

*In the opinion of Squire Patton Boggs (US) LLP, Bond Counsel, under existing law (i) assuming continuing compliance with certain covenants and the accuracy of certain representations, interest on the Series 2018A Bonds is excluded from gross income for federal income tax purposes, except interest on any Series 2018A Bond for any period during which that Series 2018A Bond is held by a “substantial user” of the facilities financed or a “related person,” as those terms are used in Section 147(a) of the Internal Revenue Code of 1986, as amended (the “Code”), and interest on the Series 2018A Bonds is an item of tax preference under Section 57 of the Code and therefore may be subject to the alternative minimum tax imposed under the Code on individuals and, for taxable years beginning before January 1, 2018, corporations; (ii) assuming continuing compliance with certain covenants and the accuracy of certain representations, interest on the Series 2018B Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax; however, interest on the Series 2018B Bonds is included in the calculation of a corporation's adjusted current earnings for purpose of, and thus may be subject to, the corporate alternative minimum tax (applicable only to taxable years beginning before January 1, 2018); and (iii) interest on, and any profit made on the sale, exchange or other disposition of, the Series 2018 Bonds are exempt from all Ohio state and local taxation, except the estate tax, the domestic insurance company tax, the dealers in intangibles tax, the tax levied on the basis of the total equity capital of financial institutions, and the net worth base of the corporate franchise tax. Interest on the Series 2018 Bonds may be subject to certain federal taxes imposed only on certain corporations. See “TAX MATTERS” for a more detailed discussion.*



**\$87,940,000**  
**CITY OF CLEVELAND, OHIO**  
**Airport System Revenue Bonds**  
**Series 2018A (AMT)**

**\$21,745,000**  
**CITY OF CLEVELAND, OHIO**  
**Airport System Revenue Bonds**  
**Series 2018B (Non-AMT)**

**Dated:** Date of Delivery

**Due:** January 1, as shown on inside cover

The Airport System Revenue Bonds, Series 2018A (AMT) (the “Series 2018A Bonds”) and the Airport System Revenue Bonds, Series 2018B (Non-AMT) (the “Series 2018B Bonds, and together with the Series 2018A Bonds, the “Series 2018 Bonds”) are special obligations of the City of Cleveland, Ohio (the “City”) issued under the Indenture (as defined herein) between the City and The Bank of New York Mellon Trust Company, N.A., Cleveland, Ohio, as trustee (the “Trustee”).

The Series 2018A Bonds will be issued to pay a portion of the costs of improvements to the Airport System and capitalized interest, to currently refund a portion of the City's outstanding Airport System Revenue Bonds, Series 2009C (the “Series 2009C Refunded Bonds”), and to pay certain costs of issuance relating to the issuance of the Series 2018A Bonds and the refunding of the Series 2009C Refunded Bonds. The Series 2018B Bonds will be issued to provide funds to pay a portion of the costs of improvements to the Airport System and capitalized interest, and certain costs of issuance related to the issuance of the Series 2018B Bonds. See “PART I – INTRODUCTION – Plan of Finance.” The Series 2018 Bonds are payable on a parity with other series of outstanding Revenue Bonds and any Additional Revenue Bonds issued under the Indenture and are secured by a lien on the Airport Revenues and the Special Funds established under the Indenture, all as more fully described herein. See “PART I – SECURITY FOR THE SERIES 2018 BONDS.”

Interest on the Series 2018 Bonds is payable each January 1 and July 1 (each, an “Interest Payment Date”), beginning January 1, 2019, to the bondholders of record at the close of business on the 15th day next preceding each Interest Payment Date. The Series 2018 Bonds are subject to redemption prior to maturity, as described herein. See “PART I – DESCRIPTION OF THE SERIES 2018 BONDS – Redemption Provisions.”

The scheduled payment of principal of and interest on the (i) the Series 2018A Bonds maturing on January 1 in the years 2034 through 2038, 2043 and 2048, and (ii) the Series 2018B Bonds maturing on January 1 in the years 2035, 2036 through 2038 and 2043 (collectively, the “Insured Series 2018 Bonds”) when due will be guaranteed under an insurance policy (the “Policy”) to be issued concurrently with the delivery of the Insured Series 2018 Bonds by Assured Guaranty Municipal Corp. See “PART I – BOND INSURANCE” herein and APPENDIX F hereto.



The Series 2018 Bonds will be initially issued as fully registered bonds under a book-entry system, and will be registered initially in the name of Cede & Co., as nominee for The Depository Trust Company, New York, New York (“DTC”). Purchases of book-entry interests in the Series 2018 Bonds will be made in denominations of \$5,000 and integral multiples thereof. DTC, or its nominee, will receive all payments with respect to the Series 2018 Bonds from the Trustee. DTC is required by its rules and procedures to remit such payments to participants in DTC for subsequent disbursement to the owners of book-entry interests. Owners of book-entry interests in the Series 2018 Bonds will not receive physical delivery of bond certificates. See “APPENDIX D – BOOK-ENTRY ONLY SYSTEM” hereto.

**The Series 2018 Bonds will be special obligations of the City. Payment of debt service charges on the Series 2018 Bonds will be secured solely by the Airport Revenues and the Special Funds as provided in the Indenture. The Series 2018 Bonds are not general obligations or a pledge of the faith, credit or taxing power of the City, the State of Ohio or any political subdivision thereof. No holder of any Series 2018 Bonds shall have the right to compel the exercise of the City's taxing power or to compel the City to pay debt service charges on the Series 2018 Bonds from any moneys of the City other than the Airport Revenues and Special Funds.**

The Series 2018 Bonds are offered when, as and if issued by the City and accepted by the Underwriters, subject to the opinions on certain legal matters relating to their issuance by Squire Patton Boggs (US) LLP, Bond Counsel, and certain other conditions. Certain legal matters will be passed upon for the City by Barbara A. Langhenry, its Director of Law. Certain legal matters will be passed upon for the Underwriters by their counsel, Bricker & Eckler LLP. It is expected that delivery of the Series Bonds in definitive form will be made to DTC on or about October 4, 2018.

*This cover page contains certain information for quick reference only. It is not a summary of this Official Statement. Investors must read the entire Official Statement to obtain information essential to making an informed investment decision, paying particular attention to the matters discussed in “CERTAIN INVESTMENT CONSIDERATIONS.”*

**MORGAN STANLEY**

**Blaylock Van LLC**

**RBC Capital Markets LLC**

**UBS Financial Services Inc.**

**Raymond James**

**Wells Fargo Securities**

The date of this Official Statement is September 6, 2018, and the information speaks only as of that date.

\* Insured Ratings only

**\$87,940,000**  
**City of Cleveland, Ohio**  
**Airport System Revenue Bonds**  
**Series 2018A (AMT)**

**MATURITY SCHEDULE**

**\$77,105,000 SERIAL BONDS**

Year (January 1)	Principal Maturing	Interest Rate	Price	Yield	CUSIP <sup>1</sup>
2020	\$8,680,000	5.000%	103.632	2.020%	186352RF9
2021	8,965,000	5.000	106.201	2.150	186352RG7
2022	8,840,000	5.000	108.319	2.320	186352RH5
2023	8,920,000	5.000	110.125	2.470	186352RJ1
2024	9,190,000	5.000	111.529	2.630	186352RK8
2025	9,470,000	5.000	112.636	2.780	186352RL6
2026	9,765,000	5.000	113.414	2.930	186352RM4
2027	10,045,000	5.000	114.111	3.050	186352RN2
2034 <sup>3</sup>	705,000	5.000	112.903 <sup>2</sup>	3.430	186352RP7
2035 <sup>3</sup>	735,000	5.000	112.550 <sup>2</sup>	3.470	186352RQ5
2036 <sup>3</sup>	145,000	5.000	112.198 <sup>2</sup>	3.510	186352RR3
2037 <sup>3</sup>	805,000	5.000	111.848 <sup>2</sup>	3.550	186352RS1
2038 <sup>3</sup>	840,000	5.000	111.586 <sup>2</sup>	3.580	186352RT9

**\$4,815,000 5.000% TERM BOND DUE JANUARY 1, 2043<sup>3</sup> YIELD 3.650% PRICE 110.978<sup>2</sup>**  
**CUSIP<sup>1</sup> NO. 186352RU6**

**\$6,020,000 5.000% TERM BOND DUE JANUARY 1, 2048<sup>3</sup> YIELD 3.700% PRICE 110.546<sup>2</sup>**  
**CUSIP<sup>1</sup> NO. 186352RV4**

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<sup>2</sup> Priced to the first optional call date of July 1, 2028 at par.

<sup>3</sup> Insured Bonds.

**\$21,745,000**  
**City of Cleveland, Ohio**  
**Airport System Revenue Bonds**  
**Series 2018B (Non-AMT)**

**MATURITY SCHEDULE**

**\$4,085,000 SERIAL BONDS**

Year (January 1)	Principal Maturing	Interest Rate	Price	Yield	CUSIP <sup>1</sup>
2036 <sup>3</sup>	\$1,720,000	5.000%	113.969 <sup>2</sup>	3.310%	186352RX0
2037 <sup>3</sup>	1,150,000	5.000	113.613 <sup>2</sup>	3.350	186352RY8
2038 <sup>3</sup>	1,215,000	5.000	113.346 <sup>2</sup>	3.380	186352RZ5

**\$2,070,000 3.500% TERM BOND DUE JANUARY 1, 2035<sup>3</sup> YIELD 3.710% PRICE 97.451**  
**CUSIP<sup>1</sup> NO. 186352RW2**

**\$6,930,000 3.750% TERM BOND DUE JANUARY 1, 2043<sup>3</sup> YIELD 3.950% PRICE 96.893**  
**CUSIP<sup>1</sup> NO. 186352SA9**

**\$8,660,000 5.000% TERM BOND DUE JANUARY 1, 2048 YIELD 3.600% PRICE 111.412<sup>2</sup>**  
**CUSIP<sup>1</sup> NO. 186352SB7**

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<sup>1</sup> 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 Global Market Intelligence. Copyright © 2018 CUSIP Global Services. All rights reserved. CUSIP® data herein is being provided solely for the convenience of the owners of the Series 2018B Bonds only at the time of issuance of the Series 2018B Bonds, and the City and the Underwriters do not make any representation with respect to such data or undertake any responsibility for its accuracy now or at any time in the future. The CUSIP® number for a specific maturity is subject to being changed after the issuance of the Series 2018B Bonds as a result of procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Series 2018B Bonds.

<sup>2</sup> Priced to the first optional call date of July 1, 2028 at par.

<sup>3</sup> Insured Bonds.

**CITY OF CLEVELAND, OHIO  
AIRPORT SYSTEM**

**MAYOR**  
FRANK G. JACKSON

**PRESIDENT OF COUNCIL**  
KEVIN J. KELLEY

**COUNCIL TRANSPORTATION COMMITTEE**

*Chairman*  
PHYLLIS CLEVELAND

**DEPARTMENT OF FINANCE**

*Director of Finance*  
SHARON DUMAS

**DEPARTMENT OF PORT CONTROL**

*Director of Port Control*  
ROBERT W. KENNEDY

**DEPARTMENT OF LAW**

*Director of Law*  
BARBARA A. LANGHENRY

**BOND COUNSEL**

Squire Patton Boggs (US) LLP  
Cleveland, Ohio

**FINANCIAL ADVISORS**

Government Capital Management, L.L.C.  
Rutherford, New Jersey

**TRUSTEE/ESCROW TRUSTEE**

The Bank of New York Mellon Trust  
Company, N.A.  
Cleveland, Ohio

Phoenix Capital Partners, LLP  
Philadelphia, Pennsylvania

**AIRPORT CONSULTANT**

Peregrine Advisors, LLC  
Denver, Colorado

**INDEPENDENT AUDITOR**

Clark, Schaefer, Hackett & Co.  
Cincinnati, Ohio

**VERIFICATION AGENT**

Causey Demgen & Moore P.C.

## **PART I**

### **REGARDING THIS OFFICIAL STATEMENT**

This Official Statement does not constitute an offering of any security other than the original offering of the Series 2018 Bonds identified on the cover hereof. No person has been authorized by the City, other than the Director of Finance of the City, or the Underwriters to give any information or to make any representation, other than as contained in this Official Statement. Any other information or representation should not be relied upon as having been given or authorized by the City or the Underwriters. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, and there shall not be any sale of the Series 2018 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 in this Official Statement are subject to change without notice. Neither the delivery of this Official Statement nor any sale made hereunder shall create, under any circumstances, or give rise to any implication that there has been no change in the affairs of the City since its date.

Any statements made in this Official Statement which involve opinions or estimates, whether expressly stated to be such, are made as such and are not representations of fact or certainty, and no representation is made that any of those statements have been or will be realized. Information in this Official Statement that has been derived by the City from its officials and other sources is believed to be accurate and reliable. Information other than that obtained from official records of the City has not been independently confirmed or verified by the City, and its accuracy is not guaranteed.

This Official Statement contains statements which, to the extent they are not recitations of historical fact, constitute “forward-looking statements.” The words “estimate,” “project,” “anticipate,” “expect,” “intend,” “believe,” and similar expressions are intended to identify forward-looking statements. A number of factors affecting the City’s financial results could cause actual results to differ materially from those stated in the forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof.

**THE COVER PAGE CONTAINS CERTAIN INFORMATION FOR QUICK REFERENCE ONLY. IT IS NOT A SUMMARY OF THIS ISSUE. INVESTORS MUST READ THE ENTIRE OFFICIAL STATEMENT TO OBTAIN INFORMATION ESSENTIAL TO THE MAKING OF AN INFORMED INVESTMENT DECISION.**

THE SERIES 2018 BONDS HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND THE INDENTURE HAS NOT BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939, IN RELIANCE UPON EXEMPTIONS CONTAINED IN SUCH ACTS. THE REGISTRATION OR QUALIFICATION OF THE SERIES 2018 BONDS IN ACCORDANCE WITH APPLICABLE PROVISIONS OF SECURITIES LAWS OF THE STATES IN WHICH THE SERIES 2018 BONDS HAVE BEEN REGISTERED OR QUALIFIED AND THE EXEMPTION FROM REGISTRATION OR QUALIFICATION IN OTHER STATES CANNOT BE REGARDED AS A RECOMMENDATION THEREOF. NEITHER THE U.S. 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 SERIES 2018 BONDS FOR SALE. ANY REPRESENTATION TO THE CONTRARY MAY BE A CRIMINAL OFFENSE.

The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibilities to investors under federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

Assured Guaranty Municipal Corp. (“AGM” or the “Bond Insurer”) makes no representation regarding the Insured Series 2018 Bonds or the advisability of investing in the Insured Series 2018 Bonds. In addition, the Bond Insurer has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading “PART I – BOND INSURANCE” and “APPENDIX F – SPECIMEN MUNICIPAL BOND INSURANCE POLICY.”

**In connection with this offering of the Series 2018 Bonds, the Underwriters may overalloc or effect transactions that stabilize or maintain the market prices of the Series 2018 Bonds at levels above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time without prior notice. The prices and other terms of the offering and sale of the Series 2018 Bonds may be changed from time to time by the Underwriters after the Series 2018 Bonds are released for sale, and the Series 2018 Bonds may be offered and sold at prices other than the initial offering prices, including sales to dealers, without prior notice.**

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## OFFICIAL STATEMENT

### *Relating to*

**\$87,940,000**  
**City of Cleveland, Ohio**  
**Airport System Revenue Bonds**  
**Series 2018A (AMT)**

**\$21,745,000**  
**City of Cleveland, Ohio**  
**Airport System Revenue Bonds**  
**Series 2018B (Non-AMT)**

## INTRODUCTION

The City of Cleveland, Ohio (the “City”) is furnishing this Official Statement to provide certain information in connection with the issuance and sale by the City of its: (a) \$87,940,000 Airport System Revenue Bonds, Series 2018A (AMT) (the “Series 2018A Bonds”); and its (b) \$21,745,000 Airport System Revenue Bonds, Series 2018B (Non-AMT) (the “Series 2018B Bonds”, and together with the Series 2018A Bonds, the “Series 2018 Bonds”). All terms, unless otherwise defined herein, shall have the meanings given to them in “APPENDIX B – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE.”

The Series 2018 Bonds are special obligations of the City. Payment of the principal of and interest on the Series 2018 Bonds will be payable solely from the revenues and other moneys assigned and pledged by the Indenture. For further information regarding the Series 2018 Bonds, see “Description and Purpose of the Series 2018 Bonds” below.

This Official Statement should be considered in its entirety and no one subject considered less important than another by reason of its location in the text. Descriptions of instruments, including, without limitation, the Series 2018 Bonds, the Indenture and the Use Agreements, are qualified by reference to the entire text of those instruments, and reference should be made to laws, reports or documents referred to in this Official Statement for more complete information regarding their content. Copies of the Indenture and the Use Agreements are available at the designated office of The Bank of New York Mellon Trust Company, N.A. (the “Trustee”), which is the Trustee’s Cleveland office located at 1660 West Second Street, Suite 830, Cleveland, Ohio 44113.

References to provisions of Ohio law or of the Ohio Constitution are references to such provisions in effect on the date hereof. Those provisions may be amended, repealed or supplemented.

### **The City and the Airport System**

The City is a municipal corporation and political subdivision of the State of Ohio. The City’s Department of Port Control operates Cleveland Hopkins International Airport (the “Airport”) and Burke Lakefront Airport (“Burke”), which together comprise the City’s Airport System (the “Airport System”). The Airport is the primary commercial service airport for northeastern Ohio. For detailed information relating to the City and the Airport System, see “PART II – THE CITY” and “PART II – THE AIRPORT SYSTEM.”

### **Description and Purpose of the Series 2018 Bonds**

The Series 2018 Bonds are issued under and secured by the Amended and Restated Trust Indenture (Seventeenth Supplemental Trust Indenture dated as of November 1, 2011) that became effective January 31, 2012 (referred to herein as the “Trust Indenture”), between the City and the Trustee,

as it has been heretofore supplemented and as it is further supplemented by the Twenty-Third Supplemental Trust Indenture dated October 4, 2018 relating to the proposed issuance of the Series 2018 Bonds (the “Twenty-Third Supplemental Indenture”, together with the Trust Indenture as it has been heretofore supplemented, the “Indenture”). The Series 2018 Bonds are issued under authority of the Ohio Constitution and the laws of the State of Ohio, the Charter of the City, Ordinance No. 1364-17, passed by the Council of the City (“Council”) on November 20, 2017, Ordinance No. 666-18, passed by Council on May 21, 2018, and the Certificate of Award executed by the Director of Finance of the City pursuant to those Ordinances.

The City is issuing: (a) the Series 2018A Bonds, to pay a portion of the costs of improvements to the Airport System and capitalized interest, to currently refund a portion of the City’s Airport System Revenue Bonds, Series 2009C (Non-AMT) issued on August 11, 2009 (the “Series 2009C Refunded Bonds”) to generate debt service savings, and to pay certain other costs related to the issuance of the Series 2018A Bonds and the refunding of the Series 2009C Refunded Bonds, and (b) the Series 2018B Bonds, to pay a portion of the costs of improvements to the Airport System and capitalized interest to pay certain other costs related to the issuance of the Series 2018B Bonds. See “PART I – INTRODUCTION – Plan of Finance” herein.

### **Terms of the Series 2018 Bonds**

The Series 2018 Bonds will bear interest payable on January 1 and July 1 of each year, (each, an “Interest Payment Date”) commencing January 1, 2019, at the respective interest rates shown on the inside front cover pages of this Official Statement, calculated on a basis of twelve 30-day months, and will be subject to redemption prior to maturity as described herein. See “PART I – DESCRIPTION OF THE SERIES 2018 BONDS.”

### **Security for the Series 2018 Bonds**

In the Trust Indenture, the City pledges and grants to the Trustee a first lien on Airport Revenues and the moneys in the Special Funds to the payment of the debt service charges on all Revenue Bonds issued under the Trust Indenture, including the Outstanding Bonds described herein, the Series 2018 Bonds, and any other Additional Revenue Bonds. See “PART I – SECURITY FOR THE SERIES 2018 BONDS – Pledge of Airport Revenues” and “APPENDIX B – SUMMARY OF CERTAIN PROVISIONS OF THE TRUST INDENTURE – Pledge of Airport Revenues.”

**The Series 2018 Bonds are special obligations of the City and do not constitute general obligations or a pledge of the faith, credit or taxing power of the City, the State of Ohio or any political subdivision thereof. The Series 2018 Bonds are payable on a parity with the Outstanding Bonds and any Additional Revenue Bonds issued under the Indenture, and are secured by a lien on the Airport Revenues and the Special Funds as provided in the Indenture. Holders of the Series 2018 Bonds do not have the right to compel taxation in any form or to compel the City to pay debt service charges on the Series 2018 Bonds from any moneys of the City other than Airport Revenues and the Special Funds. Neither the land nor improvements comprising the Airport System nor any other property of the City, other than the Airport Revenues and the Special Funds, has been pledged to secure the payment of the Series 2018 Bonds.**

### **Bond Insurance for Insured Series 2018 Bonds**

The scheduled payment of principal of and interest on the Insured Series 2018 Bonds when due is guaranteed by a municipal bond insurance policy (the “Policy”) issued concurrently with the original

delivery of the Series 2018 Bonds by Assured Guaranty Municipal Corp. (“AGM” or the “Bond Insurer”). See “PART I – BOND INSURANCE.”

### **Outstanding and Additional Revenue Bonds**

Upon compliance with certain conditions set forth in the Trust Indenture and the Use Agreements (defined below), the City may issue additional series of Revenue Bonds payable on a parity with the Series 2018 Bonds and the Outstanding Bonds with respect to Airport Revenues and the moneys in the Special Funds (the “Additional Revenue Bonds”). See “PART I – SECURITY FOR THE SERIES 2018 BONDS – Additional Revenue Bonds.”

Under the Trust Indenture and the Use Agreements, the City also may issue or incur Subordinated Indebtedness. Debt service charges on Subordinated Indebtedness are payable from and secured by Airport Revenues on a basis subordinate to the payment of debt service charges on Revenue Bonds. There is currently no Subordinated Indebtedness outstanding. See “APPENDIX B – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE.”

After the issuance of the Series 2018 Bonds, there will be \$675,255,000 aggregate principal amount of Outstanding Revenue Bonds that were issued pursuant to the Trust Indenture and are secured by the Airport Revenues and the moneys in the Special Funds. See “PART II – AIRPORT FINANCIAL INFORMATION – Outstanding Bonds.”

### **Airport Use Agreements**

The City enters into use and lease agreements (the “Agreement and Lease” also commonly referred to as the “Use Agreements”) that govern the use of the Airport by airlines which are parties to such agreements (the “Scheduled Airlines,” also commonly referred to as the “Signatory Airlines”).

Pursuant to Ordinance No. 1162-16, passed by City Council on October 24, 2016, the City entered into a new Agreement and Lease with the Scheduled Airlines effective January 1, 2017. The new Agreement and Lease replaced the original use agreement that was entered into in 1976 and amended in 2006 that had expired on December 31, 2015 and was operating on a month-to-month basis. The new Agreement and Lease expires on December 31, 2021 and contains two, two-year options that are executable upon mutual agreement between the City and the majority of Scheduled Airlines. Eight passenger airlines (Allegiant, American, Delta, Frontier, JetBlue, Spirit, Southwest, and United) and two cargo carriers (FedEx and UPS) serving the Airport are party to the new Agreement and Lease. (The ten Scheduled Airlines represented 98.8% of total enplaned passengers at the Airport in Fiscal Year 2017 and 98.7% of total enplaned passengers at the Airport for the first five months of Fiscal Year 2018.) Airlines serving the Airport that are not Scheduled Airlines pay the same rates and charges as the Scheduled Airlines, but with a 25% administrative fee added to their payments.

The Agreement and Lease establishes procedures for the periodic review and adjustment of the terminal building space rental rates and landing fees paid by the Scheduled Airlines, as well as other airlines serving the Airport who are not party to the Agreement and Lease. The Airport operates under a “cost-center residual cost” formula for setting initial terminal building rental fee rates, and an “Airport System residual cost” formula for calculating landing fees. Terminal building rental rates and landing fee rates are adjusted annually to produce Airport Revenues sufficient to meet the Rate Covenant, as discussed in the next section. One change in the new Agreement and Lease as compared to the prior agreement was to transition to similar rental rates across all of the concourse-related leased premises. The use of similar rental rates negates any favorable rental rate levels from air carriers operating in different

concourse areas of the terminal building. All leased premises represented in the Agreement and Lease are on a preferential use basis that allows the City to accommodate any air carrier requiring space (either new entry or expanded) on existing leased premises of the Scheduled Airlines. In order to achieve access and balanced utilization of Airport gate/holdroom facilities the City can consider multiple factors, including but not limited to, the average number of flight arrivals and departures per gate position.

The City frequently evaluates Airport Revenue requirements during each fiscal year and historically has taken action in a timely manner to adjust rates and charges accordingly to meet the Rate Covenant. Pursuant to the Agreement and Lease, if at any time during the fiscal year Airport Revenues are insufficient to cover the costs of operating the Airport System, the City may, upon providing 90 days' notice to the Scheduled Airlines, increase landing fees. In recent years, the City has also adjusted (both increased and decreased) certain non-airline revenue credits (the "Passenger Credit") to the Scheduled Airlines based on actual operating performance during the fiscal year. Given the airport-residual nature of the Airport's rate-making methodology, actual revenues and operating expenses are subject to a year-end reconciliation that may result in a credit to/deficit due from the Scheduled Airlines.

The Agreement and Lease also establishes voting rights of the Scheduled Airlines (so-called Majority-In-Interest provisions) for the funding of certain capital projects at the Airport. The Scheduled Airlines may elect to not approve capital improvements that will be funded through rentals, fees and charges and that will require the commitment by the City for the purchase or construction of (i) a single item at a cost of \$500,000 or more, or (ii) items that in the aggregate cost in excess of \$2,000,000. If such capital improvements are not approved, the City may still budget the cost of such capital improvements for the next Fiscal Year under certain circumstances (e.g., to comply with a rule, regulation or order of any federal or state agency). The new Agreement and Lease also slightly modified approval thresholds required to be obtained from the Scheduled Airlines. Majority-In-Interest ("MII") approval for projects is defined, either as: (i) 50% or more in number of all the Scheduled Airlines, which percentage has, on the date in question, more than 50% of the aggregate by Maximum Landing Weight of Aircraft Arrivals of all Scheduled Airlines at the Airport during the latest twelve-month period for which such figures are available as to all Scheduled Airlines; or, alternatively, (ii) 40% or more in number of all Scheduled Airlines, which percentage has, on the date in question, more than 55% of the aggregate by Maximum Landing Weight of Aircraft Arrivals of all Scheduled Airlines at the Airport during the latest twelve-month period for which such figures are available as to all Scheduled Airlines.

The new Agreement and Lease also increased the annual amounts deposited to the Airport Development Fund, a discretionary funding source to be used by the City for any Airport System purpose. Beginning in Fiscal Year 2017 this amount was increased to \$10 million (from \$7.0 million in the prior Fiscal Year) and from Fiscal Year 2018 to Fiscal Year 2021 the annual deposit will further increase to \$12 million.

For more information on the terms of the Agreements and Lease, see "PART II – THE AIRPORT SYSTEM," "PART II – THE AVIATION SECTOR," "PART II – AIRPORT FINANCIAL INFORMATION – Principal Sources of Revenues" and "APPENDIX B – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE."

### **Special Facility Leases**

In addition to the Agreement and Lease, United Airlines is also a party to two long-term operating leases associated with certain terminal-related facilities at the Airport, including portions of Concourse C and Concourse D. Continental Airlines ("Continental") entered into the 1989 Special Facilities Lease and 1997 Special Facilities Lease (together, the "Original Special Facilities Leases") with

the City as part of the development of those Continental-specific facilities funded by Special Revenue Bonds. The Original Special Facilities Leases provide for full cost recovery (associated operating expenses and debt service requirements) of the areas operated under such leases by United Airlines. The Special Revenue Bonds are not part of the City's outstanding Airport System Revenue Bonds and, therefore, are excluded from Rate Covenant, Additional Bonds Test and other provisions of the Indenture. See "PART I – SECURITY FOR THE SERIES 2018 BONDS – Special Revenue Bonds." All Special Revenue Bonds related to Concourse C have been redeemed and are no longer outstanding.

As a result of United Airlines' decreased operation at the Airport, United Airlines consolidated its operations at the Airport on Concourse C, and the Airport shuttered Concourse D in June 2014. As a result, the City and United Airlines negotiated amended and restated Original Special Facilities Leases (the "Amended Special Facilities Leases") pertaining to United Airlines' operations on Concourse C, and the continued payment of debt service requirements on Special Revenue Bonds related to Concourse D and the payment by United Airlines of direct operating and maintenance costs related to Concourse D. The Amended Special Facilities Leases became effective on January 1, 2016 and expire on May 31, 2029, or earlier, should the premises be relet under substantially similar economic terms and agreed to by the City.

United Airlines' leased premises on Concourse C include more than 93,000 square feet of gate/holdroom space, offices, the United Airlines club lounge, and baggage handling areas. Those areas contained within Concourse C are used to reflect United Airlines' leased premises for purposes of calculating annual rates and charges at the Airport. Beginning on January 1, 2019 and every two years thereafter, United Airlines may seek permission from the City to return up to 15% of its leased premises in Concourse C. The City is under no obligation to permit United Airlines to return any of the leased premises prior to the expiration date of the Amended Special Facilities Leases.

### **Report of the Airport Consultant**

The City has retained Peregrine Advisors, LLC, as airport consultant (the "Airport Consultant"). The Report of the Airport Consultant, dated August 30, 2018 (the "Report of the Airport Consultant") is included herein as APPENDIX A and should be read in its entirety for a complete discussion of historical and forecast Airport Revenues, Operating Expenses and net revenues, and the assumptions and rationale underlying the forecasts. The Report of the Airport Consultant reflects the estimated principal amount of the Series 2018 Bonds to be issued and the estimated debt service charges on the Series 2018 Bonds. The Airport Consultant has concluded that the Additional Bonds Test (as defined herein) in connection with the issuance of the Series 2018 Bonds is met for Fiscal Years 2018 through 2022. See "APPENDIX A – REPORT OF THE AIRPORT CONSULTANT."

### **CAPITAL IMPROVEMENT PROGRAM**

The Airport maintains an ongoing Capital Improvement Program ("CIP") for the Airport System. Airport management has identified \$148.4 million of capital projects that are being funded from 2018 to 2022 (including in part by the Series 2018 Bonds) and are described in "PART II – THE AIRPORT SYSTEM – Capital Improvement Plan" and "PART II – THE AIRPORT SYSTEM – Five-Year CIP Projects."

## PLAN OF FINANCE

### Series 2018A Bonds

The proceeds of the Series 2018A Bonds, together with the other available funds held by the Trustee, will be used to pay a portion of the costs of improvements to the Airport System and capitalized interest, to currently refund the Series 2009C Refunded Bonds and to pay certain costs of issuance and costs of refunding the Series 2009C Refunded Bonds. See “PART I – SOURCES AND USES OF FUNDS.” The Series 2009C Refunded Bonds are currently outstanding in the principal amount of \$80,505,000 and are described as follows:

#### Series 2009C Refunded Bonds

<u>Maturity (January 1)</u>	<u>Amount</u>	<u>Interest Rate</u>	<u>CUSIP No.</u>
2020	\$5,450,000	4.000%	186352 NR7
2020	4,025,000	5.000	186352 NJ5
2021	5,745,000	4.250	186352 NK2
2021	4,000,000	5.000	186352 NS5
2022	7,120,000	4.500	186352 NP1
2022	2,500,000	5.000	186352 NZ9
2023	3,270,000	4.750	186352 NQ9
2023	6,430,000	5.000	186352 NT3
2027	41,965,000	5.000	186352 NV8

The Series 2009C Refunded Bonds are subject to prior redemption in whole or in part on any date, on or after January 1, 2019, at a redemption price equal to 100% of the principal amount redeemed plus interest accrued to the redemption date (the “Series 2009C Redemption Price”). On the date of delivery of the Series 2018A Bonds, the Trustee will cause notice of prior redemption of the Series 2009C Refunded Bonds to be given in accordance with the terms of the Series 2009C Refunded Bonds, and the Series 2009C Refunded Bonds will be redeemed on January 1, 2019 (the “Series 2009C Redemption Date”).

Proceeds of the Series 2018A Bonds will be deposited with the Trustee, in its capacity as Escrow Trustee under the Escrow Agreement dated October 4, 2018 (the “Series 2009C Escrow Agreement”) between the City and the Escrow Trustee. Certain moneys on deposit in the Bond Service Fund and the Bond Service Reserve Fund held by the Trustee under the Indenture will be transferred to the 2009C Escrow Fund established under the Series 2009C Escrow Agreement in the custody of the Escrow Trustee. The amounts so deposited in escrow (the “Series 2009C Escrow Deposit”) will be certified by the Verification Agent (as described herein) to be sufficient, together with interest and earnings therefrom, for the payment of the Series 2009C Redemption Price of the Series 2009C Refunded Bonds on the Series 2009C Redemption Date.

Irrevocable instructions will be given by the City to the Trustee in the Series 2009C Escrow Agreement to redeem the Series 2009C Refunded Bonds on the Series 2009C Redemption Date. Upon the Trustee’s receipt of the Series 2009C Escrow Deposit, the report of the Verification Agent and the irrevocable redemption instructions of the City, the Series 2009C Refunded Bonds will be deemed paid and discharged and no longer Outstanding under the Trust Indenture and the lien of the Trust Indenture will be released with respect to the Series 2009C Refunded Bonds.



## Series 2018B Bonds

The proceeds of the Series 2018B Bonds, together with the other available funds held by the Trustee, will be used to pay a portion of the costs of improvements to the Airport System and capitalized interest, and to pay certain costs of issuance. See “PART I – SOURCES AND USES OF FUNDS.”

### ESTIMATED SOURCES AND USES OF FUNDS

The following table sets forth the estimated sources and uses of funds in connection with the Series 2018 Bonds:

<u>Sources of Funds</u>	<b>Series 2018A</b>	<b>Series 2018B</b>
Principal Amount of Bonds	\$87,940,000.00	\$21,745,000.00
Net Original Issue Premium	9,050,252.65	1,279,170.00
Transfer from other funds	<u>1,530,975.61</u>	<u>0.00</u>
Total Sources	<u>\$98,521,228.26</u>	<u>\$23,024,170.00</u>
 <u>Uses of Funds</u>		
Deposit to Escrow Fund	\$82,034,891.42	
Deposit to Project Fund	14,150,000.00	\$20,600,000.00
Deposit to Capitalized Interest Fund	1,224,827.08	2,092,666.04
Costs of Issuance <sup>1</sup>	<u>1,111,509.76</u>	<u>331,503.96</u>
Total Uses	<u>\$98,521,228.26</u>	<u>\$23,024,170.00</u>

### SECURITY FOR THE SERIES 2018 BONDS

#### Pledge of Airport Revenues

In the Trust Indenture, the City has pledged and granted to the Trustee a first lien on the Airport Revenues and the moneys in the Special Funds as security for the payment of the debt service charges on all Revenue Bonds issued and outstanding under the Trust Indenture. “Airport Revenues” means generally all rentals, charges, landing fees, use charges and parking and concession revenues received by the City in connection with the City’s operation of the Airport System. In accordance with the flow of funds set forth in the Trust Indenture, Airport Revenues are to be used to pay Bond Service Charges on Revenue Bonds prior to the payment of Operating Expenses. See “Allocation of Airport Revenues to Special Funds” set forth below. Passenger Facility Charges (“PFCs”) received by the City are not included in Airport Revenues, but are being used by the City for the payment of debt service charges on certain Revenue Bonds, including eligible debt service charges on the Series 2018 Bonds. For a discussion of PFCs, see “PART II – THE AIRPORT SYSTEM – Capital Improvement Plan.” Among the Special Funds established by the Trust Indenture is the Bond Service Reserve Fund that is to be used for the payment of the maturing principal of and interest on the Revenue Bonds secured thereby (including the Series 2018 Bonds), when moneys in the Bond Service Fund and certain other Special Funds are insufficient therefor. See “Bond Service Reserve Fund” below.

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<sup>1</sup> Costs of issuance include costs of underwriting, legal, printing, advisory and rating agency fees, Trustee fees, Verification Agent fees, bond insurance, financial and other miscellaneous fees and expenses. See “UNDERWRITING.”

## **Special Obligations**

**The Series 2018 Bonds are special obligations of the City and do not constitute general obligations or a pledge of the faith, credit or taxing power of the City, the State of Ohio or any political subdivision thereof. The Series 2018 Bonds are payable on a parity with the Outstanding Bonds and any Additional Revenue Bonds that may be issued under the Trust Indenture, and are secured by a pledge of and lien on the Airport Revenues and the Special Funds as provided in the Trust Indenture. Holders of the Series 2018 Bonds do not have the right to compel taxation in any form or to compel the City to pay debt service charges on the Series 2018 Bonds from any moneys of the City other than Airport Revenues and the Special Funds. Neither the land nor improvements comprising the Airport System nor any other property of the City, other than Airport Revenues and the Special Funds, has been pledged to secure the payment of the Series 2018 Bonds.**

## **Rate Covenant**

In the Trust Indenture, the City covenants to prescribe and to charge such rates, fees and charges for the use of the Airport System to produce in each Fiscal Year Airport Revenues, together with Other Available Funds, less Operating Expenses, at least equal to 125% of the amount maturing and becoming due in such Fiscal Year for the payment of principal of and interest on all outstanding Revenue Bonds (the “Rate Covenant”). (An alternative coverage ratio applies if there is General Obligation Debt outstanding for the Airport System. Currently there is none outstanding.) See “APPENDIX B – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE” for definitions of Airport Revenues, Other Available Funds and Operating Expenses and for a description of the assumptions to be made for computing debt service charges with respect to Revenue Bonds that bear interest at variable rates.

