the 20-year bond index most recently published by THE BOND BUYER OF NEW YORK, NEW YORK, prior to the date of computation (or in the absence of such published index, some other index selected in good faith by the Chief Financial Officer of the City after consultation with one or more reputable, experienced investment bankers as being equivalent thereto) (the *"Variable Rate Assumption").* With respect to any Bonds issued as Commercial Paper or proposed to be issued, the Principal Requirement shall be calculated as if the entire amount of Commercial Paper authorized to be issued under the Series Ordinance were to be amortized over a term of 30 years commencing in the year in which such Commercial Paper is issued or proposed to be issued and with substantially level annual debt service payments and the Interest Requirement shall be computed using the Variable Rate Assumption.

"Maximum Annual Junior Lien Debt Service" means an amount equal to the highest aggregate Junior Lien Principal Requirements and Junior Lien Interest Requirements to fall due and payable in the current or any future Bond Year of all Outstanding Junior Lien Obligations, as adjusted pursuant to any Junior Lien Derivative Product with a Qualified Junior Lien Counterparty in accordance with the Junior Lien Obligation Documents and less any applicable Junior Lien Passenger Facility Charge Credit. In case any Junior Lien Obligations outstanding or proposed to be issued shall bear interest at a variable rate, the Junior Lien Interest Requirement of such Junior Lien Obligations in each Bond Year during which such variable rate applies shall be computed at the lesser of

(i) the maximum rate which such Junior Lien Obligations may bear under the terms of their issuance or (ii) the rate of interest established for long-term bonds by the 20- year bond index most recently published by *THE BOND BUYER* of New York, New York, prior to the date of computation (or in the absence of such published index, some other index selected in good faith by the Chief Financial Officer of the City after consultation with one or more reputable, experienced investment bankers as being equivalent thereto) (the *"Junior Lien Variable Rate Assumption").* With respect to any Commercial Paper issued or proposed to be issued, the Junior Lien Principal Requirement shall be calculated as if the entire amount of Commercial Paper authorized to be issued under the Junior Lien Obligation Documents were to be amortized over a term of 30 years commencing in the year in which such Commercial Paper is issued or proposed to be issued and with substantially level annual debt service payments and the Junior Lien Interest Requirement shall be computed using the Junior Lien Variable Rate Assumption.

"Moody's" means Moody's Investors Service, Inc. and its successors or assigns.

"Net Airport Revenues" or *"Net Revenues"* means the Revenues of the Airport, after provision for payment of all Cost of Maintenance and Operation.

"Operation and Maintenance Fund'' means the fund of that name established in Article II of the Airport Revenue Bond Ordinance.

"Other Available Funds" means passenger facility charges, unrestricted grant money and other moneys available to the Airport which are not included in the definition of Revenues or Airport Revenues.

"Other Available Monies" means Other Available Funds which the City elects to make available for a particular purpose.

"Outstanding" means all obligations of the class concerned which shall have been issued and delivered with the exception of (a) obligations in lieu of which other obligations have been issued under agreement to replace lost, mutilated or destroyed obligations, (b) obligations surrendered by the holders in exchange for other obligations and (c) obligations for the payment of which provision has been made as provided in the Senior Lien Obligation Documents or Junior Lien Obligation Documents.

"Passenger Facility Charge Credit" means the amount of principal of and/or interest to come due on specified Bonds during any Fiscal Year to which Passenger Facility Charges, state and/or federal grants or other moneys have received all required governmental approvals and have been irrevocably committed or are held in the Bond Fund or otherwise in trust by or on behalf of the Paying Agent and are to be set aside exclusively to be used to pay Interest Requirements and/or Principal Requirements on such specified Bonds during the period of such commitment (unless such Passenger Facility Charges, state and/or other moneys are subsequently included in the definition of Airport Revenues).

"Passenger Facility Charges" means charges collected by the City pursuant to the authority granted by the Aviation Safety and Capacity Expansion Act of 1990 and 14 CFR Part 158, as amended from time to time, in respect of any component of the Airport and interest earnings thereon, net of amounts that collecting air carriers are entitled to retain for collecting, handling and remitting such passenger facility charge revenues.

"Paying Agent" means the paying agent for each series of Bonds as set forth in the Series Ordinance authorizing such Bonds.

"Permitted Investments" means, to the extent from time to time permitted by law (including provisions of the City Charter) as investments for City money:

(a) Qualified Permitted Investments;

(b) obligations of, or obligations guaranteed as to the timely payment of principal and interest by, the United States of America or any agency or instrumentality thereof when such obligations are backed by the full faith and credit of the United States of America;

(c) Federal Housing Administration debentures which must not be redeemable prior to their stated maturity;

(d) obligations of the Federal Home Loan Mortgage Corporation (including only securities guaranteed as to timely payment of principal and interest);

(e) obligations of the Farm Credit System;

(f) obligations of Federal Home Loan Banks;

(g) obligations of the Federal National Mortgage Association (excluding interest-only stripped securities);

(h) federal funds, unsecured certificates of deposit, time deposits and banker's acceptances (in each case, having maturities of not more than 365 days) of any bank, the short-term obligations of which are rated in one of the two highest applicable rating categories by the Rating Agency;

(i) deposits which are fully insured by the Federal Deposit Insurance Corporation *("FDIC");*

(j) debt obligations rated in one of the two highest applicable rating categories by the Rating Agency (excluding securities that do not have a fixed par value and/or whose terms do not promise a fixed dollar amount at maturity or call date);

(k) commercial paper having maturities not in excess of one year rated in one of the two highest applicable rating categories by the Rating Agency;

(l) investment in money market funds rated in one of the two highest applicable rating categories by the Rating Agency;

(m) repurchase agreements with any transferor with long-term unsecured debt rated in the highest applicable rating categories or commercial paper rated in one of the two highest applicable rating categories by the Rating Agency; and

(n) U.S. Treasury STRIPS, and any stripped securities assessed or rated in one of the two highest applicable rating categories by the Rating Agency.

"PFC Revenue Fund" means the PFC Revenue Fund established pursuant to the Junior Lien Obligation Documents.

"PFC Revenues" means Passenger Facility Charges, to the extent received by the City in each Fiscal Year, plus interest earnings on the PFC Revenue Fund.

"Principal Account" means the account of that name created in Article II of the Airport Revenue Bond Ordinance.

"Principal Payment Date" means the dates established for the payment of Principal Requirements on any Bonds as set forth in the Series Ordinance authorizing such Bonds.

"Principal Requirement" means, as of any date of calculation, the sum of (a) the principal amount of Bonds falling due during the then current Bond Year plus (b) the amount of principal of Bonds required to be redeemed pursuant to a mandatory redemption feature during the then current Bond Year. In computing the Principal Requirement, an amount of Bonds required to be redeemed pursuant to mandatory redemption in each year shall be deemed to fall due in that year and (except in case of default in observing a mandatory redemption requirement) shall be deducted from the amount of Bonds maturing on the scheduled maturity date. In the case of

Bonds supported by a Credit Facility, the Principal Requirements for such Bonds shall be determined in accordance with the principal retirement schedule specified in the proceedings authorizing the issuance of such Bonds, rather than any amortization schedule set forth in such Credit Facility. A Series Ordinance authorizing the issuance or providing for the sale of Parity Bonds which are Compound Interest Bonds may amend the definition of *"Principal Requirement"*.

"Property" means, collectively, the Financed Property and the Refinanced Property.

"Purchase Price" means the sum of the payments required by the City Purchase Agreement to be paid by the City to the Corporation.

"Qualified Counterparty" means a counterparty to a Derivative Product (i) which is a bank, insurance company, indemnity company, financial institution or any similar or related company with a credit rating in one of the two highest rating categories of the Rating Agency, or if none of the Bonds are then rated by Moody's or S&P, any other nationally recognized rating agency or (ii) the obligations of which are guaranteed by an entity described in clause (i).

"Qualified Junior Lien Counterparty" means a counterparty to a Junior Lien Derivative Product (i) which is a bank, insurance company, indemnity company, financial institution or any similar or related company with a credit rating in one of the two highest rating categories of the Rating Agency, or if none of the Junior Lien Obligations are then rated by Moody's or S&P, any other nationally recognized rating agency, (ii) the obligations of which are guaranteed by an entity described in clause (i), or (iii) the obligations of which are fully secured by obligations described in items (i) or (ii) of the definition of Qualified Permitted Investments which are (A) valued not less frequently than monthly and have a fair market value, exclusive of accrued interest, at all times at least equal to 105% of the principal amount of the investment, together with the interest accrued and unpaid thereon, (B) held by the Trustee (who shall not be the provider of the collateral) or by any Federal Reserve Bank or a depository acceptable to the Trustee, (C) subject to a perfected first lien on behalf of the Trustee, and (D) free and clear from all third-party liens.

"Qualified Permitted Investments" means any one or more of the following classes of investments:

(i) direct obligations issued by the United States government or one of its agencies or obligations fully guaranteed by the United States government as to principal and interest;

(ii) any other evidences of an ownership interest in obligations or in specified portions thereof (which may consist of specified portions of the interest thereon) of the character described in clause (i) above; and

(iii) to the extent permitted by law at the time of making such investment, any bonds or other obligations of any state of the United States of America or of any agency, instrumentality or local governmental unit of any such state (a) which are not callable at the option of the obligor or otherwise prior to maturity or as to which irrevocable notice has been given by the obligor to call such bonds or obligations on the date specified in the notice, (b) which are fully secured as to principal and interest and redemption premium, if any, by a fund consisting only of cash or bonds or other obligations of the character described in clause (i) or clause (ii) above, which fund may be applied only to the payment of interest when due, principal of and redemption premium, if any, on such bonds or other obligations on the maturity date or dates thereof or the specified redemption date or dates pursuant to such irrevocable instructions, as appropriate, and (c) as to which the principal of and interest on the bonds and obligations of the character described in clause (i) or clause (ii) above, which have been deposited in such fund along with any cash on deposit in such fund is sufficient to pay interest when due, principal of and redemption premium, if any, on the bonds or other obligations described in this clause (iii) on the maturity date or dates thereof or on the redemption date or dates specified in the irrevocable instructions referred to in subclause (a) of this clause (iii), as appropriate.

"Rating Agency" means Moody's if any of the Bonds are then rated by Moody's and S&P if the Bonds are then rated by S&P.

"Refinanced Property" means the property actually funded or refinanced with proceeds of the Bonds Being Refunded and the 2019 Loan, consisting of portions of the projects so described on Exhibit A to the City Purchase Agreement.

"Revenue Fund" means the fund of that name created in Article II of the Airport Revenue Bond Ordinance.

"S&P" means Standard & Poor's Global Ratings and its successors or assigns.

"Senior Lien Obligations" means Bonds or Parity Bonds.

"Senior Lien Obligation Documents" means any ordinance, indenture, contract or agreement of the City constituting or authorizing Senior Lien Obligations.

"Series Ordinance" means an ordinance or ordinances (which may be supplemented by one or more ordinances) to be adopted prior to the delivery of any series of Parity Bonds; said ordinance as supplemented shall establish the date or dates of the pertinent series of Parity Bonds, the schedule of maturities thereof, whether any will be Compound Interest Bonds, the name of the purchaser of each series of Parity Bonds, the purchase price thereof, the rate or rates of interest to be borne thereby and the method by which interest is to be calculated, and the terms and conditions, if any, under which such Bonds may be made subject to redemption (mandatory or optional) prior to maturity and such other details as the City may determine.

"Special Purpose Facilities" means (1) hangars, aircraft overhaul, maintenance or repair shops, reservation centers, motels, hotels, storage facilities, garages, cargo handling buildings and necessary ramp areas incidental thereto, and other similar facilities, (2) projects as now or hereafter provided in the Industrial Development Financing Act (Title 35, Chapter 5 of the Arizona Revised Statutes), and (3) such other facilities or projects as the City shall designate as a Special Purpose Facility, and the cost of construction and acquisition of which facilities are financed with the proceeds of bonds, notes, leases, purchase agreements or other obligations which are payable solely from revenues of the Special Purpose Facility or revenues of the user of the Special Purpose Facilities.

"Series 2010A Junior Bonds" means the Corporation's Junior Lien Airport Revenue Bonds, Series 2010A.

"Series 2010A/B Junior Bonds" means, collectively the Series 2010A Junior Bonds and the Series 2010B Junior Bonds.

"Series 2010B Interest Subaccount" means the Series 2010B Interest Subaccount of the PFC Interest Account of the PFC Revenue Fund.

"Series 2010B Junior Bonds" means the Corporation's Junior Lien Airport Revenue Bonds, Taxable Series 2010B (Recovery Zone Economic Development Bonds — Direct Payment).

"Series 2015 Junior Bonds" means, collectively, the Series 2015A Junior Bonds and the Series 2015B Junior Bonds.

"Series 2015A Junior Bonds" means the Corporation's Junior Lien Airport Revenue Bonds, Series 2015A.

"Series 2015B Junior Bonds" means the Corporation's Junior Lien Airport Revenue Refunding Bonds, Series 2015B.

"Series 2017D Junior Bonds" means the Corporation's Junior Lien Airport Revenue Refunding Bonds, Series 2017D.

"Series 2019 Junior Bonds" means, collectively, the Series 2019A Junior Bonds, the Series 2019B Junior Bonds and the Taxable Bonds.

"Series 2019A Junior Bonds" means the Corporation's Junior Lien Airport Revenue Bonds, Series 2019A.

"Series 2019B Junior Bonds" means the Corporation's Junior Lien Airport Revenue Bonds, Series 2019B.

"Tax Exemption Certificate" means the Tax Exemption Certificate and Agreement relating to the Tax-Exempt Bonds.

"Taxable Bonds" means the Corporation's Junior Lien Airport Revenue Refunding Bonds, Taxable Series 2019C.

"Trustee" means U.S. Bank National Association in its capacity as trustee under the Indenture, or any successor thereto.

"2010 Junior Bonds" means, collectively, the Series 2010A/B Junior Bonds and the Series 2010C Junior Bonds.

"2010 Junior Lien Bond Reserve Fund" means the 2010 Junior Lien Bond Reserve Fund established pursuant to Section 2.8 of the 2010 Junior Lien City Purchase Agreement.

"2010 Junior Lien City Purchase Agreement" means the Junior Lien City Purchase Agreement dated as of August 1, 2010 between the City and the Corporation, as the same may be supplemented or amended from time to time.

"2010 Junior Lien Debt Service Reserve Requirement" means the least of: (i) Maximum Annual Junior Lien Debt Service with respect to the 2010 Junior Bonds without regard to any applicable Junior Lien Passenger Facility Charge Credit, (ii) 10% of the stated principal amount of the 2010 Junior Bonds and (iii) 125% of the average annual Junior Lien Principal Requirements and Junior Lien Interest Requirements with respect to the 2010 Junior Bonds. The 2010 Junior Lien Debt Service Reserve Requirement may be recalculated from time to time as 2010 Junior Lien Obligations are rendered no longer Outstanding.

"2010 RZEDB Subsidy Payments" means cash subsidy payments from the U.S. Treasury rebating a portion of the interest on the Series 2010B Junior Bonds pursuant to the American Recovery and Reinvestment Act of 2009.

"2015 Indenture" means the Bond Indenture dated as of December 1, 2015 between the Corporation and the 2015 Trustee.

"2015 Junior Lien City Purchase Agreement" means the Junior Lien City Purchase Agreement dated as of December 1, 2015 between the City and the Corporation, as the same may be supplemented or amended from time to time.

"2015 Trustee" means U.S. Bank National Association, as 2015 Trustee under the 2015 Indenture.

"2015B Junior Lien Bond Reserve Fund" means the 2015B Junior Lien Bond Reserve Fund established pursuant to Section 2.7 of the 2015 Junior Lien City Purchase Agreement.

"2015B Junior Lien Debt Service Reserve Requirement" means the least of: (i) Maximum Annual Junior Lien Debt Service with respect to the Series 2015B Junior Bonds without regard to any applicable Junior Lien Passenger Facility Charge Credit, (ii) 10% of the stated principal amount of the Series 2015B Junior Bonds and (iii) 125% of the average annual Junior Lien Principal Requirements and Junior Lien Interest Requirements with respect to the Series 2015B Junior Bonds. The 2015B Junior Lien Debt Service Reserve Requirement may be recalculated from time to time as Series 2015B Junior Bonds are rendered no longer Outstanding.

"2017 Trustee" means the Trustee for the Junior Series 2017D Bonds.

"2017 Indenture" means the Bond Indenture dated as of December 1, 2017 between the Corporation and the 2017 Trustee.

"2017 Junior Lien City Purchase Agreement" means the City Purchase Agreement dated as of December 1, 2017 between the City and the Corporation, as the same may be amended from time to time.

"2019 Loan" means the revolving tax-exempt loan extended pursuant to the Revolving Credit Agreement in an outstanding principal amount of $100,000,000.

"2019 Junior Lien Interest Account" means the Junior Lien Interest Account of the 2019 Junior Lien Bond Fund.

"2019 Junior Lien Principal Account" means the 2019 Junior Lien Principal Account of the 2019 Junior Lien Bond Fund.

THE AIRPORT REVENUE BOND ORDINANCE

SECTION 2.1. *Pledge.* All Bonds are special obligations of the City payable from and secured by the Net Airport Revenues and moneys, securities and funds pledged therefore. There are hereby pledged for the payment of Principal Requirement, Interest Requirement and redemption premium on the Bonds in accordance with their terms and the provisions of the Airport Revenue Bond Ordinance and any Series Ordinance, subject to the provisions of any Series Ordinance permitting the application thereof for the purposes and on the terms and conditions set forth in the Series Ordinance, (1) the Net Airport Revenues, and (2) moneys held in the Bond Fund established or confirmed by the Airport Revenue Bond Ordinance or any Series Ordinance.

SECTION 2.2. *Establishment of Funds.* For a description of Section 2.2, as modified by the City Purchase Agreement and the Junior Lien Obligation Documents, see *"SECURITY AND SOURCE OF PAYMENT — Flow of Funds."*

SECTION 2.3. *Operation and Maintenance Fund.* Amounts deposited in the Operation and Maintenance Fund shall be used to pay Cost of Maintenance and Operation.

SECTION 2.4. *Bond Fund.* Amounts deposited in the Bond Fund shall be deposited into either the Principal Account or the Interest Account. Amounts deposited in the Principal Account shall be used to pay Principal Requirements and amounts held in the Interest Account shall be used to pay Interest Requirements on Bonds. Moneys in the Principal Account and Interest Account shall be transferred at least one business day before each Principal Payment Date or Bond Payment Date, as applicable, to the appropriate Paying Agent for each series of Bonds.

SECTION 2.5. *Bond Reserve Fund.* Amounts held in the Bond Reserve Fund shall be used to make payments on any Bonds secured by the Bond Reserve Fund to the extent there are insufficient funds in the Bond Fund to make such payment. The City hereby agrees to fund the Bond Reserve Fund in an amount equal to the Debt Service Reserve Requirement provided that the initial funding of the Bond Reserve Fund and any subsequent increase in the Bond Reserve Fund due to the issuance of Parity Bonds secured thereby shall be made in equal monthly deposits over not more than a twenty-four (24) month period from the date of issuance of the Parity Bonds. In the event amounts are withdrawn from the Bond Reserve Fund in order to make payments on any Bonds secured thereby or in the event amounts in the Bond Reserve Fund are valued and the value thereof is less than the Debt Service Reserve Requirement, the City agrees to replenish the Bond Reserve Fund to the Debt Service Reserve Requirement by payment under the method described above, commencing on the first day of the month following such withdrawal from the Bond Reserve Fund or valuation of the Bond Reserve Fund. The City reserves the right to establish a separate bond reserve fund for any Parity Bonds which pursuant to the terms of the Series Ordinance authorizing such Parity Bonds is not secured by the Bond Reserve Fund.

The funding of any separate bond reserve fund for a series of the Refunding Bonds may be made by depositing a surety bond or similar financial instrument into such separate bond reserve fund provided that the surety bond or similar financial instrument meets the requirements set forth below with regard to funding the Bond Reserve Fund with a surety bond or similar financial instrument. The funding of any separate bond reserve fund and the replenishment of the separate bond reserve fund shall be set forth in the Series Ordinance establishing such separate bond reserve fund, provided that the funding and replenishment of such separate bond reserve fund may be made pro rata with any funding or replenishment of the Bond Reserve Fund.

The City reserves the right at any time to deposit a surety bond or similar financial instrument into the Bond Reserve Fund in order to fund the Bond Reserve Fund to the required level. If the City chooses to deposit a surety bond or similar financial instrument into the Bond Reserve Fund, then the City shall receive a certificate or opinion to the effect that the surety bond or financial instrument is a binding obligation of the issuer thereof and shall receive evidence that the issuer thereof has a credit rating in one of the top two rating categories of a nationally recognized credit rating service, and, if the surety bond or similar financial instrument is replacing proceeds of obligations the interest on which is excludible from gross income for federal income tax purposes, then the City shall also receive an opinion of a firm of attorneys experienced in the practice of municipal bond law which opinion is to the effect that replacing such proceeds with a surety bond or similar financial instrument will not adversely affect the exclusion from gross income of the interest on such obligations for federal income tax purposes. Each such surety bond or similar financial instrument shall be unconditional and irrevocable and shall provide such security as is described in this section with respect to which the surety bond or similar financial instrument is purchased. Notwithstanding Article VIII, the City reserves the right, if it deems it necessary in order to acquire such surety bond or other financial instrument, to amend the Airport Revenue Bond Ordinance without the consent of any of the holders of the Bonds in order to provide for the repayment of amounts drawn under such surety bond or other financial instrument, in order to secure the amounts to be repaid which security may be subordinate only to payments of Cost of Maintenance and Operation and payments into the Bond Fund, or to grant the provider of such surety bond or other financial instrument such additional rights as the City deems necessary. Further, in lieu of making deposits to the Bond Reserve Fund or any separate bond reserve fund pursuant to this Section 2.5, the City may transfer the amounts which would have been deposited to the Bond Reserve Fund or any separate bond reserve fund to a Credit Facility as reimbursement for amounts paid under any insurance policy, surety bond or other similar financial instrument.

In the event the Bond Reserve Fund contains both cash or Permitted Investments and a surety bond or other financial instrument, then the cash and Permitted Investments shall be liquidated prior to drawing upon the surety bond or financial instrument. Further, replenishment of the Bond Reserve Fund shall be made first to the reinstatement of such surety bond or other financial instrument and then, at the option of the City, to cash or Permitted Investments.

SECTION 2.6. *Airport Improvement Fund.* Amounts held in the Airport Improvement Fund may be used for any lawful airport purpose including but not limited to the payment of obligations of the City relating to the Airport including general obligation bonds issued for airport purposes and any obligations owed by the City pursuant to leases or installment purchase agreements or other obligations relating to the Airport.

SECTION 2.7. *Construction Fund.* A special fund is hereby created and designated *"City of Phoenix Airport Construction Fund"* (the *"Construction Fund")* into which the City shall deposit proceeds of Parity Bonds hereafter issued for the purpose of improving and extending the Airport. The money in said fund shall be applied to the payment of the cost of adding to, extending, improving, bettering and reconstructing the Airport and related facilities, or for the repayment of advances made for that purpose in accordance with and subject to the provisions and restrictions set forth in this Section or may be transferred to the Bond Fund if necessary to pay Principal Requirements or Interest Requirements on Bonds or if funds have been deposited therein to pay capitalized interest on Bonds. Any monies in said fund not presently needed for the payment of current obligations during the course of construction may be invested in Permitted Investments which provide funds in a manner expected to meet the needs of the project being financed. Any such investments shall be held for the account of the Construction Fund until maturity or until sold, and at maturity or upon such sale the proceeds received therefrom including accrued interest and premium, if any, shall be immediately deposited in said fund and shall be disposed of in the manner and for the purposes herein provided. Moneys may be transferred from the Construction Fund in accordance with policies of the City relating to the expenditure of City moneys.

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SECTION 2.9. *Investment of Funds and Accounts.* Money in the aforementioned funds and accounts shall be invested and reinvested in Permitted Investments at the highest rates reasonably available (except to the extent that a restricted yield is required or advisable under the Code). Money in the Interest Account and the Principal Account may be invested by the City in Permitted Investments maturing or redeemable at the option of the holder prior to the next succeeding Bond Payment Date or Principal Payment Date, as applicable, but whenever the aggregate of the money in said accounts exceeds the amount necessary to pay interest and principal falling due on the next Bond Payment Date, such excess may be invested in Permitted Investments maturing or redeemable at the option of the holder prior to the next following Bond Payment Date. Whenever any money in the Bond Reserve Fund invested as above provided is needed for the payment of Principal Requirements of or Interest Requirements on the Bonds the City shall cause such investments to be liquidated at current market prices, to the amount required, without further instructions and shall cause the proceeds of such liquidation to be applied to the payment of Principal Requirements and Interest Requirements. Money in each of said funds shall be accounted for as a separate and special fund apart from all other City funds, provided that investments of money therein may be made in a pool of investments together with other money of the City of Phoenix so long as sufficient Permitted Investments in said pool, not allocated to other investments of contractually or legally limited duration, are available to meet the requirements of the foregoing provisions hereof.

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SECTION 2.13. *Derivative Products.* The City reserves the right to enter into arrangements involving derivative products including swap agreements, forward agreements, interest rate agreements, and other similar agreements, to the extent permitted by law, and make payments on such agreements from Net Airport Revenues, and reserves the right to establish funds, accounts and subaccounts to make payment on such agreement and reserves the right to revise the flow of funds set forth in Section 2.2 of the Airport Revenue Bond Ordinance provided that such revisions do not result in payments under such agreements being made on a basis which is senior to the payment of any Bonds. To the extent the City enters into such agreements and pledges Net Airport Revenues to the payment of such agreements on a parity with the Bonds, such agreements may only be incurred if the City satisfies the relevant Parity Bonds test set forth in Article III subject to the provisions set forth below in this Section 2.13. In determining whether the Parity Bonds test is satisfied in connection with any such agreements, the City is permitted to treat the amount or rate of interest on the Parity Bonds to which the applicable agreement applies as the amount payable under such agreement, provided that any agreement is with a Qualified Counterparty, thus the City is permitted to include the interest rate payable under such agreements in calculating the additional bonds test established in Article III. Further, the City is permitted to disregard the notional principal amount of any such agreement provided that such agreement is with a Qualified Counterparty. The City agrees to give written notice to the Rating Agency not less than thirty (30) days prior to entering into a Derivative Product payable from Net Airport Revenues.

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SECTION 3.1. *No Prior Lien Bonds nor Parity Bonds Except as Herein Permitted.* The Bonds shall enjoy complete parity of lien on the Net Airport Revenues despite the fact that any of the Bonds may be delivered at an earlier date than any other of the Bonds. The City shall not (i) issue other obligations of any kind or nature or (ii) assume any additional obligations in connection with the acquisition by the City of other Airport facilities, payable from or enjoying a lien on the Net Airport Revenues or any part thereof having priority over or (except as hereinafter permitted) parity with the Bonds.

SECTION 3.2. *Additional Bonds for Refunding Purposes.* Any or all of the Bonds may be refunded at maturity, upon redemption in accordance with their terms or with the consent of the holders thereof, and the refunding bonds so issued shall constitute Parity Bonds; *provided, however,* that:

(a) An officer of the City shall certify that the Maximum Annual Debt Service becoming due and payable from the date of such determination to maturity or earlier redemption on the Bonds of all series to be Outstanding immediately after the date of authentication and delivery of such refunding bonds is not greater than 110% of the Maximum Annual Debt Service becoming due and payable from the date of such determination to maturity or earlier redemption on the Bonds of all series Outstanding immediately prior to the authentication and delivery of such refunding bonds; and

(b) The bonds being refunded will no longer be Outstanding upon the issuance of the refunding bonds.

SECTION 3.3. *Parity Bonds Generally.* Parity Bonds may also be issued pursuant to a Series Ordinance if the following conditions are satisfied:

(a) An officer of the City shall certify that either the Net Revenues for the most recently completed Fiscal Year for which audited financial statements are available or the Net Revenues for 12 consecutive months out of the most recent 18 calendar months, in each case together with Other Available Funds deposited in the Bond Fund during such period,* (i) were sufficient to satisfy the rate covenant set forth in Section 4.3 and (ii) would have been at least equal to 120% of Maximum Annual Debt Service for all Bonds to be Outstanding, including the Parity Bonds proposed to be issued; and

(b) A Consultant provides a report which projects that Net Revenues will be sufficient to satisfy the rate covenant set forth in Section 4.3 (including any Parity Bonds to be issued) in each Fiscal Year after subtracting from the amount required to be paid into the Bond Fund from the Revenue Fund any applicable Passenger Facility Charge Credit, which report addresses the period of time beginning with the first full Fiscal Year following the issuance of the Parity Bonds through the later of (i) three Fiscal Years following the expected date of completion (as provided to the Consultant by an officer of the City) of any construction projects to be financed at the Airport with the proceeds of the relevant Parity Bonds or (ii) five Fiscal Years following the issuance of the Parity Bonds.

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SECTION 4.1. *In General.* The City hereby makes the following covenants, in addition to all other covenants in this Bond Ordinance, with each and every successive holder of any of the Bonds (including Parity Bonds) so long as any of said Bonds remain Outstanding.

SECTION 4.2. *Maintenance of the Airport in Good Condition.* The City shall maintain the Airport in good condition and operate the same in a proper and economical manner.

SECTION 4.3. *Rate Covenant.* The City covenants that it will in each Fiscal Year establish, maintain and enforce schedules of rates, fees and charges for the use of the Airport (i) sufficient to produce Net Airport Revenues at least equal to 125% of the amount required to be paid into the Bond Fund from the Revenue Fund, after subtracting Other Available Funds deposited in the Bond Fund, in such Fiscal Year and subtracting any Passenger Facility Charge Credit applicable to such Fiscal Year, provided that for purposes of this Section, the Principal Requirement and Interest Requirement for a series of Bonds to which a Derivative Product with a Qualified Counterparty applies may be determined after giving effect to the amount of interest paid on the Bonds plus/minus the amount due to/from the Qualified Counterparty with regard to the interest it has paid on the

* The additional bonds test in the Junior Lien Obligation Documents for Senior Lien Obligations does not permit the inclusion of Other Available Funds for purposes of Section 3.3(a). See “THE CITY PURCHASE AGREEMENT — Section 4.5. Additional Senior Lien Obligations Generally.”