## **Allocation of Airport Revenues to Special Funds**

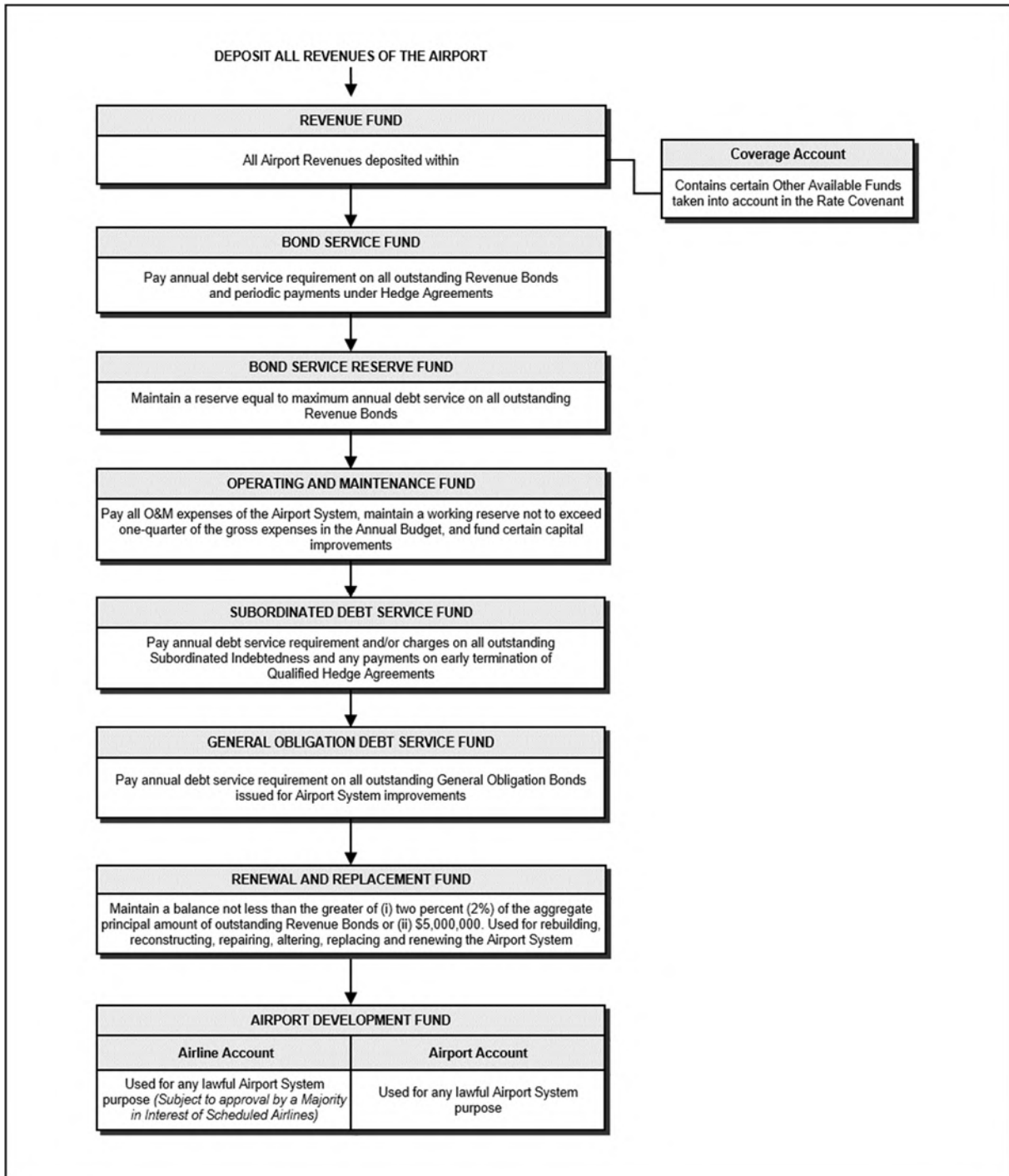
Under the Trust Indenture, all Airport Revenues are to be paid directly to the Trustee and deposited by the Trustee in the Revenue Fund, one of the Special Funds created by the Trust Indenture and held by the Trustee. Beginning on the first day of each month, the Trustee transfers Airport Revenues in the Revenue Fund to the other Special Funds as follows (see also Figure 1. Flow of Funds, below):

- *First*, to the Bond Service Fund to (i) provide for the payment of debt service charges on outstanding Revenue Bonds and (ii) to pay periodic, interest-equivalent payments under (but not any amounts owed for early termination of) Hedge Agreements. (The City has no Hedge Agreements in place with respect to its Airport System Revenue Bonds.)
- *Second*, to the Bond Service Reserve Fund to maintain a reserve for debt service equal to the maximum annual debt service charges to be paid on all outstanding Revenue Bonds secured by the Bond Service Reserve Fund in any Fiscal Year.
- *Third*, to the Operating and Maintenance Fund to pay all Operating Expenses of the Airport System, maintain a working capital reserve and fund certain capital improvements.
- *Fourth*, to the Subordinated Debt Service Fund to provide for the payment of debt service charges on any Subordinated Indebtedness and any amount owed on early termination of a Qualified Hedge Agreement. (The City has no Subordinated Indebtedness outstanding, and has no Qualified Hedge Agreements in place with respect to its Airport System Revenue Bonds.)

- *Fifth*, to the General Obligation Debt Service Fund to provide for the payment of debt service charges on any General Obligation Debt outstanding with respect to the Airport System. (The City has no General Obligation Debt outstanding with respect to the Airport System Revenue Bonds.)
- *Sixth*, to the Renewal and Replacement Fund to maintain a reserve equal to the greater of (i) 2.00% of the aggregate principal amount outstanding of Airport Revenue Bonds, or (ii) \$5,000,000. Monies in the Renewal and Replacement Fund may be used at the City's discretion to pay for the costs of rebuilding, reconstructing, repairing, altering, replacing and renewing the Airport System. As of August 31, 2018, there was a balance of \$22,296,636.82 in the Renewal and Replacement Fund which exceeded the fund requirement by \$8,791,536.82.
- *Seventh*, to the Airport Development Fund, after making the deposits provided in the funds above, to the Airport Account and the Airline Account therein, the amount determined annually in accordance with the Use Agreements. Pursuant to the current Use Agreements, an annual amount not to exceed \$12,000,000 shall be deposited in the Airport Account of the Airport Development Fund in equal monthly installments. Money in the Airport Development Fund may be used for any Airport System purpose. Money in the Airport Account may be used at the discretion of the City. Upon the approval of a Majority in Interest of the Scheduled Airlines, money may also be deposited in the Airline Account of the Airport Development Fund to be used for certain capital improvements within the Airport System. As of July 31, 2018, there was a balance of \$16,297,586 in the Airport Account of the Airport Development Fund.

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**Figure 1. Flow of Funds**



### **Bond Service Reserve Fund**

The Trust Indenture requires that the balance in the Bond Service Reserve Fund equal the Required Bond Service Reserve. Under the Trust Indenture, the Required Bond Service Reserve is defined as an amount equal to the maximum annual debt service charges on all Revenue Bonds secured by the Bond Service Reserve Fund. As of July 31, 2018, the balance in the Bond Service Reserve Fund

was \$72,368,912. Following the issuance of the Series 2018 Bonds, the Required Bond Service Reserve requirement will be \$71,808,908.50. See “PART I – INTRODUCTION – Sources and Uses of Funds.” Although the Trust Indenture permits the City to use credit instruments for funding the Bond Service Reserve Fund, currently it is funded solely with cash and investments.

All series of Outstanding Bonds are, and the Twenty-Third Supplemental Indenture provides that the Series 2018 Bonds will be, secured by the Bond Service Reserve Fund. Moneys in the Bond Service Reserve Fund shall be used only for the purpose of payment when due of principal of or interest on the Revenue Bonds secured thereby when the moneys in the Bond Service Fund and the other Special Funds are insufficient therefor. Amounts withdrawn from the Bond Service Reserve Fund must be restored from the first receipts of Airport Revenues available after the required deposits have been made to the Bond Service Fund as provided in the Trust Indenture.

The Trust Indenture permits any supplemental indenture providing for the issuance of any series of Additional Revenue Bonds to provide that such series of Revenue Bonds be secured by a separate reserve fund or, alternatively, if the City maintains a rating on outstanding Revenue Bonds determined without regard to the issuance of credit enhancement (an underlying rating), that no reserve fund be established for that particular series of Revenue Bonds. Any Additional Revenue Bonds secured by a separate reserve fund or not secured by a reserve fund will not have a lien on the Bond Service Reserve Fund, and debt service charges on such Additional Revenue Bonds will not be included in computing the Required Bond Service Reserve. Subject to certain restrictions and conditions set forth therein, the Trust Indenture also permits the City to satisfy the Required Bond Service Reserve in whole or in part with the deposit of a surety bond, insurance policy, letter of credit or other instrument, in lieu of a cash deposit. For additional information relating to the Bond Service Reserve Fund, see “APPENDIX B – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE.”

### **Renewal and Replacement Fund**

The Trust Indenture requires the City to maintain a balance in the Renewal and Replacement Fund in an amount not less than the greater of (i) 2% of the aggregate principal amount of outstanding Revenue Bonds (\$13,505,100 after the issuance of the Series 2018 Bonds), or (ii) \$5,000,000. In the event that the balance in the Renewal and Replacement Fund falls below the required amount, monthly deposits are to be made to that Fund to restore the balance to the required amount within 60 months.

As of August 31, 2018, there was a balance in that Fund of \$22,296,637, which exceeded the Renewal and Replacement Fund requirement by \$8,791,537 (the “Excess Amount”). Of that Excess Amount, \$7,198,689 was committed to fund the costs of projects and \$1,592,848 remained uncommitted.

### **Airport Development Fund**

The Airport Development Fund was created in 2006 in connection with the 2006 amendment to the original Use Agreements with the Signatory Airlines. The Airport Development Fund contains two accounts, the Airport Account and the Airline Account. As of July 31, 2018, there was a cash balance in the Airport Account of the Airport Development Fund of \$16,297,586. Of that amount, \$10,753,685 is currently committed to fund the costs of projects and \$5,543,901 remains unencumbered. There is no amount currently on deposit in the Airline Account of the Airport Development Fund.

Annual deposits are to be made to the Airport Account of the Airport Development Fund in an amount not to exceed \$12,000,000 in equal monthly installments from the balance remaining in the

Operating and Maintenance Fund after all other deposits have been made pursuant to the Trust Indenture and the Use Agreements.

Money in the Airport Account may be spent by the City at its discretion for any Airport System purpose. Money in the Airline Account may be spent by the City at the direction of a Majority In Interest of the Signatory Airlines for any Airport System purpose. However, no prior consent is required for the transfer of money from either the Airport Account or the Airline Account to another Special Fund.

Subject to certain provisions of the Use Agreements, the Signatory Airlines and the City may agree, in connection with the preparation of the Annual Reports for any Additional Term, that amounts on deposit in the Airline Account and/or the Airport Account of the Airport Development Fund will be made available as Other Available Funds in the calculation of the landing fee for that Additional Term to aid in the reduction of airline rates and charges. Amounts to be made available as Other Available Funds shall be transferred to the Coverage Account of the Revenue Fund established in the Indenture. In the event that the amount in the Coverage Account of the Revenue Fund exceeds 25% of the maximum annual debt service charges on all outstanding Revenue Bonds occurring in any subsequent Fiscal Year, the amount in excess of that 25% shall be transferred to the Airport Development Fund, unless the City and the Signatory Airlines otherwise agree in connection with the preparation of the Annual Reports. Any moneys to be so transferred from the Coverage Account of the Revenue Fund to the Airport Development Fund shall be transferred to the Airport Account and the Airline Account in amounts proportionate to any transfers made to the Coverage Account from the Accounts of the Airport Development Fund.

### **Additional Revenue Bonds**

Upon compliance with certain conditions set forth in the Trust Indenture and subject to the Majority In Interest procedures under the Use Agreements, the City may issue at one or more times Additional Revenue Bonds secured on a parity with the Series 2018 Bonds and the Outstanding Bonds with respect to Airport Revenues and the Special Funds. See “APPENDIX B – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE.” The Outstanding Bonds are described in “PART II – AIRPORT FINANCIAL INFORMATION – Outstanding Bonds.” The City may issue Additional Revenue Bonds only for the purposes permitted by the Indenture, which include providing funds to make additional enlargements, replacements, extensions and improvements to the Airport System, or for any other proper Airport System purpose for which Revenue Bonds may be legally issued.

The Use Agreements require that the City submit to the Signatory Airlines for review the proposed capital improvements which are to be funded through rentals, fees and charges to be imposed on the Signatory Airlines. If the proposed capital improvements are approved by a Majority In Interest of the Signatory Airlines within a period of ten days, the cost of the improvements (including debt service charges on Additional Revenue Bonds) may be included in airline rentals, fees and charges.

Except as described below, prior to issuing any Additional Revenue Bonds, the Trustee must receive from the City, among other things, a written report of the Airport Consultant, to the effect that the projected Airport Revenues, together with Other Available Funds, during each of the five complete Fiscal Years immediately following the issuance of the Additional Revenue Bonds, less the projected Operating Expenses during each of such Fiscal Years, are at least equal to 125% of the debt service charges on all outstanding Revenue Bonds, including the Additional Revenue Bonds proposed to be issued, due during each of such Fiscal Years, less, in each case, such debt service charges on any Revenue Bonds which are to be redeemed or retired with the proceeds of such Additional Revenue Bonds. An alternative debt service coverage ratio applies if there is General Obligation Debt of the City outstanding for Airport System purposes. The City currently has no outstanding General Obligation Debt for Airport System

purposes. See “APPENDIX B – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE.”

A written report of the Airport Consultant is not required in connection with Additional Revenue Bonds when:

(i) the Director of Finance of the City certifies to the Trustee that the Airport Revenues, together with Other Available Funds, less Operating Expenses, for 12 of the past 18 months immediately preceding the proposed issuance of Additional Revenue Bonds or for the most recent Fiscal Year for which audited financial statements are available, are at least equal to 125% of Bond service charges on all Outstanding Revenue Bonds, including the Additional Revenue Bonds proposed to be issued, in each of the three complete Fiscal Years immediately following the issuance of the Additional Revenue Bonds; or

(ii) the Additional Revenue Bonds are issued to refund Outstanding Revenue Bonds and the Director of Finance certifies to the Trustee that (i) the refunding will result in aggregate net present value debt service savings to the City, or (ii) in each bond year that Bond service charges were payable on the refunded Revenue Bonds, the Bond service charges on the refunding Revenue Bonds are not greater than the Bond service charges on the refunded Revenue Bonds, or (iii) the maximum annual Bond service charges on all Revenue Bonds to be Outstanding after the issuance of the refunding Revenue Bonds are not greater than the maximum annual Bond service charges on all Revenue Bonds Outstanding prior to the issuance of the refunding Revenue Bonds; or

(iii) the Additional Revenue Bonds are issued for the completion of a capital improvement project for which a series of Revenue Bonds has been issued, provided the principal amount of the Additional Revenue Bonds issued for that purpose does not exceed 10% of the total cost of such project.

### **Special Revenue Bonds**

Under certain circumstances, the City may issue at one or more times Special Revenue Bonds for the purpose of financing Special Facilities of the Airport System. The Indenture provides that Special Revenue Bonds will not be payable from or secured by Airport Revenues or the Special Funds and will not be issued under or secured by the Indenture. There is currently one series of outstanding Special Revenue Bonds issued by the City with respect to the Concourse D Special Facilities under lease to United Airlines. See “PART I – INTRODUCTION – Special Facility Leases.”

### **Amendment of the Trust Indenture**

The Trust Indenture amended and restated the Original Indenture effective January 31, 2012 upon the City’s receipt of the consent of the Holders of not less than two-thirds of the aggregate principal amount of all Outstanding Revenue Bonds. The City seeks to amend the requirements in Section 13.02 of the Trust Indenture (which were also contained in the Original Indenture) that the consent of the Holders of not less than two-thirds of the aggregate principal amount of all Outstanding Revenue Bonds be obtained for amendments of the Trust Indenture subject to bondholder consent and that the consent of all Holders of all Outstanding Revenue Bonds be obtained for any amendment reducing the percentage of Holders whose consent is required for amendments. The proposed amendments provide that the Holders of a majority (not two-thirds) in aggregate principal amount of all Outstanding Revenue Bonds may consent to amendments of the Trust Indenture subject to bondholder consent and eliminate the provision

requiring the consent of all Holders of all Outstanding Revenue Bonds for any amendment reducing the percentage of Holders whose consent is required for amendments (the “Proposed Amendments”).

By purchase of any of the Series 2018 Bonds or any book-entry interest therein, the purchaser as the registered owner of the Series 2018 Bonds or book-entry interest shall be deemed to have consented to the Proposed Amendments of Section 13.02 of the Trust Indenture. Such consent shall be binding on all subsequent Holders of Series 2018 Bonds. Pursuant to the Twenty-Third Supplemental Indenture, the Trustee is appointed as the agent of the Holders of the Series 2018 Bonds for purposes of any notice required to be given under the Trust Indenture regarding these amendments, and the Holders of the Series 2018 Bonds have granted an irrevocable proxy authorizing and directing the Trustee to consent to the Proposed Amendments.

Prior to the issuance of the Series 2018 Bonds and the refunding of the Series 2009C Refunded Bonds, the percentage of the Holders of Outstanding Revenue Bonds that will have consented to the Proposed Amendments will be 95%. However, the Proposed Amendments will not be effective until the consent of 100% of the Holders is obtained. The consent of the Holders of \$32,195,000 principal amount of outstanding Revenue Bonds will be needed for the Proposed Amendments to be effective.

## **Remedies**

For a discussion of the remedies of the Holders of the Series 2018 Bonds and the Trustee upon the occurrence of an Event of Default under the Trust Indenture, including the rights of financial institutions providing credit and liquidity support for Revenue Bonds to act in place of the holders of those Revenue Bonds, see the discussion under “APPENDIX B – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE.” The Trust Indenture provides that holders of Revenue Bonds and the Trustee will have the right to accelerate the entire outstanding principal amount of Revenue Bonds upon the occurrence of certain Events of Default, subject to the consent of each Bond Insurer with respect to the acceleration of any Revenue Bonds it has insured.

For a more detailed discussion of the terms of the Trust Indenture, see “APPENDIX B – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE.”

## **BOND INSURANCE**

### **Bond Insurance Policy**

Concurrently with the issuance of the Series 2018 Bonds, Assured Guaranty Municipal Corp. (“AGM”) will issue its Municipal Bond Insurance Policy (the “Policy”) for the (i) the Series 2018A Bonds maturing on January 1 in the years 2034 through 2038, 2043 and 2048, and (ii) the Series 2018B Bonds maturing on January 1 in the years 2035, 2036 through 2038 and 2043 (collectively, the “Insured Series 2018 Bonds”). The Policy guarantees the scheduled payment of principal of and interest on the Insured Series 2018 Bonds when due as set forth in the form of the Policy included as an appendix to this Official Statement.

The Policy is not covered by any insurance security or guaranty fund established under New York, California, Connecticut or Florida insurance law.



## **Assured Guaranty Municipal Corp.**

AGM is a New York domiciled financial guaranty insurance company and an indirect subsidiary of Assured Guaranty Ltd. (“AGL”), a Bermuda-based holding company whose shares are publicly traded and are listed on the New York Stock Exchange under the symbol “AGO”. AGL, through its operating subsidiaries, provides credit enhancement products to the U.S. and global public finance, infrastructure and structured finance markets. Neither AGL nor any of its shareholders or affiliates, other than AGM, is obligated to pay any debts of AGM or any claims under any insurance policy issued by AGM.

AGM’s financial strength is rated “AA” (stable outlook) by S&P Global Ratings, a business unit of Standard & Poor’s Financial Services LLC (“S&P”), “AA+” (stable outlook) by Kroll Bond Rating Agency, Inc. (“KBRA”) and “A2” (stable outlook) by Moody’s Investors Service, Inc. (“Moody’s”). Each rating of AGM should be evaluated independently. An explanation of the significance of the above ratings may be obtained from the applicable rating agency. The above ratings are not recommendations to buy, sell or hold any security, and such ratings are subject to revision or withdrawal at any time by the rating agencies, including withdrawal initiated at the request of AGM in its sole discretion. In addition, the rating agencies may at any time change AGM’s long-term rating outlooks or place such ratings on a watch list for possible downgrade in the near term. Any downward revision or withdrawal of any of the above ratings, the assignment of a negative outlook to such ratings or the placement of such ratings on a negative watch list may have an adverse effect on the market price of any security guaranteed by AGM. AGM only guarantees scheduled principal and scheduled interest payments payable by the issuer of bonds insured by AGM on the date(s) when such amounts were initially scheduled to become due and payable (subject to and in accordance with the terms of the relevant insurance policy), and does not guarantee the market price or liquidity of the securities it insures, nor does it guarantee that the ratings on such securities will not be revised or withdrawn.

### *Current Financial Strength Ratings*

On June 26, 2018, S&P announced it had affirmed AGM’s financial strength rating of “AA” (stable outlook). AGM can give no assurance as to any further ratings action that S&P may take.

On May 7, 2018, Moody’s announced it had affirmed AGM’s insurance financial strength rating of “A2” (stable outlook). AGM can give no assurance as to any further ratings action that Moody’s may take.

On January 23, 2018, KBRA announced it had affirmed AGM’s insurance financial strength rating of “AA+” (stable outlook). AGM can give no assurance as to any further ratings action that KBRA may take.

For more information regarding AGM’s financial strength ratings and the risks relating thereto, see AGL’s Annual Report on Form 10-K for the fiscal year ended December 31, 2017.

### *Capitalization of AGM*

At June 30, 2018:

- The policyholders’ surplus of AGM was approximately \$2,221 million.
- The contingency reserves of AGM and its indirect subsidiary Municipal Assurance Corp. (“MAC”) (as described below) were approximately \$1,166 million. Such amount includes 100% of AGM’s contingency reserve and 60.7% of MAC’s contingency reserve.

- The net unearned premium reserves and net deferred ceding commission income of AGM and its subsidiaries (as described below) were approximately \$1,898 million. Such amount includes (i) 100% of the net unearned premium reserve and deferred ceding commission income of AGM, (ii) the consolidated net unearned premium reserves and net deferred ceding commissions of AGM's wholly owned subsidiary Assured Guaranty (Europe) plc ("AGE"), and (iii) 60.7% of the net unearned premium reserve of MAC.

The policyholders' surplus of AGM and the contingency reserves, net unearned premium reserves and deferred ceding commission income of AGM and MAC were determined in accordance with statutory accounting principles. The net unearned premium reserves and net deferred ceding commissions of AGE were determined in accordance with accounting principles generally accepted in the United States of America.

#### *Incorporation of Certain Documents by Reference*

Portions of the following documents filed by AGL with the Securities and Exchange Commission (the "SEC") that relate to AGM are incorporated by reference into this Official Statement and shall be deemed to be a part hereof:

- (i) the Annual Report on Form 10-K for the fiscal year ended December 31, 2017 (filed by AGL with the SEC on February 23, 2018);
- (ii) the Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018 (filed by AGL with the SEC on May 4, 2018); and
- (iii) the Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2018 (filed by AGL with the SEC on August 2, 2018).

All consolidated financial statements of AGM and all other information relating to AGM included in, or as exhibits to, documents filed by AGL with the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, excluding Current Reports or portions thereof "furnished" under Item 2.02 or Item 7.01 of Form 8-K, after the filing of the last document referred to above and before the termination of the offering of the Insured Series 2018 Bonds shall be deemed incorporated by reference into this Official Statement and to be a part hereof from the respective dates of filing such documents. Copies of materials incorporated by reference are available over the internet at the SEC's website at <http://www.sec.gov>, at AGL's website at <http://www.assuredguaranty.com>, or will be provided upon request to Assured Guaranty Municipal Corp.: 1633 Broadway, New York, New York 10019, Attention: Communications Department (telephone (212) 974-0100). Except for the information referred to above, no information available on or through AGL's website shall be deemed to be part of or incorporated in this Official Statement.

Any information regarding AGM included herein under the caption "BOND INSURANCE – Assured Guaranty Municipal Corp." or included in a document incorporated by reference herein (collectively, the "AGM Information") shall be modified or superseded to the extent that any subsequently included AGM Information (either directly or through incorporation by reference) modifies or supersedes such previously included AGM Information. Any AGM Information so modified or superseded shall not constitute a part of this Official Statement, except as so modified or superseded.

## *Miscellaneous Matters*

AGM makes no representation regarding the Insured Series 2018 Bonds or the advisability of investing in the Insured Series 2018 Bonds. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading “BOND INSURANCE”.

## **DESCRIPTION OF THE SERIES 2018 BONDS**

### **General Description**

The Series 2018A Bonds will be issued in the aggregate principal amount of \$87,940,000. The Series 2018A Bonds will be dated the date of their delivery, will bear interest at the rates set forth on the inside cover page hereof, payable semiannually on January 1 and July 1 of each year, commencing January 1, 2019, and will mature on January 1 in the years and in the principal amounts set forth on the inside cover page hereof.

The Series 2018B Bonds will be issued in the aggregate principal amount of \$21,745,000. The Series 2018B Bonds will be dated the date of their delivery, will bear interest at the rates set forth on the inside cover page hereof, payable semiannually on January 1 and July 1 of each year, commencing January 1, 2019, and will mature on January 1 in the years and in the principal amounts set forth on the inside cover page hereof.

The Series 2018 Bonds will bear interest from the most recent date to which interest has been paid or duly provided for or, if no interest has been paid or duly provided for, from their date. Interest on the Series 2018 Bonds will be calculated on the basis of a 360-day year consisting of 12 30-day months. The Series 2018 Bonds will be issued in denominations of \$5,000 and integral multiples thereof (“Authorized Denominations”).

### **Book-Entry Only System**

The Series 2018 Bonds initially will be issued in a book entry system, registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”), as registered owner of the Series 2018 Bonds, and held in the custody of DTC, pursuant to DTC’s book entry-only system. Purchasers of beneficial interests in the Series 2018 Bonds will be made in book-entry form, without certificates. If the book entry system is discontinued for the Series 2018 Bonds, the City will take the actions necessary to provide for the issuance of Bond certificates to the Owners of such Series 2018 Bonds.

**So long as the Series 2018 Bonds are held by DTC or its nominee, Cede & Co., in book-entry only form, the Trustee will recognize and treat DTC or its nominee, Cede & Co., as the Holder of the Series 2018 Bonds for all purposes under the Twenty-Third Supplemental Indenture, provided that the Trustee will recognize Beneficial Owners for purposes of the purchase of Book Entry Interests. (See APPENDIX C – BOOK-ENTRY ONLY SYSTEM).**

### **Transfer and Exchange of Series 2018 Bonds; Persons Treated as Owners**

The person in whose name any Series 2018 Bond is registered (the “Bondholder,” “Holder,” “Owner” or “Registered Owner”) in the books kept and maintained by the Trustee as Registrar (the

“Registrar”) for registration and transfer of Bonds (the “Register”) will be deemed and regarded as the absolute owner thereof for all purposes of the Indenture, and payment of or on account of the principal of and interest on the Series 2018 Bonds will be made only to or upon the order of the Registered Owner thereof or his or her legal representative. All such payments will be valid and effective to satisfy and discharge the liability upon that Series 2018 Bond to the extent of the sum or sums so paid.

So long as the Series 2018 Bonds are held in book-entry form, transfers of the Series 2018 Bonds by Beneficial Owners may be made only as described in “APPENDIX D – BOOK-ENTRY ONLY SYSTEM.” At any other time, any Series 2018 Bonds may be transferred or exchanged only upon the books kept for the registration and transfer of Series 2018 Bonds as provided in the Indenture.

### **Revision of Book-Entry System; Replacement Bonds**

The Indenture provides for issuance of fully registered Series 2018 Bonds (“Replacement Bonds”) directly to owners of Series 2018 Bonds other than DTC or its nominee only in the event that DTC determines not to continue to act as securities depository for the Series 2018 Bonds.

Upon occurrence of this event, the City may in its discretion attempt to have established a securities depository book-entry relationship with another securities depository. If the City does not do so, or is unable to do so, and after the Trustee has made provisions for notification of the owners of book-entry interests in the Series 2018 Bonds by appropriate notice to DTC, the City and the Trustee will authenticate and deliver Replacement Bonds for the Series 2018 Bonds, in fully registered form, in the denomination of \$100,000 or any integral multiple of \$5,000 in excess thereof for the Series 2018 Bonds. If the elimination of a securities depository book-entry system for the Series 2018 Bonds is not the result of City action or inaction, the delivery of Replacement Bonds will be at the expense (including printing costs) of any persons requesting issuance of Replacement Bonds.

Replacement Bonds will be exchangeable for fully registered Series 2018 Bonds of any denomination or denominations authorized by the Indenture in the aggregate principal amount not exceeding the unmatured and unredeemed principal amount of such Series 2018 Bonds and bearing interest at the same rate and maturing on the same date. Replacement Bonds will be transferable at the Designated Office of the Trustee or any Authentication Agent, without charge (except any tax, fee, or other governmental charge required to be paid). Exchange or transfer of then redeemable Replacement Bonds is not required to be made (i) during the 15 days preceding the date of a selection of Replacement Bonds to be redeemed, or (ii) of a particular Replacement Bond selected for redemption (in whole or part). See “APPENDIX D – BOOK-ENTRY ONLY SYSTEM.”

### **Redemption Provisions**

#### ***Optional Redemption***

The Series 2018 Bonds maturing on or after January 1, 2034 are subject to redemption prior to maturity, in whole or in part, at the option of the City, on any date on or after July 1, 2028, in Authorized Denominations, at the redemption price equal to 100% of the principal amount redeemed, plus accrued interest to the date fixed for the redemption.

***Mandatory Sinking Fund Redemption.***

**The Series 2018A Bonds.** The Series 2018A Bonds maturing January 1, 2043 (the “2018A 2043 Term Bonds”) will be subject to mandatory redemption on January 1 in each of the years 2039 to 2042 at a redemption price of 100% of the principal amount thereof to be redeemed, plus interest accrued to the redemption date, according to the following schedule:

<b>Year</b>	<b>Amount</b>
2039	\$885,000
2040	920,000
2041	965,000
2042	1,000,000

The remaining \$1,045,000 principal amount of the 2018A 2043 Term Bonds due January 1, 2043 will be payable at maturity.

The Series 2018A Bonds maturing January 1, 2048 (the “2018A 2048 Term Bonds”) will be subject to mandatory redemption on January 1 in each of the years 2044 to 2047 at a redemption price of 100% of the principal amount thereof to be redeemed, plus interest accrued to the redemption date, according to the following schedule:

<b>Year</b>	<b>Amount</b>
2044	\$1,090,000
2045	1,145,000
2046	1,200,000
2047	1,265,000

The remaining \$1,320,000 principal amount of the 2018A 2048 Term Bonds due January 1, 2048 will be payable at maturity.

**The Series 2018B Bonds.** The Series 2018B Bonds maturing January 1, 2035 (the “2018B 2035 Term Bonds”) will be subject to mandatory redemption on January 1 in the year 2034 at a redemption price of 100% of the principal amount thereof to be redeemed, plus interest accrued to the redemption date, according to the following schedule:

<b>Year</b>	<b>Amount</b>
2034	\$1,015,000

The remaining \$1,055,000 principal amount of the 2018B 2035 Term Bonds due January 1, 2035 will be payable at maturity.

The Series 2018B Bonds maturing January 1, 2043 (the “2018B 2043 Term Bonds”) will be subject to mandatory redemption on January 1 in each of the years 2039 to 2042 at a redemption price of 100% of the principal amount thereof to be redeemed, plus interest accrued to the redemption date, according to the following schedule:

<b>Year</b>	<b>Amount</b>
2039	\$1,270,000
2040	1,330,000
2041	1,380,000
2042	1,445,000

The remaining \$1,505,000 principal amount of the 2018B 2043 Term Bonds due January 1, 2043 will be payable at maturity.

The Series 2018B Bonds maturing January 1, 2048 (the “2018B 2048 Term Bonds”) will be subject to mandatory redemption on January 1 in each of the years 2044 to 2047 at a redemption price of 100% of the principal amount thereof to be redeemed, plus interest accrued to the redemption date, according to the following schedule:

<b>Year</b>	<b>Amount</b>
2044	\$1,565,000
2045	1,645,000
2046	1,730,000
2047	1,810,000

The remaining \$1,910,000 principal amount of the 2018B 2048 Term Bonds due January 1, 2048 will be payable at maturity.

***Partial Redemption; Selection of Series 2018 Bonds to be Redeemed***

If less than all of the Series 2018 Bonds are called for redemption prior to maturity, the Series 2018 Bonds to be called for prior redemption will be designated to the Trustee by the City. The principal amount to be redeemed is required to be an Authorized Denomination. In the case of a partial redemption of the Series 2018 Bonds when Series 2018 Bonds of Authorized Denominations greater than \$5,000 are then outstanding, each \$5,000 unit of principal will be treated as though it were a separate Series 2018 Bond of the denomination of \$5,000. If the Series 2018 Bonds are in book-entry only form and a securities depository is the sole registered owner of the Series 2018 Bonds, any redemption of less than all of the Series 2018 Bonds of the same maturity, interest rate and insured status will be performed in accordance with the depository’s procedures then in effect.

If it is determined that one or more, but not all of the \$5,000 units of principal amount represented by a Series 2018 Bond are to be called for redemption, then upon notice of redemption of a \$5,000 unit or units the Holder of that Series 2018 Bond will surrender the Series 2018 Bond to the Trustee (a) for payment of the redemption price of the \$5,000 unit or units called for redemption (including without limitation, the interest accrued to the date fixed for redemption), and (b) for issuance, without charge to the Holder thereof, of a new Series 2018 Bond or Series 2018 Bonds of any Authorized Denomination in an aggregate principal amount equal to the unmatured and unredeemed portion of, and bearing interest at the same rate and maturing on the same date as, the Series 2018 Bond surrendered.

***Notice and Effect of Call for Redemption***

Official notice of any such redemption will be given by the Trustee on behalf of the City by mailing a copy of an official redemption notice by first class mail not more than 45 days and not fewer than 20 calendar days prior to the redemption date to each Registered Owner of the Series 2018 Bonds to be redeemed at the address shown on the Register or at such other address as is furnished in writing by

such Registered Owner to the Trustee. Notice of redemption will also be given by the Trustee, on behalf of the City, to the Municipal Securities Rulemaking Board through its centralized database Electronic Municipal Market Access system (“EMMA”) pursuant to Rule 15c2-12 of the Securities and Exchange Commission. Any notice of optional redemption of any Series 2018 Bonds may specify that the redemption is contingent upon the deposit of moneys with the Trustee in an amount sufficient to pay the redemption price of all the Series 2018 Bonds or portions of Series 2018 Bonds that are to be redeemed on that date.

If unconditional notice of redemption of Series 2018 Bonds has been given, or if conditional notice of optional redemption has been given as described above and moneys sufficient to pay the redemption price on the redemption date have been deposited with the Trustee, the Series 2018 Bonds or portions thereof to be redeemed will, on the redemption date, become due and payable at the redemption price, and from and after such date (unless the City shall default in the payment of the redemption price) such Series 2018 Bonds or portions of thereof to be redeemed shall cease to bear interest. Upon surrender of such Series 2018 Bonds for redemption, such Series 2018 Bonds will be paid by the Trustee at the redemption price. Failure to give any notice to any Owner, or any defect therein, shall not affect the validity of any proceedings for the redemption of any other Series 2018 Bonds. Any notice mailed shall be conclusively presumed to have been duly given and shall become effective upon mailing, whether or not any Owner receives the notice.

For so long as DTC is effecting book-entry transfers of the Series 2018 Bonds, the Trustee will provide the redemption notice described above to DTC. It is expected that DTC will, in turn, notify its participants, and that the participants, in turn, will notify or cause to be notified the Beneficial Owners of the Series 2018 Bonds to be redeemed. The City and the Trustee will have no responsibility or liability in connection with any failure on the part of DTC or a participant, or failure on the part of a nominee of a Beneficial Owner of a Series 2018 Bond, to notify the Beneficial Owner of the Series 2018 Bond so affected, and such failure shall not affect the validity of the redemption of such Series 2018 Bonds. See “APPENDIX D – BOOK-ENTRY ONLY SYSTEM.”

## **REPORT OF THE AIRPORT CONSULTANT**

Peregrine Advisors, LLC (the “Airport Consultant”), has prepared the Report of the Airport Consultant, dated August 30, 2018 (the “Report of the Airport Consultant”) in connection with the issuance of the Series 2018 Bonds. The Report of the Airport Consultant is included as APPENDIX A to the Official Statement. The Report of the Airport Consultant describes key factors that will affect future airline traffic, presents airline traffic and financial forecasts for Fiscal Years 2018 through 2022, and updates certain background assumptions and key rationale for the analysis relating to such years.

### **Forecast Enplanements**

See “APPENDIX A – REPORT OF THE AIRPORT CONSULTANT” for a discussion of forecast enplanements and projections of future growth of passenger traffic at the Airport. The Report of the Airport Consultant forecasts passenger enplanements at the Airport to increase an average of 2.9% per year between 2017 and 2022.

## Forecast Coverage and Signatory Airline Cost Per Enplaned Passenger

The following table, which is derived from information included in the Report of the Airport Consultant, shows forecast net revenues and debt service coverage for the Outstanding Bonds and the Series 2018 Bonds based on estimated debt service requirements as provided by the Underwriters and the City and presented in APPENDIX A. The actual debt service on all Revenue Bonds to be outstanding after issuance of the Series 2018 Bonds and refunding the Refunded Bonds in each of the years during the forecast period is lower than that assumed in the Report of the Airport Consultant. The Airport Consultant has concluded that the Additional Bonds Test in connection with the issuance of the Series 2018 Bonds is met for Fiscal Years 2018 through 2022.

### FORECAST OF DEBT SERVICE COVERAGE

Fiscal Year	Net Revenues Available for Debt Service (\$000)	Revenue Bond Debt Service Requirement (\$000)	Revenue Bond Debt Service Coverage(x)	Signatory Airline Cost Per Enplaned Passenger
2018	\$105,438	\$66,867	1.58	\$16.82
2019	109,169	70,262	1.55	15.78
2020	109,771	70,509	1.56	15.10
2021	109,541	69,918	1.57	14.90
2022	106,669	66,673	1.60	14.31

The Report of the Airport Consultant has been included herein in reliance upon the knowledge and experience of Peregrine Advisors, LLC, as the Airport Consultant. The Report of the Airport Consultant should be read in its entirety for an understanding of the forecasts and the underlying assumptions. As noted in the Report of the Airport Consultant, any financial forecast is subject to uncertainties. Some assumptions used to develop the forecasts may not be realized, and unanticipated events and circumstances may occur. As a result, the actual financial results achieved may vary from those forecasts, and those variations may be material, particularly as they relate to possible additional terrorist acts or acts of war. See “APPENDIX A – REPORT OF THE AIRPORT CONSULTANT.”

### CERTAIN INVESTMENT CONSIDERATIONS

**The Series 2018 Bonds may not be suitable for all investors. Prospective purchasers of the Series 2018 Bonds should give careful consideration to the information set forth in this Official Statement, including, in particular, the matters referred to in the following summary.**

#### General

The Airport Revenues are affected substantially by the economic health of the air transportation industry and the airlines serving the Airport. Certain factors that may materially affect the Airport service region, the Airport and the airlines include, but are not limited to (i) national and international economic conditions and currency fluctuations, (ii) the population growth and the economic health of the region and the nation, (iii) the financial health and viability of the airline industry, (iv) air carrier service and route networks, (v) the availability and cost of aviation fuel and other necessary supplies, (vi) changes in demand for air travel, (vii) service and cost competition, (viii) levels of air fares, (ix) fixed costs and capital requirements, (x) the cost and availability of financing, including federal funding, (xi) the capacity of the national air traffic control system, (xii) the capacity of the Airport and of competing airports, (xiii) alternative modes of travel and transportation substitutes, (xiv) national and international disasters and hostilities, (xv) the cost and availability of employees, (xvi) labor relations within the airline industry, (xvii) regulation by the federal government (xviii) evolving federal restrictions on travel to the United



States from certain countries, (xix) environmental risks and regulations, noise abatement concerns and regulations, (xx) bankruptcy and insolvency laws, and (xxi) safety concerns arising from international conflicts, the possibility of terrorist or other attacks and other risks (including the impact of such attacks on other airports that have flights to or from the Airport, as well as the possibility of the closure of those airports for a period of time).

### **National and Global Economic Conditions**

Historically, the financial performance of the air transportation industry has correlated with the state of the national and global economy. 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 in August 2011 downgraded the credit rating of the U.S. sovereign debt from "AAA" to "AA+." While the global economy generally has rebounded, there can be no assurances that any such rebound will continue, or that other national and international fiscal concerns will not have an adverse effect on the air transportation industry.

### **Airlines Serving the Airport**

The City derives a substantial portion of its operating revenues from landing, facility rental and concession fees. The financial strength and stability of the airlines using the Airport, together with numerous other factors, influence the level of aviation activity and revenues at the Airport. In addition, individual airline decisions regarding level of service, particularly aircraft size such as use of regional jets, can affect total enplanements.

The Airport cannot predict the duration or extent of reductions and disruptions in air travel or the extent of any adverse impact on Revenues, PFC collections, passenger enplanements, operations or the financial condition of the Airport that disruptions and reductions related to airline bankruptcies may cause, or whether these and other factors will result in more airline bankruptcies. All airlines that have filed for reorganization under the United States bankruptcy laws in the past have remitted all material payments due to the Airport under the Airline Agreement. Bankruptcies, liquidations or major restructurings of airlines could occur in the future. The Airport is not able to predict how long any airline in bankruptcy protection would continue operating at the Airport or whether any such airline would liquidate or substantially restructure its operations. Further, the Airport cannot predict or give any assurance that the airlines serving the Airport will continue to pay or to make timely payment of their obligations under the Airline Agreement.

Except for United Airlines, no airline operating at the Airport under a lease, use agreement or other agreement, has made any agreement regarding the continuing disclosure of information for the benefit of the holders and beneficial owners of any Series of Outstanding Bonds. See "PART I – CONTINUING DISCLOSURE – United Airlines." However, certain of the major domestic airlines (or their respective parent corporations), including United Airlines, are subject to the information reporting requirements of the Exchange Act, and thus must file reports and other information with the SEC. See "PART II – AVIATION SECTOR – Airline Information."

### **Airline Consolidations**

In response to competitive pressures, the U.S. airline industry has continued to consolidate. Delta and Northwest merged in 2008; United and Continental merged in 2010; Southwest Airlines acquired AirTran Airways in 2011; and US Airways and American Airlines merged in 2013. More recently

Alaska Air Group acquired Virgin America in December 2016 and received a single operating certificate in January 2018.

Airline consolidation has affected airline service patterns at the Airport, including the decrease in the number of nonstop departures and connecting air service as a result of United Airlines dehubbing of the Airport that was announced in February 2014. Further airline consolidation is possible and could continue to change airline service patterns. The City cannot predict what impact, if any, such consolidations will have on airline traffic at the Airport. See “Competition” under this caption for additional discussion on the effect of airline consolidation on the Airport.

### **Cost of Aviation Fuel**

Airline profitability is significantly affected by the price of aviation fuel. According to Airlines for America, fuel is the largest single cost component for most airline operations, and therefore an important and uncertain determinant of an air carrier’s operating economics.

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 economies 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. The cost of aviation fuel has fluctuated in the past in response to changes in demand for and supply of oil worldwide. Significant fluctuations and prolonged increases in the cost of aviation fuel historically have had 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.

### **Public Health Risks**

Public health concerns affect air travel demand from time to time. In 2003, concerns about the spread of severe acute respiratory syndrome (“SARS”) led public health agencies to issue advisories against nonessential travel to certain regions of the world. In 2009, concerns about the spread of influenza caused by the H1N1 virus reduced certain international travel, particularly to and from Mexico and Asia. Following an outbreak of the Ebola virus in West Africa in 2014, concerns about the spread of the virus have adversely affected travel to and from certain regions of Africa. More recently, in January 2016, the Centers for Disease Control and Prevention issued a travel alert warning pregnant women to avoid travel to areas where the Zika virus has spread, a list that included more than 50 countries and territories.

### **Aviation Safety and Security Concerns**

Concerns about the safety of air travel and the effectiveness of security precautions, particularly in the context of international hostilities and domestic and foreign terrorist attacks and threats and other airline incidents may influence passenger travel behavior and air travel demand. 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, which may give rise to the avoidance of air travel generally and the switching from air to surface travel modes.

Safety concerns in the aftermath of the terrorist attacks on September 11, 2001, were largely responsible for the steep decline in airline travel nationwide in 2002. Since 2001, government agencies, airlines, and airport operators have enhanced security measures to guard against possible terrorist

incidents 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 TSA, more effective dissemination of information about threats, more intensive screening of passengers, baggage, and cargo, and deployment of new screening technologies.

Computer networks and data transmission and collection are vital to the safe and efficient operation of the Airport, the airlines that serve the Airport and other tenants of the Airport. Notwithstanding security measures, information technology and infrastructure of the Airport, any of the airlines serving the Airport or any other tenants at the Airport may be vulnerable to attacks by outside or internal hackers, or breached by employee error, negligence or malfeasance. Any such breach or attack could compromise systems and the information stored thereon. Any such disruption or other loss of information could result in a disruption in the efficiency of the operations of the Airport and/or the airlines serving the Airport and the services provided at the Airport, thereby adversely affecting the ability of the Airport to generate revenue.

### **Aviation Security Requirements and Related Costs and Restrictions**

The airlines and the federal government were primarily responsible for, and bore most of the capital costs associated with, implementing security measures after September 11, 2001. The Airport 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 the Airport. 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.

Enplanements at the Airport, collections of PFCs and the receipt of Airport Revenues were negatively affected by security restrictions on the Airport and the financial condition of the air transportation industry following the terrorist attacks of September 11, 2001. The Airport, like many airport operators, experienced increased operating costs due to compliance with federally mandated and other security and operating changes. The City cannot predict the likelihood of future incidents similar to the terrorist attacks of September 11, 2001, the possibility of increased security restrictions or the likelihood of future air transportation disruptions or the impact on the Airport or the airlines from such incidents or disruptions.

### **Regulations and Other Restrictions Affecting the Airport**

The operations of the Airport and its ability to generate revenues are affected by a variety of legislative, legal, contractual, statutory, regulatory and practical restrictions, including restrictions in the Federal Act, provisions of the Airline Agreement, the PFC Acts and extensive federal legislation and regulations applicable to all airports. It is not possible to predict whether future restrictions or limitations on the Airport's operation will be imposed, whether future legislation or regulation will affect anticipated federal funding or PFC collection, whether additional requirements will be funded by the federal government or require funding by the City, or whether such restrictions, legislation or regulations would adversely affect Revenues.

Climate change concerns have led, and may continue to lead, to new laws and regulations at the federal and state levels that could have a material adverse effect on the operations of the Airport and on the airlines operating at the Airport. The United States Environmental Protection Agency (the "EPA") has taken steps towards regulation of greenhouse gas ("GHG") emissions under existing federal law. Those steps may in turn lead to further regulation of aircraft GHG emissions. On July 5, 2011, the United States District Court for the District of Columbia issued an order concluding that the EPA has a

mandatory obligation under the Clean Air Act to consider whether the GHG and black carbon emissions of aircraft engines endanger public health and welfare. On August 15, 2016, EPA found that GHG emissions from certain aircraft cause and contribute to pollution that endangers public health and welfare. In that endangerment finding, the EPA stated that it intends to propose GHG emission standards for covered aircraft that will be at least as stringent as emission standards under development by the International Civil Aviation Organization (“ICAO”). The ICAO’s standards were approved on October 6, 2016 and adopted on March 6, 2017. The ICAO standards apply to new aircraft type designs from 2020 forward, and in-production aircraft must meet the standards by 2028. EPA has publicly indicated as recently as January 2018 its intent to adopt the ICAO emission standards for the United States, but the agency has not initiated rulemaking or set a timeline for such actions. Consequently, the City cannot predict when EPA’s emission standards will be proposed, when the Federal Aviation Administration will adopt regulations to implement those standards, or what effect the standards may have on the Airport or on air traffic at the Airport.

### **Federal Funding; Impact of Federal Sequestration**

The City depends upon federal funding for the Airport not only in connection with grants and PFC authorizations but also because federal funding provides for TSA, Federal Inspection Services, air traffic control and other FAA staffing and facilities. The FAA currently operates under the 2012 FAA Reauthorization Act, which, after several extensions, is scheduled to expire on September 30, 2018. That statute was the first long-term FAA authorization since the last such authorization expired in 2007. Between 2007 and the 2012 reauthorization, there were 23 short-term extensions of the FAA’s authority and a two-week partial shutdown of the FAA in the summer of 2011. The 2012 FAA Reauthorization Act (i) retained the federal cap on PFCs at \$4.50, (ii) removed the restriction contained in the Federal Act that provided that after September 16, 2011, the Secretary of Transportation may not approve an application of the City (A) for an airport development grant under the Airline Improvement Program (“AIP”) program or (B) to impose a PFC, and (iii) authorized \$3.35 billion per year for the AIP through Fiscal Year 2015. The AIP provides federal capital grants to support airport infrastructure, including entitlement grants (determined by formulas based on passenger, cargo, and general aviation activity levels) and discretionary grants (allocated on the basis of specific set-asides and the national priority ranking system). FAA AIP expenditures are subject to congressional appropriation and no assurance can be given that the FAA will receive spending authority. In addition, the AIP could be affected by the automatic, across-the-board spending cuts, known as sequestration, described below. The City is unable to predict the level of available AIP funding it may receive. If there is a reduction in the amount of AIP grants awarded to the Airport, such reduction could (i) increase by a corresponding amount the capital expenditures that the Airport would need to fund from other sources (including operating revenues and additional Bonds), (ii) result in adjustments to the CIP or (iii) extend the timing for completion of certain projects.

While Congress has held hearings on a long-term FAA reauthorization act to replace the 2012 FAA Reauthorization Act expiring on September 30, 2018, no long-term reauthorization legislation has been approved by either house of Congress as of the date of this Official Statement. There can be no assurance that Congress will enact and the President will sign an FAA reauthorization act before the current authorization terminates. Failure to adopt such legislation could have a material, adverse impact on United States aeronautical operations as well as the AIP program.

Federal funding received by the Airport and aviation operations at the Airport could be adversely affected by the implementation of sequestration, a budgetary feature first introduced in the Budget Control Act of 2011. Sequestration could adversely affect FAA and TSA budgets and operations and the availability of certain federal grant funds typically received annually by the Airport, which may cause the FAA or TSA to implement furloughs of its employees and freeze hiring, and may result in flight delays and cancellations.

## **Effect of Signatory Airline Bankruptcy on the Use Agreement**

In the event of bankruptcy proceedings involving one or more of the Signatory Airlines, the debtor airline or its bankruptcy trustee must determine within a time period determined by the court whether to assume or reject the applicable Use Agreement. In the event of assumption, the debtor airline is required to cure any prior defaults and to provide adequate assurance of future performance under the relevant document. Rejection of the Use Agreement by any Signatory Airline gives rise to an unsecured claim of the City for damages, the amount of which may be limited by the U.S. Bankruptcy Code. The amounts unpaid as a result of a rejection of the Use Agreement by a Signatory Airline in bankruptcy can be passed on to the remaining Signatory Airlines under the Use Agreement. If the bankruptcy of one or more Signatory Airlines were to occur, however, there can be no assurance that the remaining Signatory Airlines would be able, individually or collectively, to meet their obligations under the Use Agreement. See “PART I – SECURITY FOR THE SERIES 2018 BONDS – Airport Use Agreements,” and APPENDIX B – “DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE.” In addition, the bankruptcy of a Signatory Airline may affect the amount and timing of receipt by the City of PFCs collected by that airline.

## **Alternative Travel Modes and Travel Substitutes**

Teleconference, video-conference and web-based meetings continue to improve in quality and price and are considered a satisfactory alternative to some face-to-face business meetings.

In addition, consumers have become more price-sensitive. Efforts of airlines to stimulate traffic by discounting fares have changed consumer expectations regarding airfares and the availability of transparent price information on the internet, which allows easier comparison shopping, has changed consumer purchasing habits. As a result, pricing and marketing have become more competitive in the United States’ airline industry.

## **Other Key Factors**

Capacity limitations of the national air traffic control system at the Airport and at competing airports could be factors that might affect future activity at the Airport. In the past, demands on the air traffic control system have caused operational restrictions that have affected airline schedules and passenger traffic and caused significant delays. The FAA has made certain improvements to the computer, radar and communications equipment of the air traffic control system in recent years, but no assurances can be given that future increases in airline and passenger activity would not again adversely affect airline operations. The 2012 FAA Reauthorization Act contains numerous provisions aimed at accelerating the implementation of Next Generation Air Transport System (“NextGen”). NextGen is designed to modernize the National Airspace System from a ground-based system of air traffic control to a satellite-based system of air traffic management in order to enhance the use of airspace and runways.

## **Competition from Other Airports**

The Akron-Canton Regional Airport (“Akron”) located approximately 60 miles away from the Airport provides competition for the Airport Service Region’s O&D passenger base. Historically, a portion of the Airport Service Region’s Origin & Destination (O&D) passengers utilized Akron as that airport introduced new air carrier service, primarily offered by low fare air carrier AirTran (acquired by Southwest Airlines in May 2011). In May 2015, Southwest Airlines announced that it was eliminating flights from Akron to Denver; Washington, DC; Boston and New York. (The Denver flight was subsequently added to Southwest Airlines’ air service schedule at the Airport.) In October 2015, Southwest Airlines announced further air service reductions at Akron by eliminating all flights to Florida

destinations and Las Vegas. Akron enplaned approximately 681,000 and 616,000 passengers in calendar years 2016 and 2017, respectively—representing decreases of 9.8% and 9.7%, respectively, when compared to each prior year.

### **Expiration and Possible Termination of Use Agreements**

Pursuant to the Use Agreements, the City and each Signatory Airline agree to pay rentals, fees and charges for the Airport in an amount that is sufficient to generate revenues in an amount to allow the City to satisfy its covenants to Bondholders. The current Use Agreements expire on December 31, 2021, with an option to extend another two years based upon mutual acceptance of the City and Signatory Airlines. See “Effect of Signatory Airline Bankruptcy on the Use Agreement” above and “PART I – SECURITY FOR THE SERIES 2018 BONDS – Airport Use Agreements.”

### **Credit Risk of Financial Institutions Providing Credit Enhancement, Liquidity Support and Other Financial Products Relating to Revenue Bonds**

The City entered into a number of liquidity, credit enhancement and other transactions involving a variety of financial institutions relating to its Revenue Bonds, including bond insurance policies. Additionally, in connection with various variable rate bond issues, the City entered into credit and liquidity agreements with and/or guaranteed by various financial institutions, including commercial and investment banks.

Each of Moody’s, S&P and Fitch (collectively, the “Rating Agencies”) has downgraded the claims-paying ability and financial strength ratings of most of the nation’s monoline bond insurance companies and many other financial institutions, including insurers of one or more series of Revenue Bonds. The Rating Agencies could announce changes in rating outlook, or a review for downgrade or further downgrades of bond insurers, or credit or liquidity providers, including the Bond Insurer. Such adverse ratings developments with respect to bond insurers or credit or liquidity providers could have a material adverse effect on the City, including without limitation as a result of substantial increases in the City’s debt service-related costs. In addition to an increase in the interest rates on variable rate bonds secured by the subject credit enhancers, such downgrades, especially downgrades to below investment grade could lead to termination events or other negative effects under related agreements including, but not limited to, letters of credit. Payments required under these agreements in the event of any termination could be substantial and could have a negative impact on Airport Revenues and/or the liquidity position of the Airport.

*A default by any of these financial institutions under its bond insurance or liquidity obligations could have a material adverse impact on Airport finances.*

### **Bond Insurance Risk Factors**

In the event of default of the payment of principal or interest with respect to the Insured Bonds when all or some becomes due, any owner of the Insured Bonds shall have a claim under the applicable Bond Insurance Policy (the “Policy”) for such payments. However, in the event of any acceleration of the due date of such principal by reason of mandatory or optional redemption or acceleration resulting from default or otherwise, other than any advancement of maturity pursuant to a mandatory sinking fund payment, the payments are to be made in such amounts and at such times as such payments would have been due had there not been any such acceleration. The payment of principal and interest in connection with mandatory or optional prepayment of the Insured Bonds by the issuer which is recovered by the issuer from the bond owner as a voidable preference under applicable bankruptcy law is covered by the insurance policy, however, such payments will be made by the Bond Insurer at such time and in such

amounts as would have been due absent such prepayment by the Issuer unless the Bond Insurer chooses to pay such amounts at an earlier date.

Under most circumstances, default of payment of principal and interest does not obligate acceleration of the obligations of the Bond Insurer without appropriate consent. The Bond Insurer may direct and must consent to any remedies and the Bond Insurer's consent may be required in connection with amendments to any applicable bond documents.

In the event the Bond Insurer is unable to make payment of principal and interest as such payments become due under the Policy, the Bonds are payable solely from the moneys received pursuant to the applicable bond documents. In the event the Bond Insurer becomes obligated to make payments with respect to the Insured Bonds, no assurance is given that such event will not adversely affect the market price of the Bonds or the marketability (liquidity) for the Insured Bonds.

The long-term ratings on the Insured Bonds are dependent in part on the financial strength of the Bond Insurer and its claim paying ability. The Bond Insurer's financial strength and claims paying ability are predicated upon a number of factors which could change over time. No assurance is given that the long-term ratings of the Bond Insurer and of the ratings on the Insured Bonds insured by the Bond Insurer will not be subject to downgrade and such event could adversely affect the market price of the Insured Bonds or the marketability (liquidity) for the Insured Bonds. See description of RATINGS herein.

The obligations of the Bond Insurer are general obligations of the Bond Insurer and in an event of default by the Bond Insurer, the remedies available may be limited by applicable bankruptcy law or other similar laws related to insolvency.

Neither the Issuer or Underwriter have made independent investigation into the claims paying ability of the Bond Insurer and no assurance or representation regarding the financial strength or projected financial strength of the Bond Insurer is given. Thus, when making an investment decision, potential investors should carefully consider the ability of the Issuer to pay principal and interest on the Bonds and the claims paying ability of the Bond Insurer, particularly over the life of the investment. See "Bond Insurance" herein for further information provided by the Bond Insurer and the Policy, which includes further instructions for obtaining current financial information concerning the Bond Insurer.

### **Special Obligations**

The Series 2018 Bonds are special obligations of the City and do not constitute general obligations or a pledge of the faith, credit or taxing power of the City, the State of Ohio or any political subdivision thereof. The Series 2018 Bonds are payable on a parity with the Outstanding Bonds and any Additional Revenue Bonds that may be issued under the Indenture, and are secured by a pledge of and lien on the Airport Revenues and the Special Funds as provided in the Indenture. Holders of the Series 2018 Bonds do not have the right to compel taxation in any form or to compel the City to pay debt service charges on the Series 2018 Bonds from any moneys of the City other than Airport Revenues and the Special Funds. Neither the land nor improvements comprising the Airport System nor any other property of the City, other than Airport Revenues and the Special Funds, has been pledged to secure the payment of the Series 2018 Bonds.

### **Forward-Looking Statements**

This Official Statement, contains 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, the words "estimate," "anticipate," "forecast," "project," "propose," "plan," "expect,"

“assume” 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 the factors that may cause forecast revenues and expenditures to be materially different from those anticipated are an inability to incur debt at assumed rates, construction delays, increases in construction costs, general economic downturns, factors affecting the airline industry in general, federal legislation and/or regulations, 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. Any forecast is subject to such uncertainties. Therefore, there will be differences between forecast and actual results, and those differences may be material.

### **Enforceability of Remedies**

The rights of the owners of the Revenue Bonds, including the Series 2018 Bonds, and the enforceability of the City’s obligation to make payments on the Revenue Bonds may be subject to bankruptcy, insolvency, reorganization, moratorium and similar laws affecting creditors’ rights under existing law or under laws enacted in the future and may also be subject to the exercise of judicial discretion under certain circumstances. The opinion of Bond Counsel to be delivered at the time of the initial issuance of the Series 2018 Bonds as to the enforceability of the City’s obligations will be qualified as to bankruptcy and similar events and as to the application of equitable principles and the exercise of judicial discretion in appropriate cases and to common law and statutes affecting the enforceability of contractual obligations generally and to principles of public policy concerning, affecting or limiting the enforcement of rights or remedies against governmental entities such as the City.

## **LEGAL MATTERS**

Certain legal matters incident to the issuance of the Series 2018 Bonds and with regard to the tax-exempt status of the interest on the Series 2018 Bonds (see “PART I – TAX MATTERS”) are subject to the opinion of Squire Patton Boggs (US) LLP, Bond Counsel to the City. The signed legal opinions of Bond Counsel, substantially in the forms attached hereto as APPENDIX C, dated and premised on law in effect on the respective dates of issuance of the Series 2018 Bonds, will be delivered on the respective dates of issuance of the Series 2018 Bonds. The text of the opinions to be delivered may vary from the text as set forth in APPENDIX C if necessary to reflect facts and law on the respective dates of delivery. The opinions will speak only as of their dates, and subsequent distribution of them by recirculation of this 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 opinions subsequent to their dates.

The opinions of Bond Counsel and any other legal opinions and letters of counsel to be delivered concurrently with the delivery of the Series 2018 Bonds express the professional judgment of the attorneys rendering the opinions or advice regarding the legal issues and other matters expressly addressed therein. By rendering a legal opinion or advice, the giver of such opinion or advice does not become an insurer or guarantor of the result indicated by that opinion, or the transaction on which the opinion or advice is rendered, or of the future performance of parties to the transaction. Nor does the rendering of an opinion guarantee the outcome of any legal dispute that may arise out of the transaction.

As Bond Counsel, Squire Patton Boggs (US) LLP has participated in the preparation of, and has reviewed those portions of, this Official Statement pertaining to the Series 2018 Bonds, security and sources of payment for the Series 2018 Bonds, the Indenture and the Use Agreements under “PART I – INTRODUCTION – Description and Purpose of the Series 2018 Bonds,” “– Security for the Series 2018 Bonds,” and “– Outstanding and Additional Revenue Bonds,” “PART I – SECURITY FOR THE SERIES 2018 BONDS,” “PART I – DESCRIPTION OF THE SERIES 2018 BONDS,” and “PART I - TAX MATTERS” insofar as such information summarizes the terms of the Series 2018 Bonds and the



treatment of the interest on the Series 2018 Bonds under federal income tax laws and Ohio law, as well as “APPENDIX B – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE.” Bond Counsel will deliver to the Underwriters at the time of original delivery of the Series 2018 Bonds opinions as to the fairness and accuracy of those portions. Bond Counsel, however, has not been engaged to, and will not, independently confirm or verify that information or any other information provided by the City or others, and will not express an opinion as to the accuracy or fairness of any such information or any other reports, financial information, offering or disclosure documents or other information pertaining to the Series 2018 Bonds that may be prepared or made available by the City or others to the purchasers or owners of the Series 2018 Bonds or of book entry interests or to others.

Bond Counsel expresses no opinion as to the Statement of Insurance on the Insured Series 2018 Bonds or as to the insurance referred to in that Statement and in this Official Statement in the sections captioned “PART I – BOND INSURANCE” and “APPENDIX F – SPECIMEN MUNICIPAL BOND INSURANCE POLICY.”

In addition to rendering the legal opinions, Bond Counsel will assist in the preparation of and advise the City concerning documents for the bond transcript.

The City has also retained the legal services of Squire Patton Boggs (US) LLP from time to time as special counsel in connection with matters that do not relate to City financings. Squire Patton Boggs (US) LLP has served from time to time as counsel to certain of the firms among the Underwriters in matters unrelated to the Series 2018 Bonds.

## **LITIGATION**

To the knowledge of the appropriate officials of the City, no litigation or administrative action or proceeding is pending or threatened (a) restraining or enjoining, or seeking to restrain or enjoin (i) the issuance and delivery of the Series 2018 Bonds, (ii) the execution and delivery of the Twenty-Third Supplemental Indenture, or (iii) the collection or pledge of the Airport Revenues or the moneys in the Special Funds to pay debt service charges on the Series 2018 Bonds, or (b) contesting or questioning (i) the proceedings and authority under which the Series 2018 Bonds have been authorized and are to be issued, sold, executed or delivered or under which the Indenture, including the Twenty-Third Supplemental Indenture, has been executed and delivered, (ii) the validity of the Series 2018 Bonds or the Indenture, including the Twenty-Third Supplemental Indenture; Indenture, or (iii) the powers of authority of the City with respect thereto or with respect to the fixing and collecting of rates and charges for the Airport System, or (c) challenging the City’s right to own or operate the Airport System. The City will deliver a certificate to that effect to the Underwriters at the time of original delivery of the Series 2018 Bonds to the Underwriters.

In addition to the legal proceedings described below, the City is a party to various legal proceedings seeking damages or injunctive or other relief generally incidental to its operations. These proceedings are not directly related to the Series 2018 Bonds or the security for the Series 2018 Bonds. The ultimate disposition of these proceedings is not now determinable. It is the opinion of the City’s Director of Law, based on her present understanding and knowledge of these proceedings, that the disposition of these proceedings, individually or in the aggregate, will not result in liabilities in an amount which, in the opinion of the City’s Director of Finance, will have a material adverse effect on the Series 2018 Bonds, the security for the Series 2018 Bonds or the current operations of the Airport System.

## **VERIFICATION OF MATHEMATICAL COMPUTATIONS**

Upon delivery of the Series 2018 Bonds, Causey Demgen & Moore P.C., certified public accountants (the “Verification Agent”) will deliver reports on the mathematical accuracy of certain computations contained in schedules provided to them by the Underwriters on behalf of the City relating to computation of forecasted receipts of principal and interest on the securities held in the Escrow Fund to refund the Series 2009C Refunded Bonds on the Series 2009C Redemption Date.

Such computations will be based solely on assumptions and information supplied by the Underwriter on behalf of the City, and the Verification Agent has restricted its procedures to verifying the arithmetical accuracy of certain computations and has not made any study or evaluation of the assumptions and information on which such computations are based. Accordingly, the Verification Agent has not expressed an opinion on the data used, the reasonableness of the assumptions, or the ability to achieve the forecasted outcome.

## **TAX MATTERS**

### **General**

In the opinion of Squire Patton Boggs (US) LLP, Bond Counsel, under existing law (i) interest on the Series 2018A Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the “Code”), except interest on any Series 2018A Bond for any period during which that Series 2018A Bond is held by a “substantial user” of the facilities financed or a “related person,” as those terms are used in Section 147(a) of the Code, and interest on the Series 2018A Bonds is an item of tax preference under Section 57 of the Code and therefore may be subject to the alternative minimum tax imposed under the Code on individuals and, for taxable years beginning before January 1, 2018, corporations, (ii) interest on the Series 2018B Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Code and is not an item of tax preference for purposes of the federal alternative minimum tax imposed under the Code on individuals and, for taxable years beginning before January 1, 2018, corporations, and (iii) interest on, and any profit made on the sale, exchange or other disposition of, the Series 2018 Bonds are exempt from all Ohio state and local taxation, except the estate tax, the domestic insurance company tax, the dealers in intangibles tax, the tax levied on the basis of the total equity capital of financial institutions, and the net worth base of the corporate franchise tax. Bond Counsel expresses no opinion as to any other tax consequences regarding the Series 2018 Bonds.

The opinion on federal tax matters will be based on and will assume the accuracy of certain representations and certifications, and continuing compliance with certain covenants, of the City contained in the transcript of proceedings and that are intended to evidence and assure the foregoing, including that the Series 2018 Bonds are and will remain obligations the interest on which is excluded from gross income for federal income tax purposes. Bond Counsel will not independently verify the accuracy of the City’s certifications and representations or the continuing compliance with the City’s covenants.

The opinion of Bond Counsel is based on current legal authority and covers certain matters not directly addressed by such authority. It represents Bond Counsel’s legal judgment as to exclusion of interest on the Series 2018 Bonds from gross income for federal income tax purposes but is not a guaranty of that conclusion. The opinion is not binding on the Internal Revenue Service (“IRS”) or any court. Bond Counsel expresses no opinion about (i) the effect of future changes in the Code and the applicable regulations under the Code or (ii) the interpretation and the enforcement of the Code or those regulations by the IRS.

The Code prescribes a number of qualifications and conditions for the interest on state and local government obligations to be and to remain excluded from gross income for federal income tax purposes, some of which require future or continued compliance after issuance of the obligations. Noncompliance with these requirements by the City may cause loss of such status and result in the interest on the Series 2018 Bonds being included in gross income for federal income tax purposes retroactively to the date of issuance of the Series 2018 Bonds. The City has covenanted to take the actions required of it for the interest on the Series 2018 Bonds to be and to remain excluded from gross income for federal income tax purposes, and not to take any actions that would adversely affect that exclusion. After the date of issuance of the Series 2018 Bonds, Bond Counsel will not undertake to determine (or to so inform any person) whether any actions taken or not taken, or any events occurring or not occurring, or any other matters coming to Bond Counsel's attention, may adversely affect the exclusion from gross income for federal income tax purposes of interest on the Series 2018 Bonds or the market value of the Series 2018 Bonds.

Interest on the Series 2018B Bonds is included in the calculation of a corporation's adjusted current earnings for purposes of, and thus may be subject to, the federal corporate alternative minimum tax (applicable only to taxable years beginning before January 1, 2018). In addition, interest on the Series 2018 Bonds may be subject to a federal branch profits tax imposed on certain foreign corporations doing business in the United States and to a federal tax imposed on excess net passive income of certain S corporations. Under the Code, the exclusion of interest from gross income for federal income tax purposes may have certain adverse federal income tax consequences on items of income, deduction or credit for certain taxpayers, including financial institutions, certain insurance companies, recipients of Social Security and Railroad Retirement benefits, those that are deemed to incur or continue indebtedness to acquire or carry tax-exempt obligations, and individuals otherwise eligible for the earned income tax credit. The applicability and extent of these and other tax consequences will depend upon the particular tax status or other tax items of the owner of the Series 2018 Bonds. Bond Counsel will express no opinion regarding those consequences.

Payments of interest on tax-exempt obligations, including the Series 2018 Bonds, are generally subject to IRS Form 1099-INT information reporting requirements. If a Series 2018 Bond owner is subject to backup withholding under those requirements, then payments of interest will also be subject to backup withholding. Those requirements do not affect the exclusion of such interest from gross income for federal income tax purposes.

Bond Counsel's engagement with respect to the Series 2018 Bonds ends with the issuance of the Series 2018 Bonds, and, unless separately engaged, Bond Counsel is not obligated to defend the City or the owners of the Series 2018 Bonds regarding the tax status of interest thereon in the event of an audit examination by the IRS. The IRS has a program to audit tax-exempt obligations to determine whether the interest thereon is includible in gross income for federal income tax purposes. If the IRS does audit the Series 2018 Bonds, under current IRS procedures, the IRS will treat the City as the taxpayer and the beneficial owners of the Series 2018 Bonds will have only limited rights, if any, to obtain and participate in judicial review of such audit. Any action of the IRS, including but not limited to selection of the Series 2018 Bonds for audit, or the course or result of such audit, or an audit of other obligations presenting similar tax issues, may affect the market value of the Series 2018 Bonds.

Prospective purchasers of the Series 2018 Bonds upon their original issuance at prices or yields other than the respective prices or yields indicated on the inside cover page of this Official Statement, and prospective purchasers of the Series 2018 Bonds at other than their original issuance, should consult their own tax advisers regarding other tax considerations such as the consequences of market discount, as to all of which Bond Counsel expresses no opinion.

## **Risk of Future Legislative Changes and/or Court Decisions**

Legislation affecting tax-exempt obligations is regularly considered by the United States Congress and also may be considered by state legislatures. Court proceedings also may be filed, the outcome of which could modify the tax treatment of obligations such as the Series 2018 Bonds. There can be no assurance that legislation enacted or proposed, or actions by a court, after the date of issuance of the Series 2018 Bonds will not have an adverse effect on the tax status of interest or other income on the Series 2018 Bonds or the market value or marketability of the Series 2018 Bonds. These adverse effects could result, for example, from changes to federal or state income tax rates, changes in the structure of federal or state income taxes (including replacement with another type of tax), or repeal (or reduction in the benefit) of the exclusion of interest on the Series 2018 Bonds from gross income for federal or state income tax purposes for all or certain taxpayers.

For example, the recent federal tax legislation that was enacted on December 22, 2017 reduces corporate tax rates, modifies individual tax rates, eliminates many deductions, repeals the corporate alternative minimum tax (for taxable years beginning after December 31, 2017) and eliminates tax-exempt advance refunding bonds, among other things. Additionally, investors in the Series 2018 Bonds should be aware that future legislative actions may increase, reduce or otherwise change (including retroactively) the financial benefits and the treatment of all or a portion of the interest on the Series 2018 Bonds for federal income tax purposes for all or certain taxpayers. In all such events, the market value of the Series 2018 Bonds may be affected and the ability of holders to sell their Series 2018 Bonds in the secondary market may be reduced. The Series 2018 Bonds are not subject to special mandatory redemption, and the interest rates on the Series 2018 Bonds are not subject to adjustment, in the event of any such change in the tax treatment of interest on the Series 2018 Bonds. Investors should consult their own financial and tax advisers to analyze the importance of these risks.

## **Original Issue Discount and Original Issue Premium**

Certain of the Series 2018 Bonds (“Discount 2018 Bonds”) were offered and sold to the public at an original issue discount (OID). OID is the excess of the stated redemption price at maturity (the principal amount) over the “issue price” of a Discount 2018 Bond. The issue price of a Discount 2018 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 2018 Bonds of the same maturity is sold pursuant to that offering. For federal income tax purposes, OID accrues to the owner of a Discount 2018 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 OID that accrues during the period of ownership of a Discount 2018 Bond (i) is interest excluded from the owner’s gross income for federal income tax purposes to the same extent, and subject to the same considerations discussed above, as other interest on the Series 2018 Bonds, and (ii) is added to the owner’s tax basis for purposes of determining gain or loss on the maturity, redemption, prior sale or other disposition of that Discount 2018 Bond. The amount of OID that accrues each year to a corporate owner of a Discount 2018 Bond is included in the calculation of the corporation’s adjusted current earnings for purposes of, and thus may be subject to, the federal corporate alternative minimum tax (applicable only to taxable years beginning before January 1, 2018). A purchaser of a Discount 2018 Bond in the initial public offering at the issue price (described above) for that Discount 2018 Bond who holds that Discount 2018 Bond to maturity will realize no gain or loss upon the retirement of that Discount 2018 Bond.