Derivative Product and exclusive of any payment which may be owed by the City upon termination prior to maturity of such Derivative Product and (ii) sufficient to produce amounts required to be deposited in the Bond Reserve Fund and any separate bond reserve fund for such Fiscal Year.

SECTION 4.4. *Books and Records.* The City shall maintain proper books and records accounting for the operation of the Airport. Such books and records shall be kept in accordance with standard accounting practices and procedures customarily used for airports of similar nature to the Airport. The City will cause such books to be audited annually by an Independent Certified Public Accountant.

SECTION 4.5. *Insurance.* The City will cause to be procured and maintained insurance (which may take the form of or include an adequately-funded program of self-insurance) covering the Airport properties and operations, of such kind and in the amounts normally carried by airports of comparable size, location and operations, including, but without limitation, fidelity insurance, public liability insurance, property damage insurance, fire and extended coverage insurance, use and occupancy or rental value insurance, product liability insurance, workmen's compensation insurance and hanger keeper's liability insurance. To the extent the City accumulates and maintains a fund for self-insurance, such insurance may be substituted for all or part of the insurance otherwise required to be carried under the provisions of this paragraph. All policies providing use and occupancy or rental value insurance shall be made payable to and deposited with the City and the City shall have the sole right to receive any proceeds of such policies and to collect any receipt for claims thereunder; provided, however, that any and all proceeds of use and occupancy or rental value insurance paid to the City shall be deposited by it forthwith to the credit of the Revenue Fund.

SECTION 4.6. *Sale or Lease of Airport.* The City covenants not to sell essential Airport property, whether real or personal, unless an officer of the City certifies that the City will be able to continue to meet the rate covenant set forth in Section 4.3 of the Airport Revenue Bond Ordinance in each of the five years after the sale or certifies that the value of the property to be sold and sold within the last twelve months does not exceed five percent (5%) of the total fair market value of the assets of the Airport as determined by an officer of the City.

Notwithstanding any of the foregoing provisions of this section, leases and other agreements and contracts for use of any services or facilities of the airport in effect at the time of delivery of the Bonds shall not be subject to revision except by agreement between the parties, with the concurrence of the Consultants, and the city may enter into new leases, or other agreements or contracts for the use of services or facilities of the airport on such terms and for such periods of times as the City shall determine to be proper; provided, however, that no such new lease, agreement or contract shall provide for the payments of rents, fees or charges at a rate less than the rate prevailing at the airport for similar services or facilities at the time of delivery of the Bonds unless such rents, fees or charges shall be approved by the Consultants; and provided further that no such new lease agreement or contract (except land leases and except those which provide for a fixed minimum rental or a percentage of gross income, whichever is larger) shall be for a term exceeding 3 years unless:

1. It be negotiated on a net rent basis, (a "net lease") or

2. It contains provisions for renegotiation of the amount of the required payments without limit of intervals of not more than 3 years beginning with the date thereof;

and providing further that (other than a net lease, whether or not it provides for a fixed minimum rental or a percentage of gross income) no new lease, agreement or contract which provides for a fixed minimum rental or a percentage of gross income, whichever is larger, shall be for a term exceeding 10 years unless it contains provision for renegotiation of the fixed minimum rental and of the percentage of gross income without limit at the end of the initial 10 years, and at the end of each 5-year period thereafter.

SECTION 4.7. *Satisfaction of Liens.* The City will from time to time duly pay and discharge or cause to be paid and discharged all taxes, assessments and other governmental charges, if any, lawfully imposed upon the Airport or any part thereof or upon the Net Airport Revenues, as well as any lawful claims for labor, materials or supplies which if unpaid might by law become a lien or charge upon the Airport or the Revenues or any part thereof or which might impair the security of the Bonds, except when the City in good faith contests its liability to pay the same.

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SECTION 7.1. *Provision for Payment.* Bonds for the payment or redemption of which sufficient moneys or sufficient Qualified Permitted Investments (as evidenced by the report of an Independent Certified Public Accountant) shall have been deposited with a bank or trust company doing business in the State of Arizona (whether upon or prior to the maturity or the redemption date of such Bonds) shall be deemed to be paid and no longer Outstanding under this Ordinance; *provided, however,* that if such Bonds are to be redeemed prior to the maturity thereof, notice of such redemption shall have been duly given or firm arrangements shall have been made for the giving thereof. Qualified Permitted Investments shall be considered sufficient for purposes of this Article VII only if said investments fall due and bear interest in such amounts and at such times as will assure sufficient cash (whether or not such Qualified Permitted Investments are redeemed by the City thereof pursuant to any right of redemption) to pay currently maturing interest and to pay principal and redemption premiums if any when due on the Bonds without rendering the interest on any Bonds taxable under the Code.

The City may at any time surrender to the Bond Registrar for cancellation by it any Bonds previously authenticated and delivered hereunder which the City may have acquired in any manner whatsoever. All such Bonds, upon such surrender and cancellation, shall be deemed to be paid and retired.

* * *

SECTION 8.1. *Supplemental Ordinances and Resolutions Not Requiring Consent of Bondholders.* The City, from time to time and at any time, subject to the conditions and restrictions in this Ordinance contained, may enact one or more ordinances or resolutions or both which thereafter shall form a part hereof, for any one or more or all of the following purposes:

(a) To add to the covenants and agreements of the City in this Ordinance contained, other covenants and agreements thereafter to be observed or to surrender, restrict or limit any right or power herein reserved to or conferred upon the City (including but not limited to the right to issue Parity Bonds under Article III);

(b) To make such provisions for the purpose of curing any ambiguity, or of curing, correcting or supplementing any defective provision contained in this Ordinance, to permit the issuance of coupon Bonds, capital appreciation bonds or cross over refunding bonds, or in regard to matters or questions arising under this Ordinance, as the City may deem necessary or desirable and not inconsistent with this Ordinance but only if such modifications do not result in materially diminishing the security hereby granted to the owners of any Bonds at the time Outstanding.

(c) To increase the size or scope of the Airport.

(d) To make amendments with respect to the use of an insurance policy, surety bond or other form of security in the Bond Reserve Fund and of the type referred to in Section 2.12 with respect to changes in the City's accounting system.

Any supplemental ordinance or resolution authorized by the provisions of this Section 8.1 may be enacted by the City without the consent of or notice to the owners of any of the Bonds at the time Outstanding, notwithstanding any of the provisions of Section 8.2.

SECTION 8.2. *Supplemental Ordinances Requiring Consent of Bondholders.* With the consent (evidenced as provided in Article VI) of the owners of not less than 51% in principal amount of the Bonds[*], the City may

[*] Junior Lien Obligations are not included in the definition of Bonds.

from time to time and at any time adopt an ordinance or ordinances supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Ordinance or of any supplemental ordinance; *provided, however,* that no such supplemental ordinance shall (1) extend the fixed maturity of any Bond or reduce the rate of interest thereon or extend the time of payment of interest, or reduce the amount of the principal thereof, or reduce or extend the time for payment of any premium payable on the redemption thereof, without the consent of the owner of each Bond so effected, or (2) reduce the aforesaid percentage of owners of the Bonds required to approve any such supplemental ordinance without the consent of the owners of all Bonds, or (3) deprive the owner of a Bond of the right to payment of the Bond or from the Net Revenues, in each case, without the consent of the owners of all Bonds so effected. For purposes of determining whether the 51% test of the preceding sentence shall have been met, the principal amount of any Compound Interest Bonds from time to time Outstanding shall be determined by reference to the accreted value of such Compound Interest Bonds on the date of such determination. No amendment may be made under this Section 8.2 which affects the rights or duties of the insurer of any of the Bonds or any Credit Facility (including the issuer of any insurance policy or surety bond deposited in the Bond Reserve Fund or any separate bond reserve fund) without its consent.

It shall not be necessary for the consent of the Bondholders under this Section 8.2 to approve the particular form of any proposed supplemental ordinance, but it shall be sufficient if such consent shall approve the substance thereof.

Promptly after the enactment by the City of any supplemental ordinance pursuant to the provisions of this Section 8.2, the City shall cause the Bond Registrar to mail a notice by registered or certified mail to the registered owners of all Bonds Outstanding at their addresses shown on the Bond Register or at such other address as is furnished in writing by such registered owner to the Bond Registrar setting forth in general terms the substance of such supplemental ordinance.

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THE CITY PURCHASE AGREEMENT

SECTION 2.1. *Agreement to Issue 2019 Junior Bonds; Application of Bond Proceeds*. (a) In order to provide a deposit to the Series 2019A Account of the Project Fund, to provide funds for prepayment of the 2019 Loan, to provide a deposit to the Junior Lien Parity Reserve Fund and to pay for costs of issuance of the Series 2019A Junior Bonds, the Corporation will cause to be issued under the Indenture $ aggregate principal amount of Series 2019A Junior Bonds, maturing and bearing interest as provided in the Indenture, as executed and delivered on the date of issuance of the Series 2019A Junior Bonds.

(b) In order to provide a deposit to the Series 2019B Account of the Project Fund, to provide a deposit to the Junior Lien Parity Reserve Fund and to pay for costs of issuance of the Series 2019B Junior Bonds, the Corporation will cause to be issued under the Indenture $ aggregate principal amount of Series 2019B Junior Bonds, maturing and bearing interest as provided in the Indenture, as executed and delivered on the date of issuance of the Series 2019B Junior Bonds.

(c) In order to provide for the refunding of the Bonds Being Refunded, to provide a deposit to the Junior Lien Parity Reserve Fund and to pay for the costs of issuance of the Taxable Bonds, the Corporation will cause to be issued under the Indenture $ aggregate principal amount of Taxable Bonds, maturing and bearing interest as provided in the Indenture, as executed and delivered on the date of issuance of the Taxable Bonds. A portion of the proceeds of the Taxable Bonds shall be deposited with the Escrow Agent under the Escrow Agent Agreement.

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SECTION 2.4. *Establishment of Junior Lien Bond Fund.* As authorized by Section 2.2 of the Airport Revenue Bond Ordinance and pursuant to Section 2.4 of the 2010 Junior Lien City Purchase Agreement, the City established for the payment of Junior Lien Obligations a Junior Lien Bond Fund, which contains the Junior Lien Interest Account and the Junior Lien Principal Account. Amounts deposited in the Junior Lien Bond Fund shall be deposited into either the Junior Lien Principal Account or the Junior Lien Interest Account. Amounts deposited in the Junior Lien Principal Account shall be used to pay Junior Lien Principal Requirements and amounts held in the Junior Lien Interest Account shall be used to pay Junior Lien Interest Requirements. Moneys in the Junior Lien Principal Account and Junior Lien Interest Account shall be transferred at least one Business Day before each Junior Lien Principal Payment Date or Junior Lien Interest Payment Date, as applicable, to the appropriate paying agent for each series of Junior Lien Obligations to be applied as required under the Junior Lien Obligation Documents.

SECTION 2.5. *Establishment of PFC Revenue Fund.* As authorized by Section 2.2 of the Airport Revenue Bond Ordinance and pursuant to Section 2.5 of the 2010 Junior Lien City Purchase Agreement, the City has established the PFC Revenue Fund, which contains the PFC Interest Account (including a Series 2010B Interest Subaccount thereof, which may be held by a trustee on behalf of the City) and the PFC Principal Account. The City may establish additional similar accounts for other obligations payable in whole or in part from the PFC Revenues. The City shall deposit all PFC Revenues into the PFC Revenue Fund for application in the following order of priority during any applicable Commitment Period:

(a) Monthly to the PFC Interest Account until the amount on deposit therein, including the amount on deposit in the Series 2010B Interest Subaccount, is equal to (i) 100% of the Junior Lien Interest Requirements with respect to the Series 2010A/B Junior Bonds, (ii) 30% of the Junior Lien Interest Requirements of the Series 2015A Junior Bonds, (iii) 100% of the Junior Lien Interest Requirements of the Series 2015B Junior Bonds, (iv) 100% of the Junior Lien Interest Requirements of the Series 2017D Junior Bonds and (v) 93% of the Junior Lien Interest Requirements of the Series 2019A Junior Bonds, in each case (A) for the then current Bond Year and (B) for transfer from the PFC Interest Account, including the Series 2010B Interest Subaccount, to the applicable accounts of the Junior Lien Bond Fund at least two Business Days prior to a Junior Lien Interest Payment Date;

(b) Monthly to the PFC Principal Account until the amount on deposit therein is equal to (i) 100% of the Junior Lien Principal Requirement with respect to the Series 2010A/B Junior Bonds, (ii) 30% of the Junior Lien Principal Requirement of the Series 2015A Junior Bonds for the then current Bond Year, (iii) 100% of the 2015 Junior Lien Principal Requirement of the Series 2015B Junior Bonds, (iv) 100% of the 2017D Junior Lien Principal Requirement for the Series 2017D Junior Bonds and (v) 93% of the Junior Lien Principal Requirement for the Series 2019A Junior Bonds in each case, for the then current Bond Year, for transfer from the PFC Principal Account to the applicable accounts of the Junior Lien Bond Fund at least two Business Days prior to a Junior Lien Principal Payment Date;

(c) Monthly to (i) the 2010 Junior Lien Bond Reserve Fund the amount necessary to maintain the amount on deposit therein at the 2010 Junior Lien Debt Service Reserve Requirement to the extent amounts have been withdrawn to pay debt service on the 2010 Junior Bonds, (ii) to the Junior Lien Parity Reserve Fund the amount necessary to maintain the amount on deposit therein at the Junior Lien Parity Debt Service Reserve Requirement to the extent amounts have been withdrawn to pay debt service on the Series 2015A Junior Bonds, the Series 2017D Junior Bonds, the 2019 Junior Bonds or other Junior Lien Obligations secured thereby and (iii) to the 2015B Junior Lien Bond Reserve Fund the amount necessary to maintain the amount on deposit therein at the 2015B Junior Lien Debt Service Reserve Requirement to the extent amounts have been withdrawn to pay debt service on the Series 2015B Junior Bonds;

(d) To the extent PFC Revenues in any month or the amounts on deposit in the PFC Interest Account or PFC Principal Account exceed the requirements set forth in (a), (b) and (c) above, such PFC Revenues or excess amounts may be transferred to any other fund or account established by the City under the Airport Revenue Bond Ordinance or used for any other lawful purpose, in each case consistent with applicable federal law relating to Passenger Facility Charges.

Notwithstanding the foregoing, the requirements set forth in (a), (b) and (c) above shall not apply with respect to any PFC Revenues received after any applicable Commitment Period. Furthermore, the City reserves the right to modify the flow of funds set forth herein in connection with the issuance of obligations payable in whole or in part on a parity with, or subordinate to, the irrevocable commitment of the PFC Revenues for the benefit of the owners of the 2019 Junior Bonds.

Investment earnings on amounts on deposit in the PFC Revenue Fund shall be applied in the same manner as all other PFC Revenues. To the extent that Designated Revenues are credited to any fund or account to provide for payment of the 2019 Junior Bonds and PFC Revenues subsequently become available prior to the expenditure of such Designated Revenues, such Designated Revenues shall be applied as otherwise provided in Section 2.5 of the City Purchase Agreement.

Amounts in the Series 2010B Interest Subaccount shall continue to be applied to pay interest due with respect to the Series 2010B Junior Bonds.

SECTION 2.6. *Revised Flow of Funds Under Airport Revenue Bond Ordinance.* As authorized by Section 2.2 of the Airport Revenue Bond Ordinance, Revenues deposited to the Revenue Fund shall be transferred to the following funds in the following order of priority:

(a) From time to time into the Operation and Maintenance Fund sufficient moneys to pay Cost of Maintenance and Operations;

(b) Monthly into the Bond Fund, which shall contain the Principal Account and the Interest Account, deposits equal to one-twelfth of the Principal Requirement of Senior Lien Obligations which mature or are subject to mandatory sinking fund redemption on the following Principal Payment Date and one-sixth of the Interest Requirement of Senior Lien Obligations, provided that such one-twelfth and one-sixth fractions may be revised if the Principal Requirement and Interest Requirement are not due annually and semiannually, respectively, in a manner to provide for equal monthly payments into the Bond Fund to pay Principal Requirements and Interest Requirements to become due on the next Principal Payment Date or Bond Payment Date, respectively;

(c) From time to time into the Bond Reserve Fund and every separate bond reserve fund established for Parity Bonds not secured by the Bond Reserve Fund pursuant to Section 2.5 of the Airport Revenue Bond Ordinance, amounts then required to be deposited to the Bond Reserve Fund or any separate bond reserve fund pursuant to Section 2.5 of the Airport Revenue Bond Ordinance, provided that such deposits may be transferred to a Credit Facility in order to reimburse such Credit Facility for amounts paid out under any insurance policy or surety bond securing any of the Bonds;

(d) Monthly to the Junior Lien Bond Fund, (i) into the Junior Lien Principal Account amounts equal to one-twelfth of the next succeeding Junior Lien Principal Requirement of Junior Lien Obligations for the next succeeding Junior Lien Principal Payment Date and (ii) into the Junior Lien Interest Account amounts equal to one-sixth of the Junior Lien Interest Requirement for the next succeeding Junior Lien Interest Payment Date, in each case less any amounts which are to be paid from an irrevocable commitment from another funding source, including those provided in Sections 3.5(b) of the City Purchase Agreement, provided that such one-twelfth and one-sixth fractions may be revised if the Junior Lien Principal Requirement and Junior Lien Interest Requirement are not due annually and semiannually, respectively, in a manner to provide for equal monthly payments into the Junior Lien Bond Fund to pay Junior Lien Principal Requirements and Junior Lien Interest Requirements to become due on the next succeeding Junior Lien Principal Payment Date or Junior Lien Interest Payment Date, respectively.

(e) From time to time into any reserve fund established for Junior Lien Obligations including the 2010 Junior Lien Bond Reserve Fund, the Junior Lien Parity Reserve Fund and the 2015B Junior Lien Bond Reserve

Fund (to the extent PFC Revenues are not available as required pursuant to Section 2.4(c) of the City Purchase Agreement), amounts then required to be deposited therein under the terms of the Junior Lien Obligation Documents, provided that such deposits may be transferred to a Junior Lien Credit Facility in order to reimburse such Junior Lien Credit Facility for amounts paid out under any insurance policy or surety bond securing any of the Junior Lien Obligations and related costs.

(f) From time to time into the Airport Improvement Fund such funds as the City chooses to deposit therein.

The City may establish one or more additional funds, accounts or subaccounts including funds, accounts or subaccounts for the payment of obligations subordinate in lien to the payment of the Junior Lien Obligations. In the event the City establishes additional funds, accounts or subaccounts for the payment of obligations subordinate in lien to the payment of the Junior Lien Obligations, the City reserves the right to provide that deposits into such funds, accounts or subaccounts may be made in a manner which is prior to deposits to be made into the Airport Improvement Fund. The City further reserves the right to provide that any moneys held in such additional funds, accounts or subaccounts may not be used to pay amounts due on any Junior Lien Obligations.

SECTION 2.7. *Derivative Products.* The City reserves the right to enter into Derivative Products pursuant to Section 2.13 of the Airport Revenue Bond Ordinance. The City also reserves the right to enter into a Junior Lien Derivative Product, to the extent permitted by law, and to make payments on such agreements from Designated Revenues, and reserves the right to establish funds, accounts and subaccounts to make payment on such agreement and reserves the right to revise the flow of funds set forth in Section 2.2 of the Airport Revenue Bond Ordinance and in Section 2.5 of the City Purchase Agreement provided that such revisions, except as permitted pursuant to Section 2.13 of the Airport Revenue Bond Ordinance, do not result in payments under such agreements being made on a basis which is senior to the payment of any Junior Lien Obligations. To the extent the City enters into such agreements and pledges Designated Revenues to the payment of such agreements on a parity with the Junior Lien Obligations, such agreements may only be incurred if the City satisfies the relevant additional obligations test set forth in Article IV of the City Purchase Agreement subject to the provisions set forth below in this Section 2.7. In determining whether the additional obligations test is satisfied in connection with any such agreements, the City is permitted to treat the amount or rate of interest on the Junior Lien Obligations to which the applicable agreement applies as the amount payable under such agreement, provided that any agreement is with a Qualified Junior Lien Counterparty, thus the City is permitted to include the net payment due under such agreements in calculating the additional obligations test established in Article IV. Further, the City is permitted to disregard the notional principal amount of any such agreement provided that such agreement is with a Qualified Junior Lien Counterparty. The City agrees to give written notice to the Rating Agency not less than thirty (30) days prior to entering into a Junior Lien Derivative Product payable from Designated Revenues.

Section 2.8. *Junior Lien Parity Reserve Fund.* (a) As permitted by Section 2.2 of the Airport Revenue Bond Ordinance, Section 2.7 of the 2015 Junior Lien City Purchase Agreement and Section 2.7 of the 2017 Junior Lien City Purchase Agreement, the Junior Parity Reserve Fund shall secure the payment of the Series 2015A Bonds, the Series 2017D Junior Bonds and the 2019 Junior Bonds and except as otherwise provided in Section 2.7(d) of the 2015 Junior Lien City Purchase Agreement, Section 2.7(d) of the 2017 Junior Lien City Purchase Agreement and Section 2.8(d) of the City Purchase Agreement shall not be available to make payments on any other Junior Lien Obligations or Senior Lien Obligations or any of the City's obligations hereunder other than pursuant to Section 3.3(a), (b) and (c) of the 2015 Junior Lien City Purchase Agreement with respect to the Series 2015A Junior Bonds, Section 3.3(a), (b) and (c) of the 2017 Junior Lien City Purchase Agreement with respect to the Series 2017D Junior Bonds and Sections 3.3(a), (b) and (c) of the City Purchase Agreement with respect to the 2019 Junior Bonds.

(b) The Junior Lien Parity Reserve Fund shall be funded in an amount equal to the Junior Lien Parity Debt Service Reserve Requirement. The Junior Lien Parity Reserve Fund may be funded with cash, Permitted Investments (as defined in the Airport Revenue Bond Ordinance) or a surety bond or other similar financial instrument meeting the requirements of Section 2.5 of the Airport Revenue Bond Ordinance but with a rating of "Aaa" by Moody's and "AAA" by S&P if in the form of a surety bond or insurance policy (a *"Qualified Surety Bond")*. In the event the City chooses to provide Qualified Surety Bond in substitution for the initial cash deposit or a subsequent Qualified Surety Bond, the City shall receive a certificate or an opinion to the effect that the Qualified Surety Bond is a binding obligation of the issuer thereof and shall receive evidence that the issuer thereof has the required credit ratings. Any substitution of a Qualified Surety Bond for a cash deposit funded from Series 2015A Junior Bond, Series 2017D Junior Bond or Tax-Exempt Junior Bond proceeds shall be subject to receipt by the City of an opinion of nationally recognized bond counsel that such substitution will not cause interest or any of the Series 2015A Junior Bonds, Series 2017D Junior Bonds or Tax-Exempt Bonds to become includible in gross income for federal income tax purposes. Each such Qualified Surety Bond shall be unconditional and irrevocable and shall provide such security as is described in Section 2.5 of the Airport Revenue Bond Ordinance. In the event the Junior Lien Parity Reserve Fund contains both cash or Permitted Investments and a surety bond or other financial instrument, then the cash and Permitted Investments shall be liquidated prior to drawing upon the surety bond or financial instrument. Further, replenishment of the Junior Lien Parity Reserve Fund shall be made, subject to the flow of funds established in Sections 2.4 and 2.5 of the City Purchase Agreement, first to the reinstatement of such Qualified Surety Bond and then, at the option of the City, to cash or Permitted Investments. In the event the amount on deposit in the Junior Lien Parity Reserve Fund consists of cash or Permitted Investments with a value in excess of the Junior Lien Parity Debt Service Reserve Requirement, the Bond Trustee shall, at the direction of the City, transfer such excess to the City.

(c) In the event amounts are withdrawn from the Junior Lien Parity Reserve Fund to pay principal of or interest on the Series 2015A Junior Bonds, Series 2017D Junior Bonds, 2019 Junior Bonds or any other Junior Lien Obligations to the extent permitted under Section 2.8(d) of the City Purchase Agreement, the City shall replenish the Junior Lien Parity Reserve Fund as required by Sections 2.4 and 2.5 of the City Purchase Agreement and/or reimburse the provider of a Qualified Surety Bond on a pro rata basis with amounts to be used to reimburse a Junior Lien Credit Facility for Junior Lien Obligations other than the Series 2015A Junior Bonds, Series 2017D Junior Bonds, 2019 Junior Bonds or other Junior Lien Obligations secured thereby, and/or replenish any other reserve funds established for Junior Lien Obligations on a basis subordinate to payment of Junior Lien Obligations.

(d) At the direction of the City, upon notice to the Trustee, Sections 2.5 and 2.6 and this Section 2.8 may be amended without notice to, or consent of the owners of the Series 2015A Junior Bonds or Series 2017D Junior Bonds to provide that the Junior Lien Parity Reserve Fund shall be a parity reserve fund for the benefit of one or more series of Junior Lien Obligations. In connection with any such amendment, the Junior Lien Parity Debt Service Reserve Requirement shall be modified only to the extent necessary to reflect on an aggregate basis the principal amount and annual debt service requirements of the Junior Lien Obligations to be secured by the Junior Lien Parity Reserve Fund. The Trustee is authorized to enter into an intercreditor agreement (or jointly signed closing certificate) with the trustee for any Junior Lien Obligations to be secured by the Junior Lien Parity Reserve Fund to acknowledge the parity nature of the Junior Lien Parity Reserve Fund.

(e) If the City chooses the above described alternatives to a cash-funded Junior Lien Parity Reserve Fund, any amounts owed by the City to the issuer of such credit instrument as a result of a draw thereon or a claim thereunder, as appropriate, shall be included in any calculation of debt service requirements required to be made pursuant to Sections 4.2, 4.3 and 4.6(b) of the City Purchase Agreement.

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SECTION 2.9. *Reserve Funds for Additional Junior Lien Obligations.* The City reserves the right to establish and maintain additional separate reserve funds required in connection with the issuance, and for the benefit of, additional Junior Lien Obligations. The funding of such reserve funds shall be subject to Section 2.5 of the City Purchase Agreement.

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SECTION 3.1. *Agreement of Sale.* The Corporation hereby sells and conveys to the City, and the City hereby purchases from the Corporation, the Financed Property. In order to evidence such sale and conveyance, the Corporation agrees that contemporaneously with its execution and delivery of this City Purchase Agreement, it has or will also execute and deliver to the City a bill of sale in substantially the form hereto attached as Exhibit B. In consideration for the sale of the Financed Property, the prepayment of the 2019 Loan and refinancing of the Bonds Being Refunded, the City hereby agrees that it will pay to the account of the Corporation at the designated office of the Trustee, as the Purchase Price of the Property, but only from the Designated Revenues and other amounts pledged hereby, an amount equal to the aggregate of the sums prescribed by Section 3.3 hereof and elsewhere in this City Purchase Agreement, to be paid at or before the respective dates called for in said Section 3.3 or elsewhere in this City Purchase Agreement.

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SECTION 3.3. *Amounts of Purchase Price Payable Upon Issuance of 2019 Junior Bonds.* The City agrees that it will pay, solely from the Designated Revenues, Other Available Monies and funds committed pursuant to Section 3.5(b) of the City Purchase Agreement, as the Purchase Price of the Property, the aggregate of the amounts for which provision is made in this Section and elsewhere in this City Purchase Agreement.

(a) On or before the last Business Day of each December and June, commencing June 30, 2020, until principal of and interest on the 2019 Junior Bonds shall have been fully paid or provision for the payment thereof shall have been made in accordance with the Indenture, the City shall pay into the 2019 Junior Lien Interest Account, solely from the Designated Revenues, Other Available Monies and funds committed pursuant to Section 3.5(b) of the City Purchase Agreement, a sum equal to the interest on the 2019 Junior Bonds falling due on the next succeeding 2019 Junior Bond Payment Date.

(b) On or before the last Business Day of June, 2020 and the last Business Day of each June thereafter, until principal of and interest on the Junior Lien Bonds has been fully paid or provision for the payment thereof shall have been made in accordance with the Indenture, the City shall pay into the 2019 Junior Lien Principal Account, solely from the Designated Revenues, Other Available Monies and funds committed pursuant to Section 3.5(b) of the City Purchase Agreement, a sum equal to the Junior Lien Principal Requirement for the 2019 Junior Bonds for the then current Bond Year.

(c) If at any 2019 Junior Bond Payment Date following delivery of the 2019 Junior Bonds the balance available in the 2019 Junior Lien Bond Fund is insufficient to make required payments of principal and interest due on such date, the City will pay solely from the Designated Revenues, Other Available Monies and funds committed pursuant to Section 3.5(b) of the City Purchase Agreement, any such deficiency in sufficient time to prevent default in the payment of principal of or interest on the 2019 Junior Bonds falling due on such 2019 Junior Bond Payment Date; provided however, that any amount at any time held by the Trustee in the 2019 Junior Bond Interest Account shall be credited against the aforesaid obligations next thereafter required to be met by the City, but only to the extent such amount is in excess of the amount required for payment of past due interest on any Junior Lien Obligations, whether or not such Junior Lien Obligations shall have been presented for payment.

(d) The City shall pay to the Trustee its fees and expenses in accordance with the provisions of the Indenture.

(e) In the event the City should fail to pay when due any of the amounts required in this Section, the item or installment so in default shall continue as an obligation of the City payable, solely from the Designated Revenues, Other Available Monies and funds committed pursuant to Section 3.5(b) of the City Purchase Agreement, until the amount in default shall have been fully paid, and the City agrees to pay the same with interest thereon at the rate applicable to the corresponding maturities of 2019 Junior Bonds, from the date said payment was to be made to the date of payment by the City until paid.

(f) The City shall pay to the official entitled to collect the same, when due, all taxes of whatever nature, if any, that may be imposed upon the Property, the Corporation, its property, operations or income, whether by state, local or federal government, and including every governmental charge whether for services rendered or not, which the Corporation is required or may be required by law to pay with respect to the Property.

(g) To the extent not paid from proceeds of the 2019 Junior Bonds, the City shall pay to the Corporation amounts sufficient to reimburse the Corporation for all its expenses in connection with the issuance of the 2019 Junior Bonds and this City Purchase Agreement if and when paid by the Corporation. Such amounts shall be paid from the Designated Revenues to the Corporation or its order upon receipt by the City Representative of requisitions therefor.