Certain of the Series 2018 Bonds (“Premium 2018 Bonds”) were offered and sold to the public at a price in excess of their stated redemption price at maturity (the principal amount). That excess constitutes bond premium. For federal income tax purposes, bond premium is amortized over the period

to maturity of a Premium 2018 Bond, based on the yield to maturity of that Premium 2018 Bond (or, in the case of a Premium 2018 Bond callable prior to its stated maturity, the amortization period and yield may be required to be determined on the basis of an earlier call date that results in the lowest yield on that Premium 2018 Bond), compounded semiannually. No portion of that bond premium is deductible by the owner of a Premium 2018 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 2018 Bond, the owner's tax basis in the Premium 2018 Bond is reduced by the amount of bond premium that is amortized 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 2018 Bond for an amount equal to or less than the amount paid by the owner for that Premium 2018 Bond. A purchaser of a Premium 2018 Bond in the initial public offering at the price or yield for that Premium 2018 Bond stated on the inside cover page of this Official Statement who holds that Premium 2018 Bond to maturity (or, in the case of a callable Premium 2018 Bond, to its earlier call date that results in the lowest yield on that Premium 2018 Bond) will realize no gain or loss upon the retirement of that Premium 2018 Bond.

***Owners of Discount and Premium 2018 Bonds should consult their own tax advisors as to the determination for federal income tax purposes of the existence of OID or bond premium, the determination for federal income tax purposes of the amount of OID or bond premium properly accruable or amortizable in any period with respect to the Discount or Premium 2018 Bonds, other federal tax consequences in respect of OID and bond premium, and the treatment of OID and bond premium for purposes of state and local taxes on, or based on, income.***

#### **CONTINUING DISCLOSURE**

The City has agreed, for the benefit of the holders and beneficial owners from time to time of the Series 2018 Bonds, in accordance with SEC Rule 15c2-12 (the "Rule"), to provide or cause to be provided to the Municipal Securities Rulemaking Board such annual financial information and operating data, audited financial statements and notices of the occurrence of certain events in such manner as may be required for purposes of paragraph (b)(5)(i) of the Rule (the "Continuing Disclosure Certificate"). See "APPENDIX E – FORM OF CONTINUING DISCLOSURE CERTIFICATE." The performance by the City of the Continuing Disclosure Certificate will be subject to the annual appropriation by the City of any funds that may be necessary to perform it. The Continuing Disclosure Certificate will remain in effect only for such period that the Series 2018 Bonds are outstanding in accordance with their terms, and the City remains an Obligated Person with respect to the Series 2018 Bonds within the meaning of the Rule.

The City regularly enters into disclosure undertakings under the Rule in connection with its bond offerings. The City believes that it has complied in all material respects with its previous continuing disclosure undertakings under the Rule during the past five years, but the City notes the following instances of noncompliance, including: (i) it did not file or did not file on a timely basis event notices relating to certain changes to ratings assigned to the insurers of insured bonds or to the underlying ratings, (ii) it filed event notices 17 days late relating to ratings upgrades for both its outstanding water revenue bonds and subordinate water revenue bonds received on August 9, 2017, (iii) it filed certain annual reports on June 30 of each year, which at times was one or two days later than the 180th day following the end of the fiscal year of the City, (iv) it filed certain annual reports on July 30 or July 31 of each year, which at times was one or two days later than the 210th day following the end of the fiscal year of the City, (v) it did not file a statement every year that Continental/United Airlines' annual reports were available on the SEC's EDGAR website, (vi) certain annual reports and financial audits filed by the City were not properly matched with all required CUSIP numbers, (vii) it amended one page on its 2013 Airport Annual Filing to add a column of information regarding enplaned passengers that was mistakenly excluded on the original version, (viii) it mistakenly omitted the required "CPP Net Gain of CEI Meters"

table from its CPP Annual Filings for Fiscal Years 2010-2013, and (ix) it mistakenly omitted certain required information from the “Debt Service Requirements and Pledged Taxes” table in filings related to the Income Tax Receipts Obligations and the “Total Restricted and Unrestricted Income Tax Receipts” table in filings related to the Series 2008 Subordinate Lien Unrestricted Income Tax Bonds for Fiscal Years 2010-2013, which omissions were corrected in the City’s 2014 Annual Filings for those bonds. All necessary notices and omitted information have been filed prior to the date of this Official Statement. In addition, the City has notified Continental/United Airlines about the necessity of posting on EMMA the availability of its annual reports pursuant to United’s continuing disclosure agreements as an obligated person that were entered into with the trustee of the City’s airport revenue bonds. The foregoing description of instances of noncompliance by the City with continuing disclosure undertakings should not be construed as an acknowledgment that any such instance was material. The City has reviewed the current requirements of the Rule and adopted procedures to ensure full compliance with the Rule.

### **United Airlines**

United Airlines will enter into an agreement with the Trustee in which United Airlines will agree to provide or cause to be provided to the MSRB (a) such reports as United Airlines files with the SEC on Form 10-K or a successor form and, in the event that United Airlines no longer is required to file such reports on Form 10-K or a successor form, United Airlines’ audited financial statements prepared in accordance with generally accepted accounting principles and such related financial and operating data disclosure as is made available to United Airlines’ public shareholders generally or, in the event that United Airlines no longer is required to file such reports on Form 10-K or a successor form and no longer has any public shareholders, information concerning United Airlines’ business and properties, selected financial data and management’s discussion and analysis, together with United Airlines’ audited financial statements prepared in accordance with generally accepted accounting principles, comparable to the information contained in such report on Form 10-K (the “Airline Financial Information”) and (b) notice of the following events: (i) failure to provide or cause to be provided the Airline Financial Information on or prior to the filing date (ii) any change in the fiscal year of United Airlines, (iii) any change in the accounting principles applied in the preparation of the Airline Financial Information and (iv) termination of the agreement.

### **INDEPENDENT ACCOUNTANTS**

The financial statements of the governmental activities, the business-type activities, and each major fund of the City’s Department of Port Control, Divisions of Cleveland Hopkins International and Burke Lakefront Airports for the year ending December 31, 2017, have been audited by Clark Schaefer Hackett & Co. and have been released by the State of Ohio Office of the Auditor of State (the “Auditor of State”). A complete copy may be obtained from the Director of Finance of the City of Cleveland, at: City Hall, 601 Lakeside Avenue, Cleveland, Ohio 44114. The audited financial statements of the City’s Department of Port Control, Divisions of Cleveland Hopkins International and Burke Lakefront Airports for the year ending December 31, 2017 were filed with the Municipal Securities Rulemaking Board under its Electronic Municipal Market Access System (“EMMA”) at <https://emma.msrb.org/> and are included by specific reference thereto into this Official Statement. The financial statements are also included in the audit reports of the Auditor of State, located at [www.ohioauditor.gov](http://www.ohioauditor.gov). The audited financial statements are public records, no consent to their inclusion is required, and no bring down procedures have been undertaken by Clark Schaefer Hackett & Co. or the Auditor of State since their date. The City continues to maintain an internal audit function and an active external audit committee.

## **FINANCIAL ADVISORS**

The City has retained Government Capital Management, LLC and Phoenix Capital Partners, LLP as co-financial advisors (the “Financial Advisors”) to the City, in connection with the issuance of the Series 2018 Bonds. The Financial Advisors are not obligated to undertake, and have not undertaken to make, an independent verification or to assume the responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement. Government Capital Management, LLC and Phoenix Capital Partners, LLP are independent financial advisory firms and are not engaged in the business of underwriting, trading or distributing municipal or other public securities.

## **UNDERWRITING**

Morgan Stanley & Co. LLC, as representative (the “Representative”) of itself and Blaylock Van LLC, Raymond James & Associates, Inc., RBC Capital Markets LLC, UBS Financial Services Inc. and Wells Fargo Bank, National Association (collectively, the “Underwriters”), has agreed, subject to certain conditions, to purchase the Series 2018 Bonds from the City. The Series 2018A Bonds are being purchased by the Underwriters at a purchase price of \$96,595,016.84, which represents the par amount of the Series 2018A Bonds (\$87,940,000.00), plus original issue premium of \$9,050,252.65, less an Underwriters’ discount of \$395,235.81. The Series 2018B Bonds are being purchased by the Underwriters at a purchase price of \$22,908,666.14, which represents the par amount of the Series 2018B Bonds (\$21,745,000.00), plus net original issue premium of \$1,279,170.00, less an Underwriters’ discount of \$115,503.86.

The Series 2018 Bond Purchase Agreement, between the Representative and the City, provides that the Underwriters will purchase all of the applicable Series 2018 Bonds if any are purchased and that the purchase is subject to certain conditions for purposes of resale.

The Underwriters have furnished the information in this Official Statement pertaining to the applicable public offering prices of the Series 2018 Bonds and have participated in the preparation of portions of this Official Statement. The public offering prices of the Series 2018 Bonds may be changed from time to time by the Underwriters, and the Underwriters may offer and sell the Series 2018 Bonds to certain dealers (including dealers depositing into investment trusts) and others at prices lower than the public offering prices set forth on the inside cover page of this Official Statement.

Morgan Stanley & Co. LLC, an underwriter of the Series 2018 Bonds, has entered into a retail distribution arrangement with its affiliate Morgan Stanley Smith Barney LLC. As part of the distribution arrangement, Morgan Stanley & Co. LLC may distribute municipal securities to retail investors through the financial advisor network of Morgan Stanley Smith Barney LLC. As part of this arrangement, Morgan Stanley & Co. LLC may compensate Morgan Stanley Smith Barney LLC for its selling efforts with respect to the Series 2018 Bonds.

Blaylock Van, LLC (“Blaylock Van”), an underwriter of the Series 2018 Bonds, has entered into a retail distribution arrangement with TD Ameritrade Inc. and Wilmington Capital Securities LLC. Pursuant to these arrangements, Blaylock Van may distribute municipal securities to retail investors through the financial advisor networks of TD Ameritrade Inc. and Wilmington Capital Securities LLC. As part of these arrangements, Blaylock Van may share a portion of its underwriting compensation with TD Ameritrade and Wilmington Capital Securities LLC for its selling efforts with respect to the Series 2018 Bonds.

Wells Fargo Securities is the trade name for certain securities-related capital markets and investment banking services of Wells Fargo & Company and its subsidiaries, including Wells Fargo

Bank, National Association, which conducts its municipal securities sales, trading and underwriting operations through the Wells Fargo Bank, NA Municipal Products Group, a separately identifiable department of Wells Fargo Bank, National Association, registered with the Securities and Exchange Commission as a municipal securities dealer pursuant to Section 15B(a) of the Securities Exchange Act of 1934.

Wells Fargo Bank, National Association, acting through its Municipal Products Group (“WFBNA”), one of the underwriters of the Series 2018 Bonds, has entered into an agreement (the “WFA Distribution Agreement”) with its affiliate, Wells Fargo Clearing Services, LLC (which uses the trade name “Wells Fargo Advisors”) (“WFA”), for the distribution of certain municipal securities offerings, including the Series 2018 Bonds. Pursuant to the WFA Distribution Agreement, WFBNA will share a portion of its underwriting or remarketing agent compensation, as applicable, with respect to the Series 2018 Bonds with WFA. WFBNA has also entered into an agreement (the “WFSLLC Distribution Agreement”) with its affiliate Wells Fargo Securities, LLC (“WFSLLC”), for the distribution of municipal securities offerings, including the Series 2018 Bonds. Pursuant to the WFSLLC Distribution Agreement, WFBNA pays a portion of WFSLLC’s expenses based on its municipal securities transactions. WFBNA, WFSLLC, and WFA are each wholly-owned subsidiaries of Wells Fargo & Company.

The Underwriters and their respective affiliates are full-service financial institutions engaged in various activities that may include securities trading, commercial and investment banking, municipal advisory, brokerage, and asset management. In the ordinary course of business, the Underwriters and their respective affiliates may actively trade debt and, if applicable, equity securities (or related derivative securities) and provide financial instruments (which may include bank loans, credit support or interest rate swaps). The Underwriters and their respective affiliates may engage in transactions for their own accounts involving the securities and instruments made the subject of this securities offering or other offering of the City. The Underwriters and their respective affiliates may make a market in credit default swaps with respect to municipal securities in the future. The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and publish independent research views in respect of this securities offering or other offerings of the City.

## **THE TRUSTEE**

The Trustee, The Bank of New York Mellon Trust Company, N.A., is a national banking association organized and existing under and by virtue of the laws of the United States of America and duly authorized to exercise corporate trust powers under the laws of the State of Ohio. The Designated Office of the Trustee is 1660 West Second Street, Suite 830, Cleveland, Ohio 44113.

## **RATINGS**

In connection with the delivery of the Series 2018 Bonds, Moody’s Investors Service, Inc. (“Moody’s”) and S&P Global Ratings, a business unit of Standard & Poor’s Financial Services LLC (“S&P”) are expected to assign the Insured Series 2018 Bonds their ratings of “A2” and “AA,” respectively, based upon the issuance of the Policy for the Insured Series 2018 Bonds (collectively, the “Insured Ratings”). In addition, Moody’s, S&P and Fitch Ratings (“Fitch”) have assigned their ratings of “A3,” “A” and “BBB+,” respectively, to the Series 2018 Bonds, based upon the underlying credit without regard to insurance.

The Insured Ratings assume, upon delivery of the Insured Series 2018 Bonds, the issuance of the Policy by the Bond Insurer, a copy of which is attached to this Official Statement as APPENDIX F. See “PART I – BOND INSURANCE.” Pursuant to the Policy, the Bond Insurer will insure the payments,



when due, of principal of and interest on each series of the Insured Series 2018 Bonds, as described in this Official Statement.

The ongoing stability of the Bond Insurer and the Bond Insurer's ability to pay principal of and interest on the Insured Series 2018 Bonds, and otherwise to perform its obligations under the Policy, are the primary basis for the Insured Ratings assigned to the Insured Series 2018 Bonds and the ultimate security for the payment of principal of and interest on the Insured Series 2018 Bonds. A decline in the financial condition of the Bond Insurer could have an adverse effect on the Insured Ratings and, consequently, on the market price of the Insured Series 2018 Bonds.

No application has been made to any other rating agency for the purpose of obtaining an additional rating on the Series 2018 Bonds. A rating reflects only the views of the rating agency and any explanations of the significance of those ratings may be obtained from the respective rating agencies. There is no assurance that those ratings will continue for any given period of time or that they will not be revised downward or withdrawn entirely by any or all of the rating agencies, if, in their judgment, circumstances so warrant. Any downward revision or withdrawal of those ratings may have an adverse effect on the market price of the Series 2018 Bonds. The City and the Underwriters have undertaken no responsibility either to bring to the attention of the holders of the Series 2018 Bonds any proposed change in or withdrawal of the ratings or to oppose any revision or withdrawal.

#### **CONCLUDING STATEMENT**

To the extent that any statements made in this Official Statement involve matters of opinion, forecasts or estimates, whether or not expressly stated to be such, they are made as such and not as representations of facts or certainty, and no representation is made that any of such statements have been or will be realized. Information in this Official Statement has been derived by the City from official and other sources and is believed by the City to be accurate and reliable. Information other than that obtained from official records of the City has not been independently confirmed or verified by the City and its accuracy is not guaranteed.

The summaries and descriptions of provisions of the Indenture and all references to other materials not purporting to be quoted in full are qualified in their entirety by reference to the complete provisions of the documents and other materials summarized or described. Copies of the Indenture may be obtained from the City or, during the offering period, from the Underwriters.

The agreement of the City with the owners of the Series 2018 Bonds is fully set forth in the Indenture. Neither this Official Statement nor any statement that may have been or that may be made orally or in writing is to be construed as or as part of a contract with the original purchasers or subsequent holders of the Series 2018 Bonds.

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This Official Statement has been prepared and delivered by the City and executed for and on behalf of the City by its Director of Finance and Director of Port Control.

CITY OF CLEVELAND, OHIO

By: /s/ Sharon A. Dumas  
Director of Finance

By: /s/ Robert W. Kennedy  
Director of Port Control

## **PART II**

### **CERTAIN INFORMATION REGARDING THE CITY, THE AIRPORT SYSTEM AND THE AVIATION SECTOR THE CITY**

#### **General**

The City is a municipal corporation and political subdivision of the State of Ohio (the “State” or “Ohio”). It is located on the southern shore of Lake Erie and is the county seat of Cuyahoga County (the “County”) located in northeastern Ohio. The City was incorporated as a village in 1814 and became a city in 1836.

#### **City Government**

The City operates under and is governed by the Charter, which was first adopted by the voters in 1913 and has been and may be further amended by the voters from time to time. The City is also subject to certain general State laws that are applicable to all cities in the State. In addition, under Article XVIII, Section 3 of the Ohio Constitution, the City may exercise all powers of local self-government and may exercise police powers to the extent not in conflict with applicable general State laws. The Charter provides for a mayor-council form of government.

Legislative authority is currently vested in a 17-member Council. The terms of Council members and the Mayor are four years. All Council members are elected from wards. The current terms of the Mayor and Council members expire on January 3, 2022. The Council fixes compensation of City officials and employees and enacts ordinances and resolutions relating to City services, tax levies, appropriating and borrowing money, licensing and regulating businesses and trades, and other municipal functions. The presiding officer is the President of Council, who is elected by the City Council members. Kevin J. Kelley was elected as President of Council for a second term beginning January 1, 2018. The Clerk of Council is appointed by Council.

Pursuant to the City Charter, City Council is required to re-divide the City into wards based on the City’s population. Currently, there are 17 wards in the City.

The City’s chief executive and administrative officer is the Mayor who is elected by the voters for a four-year term. On November 7, 2017, Frank G. Jackson was re-elected Mayor of the City for a fourth term beginning January 1, 2018. Prior to assuming office as Mayor, Mr. Jackson served as President of Council from January 2002 through December 2005 and as Ward 5 Council Member since 1989. The Mayor may veto any legislation passed by Council. A veto may be overridden by a two-thirds vote of all members of the Council.

The Charter establishes certain administrative departments and Council may establish divisions thereof or additional departments. The Mayor appoints all of the directors of the City’s 12 departments.

#### **Financial Matters**

The responsibilities for the City’s major financial functions are vested in the Director of Finance. The Director of Finance is responsible for preparing and implementing the City’s current operating budget and capital improvement plan, collecting the City’s revenues, and procuring the City’s goods and services and making payments therefor. The Director of Finance is also responsible for maintaining an effective system of internal accounting control, which includes the maintenance of a centralized

accounting system and the supervision of the City's internal audit staff. Preparation and issuance of the City's internal and external financial reports are supervised by the Director of Finance.

The Director of Finance for the City is Sharon A. Dumas. Ms. Dumas served as Assistant Director of Finance for Budget and Capital from October 13, 2003 until her appointment as Director of Finance on March 29, 2006. Prior to joining the City's Finance Department, Ms. Dumas worked as Assistant Director of Community Development for the City. Ms. Dumas also served as Finance Director for the City of East Cleveland, Ohio from 1988 to 1994. Ms. Dumas holds a Masters of Accounting and Financial Information Systems from Cleveland State University and has over thirty years of experience in private and public sector accounting. In addition, Ms. Dumas was named the Interim Chief of Staff on December 4, 2017. She retains her position as Director of Finance.

James T. Hartley was named an Assistant Finance Director in April 2007 and, in addition, has served as acting City Treasurer and now City Treasurer since April 2008. Prior to accepting his current positions, Mr. Hartley was the Chief Investment Officer for the Ohio Treasurer of State from 1999 until 2007. As a member of the Treasurer's senior staff, he was responsible for overseeing and directing the State's investment program, including the State Operating Fund, STAR Ohio Local Government Investment Pool, and the State Tobacco Settlement Funds.

James E. Gentile, CPA, returned to the City as Controller in February 2002. Prior to accepting the position, Mr. Gentile was Deputy Auditor for the Auditor of State's Office since 1995 where he planned and supervised audits of cities, school districts and other local government agencies. From 1991 through 1995, he was employed by the City as an accountant and, in his final year, as Acting City Controller.

Elizabeth C. Hruby has served as the City's debt manager since 1996. She is the Assistant Secretary to the Sinking Fund Commission. She has been employed by the City since 1982 when she began as a Budget Analyst in the Office of Budget and Management. She was promoted to Operating Budget Manager in 1987 and was responsible for the development and monitoring of the City's annual operating budget. From January 7, 2002 until April 1, 2002, Ms. Hruby served as interim Director of Finance for the City.

### **Certain Economic and Demographic Information**

The following information updates certain economic and demographic information about the City, the County and the related metropolitan statistical area but does not provide information with respect to the entire Airport Service Region.

#### ***Population***

In the 2010 Census classifications, the City was in the Cleveland-Elyria-Mentor Metropolitan Statistical Area ("MSA"), which consists of Cuyahoga, Geauga, Lake, Lorain and Medina counties. In 2010, the MSA had a population of 2,077,240, ranking it the 28th largest metropolitan area (out of 366) in the United States. The City was also in the Cleveland-Lorain-Elyria Primary Metropolitan Statistical Area ("PMSA"), which consisted of the counties of Ashtabula, Cuyahoga, Geauga, Lake, Lorain and Medina and the Cleveland-Akron Consolidated Metropolitan Statistical Area ("CMSA"), which consisted of eight northeast Ohio counties until June 2003 when the U.S. Census Bureau ceased using the PMSA and CMSA distinctions.

Set forth below are population statistics from the U.S. Bureau of the Census for the City, the County, the MSA/PMSA, the CMSA and the state for each decade from 1970 to 2000 and for the City, the County, the MSA/PMSA, and the State for 2010 and estimated for 2017.

### POPULATION STATISTICS

Year	City	County	PMSA/MSA	CMSA	State of Ohio
1970	750,879	1,720,300	2,418,809 <sup>1</sup>	2,999,811	10,657,423
1980	573,822	1,498,400	2,277,681 <sup>1</sup>	2,834,412	10,797,604
1990	505,616	1,412,140	2,201,994 <sup>1</sup>	2,859,644	10,847,115
2000	478,403	1,393,978	2,250,871 <sup>1</sup>	2,945,831	11,363,543
2010	396,815	1,280,122	2,077,240 <sup>2</sup>	N/A	11,536,504
2017-est	385,525	1,248,514	2,077,271 <sup>2</sup>	N/A	11,658,609

Source: U.S. Bureau of the Census.

### *Employment*

The following table compares estimated employment and unemployment statistics (annual averages) for the City, the County and the MSA, including comparisons with unemployment rates for the State and the United States.

### EMPLOYMENT STATISTICS<sup>3</sup>

Year	Employed			Unemployed			Unemployment Rate				
	City	County	MSA	City	County	MSA	City	County	MSA	Ohio	U.S.
2009	159,800	571,100	972,500	18,900	54,500	91,200	10.6%	8.7%	8.6%	10.3%	9.3%
2010	148,800	577,900	964,100	17,900	53,800	87,900	10.8	8.5	8.4	10.3	9.6
2011	147,900	576,000	964,200	15,900	47,200	76,400	9.7	7.6	7.3	8.8	8.9
2012	148,200	577,200	967,600	14,100	42,000	67,700	8.7	6.8	6.5	7.4	8.1
2013	147,400	574,500	965,500	14,300	43,300	70,600	8.8	7.0	6.8	7.5	7.4
2014	148,400	577,700	972,700	12,700	38,600	62,400	7.8	6.2	6.0	5.8	6.2
2015	148,300	577,400	974,100	10,400	31,500	51,400	6.3	5.0	4.8	4.9	5.3
2016	148,200	577,200	973,900	11,100	33,300	54,400	7.6	5.4	5.3	5.0	4.9
2017	147,600	575,100	972,700	11,700	35,800	58,400	7.4	5.9	5.7	5.0	4.4
2018 <sup>4</sup>	148,400	578,400	977,700	10,900	33,200	54,600	6.8	5.4	5.3	4.6	4.1

Source: Ohio Department of Job & Family Services, Labor Market Information Division. City and County estimates are NOT seasonally adjusted.

<sup>1</sup> Indicates population for the PMSA.

<sup>2</sup> Indicates population for the MSA.

<sup>3</sup> Rounded to the nearest hundred.

<sup>4</sup> As of July 2018.

The following table indicates the distribution of employee classifications in the MSA for the years 2012 through 2017 and for the seven-month period ended July 31, 2018:

**DISTRIBUTION OF EMPLOYEES BY SECTOR**  
(Amounts in 000s)

	2012	2013	2014	2015	2016	2017	2018 <sup>1</sup>
<b>Goods Producing Industries</b>							
Mining, Logging, Construction	33.4	34.1	35.2	35.8	35.9	36.4	40.6
Primary Metal	8.7	8.8	8.7	8.4	7.1	7.0	7.4
Fabricated Metal	27.7	27.5	27.9	27.9	26.6	27.1	28.6
Transportation Equipment	12.2	12.6	12.5	12.8	13.5	13.4	13.7
Other	74.4	74.9	74.9	75.6	73.9	74.0	78.7
<b>Total Goods Producing Industries</b>	<b>156.4</b>	<b>157.9</b>	<b>159.2</b>	<b>160.5</b>	<b>157.0</b>	<b>157.9</b>	<b>169.0</b>
<b>Service Producing Industries</b>							
Transportation & Public Utilities	29.8	30.3	30.2	30.9	31.3	31.0	32.5
Wholesale Trade	49.6	49.4	50.2	51.1	51.5	52.1	54.7
Retail Trade	101.2	101.8	101.3	101.6	102.1	99.9	101.5
Finance, Insurance & Real Estate	62.9	62.8	64.9	65.0	65.2	66.6	50.2
Health Services	161.6	164.0	163.0	166.1	169.4	165.9	168.6
Other Services	321.7	327.3	334.2	335.5	341.9	347.6	380.7
Federal Government	18.5	18.3	18.3	18.6	18.9	19.1	19.1
State Government	7.0	6.9	7.3	7.2	7.3	7.4	6.8
Local Government	107.9	107.6	108.2	108.8	109.9	110.1	109.6
<b>Total Service Producing Industries</b>	<b>860.2</b>	<b>868.4</b>	<b>877.6</b>	<b>884.8</b>	<b>897.5</b>	<b>899.7</b>	<b>923.7</b>
<b>Total</b>	<b><u>1,016.6</u></b>	<b><u>1,026.3</u></b>	<b><u>1,036.7</u></b>	<b><u>1,045.3</u></b>	<b><u>1,054.5</u></b>	<b><u>1,057.6</u></b>	<b><u>1,092.7</u></b>
<b>Goods Producing Percentage</b>	<b>15.4%</b>	<b>15.4%</b>	<b>15.4%</b>	<b>15.4%</b>	<b>14.9%</b>	<b>14.9%</b>	<b>15.5%</b>
<b>Service Producing Percentage</b>	<b>84.6%</b>	<b>84.6%</b>	<b>84.6%</b>	<b>84.6%</b>	<b>85.1%</b>	<b>85.1%</b>	<b>84.5%</b>

Source: Ohio Department of Job & Family Services, Labor Market Information Division.

The following table indicates the per capita income for the County, the MSA, the State, and the United States for the years 2007 through 2016.

**PER CAPITAL INCOME**

Year	County	MSA	Ohio	U.S.
2007	\$40,700	\$39,800	\$35,488	\$39,821
2008	42,302	41,122	36,681	41,082
2009	39,938	39,057	35,610	39,376
2010	39,971	39,401	36,355	40,277
2011	42,645	42,075	38,816	42,461
2012	44,933	44,034	40,269	44,282
2013	44,889	44,297	40,687	44,493
2014	47,087	46,295	42,164	46,464
2015	48,506	47,783	43,587	48,190
2016	50,023	48,968	44,876	49,246

Source: U.S. Bureau of Economic Analysis.

<sup>1</sup> Preliminary values through July 2018.

The income per household in the City and the County is estimated to be distributed as set forth in the following table:

#### INCOME PER HOUSEHOLD

Income and Benefits <sup>1</sup>	City		County	
	# Households	% Households	# Households	% Households
Less than \$10,000	34,604	20.7%	57,923	10.8%
\$10,000 to \$14,999	17,278	10.3	33,997	6.4
\$15,000 to \$24,999	27,683	16.6	64,787	12.1
\$25,000 to \$34,999	20,792	12.4	58,884	11.0
\$35,000 to \$49,000	22,434	13.4	71,556	13.4
\$50,000 to \$74,999	22,098	13.2	89,052	16.7
\$75,000 to \$99,999	10,338	6.2	56,998	10.7
\$100,000 to \$149,999	7,752	4.6	57,923	10.8
\$150,000 to \$199,999	2,048	1.2	20,308	3.8
\$200,000 or more	2,040	1.2	23,131	4.3

Source: U.S. Census Bureau Selected Economic Characteristics in the United States 2012-2016.

The U.S. Census Bureau also estimates that 36.0% of the people in the City and 18.5% of the people in the County have incomes that fall below the poverty level.

#### *Corporate Headquarters*

Listed below are 13 corporations (representing 12 different industries) among the Fortune 1000 largest corporations of 2017 (ranked by worldwide revenues) that have headquarters in the County.

#### CORPORATIONS HEADQUARTERED IN COUNTY AMONG FORTUNE'S TOP 1000 WITHIN THE 1,000 LARGEST U.S. CORPORATIONS RANKED BY REVENUES

Rank	Company	Major Products
112	Progressive	Insurance
190	The Sherwin Williams Company <sup>2</sup>	Paints & Chemicals
256	Parker Hannifin Corp	Hydraulic Components
412	KeyCorp <sup>2</sup>	Financial Services
465	TravelCenters of America	National Travel Center Chain
662	TransDigm Group, Inc. <sup>2</sup>	Aircraft Components
748	Medical Mutual of Ohio	Health Care Insurance
751	Hyster-Yale Materials Handling	Industrial Machinery
757	Aleris International	Metals
804	Lincoln Electric Holdings	Industrial Equipment
810	Applied Industrial Technologies Inc. <sup>2</sup>	Industrial Components
867	Cleveland-Cliffs, Inc. <sup>2</sup>	Iron Ore, Mining
939	Nordson	Industrial Machinery

Source: 2018 Fortune Directory of the Largest U.S. Corporations.

<sup>1</sup> In 2016 inflation-adjusted dollars

<sup>2</sup> Headquartered in the city

### ***Home Values, Housing Units and Home Sales***

The 2016 estimated median values of owner-occupied homes in the City, the County and the MSA were \$66,800, \$126,700, and \$146,100, respectively, compared with \$129,900 in the State and \$178,600 in the United States. The number of housing units within the City for the nine-year period from 2008 to 2016 decreased by 1.32%, from 215,413 to 212,568, compared with a decrease of 0.05% for the County, from 620,500 to 617,533. (All figures in this paragraph are derived from the U.S. Bureau of the Census.) In recent years, as part of the City's community development initiatives, the City has provided financial assistance to nonprofit and for-profit developers to stimulate new housing construction in the City and made additional efforts to address increased foreclosures. See "Housing and Neighborhood Development" below.

Listed below are sale price summary statistics for the City and the County, respectively.

#### **HOUSING SALES STATISTICS 2013-2017**

Year	City		County	
	Number of Sales	Average Sales Price	Number of Sales	Average Sales Price
2013	2,809	\$59,737	13,674	\$139,950
2014	3,761	54,548	16,021	129,634
2015	3,266	67,280	15,672	144,206
2016	4,847	59,368	20,198	135,046
2017	4,705	76,458	19,495	156,622

Source: The County.

### ***Building Permits***

The following table shows information concerning the filing with the County of building permits for construction and demolition and the net assessed valuation (not the actual construction or demolition cost) of those building permits as determined by the County, for the City by class:

#### **BUILDING PERMITS**

	2013		2014		2015		2016		2017	
	# of Permits	Assessed Value <sup>1</sup>	# of Permits	Assessed Value <sup>1</sup>	# of Permits	Assessed Value <sup>1</sup>	# of Permits	Assessed Value <sup>1</sup>	# of Permits	Assessed Value <sup>1</sup>
Commercial	786	\$157,917	758	\$153,627	889	\$87,635	944	\$104,940	852	\$129,979
Industrial	154	8,858	105	4,403	103	2,401	96	2,692	79	6,450
Exempt	381	713	318	427	1,175	2,541	561	90	1,252	1,244
Public	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>
Residential	<u>4,330</u>	<u>13,622</u>	<u>4,907</u>	<u>7,853</u>	<u>5,884</u>	<u>7,015</u>	<u>5,924</u>	<u>8,179</u>	<u>5,014</u>	<u>10,467</u>
Total:	5,651	\$181,110	6,088	\$166,310	8,053	\$99,592	7,527	\$115,901	7,197	\$148,140

Source: The County.

### ***Utilities***

The MSA is well served with adequate and reliable water and energy resources. The principal source of water in the MSA is Lake Erie, the twelfth largest lake in the world. The principal provider of potable water in the County is the City's Division of Water. A large amount of fresh water is available to

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<sup>1</sup> In thousands.



the area for its foreseeable needs. The two principal providers of electric energy in the MSA are the City's Cleveland Public Power and the Cleveland Electric Illuminating Company, a wholly-owned electric utility operating as a subsidiary of FirstEnergy Corp. Sewer services in the MSA are provided by the Northeast Ohio Regional Sewer District.

### ***Transportation***

The City is a major regional center for economic and commercial activity and is served by diversified transportation facilities. There is immediate access to six United States highways and seven interstate highways. The Cleveland Innerbelt Modernization Plan focused on improving safety, reducing congestion and traffic delays, and modernizing interstate travel along I-71, I-77 and I-90 through downtown Cleveland. This investment by the State of Ohio rehabilitated and reconstructed the Innerbelt Freeway system – including construction of two new bridges to carry I-90 traffic – and addressed operational, design, safety and access shortcomings that severely impacted the ability of the Innerbelt Freeway system to meet the transportation needs of Northeast Ohio. The Ohio Department of Transportation (“ODOT”) constructed a new westbound Innerbelt Bridge in the fall of 2013. ODOT also demolished the old Innerbelt Bridge and completed construction of the new eastbound bridge in October 2016. This two bridge system accommodates the more than 138,000 vehicles that cross the bridge each day. ODOT reports that the total cost for the construction of the two bridges was approximately \$573 million.

In the fall of 2014, ODOT commenced construction on its Opportunity Corridor Project, a three-mile, approximately \$331 million road project that is designed to improve the transportation system and support planned economic development within the City in the areas between I-490/I-77 and University Circle. The Opportunity Corridor encompasses nearly 1,000 acres on the City's southeast side and is anchored by University Circle and the Cleveland Clinic. In addition to transportation benefits, it is anticipated that the Opportunity Corridor Project will bring new economic development and new jobs to the community. The Opportunity Corridor Project supports an economic development plan of the City and Greater Cleveland Partnership for the area through enhanced mobility, direct access to freeways and the University Circle area, new frontage for potential development, improved visibility and improved multi-modal access. The Opportunity Corridor Project is being funded in part by bonds issued by the Ohio Turnpike and Infrastructure Commission. The Opportunity Corridor Project is divided into three stages: the first stage commenced in the fall of 2014; the second stage commenced in the spring of 2016; and the third stage is expected to commence in 2018 with targeted completion in 2021.

The Port of Cleveland (the “Port”) is an interlake and international shipping center located on the shores of Lake Erie and the Cuyahoga River. The Port primarily handles steel and bulk commodities and is a heavy lift port which is favorable for such items as automobile manufacturing equipment, presses and raw and finished steel and factory components. There are approximately 20,273 jobs supported by the maritime activities of the Port, with \$1.4 billion in total personal income and local consumption. The Port averages 13 million tons of cargo per year.

Norfolk Southern and CSX chose the City as their gateway to the Northeast and Midwest after the respective railroads restructured the rail systems following the acquisition of Conrail.

The City is also served by the Regional Transit Authority (“RTA”). The RTA owns and operates a public mass transit system, providing transportation to a 457 square mile service area which includes 59 municipalities, one of which is the City.

### ***Financial Services***

The City is a regional financial center and is the headquarters for the Fourth District Federal Reserve Bank, serving Ohio, the western portion of Pennsylvania and portions of Kentucky and West Virginia.

### ***Education***

Within the County are 13 public and private two-year and four-year colleges and universities, including, among others, Case Western Reserve University, John Carroll University, Cleveland State University, Cuyahoga Community College, Baldwin Wallace University, Notre Dame College, Ursuline College, the Cleveland Institute of Music and the Cleveland Institute of Art.

### ***Health Care***

There are over 20 hospitals, including acute care and private psychiatric hospitals, in the County. Among these institutions are the Cleveland Clinic Foundation, University Hospitals Health System (affiliated with Case Western Reserve University School of Medicine), and the MetroHealth System, all headquartered in the City.

### ***Recreation and Entertainment***

The City is noted for its many cultural institutions, including the internationally acclaimed Cleveland Orchestra and the Cleveland Museum of Art, the latter of which completed a \$350 million renovation and expansion project in late 2013. The project included refurbishing historic galleries and adding 35,000 square feet of gallery space, which opened in stages. Theaters and entertainment centers include Playhouse Square (a complex of eight theaters and performance venues, currently with seating for over 10,000), Public Auditorium, Karamu House, and Severance Hall. Other cultural institutions include the Cleveland Play House, Great Lakes Theater, Cleveland Public Theater, Apollo's Fire (the Cleveland Baroque Orchestra), Verb Ballet, and Dance Cleveland.