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SECTION 3.5. *Limitation on Source of City Payments; Passenger Facility Charges.*

(a) Except to the extent the City determines to make payments from Other Available Monies and funds committed pursuant to Section 3.5(b) of the City Purchase Agreement, all amounts to be paid by the City under any section of this City Purchase Agreement shall be payable solely from the Designated Revenues. Under no circumstances shall amounts paid under this City Purchase Agreement from Other Available Monies constitute a pledge of such Other Available Monies and amounts payable by the City hereunder shall never constitute a general obligation of the City or a pledge of ad valorem taxes by the City.

(b) The City hereby irrevocably commits PFC Revenues received during each Fiscal Year of the Commitment Period to Series 2019A Junior Bonds Debt Service in an amount equal to % thereof accruing during such Fiscal Year and covenants that it will take all action reasonably necessary to cause the collection and remittance to the City of all PFC Revenues and to apply such amounts, during the Commitment Period, as provided in Section 2.4 of the City Purchase Agreement.

(c) The City expressly reserves the right, to the extent permitted by federal law, to irrevocably commit Passenger Facility Charges received during any Fiscal Year or portion thereof to the payment of the Junior Lien Interest Requirements and/or Junior Lien Principal Requirements for one or more subsequent series of Junior Lien Obligations or Principal Requirements or Interest Requirements on Senior Lien Obligations or to expand any such commitments subsequent to issuance of such obligations. Such irrevocable commitment may be on a parity with or on a basis subordinate to, the irrevocable commitment with respect to Series 2019A Junior Bonds Debt Service. Such declaration shall be made in writing by the City Representative and delivered to the trustee or paying agent as applicable for the Junior Lien Obligations or Senior Lien Obligations receiving the benefit of such irrevocable commitment on or before the beginning of the period of the irrevocable commitment.

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SECTION 4.1. *Prior Lien Airport Revenue Obligations.* The City shall not incur any obligations payable from the Net Revenues except for (a) additional Senior Lien Obligations issued for the purpose of refunding other Senior Lien Obligations upon meeting the conditions specified in the Senior Lien Obligation Documents and upon meeting the conditions specified in Section 4.4 of the City Purchase Agreement, (b) additional Senior Lien Obligations issued for other than refunding purposes upon meeting the conditions specified in the Senior Lien Obligation Documents and upon meeting the conditions specified in Section 4.5 of the City Purchase Agreement and (c) Derivative Products meeting the requirements of the Airport Revenue Bond Ordinance.

The City shall not incur any obligations payable from the Designated Revenues in the future on a parity with its obligations under this City Purchase Agreement except for (i) additional Junior Lien Obligations entered into or issued for the purpose of refunding the Junior Lien Obligations or Senior Lien Obligations if upon the incurring of such Junior Lien Obligations, the conditions specified in Section 4.2 of the City Purchase Agreement are met, or (ii) additional Junior Lien Obligations entered into or issued for purposes other than refunding the other Junior Lien Obligations or Senior Lien Obligations if, upon the incurring of such Junior Lien Obligations, the conditions specified in Section 4.3 of the City Purchase Agreement are met.

Subject to the foregoing, the City reserves the right to incur additional Senior Lien Obligations and Junior Lien Obligations.

SECTION 4.2. *Additional Junior Lien Obligations for Refunding Purposes.* Any or all of the Junior Lien Obligations or Senior Lien Obligations may be refunded at maturity, upon redemption in accordance with their terms or with the consent of the holders thereof, and the refunding obligations so issued, if so designated by the City, shall constitute Junior Lien Obligations *provided, however,* that:

(a) An officer of the City shall certify that the Maximum Annual Junior Lien Debt Service becoming due and payable from the date of such determination to maturity or earlier redemption on the Junior Lien Obligations of all series to be Outstanding immediately after the date of authentication and delivery of such refunding bonds is not greater than 110% of the Maximum Annual Junior Lien Debt Service becoming due and payable from the date of such determination to maturity or earlier redemption on the Junior Lien Obligations of all series Outstanding immediately prior to the authentication and delivery of such refunding bonds; and

(b) The bonds being refunded will no longer be outstanding upon the issuance of the refunding bonds.

SECTION 4.3. *Junior Lien Obligations Generally.* Additional Junior Lien Obligations may also be issued if the following conditions are satisfied:

(a) An officer of the City shall certify that either the Designated Revenues for the most recently completed Fiscal Year for which audited financial statements are available or the Designated Revenues for any 12 consecutive months out of the most recent 24 calendar months were sufficient to satisfy the rate covenant set forth in Section 4.6(b) of the City Purchase Agreement and would have been at least equal to 110% of the Maximum Annual Junior Lien Debt Service for all Junior Lien Obligations to be Outstanding, including the Junior Lien Obligations proposed to be issued; or

(b) A Consultant provides a report which projects that Designated Revenues will be sufficient to satisfy the rate covenant set forth in Section 4.6(b) of the City Purchase Agreement (including any Junior Lien Obligations to be issued) in each Fiscal Year after subtracting from the amount required to be paid *into* the Junior Lien Bond Fund from the Revenue Fund any applicable Junior Lien Passenger Facility Charge Credit, which report addresses the period of time beginning with the first full Fiscal Year following the issuance of the Junior Lien Obligations through the later of (i) three Fiscal Years following the expected date of completion (as provided to the Consultant by an officer of the City) of any construction projects to be financed at the Airport with the proceeds of the relevant Junior Lien Obligations or (ii) five Fiscal Years following the issuance of the Junior Lien Obligations.

SECTION 4.4. *Additional Senior Lien Obligations for Refunding Purposes.* Any or all of the Senior Lien Obligations or Junior Lien Obligations may be refunded at maturity, upon redemption in accordance with their terms or with the consent of the holders thereof, and, if so designated by the City, the refunding bonds so issued shall constitute Parity Bonds; *provided, however,* that:

(a) An officer of the City shall certify that the Maximum Annual Debt Service becoming due and payable from the date of such determination to maturity or earlier redemption on the Bonds of all series to be Outstanding immediately after the date of authentication and delivery of such refunding bonds is not greater than 110% of the Maximum Annual Debt Service becoming due and payable from the date of such determination to maturity or earlier redemption on the Bonds of all series Outstanding immediately prior to the authentication and delivery of such refunding bonds; and

(b) The bonds being refunded will no longer be outstanding upon the issuance of the refunding bonds.

SECTION 4.5. *Additional Senior Lien Obligations Generally.* Senior Lien Obligations may also be issued if the following conditions are satisfied:

(a) An officer of the City shall certify that either the Net Revenues for the most recently completed Fiscal Year for which audited financial statements are available or the Net Revenues for any 12 consecutive months out of the most recent 18 calendar months (i) were sufficient to satisfy the rate covenant set forth in Section 4.6(a) of the City Purchase Agreement and (ii) would have been at least equal to 120% of Maximum Annual Debt Service for all Bonds to be Outstanding, including the Parity Bonds proposed to be issued; and

(b) A Consultant provides a report which projects that Net Revenues will be sufficient to satisfy the rate covenant set forth in Section 4.6(a) (including any Parity Bonds to be issued) in each Fiscal Year after subtracting from the amount required to be paid into the Bond Fund from the Revenue Fund any applicable Passenger Facility Charge Credit, which report addresses the period of time beginning with the first full Fiscal Year following the issuance of the Parity Bonds through the later of (i) three Fiscal Years following the expected date of completion (as provided to the Consultant by an officer of the City) of any construction projects to be financed at the Airport with the proceeds of the relevant Parity Bonds or (ii) five Fiscal Years following the issuance of the Parity Bonds.

SECTION 4.6. *Rate Covenant.* (a) The City covenants that it will in each Fiscal Year establish, maintain and enforce schedules of rates, fees and charges for the use of the Airport (i) sufficient to produce Net Revenues at least equal to 125% of the amount required to be paid into the Bond Fund from the Revenue Fund, after subtracting Other Available Funds deposited in the Bond Fund in such Fiscal Year and after subtracting any Passenger Facility Charge Credit applicable to such Fiscal Year, provided that for purposes of this Section, the Principal Requirement and Interest Requirement for a series of Bonds to which a Derivative Product with a Qualified Counterparty applies may be determined after giving effect to the netting provisions of Section 2.13 of the Airport Revenue Bond Ordinance and exclusive of any payment which may be owed by the City upon termination prior to maturity of such Derivative Product and (ii) sufficient to produce amounts required to be deposited in the Bond Reserve Fund and any separate bond reserve fund for such Fiscal Year.

(b) The City further covenants that it will in each Fiscal Year establish, maintain and enforce schedules of rates, fees and charges for the use of the Airport (i) sufficient to produce Designated Revenues at least equal to 110% of the amount required to be paid into the Junior Lien Bond Fund from the Revenue Fund, net of Other Available Funds deposited in the Junior Lien Bond Fund in such Fiscal Year after subtracting any Junior Lien Passenger Facility Charge Credit applicable to such Fiscal Year, provided that for purposes of this Section, the Junior Lien Principal Requirement and Junior Lien Interest Requirement for a series of Junior Lien Obligations to which a Junior Lien Derivative Product with a Qualified Junior Lien Counterparty applies may be determined after giving effect to the netting provisions of Section 2.7 of the City Purchase Agreement and exclusive of any payment which may be owed by the City upon termination prior to maturity of such Derivative Product and (ii) sufficient to produce amounts required to be deposited in the Junior Lien Parity Reserve Fund and any separate bond reserve fund for Junior Lien Obligations for such Fiscal Year.

SECTION 4.7. *Subordinate Junior Lien Obligations.* The City reserves the right to issue or enter into obligations payable from Designated Revenues after payment of Junior Lien Obligations, which are subordinate to the City's obligation to pay the Purchase Price hereunder.

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SECTION 5.1. *In General.* The City hereby makes the following covenants, in addition to those contained in the Airport Revenue Bond Ordinance (which are incorporated by reference herein) and in Article IV of the City Purchase Agreement, so long as any of the 2019 Junior Bonds remain Outstanding under the Indenture. The Corporation, or the Trustee, as their respective interests appear, shall have the right to enforce all of the covenants and agreements of the City contained in the Airport Revenue Bond Ordinance.

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SECTION 5.3. *Maintenance and Utilities.* All maintenance and repair of the Property and utilities therefor shall be the responsibility of the City. In exchange for the payment of the Purchase Price hereunder, the Corporation agrees to provide nothing more than the Property and the funds to prepay the 2019 Loan and refinance the Bonds Being Refunded.

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SECTION 7.1. *Events of Default.* Any one or more of the following events (herein called *"Events of Default")* shall constitute a default hereunder:

(a) An Event of Default under Section 5.1 of the Airport Revenue Bond Ordinance; or the City shall fail to make any payment of the Purchase Price under Section 3.3(a) or (b) of the City Purchase Agreement or

(b) The City shall fail to make any payment of the Purchase Price under Section 3.3(c) or (d) of the City Purchase Agreement for a period of 30 days after notice of such failure shall have been given in writing to the City by the Corporation or by the Trustee; or

(c) The City shall fail to perform any other covenant herein for a period of 30 days after written notice specifying such default shall have been given to the City by the Corporation or the Trustee, provided that if such failure be such that it cannot be remedied within such 30-day period, it shall not be deemed an Event of Default so long as the City diligently tries to remedy the same.

SECTION 7.2. *Remedies on Default by City.* Upon the occurrence of an Event of Default as above defined, the Corporation shall, but only if requested to do so by the Trustee, without further demand or notice, exercise any of the available remedies at law or in equity, including, but not limited to, specific performance, however, under no circumstances may amounts due hereunder be accelerated. The Corporation may assign any or all of its rights and privileges under this Section to the Trustee, and upon furnishing evidence of such assignment to the City, the Trustee may, subject to Section 7.12 of the Indenture, exercise any or all of such rights or privileges as it may deem advisable.

SECTION 7.3. *Default by Corporation.* The Corporation shall in no event be in default in the performance of any of its obligations hereunder unless and until the Corporation shall have failed to perform such obligation within 30 days or such additional time as is reasonably required to correct any such default after notice by the City to the Corporation properly specifying wherein the Corporation has failed to perform any such obligation. No default by the Corporation shall relieve the City of its obligations to make the various payments herein required, so long as any of the 2019 Junior Bonds remain outstanding; however, the City may exercise any other remedy available at law or in equity to require the Corporation to remedy such default so long as such remedy does not interfere with or endanger the payments required to be made to the Trustee under the Indenture.

THE INDENTURE

The information set forth below summarizes or paraphrases certain provisions of the Indenture.

SECTION 1.3. *All 2019 Junior Bonds Not General Obligations of the Corporation.* The 2019 Junior Bonds herein authorized and the payments to be made by the Corporation thereon and into the various funds established under this Indenture are not general obligations of the Corporation but are limited obligations payable solely from payments under the City Purchase Agreement.

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SECTION 5.3. *Flow of Funds.* So long as any 2019 Junior Bonds are Outstanding, in each Bond Year, payments received by the Bond Trustee shall be applied in the following manner and order of priority:

(a) *2019 Junior Lien Interest Account.* The Bond Trustee shall deposit to the 2019 Junior Lien Interest Account on or before the last Business Day of each December and June an amount equal to the amount of interest to be paid on Outstanding 2019 Junior Bonds on the next 2019 Bond Payment Date. Moneys in the 2019 Junior Lien Interest Account shall be used to pay interest on the 2019 Junior Bonds as it becomes due.

(b) *2019 Junior Lien Principal Account.* The Bond Trustee shall deposit to the 2019 Junior Lien Principal Account on or before the last Business Day of each June (in each Bond Year ending on a date on which 2019 Junior Bonds mature or are subject to mandatory redemption), an amount equal to the principal amount at maturity plus an amount equal to any mandatory sinking fund redemption requirement of Section 3.2(e) of the Indenture of 2019 Junior Bonds Outstanding which will mature or be subject to mandatory redemption on the last day of such Bond Year. Moneys in the 2019 Junior Lien Principal Account shall be used to retire 2019 Junior Bonds by payment at their scheduled maturity or their mandatory sinking fund retirement date.

(c) *2019 Junior Lien Redemption Account.* If the City makes an optional prepayment of any installment of principal which is to be applied to redeem 2019 Junior Bonds in accordance with Section 3.2(a) of the Indenture and specifying the amount and maturities of 2019 Junior Bonds to be redeemed and the optional redemption date, the amount so paid shall be credited to the 2019 Junior Lien Redemption Account and applied promptly by the Bond Trustee, first, to cause the amounts credited to the 2019 Junior Lien Interest Account or the 2019 Junior Lien Principal Account of the 2019 Junior Bond Fund, in that order, to be not less than the amounts then required to be credited thereto, and, second, to retire 2019 Junior Bonds by purchase, redemption or both purchase and redemption in accordance with the City's directions. Any such purchase shall be made at the best price obtainable with reasonable diligence and no 2019 Junior Bond shall be so purchased at a cost or price (including brokerage fees or commissions or other charges), excluding accrued interest, which exceeds the redemption price at which such 2019 Junior Bond could be redeemed on the date of purchase or on the next succeeding date upon which such 2019 Junior Bond is subject to redemption, plus accrued interest, to the date of purchase. Any such redemption shall be of 2019 Junior Bonds then subject to redemption at the redemption price then applicable for redemption of such 2019 Junior Bonds.

Any balance remaining in the 2019 Junior Lien Redemption Account after the purchase or redemption of 2019 Junior Bonds in accordance with the City's directions shall be transferred to the 2019 Junior Lien Interest Account.

SECTION 5.4. *Junior Lien Parity Reserve Fund.*

(a) In accordance with Section 2.5 of the Airport Revenue Bond Ordinance, Section 2.7 of the 2015 Junior Lien City Purchase Agreement, Section 2.7 of the 2017 Junior Lien City Purchase Agreement and Section 2.8 of the City Purchase Agreement, the Corporation has assigned to the 2015 Trustee, the 2017 Trustee and the Bond Trustee the Junior Lien Parity Reserve Fund which shall be used to make payments on the Series 2015A Junior Bonds, the Series 2017D Junior Bonds and the 2019 Junior Bonds and shall not be available to make payments on any other Junior Obligations or Senior Obligations, (except as otherwise provided in Section 2.7(d) of the 2015 Junior Lien City Purchase Agreement, Section 2.7(d) of the 2017 Junior Lien City Purchase and Section 2.8(d) of the City Purchase Agreement and Section 5.4(c) of the Indenture) or any of the City's obligations under the City Purchase Agreement other than pursuant to Section 3.3(a), (b) and (c) of the 2015 Junior Lien City Purchase Agreement, Section 3.3(a), (b) and (c) of the 2017 Junior Lien City Purchase Agreement and Section 3.3(a), (b) and (c) of the City Purchase Agreement. In the event there is not on deposit the amounts at the times in the respective accounts described in Section 5.3(a), (b) and (c) of the 2015 Indenture, Section 5.3 (a), (b) and (c) of the 2017 Indenture and Section 5.3(a), (b) or (c) of the Indenture, the amount of such deficiency shall be paid directly from the Junior Lien Parity Reserve Fund.

(b) The Junior Lien Parity Reserve Fund may be funded with cash, Permitted Investments or a Qualified Surety Bond meeting the requirements of Sections 2.7 and 2.8 of the 2015 Junior Lien City Purchase Agreement, Sections 2.7 and 2.8 of the 2017 City Purchase Agreement, Sections 2.8 and 2.9 of the City Purchase Agreement and Section 2.5 of the Airport Revenue Bond Ordinance. As described in Section 5.2 of the Indenture, the City has caused to be deposited with the 2015 Trustee, the 2017 Trustee and the Bond Trustee, cash in an amount equal to the Junior Lien Parity Debt Service Reserve Requirement (as defined in the City Purchase Agreement). In the event the City chooses to provide a Qualified Surety Bond in substitution for the initial cash deposit or a subsequent Qualified Surety Bond, the City shall receive a certificate or an opinion to the effect that the Qualified Surety Bond is a binding obligation of the issuer thereof and shall receive evidence that the issuer thereof has the required credit ratings. Any substitution of a Qualified Surety Bond for a cash deposit funded from Series 2015A Junior Bond proceeds, Series 2017D Junior Bond proceeds or Tax-Exempt Bond proceeds shall be subject to receipt by the City of an opinion of nationally recognized bond counsel that such substitution will not cause interest or any of the Series 2015A Junior Bonds, the Series 2017D Junior Bonds or 2019 Junior Bonds to become includible in gross income for federal income tax purposes. Each such Qualified Surety Bond shall be unconditional and irrevocable and shall provide such security as is described in Section 2.5 of the Airport Revenue Bond Ordinance.

In the event the Junior Lien Parity Reserve Fund contains both cash or Permitted Investments and a surety bond or other financial instrument, then the cash and Permitted Investments shall be liquidated prior to drawing upon the surety bond or financial instrument. Further, replenishment of the Junior Lien Parity Reserve Fund shall be made, subject to the flow of funds established in Sections 2.4 and 2.5 of the 2015 Junior Lien City Purchase Agreement, Sections 2.4 and 2.5 of the 2017 Junior Lien City Purchase Agreement and Sections 2.5 and 2.6 of the City Purchase Agreement, first to the reinstatement of such Qualified Surety Bond and then, at the option of the City, to cash or Permitted Investments. In the event the amount on deposit in the Junior Lien Parity Reserve Fund consists of cash or Permitted Investments with a value in excess of the Junior Lien Parity Debt Service Reserve Requirement, the 2015 Trustee, the 2017 Trustee and the Bond Trustee shall, at the direction of the City, transfer such excess to the City.

(c) At the direction of the City, upon notice to the Trustee, this Section, Section 2.7 of the 2015 Junior Lien City Purchase Agreement, Series 2.7 of the 2017 Junior Lien City Purchase Agreement and Section 2.8 of the City Purchase Agreement may be amended without notice to, or consent of the owners of the Series 2015A Junior Bonds, the Series 2017D Junior Bonds or the 2019 Junior Bonds to provide that the Junior Lien Parity Reserve Fund shall be a parity reserve fund for the benefit of one or more series of Junior Lien Obligations. In connection with any such amendment, the Junior Lien Parity Service Reserve Requirement shall be modified only to the extent necessary to reflect on an aggregate basis the principal amount and annual debt service requirements of the Junior Lien Obligations to be secured by the Junior Lien Parity Reserve Fund. The Bond Trustee is authorized to enter into an intercreditor agreement (or jointly signed closing certificate) with the trustee for any Junior Lien Obligations to be secured by the Junior Lien Parity Reserve Fund to acknowledge the parity nature of the Junior Lien Parity Reserve Fund.

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SECTION 6.1. *Payment of Principal and Interest.* Subject to the limited liability and sources of payment specified herein, the Corporation covenants that it will promptly cause to be paid amounts due on the 2019 Junior Bonds at the place, on the dates and in the manner provided herein and in said 2019 Junior Bonds according to the terms thereof. The amounts due on the 2019 Junior Bonds are payable solely from moneys held or received by the Trustee hereunder or under the Purchase Agreement, all of which are hereby specifically assigned and pledged to such payment in the manner and to the extent specified herein and nothing herein or in the 2019 Junior Bonds shall be construed as assigning or pledging any other funds or assets of the Corporation.

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SECTION 6.4. *Rights under Purchase Agreement.* The Corporation agrees that the Trustee in its own name or in the name of the Corporation upon notice to the Corporation may enforce all rights of the Corporation and all obligations of the City (except with respect to the Corporation's rights to indemnity and to reimbursement or payment of expenses and fees and certain other rights that are not assigned hereunder) under the Purchase Agreement for and on behalf of the Holders, whether or not the Corporation is then in default hereunder.

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SECTION 7.1. *Events of Default.* Each of the following is hereby declared an "Event of Default" under the Indenture:

(a) If payment of any installment of interest on any 2019 Junior Bond shall not be made in full when the same becomes due and payable;

(b) If payment of the principal or redemption premium, if any, on any 2019 Junior Bond shall not be made in full when the same becomes due and payable;

(c) If, under the provisions of any law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of all or any part of the interests pledged hereunder and such custody or control shall continue for more than 60 days;

(d) If the Corporation shall default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions on its part to be performed as provided herein or in the 2019 Junior Bonds and such default shall continue for 30 days after written notice specifying such default and requiring the same to be remedied shall have been given to the Corporation and the City by the Trustee, unless within such 30 days the Corporation shall have commenced and be diligently pursuing in good faith appropriate corrective action to the satisfaction of the Trustee; the Trustee may give such notice in its discretion and shall give such notice at the written request of the Holders of not less than 25% in principal amount of the 2019 Junior Bonds then Outstanding;

(e) Any *"Event of Default"* under the City Purchase Agreement; or

(f) The City fails to comply with any applicable provision of the Tax Exemption Certificate with the result that interest on any of the 2019 Junior Bonds becomes includible in gross income for purposes of federal income taxes.

SECTION 7.2. *Remedies and Enforcement of Remedies.* (a) Upon the occurrence and continuance of any Event of Default and in accordance with Article VII of the Indenture and Article VII of the Purchase Agreement, the Trustee may, and upon the written request of the Holders of not less than a majority in principal amount of the 2019 Junior Bonds Outstanding, together with indemnification of the Trustee to its satisfaction therefor, shall, proceed forthwith to protect and enforce its rights and the rights of the 2019 Junior Bondholders hereunder and the 2019 Junior Bonds by such suits, actions or proceedings as the Trustee, being advised by counsel, shall deem expedient, including but not limited to, an action for the recovery of any amounts due hereunder or for damages for the breach of this Indenture, and the Trustee may pursue any other remedy which the law affords, including the remedy of specific performance. The Trustee shall also have those remedies which the Corporation is provided pursuant to Article VII of the City Purchase Agreement, subject to any limitations on such remedies set forth in Article VII.

(b) Regardless of the happening of an Event of Default and subject to Section 7.7 of the Indenture, the Trustee, if requested in writing by the Holders of not less than a majority in principal amount of the 2019 Junior Bonds then Outstanding shall, upon being indemnified to its satisfaction therefor, institute and maintain such suits and proceedings as it may be advised shall be necessary or expedient (i) to prevent any impairment of the security hereunder by any acts which may be unlawful or in violation hereof, or (ii) to preserve or protect the interests of the Holders, provided that such request is in accordance with law and the provisions hereof and, in the sole judgment of the Trustee, is not unduly prejudicial to the interest of the Holders of 2019 Junior Bonds not making such request.

SECTION 7.3. *No Acceleration.* In no event shall the Trustee have the right to accelerate or cause to become immediately due and payable or payable in advance of their scheduled maturity dates, other than an optional redemption pursuant to this Indenture and then only to the extent of the amount to be so redeemed and only pursuant to Article III of the Indenture, amounts due hereunder.

SECTION 7.4. *Application of Revenues and Other Moneys After Default.* During the continuance of an Event of Default all moneys received by the Trustee pursuant to any right given or action taken under the provisions of this Article, shall, after payment of the costs and expenses of the proceedings resulting in the collection of such moneys and of the fees, expenses and advances incurred or made by the Trustee with respect thereto, be deposited in the 2019 Junior Bond Fund, and all amounts held by the Trustee hereunder shall be applied as follows:

First: To the payment of amounts, if any, payable pursuant to the Tax Exemption Certificate;

Second: To the payment to the Persons entitled thereto of all installments of interest (including interest on amounts unpaid when due on the 2019 Junior Bonds) then due, and, if the amount available shall not be sufficient to pay in full any installment or installments then due, then to the payment thereof ratably, according to the amounts due thereon to the Persons entitled thereto, without any discrimination or preference; and

Third: To the payment to the Persons entitled thereto of the unpaid Principal Installments or redemption price of any 2019 Junior Bonds which shall have become due, whether at maturity or by call for redemption, in the order of their due dates, and if the amounts available shall not be sufficient to pay in full all the 2019 Junior Bonds due on any date, then to the payment thereof ratably, according to the amounts of Principal Installments or redemption price due on such date, to the Persons entitled thereto, without any discrimination or preference.

Whenever moneys are to be applied by the Trustee pursuant to the provisions of this Section, such moneys shall be applied by it at such times, and from time to time, as the Trustee shall determine, having due regard for the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall apply such moneys, it shall fix the date upon which such application is to be made and upon such date interest on the amounts of principal of the 2019 Junior Bonds to be paid on such dates shall cease to accrue. The Trustee shall give such notice as it may deem appropriate of the deposit with it of any such moneys and of the fixing of any such date, and shall not be required to make payment to the Holder of any unpaid 2019 Junior Bond until such 2019 Junior Bond shall be presented to the Trustee for appropriate endorsement of any partial payment or for cancellation if fully paid.

Whenever all principal of and interest on the 2019 Junior Bonds which has become due has been paid under the provisions of this Section and all expenses and charges of the Trustee have been paid and the Series 2019 Junior Bond Fund contains the amounts then required to be credited thereto, any balance remaining shall be paid to the City.

SECTION 7.5. *Remedies Not Exclusive.* No remedy by the terms hereof conferred upon or reserved to the Trustee or the 2019 Junior Bondholders is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or existing at law or in equity or by statute on or after the date hereof.

SECTION 7.6. *Remedies Vested in Trustee.* All rights of action (including the right to file proof of claims) hereunder or under any of the 2019 Junior Bonds may be enforced by the Trustee, without the possession of any of the 2019 Junior Bonds or the production thereof in any trial or other proceedings relating thereto. Any such suit or proceeding may be brought without the necessity of joining as plaintiffs or defendants any Holders of the 2019 Junior Bonds. Subject to the provisions of Section 7.4 of the Indenture, any recovery or judgment shall be for the equal benefit of the Holders of the Outstanding 2019 Junior Bonds.

SECTION 7.7. *Individual 2019 Junior Bondholder Action Restricted.* (a) No Holder of any 2019 Junior Bond shall have any right to institute any suit, action or proceeding in equity or at law for the enforcement hereof or for the execution of any trust hereunder or for any remedy hereunder except for the right to institute any suit, action or proceeding in equity or at law for the enforcement of the Trustee's duties and powers hereunder upon the occurrence of all of the following events:

(i) The Holders of at least a majority in principal amount 2019 Junior Bonds Outstanding, shall have made written request to the Trustee to proceed to exercise the powers granted herein; and

(ii) Such 2019 Junior Bondholders shall have offered the Trustee reasonable security or indemnity as provided in Section 8.2(e) of the Indenture; and

(iii) The Trustee shall have failed or refused to exercise the duties or powers herein granted for a period of 60 days after receipt by it of such request and offer of indemnity; and

(iv) During such 60-day period no direction inconsistent with such written request has been delivered to the Trustee by the Holders of a greater majority in principal amount of 2019 Junior Bonds then Outstanding.

(b) No one or more Holders of Series 2019 Junior Bonds shall have any right in any manner whatsoever to affect, disturb or prejudice the security hereof or to enforce any right hereunder except in the manner herein provided and for the equal benefit of the Holders of all Series 2019 Junior Bonds Outstanding.

(c) Nothing contained herein shall affect or impair, or be construed to affect or impair, the right of the Holder of any 2019 Junior Bond (i) to receive payment of the principal of or interest on such 2019 Junior Bond, as the case may be, on or after the due date thereof or (ii) to institute suit for the enforcement of any such payment on or after such due date; provided, however, no Holder of any 2019 Junior Bond may institute or prosecute any such suit or enter judgment therein if, and to the extent that, the institution or prosecution of such suit or the entry of judgment therein would, under applicable law, result in the surrender, impairment, waiver or loss of the lien hereof on the moneys, funds and properties pledged hereunder for the equal and ratable benefit of all Holders of 2019 Junior Bonds.

SECTION 7.8. *Termination of Proceedings.* In case any proceeding taken on account of an Event of Default shall have been discontinued or abandoned for any reason or shall have been determined adversely to the Trustee or the 2019 Junior Bondholders, then the Corporation, the Trustee and the 2019 Junior Bondholders shall be restored to their former positions and rights hereunder, and all rights and powers of the Trustee and the 2019 Junior Bondholders shall continue as if no such proceeding had been taken.