The Rock and Roll Hall of Fame and Museum, a 150,000 square foot facility located at North Coast Harbor, opened in 1995 and has attracted more than 11 million visitors to date. The Rock Hall is in the midst of a multiyear and multimillion dollar renovation project. The City hosted the Rock and Roll Hall of Fame inductions in 2015 and 2018. Future induction ceremonies will be held in the City every other year. The 2018 induction ceremony drew thousands of visitors and was expected to result in approximately \$16 million in spending.

The Great Lakes Center for Science and Technology, located on North Coast Harbor next to the Rock and Roll Hall of Fame and Museum, opened in July 1996. With more than 400 hands-on exhibits and a six-story Omnimax theater, the Center gives visitors the chance to explore science, environment and technology and their relationships to the Great Lakes.

Other museums in the City include Museum of Contemporary Art Cleveland, Cleveland Botanical Gardens, Cleveland Museum of Natural History, Dunham Tavern Museum, and the Cleveland History Center. Recreational facilities in the City include the 18,800-acre Metropolitan Park System, Cleveland Metroparks Zoo, Wade Park, Rockefeller Park, Cultural Gardens, Lakefront State Park and, outside the City, the Cuyahoga Valley National Park. The Cleveland Metroparks Zoo opened its \$4.1 million Rosebrough Tiger Passage in June 2016 and its \$4.5 million Asian Highlands exhibit in June 2018. The Crawford Auto Aviation Museum, part of the Cleveland History Center, reopened in January 2013 after a

\$4 million renovation. In the fall of 2017, the Cleveland Children's Museum reopened in the historic Stager-Beckwith mansion in the Midtown neighborhood after a \$10.3 million renovation, giving the museum four times the space as its former location.

Professional sports are available to area residents at various facilities located in the City's downtown. FirstEnergy Stadium (previously known as Cleveland Browns Stadium), located on the lakefront in downtown Cleveland on the same site as the former Cleveland Municipal Stadium, was completed in August 1999 and is the home of the National Football League's Cleveland Browns. The facility consists of an open-air stadium with approximately 68,000 seats. In addition to NFL football, the facility is suitable for major league soccer and open-air concerts.

The Gateway Sports Complex, located in the central business district of the City, includes Progressive Field (home of the American League's Cleveland Indians), Quicken Loans Arena (home of the National Basketball Association's Cleveland Cavaliers, the American Hockey League's Cleveland Monsters, and the Arena Football League's Cleveland Gladiators), and a parking garage.

Progressive Field, which opened in April 1994, is an open air, natural turf baseball stadium with a current seating capacity for approximately 36,000 people. Quicken Loans Arena, which opened in October 1994, is a multi-functional, indoor facility for sporting and entertainment events and seats approximately 20,000 people. The Gateway common areas consist of approximately 13 acres and include Gateway Square, an area for outdoor entertainment and activities. A \$140 million renovation of Quicken Loans Arena began in September of 2017.

The City's various facilities and downtown development have allowed the City to accommodate several major national events. The City hosted the 2016 Republican National Convention in July 2016, with an estimated 50,000 attendees. The City also hosted the 2014 Gay Games which featured more than 35 sports, band and choral competitions and community and cultural events and more than 10,000 participants from more than 65 countries. In addition, the City hosted the National Senior Games in July 2013, with over 10,000 registered athletes and had a total attendance of approximately 65,000.

### ***Downtown and Other Economic Development***

The City continues to focus its strategies on identified clusters of regional strength including health technology, paints and coatings, lighting and electrical, information technology, automotive and automotive related, aerospace, and banking and finance. Retention efforts include two visitation programs: the Cleveland Industrial Retention Initiative for all manufacturers, distribution and related supply chain businesses and a specific downtown stakeholders' visitation program through Downtown Cleveland Alliance. Oatey Co., a long time Cleveland manufacturer of plumbing products with locations around the world, built a new 43,500 square foot headquarters building in Cleveland's Emerald Corporate Park, which opened in October 2016.

Investment in the City's educational institutions continues. Cleveland State University recently opened Washkewicz Hall, its new \$60 million engineering building in December 2017. Cuyahoga Community College has undertaken a major construction and renovation project across all four of its campuses. This includes a \$6 million addition and renovation of its Advanced Technology and Training Center at the Metropolitan Campus downtown.

One of the central focus areas is the Health Tech Corridor, a three-block wide transit-oriented development running from Cleveland State University to University Circle, encompassing 1,600 acres. The Health Tech Corridor includes three colleges and universities and three major hospitals. In 2014, RTA completed a new transit station in University Circle on Cedar Avenue and completed construction of

a new transit station on Mayfield Road in August 2015. These stations complement RTA's Health Line transportation system by connecting it to the City's heavy rail system, with direct access to the airport, and providing better connectivity to the City's second "downtown." The Health Line was key in the retention of Dealer Tire in the City's Midtown area. Dealer Tire opened their new Headquarters at the Victory Center in mid-2017, keeping their 450 employees in the City. They intend to add over 100 jobs in the next three years. The area also continues to provide a location for incubated health technology companies like Abeona, which broke ground in October 2017 on a private gene manufacturing facility (one of 10 in the United States) in the Health Tech corridor.

Hemingway Development and University Hospitals have agreed to purchase a ten-acre brownfield site that the City assembled and cleaned up. University Hospitals is developing another Health Technology Campus to be anchored by University Hospital's 40,000 square foot Rainbow Center for Women and Children, which opened in July of 2018. Hemingway also broke ground in 2016 on a 60,000 square foot speculative tech center. Construction is expected to be completed in 2018, with much of the space preleased. Dave's Supermarkets is currently constructing a new flagship 60,000 square foot grocery store on an adjacent site. This will provide a major retail amenity to the Corridor, as well as the surrounding neighborhoods. A new Hilton Tru hotel is under construction in the area to meet the rising demand from the medical and technology developments in the corridor.

A development team of First Interstate Properties, Ltd., and Petros Development Corp. recently opened One University Circle, a new 28-story residential tower in University Circle, five miles east of downtown in the vicinity of the Cleveland Clinic, Case Western Reserve University and many of the City's cultural institutions. Midwest Development Partners and the Coral Company are preleasing Centric, a seven-story mixed use complex consisting of first floor office and retail and 272 residential units, with expectations of occupancy in August of 2018. The two projects represent a total investment in the University Circle area of over \$180 million.

In 2013, the Cleveland Clinic demolished a block of buildings across from its campus to make way for a new medical school in partnership with Case Western Reserve University. Originally planned as a 165,000 square foot medical education building, the project has now been expanded to become a Health Education Campus in excess of 485,000 square feet and a cost over \$515 million. The project broke ground on October 1, 2015 and is expected to be completed in mid-2019. The Cleveland Clinic opened its \$276 million 377,00 square foot Taussig Cancer Center in March of 2017. The Clinic is converting the former Cancer Center building into the 120,000-square-foot new home of Cleveland Clinic Children's outpatient facility. The \$20 million renovated facility is expected to open in the fall of 2018.

In 2015, Integrated CC LLC, as the developer, commenced construction of the 276-room all service Holiday Inn Cleveland Clinic located on the Cleveland Clinic Campus. The hotel has a full service restaurant and lounge. The hotel is designed to serve the public and the families of overnight patients at the Cleveland Clinic. The \$45 million project was financed with bonds issued by the Cleveland-Cuyahoga County Port Authority. The hotel opened for business in May 2016.

In 2014, MetroHealth Medical Center announced its campus transformation project. As part of the multi-year project, MetroHealth opened its \$86 million Critical Care Pavilion in 2016. A 1,500-space parking garage is expected to be completed in 2018. A new hospital and other buildings are in the design process, with construction expected to commence in the spring of 2019 on the new hospital. The total cost for all phases of the campus transformation is anticipated to be approximately \$1 billion.

The County's \$465 million Convention Center and Global Center for Health Innovation project in the City's downtown was completed in 2013. The project included an integrated facility for (i) exhibition space and showrooms for medical devices and equipment and related functions (the Global Center for Health Innovation) and (ii) exhibition, tradeshow and conference facilities, meeting rooms and related functions. Plug and Play, a Silicon Valley-based startup accelerator, has partnered with The Cleveland Clinic and Jumpstart to launch healthcare startups. The companies will be housed in 10,000 square feet of the Global Center for Health Innovation, where Plug and Play has made a three-year commitment to provide mentorship to high-tech startups.

Explorys, a Cleveland Clinic incubated software company, was purchased by IBM which intends to keep the company in the City and plans to add 100 new jobs to its current workforce. They are in the process of constructing a new headquarters in the City at the intersection of East 105<sup>th</sup> Street and Cedar Avenue, along the Opportunity Corridor.

Stark Enterprises purchased two buildings and a surface parking lot in the City's downtown and has announced plans to create a 2.6 acre site that will become "nuCLEus", a \$250 million development that will include 500 residential units, 200,000 square feet of office space, 130,000 square feet of retail space, two new parking garages and a new hotel.

The \$275 million Cleveland Flats East Development Project Phase I was completed in 2013. This project consisted of an approximately 476,000 square foot, 18-story office tower, an approximately 530-space parking garage, a 150-room Aloft hotel, and approximately 31,000 square feet of restaurant and retail space. The \$146 million Phase II included 243 apartments and 80,000 square feet of ground floor restaurant and retail as well as 48,000 square feet of entertainment space. A 1,200 linear foot river walk has been completed and provides access to the riverfront. The Phase II grand opening was held in October 2015. The Metroparks has opened a seasonal water taxi service that connects both sides of the river with plans to connect in the future to a lakefront beach at Wendy Park, furthering the tourist draw to this area.

The Ohio City neighborhood continues to grow and be a destination for residents and tourists. The neighborhood includes the City-owned West Side Market, the oldest continually operating market in the country, which recently celebrated its 100th anniversary. The West 25th Street Lofts Project created 83 loft style apartments and some rooftop penthouse units, as well as 9,100 square feet of commercial space. The last of the apartments was completed in December of 2016. Total project cost was over \$60 million. Abode Modern Lifestyle Developers has assembled four acres of land with hopes of constructing a \$40 to \$50 million new mixed use development. The area has seen more than \$15 million in new investment to redevelop over 198,000 square feet of vacant or underutilized mixed use space, including historic renovations and some new construction. The Snavely Group has announced a \$60 million mixed-use, mixed-income development that began construction in October 2016. The success of Ohio City investments has led to development moving along the retail corridor on Lorain Avenue, with investors buying buildings from West 25<sup>th</sup> Street to West 50<sup>th</sup> Street with a variety of retail and commercial projects that include microbreweries, a home brewing supplier, an organic grocery store, restaurants and a shuffle board club. Many of the buildings are renovating long vacant apartments over the first floor retail space as the Ohio City housing market continues to draw new residents from all income levels looking to be in this walkable, transit-oriented community. In 2018, groundbreaking is scheduled on another mix-use development on a nearby site on Detroit Avenue.

The Detroit Shoreway neighborhood adjacent to Ohio City is also enjoying an arts and entertainment resurgence. The Cleveland Public Theater and Capital Theater were joined in 2015 by a new performing arts venue, the Near West Theatre. The Templin Bradley, a 30-unit mixed income apartment building with both market rate and low-income units, opened in June 2015.

## ***Housing and Neighborhood Development***

The City continues to implement strategies to position the City and its neighborhoods to capitalize on future opportunities. The City has identified areas (i) where significant needs must be addressed, (ii) where need and market potential overlap, (iii) where scattered site rehabilitation will be sustainable, and (iv) where the City can create new housing opportunities, particularly for very low income households. In these target areas, the City has focused market-building and stabilization efforts, specifically focused on demolition, housing renovation and land reutilization.

## **THE AIRPORT SYSTEM**

### **General**

The Airport System is comprised of Cleveland Hopkins International Airport (the “Airport”) and Burke Lakefront Airport (“Burke”). The Airport is the primary commercial service airport for northeastern Ohio. The Airport is located approximately ten miles southwest of the City’s downtown, and encompasses approximately 2,045 acres of land, with three air carrier runways, a large terminal complex and various cargo maintenance facilities.

According to statistics compiled by the FAA, the Airport was the 43rd busiest airport in terms of total passengers for U.S. airports in 2017. The Airport had approximately 4,562,740 enplaned passengers in 2017 and 4,205,739 enplaned passengers in 2016. Through 2017, enplaned passenger levels increased 8.5% compared to 2016.

United Airlines (previously Continental Airlines prior to the merger of the two airlines in November 2011) used the Airport as one of its major domestic hubs until February 2014, when United announced plans to dehub operations at the Airport by dramatically reducing nonstop departures and destinations. For comparison purposes, United Airlines’ nonstop departures served by mainline aircraft at the Airport decreased by 61% between February 2014 and February 2015 according to U.S. Department of Transportation data. United Airlines and its regional affiliates, in particular, Express Jet, Mesa, Skywest and Republic, which operate under the brand name United Express, together accounted for 50.8% and 67.4% of the total enplaned passengers at the Airport in 2014 and 2013, respectively. In 2017, United Airlines represented 25.9% of the total enplaned passengers at the Airport.

The Airport has historically served a significant origin-destination market, with origin-destination (“O&D”) passengers typically accounting for more than 70% of annual enplaned passengers (revenue and non-revenue, domestic and international) at the Airport. The existing substantial O&D passenger base together with United Airlines’ dehubbing operations at the Airport and subsequent entry of new air carriers and expanded air service of incumbent air carriers has contributed to increased O&D passenger levels at the Airport. In 2017, O&D passengers represented 97.1% of total enplaned passengers at the Airport, up from 74.9% in 2013, which was the last full year of United’s hubbing operation at the Airport. New entrant air carriers that also became new Signatory Airlines (Frontier Airlines, Spirit Airlines, and JetBlue Airlines), as well as expanded service from existing air carriers (American, Delta and Southwest), contribute to the Airport’s role as a substantial O&D-based airport.

Since 2017, the Airport has added new service from Allegiant Air to Austin, Destin/Ft. Walton Beach, Ft. Lauderdale, Jacksonville, Myrtle Beach, New Orleans, Orlando/Sanford, Phoenix/Mesa, Punta Gorda, Savannah and St. Petersburg/Clearwater. Delta Air Lines has added service to Salt Lake City. Frontier Airlines has added Austin, Houston, Miami, Minneapolis, San Diego and San Antonio. In August 2018, Frontier Airlines announced that new service to Punta Cana, Sarasota and West Palm Beach will begin between November 2018 and January 2019. Spirit Airlines added New Orleans, and Southwest

Airlines added Atlanta, Milwaukee and St. Louis. In May 2018, the Airport's first transatlantic flights since 2009 were added. Icelandair initiated five seasonal weekly nonstop flights to Reykjavik, and WOW air launched four seasonal weekly nonstop flights to Reykjavik, the Airport's first transatlantic service since 2009. Over the same period Allegiant Air ceased service to Phoenix/Mesa, Frontier to Atlanta, Charlotte, Los Angeles and San Francisco, and United pulled down their flights to Milwaukee and Tampa.

Burke is a federally certified commercial and general aviation reliever airport located on 480 acres adjacent to the City's downtown. Burke is a full-service aeronautical facility offering two parallel runways, the longest of which is 6,200 feet in length. In 2017, about 51,000 aircraft operations (landings and takeoffs) were performed at Burke, the majority of which were performed by air taxi operators serving the City's downtown business activities and the remainder of which were performed almost entirely by corporate and private general aviation aircraft. In 2017, Burke completed the Congressionally-mandated Runway 6L/24R Safety Area Improvements Project. This project lengthened the runway and brought pertinent runway-taxiway intersections to current FAA standards. The project also installed an Engineered Materials Arresting System ("EMAS") on the west end as the runway was lengthened to the east.

### **Airport Facilities**

The Airport has three runways, including two parallel runways (6L/24R, and 6R/24L) in the northeast-southwest primary wind direction and a crosswind runway (10/28) with an east-west orientation. The Airport commissioned Phase I of Runway 6L/24R in December 2002 at a length of 6,800 feet. Runway 6L/24R was further extended to 9,000 feet and was commissioned as a CAT III runway in November 2004. Runway 6R-24L was extended to approximately 10,000 feet in length and commissioned on December 5, 2008 as part of a project to "uncouple," or disconnect, the runway from its intersection with east-west Runway 10-28 (6015 feet in length). A fourth Runway, 6C/24C, was permanently closed in 2007 as part of a safety enhancement program. Runway ends 6R, 24L, 24R and 28 are equipped with Instrument Landing System "ILS" navigational aids that allow for precision approaches during inclement weather conditions. The Airport completed installation of EMAS at the 10 and 28 ends of Runway 10-28 as part of a project to relocate the runway 330 feet to the east.

The Airport's passenger terminal facilities consist of approximately 935,000 square feet in a main terminal building with four attached concourses. Currently three of the concourses are active (Concourses A, B and C) which support 46 aircraft gates. The Airport opened Concourse D (170,000 square feet) in 1999 to serve the expanding regional jet operation of Continental Express (now, ExpressJet). United Airlines announced in April 2014 that it would no longer operate a hub at CLE and vacated Concourse D and consolidated its operations at the Airport on Concourse C. However, United Airlines continues to pay all costs, including the debt service, associated with Concourse D as evidenced in the Amended Special Facilities Leases for Concourses C and D. Pursuant to the Use Agreements, the leased premises of the Airport are leased on a preferential basis to each of the Airlines that have signed a Use Agreement, including Southwest Airlines, Delta Air Lines, United Airlines, American Airlines, Frontier Airlines, JetBlue Airlines, Spirit Airlines, Allegiant Airlines, UPS and FedEx (collectively, the "Signatory Airlines"). Each Signatory Airline has priority of use with respect to its leased premises, but may be required by the Airport to share the use of such leased premises. In addition, 14 gates remain common use gates under the control of the Airport.

The Airport's public automobile parking facilities currently consists of 5,906 parking spaces, with 3,811 spaces in the Smart Parking Garage (utilizes sensors to signal parking space availability), 1,584 spaces located on-Airport in various surface lots, and 511 spaces located in an offsite economy surface lot. An estimated 7,000 private off-airport parking spaces exist around the Airport's perimeter. On

May 1, 2018 the Airport implemented a \$2.00 rate increase across all parking products. The increase is projected to generate an additional \$2,200,000 in 2018 and full -year incremental revenue of \$3,250,000.

Airport services also include a consolidated rental car facility that is located offsite, though adjacent to the Airport perimeter. The rental car facility is owned by the Airport and leased to the car rental companies, which currently include Alamo, Avis, Budget, Dollar Thrifty, Enterprise, Hertz, and National.

Transportation network companies (“TNCs”), such as Uber Technologies Inc. and Lyft, Inc. provide transportation services to and from the Airport. TNC vehicles pay a \$4.00 trip fee for each pick-up and drop-off at the Airport. In 2017 the Airport collected \$2.3 million in rideshare trip fees.

In 2018, the Airport exercised its option to extend its concessions and lease agreement with the developer Fraport, Inc., formerly known as AIRMALL TM USA, Inc. for five years. The agreement with Fraport has resulted in a higher amount spent per enplaned passenger and a higher revenue stream to the Airport. In 2011, the average revenue per enplaned passenger was \$8.08, and through Q2, 2018, the average revenue per enplaned passenger was \$10.81. The agreement contains minimum annual guarantees payable to the City at levels comparable to the total amount of annual revenue received under the prior concessions and lease agreements. In addition to the minimum annual guarantee provisions, the agreement with Fraport also includes certain revenue sharing elements that benefit the Airport. The concessions development program currently includes more than 51,000 square feet of concession space with plans to refresh certain concessions concepts and to add three new concessions spaces. The concessions program includes local, regional and nationally branded concepts. Current offerings include a variety of concepts, such as The Pub, Quaker Steak and Lube, Bar Symon, Great Lakes Brewery Restaurant, Bruegger’s Bagels, Sammy’s, Fresh Brewed Teas, Johnston and Murphy, Rock and Roll Hall of Fame and Museum Store, Monarch, Sunglass Hut and numerous other brands. Five new concepts will be added by early 2019, including offerings such as Shake Shack and Cantina Taqueria and Tequila Bar.

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## Capital Improvement Plan

The Airport maintains an ongoing Capital Improvement Program (“CIP”) for the Airport System. Airport management has identified \$148.4 million of capital projects that are being funded from 2018 to 2022 (the “Five-Year CIP”) from the following sources.

### CAPITAL IMPROVEMENT PLAN

	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>Total</u>
2018 Bond Proceeds	1,300,000	21,450,000	10,000,000	2,000,000		\$34,750,000
Existing Bond Proceeds		2,700,000				\$2,700,000
Airport Discretionary Funds	10,088,697	8,674,620	6,127,911	2,209,429	6,125,887	33,226,544
Federal Grants-in-Aid	25,218,608	18,519,800	13,833,213	5,446,881	14,700,000	77,718,502
<b>Total CIP Sources</b>	<b>\$36,607,305</b>	<b>\$51,344,420</b>	<b>\$29,961,124</b>	<b>\$9,656,310</b>	<b>\$20,825,887</b>	<b>\$148,395,046</b>
<b>Airfield Projects</b>						
BKL Taxiway D Rehabilitation	214,534					214,534
BKL Runway 6R/24L Rehabilitation	1,128,690	1,128,690				2,257,380
BKL Taxiway E Rehabilitation		242,748				242,748
BKL Taxiway B Rehabilitation			395,237			395,237
BKL Taxiway F Rehabilitation				160,423		160,423
Full depth Rehabilitation of Runway 6R-24L (EA)			1,000,000			1,000,000
Full depth Rehabilitation of Runway 6R-24L (Design)				7,070,000		7,070,000
Full depth Rehabilitation of Runway 6R-24L (Construction Phase I)					19,600,000	19,600,000
North Airfield Improvements (Phase II )	18,959,957					18,959,957
North Airfield Improvements (Construction-Phase III )		16,970,000				16,970,000
North Airfield Improvements (Construction-Phase IV )			16,970,000			16,970,000
<b>Terminal Project</b>						
Airport Signage Upgrades-Phase II (design only)	280,000					280,000
Main Terminal Boiler Replacement		3,300,000				3,300,000
Main Terminal Chiller Replacement		5,300,000				5,300,000
<b>Other Projects</b>						
Aircraft Rescue & Firefighting (ARFF) Vehicle	425,887	425,887	425,887	425,887	425,887	2,129,435
BKL Exhibit A		375,000				375,000
BKL Parking Lot Upgrades		2,500,000				2,500,000
BKL Shoreline Restoration	6,977,737	1,002,095				7,979,832
CLE Master Plan Update	500,000	2,000,000	2,000,000			4,500,000
CLE Airfield Sanitary Sewer Relocation Project		2,500,000	2,500,000	2,000,000		7,000,000
CLE Baggage Handling System Expansion		1,000,000	1,500,000			2,500,000
Electrical Vault 6 (EV-6) Replacement		550,000				550,000
Environmental	800,000		800,000		800,000	2,400,000
General Design Services	150,000		150,000			300,000
Ground Transportation Center Upgrades		1,500,000	1,500,000			3,000,000
IT End of Life Hardware Replacement	300,000	500,000	500,000			1,300,000
Life Safety & Security Access Control Overhaul	400,000	1,000,000	1,000,000			2,400,000
Life Safety & Security Fire Alarm & Suppression	100,000	1,000,000	1,000,000			2,100,000
Noise Monitoring Equipment Replacement			220,000			220,000
Snow Removal Equipment	6,000,000	4,550,000				10,550,000
CLE Roadway Storm Sewer Pump Replacement		1,000,000				1,000,000
Port Control Vehicles	370,500					370,500
Primary Road Utilities & Roadway Improvements		4,500,000				4,500,000
<b>Total CIP Uses</b>	<b>\$36,607,305</b>	<b>\$51,344,420</b>	<b>\$29,961,124</b>	<b>\$9,656,310</b>	<b>\$20,825,887</b>	<b>\$148,395,046</b>

Source: City of Cleveland, Department of Port Control records

The bond-funded CIP Projects have been reviewed by the Signatory Airlines under the MII procedures in the Use Agreements for review of capital projects, and all of the CIP Projects were approved under the MII process. No new money bond issuances are expected in the next four years.

## **Five-Year CIP Projects**

The following is a summary and description of the Five-Year CIP projects:

### ***Airfield Projects***

*North Airfield Improvements (Phases II-IV).* This project will eliminate two airfield-related “hot spots” (areas with the potential for collision or runway incursion) as determined by the Federal Aviation Administration (“FAA”). The project will provide geometric updates to current FAA standards and eliminate direct aircraft access into the runway environment to enhance airfield safety. Estimated cost: \$52.9 million.

*Full Depth Rehabilitation of Runway 6R-24L.* Includes the environmental assessment, design and construction of the complete rehabilitation of the Airport’s inboard runway. Estimated cost: \$27.7 million.

*Airfield Sanitary Sewer Relocation Project.* Includes the design and relocation of an airfield sanitary sewer line to comply with environmental standards. Estimated cost: \$7 million, all to be funded by the Series 2018B Bonds.

*BKL Runway 6R/24L Rehabilitation.* Includes the complete resurfacing and remarking of Burke’s Runway 6R/24L to FAA specifications. Estimated cost: \$2.3 million.

*BKL Taxiway Rehabilitation.* Includes the complete resurfacing and remarking of Taxiways B, D, E and F at Burke. Estimated cost: \$1.0 million.

*BKL Exhibit A.* This project maps the Burke property to update real estate assessment information for City-owned parcels. Estimated cost: \$0.4 million.

### ***Terminal Projects***

*Main Terminal Boiler Replacement.* Replacement of six of the existing eight boilers for the main terminal with more energy efficient units. Estimated cost: \$3.3 million with \$0.6 to be funded by the Series 2018B Bonds.

*Main Terminal Chiller Replacement.* Complete replacement of the Airport’s central cooling plant equipment, which is more than 20 years old. This project will allow for a more efficient chiller plant (plus associated equipment) to meet the current and future service needs of the Airport’s terminal complex. Estimated cost: \$5.3 million, all to be funded by the Series 2018A Bonds.

*Life Safety & Security Access Control Replacement.* A complete replacement of the existing access control system is required due to the obsolescence of the existing system and evolving security requirements of the federal agencies that impact Airport operations. Estimated cost: \$2.4 million, all to be funded by the Series 2018A Bonds.

*Life Safety & Security Fire Alarm Suppression Replacement.* This project replaces field devices (detectors and alarms) placed throughout the terminal complex that are antiquated and require upgrading to integrate with more recent installed systems (e.g., sprinkler release systems). Estimated cost: \$2.1 million, all to be funded by the Series 2018A Bonds.

*Airport Baggage Handling System Expansion.* The design and implementation of additional capacity to the Airport's in-line baggage handling system. Estimated cost: \$2.5 million, all to be funded by the Series 2018A Bonds.

*Airport Signage Upgrades-Phase II.* Signage will be designed and placed in public circulation areas to enhance way finding for Airport customers, including the replacement of existing static signs with digital messaging. Estimated cost: \$0.3 million.

### ***Landside Projects***

*Primary Road Utilities & Roadway Improvements.* Rehabilitation of Primary Road, including the re-rerouting of adjacent underground utilities and sanitary systems. Estimated cost: \$4.5 million, all to be funded by the Series 2018B Bonds.

*Ground Transportation Center Upgrades.* This project provides customer service improvements to the existing ground transportation center ("GTC"), including a new canopy system, new lighting and signage and sectional heating. Upgrades to the GTC are required given the increased utilization of TNCs by passengers entering and exiting the Airport. Estimated cost: \$3.0 million, all to be funded by the Series 2018B Bonds.

*Roadway Storm Sewer Pump Replacement.* The replacement of five storm sewer pumps that service the terminal roadway system. Estimated cost: \$1.0 million, all to be funded by the Series 2018B Bonds.

*BKL Shoreline Restoration.* The restoration of Burke's northwest revetment (shoreline) due to damage sustained from storms impacting the area. The City has applied and received a Federal Emergency Management Agency grant to apply towards cost of the restoration. Estimated cost: \$8.0 million.

*BKL Parking Lot Upgrades.* This project will rehabilitate the existing pavement surface to provide safety improvements and structural strength to support vehicles entering and exiting the parking lot. Estimated cost: \$2.5 million.

### ***Other Projects***

*Snow Removal Equipment.* New snow removal equipment will be purchased to assist with the Airport's snow and ice control plan that addresses poor weather conditions and prompt removal requirements to ensure a safe and efficient operation. Estimated cost: \$10.6 million

*Electrical Vault 6 (EV-6) Replacement.* Removes and replaces all electrical switchgear in the electrical vault due to damaged panel's automatic transfer switch requirements. The EV-6 switchgear and automatic transfer switch were damaged in a flood. Replacement of the switchgear and automatic transfer switch will allow the parking garage, roadway lights and other critical areas served by EV-6 to run on the existing generator power in the event of a power loss. Estimated cost: \$0.6 million, all to be funded by the Series 2018A Bonds.

*Information Technology Upgrades.* Upgrade of switches and other core networking infrastructure to enhance the information technology network across the Airport. Estimated cost: \$1.3 million, all to be funded by the Series 2018A Bonds.

*Aircraft Rescue & Firefighting (ARFF) Vehicle.* Includes the purchase of a new ARFF vehicle to comply with airport safety standards and response times. Estimated cost: \$2.1 million.

*Airport Master Plan.* The development of a new Airport Master Plan to address the short and long-term development needs for the Airport, especially critical given the Airport's aging landside infrastructure and transition to an O&D airport. The plan addresses five primary goals for the Airport: 1) provide a development strategy for the future; 2) identify long-range facilities requirements; 3) develop an implementation program; 4) satisfy the requirements of FAA airport needs; and 5) span a 20-year planning horizon. Estimated cost: \$4.5 million, all to be funded by the Series 2018B Bonds.

*Vehicle Replacement.* This project will replace a portion of the Airport's existing vehicle fleet due to age and operating condition of certain vehicles. Estimated cost: \$0.4 million.

*General Design and Planning Services.* This project allows for the engagement of consultants to provide design, planning and construction management services, as extension support to the staff of the Department of Port Control for the implementation of the Five-Year CIP. Estimated cost: \$0.3 million.

*On-Call Environmental and Other Professional Planning Services.* The Department of Port Control maintains a pool of qualified professional firms that can provide airport planning and environmental services on an as-needed basis. This project will fund those services over the next five fiscal years. Estimated cost: \$2.4 million.

*Noise Monitoring Equipment Replacement.* This project replaces noise monitors at various locations that have reached the end of their useful life to comply with the Airport's Part 150 Noise Compatibility Program. Estimated cost: \$0.2 million.

## CIP Funding Sources

Funding sources for the Five-Year CIP projects are anticipated to include proceeds from the issuance of the Series 2018 Bonds, proceeds from outstanding Airport System Revenue Bonds, federal and state grants-in-aid, and other Airport discretionary funds. The following table summarizes the anticipated sources and uses of funding for the Five-Year CIP.

**Sources and Uses – Five-Year CIP (in \$000s)**

Project	Sources of Funding				
	Project Cost Estimate	Existing Bond Proceeds	Airport Discretionary Funds	Federal and State Grants	Series 2018 Bonds
Airfield Projects	\$91,215	\$ --	\$20,394	\$63,821	\$7,000
Terminal Projects	15,880	2,700	280	-	12,900
Landside Projects	18,980	--	4,495	5,985	8,500
Other Projects	22,320	--	8,057	7,913	6,350
<b>Total</b>	<b>\$148,395</b>	<b>\$2,700</b>	<b>\$33,226</b>	<b>\$77,719</b>	<b>\$34,750</b>

Source: City of Cleveland, Department of Port Control records

### ***Series 2018 Bonds***

The City anticipates issuing a portion of the Series 2018 Bonds to fund a portion of the Five-Year CIP projects and related issuance costs. The City has received all requisite approvals for the issuance of the Series 2018 Bonds, including those from the Scheduled Airlines.

### ***Existing Bond Proceeds***

The City expects to use approximately \$2.7 million in existing bond proceeds to fund a portion of the Five-Year CIP projects. The Scheduled Airlines have also provided certain approvals for the use of such proceeds for funding projects in the Five-Year CIP.

### ***Airport Discretionary Funds***

In accordance with the Airline Agreements, the City receives annual discretionary funds via the Airport Development Fund. The City anticipates using a portion of annual Airport Development Fund receipts to fund certain projects in the Five-Year CIP. The City plans to utilize \$33.2 million in Airport Development Fund and other discretionary fund monies to provide local matches to certain federal and state grants-in-aid as well as fund other capital improvements.

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### ***Federal Grants***

In accordance with FAA Record of Decision dated December 22, 2000 and subsequently amended on August 25, 2005 and August 18, 2017, the City anticipates receiving a total of \$181.6 million in Letter-of-Intent (LOI) funds to pay project costs of the Runway Uncoupling Project (\$42.8 million) and debt service associated with airfield projects funded in part from the Series 2000 Bonds (\$148.4 million). As of December 31, 2017, the City received \$172.9 million of the LOI proceeds. The following table presents the anticipated schedule for receiving the remaining LOI fund balance:

<b>Year</b>	<b>LOI Payment</b>	<b>Year</b>	<b>LOI Payment</b>
2018	\$2,045,253	2021	\$2,090,031
2019	\$2,059,960	2022	\$400,248
2020	\$2,074,885		

Source: FAA letter AGL-01-01 dated August 18, 2017

In addition, the City anticipates receiving \$77.7 million in additional federal and state (“ODOT”) grant-in-aid for the implementation of certain airfield and other improvements at the Airport and Burke.

### ***Passenger Facility Charges***

Under federal law, the FAA may authorize a public agency that controls an airport to impose a PFC of \$1.00, \$2.00, \$3.00, \$4.00 or \$4.50 for each qualifying enplaned passenger at such airport to be used to finance eligible airport-related projects. The City currently imposes a \$4.50 PFC at the Airport, with total impose and use collection authority of \$596.6 million. As of March 31, 2018, the Airport had received a total of \$487.5 million in PFC revenues. The remaining balance of collection authority is anticipated to extend through 2023, with 100% of annual PFC revenues allocated to pay debt service associated with already approved PFC projects.

The amount of actual PFC revenues will vary depending on actual levels of passenger enplanements at the Airport and therefore there is no assurance of the timing or amount of PFC revenues that will be available. The FAA may terminate its approval of the City’s imposition of a PFC if the FAA determines that the City is in violation of the Aviation Safety and Capacity Expansion Act of 1990 and reauthorization in 2000 (the Wendell H. Ford Aviation Investment and Reform Act for the 21<sup>st</sup> Century) (together, the “PFC Acts”) or the regulations promulgated thereunder or certain provisions of the Airport Noise and Capacity Act (the “Noise Act”). However, both the PFC Acts and the Noise Act provide procedural safeguards to ensure that the City’s ability to impose a PFC will not be summarily terminated.

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The following table provides the annual audited collections of PFCs, from 2013 through 2017 (in thousands).

#### **PFC Revenue**

<b>Calendar Year</b>	<b>PFC Revenue</b>
2013	\$17,716
2014	14,798
2015	16,198
2016	16,608
2017	18,511

Source: City of Cleveland, Department of Port Control records

#### ***Airport Development Funds***

In accordance with the Use Agreements, the City annually receives discretionary funds from airline rates and charges that are deposited in the Airport Development Fund. See “PART I – SECURITY FOR THE SERIES 2018 BONDS – Airport Development Fund.” The City anticipates using a portion of annual Airport Development Fund receipts to fund certain of the Five-Year CIP Projects.

#### **Regulatory Matters**

On April 20, 2001, the Airport and the State executed a consent order allowing the Airport to proceed with its expansion program. The consent order required the Airport to address environmental issues, which included handling of deicing chemicals, removal of soils during construction, and an investigation into the effects of past deicing on Airport property. In cooperation with the Ohio Environmental Protection Agency (“OEPA”) the City has implemented numerous capital improvements that address the consent order, including a Centralized Deicing Facility, which eliminates most discharges of deicing chemicals into local waters. The City has implemented a source area reduction program that removes soils adversely impacted by deicing chemicals as those soils are discovered. The consent order has been satisfied and the matter is closed.

The City has sought a modification to the National Pollutant Discharge Elimination System (“NPDES”) permit from the OEPA, which will address new effluent limits on deicing chemicals. The OEPA has also notified the City that Burke is no longer eligible for a general NPDES permit. The City will have to apply for an individual permit that specifically addresses the needs of Burke. The application for the NPDES permit was approved, and the City has received a permit, effective February 1, 2018.

On September 14, 2015, the Airport received four notices of proposed penalties from the FAA, totaling \$735,000. The penalties alleged that the Airport failed to uphold its Snow and Ice Control Plan during four events between 2013 and 2015 during the winter seasons. In May 2016, the Airport agreed to pay a fine of \$200,000 to settle the four cases related to alleged Snow and Ice Control Plan issues. Under the settlement agreement with the FAA, the City is required to submit a letter to the FAA every August 1st and November 1st, updating the FAA on staffing levels. The City can request that the FAA release the City of its obligations under the settlement agreement after May 20, 2021. The City must also comply with a multi-year snow removal equipment acquisition plan. The final piece of equipment will be purchased under that plan in 2019, with delivery likely in 2020. The Airport’s operations section has been working with the FAA on the implementation of that plan. If any changes to the plan are made, they must be approved by the FAA.

## **Management of the Airport System**

Section 76-8 of the City's Charter provides that the Director of Port Control is in charge of administration and control of, among other facilities, the municipally owned airport facilities of the City. The City's Department of Port Control, through the Divisions of the Airport and Burke (the "Divisions"), operates the two airports comprising the Airport System. The Divisions employ approximately 400 individuals in administration, airfield and building maintenance, vehicle maintenance, and aircraft rescue and firefighting. There have been no strikes or work stoppages by employees of the Divisions in recent years. The City believes its relations with these employees are excellent.