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SECTION 9.1. *Supplements not Requiring Consent of 2019 Junior Bondholders.* The Corporation acting through the Corporation Representative and the Trustee may, but without the consent of or notice to any of the Holders, enter into one or more Supplements for one or more of the following purposes:

(a) To cure any ambiguity or formal defect or omission herein or to correct or supplement any provision herein which may be inconsistent with any other provision herein, or, to make any other provisions with respect to matters or questions arising hereunder provided such action shall, in the opinion of the Trustee, not materially adversely affect the interests of the Holders;

(b) To grant or confer upon the Holders any additional rights, remedies, powers or authority that may lawfully be granted or conferred upon them;

(c) To secure additional revenues or provide additional security or reserves for payment of the 2019 Junior Bonds;

(d) To comply with the requirements of any state or federal securities laws or the Trust Indenture Act of 1939, as from time to time amended, if required by law or regulation lawfully issued thereunder;

(e) To provide for the appointment of a successor trustee or co-trustee pursuant to the terms of Section 8.6 and Section 8.11 of the Indenture;

(f) To permit 2019 Junior Bonds in bearer form if, in the opinion of Bond Counsel received by the Corporation and the Trustee, such action will not cause the interest on any Tax-Exempt Bonds to become includible in gross income for purposes of federal income taxes;

(g) To preserve the exclusion of the interest on the Tax-Exempt Bonds from gross income for purposes of federal or State income taxes and to preserve the power of the Corporation to continue to issue bonds or other obligations (specifically not limited to the Tax-Exempt Bonds authorized hereby) the interest on which is likewise exempt from federal and State income taxes;

(h) To adopt procedures for the disclosure of information to 2019 Junior Bondholders and to others in accordance with any guidelines for such purpose promulgated by the American Bankers Association or some other similar national organization, as such guidelines may be made applicable to the Indenture by agreement of the Trustee, the Corporation and the City; and

(i) To provide for the Junior Lien Parity Reserve Fund to be a parity reserve fund for the benefit of one or more series of Junior Lien Obligations as set forth in Section 5.4(c) of the Indenture.

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SECTION 9.3. *Execution and Effect of Supplements.* (a) In executing any Supplement, the Trustee and Corporation shall be entitled to receive and to rely upon an opinion of counsel stating that the execution of such Supplement is authorized or permitted hereby. The Trustee may but shall not be obligated to enter into any such Supplement which affects the Trustee's own rights, duties or immunities.

(b) Any Supplement under this Article which adversely affects the rights of the City shall not become effective unless and until the City shall have consented in writing to the execution and delivery of such Supplement. In this regard the Trustee shall cause notice of the proposed execution and delivery of any such Supplement together with a copy of the proposed Supplement to be delivered to the City at least ten days prior to the date of its proposed execution and delivery in the case of a Supplement referred to in Section 9.1 of the Indenture and at least ten days prior to the date of mailing of the notice of the proposed execution and delivery in the case of a Supplement referred to in Section 9.2.

(c) Upon the execution and delivery of any Supplement in accordance with this Article, the provisions hereof shall be modified in accordance therewith and such Supplement shall form a part hereof for all purposes and every Holder of a 2019 Junior Bond theretofore or thereafter authenticated and delivered hereunder shall be bound thereby.

(d) Any 2019 Junior Bond authenticated and delivered after the execution and delivery of any Supplement in accordance with this Article may, and if required by the Corporation or the Trustee shall, bear a notation in form approved by the Corporation and Trustee as to any matter provided for in such Supplement. If the Corporation shall so determine, upon advice of Bond Counsel, new 2019 Junior Bonds so modified as to conform in the opinion of the Trustee and the Corporation to any such Supplement may be executed by the Corporation and authenticated and delivered by the Trustee in exchange for and upon surrender of 2019 Junior Bonds then Outstanding.

SECTION 9.4. *Amendments to City Purchase Agreement Not Requiring Consent of 2019 Junior Bondholders.* The Corporation and the Trustee may, without the consent of or notice to any of the Holders consent to and join with the City in the execution and delivery of any amendment, change or modification of the City Purchase Agreement as may be required (i) by the provisions thereof; (ii) to cure any ambiguity or formal defect or omission therein or to correct or supplement any provision therein which may be inconsistent with any other provision therein, or to make any other provisions with respect to matters or questions arising thereunder provided such action shall, in the opinion of the Trustee, not materially adversely affect the interests of the Holders; (iii) to provide for the Junior Lien Parity Reserve Fund to be a parity reserve fund for the benefit of one or more series of Junior Lien Obligation as set forth in Section 2.8(d) thereof; (iv) to preserve the exclusion of the interest on the Tax-Exempt Bonds from gross income for purposes of federal or State income taxes and to preserve the power of the Corporation to continue to issue bonds or other obligations (specifically not limited to the 2019 Junior Bonds authorized hereby) the interest on which is likewise exempt from federal and State income taxes and (v) in connection with any other change therein which in the opinion of the Trustee will not materially adversely affect the interests of the Holders or the Trustee. In addition, the Corporation and the City may amend the description of the Financed Property in Exhibit A to the City Purchase Agreement at any time without notice to or consent of the Trustee or the Holders.

SECTION 9.5. *Amendments to Purchase Agreement Requiring Consent of 2019 Junior Bondholders.* (a) Except for amendments, changes or modification to the Purchase Agreement referred to in Section 9.4 of the Indenture and subject to the terms and provisions and limitations contained in this Article and not otherwise, the Trustee may consent to and join with the City in the execution and delivery of any amendment, change or modification to the Purchase Agreement only upon the consent of not Less than a majority in principal amount of 2019 Junior Bonds then Outstanding, given as provided in this Section, provided, however, no such amendment, change or modification may affect the obligation of the City to make payments under the Purchase Agreement or reduce the amount of or extend the time for making such payments without the consent of the Holders of all 2019 Junior Bonds then Outstanding.

(b) If at any time the Corporation and the City shall request the consent of the Trustee to any such amendment, change or modification to the Purchase Agreement the Trustee shall, upon being satisfactorily indemnified by the City with respect to expenses, cause notice of the proposed amendment, change or modification to be given in the same manner as provided in Section 9.2 of the Indenture with respect to Supplements hereto. Such notice shall briefly set forth the nature of the proposed amendment, change or modification and shall state that copies thereof are on file at the office of the Trustee for inspection by all 2019 Junior Bondholders.

(c) If the consent to and approval of the execution of such amendment, change or modification is given by the Holders of not less than the aggregate principal amount or number of 2019 Junior Bonds specified in subsection (a) within the time and in the manner provided by Section 9.2 of the Indenture with respect to Supplements hereto, but not otherwise, such amendment, change or modification may be consented to, executed and delivered upon the terms and conditions and with like binding effect upon the Holders as provided in Sections 9.2 and 9.3 of the Indenture with respect to Supplements hereto.

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SECTION 10.1. *Discharge.* If payment of all principal of, premium, if any, and interest on all of the 2019 Junior Bonds in accordance with their terms and as provided herein is made, or is provided for in accordance with this Article, and if all other sums, if any, payable by the Corporation hereunder shall be paid, then the liens, estates and security interests granted hereby shall cease. Thereupon, upon the request of the Corporation, and upon receipt by the Trustee of an opinion of counsel addressed to the Corporation and Trustee stating that all conditions precedent to the satisfaction and discharge of the lien hereof have been satisfied, the Trustee shall execute and deliver proper instruments acknowledging such satisfaction and discharging the lien hereof and the Trustee shall transfer all property held by it hereunder, other than moneys or obligations held by the Trustee for payment of amounts due or to become due on the 2019 Junior Bonds, to the Corporation, the City or such other Person as may be entitled thereto as their respective interests may appear. Such satisfaction and discharge shall be without prejudice to the rights of the Trustee thereafter to charge and be compensated or reimbursed for services rendered and expenditures incurred in connection herewith.

The Corporation or the City may at any time surrender to the Trustee for cancellation any 2019 Junior Bonds previously authenticated and delivered which the Corporation or the City may have acquired in any manner whatsoever and such 2019 Junior Bonds upon such surrender and cancellation shall be deemed to be paid and retired.

SECTION 10.2. *Providing for Payment of 2019 Junior Bonds.* Payment of all or any part of the 2019 Junior Bonds in authorized denominations may be provided for by the deposit with the Trustee or a qualified institution under Article VII of the Airport Revenue Bond Ordinance as agent for the Trustee (the *"Depository Trustee")* of moneys or Qualified Permitted Investments which are not redeemable in advance of their maturity dates, or which are redeemable in advance of their maturity dates only at the option of the Holder thereof, or both. The moneys and the maturing principal and interest income on such Qualified Permitted Investments, if any, shall be sufficient, as evidenced by a certificate of an independent nationally recognized certified public accountant or firm of such accountants acceptable to the Trustee, to pay when due the principal or redemption price of and interest on such 2019 Junior Bonds. The moneys and Defeasance Obligations shall be held by the Trustee irrevocably in trust for the Holders of such 2019 Junior Bonds solely for the purpose of paying the principal, or redemption price of and interest on such 2019 Junior Bonds as the same shall mature, come due or become payable upon prior redemption, and, if applicable, upon simultaneous direction, expressed to be irrevocable, to the Trustee and the Depository Trustee as to the dates upon which any such 2019 Junior Bonds are to be redeemed prior to their respective maturities.

If payment of 2019 Junior Bonds is so provided for, the Trustee or the Depository Trustee shall mail a notice so stating to each Holder of a 2019 Junior Bond so provided for 2019 Junior Bonds, the payment of which has been provided for in accordance with this Section, shall no longer be deemed Outstanding hereunder or secured hereby. The obligation of the Corporation in respect of such 2019 Junior Bonds shall nevertheless continue but the Holders thereof shall thereafter be entitled to payment only from the moneys or Qualified Permitted Investments deposited with the Trustee or the Depository Trustee to provide for the payment of such 2019 Junior Bonds.

APPENDIX G

Proposed Form of Legal Opinion of Bond Counsel
[Letterhead of Greenberg Traurig, LLP]

[To Be Dated Closing Date]

We hereby certify that we have examined a certified copy of the proceedings of the City of Phoenix Civic Improvement Corporation (the *"Corporation"*) passed preliminary to the issue of its Junior Lien Airport Revenue Bonds, Series 2019A in the amount of $ (the *"Series 2019A Junior Bonds"*), Junior Lien Airport Revenue Bonds, Series 2019B in the amount of $ (the *"Series 2019B Junior Bonds"* and together with the Series 2019A Junior Bonds, the *"Tax-Exempt Bonds"*) and Junior Lien Airport Revenue Refunding Bonds, Taxable Series 2019C (the *"Taxable Bonds"* and together with the Tax-Exempt Bonds, the *"2019 Junior Bonds"*) in fully registered form, dated the date of initial authentication and delivery thereof. The Series 2019A Junior Bonds are being issued to prepay certain obligations (the *"2019 Loan"*) previously issued to finance or refinance improvements to the airport facilities of the City of Phoenix, Arizona (the *"City"*) and to finance additional improvements to such facilities. The Series 2019B Junior Bonds are being issued to finance improvements to the airport facilities of the City. The Taxable Bonds are being issued to refund bonds previously issued for improvements to such facilities (the *"Bonds Being Refunded"*).

We have examined the law and such documents and matters as we have deemed necessary to render this opinion, including, without limitation, the original or a copy identified to our satisfaction as being a true copy of the Indenture (as defined herein).

As to questions of fact material to the opinions expressed herein, we have relied upon, and have assumed due compliance with the provisions of, the proceedings and other documents, and have relied upon certifications and representations furnished to us without undertaking to verify the same by independent investigation, including, without limitation, the use to be made of the proceeds of the 2019 Junior Bonds. Reference is made to certifications of and opinions of counsel to parties other than the Corporation with respect to the existence and powers of such parties to enter into and perform the instruments referred to, the authorization, execution and delivery of such instruments by such parties and such instruments being binding upon and enforceable against such parties; we express no opinion as to such matters.

The 2019 Junior Bonds are being issued pursuant to a Bond Indenture, dated as of December 1, 2019 (the *"Indenture"*) between the Corporation and U.S. Bank National Association, as trustee (the *"Trustee"*). The 2019 Junior Bonds are payable solely, as to both principal and interest, from payments made by the City under the Junior Lien City Purchase Agreement, dated as of December 1, 2019 (the *"City Purchase Agreement"*) between the Corporation and the City.

Based upon the foregoing, we are of the opinion as of this date, which is the date of initial delivery of the 2019 Junior Bonds against payment therefor, that:

1. The Indenture, the City Purchase Agreement and the Bonds have been duly authorized, executed and delivered by the Corporation and are valid and binding upon and enforceable against the Corporation.

2. The 2019 Junior Bonds constitute special obligations of the Corporation, and the principal of and interest and any premium on the 2019 Junior Bonds (collectively, *"debt service"*), unless paid from other sources, are payable solely from the revenues and other moneys pledged and assigned by the Indenture to secure that payment. Those revenues and other moneys include payments required to be made by the City under the City Purchase Agreement, and the City's obligation to make those payments is secured by a pledge of Designated Revenues (as defined in the City Purchase Agreement) received from the City's airport facilities. Debt service on the Series 2019A Junior Bonds is further secured by an irrevocable commitment of PFC Revenues (as defined in

the City Purchase Agreement) received in each fiscal year in amount equal to % of the debt service on the Series 2019A Junior Bonds due in each fiscal year on or before July 1, 2026. The Indenture creates the pledge which it purports to create in the pledged revenues and of other moneys in the funds and accounts created by the Indenture (other than the Rebate Fund), which pledge will be perfected only as to the revenue and other moneys on deposit in the funds and accounts created by the Indenture and held by the Trustee. The 2019 Junior Bonds and the payment of debt service are not secured by an obligation or pledge of any moneys raised by taxation; the 2019 Junior Bonds do not represent or constitute a debt or pledge of the general credit of the Corporation, the City or the State of Arizona; and the City Purchase Agreement, including the City's obligation to make the payments required thereunder, does not represent or constitute a debt or pledge of the general credit of the City.

3. The Internal Revenue Code of 1986, as amended (the *"Code"*), includes requirements which the City and the Corporation must continue to meet after the issuance of the Tax-Exempt Bonds in order that interest on the Tax-Exempt Bonds be excludible from gross income for federal income tax purposes. The City and the Corporation have covenanted to take the actions required by the Code in order to maintain the excludability from gross income for federal income tax purposes of interest on the Tax-Exempt Bonds. (Subject to the limitations in the next to last paragraph hereof, the City and the Corporation have full legal power and authority to comply with such covenants.) Under existing statutes, regulations, rulings and court decisions, subject to the assumption stated in the last sentence of this paragraph, interest on the Tax-Exempt Bonds is excludible from the gross income of the owners thereof for federal income tax purposes (except for interest on any Series 2019B Junior Bond for any period during which such Series 2019B Junior Bond is owned by a person who is a substantial user of the AMT Property (as defined in the City Purchase Agreement) or any person considered to be related to such person (within the meaning of Section 147(a) of the Code)), and, if the foregoing is the case, the interest on the Tax-Exempt Bonds is exempt from income taxation under the laws of the State of Arizona. Interest on the Series 2019A Junior Bonds is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals, but interest on the Series 2019B Junior Bonds will be treated as an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals. We express no opinion regarding other federal tax consequences resulting from the ownership, receipt or accrual of interest on, or disposition of, the Tax-Exempt Bonds. In rendering the opinion expressed above, we have assumed continuing compliance with the tax covenants referred to above that must be met after the issuance of the Tax-Exempt Bonds in order that interest on the Tax-Exempt Bonds not be included in gross income for federal tax purposes.

We express no opinion as to the exclusion of interest on the Taxable Bonds from gross income for federal or Arizona income tax purposes. Ownership of the Taxable Bonds may result in other federal or State of Arizona income tax consequences to certain taxpayers and we express no opinion regarding any such collateral consequences arising with respect to the Taxable Bonds.

In rendering the foregoing opinions, we have assumed and relied upon compliance with the City's and the Corporation's covenants and the accuracy, including with respect to the application of the proceeds of the 2019 Loan, the Bonds Being Refunded and the Tax-Exempt Bonds, respectively, which we have not independently verified, of the City's and the Corporation's representations and certifications contained in the transcript. The accuracy of those representations and certifications, and the City's and the Corporation's compliance with those covenants, may be necessary for the interest on the Tax-Exempt Bonds to be and remain excluded from gross income for federal and State income tax purposes and for certain of the other tax effects stated above. Failure to comply with certain requirements subsequent to issuance of the Tax-Exempt Bonds could cause interest on the Tax-Exempt Bonds to be included in gross income for federal and State income tax purposes retroactively to the date of issuance of the Tax-Exempt Bonds. We have also relied upon the Verification Report of Samuel Klein and Company, certified public accountants, as to the adequacy of the obligations issued or guaranteed by the United States Government in which proceeds of the Taxable Bonds have been invested to provide for retirement of the Bonds Being Refunded, as to the yield on such investments and as to the yield on the Bonds Being Refunded. We have also relied upon the parity test certificate of LeighFisher Inc. as to the ratio of Designated Revenues to Maximum Annual Junior Lien Debt Service for the period identified therein (as such terms are defined in the City Purchase Agreement).

The rights of the owners of the 2019 Junior Bonds and the enforceability of those rights under the 2019 Junior Bonds and the documents referred to above may be subject to bankruptcy, insolvency, reorganization, moratorium and similar laws affecting creditors' rights and the enforcement of those rights may be subject to the exercise of judicial discretion in accordance with general principles of equity. Our opinion represents our legal judgment based upon our review of the law and the facts we deem relevant to render such opinion and is not a guarantee of a result. This opinion is given as of the date hereof and we assume no obligation to review or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

Respectfully submitted,

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APPENDIX H

Form of Continuing Disclosure Undertaking

This Continuing Disclosure Undertaking, dated December , 2019 (this "Undertaking" or this "Agreement"), is executed and delivered by the City of Phoenix, Arizona (the "City"), in connection with the issuance of $ City of Phoenix Civic Improvement Corporation Junior Lien Airport Revenue Bonds, Series 2019A (the "Series 2019A Junior Bonds"), $ City of Phoenix Civic Improvement Corporation Junior Lien Airport Revenue Bonds, Series 2019B (the "Series 2019B Junior Bonds" and together with the Series 2019A Junior Bonds, the "Tax-Exempt Bonds") and $ City of Phoenix Civic Improvement Corporation Junior Lien Airport Revenue Refunding Bonds, Taxable Series 2019C (the "Taxable Bonds" and together with the Tax-Exempt Bonds, the "2019 Junior Bonds"). The 2019 Junior Bonds are being issued pursuant to a Trust Indenture, dated as of December 1, 2019 (the "Indenture"), between the City of Phoenix Civic Improvement Corporation (the "Corporation") and U.S. Bank National Association, as trustee (the "Trustee"). The City covenants and agrees as follows:

1. *Purpose of this Undertaking*. This Undertaking is executed and delivered by the City as of the date set forth above, for the benefit of the beneficial owners of the 2019 Junior Bonds and in order to assist the Participating Underwriters in complying with the requirements of the Rule (as defined below). The City represents that it will be the only obligated person with respect to the 2019 Junior Bonds at the time the 2019 Junior Bonds are delivered to the Participating Underwriters and that no other person is expected to become so committed at any time after issuance of the 2019 Junior Bonds.

2. *Definitions*. The terms set forth below shall have the following meanings in this Undertaking, unless the context clearly otherwise requires.

"*Annual Financial Information*" means the financial information and operating data set forth in Exhibit I.

"*Annual Financial Information Disclosure*" means the dissemination of disclosure concerning Annual Financial Information and the dissemination of the Audited Financial Statements as set forth in Section 4.

"*Audited Financial Statements*" means the audited financial statements of the City prepared pursuant to the standards and as described in Exhibit I.

"City Purchase Agreement" means the Junior Lien City Purchase Agreement dated as of December 1, 2019, between the City and the Corporation.

"*Commission*" means the Securities and Exchange Commission.

"*Dissemination Agent*" means any agent designated as such in writing by the City and which has filed with the City a written acceptance of such designation, and such agent's successors and assigns.

"*EMMA*" means the Electronic Municipal Market Access system of the MSRB. As of the date of this Disclosure Undertaking, information regarding submissions to EMMA is available at http://emma.msrb.org.

"*Event*" means the occurrence of any of the events set forth in Exhibit II.

"*Exchange Act*" means the Securities Exchange Act of 1934, as amended.

"*Financial Obligations*" means a debt obligation, a derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation, or a guarantee of a debt obligation or a derivative. The term Financial Obligation shall not include municipal securities as to which a final official statement has been provided to the MSRB consistent with the Rule.

"*Listed Event*" means the occurrence of events set forth in Exhibit II provided that with respect to any Event qualified by the phrase "if material," materially shall be interpreted under the Exchange Act. If an Event is not qualified by the phrase "if material," such Event shall in all cases be material.

"*Listed Events Disclosure*" means dissemination of disclosure concerning a Listed Event as set forth in Section 5.

"*MSRB*" means the Municipal Securities Rulemaking Board.

"*Participating Underwriters*" means each broker, dealer or municipal securities dealer acting as an underwriter in the primary offering of the 2019 Junior Bonds.

"*Rule*" means Rule 15c2-12 adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

"*State*" means the State of Arizona.

"*Undertaking*" means the obligations of the City pursuant to Sections 4 and 5 hereof.

3. *CUSIP Number/Final Official Statement*. The CUSIP Numbers of the 2019 Junior Bonds are as follows:

Series 2019A Junior Bonds

Maturity Date	CUSIP No. *	Coupon
		%

Series 2019B Junior Bonds

Maturity Date	CUSIP No. *	Coupon
		%

Taxable Bonds

Maturity Date	CUSIP No. *	Coupon
		%

* CUSIP® is a registered trademark of the American Bankers Association. CUSIP Global Services ("*CGS*") is managed on behalf of the American Bankers Association by S&P Capital IQ. Copyright© 2017 CUSIP Global Services. All rights reserved. CUSIP® numbers are provided for convenience of reference only. None of the City, the Financial Advisor of the City, the Participating Underwriters or their respective counsel or agents takes responsibility for the accuracy of such numbers.

The Final Official Statement relating to the 2019 Junior Bonds is dated November , 2019 (the "*Final Official Statement*").

4. *Annual Financial Information Disclosure*. Subject to Section 9 of this Undertaking, the City shall disseminate its Annual Financial Information and its Audited Financial Statements, if any, (in the form and by the dates set forth in Exhibit I) to the MSRB through EMMA in an electronic format as prescribed by the MSRB. The City is required to deliver such information in such manner and by such time so that such entities receive the information by the dates specified.

If any part of the Annual Financial Information can no longer be generated because the operations to which it is related have been materially changed or discontinued, the City will disseminate a statement to such effect as part of its Annual Financial Information for the year in which such event first occurs.

If any amendment is made to this Agreement, the Annual Financial Information for the year in which such amendment is made shall contain a narrative description of the reasons for such amendment and its impact on the type of information being provided.

5. *Listed Events Disclosure*. Subject to Section 9 of this Undertaking, the City hereby covenants that it will disseminate in a timely manner not in excess of ten business days after the occurrence of the event, Listed Events Disclosure to the MSRB through EMMA in an electronic format as prescribed by the MSRB. Notwithstanding the foregoing, notice of optional or unscheduled redemption of any of the 2019 Junior Bonds or defeasance of any 2019 Junior Bonds need not be given under this Agreement any earlier than the notice (if any) of such redemption or defeasance is given to the 2019 Junior Bondholders pursuant to the Indenture.

6. *Duty to Update*. The City shall determine, in the manner it deems appropriate, the address of EMMA or such alternate repository specified by the MSRB each time it is required to file information with such entities.

7. *Consequences of Failure of the City to Provide Information*. The City shall give notice in a timely manner and within ten business days after the occurrence of such failure to the MSRB through EMMA, of any failure to provide Annual Financial Information Disclosure in the manner and at the time required.

In the event of a failure of the City to comply with any provision of this Undertaking, the beneficial owner of any 2019 Junior Bond may seek mandamus or specific performance by court order, to cause the City to comply with its obligations under this Undertaking. A default under this Undertaking shall not be deemed an Event of Default under the City Purchase Agreement or the Indenture, and the sole remedy available to 2019 Junior Bondholders under this Undertaking in the event of any failure of the City to comply with this Undertaking shall be an action to compel performance.

8. *Amendments; Waiver*. Notwithstanding any other provision of this Agreement, the City by certified resolution or ordinance authorizing such amendment or waiver, may amend this Undertaking, and any provision of this Undertaking may be waived only if:

(a) The amendment or waiver is made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature, or status of the City, or type of business conducted;

(b) This Undertaking, as amended or affected by such waiver, would have complied with the requirements of the Rule at the time of the primary offering, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver does not materially impair the interests of the beneficial owners of the 2019 Junior Bonds, as determined by parties unaffiliated with the City (such as the Trustee) or by approving vote of the Bondholders pursuant to the terms of the Indenture at the time of the amendment.

The Annual Financial Information containing amended operating data or financial information resulting from such amendment or waiver, if any, shall explain, in narrative form, the reasons for the amendment or waiver and the impact of the change in the type of operating data or financial information being provided. If an amendment or waiver is made specifying the generally accepted accounting principles ("*GAAP*") to be followed in preparing financial statements and such changes are material, the Annual Financial Information for the year in which the change is made shall present a comparison between the financial statements or information prepared on the basis of the new accounting principles. Such comparison shall include a qualitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles in the presentation of the financial information in order to provide information to investors to enable them to evaluate the ability of the City to meet its obligations. To the extent reasonably feasible, such comparison also shall be quantitative. If the accounting principles of the City change or the Fiscal Year of the City changes, the City shall file a notice of such change in the same manner as for a notice of Listed Event.

9. *Termination of Undertaking*. The Undertaking of the City shall be terminated hereunder if the City shall no longer have liability for any obligation on or relating to repayment of a series of the 2019 Junior Bonds under the City Purchase Agreement. The City shall give notice in a timely manner if such event occurs to the MSRB through EMMA in an electronic format as prescribed by the MSRB.

10. *Dissemination Agent*. The City may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Undertaking, and may discharge any such Agent, with or without appointing a successor Dissemination Agent.

11. *Additional Information*. Nothing in this Undertaking shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Undertaking or any other means of communication, or including any other information in any Annual Financial Information Disclosure or a Listed Event Disclosure, in addition to that which is required by this Undertaking. If the City chooses to include any information from any document or notice of occurrence of a Listed Event in addition to that which is specifically required by this Undertaking, the City shall have no obligation under this Undertaking to update such information or include it in any future Annual Financial Information Disclosure or Listed Events Disclosure.

12. *Beneficiaries*. This Undertaking has been executed in order to assist the Participating Underwriters in complying with the Rule; however, this Undertaking shall inure solely to the benefit of the City, the Dissemination Agent, if any, and the beneficial owners of the 2019 Junior Bonds, and shall create no rights in any other person or entity.

13. *Recordkeeping*. The City shall maintain records of all Annual Financial Information Disclosure and Listed Events Disclosure including the content of such disclosure, the names of the entities with whom such disclosure was filed and the date of filing such disclosure.

14. *Assignment*. The City shall not transfer obligations under the City Purchase Agreement unless the transferee agrees to assume all obligations of the City under this Agreement or to execute an Undertaking meeting the requirements of the Rule.

15. *Governing Law*. This Undertaking shall be governed by the laws of the State.

CITY OF PHOENIX, ARIZONA

By: Ed Zuercher
Its City Manager

By: ____
Denise M. Olson
Chief Financial Officer

ATTEST:

By: ____
City Clerk

APPROVED AS TO FORM:

By: ____
City Attorney

EXHIBIT I

ANNUAL FINANCIAL INFORMATION AND AUDITED FINANCIAL STATEMENTS

"Annual Financial Information" means financial information and operating data of the type contained in the Final Official Statement under the following tables or captions:

(1) Table 3 — "City of Phoenix Civic Improvement Corporation Senior Lien Airport Revenue Bonds Outstanding";

(2) Table 4 — "City of Phoenix Civic Improvement Corporation Junior Lien Airport Revenue Bonds Outstanding";

(3) Table 5 — "City of Phoenix, Aviation Department Enterprise Fund Comparative Schedule of Revenues, Expenditures, Historical Debt Service Coverage and Changes in Fund Balances" (most recently completed Fiscal Year);

(4) Table 6 — "Airlines Reporting Enplaned Passengers and Air Cargo" (most recently completed Fiscal Year);

(5) Table 7 — "Total Enplaned Passengers by Airline" (most recently completed Fiscal Year);

(6) "Aviation Capital Improvement Program" (most recent capital improvement program as of the most recently completed Fiscal Year, but excluding Table 9;

(7) Table 10 — "Historical Average Cost Per Enplanement" (most recently completed Fiscal Year);

(8) Table 11 — "Historical PFC Collections" (most recently completed Fiscal Year); and

(9) Table 12 — "PFC Approvals and Revenues".

All or a portion of the Annual Financial Information and the Audited Financial Statements as set forth below may be included by reference to other documents which have been submitted to the MSRB through EMMA or filed with the Commission. If the information included by reference is contained in a Final Official Statement, the Final Official Statement must be available from the MSRB or the Commission. The City shall clearly identify each such item of information included by reference.

Annual Financial Information exclusive of Audited Financial Statements will be provided to the MSRB through EMMA, if any, by February 1 of each year, commencing February 1, 2020. Audited Financial Statements as described below should be filed at the same time as the Annual Financial Information. If Audited Financial Statements are not available when the Annual Financial Information is filed, unaudited financial statements shall be included, to be followed up by Audited Financial Statements when available.

Audited Financial Statements will be prepared according to GAAP, as applied to governmental units as modified by State law.

If any change is made to the Annual Financial Information as permitted by Section 4 of the Undertaking, the City will disseminate a notice of such change as required by Section 4, including changes in Fiscal Year or GAAP.

EXHIBIT II
EVENTS FOR WHICH LISTED EVENTS DISCLOSURE IS REQUIRED

1. Principal and interest payment delinquencies
2. Non-payment related defaults, if material
3. Unscheduled draws on debt service reserves reflecting financial difficulties
4. Unscheduled draws on credit enhancements reflecting financial difficulties
5. Substitution of credit or liquidity providers, or their failure to perform
6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Tax-Exempt Bonds, or other material events affecting the tax status of the Tax-Exempt Bonds
7. Modifications to the rights of 2019 Junior Bondholders, if material
8. Bond calls, if material, and tender offers
9. Defeasances
10. Release, substitution or sale of property securing repayment of the 2019 Junior Bonds, if material
11. Rating changes
12. Bankruptcy, insolvency, receivership or similar event of the City*
13. The consummation of a merger, consolidation, or acquisition involving the City or the sale of all or substantially all of the assets of the City, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material
14. Appointment of a successor or additional trustee or the change of name of a trustee, if material
15. Incurrence of a Financial Obligation of the City, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the City, any of which affect security holders, if material
16. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of the Financial Obligation of the City, any of which reflect financial difficulties

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* The event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the City in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the City, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the City.