The Codified Ordinances of the City place management responsibility for the Divisions in the Commissioner of the Airport, or the Commissioner's duly authorized representatives. The Commissioner of the Airport fixes the charges for the use of hangar space and landing and take-off fees, subject to the approval of the City's Board of Control. Following are brief biographical sketches of the Department of Port Control officials:

Robert W. Kennedy was named Director of Port Control on January 11, 2017 and is responsible for the management and operations of the Airport System. In this capacity, Mr. Kennedy provides leadership and oversight to the Airport, Burke and also the Division of Harbors, including the City's North Coast Harbor. Prior to joining the City, Mr. Kennedy held the position of Vice-President, Consulting Services for Aviation Strategies International, where he had executive responsibilities focused upon aviation advisory services. With more than 30 years of aviation experience, Mr. Kennedy has a wide variety of experiences within civil aviation including being appointed to interim general and deputy general manager for the world's busiest airport, Hartsfield-Jackson Atlanta International Airport ("ATL"). At ATL, he also served as the general manager of Operations, Maintenance and Security at ATL and served as the airport's director of marketing, public relations and intergovernmental affairs, and route development manager. Mr. Kennedy has received the two highest airport industry accreditations: the Accredited Airport Executive (AAE) designation from the American Association of Airport Executives (AAAE) in 2008. In 2009, he earned the International Airport Professional (IAP) designation, an accreditation awarded jointly by the Airports Council International (ACI) and the International Civil Aviation Organization (ICAO). Mr. Kennedy holds a Bachelor of Arts degree in Leadership Studies from the University of Alabama.

Fred Szabo currently serves as Assistant Director of Port Control. He formerly served as Interim Port Control Director and Airport Commissioner. He has served at the Department of Port Control since August 2001. His current duties include managing the operations of the Director's Office and overseeing several projects including the Airport Safety Management System. Prior to accepting his Airport Commissioner position, Mr. Szabo served as Assistant Director of Public Safety for the City of Cleveland. Mr. Szabo has 30 years of prior experience in law enforcement and has served as Administrative Assistant to the Chief of Police and Safety Director, the spokesman for the Cleveland Police Department, and as Acting EMS Commissioner for the City. Mr. Szabo is a military veteran and holds a Bachelor of Arts degree in Criminology from Bowling Green State University.

Khalid Bahhur was appointed as Commissioner of the Airport and Burke in 2017. As the Commissioner of Airports, Mr. Bahhur is responsible for the day to day management of the Airport and Burke. Prior to his appointment to Airport Commissioner, Mr. Bahhur was the Commissioner of Burke and was responsible for operations there, as well as for management of the City's harbor properties surrounding Lake Erie. Mr. Bahhur has over 28 years of experience in commercial airport management, economic development, planning and budgeting. Mr. Bahhur



received his bachelor's degree from the Cleveland State University and has a certificate of affiliate membership from the American Association of Airport Executives.

Christine Gilmartin was appointed Chief Financial Officer for the City's Department of Port Control in June 2012 and is responsible for planning, organizing, directing, monitoring and evaluating the financial and accounting work of managers and staff of the Airport with an annual operating budget of \$170 million. In her previous role, Ms. Gilmartin served as the comptroller for the Department of Port Control. Prior to her employment with the City, Ms. Gilmartin served as a credit administrator with the Mountaineer Casino Racetrack & Resort and previously served with the Auditor of the State of Ohio where her responsibilities included leading the audit team from the planning of the audit to the issuing of financial statements. Ms. Gilmartin received her Bachelor of Science in Business Administration from Youngstown State University. She is a Certified Fraud Examiner and a member of the Association of Government Accountants.

Pat Singleton was appointed Chief of Business Development and Management in October 2006 and is responsible for business planning and development and all matters related to concessions, airline agreements, parking and ground transportation, development and inventory control. Ms. Singleton joined the Department of Port Control as Airport Development Manager in 1999 and has served in various management positions within the business cluster. Ms. Singleton has a Bachelor of Science degree from Central State University and a Master of Science from The Ohio State University. Ms. Singleton has over 30 years of experience in commercial management including experience with concessions, property and business development, airline use and lease agreements, management of airport parking and ground transportation operations, and real estate negotiations.

Lucille Ambroz was appointed Chief of Human Resources and Talent Development with the Department of Port Control, Cleveland Hopkins International Airport in March of 2017. In this position, she is responsible for developing and executing human resource strategy in support of the overall business plan and strategic direction of the organization, specifically in the areas of talent acquisition, succession planning, talent development and workforce planning. Prior to moving to the Department of Port Control, Ms. Ambroz served as the Director of the Civil Service Commission where she led a team to ensure compliance with Civil Service protocols. She began her public service career as the Director of the Office of Equal Opportunity for the City, responsible for the administration, monitoring and enforcement of the City's minority and female owned business enterprise programs. Prior to her public service career, she had a career in the banking industry, working her way up to Vice President of Retail Banking at Metropolitan Savings Bank.

Renato "Ren" Camacho was selected as Chief of Planning and Engineering for the City's Department of Port Control in February 2011. In this position he oversees the areas of Planning, Engineering & Construction, Real Estate & Noise Abatement, and Environmental Services. Mr. Camacho currently administers the planning, design, and construction of the Airport System's (CAS) Capital Program. Prior to his current position, Mr. Camacho was employed at the Port Authority of New York/New Jersey for over 14 years in the agency's Engineering Department. During his time at the Port Authority, Mr. Camacho was a senior engineer responsible for the implementation of critical traffic planning, design, and construction projects at multiple facilities such as the World Trade Center, JFK/LGA/EWR Airports, George Washington Bridge, and Holland/Lincoln Tunnels. Mr. Camacho received his Master's Degree in Transportation Planning & Engineering from Polytechnic University's Brooklyn, NY campus and a Bachelor of Science from Rensselaer Polytechnic Institute. He is an Accredited Airport Executive, registered professional engineer in the state of Ohio and a Professional Traffic Operations Engineer. Mr.

Camacho has been named as the new CEO and President of the Akron-Canton Airport, and his last day with the Airport will be September 14, 2018.

Todd F. Payne was selected to join the Department of Port Control for the Airport System in December 2006 as Chief of Marketing and Air Service Development. He is responsible for air service recruitment, marketing, communications, strategic customer service performance and art/tour programming for the Airport and Burke. Prior to his selection, Mr. Payne was Regional Manager of the Eastern and Central U.S. and National Affiliate Marketing Manager with Hawaiian Airlines. He has over 32 years of travel industry marketing and leadership experience. He has also held management positions with Piedmont Airlines, US Airways, VIASA Venezuelan International Airways, the Aruba Tourism Authority, Universal Studios Orlando, Sofitel Hotels and the Experience Columbus CVB. Mr. Payne is a graduate of Ashland University and has also received CTC and CTA certification from the Travel Institute.

William Wichert was named Acting Chief Information Officer of the Department of Port Control in November 2017. Mr. Wichert is responsible for overseeing the Department's IT assets and technology initiatives. Prior to his selection, Mr. Wichert worked as a Business Consultant with Hyland Software and as a Solutions Architect at Case Western Reserve University. Mr. Wichert is also an Adjunct Faculty Member at Cuyahoga Community College and Lakeland Community College. Mr. Wichert holds a Master of Business Administration from the Weatherhead School of Management, Case Western Reserve University.

### **The Airport Service Region**

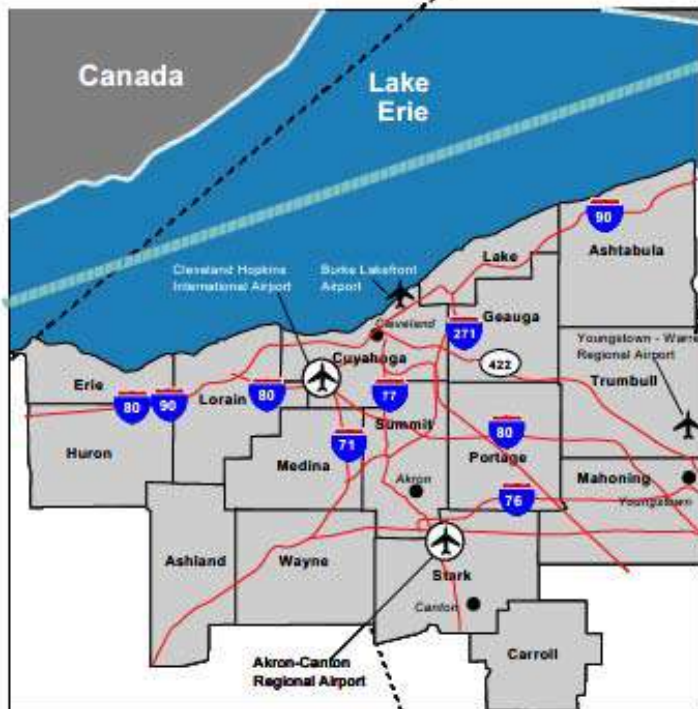
The City and the Airport System are located in Cuyahoga County, the largest county in terms of population in the State of Ohio. The air trade area for the Airport is comprised of the following 16 counties in Ohio: Ashland, Ashtabula, Carroll, Cuyahoga, Erie, Geauga, Huron, Lake, Lorain, Mahoning, Medina, Portage, Stark, Summit, Trumbull and Wayne. Together, these 16 counties comprise the "Airport Service Region." This area is depicted by the map on the following page. To a lesser degree, the Airport draws passengers from outside the Airport Service Region, including northern Ohio and western Pennsylvania. The population of the Airport Service Region is approximately 4.0 million. The Cleveland Combined Statistical Area, includes the following ten counties: Ashtabula, Carroll, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, Stark and Summit and is the 16th largest metropolitan area in the U.S. (as defined by the U.S. Census Bureau).

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# THE AIRPORT SERVICE REGION

Road miles from Cleveland to:	
Akron/Canton	51
Pittsburgh	123
Columbus	145
Detroit	159
Dayton	213
Cincinnati	264

Less than 1 hour flight time from Cleveland:	
Toronto	45 minutes
Chicago	55 minutes
New York	55 minutes
Washington, DC	55 minutes



## Airport Passenger Activity

In 2017, enplanements at the Airport increased by 8.5% from 2016. From 2008 through 2017, the number of enplaned passengers at the Airport has ranged from a high in 2008 of 5,545,205, to a low of 3,797,261 in 2014. For 2016, total enplaned passengers at the Airport increased by 3.9% compared to 2015.

The following table shows the total number of enplaned passengers, aircraft departures, and aircraft landed weight at the Airport for the calendar years indicated.

### SUMMARY OF RECENT HISTORICAL AIRPORT ACTIVITY

Year	Enplaned Passengers		Aircraft Departures		Aircraft Landed Weight	
	Number	Percent Change	Number	Percent Change	1,000 lb <sup>1</sup> Unit	Percent Change
2008	5,545,205	(3.1)%	127,469	(4.4)%	7,256,132	(1.7)%
2009	4,855,129	(12.4)	100,134	(21.4)	6,265,656	(13.7)
2010	4,745,308	(2.3)	96,432	(3.7)	5,907,546	(5.7)
2011	4,598,279	(3.1)	94,143	(2.4)	5,912,394	0.1
2012	4,495,353	(2.2)	90,472	(3.9)	5,732,148	(3.0)
2013	4,525,656	0.7	90,670	0.2	5,732,142	0.0
2014	3,797,261	(16.1)	65,381	(27.9)	4,773,831	(16.7)
2015	4,046,634	6.6	58,887	(9.9)	5,118,792	7.2
2016	4,205,739	3.9	59,327	(0.7)	5,117,105	(0.0)
2017	4,562,740	8.5	61,196	3.2	5,455,096	6.6

Source: City of Cleveland, Department of Port Control records

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<sup>1</sup> Includes the sum of all commercial air carrier, commuter and all-cargo operations.

The table below presents total enplanements at the Airport by month between January 2013 and June 2018.

# **MONTHLY ENPLANEMENT COMPARISON AT THE AIRPORT**

Month	2013	2014	2015	2016	2017	2018	2014 v. 2013	2015 v. 2014	2016 v. 2015	2017 v. 2016	2018 v. 2017
Jan	317,653	282,988	264,960	299,868	294,677	329,091	(10.91)%	(6.37)%	13.17%	(1.73)%	11.68%
Feb	318,574	300,758	271,059	295,923	290,026	322,009	(5.59)	(9.87)	9.17	(1.99)	11.03
March	409,362	381,879	332,132	358,313	376,914	409,855	(6.71)	(13.03)	7.88	5.19	8.74
April	365,443	339,109	321,104	330,731	359,035	390,506	(7.21)	(5.31)	3.00	8.56	8.77
May	403,771	337,272	359,455	372,610	404,947	431,116	(16.47)	6.58	3.66	8.68	6.46
June	421,672	322,525	377,533	391,393	436,179	455,273	(23.51)	17.06	3.67	11.32	4.38
July	407,877	326,007	378,202	393,204	445,962		(20.07)	16.01	3.97	13.42	
Aug	399,988	313,878	364,464	377,529	430,669		(21.53)	16.12	3.58	14.08	
Sept	362,255	287,848	342,205	358,886	379,546		(20.54)	18.88	4.87	5.76	
Oct	396,123	312,317	369,214	369,745	409,972		(21.16)	18.22	0.14	10.88	
Nov	349,509	288,339	338,300	335,876	368,056		(17.50)	17.33	(0.72)	9.58	
Dec	373,429	304,341	339,475	321,238	366,757		(18.50)	11.54	(5.37)	14.17	
Totals	4,525,656	3,797,261	4,046,634	4,205,739	4,562,740						

Source: City of Cleveland, Department of Port Control records.

For the calendar year 2017, total Airport enplanements (scheduled and non-scheduled) were approximately 8.5% higher than in 2016, while total enplanements by U.S. airlines and on foreign airlines serving the United States increased 2.6% in 2017 compared to 2016. For the calendar year 2015, total enplanements by U.S. airlines and on foreign airlines serving the United States increased 5.3% as compared to the same period in 2014. (Source: Department of Transportation Bureau of Transportation Statistics data).

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The following table shows total domestic originating enplanements and total domestic connecting enplanements at the Airport from 2008 through 2017.

#### **HISTORICAL DOMESTIC ORIGINATING AND CONNECTING ENPLANEMENTS<sup>1</sup>**

<b>Year</b>	<b>Domestic Originations</b>		<b>Domestic Connections</b>	
	<b>Number</b>	<b>Percent of Total</b>	<b>Number</b>	<b>Percent of Total</b>
2008	3,952,052	73.0%	1,461,166	27.0%
2009	3,300,406	73.0	1,222,268	27.0
2010	3,223,242	71.8	1,268,791	28.2
2011	3,399,760	78.0	956,462	22.0
2012	3,402,931	79.9	857,990	20.1
2013	3,217,367	75.6	1,039,845	24.4
2014	3,133,828	88.0	428,989	12.0
2015	3,726,323	97.3	104,476	2.7
2016	3,891,067	98.2	71,409	1.8
2017	4,229,186	99.0	42,099	1.0

Source: City of Cleveland, Department of Port Control records.

For the calendar year 2017, domestic revenue originating passengers accounted for 99.0% of total domestic revenue enplaned passengers, and domestic revenue connecting passengers accounted for an estimated 1.0% of total domestic revenue enplaned passengers at the Airport. Domestic origination enplanements increased 8.7% in calendar year 2017 compared to the same period in 2016.

#### **Airlines and Market Shares**

As of December 2017, the Airport was served by eight major and national carriers, 18 regional and commuter airlines, one foreign-flag airline and three all-cargo airlines. According to the Department of Port Control, domestic enplanements accounted for 99.0% of all passengers enplaned at the Airport in 2017.

The following table sets forth the airlines serving the Airport and their market shares based on enplaned passengers for the calendar years indicated. For comparison purposes, the table reflects historical market shares based on airlines operating at the Airport as of December 2017. For example, the line item for United includes enplanements that may have been served by Continental Airlines prior to the merger of the two airlines. For calendar year 2017, United accounted for 25.8% of total enplanements at the Airport. With the downsizing of operations at the Airport by United (announced February 2014) and subsequent entry of new/expanded service from Frontier, Spirit and JetBlue, market shares at the Airport are highly distributed across multiple airlines. Enplanement levels are also increasingly being served by larger, mainline type of aircraft equipment. For calendar year 2017, approximately 62.8% of enplanements were served via mainline air carriers.

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<sup>1</sup> Figures do not include any non-revenue passengers.

## AIRLINES AND MARKET SHARES

	<u>2013</u>		<u>2014</u>		<u>2015</u>		<u>2016</u>		<u>2017</u>	
Domestic Service	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
United	2,970,982	65.6%	1,886,771	49.7%	1,341,605	33.2%	1,225,649	29.1%	1,178,750	25.8%
American	558,300	12.3%	591,647	15.6%	671,134	16.6%	657,527	15.6%	684,861	15.0%
Delta	362,887	8.0%	461,565	12.2%	543,784	13.4%	627,013	14.9%	670,942	14.7%
Southwest	473,118	10.5%	522,048	13.7%	554,712	13.7%	634,206	15.1%	733,040	16.1%
Frontier	38,233	0.8%	244,176	6.4%	460,148	11.4%	459,667	10.9%	566,013	12.4%
Spirit	-	0.0%	-	0.0%	303,162	7.5%	378,296	9.0%	374,161	8.2%
JetBlue	-	0.0%	-	0.0%	71,739	1.8%	124,899	3.0%	137,648	3.0%
Allegiant	-	0.0%	-	0.0%	-	0.0%	-	0.0%	122,480	2.7%
USA 3000	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Subtotal	4,403,520	97.3%	3,706,207	97.6%	3,946,284	97.5%	4,107,257	97.7%	4,467,895	97.9%
Charter	4,449	0.1%	4,184	0.1%	7,561	0.2%	4,149	0.1%	7,036	0.2%
Total	4,407,969	97.4%	3,710,391	97.7%	3,953,845	97.7%	4,111,406	97.8%	4,474,931	98.1%
International Service										
United	79,523	1.8%	40,702	1.1%	17,662	0.4%	16,251	0.4%	9,580	0.2%
Frontier	19,143	0.4%	17,442	0.5%	37,691	0.9%	30,286	0.7%	29,622	0.6%
Air Canada	19,021	0.4%	28,726	0.8%	37,436	0.9%	37,577	0.9%	39,913	0.9%
USA 3000	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Subtotal	117,687	2.6%	86,870	2.3%	92,789	2.3%	84,114	2.0%	79,115	1.7%
Charter	-	0.0%	-	0.0%	-	0.0%	10,219	0.2%	8,694	0.2%
Total	117,687	2.6%	86,870	2.3%	92,789	2.3%	94,333	2.2%	87,809	1.9%
TOTAL ENPLANEMENTS	4,525,656	100.0%	3,797,261	100.0%	4,046,634	100.0%	4,205,739	100.0%	4,562,740	100.0%
Enplanement Share										
Mainline	1,607,678	35.5%	1,649,059	43.4%	2,864,404	70.8%	1,649,059	39.2%	2,864,404	62.8%
Regional/Commuter	2,917,978	64.5%	2,148,202	56.6%	1,182,230	29.2%	2,556,680	60.8%	1,698,336	37.2%
Total	4,525,656		3,797,261		4,046,634		4,205,739		4,562,740	

Source: City of Cleveland, Department of Port Control records

## AIRPORT FINANCIAL INFORMATION

### Principal Sources of Revenues

The principal sources of Airport Revenues include non-airline revenues, terminal complex space rentals paid by the Signatory Airlines and landing fees paid by the Signatory Airlines pursuant to the Use Agreements with the City. Non-airline revenues (consisting primarily of parking, rental cars and terminal retail) accounted for 37.1% of Airport Revenues in 2016 and 42.4% in 2017. Revenues from parking and rental cars comprised the largest part of the non-airline revenues. Terminal complex space rentals and landing fees paid by Signatory Airlines under the Use Agreement accounted for 60.1% and 54.9% of Airport Revenues in 2016 and 2017, respectively.

The principal sources of Airport Revenues for 2016 and 2017 are summarized as follows:

**SOURCES OF AIRPORT REVENUES<sup>1</sup>**  
(Amounts in thousands)

<b>Sources of Revenues</b>	<b>Audited 2016</b>	<b>Percent of Total</b>	<b>Audited 2017</b>	<b>Percent of Total</b>
<i>Cleveland Hopkins International</i>				
Signatory Airline Revenues				
Terminal Complex Space Rent	\$42,839	30.0%	\$ 49,407	34.0%
Landing fees	40,324	28.3	27,818	19.1
Other	<u>2,568</u>	<u>1.8</u>	<u>2,657</u>	<u>1.8</u>
Total Signatory Airline Revenues	85,731	60.1	79,882	54.9
Non-Signatory Landing fees	2,253	1.6	2,106	1.4
Non-Airline Revenues	52,846	37.1	61,727	42.4
Interest Income	<u>187</u>	<u>0.1</u>	<u>271</u>	<u>0.2</u>
Subtotal-Cleveland Hopkins	141,017	98.9	143,986	99.0
<i>Burke Lakefront</i>	<u>1,603</u>	<u>1.1</u>	<u>1,491</u>	<u>1.0</u>
Total Revenues	<u>\$142,620</u>	<u>100.0%</u>	<u>\$145,477</u>	<u>100.0%</u>

Source: City of Cleveland, Department of Port Control records

### Historical Data for the Airport System

The financial statements of the governmental activities, the business-type activities, and each major fund of the City's Department of Port Control, Divisions of Cleveland Hopkins International and Burke Lakefront Airports, for the year ending December 31, 2017, have been audited by Clark Schaefer Hackett & Co. and accepted by the Auditor of State. A complete copy may be obtained from the Director of Finance at the City of Cleveland City Hall, 601 Lakeside Avenue, Cleveland, Ohio 44114. The audited financial statements of the City's Department of Port Control, Divisions of Cleveland Hopkins International and Burke Lakefront Airports for the year ending December 31, 2017 were filed with the Municipal Securities Rulemaking Board under its Electronic Municipal Market Access System ("EMMA") at <https://emma.msrb.org/> and are included by specific reference thereto into this Official Statement. The financial statements are also included in the audit reports of the Auditor of State, located at [www.ohioauditor.gov](http://www.ohioauditor.gov). The audited financial statements are public records, no consent to their inclusion is required, and no bring down procedures have been undertaken by Clark Schaefer Hackett & Co. or the Auditor of State since their date. The City continues to maintain an internal audit function and an active external audit committee.

<sup>1</sup> Totals may not sum due to rounding.



## Operating Results

The following table describes the operating results for the Airport System for the years 2013 through 2017. This information has been compiled from the audited financial statements for those years.

### OPERATING RESULTS (Amounts in thousands)

	2013	2014	2015	2016	2017
Statement of Net Revenues in accordance with the Indenture:					
Airport Revenues	\$109,855	\$131,442	\$128,033	\$142,433	\$145,206
Airport Expenses	(67,164)	(72,101)	(74,841)	(81,501)	(85,399)
Net Revenues	<u>\$42,691</u>	<u>\$59,340</u>	<u>\$53,192</u>	<u>\$60,932</u>	<u>\$59,807</u>
Statement of Income (GAAP):					
Total Operating Revenue	\$113,244	\$131,724	\$128,033	\$142,433	\$145,206
Total Operating Expense	(118,029)	(124,453)	(127,161)	(134,428)	(138,975)
Operating Income	(4,786)	7,272	872	8,005	6,231
Non-operating Revenues	(2,033)	(16,790)	(15,164)	(5,430)	23,314
Net Income (Loss)	<u>(\$6,819)</u>	<u>(\$9,518)</u>	<u>(\$14,292)</u>	<u>\$2,575</u>	<u>\$29,545</u>

Note: Numbers may not sum due to rounding.

Source: City of Cleveland, Department of Port Control records

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The following is a reconciliation of the operating results shown above, which were prepared in accordance with generally accepted accounting principles (“GAAP”), with those prepared with reference to the Indenture and the Use Agreements.

**RECONCILIATION OF OPERATING RESULTS**  
(Amounts in thousands)

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<u>Reconciliation:</u>					
Net Income (GAAP)	(\$6,819)	(\$9,518)	(\$14,292)	\$2,575	\$29,545
<u>Add Back:</u>					
Depreciation	\$50,865	\$52,351	\$52,320	\$52,927	\$53,576
Interest Expense	32,359	31,600	30,355	47,615	25,512
<u>Deduct:</u>					
PFC Revenue	(\$17,716)	(\$14,797)	(\$16,198)	(\$16,608)	(\$18,511)
Other Interest Income	402	190	246	856	1,850
Other Adjustments/ Contributed Capital	(\$16,399)	(\$486)	\$781	(\$26,433)	(\$32,165)
Net Revenues	<u>\$42,691</u>	<u>\$59,340</u>	<u>\$53,211</u>	<u>\$60,932</u>	<u>\$59,807</u>

Note: Numbers may not sum due to rounding.

Source: City of Cleveland, Department of Port Control records

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## Bond Service Coverage Calculation

Pursuant to the Rate Covenant, Airport Revenues, together with Other Available Funds, less Operating Expenses, must be at least equal to 125% of the amount of Outstanding Revenue Bonds maturing and becoming due in such Fiscal Year for the payment of principal and interest on all Outstanding Revenue Bonds. See “PART I – SECURITY FOR THE SERIES 2018 BONDS – Rate Covenant.” The following table describes the operating results of the Airport System for the years 2013 through 2017 and the Bond service coverage calculation for those years, calculated in accordance with the Rate Covenant. The information is presented in thousands.

### BOND SERVICE COVERAGE CALCULATION

	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 Actual
Airport Revenues					
Airline Revenues (Hopkins)	\$67,353	\$83,086	\$74,342	\$85,439	\$80,088
Non-Airline Revenues (Hopkins)	41,758	47,237	52,301	55,391	63,627
Total Airport Revenues (Burke)	744	1,119	1,390	1,603	1,491
Net Interest Income	144	75	81	187	271
Total Airport Revenues	109,999	131,517	128,114	142,620	145,477
Operating Expenses	<u>67,164</u>	<u>72,101</u>	<u>75,112</u>	<u>80,270</u>	<u>80,892</u>
Net Operating Income	42,835	59,316	53,002	62,350	64,585
Plus: Other Available Funds For Debt Service					
Passenger Facility Charges	24,588	14,000	16,000	16,000	17,000
AIP Grants (LOI)	1,948	2,180	2,148	1,973	2,533
Coverage Account Balance	18,081	18,083	18,084	18,130	18,258
Net Revenues Available For Debt Service	\$87,452	\$93,679	\$89,234	\$98,453	\$102,376
Bond Debt Service Charges <sup>1</sup>	\$67,489	\$67,723	\$67,773	\$69,673	\$68,437
Bond Debt Service Coverage	1.30	1.38	1.32 <sup>2</sup>	1.41 <sup>2</sup>	1.50 <sup>2</sup>

Source: City of Cleveland and City of Cleveland Department of Port Control records

<sup>1</sup> Includes debt service payable on July 1 in the current year and on January 1 in the succeeding year, which corresponds with the amounts deposited by the Airport System in the calendar year.

<sup>2</sup> The Bond Debt Service Coverage calculation included in the City’s audited financial statements for Fiscal Years 2015, 2016 and 2017 include accrued pension liabilities in the calculation of Operating Expenses pursuant to GASB Statement 68 (accrued pension liabilities were (\$271) in Fiscal Year 2015, \$1,231 in Fiscal Year 2016 and \$4,507 in Fiscal Year 2017) and, therefore, those calculations are different from what is represented above (1.32 in Fiscal Year 2015, 1.38 in Fiscal Year 2016 and 1.43 in Fiscal Year 2017). Pursuant to the Trust Indenture, accrued pension liabilities are excluded from the calculation of Operating Expenses. Accordingly, in the future, the City will not include accrued pension liabilities in the calculation of Operating Expenses for the Airport System when calculating coverage in its audited financial statements.

## Mid-Year Financial Reporting

The City, in each Fiscal Year, reports GAAP basis Airport financial results as of June 30. The reporting is done on an unaudited basis. The reporting as of June 30 for the years 2016, 2017 and 2018 is shown below.

### MID-YEAR FINANCIAL REPORTING<sup>1</sup> (Amounts in thousands)

	June 30, 2016	June 30, 2017	June 30, 2018
<b>Operating Revenue</b>			
Net Landing Fees	\$19,266	\$20,023	\$19,503
Terminal and Concourse Rentals	31,379	34,216	30,447
Concessions	20,537	24,377	25,946
Utility Sales/Other	1,509	3,228	2,056
Total Operating Revenue	\$72,691	\$81,844	\$77,952
<b>Operating Expenses</b>			
Operations	\$40,488	\$41,153	\$40,685
Maintenance	1,841	1,754	1,449
Depreciation and Amortization	26,160	26,464	26,788
Total Operating Expenses	\$68,489	\$69,371	\$68,922
<b>Non-Operating Revenue/Expense</b>			
Passenger Facility Charge Revenue	\$9,147	\$9,442	\$10,170
Non-Operating Expenses	(2,659)	3,438	4,922
Loss on disposal of capital assets	34	-	-
Interest Income	247	543	1,438
Interest Expense	(14,800)	(14,872)	(14,544)
Amortization of Bond Issuance Expense, Discounts, and Loss on Refunding	(18,743)	1,251	1,209
Total Non-Operating Revenue/Expense	\$(26,773)	\$(198)	\$3,195
Capital and Other Contributions	1,878	9,227	8,258
<b>Increase (Decrease) in Net Assets</b>	<b>\$(20,693)</b>	<b>\$21,501</b>	<b>\$20,483</b>

Note: Totals may not sum due to rounding.

Source: City of Cleveland and City of Cleveland Department of Port Control records

The budgeted amount for terminal and concourse rent was \$5 million less in 2018 over 2017 due to an increase in non-airline revenue. Also, receivables totaling \$2.7 million related to Air Mall rent increased in 2017 was subsequently waived due to a renegotiation.

<sup>1</sup> Totals may not sum due to rounding

Operating expenses increased 1.3% from mid-year 2016 to 2017 mainly due to an increase in utilities, materials & supplies and depreciation.

### **Outstanding Bonds**

After the issuance of the Series 2018 Bonds, there is \$675,255,000 aggregate principal amount of Outstanding Revenue Bonds issued pursuant to the Trust Indenture and secured by the Airport Revenues and the moneys in the Special Funds, consisting of:

<b>Series of Airport System Revenue Bonds</b>	<b>Aggregate Principal Amount Outstanding</b>
Series 2006A	\$32,195,000
Series 2007B	5,935,000
Series 2008D	5,975,000
Series 2009C	9,230,000
Series 2009D	23,550,000
Series 2011A	34,360,000
Series 2012A	235,150,000
Series 2013A	54,120,000
Series 2014A	20,175,000
Series 2014B	3,460,000
Series 2016A	105,185,000
Series 2016B	36,235,000
Series 2018A	87,940,000
Series 2018B	<u>21,745,000</u>
Total	<u>\$675,255,000</u>

(collectively, the “Outstanding Revenue Bonds”). All of the Outstanding Revenue Bonds are, and upon their issuance the Series 2018 Bonds will be, secured equally and ratably by Airport Revenues and the moneys in the Special Funds, including the Bond Service Reserve Fund. Five series of Outstanding Revenue Bonds (Series 2008D, Series 2009D, Series 2013A, Series 2014A and Series 2014B) are variable rate bonds. Each of the variable rate series of Outstanding Revenue Bonds are subject to mandatory tender for purchase upon expiration of the credit facilities or upon the bank purchase date, as applicable. Failure of the City to convert or redeem those bonds, extend or replace the credit facilities or extend the index rate mode with the current bank upon such purchase dates could result in less favorable terms imposed on the Airport pursuant to the current financing arrangements.

On June 30, 2016, the City replaced the expiring credit facilities for the Series 2008D Bonds and the Series 2009D Bonds with separate direct pay bank letters of credit provided by U.S. Bank National Association. They comprise 4.6% of the total principal of the Outstanding Revenue Bonds. Each direct pay letter of credit expires on June 28, 2019. The chart on the following page provides summary information with respect to the credit facilities relating to those Bonds.

### Credit Facilities for Revenue Bonds

	Series 2008D Bonds	Series 2009D Bonds
Principal Amount	\$5,975,000	\$23,550,000
Expiration Date	June 28, 2019	June 28, 2019
Letter of Credit Provider	U.S. Bank National Association	U.S. Bank National Association
Credit/Provider Ratings (Fitch/S&P)		
Short-Term	F1+/ A-1+	F1+/ A-1+
Long-Term	AA-/AA-	AA-/AA-

On April 1, 2016, the City converted its Series 2013A Bonds to a new Index Rate Period. The Purchaser of the Series 2013A Bonds in the new Index Rate Period is PNC Bank, National Association, and the mandatory purchase date for the Series 2013A Bonds is April 1, 2019. Also, on February 1, 2017, the City converted the Series 2014A and the Series 2014B Bonds to a new Index Rate Period. The Purchaser of both the Series 2014A Bonds and the Series 2014B Bonds is U.S. Bank National Association, and the mandatory purchase date is February 3, 2020 for the Series 2014A Bonds and January 1, 2020 for the Series 2014B Bonds. The direct purchase bonds currently comprise 12% of the total principal of the Outstanding Revenue Bonds and are described below.

### Direct Purchase Revenue Bonds

	Series 2013A Bonds	Series 2014A Bonds	Series 2014B Bonds
Principal Amount	\$54,120,000	\$20,175,000	\$3,460,000
Mandatory Purchase Date	April 1, 2019	February 3, 2020	January 1, 2020
Purchaser	PNC Bank, National Association	U.S. Bank	U.S. Bank

### Hedge Agreements

There are currently no Hedge Agreements in place with respect to the Outstanding Revenue Bonds.

## Debt Service Requirements

The following table sets forth the annual debt service requirements that will accrue in each year on the Outstanding Bonds. The debt service shown on the table is for the period in which it accrues. Differences in totals may occur due to rounding. Debt service on the Revenue Bonds that are variable rate bonds is based on the respective assumed interest rates noted below and the scheduled sinking fund redemption requirements.

<b>Date (January 1)</b>	<b>Outstanding Debt Service<sup>1</sup></b>	<b>Series 2018A Bonds Debt Service</b>	<b>Series 2018B Bonds Debt Service</b>	<b>Total Debt Service</b>
2019	\$68,863,417	\$1,062,608	\$234,314	\$70,160,340
2020	57,762,334	13,077,000	969,575	71,808,909
2021	57,725,794	12,928,000	969,575	71,623,369
2022	56,410,257	12,354,750	969,575	69,734,582
2023	53,526,845	11,992,750	969,575	66,489,170
2024	53,792,845	11,816,750	969,575	66,579,170
2025	53,407,210	11,637,250	969,575	66,014,035
2026	53,474,099	11,458,750	969,575	65,902,424
2027	53,587,654	11,250,500	969,575	65,807,729
2028	66,056,337	703,250	969,575	67,729,162
2029	66,153,761	703,250	969,575	67,826,586
2030	66,283,235	703,250	969,575	67,956,060
2031	66,381,427	703,250	969,575	68,054,252
2032	5,572,503	703,250	969,575	7,245,328
2033	5,694,381	703,250	969,575	7,367,206
2034		1,408,250	1,984,575	3,392,825
2035		1,403,000	1,989,050	3,392,050
2036		776,250	2,617,125	3,393,375
2037		1,429,000	1,961,125	3,390,125
2038		1,423,750	1,968,625	3,392,375
2039		1,426,750	1,962,875	3,389,625
2040		1,417,500	1,975,250	3,392,750
2041		1,416,500	1,975,375	3,391,875
2042		1,403,250	1,988,625	3,391,875
2043		1,398,250	1,994,438	3,392,688
2044		1,391,000	1,998,000	3,389,000
2045		1,391,500	1,999,750	3,391,250
2046		1,389,250	2,002,500	3,391,750
2047		1,394,250	1,996,000	3,390,250
2048		1,386,000	2,005,500	3,391,500
<b>Total</b>	<b>\$784,692,099<sup>2</sup></b>	<b>\$122,252,358</b>	<b>\$44,227,176</b>	<b>\$951,171,634</b>

<sup>1</sup> Assumes rates of 2.64% for 2008D Bonds and 2009D Bonds, 4.58% for 2013A Bonds, 3.28% for 2014A Bonds and 3.50% for 2014B Bonds.

<sup>2</sup> Totals may not sum due to rounding.

## **AVIATION SECTOR**

### **Airline Information**

Certain Signatory Airlines (or their respective parent corporations) are subject to the information reporting requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and in accordance therewith file reports and other information with the Securities and Exchange Commission (the “SEC”). Only companies with securities listed on a national securities exchange or registered under §12(g) of the Exchange Act, or companies which are required to file with the SEC under §15(d) of the Exchange Act, are subject to the information reporting requirements. Certain information, including financial information, concerning each reporting Signatory Airline (or its respective parent corporation) is disclosed in such reports and statements filed with the SEC. Such reports and statements can be inspected in the Public Reference Rooms of the SEC which can be located by calling the SEC at 1-800-SEC-0330. In addition, electronically filed SEC reports can be obtained from the SEC’s website at <http://www.sec.gov>. In addition, each domestic Signatory Airline is required to file periodic reports of financial and operating statistics with the U.S. Department of Transportation (the “DOT”). Such reports can be inspected at the following location: Office of Airline Information, Bureau of Transportation Statistics, Department of Transportation, 1200 New Jersey Avenue, S. E., Washington, D.C. 20590, and copies of such reports can be obtained from the DOT at prescribed rates. For more information about the airline industry, see “PART I – CERTAIN INVESTMENT CONSIDERATIONS” herein.

**The City has no responsibility for the completeness or accuracy of information available from the DOT or SEC, including but not limited to, updates of information on the SEC’s website or links to other internet sites accessed through the SEC’s site.**

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## **APPENDIX A – REPORT OF THE AIRPORT CONSULTANT**

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Report of the Airport Consultant  
City of Cleveland, Ohio  
Airport System Revenue Bonds  
Series 2018A and B Bonds, \$109,355,000

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August 30, 2018

Ms. Sharon Dumas  
Director of Finance  
City of Cleveland  
601 Lakeside Avenue  
Room 104  
Cleveland, OH 44114

Mr. Robert W. Kennedy  
Director of Port Control  
City of Cleveland  
5300 Riverside Drive  
Cleveland, Ohio 44135

**Re: Report of the Airport Consultant, City of Cleveland, Ohio, Airport System Revenue Bonds (Cleveland Hopkins International Airport), Series 2018 Bonds – \$109,355,000**

Dear Ms. Dumas and Mr. Kennedy:

We are pleased to submit this Report of the Airport Consultant (the Report) on the proposed issuance by the City of Cleveland, Ohio of the Airport System Revenue Bonds, Series 2018A and 2018B (herein defined as the Series 2018 Bonds). This Report addresses certain requirements related to the issuance of the Series 2018 Bonds.

The City of Cleveland, Ohio (the City) owns and operates two airports—Cleveland Hopkins International Airport (the Airport), the principal air carrier facility serving northeastern Ohio, and Burke Lakefront Airport (Burke), a reliever airport. The Airport together with Burke is referred to in this report as the Airport System. The City operates the Airport System through its Department of Port Control.

The City is issuing the Series 2018 Bonds to 1) pay for a portion of the Five-Year CIP projects, 2) current refund the 2019 to 2027 maturities associated with City's Airport System Revenue Bonds, Series 2009C for debt service savings, 3) fund any Bond Service Reserve Fund requirements, 4) fund capitalized interest

requirements and 5) pay related costs of issuance. The Series 2018 Bonds will be issued and secured under the Indenture on parity with the City's outstanding Airport System Revenue Bonds and any Additional Revenue Bonds that may be issued from time to time. The Bond Service Charges associated with the Series 2018 Bonds will be paid by Airport Revenues.

The Series 2018 Bonds will be issued in two series. Bond Counsel has advised that interest on the Series 2018A Bonds will be tax exempt but subject to alternative minimum tax. The total principal amount of the Series 2018A Bonds to be issued is estimated to be \$89,040,000\*.

Bond Counsel has also advised the City that interest on the Series 2018B Bonds will be excluded from gross income for federal tax purposes and not subject to the alternative minimum tax. The total principal amount of the Series 2018B Bonds to be issued is estimated to be \$20,315,000\*. When issued, the Series 2018 Bonds will be on parity with previously issued and outstanding Airport System Revenue Bonds. Assuming issuance of the Series 2018 Bonds in the amount of \$109,355,000\*, and refunding of a portion of the Series 2009C Bonds, less the current principal portion due on January 1, 2019, the total principal amount outstanding of Airport System Revenue Bonds issued by the City will be \$634,955,000\*.

The Series 2018 Bonds are being issued pursuant to Ordinance No. 1364-17 passed by City Council on November 20, 2017, Ordinance No. 666-18 passed by City Council on May 21, 2018, and the Amended and Restated Trust Indenture (Seventeenth Supplemental Trust Indenture dated November 1, 2011), effective as of January 31, 2012, as supplemented and amended (the Indenture) between the City and The Bank of New York Mellon Trust Company, National Association as trustee (the Trustee). Pursuant to the Indenture, the City has pledged and granted to the Trustee a first lien on Airport Revenues and Special Funds as security for the payment of the Bond Service Charges on all Bonds. Certain capitalized terms used in this report are as defined in the Indenture and/or Report.

In the Indenture, the City covenants to prescribe and charge such rates, fees and charges for the use of the Airport System as to produce in each Fiscal Year (FY)<sup>1</sup> Airport Revenues, together with Other Available Funds, less Operating Expenses, in an amount at least equal to 125% of the amount maturing and

---

\* Preliminary, subject to change.

<sup>1</sup> The City's fiscal year begins January 1 and ends December 31. The term fiscal year and calendar year have the same meaning as used in this Report.

becoming due in such FY for the payment of principal of and interest on all outstanding Revenue Bonds—a provision referred to as the Rate Covenant. (An alternative Rate Covenant ratio applies if there is General Obligation Debt outstanding for the Airport System. There is none outstanding nor does the City anticipate issuing any in the future for the Airport System.)

Further, the Indenture requires that, as a condition of issuing any Additional Revenue Bonds, the City must provide a written report of the Airport Consultant demonstrating that the projected Airport Revenues, together with Other Available Funds, during each of the five complete Fiscal Years immediately following the issuance of the Additional Revenue Bonds, less the projected Operating Expenses during each of such Fiscal Years, are at least equal to 125% of the Bond Service Charges on all outstanding Revenue Bonds, including the Additional Revenue Bonds proposed to be issued, due during each of such Fiscal Years, less, in each case, such Bond Service Charges on any Revenue Bonds which are to be redeemed or retired with the proceeds of such Additional Revenue Bonds. This is referred to as the Additional Bonds Test. (An alternative Additional Bonds Test ratio applies if there is General Obligation Debt outstanding for the Airport System. There is none outstanding.)

The City has historically entered into lease agreements (the Agreement and Lease) with most of the airlines serving the Airport. The airlines signatory to the Agreement and Lease are referred to as the Scheduled Airlines (also commonly referred to as the Signatory Airlines). Pursuant to Ordinance No. 1162-16 and passed by City Council on October 24, 2016, a new Agreement and Lease was entered into with the Scheduled Airlines effective January 1, 2017 to, among other items, extend the lease period five (5) years to December 31, 2021. The Agreement and Lease contains two (2), two-year options which are executable upon mutual agreement between the City and majority of Scheduled Airlines. As of the date of this Report, eight passenger airlines (Allegiant, American, Delta, Frontier, JetBlue, Spirit, Southwest, and United) and two cargo carriers (FedEx, UPS) serving the Airport were party to the new Agreement and Lease. (The eight Scheduled Airlines represented 98.8% of total enplaned passengers at the Airport in CY 2017 and 98.7% of total enplaned passengers at the Airport for the first five months of CY 2018.) Airlines serving the Airport who are not Scheduled Airlines pay the same rates and charges as the Scheduled Airlines, but with a 25% administrative fee added to their payments.

\* \* \* \* \*

In preparing this Report, we evaluated the ability of the Airport to generate Airport Revenues sufficient to meet the funding requirements established by the

Indenture and the Additional Bonds Test during the forecast period FY 2018 to FY 2022, and analyzed certain factors, including but not limited to the following:

- Future airline traffic demand at the Airport, giving consideration to the demographic and economic characteristics of the region served, historical trends in airline traffic and key factors that will affect future traffic, including the continued trend of diversified air carrier service offerings, year-to-date FY 2018 Airport activity statistics, and advance flights schedules at the Airport available from certain Scheduled Airlines.
- The current economic condition of the U.S. and other national factors as it relates to the demand for air travel.
- The current state of the U.S. airline industry as it relates to air service provided at the Airport.
- Impact of provisions in the Agreement and Lease and United Special Facility Leases as they relate to future air service activity, enplaned passenger levels and air carrier operating costs at the Airport.
- Airport facilities capacity (existing and during the forecast period) in terms of airfield operations, terminal gate and holdroom areas, and landside areas (e.g., parking).
- Estimated sources and uses of funds related to the Series 2018B Bonds, including annual Bond Service Charges for the Series 2018 Bonds and all outstanding Airport System Revenue Bonds, provided by Morgan Stanley & Co., LLC, senior managing underwriter for the Series 2018 Bonds.
- Historical relationships among Airport Revenues, Operating Expenses and airline traffic at the Airport, and other factors that may affect future Airport Revenues and Operating Expenses.
- The Airport's historical financial performance in terms of Airport Revenues and Operating Expenses.
- The City's policies and contractual agreements related to the use and occupancy of Airport facilities, including the calculation of rentals, rates, fees and charges; the operation of concession privileges; and the leasing of buildings and grounds.
- Airport management's efforts to reducing airline costs, through the implementation of non-airline revenue initiatives and operating expense management.
- FYs 2015 through 2017 (audited) and FY 2018 mid-year (unaudited) Financial Statements, Airport budget/estimated performance for FY 2018 and other recent financial information.



In preparing this Report, we did not analyze the impacts of possible future terrorist attacks or additional military action by the United States or others, and any associated global economic effect. We also did not analyze the potential disruption to the airline industry as a result of possible future terrorist attacks or the implementation of additional security mandates. Any one or any combination of the above could materially affect the forecasts.

In particular, we identified and evaluated certain key factors, including changes in aviation demand and air service patterns at the Airport since January 2010, including the Airport's transition to predominately serve Origin & Destination (O&D) passengers, upon which the future financial results of the Airport may depend, and developed assumptions about these factors. On the basis of those assumptions, we assembled the financial forecasts presented in this Report. The Report should be read in its entirety for an understanding of the role of the Airport and the underlying assumptions used in the financial forecasts.

The Report is organized into the following sections: The Airport and Service Region; Airport Facilities and Development; Air Traffic Activity; Key Factors Affecting Future Aviation Demand; Aviation Demand Forecast; Financial Framework for Operation of the Airport; and, Financial Analysis for the Financial Forecasts. Attachment A to this report contains financial exhibits related to the proposed issuance of the Series 2018 Bonds.

The forecasts of Net Revenues (Airport Revenues plus Other Available Funds less Operating Expenses), total Bond Service Charges and debt service coverage are summarized below. As presented in the following table, Net Revenues are forecast to be at least equal to (a) 125% of the Bond Service Charges on all Revenue Bonds to be outstanding in each of the five complete Fiscal Years immediately following the issuance of the Series 2018 Bonds, and fulfill the requirements of the Additional Bonds Test.

<b>Fiscal Year*</b>	<b>Net Revenues (In Thousands) [A]</b>	<b>Bond Service Charges (In Thousands) [B]</b>	<b>Debt Service Coverage [A]÷[B]</b>
2018F	\$105,438	\$66,867	1.58
2019F	109,169	70,262	1.55
2020F	109,771	70,509	1.56
2021F	109,541	69,918	1.57
2022F	106,669	66,673	1.60

\*Forecast (F).

Forecasts of revenues to be derived by the Airport System from airline landing fees, terminal building rentals and other charges (airline costs) are often expressed on a per enplaned passenger basis to compare airline costs at different airports. Forecast Signatory Airline cost per enplaned passenger for the Airport is summarized in the table below. The Signatory Airline cost per enplaned passenger at the Airport is anticipated to decrease due to increased aviation demand levels and continued growth of non-airline revenues resulting from Airport operations. While the forecast Signatory Airline cost per enplaned passenger levels at the Airport would be considered higher than average when measured against historical industry-wide indices, there exists a significant range of CPEs which reflect the operating efficiencies of individual air carriers. Some of these CPE levels are substantially lower than both the Airport and industry averages.

<b>Fiscal Year</b>	<b>Signatory Airline Revenue (In Thousands) [A]</b>	<b>Enplaned Passengers (In Thousands) [B]</b>	<b>Signatory Airline Cost Per Enplaned Passenger [A]÷[B]</b>
2017	\$78,504	4,507	\$17.42
2018F	80,465	4,783	16.82
2019F	77,754	4,929	15.78
2020F	75,409	4,995	15.10
2021F	75,579	5,074	14.90
2022F	74,494	5,207	14.31

\* \* \* \* \*

The financial forecasts included in this Report are based on assumptions that were discussed with Airport management. Airport management has represented to us that the assumptions underlying the financial forecasts are, in their view, reasonable and appropriate, and further, that the assumptions reflect conditions expected by Airport management and Airport management's expected course of action during the forecast period.

We believe that these assumptions are reasonable, and provide an appropriate basis for the financial forecasts. However, any financial forecast is subject to uncertainties. Inevitably, some assumptions used to develop the forecasts will not be realized, and unforeseeable events and circumstances may occur. The actual financial results achieved will vary from those forecasts, and the variations may be material.

Ms. Dumas and Mr. Kennedy  
August 30, 2018  
Page 7 of 7

In preparing its findings and conclusions, Peregrine Advisors has relied upon the accuracy and completeness of financial and other data provided to it by the referenced sources, without independent verification.

We have no responsibility to update this Report for events or circumstances occurring after the date of this Report.

\* \* \* \* \*

We appreciate the opportunity to serve as the City's Airport Consultant on this proposed financing.

Sincerely,

A handwritten signature in black ink that reads "Peregrine Advisors, LLC". The signature is written in a cursive, flowing style.

PEREGRINE ADVISORS, LLC

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## I. THE AIRPORT AND SERVICE REGION

### Overview

The City of Cleveland's (the City) airport system comprises Cleveland Hopkins International Airport (the Airport) and Burke Lakefront Airport (Burke), collectively referred to as the Airport System. Both are owned by the City and are operated by the City's Department of Port Control. The first municipally owned airport in the U.S., the Airport opened in 1925 as Cleveland Municipal Airport, and was renamed Cleveland Hopkins International Airport in 1951.

The Airport is the primary commercial service airport for northeastern Ohio and serves a 16-county air service region (the Airport Service Region, or Region) with a population of approximately 4.0 million. The Region comprises Cuyahoga County, which is situated on Lake Erie and is Ohio's second largest populous county. Cuyahoga County is surrounded by an Inner Ring of six counties, specifically, listed from west to east, Lorain, Medina, Summit, Portage, Geauga and Lake (the Inner Ring Counties). The Inner Ring Counties are surrounded by an Outer Ring of nine counties, specifically, listed from west to east, Erie, Huron, Ashland, Wayne, Stark, Carroll, Mahoning, Trumbull and Ashtabula (the Outer Ring Counties). Per the U.S. Census Bureau's most recent population estimate (July 1, 2017), the Region accounts for 34.3% of the State of Ohio's total population. The Cleveland Combined Statistical Area (the Cleveland CSA), which is used frequently for statistical comparison purposes, includes the following ten counties: Ashtabula, Carroll, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, Stark and Summit Counties.<sup>1</sup> According to the U.S. Census Bureau, the Cleveland CSA represented the 16<sup>th</sup> largest metropolitan area in the U.S. as of July 1, 2017.

The Region is home to 21 Fortune 1000 companies and offers a diversified employment distribution across key industry sectors. Over the last twenty years, per capita income levels for the Region have been at or above State of Ohio and national levels. The cost of living in the region is moderate compared to most large cities in the U.S. The Region is also central to a significant portion of the nation's economic base, with more than 40% of the U.S. population and nation's effective buying income residing within 500 miles of the Airport. This strategic geographic location, coupled with the Region's large Origin and Destination (O&D)<sup>2</sup> population, positions the Airport for significant air service activity (evident in the Airport's recent transition from a hub to primary O&D airport that has witnessed

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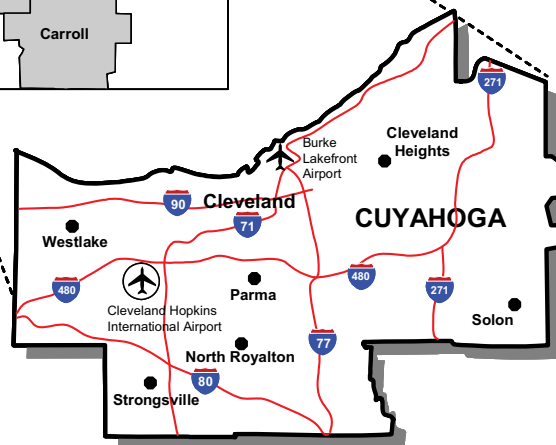
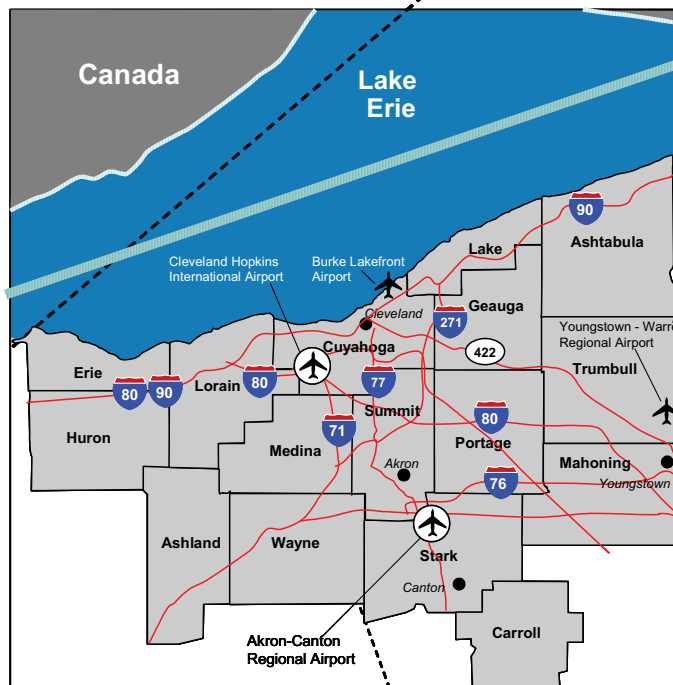
<sup>1</sup> For certain statistical comparisons, the Cleveland Metropolitan Statistical Area (the Cleveland MSA) is also used to due to data availability considerations. The Cleveland MSA includes Cuyahoga, Geauga, Lake, Lorain, and Medina counties and represented 51.5% of the Region's total population as of July 1, 2017.

<sup>2</sup> O&D: Origination and destination – represents passengers that either enplane or deplane at the Airport and do not board any subsequent flights (also commonly referred to as local passengers).

## THE AIRPORT SERVICE REGION

Road miles from Cleveland to:	
Akron/Canton	51
Pittsburgh	123
Columbus	145
Detroit	159
Dayton	213
Cincinnati	264

Less than 1 hour flight time from Cleveland:	
Toronto	45 minutes
Chicago	55 minutes
New York	55 minutes
Washington, DC	55 minutes



diversified air service and increased activity demand levels over the last several years). The other commercial air service airport located in the Region includes Akron-Canton Regional Airport.<sup>3</sup> While most of the local originating passengers live within 75 miles of the Airport, the Airport draws passengers from outside the Region, including northwestern Ohio and western Pennsylvania.

The Airport historically served as a base for the hubbing operations of Continental Airlines (Continental) and subsequently United Airlines (United) after the two air carriers merged in October 2010. Following United's decision in February 2014 to substantially decrease flight operations at the Airport beginning in April 2014, the Airport transitioned to predominately an O&D airport, accounting for 97.1% of the Airport's total enplaned passengers in CY 2017. Hence, the demand for air transportation is dependent on the demographic and economic characteristics of an airport's air service region. Economic factors of the Region considered in this Report include: Population and Demographics, Personal Income, Employment, Employment Distribution, and General Economic and Business Climate Factors.

### Population and Demographics

According to the U.S. Census Bureau, the State of Ohio was the seventh most populous state and accounted for 3.58% of the total U.S. population in CY 2017. The Region represents a population of approximately 4.0 million with the ten-county Cleveland CSA representing 85.1% of the Region's population. Since CY 2010, the Region experienced an annual average population decline of 0.15% (as compared to average annual increases of 0.15% and 0.74% in the State of Ohio and the U.S., respectively). As of July 1, 2017, the Region accounted for 34.3% of the State of Ohio's population. Table 1 provides the relative size of each county in the Region in terms of population level as of July 1, 2017.

**Table 1. Airport Service Region –  
Counties and Population Size (as of July 1, 2017)**

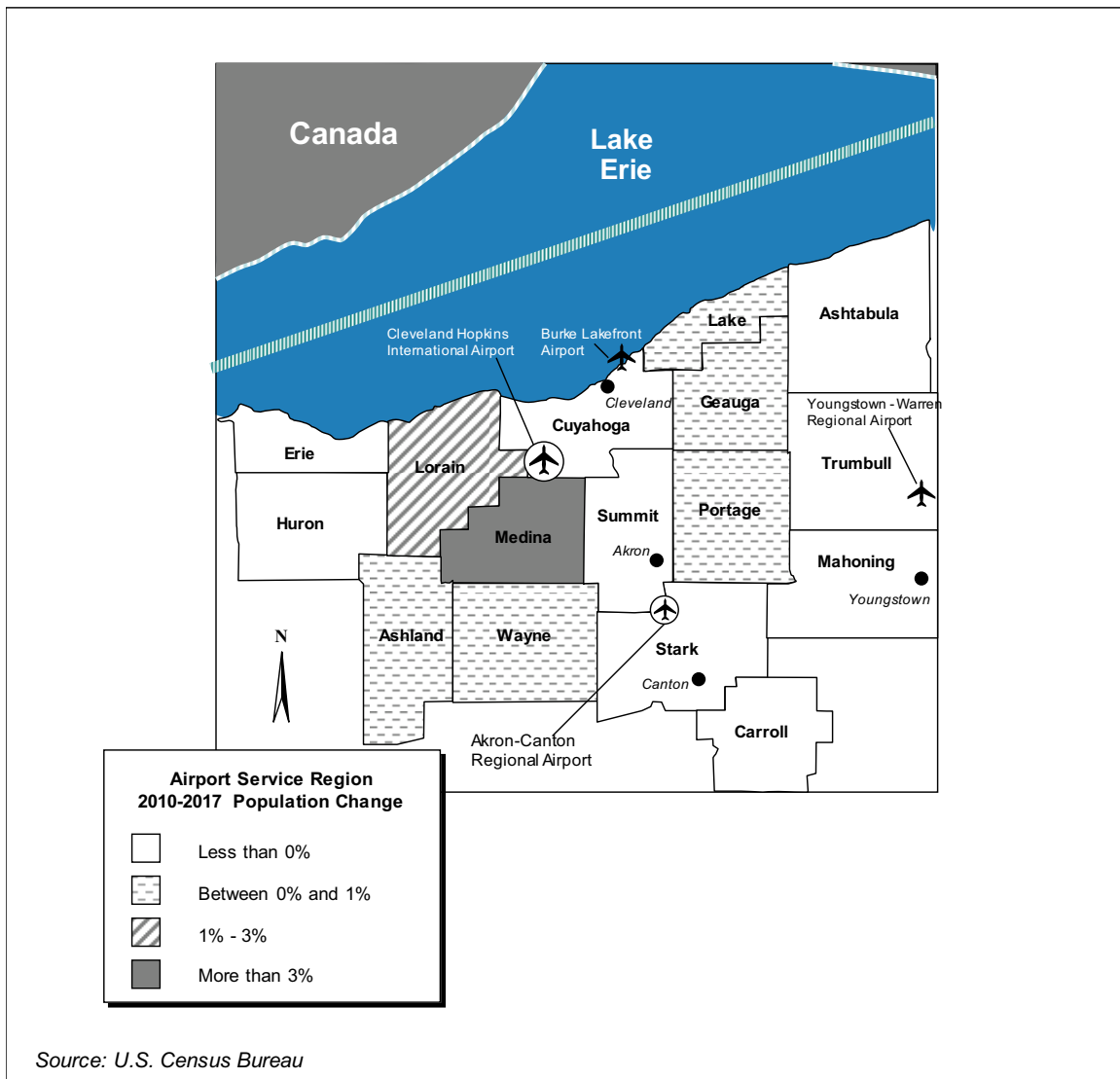
County	Population	County	Population
Cuyahoga	1,248,514	Portage	162,277
Summit	541,228	Wayne	116,038
Stark	372,542	Ashtabula	97,807
Lorain	307,924	Geauga	93,918
Lake	230,117	Erie	74,817
Mahoning	229,796	Huron	58,494
Trumbull	200,380	Ashland	53,628
Medina	178,371	Carroll	27,385

Source: U.S. Census Bureau

<sup>3</sup> Youngstown-Warren Regional Airport located in Trumbull County is also situated in the Region but as of the date of this Report offers no commercial air service (Allegiant terminated air service in January 2018).

The population levels in the Region have remained relatively stable over the last 20 years, with Cuyahoga County remaining as the center of the Region's population base with more than 1.2 million residents as of July 1, 2017. Since 2010, the Inner Ring Counties, particularly the counties of Medina, Lorain, Portage and Geauga, experienced slight population increases. Figure 1 presents population change since CY 2010 for counties located within the Region. Since CY 2010, the Inner Ring Counties experienced average annual population increases of 0.13% while Cuyahoga County experienced average annual decreases of 0.34% during the same time period. The largest population gain was experienced in Medina County, located just south of the Airport, with a 3.5% population gain between CY 2010 and CY 2017.

**Figure 1. Population Change in the Airport Service Region**



The Outer Ring Counties experienced relatively slight declines in population levels since CY 2010. In CY 2010, Cuyahoga County contained 31.7% of the Region's population, 37.1% resided in the Inner Ring Counties and 31.2% lived in the Outer Ring Counties. In CY 2017, the Inner Ring population increased to represent 37.9% of the Region with Cuyahoga County representing 31.3% and the Outer Ring counties representing 30.8%. The largest population share gain was experienced by both Medina and Lake Counties, which each increased its share of the Region's total population by 0.2% between CY 2010 and CY 2017.

The Ohio Development Services Agency Population Projections forecast continued growth for the Inner Ring Counties over the next decade at 0.09% annual growth, higher than Ohio's 0.03%, but lower than the 0.65% for the U.S. as a whole. The population growth rate for Cuyahoga County and the Outer Ring Counties is forecast to decrease from 2020 to 2030. Census projections forecast the Inner Ring Counties will account for 39.6% of the Region's population by 2030, 29.9% will reside in Cuyahoga County and 30.1% will live in the Outer Ring Counties.

The Region is characterized by a slightly older population (average age 41.2 years) than the nation (37.9 years) and the State of Ohio (39.3 years). In regards to educational attainment, the Region has a slightly higher percentage of residents with a high-school degree (90.5%) versus the nation (87.5%) and the State of Ohio (90.0%). The percentage of residents with some college or an associate's degree is slightly higher (29.6%) than the nation (29.0%) and the State of Ohio (29.2%). The Region has a higher percentage of residents with a four-year college degree or higher (28.4%) compared to the State of Ohio (27.5%), but lower than that experienced at the national level (31.3%).

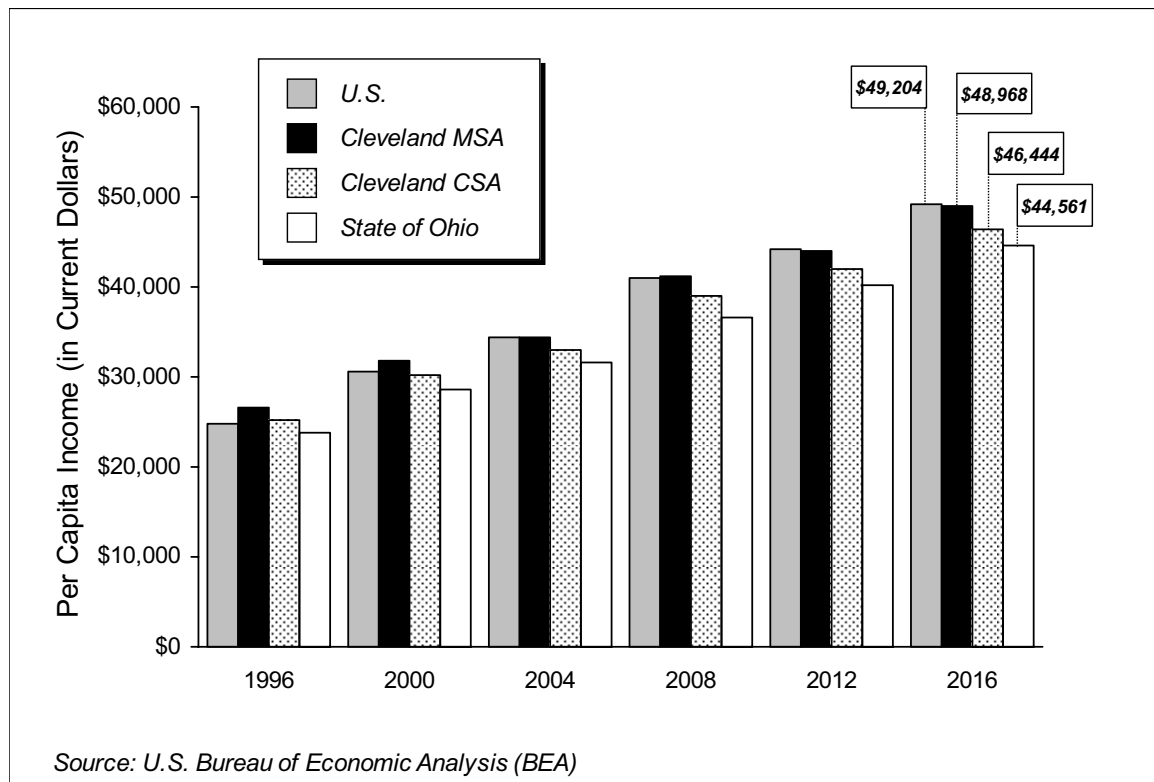
### **Personal Income**

Over the last 20 years, per capita income in the Cleveland CSA and Cleveland MSA has generally tracked close to national levels and surpassed the State of Ohio (U.S. Department of Commerce). In CY 2016 (latest regional data available), the Cleveland CSA and Cleveland MSA per capita personal income levels were \$46,444 and \$48,968, respectively. This compares to \$49,204 for the U.S. and \$44,561 for the State of Ohio for CY 2016. Per capita personal income in the Cleveland CSA averaged annual increases of 3.1% over the last 20 years, comparable with the State of Ohio's 3.2% average annual growth rate, but less than the nation's 3.5% average annual growth rate. Figure 2 presents historical per capita income levels for the U.S., State of Ohio and Cleveland CSA/MSA.

Both Cuyahoga County and the Inner Ring Counties have trended above the per capita personal income in the State of Ohio; the Outer Ring Counties have trended below the State of Ohio. Within the Region, per capita income in

Cuyahoga County has trended higher than the per capita income for the Inner Ring and Outer Ring Counties. The per capita personal income in Cuyahoga County was \$50,023 in CY 2016, which was 2.2% higher than the Cleveland CSA's overall per capita personal income. Cuyahoga County represented 38.6% of the Cleveland CSA's total personal income in CY 2016.

**Figure 2. Per Capita Income  
(Cleveland CSA/MSA vs. U.S. and State of Ohio)**



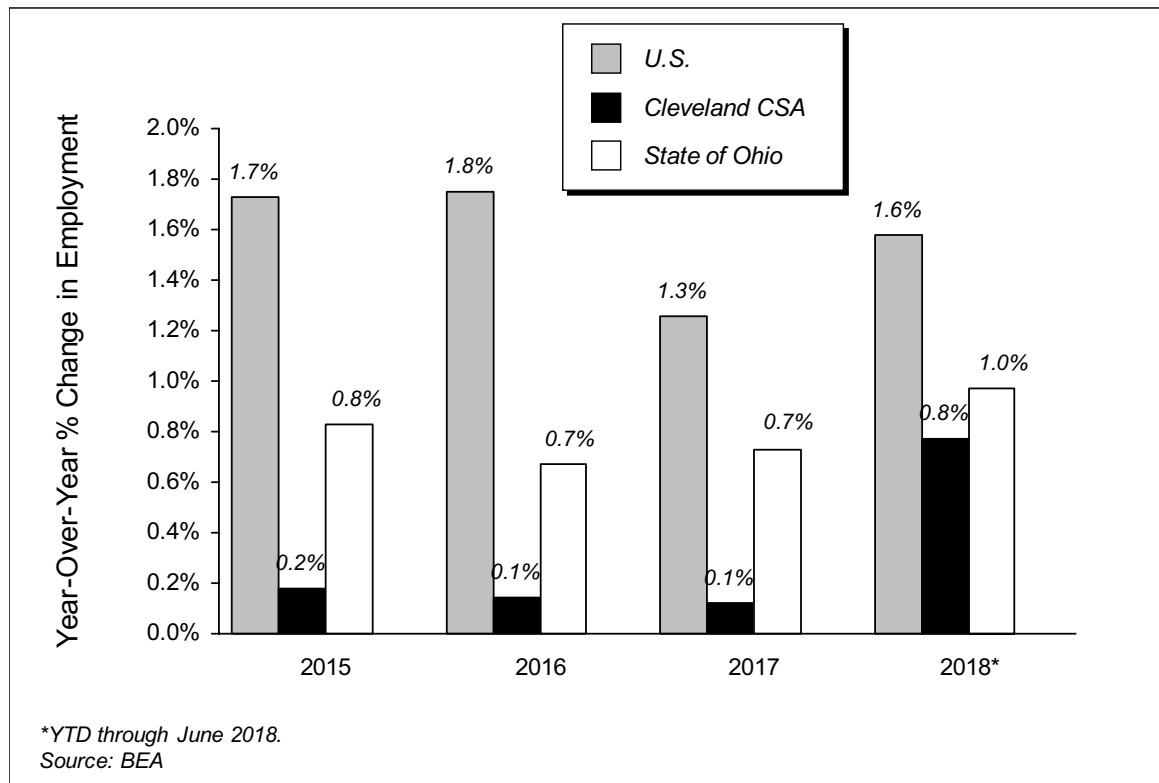
## Employment

From CY 2010 to CY 2017, employment levels in the Region increased by 0.2% and by 0.7% in the State of Ohio, while employment levels for the U.S. increased by 1.4% over the same period. Employment levels in the Cleveland CSA increased by 0.25% from CY 2010 to CY 2017. Cuyahoga County employment levels between CY 2006 and CY 2017 increased by 0.1%. For comparison, employment levels between CY 2006 and CY 2017 increased by 0.2% in the Inner Ring Counties and by 0.3% in the Outer Ring Counties.

For the first six months of CY 2018, average employment levels increased by 0.8% in the Cleveland CSA compared to the same period in CY 2017. Employment levels in the U.S. and the State of Ohio increased by 1.6% and 1.0%, respectively, for the first six months of CY 2018 compared to the same period in CY 2017.

Generally, increases in the employment levels of the Cleveland CSA experienced since CY 2015 have lagged the growth rates in employment registered by the State of Ohio and the nation. As shown in Figure 3, increases in employment levels in the Cleveland CSA are more robust for the first half of CY 2018, a result of an improving labor market in the Region.

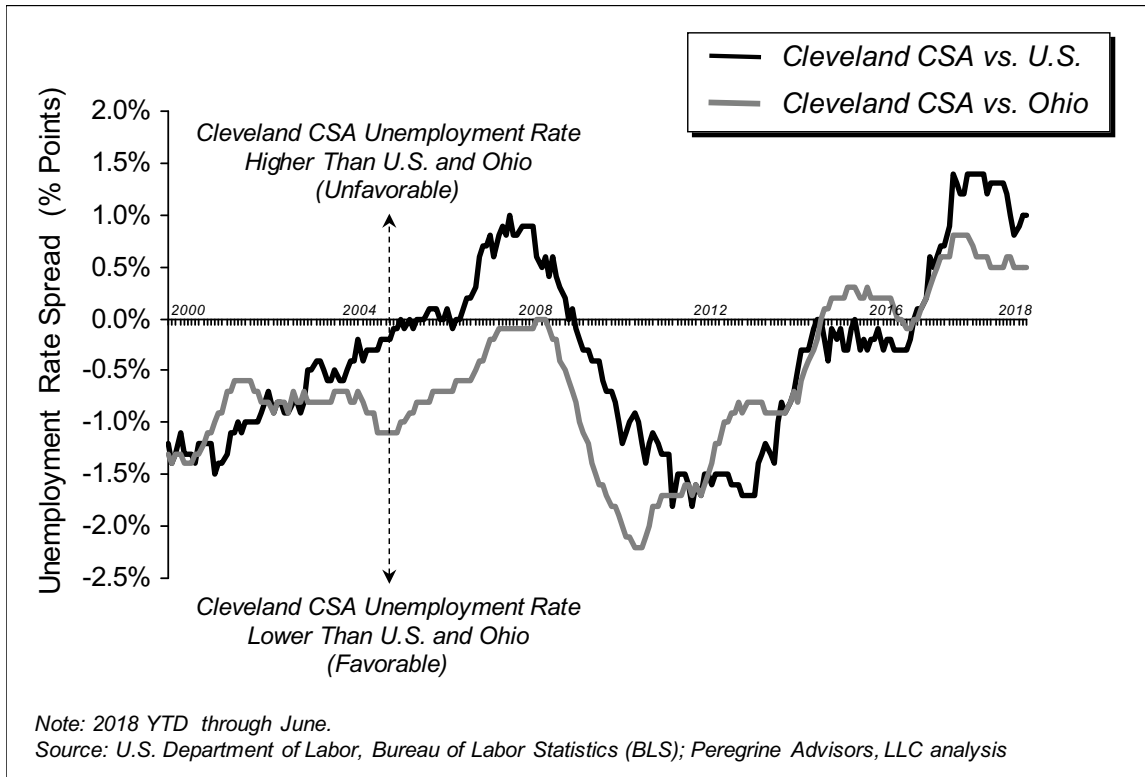
**Figure 3. Change in Year-Over-Year Employment Levels**



As presented in Figure 4 (data not seasonally adjusted for comparison purposes), the Cleveland CSA's unemployment rate from 2000 through 2014 remained consistently below the unemployment rate for the State of Ohio. From 1990 through 2015, the Cleveland CSA's unemployment rate remained below the U.S., except during the Great Recession years (2007-2009). Since 2014, the unemployment rate for the Cleveland CSA has been higher than the State of Ohio's and, since 2016, higher than the nation's. While the Region recovered from the recessionary period, absolute employment levels were still lower in CY 2017 compared to CY 2007. The lower employment levels reflect a net migration of the civilian labor force to locations outside of the Region. The CY 2017 civilian labor force for the Cleveland CSA was 5.9% lower than that in CY 2007. Conversely, the nation experienced a 4.7% increase in the civilian labor force between CY 2017 and CY 2007. As mentioned previously, CY 2018 (YTD through June) data shows an

accelerating employment population with the strongest growth rate (0.8%) registered in the Cleveland CSA for the last five years.

**Figure 4. Difference in Cleveland CSA Unemployment Rate Compared to National and State of Ohio Unemployment Rates (Since CY 2000)**

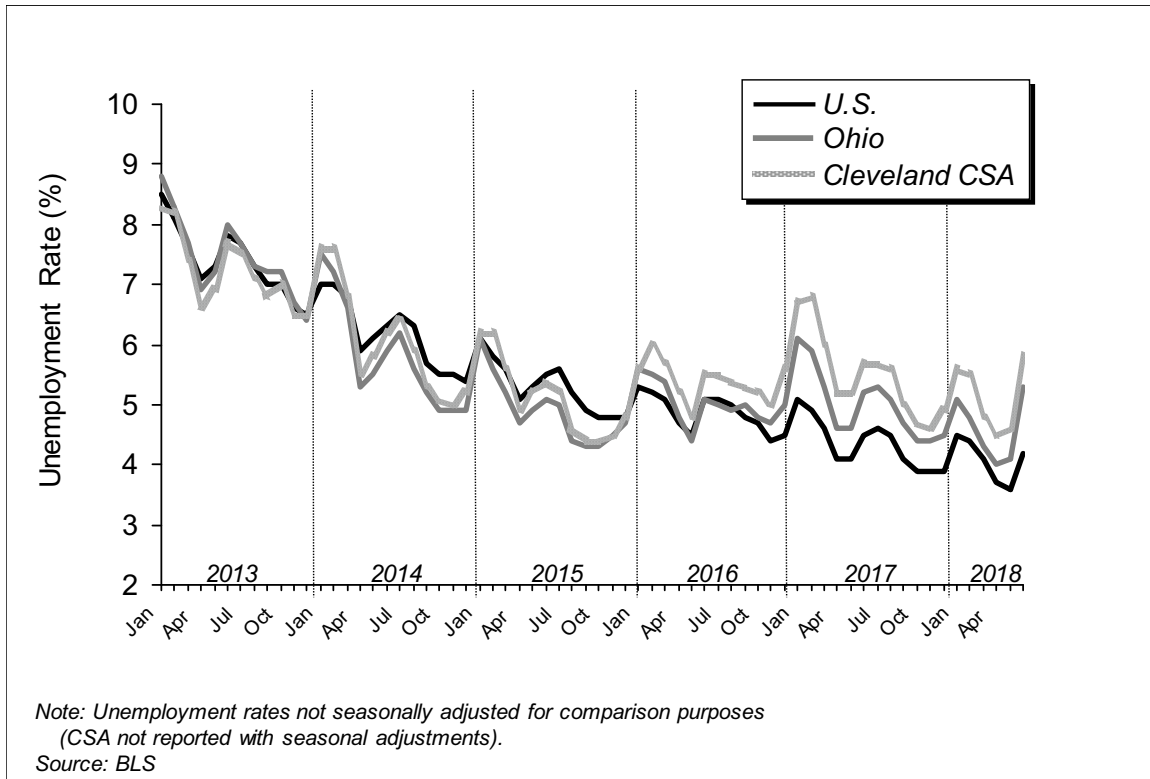


For the first six months of 2018, the Cleveland CSA experienced an unemployment rate of 5.1% compared to 4.1% for the U.S. and 4.6% for the State of Ohio. In June 2018, the Cleveland CSA unemployment rate was 5.8%, compared to 4.1% and 5.3% for the nation and the State of Ohio, respectively (rates reflected are not seasonally adjusted). The unemployment rates in Cuyahoga County and the Inner Ring Counties, since 1990, have been lower than the unemployment rate in the Region, State of Ohio, and U.S.

The unemployment rate in the Outer Ring Counties has been historically higher compared to Cuyahoga County and the Inner Ring Counties. The annual average unemployment rate was 5.5% and 5.3% for Cuyahoga County and the Inner Ring Counties, respectively, compared to 6.1% and 6.0% for the State of Ohio and the U.S., respectively for the first five months of CY 2018. The annual average unemployment rate for the Outer Ring Counties was 7.2%. Figure 5 provides monthly unemployment rates since January 2013 for the Cleveland CSA, nation and State of Ohio.



**Figure 5. Monthly Unemployment Rates Since CY 2013  
(Cleveland CSA vs. Ohio and U.S.)**



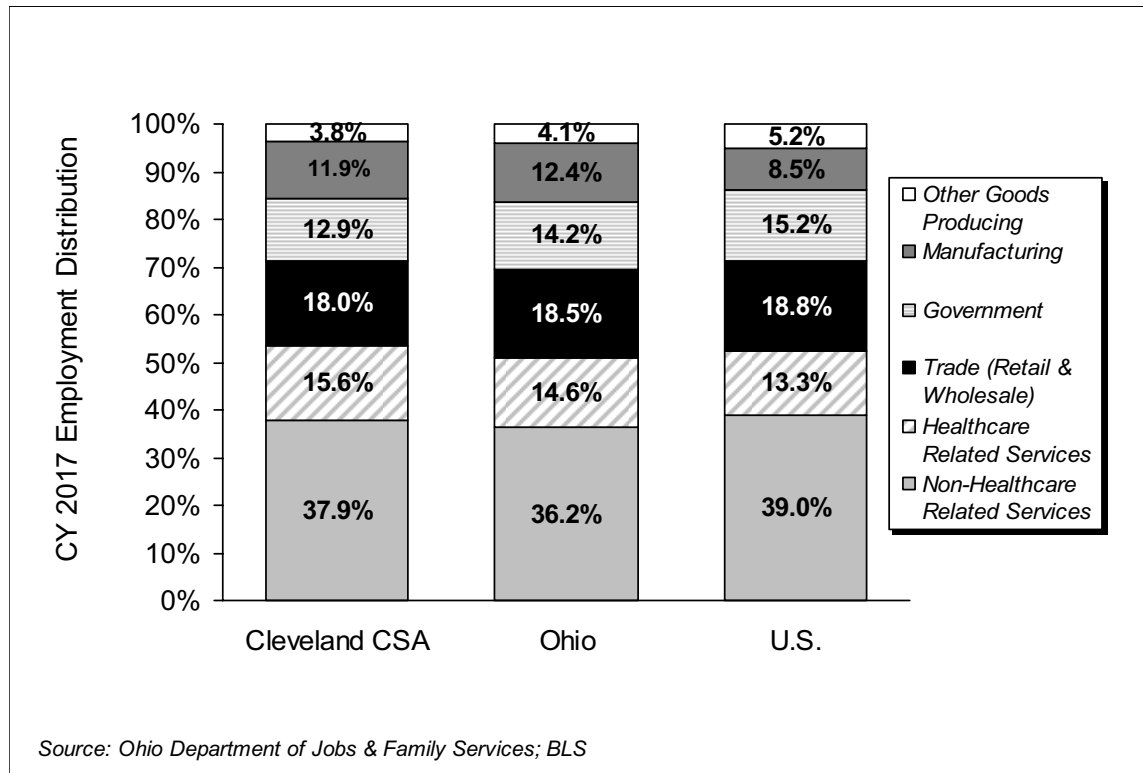
### Employment Distribution

In CY 2017, employment concentration in the Cleveland CSA was centered on non-healthcare related services (37.9%), healthcare related services (15.6%), wholesale and retail trade services (18.0%), government/public administration (12.9%), and manufacturing (11.9%) sectors. Figure 6 compares the Cleveland CSA's employment distribution with that of the U.S. and the State of Ohio. The Ohio Department of Job and Family Services forecasts that total employment in the Cleveland CSA will increase by approximately 0.5% per year through CY 2024; healthcare related services will grow by 1.7% per year through CY 2024.

Over the last twenty years, the Region transitioned to a greater share of services versus manufacturing-based employment sectors. Total services-based sectors represented 71.4% of total employment in the Cleveland CSA in CY 2017, compared to 64.6% in CY 1998. The manufacturing-based employment sector in the Cleveland CSA decreased to 11.9% in CY 2017 and the goods-producing employment sector decreased to 3.8%. In 1998, the manufacturing-based employment sector in the Cleveland CSA was 18.7% and the goods-producing employment level was 4.2%. Total services-based employment in the CSA (71.4%) in CY 2017 was higher than both the nation (71.1%) and the State of Ohio (69.3%).

Figure 7 presents trends in employment levels for key industry sectors in the Cleveland CSA from CY 2000 to CY 2017.

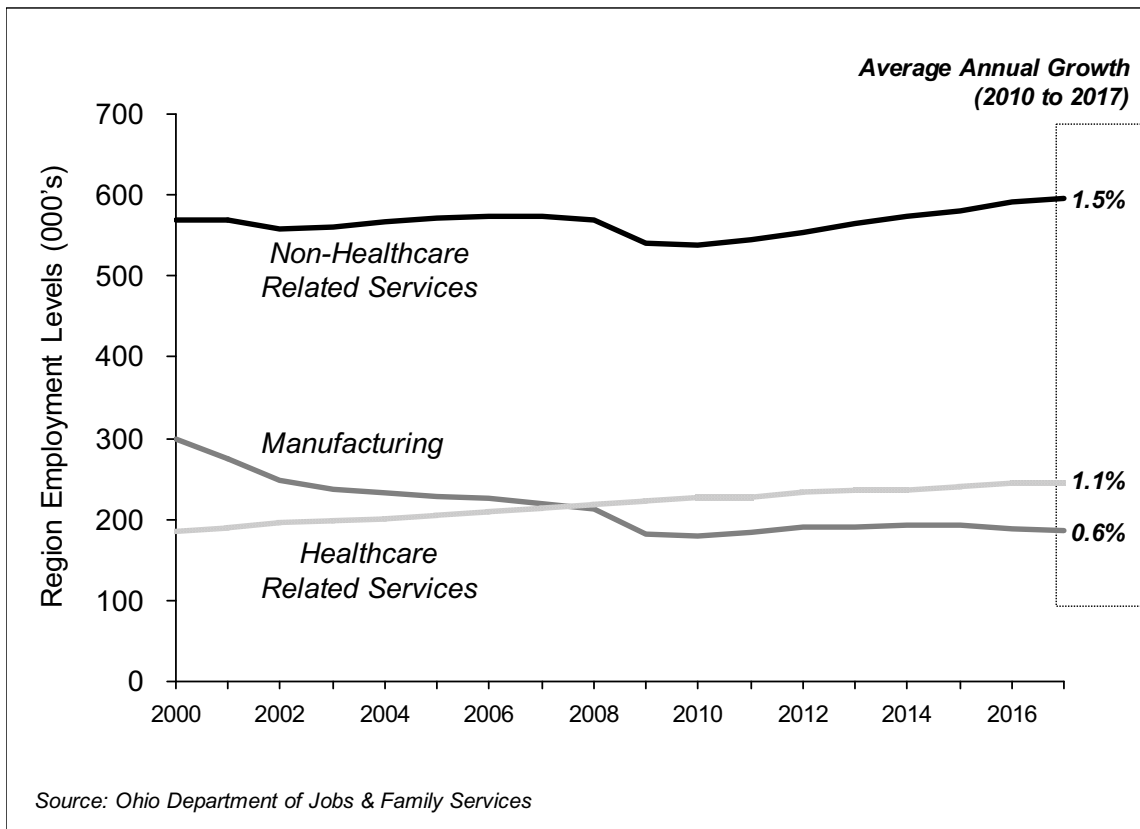
**Figure 6. CY 2017 Employment Distribution  
(Cleveland CSA vs. Ohio and U.S.)**



#### *Non-Healthcare Related Services Sector*

The non-healthcare services sector accounted for 37.9% of employment in CY 2017, compared with 39.0% in the U.S and 36.2% for the State of Ohio. Ohio Department of Job & Family Services projects an annual growth rate of 0.68% in state-wide employment for the services sector through CY 2024. Professional and financial services accounted for 52.4% of total non-healthcare related services employment in the Cleveland CSA in CY 2017. The Region has developed a large banking and financial services industry and is home to one of the nation's 12 regional reserve banks which constitute the Federal Reserve System. The Federal Reserve Bank of Cleveland serves the Fourth Federal Reserve District, which comprises Ohio, western Pennsylvania, eastern Kentucky and the northern panhandle of West Virginia. KeyCorp is the largest national commercial bank with headquarters in Cleveland and ranks in the top 20 of the 100 largest banks in the U.S. (in terms of total assets). KeyCorp employs more than 6,200 workers in the Region.

**Figure 7. Cleveland CSA Employment Levels  
(Key Employment Sectors – CY 2000 to CY 2017)**



The Region has more than 22 colleges and universities enrolling, collectively, over 140,000 students (as reported by the Ohio Department of Higher Education and individual universities for Fall 2017). The largest four-year universities in Cuyahoga County are Cleveland State University (approximately 17,000 students), Case Western Reserve University (11,800 students), Baldwin-Wallace University (3,700 students) and John Carroll University (3,600 students). Cuyahoga Community College, a two-year institution that serves more than 31,000 students, is also located in Cuyahoga County. Other large, four-year universities in the Region include Kent State University (28,080 students), the University of Akron (20,300 students) and Youngstown State (12,600 students).

#### *Healthcare Related Services Sector*

Healthcare related services employment represents 15.6% of total employment in the Cleveland CSA in CY 2017, compared to 14.3% in the State of Ohio and 13.3% in the U.S. According to BioEnterprise's Midwest Healthcare Growth for Capital Report, which captures equity invested in biomedical companies, Cleveland area companies received 63.3% of the \$1.9 billion invested in IT and software, biotech and pharmaceuticals, and medical device components

between CY 2014 and CY 2017. The Global Center for Health Innovation, located in downtown Cleveland, is the first facility of its kind to have permanent showrooms dedicated to medical innovation. Five of the 10 largest private employers in the Region are healthcare-related organizations. According to the Ohio Development Services Agency, the Cleveland Clinic is the largest private employer with headquarters in the Region with 49,800 employees. The Cleveland Clinic has medical facilities throughout the Region. U.S. News & World Report's 2017-18 Best Hospitals ranks the Cleveland Clinic as number one for cardiology and heart surgery. Other major hospital systems headquartered in the Region (and their fulltime employees) includes University Hospitals (26,000), Summa Health (8,000), Aultman (6,900), MetroHealth (6,000), and Akron Children's (4,970). Other medical centers in the Region include St. Vincent Charity Medical Center and Mercy Health-St. Elizabeth Youngstown Hospital. Healthcare employment in the Region is forecast to increase by 2.4% per year between CY 2017 and CY 2024.

#### *Trade Services Sector*

Retail and wholesale trade services employment represented 18% of the Cleveland CSA's employment in CY 2017, comparable to both the State of Ohio (18.5%) and the nation (18.9%). Given the strategic location of the Cleveland CSA on the Great Lakes waterway and the large industrial market of the Region, wholesale trade and transportation-related activities accounted for 44.1% of total trade services employment in the Region in CY 2017. Located on approximately 160 acres along Lake Erie, the Port of Cleveland handles more than 13 million tons of cargo per year— iron ore, limestone, steel, machinery, components, and bulk products. The Port of Cleveland, according to the Chamber of Marine Commerce, saw a 20% increase in international tonnage in CY 2017. The U.S. Army Corps of Engineers reported the Port of Cleveland as the 45<sup>th</sup> largest port in the United States in terms of tonnage, the 26<sup>th</sup> largest for domestic trade, and the 4<sup>th</sup> largest port on the Great Lakes in CY 2016.

Amazon recently announced plans to build two fulfillment centers located in the Region (both within Cuyahoga County in the Village of North Randall and the City of Euclid). The combined centers will encompass 2.4 million square feet of facilities and are estimated to employ more than 3,000 workers. The centers are slated to open in September 2018 and early 2019 (see the *General Economic and Business Climate Factors* section for more information).

The retail trade sector, representing 56% of total trade services employment in the Region, is predominately centered on traditional outlets such as food/beverage and general merchandise stores. The largest retailer, in terms of employment (8,641 fulltime employees in CY 2017) is Giant Eagle with food, fuel, and pharmacy stores. Other large food-related companies (and their fulltime

employees) include Nestle (2,438) and J. M. Smucker (1,985). Other large non-food retailers include Signet Jewelers in Summit County (3,061), Discount Drug Mart (2,242), and Ganley Auto Group (1,616).

#### *Government Sector*

In CY 2017, government employment in the Cleveland CSA was 12.9% of total employment, which was lower than the State of Ohio (14.2%) and U.S. (15.2%) government employment levels. Government employment in the Cleveland CSA is concentrated at the local government level, which represented approximately 76.9% of total government jobs in the Region in CY 2017. Local government represents 64.4% of total government jobs in the State of Ohio and 66.5% in the U.S. State government jobs in the Region account for 12.2% of total government jobs, which compares to 23.1% for the State of Ohio and 23.4% in the U.S. in CY 2017.

#### *Manufacturing Sector*

In CY 2017, manufacturing employment concentration in the Cleveland CSA was 11.9%, which was higher than the U.S. (8.6%) manufacturing employment level but lower than the State of Ohio's (12.4%). Approximately 30% of Ohio's manufacturers with more than 500 employees are located in the Region. By number of companies, some 42% of the State of Ohio's manufacturers are located in the Region. The largest manufacturing sector in the Region is related to automotive assembly, parts, and supplies. General Motors employs 4,500 full-time employees in the Region, and a total of 7,000 in the State of Ohio. The Chevrolet Cruze is manufactured at the Lordstown Complex in Trumbull County, and GM vehicle parts are manufactured at the Parma Metal Center where a \$218 million investment was made in 2017 for new presses and sub-assemblies. Ford Motor has 3,381 employees in the Region manufacturing the E-Series strip chassis, F-650/750 medium-duty trucks, 3.5L EcoBoost, and 3.7L Duratec V6 Cyclone Engine.

The State of Ohio ranks first in the nation in polymer production. Some \$5.94 billion worth of polymers were manufactured in Ohio in CY 2016. Goodyear Tire & Rubber, headquartered in Akron, employs 3,000 in the Region. Goodyear was ranked as the 187<sup>th</sup> largest business in the U.S. and Ohio's 9<sup>th</sup> largest business by *Fortune* in 2018. Other leading manufacturing companies in the Region include Sherwin-Williams, headquartered in Cleveland with 4,325 employees. The Sherwin-Williams Company is ranked #190 on the *Fortune* 2018 list, up from #236 in 2017, and is Ohio's 10<sup>th</sup> largest manufacturer. Swagelok, a manufacturer of tubes, valves, and gauges with 4,140 employees, plans to build a new \$50 million headquarters in the Region (within 30 miles of Solon) that will include a state-of-the-art Innovation Center for fluid system technology development. Lincoln Electric (2,680) is ranked #804 on Forbes 1000 list of largest companies by revenue

in 2018, up from #868 in 2017. Lincoln Electric is the 48<sup>th</sup> largest company in Ohio with headquarters in the Region (City of Euclid). Timken Steel (2,503) opened a new \$40 million facility in Canton in 2017 that will increase heat-treating capacity by 45%. Timken Steel was #731 on the Forbes list in 2018, up from 781 in 2017, and is the 44<sup>th</sup> largest company in Ohio. Average hours of total manufacturing employment in the Cleveland CSA increased by 0.09% from January to April 2018 (as compared to January to April 2017).

#### *Largest Companies in the Region*

According to *Fortune*, the Region is home to 21 *Fortune 1000* companies (listed below on Table 2). Thirty-five of the 50 largest companies in the State of Ohio from the *Fortune 1000* list have a presence in the Region. In addition, approximately one-half of all employees working for international companies in the State of Ohio are based in the Region.

**Table 2. Fortune 1000 Companies Headquartered in the Region**

Ohio Rank	Company Name	U.S. Rank	2017 Revenues (\$ Millions)	City
6	Progressive	112	\$26,839	Mayfield
9	Goodyear Tire & Rubber	187	\$15,377	Akron
10	Sherwin-Williams	190	\$14,984	Cleveland
11	FirstEnergy	219	\$13,627	Akron
13	Parker-Hannifin	256	\$12,029	Mayfield Heights
15	J.M. Smucker	383	\$7,392	Orrville
18	KeyCorp	412	\$6,868	Cleveland
22	TravelCenters of America	465	\$6,052	Westlake
27	RPM International	528	\$4,958	Medina
29	Diebold Nixdorf	551	\$4,609	Akron
35	TransDigm Group	662	\$3,529	Cleveland
37	PolyOne	672	\$3,452	Avon Lake
39	Timken	731	\$3,004	Canton
41	Medical Mutual of Ohio	748	\$2,895	Cleveland
42	Hyster-Yale Materials Handling	751	\$2,885	Cleveland
43	Aleris	757	\$2,857	Cleveland
48	Lincoln Electric Holdings	804	\$2,624	Cleveland
49	Applied Industrial Technologies	810	\$2,594	Cleveland
50	A. Schulman	837	\$2,461	Fairlawn
52	Cliffs Natural Resources	867	\$2,330	Cleveland
55	Nordson	939	\$2,067	Amherst

Source: *Fortune*, June 2018

### *Top Employers in the Region*

Figure 8 presents the top 20 non-governmental employers in the Region for the year ended June 30, 2017. Employers are dominated by healthcare-related providers, manufacturers and service-related companies.

**Figure 8. Top 20 Non-Governmental Employers in the Region  
(Ranked by Number of Employees)**

<b>Company</b>	<b>Employees in Region</b>	<b>Type of Business</b>
1. Cleveland Clinic	41,622	Healthcare/Medical Sciences
2. University Hospitals	21,751	Healthcare/Medical Sciences
3. Group Management Services, Inc.	11,341	Professional Services
4. Progressive Corp.	10,045	Insurance/Financial Services
5. Giant Eagle, Inc.	8,641	Grocery/Retail Trade
6. The MetroHealth System	6,469	Healthcare/Medical Services
7. Summa Health	6,058	Healthcare/Medical Services
8. KeyCorp	5,331	Banking/Financial Services
9. FirstEnergy Corp.	5,073	Electric Utility Provider
10. Akron Children's Hospital	4,876	Healthcare/Medical Services
11. Case Western Reserve University	4,501	Higher Education
12. General Motors	4,500	Automotive Manufacturing
13. Aultman Health Foundation	4,366	Healthcare/Medical Services
14. Sherwin-Williams Co.	4,325	Coatings and Related Products
15. Swagelok	4,140	Industrial Manufacturer
16. Ford Motor Co	3,381	Automotive Manufacturing
17. Huntington National Bank	3,288	Banking/Financial Services
18. Signet Jewelers Ltd.	3,061	Retail
19. Goodyear Tire & Rubber Co.	3,000	Tire Manufacturer
20. Lincoln Electric Co.	2,680	Industrial Manufacturer

*Source: Crain's Cleveland Business Book of Lists 2017*

### **General Economic and Business Climate Factors**

#### *Regional Investment*

According to the Downtown Cleveland Alliance, approximately \$7.3 billion has been invested in infrastructure, renovations, and multi-use urban centers located adjacent to public attractions in Cleveland since 2010. This includes \$3.5 billion investment for 29 projects between 2016 and 2018. Cleveland has 1,707 new hotel rooms and 1,100 new residential units with 505 more residential units under construction. New hotel development and renovations include, in order of decreased investment, the Hilton (adjacent to the Huntington Convention Center and the Global Center for Health Innovation), Marriot, Kimpton Schofield, Drury, Aloft, and Renaissance. New apartments include the Flats East Bank Phase II, the Standard Building, and Terminal Tower. The Beacon and Lumen (next to Playhouse Square) are under construction. Public Square received a \$50 million transformation to upgrade its park, and 16 new housing units are being constructed next to the Rock and Roll Hall of Fame.

The State of Ohio continues to invest in the Region's businesses. The Ohio Third Frontier program provides a network of expertise and capital to startups and early stage technology companies. The Ohio Tax Credit Authority approves applications and provides oversight for tax credit assistance. Through the Ohio Tax Credit Authority and the Third Frontier program, the State has initiated the investment of \$437 million in the Region in the last 30 months. These incentives encourage existing companies in the Region to invest in expansion and upgrades, and provide an estimated economic benefit of \$1.1 billion. In 2016, these programs sent a total of \$116 million of incentives and investments into the Region. The 2016 Ohio Tax Credit Authority actions are anticipated to provide 1,851 new jobs in the Region with an annual payroll of \$102 million. The largest incentive, \$36 million, expected to create 690 new jobs was awarded to ExactCare, a fast growth company that markets pre-packaged medication for home-based patients. In 2016, the Third Frontier program directed an additional \$14 million to incubate new technology businesses. In 2017, Ohio's programs invested \$278 million in the Region. Some 6,252 new jobs are anticipated for the Region with an expected annual payroll of \$265 million. The Third Frontier program invested an additional \$13 million in the Region, of which \$10.7 million was directed towards mitigating the Region's opioid crisis. From January to May 2018, \$42.8 million was directed toward investment and jobs in the Region. Part of 2018's investment includes \$27 million for 1,000 new HomeGoods jobs in the Region's village of Lordstown. HomeGoods will invest \$160 million to develop 290-acres.

The largest of Ohio Tax Credit Authority's tax abeyances over the last 30 months, that included 73 individual organizations located in the Region, was for Amazon, which is building two new facilities in the Region. The first facility is a fulfillment center in the Village of North Randall (on the site of 1976's world's largest indoor mall) to create 1,000 new jobs and \$28 million in annual payroll. The \$177 million construction of the North Randall fulfillment center represents investment by Amazon. The second new Amazon facility is a warehouse in the City of Euclid to create 2,000 new jobs and an annual payroll of \$55.4 million. Amazon is investing \$175 million in the new Euclid warehouse. Other recipients of the stimulus include Progressive Insurance's \$30 million new facility in Highland Heights that anticipates 900 new jobs and an annual payroll of \$63 million—all in addition to Progressive's 10,045 existing employees.

Healthcare-related projects represent 18.3% of the total Ohio Tax Credit Authority and Third Frontier investments over the last 30 months. The National Institutes of Health awarded a \$46 million collaboration grant between Case Western Reserve University, the Cleveland Clinic, MetroHealth, University Hospitals, and Louis Stokes VA Medical Center. In June 2018, the 30 year old Case Comprehensive Cancer Center earned a \$31.9 million grant from the National



Cancer Institute. University Hospitals invested \$30 million and opened Ohio's first proton therapy facility in 2016. University Hospital's Rainbow Center for Women and Children in Cleveland's MidTown opened in July 2018. In June 2018, the Cleveland Clinic opened the new \$34 million Lakewood Family Health Center. In March 2017, the \$276 million Cleveland Clinic Taussig Cancer Center opened as a seven-story building on the main campus. MetroHealth is planning to build a new \$1 billion 11-story hospital-in-a-park on the site of its current facility on West 25<sup>th</sup> Street in Cleveland.

Between the Cleveland Clinic and University Hospitals main campuses is University Circle. One University Circle opened in May 2018 and, at 234 feet, is the tallest residential building constructed in 40 years in the Region with a building cost of \$111 million. A \$38 million Residence Inn is planned for the Innova complex, also at University Circle. Quicken Loans Arena is closed for the summer of 2018 to undergo \$140 million in improvements.

### *Housing*

While the Cleveland CSA has not experienced the rapid rise in housing prices similar to other metropolitan regions in the U.S., the S&P/Case-Shiller Home Price Index indicates that housing prices in the Cleveland CSA have achieved moderate increases over the last ten years. Table 3 provides changes in home values through May 2018 for both the Cleveland CSA and the U.S.

**Table 3. % Change in Home Values  
(Cleveland CSA vs. U.S.)**

<b>Time Period (Through May 2018)</b>	<b>% Change Cleveland CSA</b>	<b>% Change U.S. Average</b>
10 Year	10.6%	21.3%
5 year	16.7%	32.2%
3 Year	12.0%	18.2%
1 Year	5.1%	6.4%

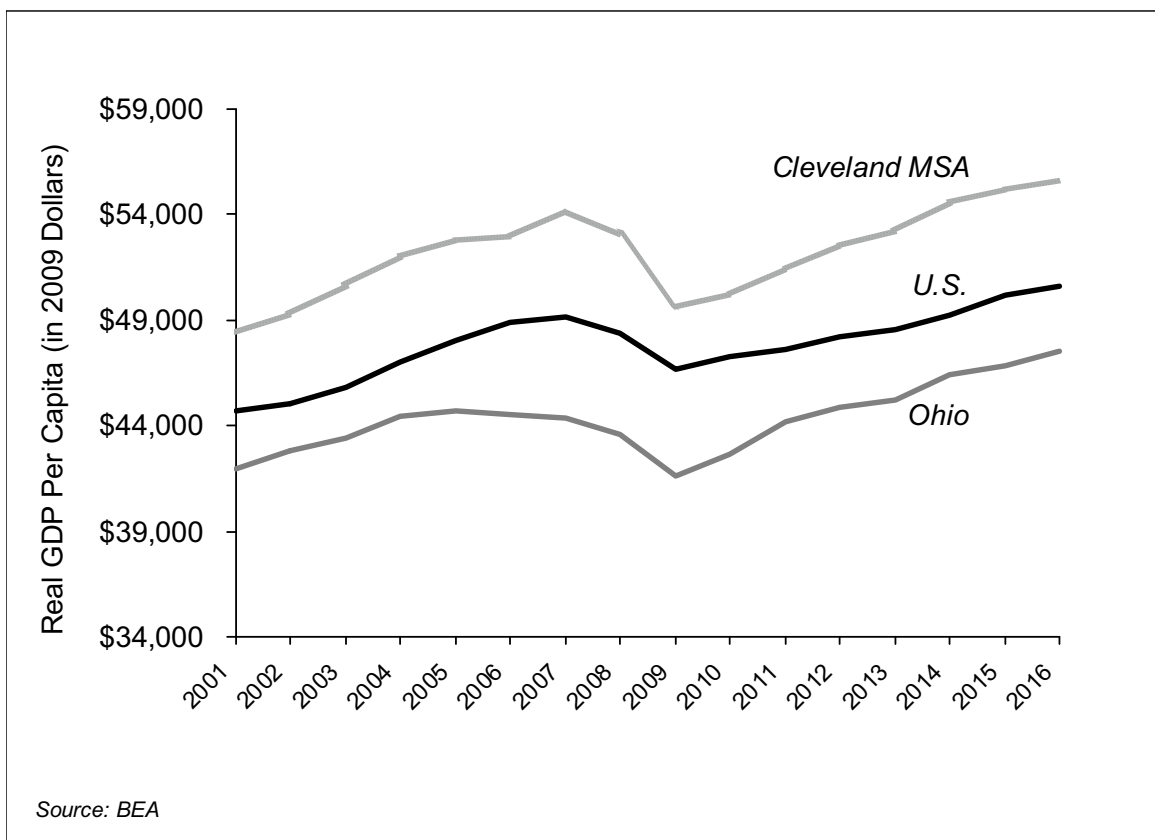
*Source: S&P/Case-Shiller Home Price Index*

The total number of housing permits and associated valuation in the Cleveland MSA increased by 8.7% and 10.0%, respectively, in CY 2017 compared to CY 2016 (this compares to a 6.2% increase in permits and 9.4% increase in associated valuation for the nation for the same period). Through the first six months of CY 2018, the number of permits and associated valuation in the Cleveland MSA decreased 13.7% and 8.8%, respectively, as compared to the same period in CY 2017. The region provides an affordable cost of living compared to national averages. For example, median housing prices in the Cleveland CSA are approximately two-thirds the median housing price for the nation (data for second quarter 2018).

### *Regional Gross Domestic Product (GDP) Per Capita*

As noted in Figure 9 below, the Cleveland MSA has historically outpaced the nation and State of Ohio in terms of Real GDP per capita, reflecting greater economic output associated with the employment distribution of the region. The manufacturing and goods producing sectors of the Region's employment distribution contributed 21.0% of regional GDP output in CY 2016 (latest available information). In comparison, these same sectors contributed 18.7% to the nation's GDP in CY 2016. From CY 2010 through CY 2016, real GDP per capita increased on average 1.8% per year in the Cleveland MSA, compared to a 1.1% and 1.8% increase for the nation and State of Ohio, respectively, for the same period.

**Figure 9. Real GDP Per Capita  
(Cleveland MSA vs. U.S. and State of Ohio)**



## II. AIRPORT FACILITIES AND DEVELOPMENT

### Existing Airport Facilities

Located in the State of Ohio's second, most populous county, the Airport is situated approximately 10 miles southwest of the downtown area of the City and is accessible from multiple directions via interstate highways I-71 and I-480. The Airport is also accessible via the Greater Cleveland Regional Transit Authority's light rail transit system, which links the Airport with downtown areas and points east and west of downtown. The Airport encompasses approximately 2,045 acres of land (including land leased to the International Exposition, or I-X, Center) with three air carrier runways (including two parallels), a large terminal complex with four concourses and various cargo and maintenance facilities.

### *Airfield Capacity and Configuration*

The Airport has three runways, including two parallel runways (6L/24R and 6R/24L) in the northeast-southwest primary wind direction and a crosswind runway (10/28), with an east-west orientation. In CY 2017, the Airport handled approximately 122,000 operations (take-offs and landings). The current airfield capacity of the Airport supports 112 operations per hour under Visual Flight Rules (VFR) conditions. The Airport commissioned Phase I of Runway 6L/24R in December 2002 at a length of 6,800 feet. Runway 6L/24R was further extended to 9,000 feet, and was commissioned as a CAT III runway in November 2004. Runway 6R/24L was extended to 10,000 feet after the uncoupling from Runway 10/28 in December 2008. Runway 6R/24L is separated from Runway 6L/24R by 1,241 feet allowing for simultaneous arrivals and departure as authorized by the FAA. Crosswind Runway 10/28 is 6,017 feet with an east-west orientation to accommodate air traffic during irregular operations due to adverse wind conditions (less than 2% of the time). The Airport has a total of six runway approaches, four of which (Runway ends 6R, 24L, 24R and 28) are equipped with Instrument Landing System (ILS) navigational aids that allow for precision approaches during inclement weather conditions. The current capacity benchmark at the Airport is 56 arrivals and 56 departures per hour in VFR conditions and 32 arrivals and 32 departures (or fewer) per hour in adverse Instrument Flight Rule (IFR) weather conditions, which may include poor visibility, unfavorable winds or heavy precipitation.

The City is currently participating in the FAA's Metroplex program, a National Airspace System initiative focused on improving air traffic flow in 21 metropolitan areas across the U.S. By optimizing airspace and operating procedures based on precision satellite-based navigation, improvements in regional air traffic patterns and air carrier on-time performance are anticipated to accrue to commercial service airports located in a metroplex region. The Airport is part of the defined Cleveland-Detroit Metroplex where new performance-based

navigation and flow management procedures will redefine arrival and departure air routes to provide more direct flight paths to airports in the region. Anticipated to be fully implemented in the Fall of 2018, the FAA estimates that Metroplex initiative could result in more than 3.4 million gallons in annual fuel savings due to improved air traffic flow and flight paths. Project funding for the Metroplex initiative is through a combination of federal funds and Airport-provided sources.

**Figure 10. Airport Layout**



#### *Landside Facilities*

Passenger terminal facilities consist of approximately 935,000 square feet in a main terminal building with four attached concourses, which support 58 jet-gates and 33 commuter aircraft parking positions. The City opened the 170,000 square foot Concourse D in 1999 to serve the then expanding regional jet and commuter operation of Continental Express at the Airport. Following United's decision to consolidate flight operations in Concourse C, due to decreased air service at the Airport after its merger with Continental, Concourse D was officially closed for commercial use on June 5, 2014. As of June 30, 2018, a total of 45 jet-gates were in use at the Airport, 31 of which were leased to Scheduled Airlines and 14 of which are used for common-use operations at the Airport. United utilizes the most

leased jet-gates with 12, followed by Southwest and American with five each. Many Scheduled Airlines (e.g., Frontier, American, Spirit, etc.) are also frequent users of the Airport's common use gates to accommodate expanded operations in periods of peak demand for air travel.

The City has redeveloped a substantial portion of the Airport's terminal concessions program, which doubled the number of retail outlets in the terminal complex. The concessions development program currently includes more than 51,000 square feet of concession space with plans to transition several concessions concepts and to add new outlets.

The Airport's public automobile parking facilities currently consists of 5,906 parking spaces, with 3,811 spaces in the Smart Parking Garage (utilizes sensors to signal parking space availability), 1,584 spaces located on-Airport in various surface lots, and 511 spaces located in an offsite economy surface lot. The Airport also has 2,500 employee parking spaces. An estimated 7,000 private off-airport parking spaces exist around the Airport's perimeter.

The Airport also includes a consolidated rental car facility that is located offsite, though adjacent to the Airport perimeter. The rental car facility is owned by the Airport and leased to the car rental companies, which currently include Alamo, Avis, Budget, Dollar Thrifty, Enterprise, Hertz, and National.

Ride-sharing companies Uber and Lyft also operate in the Region and provide transportation services to and from the Airport. A Ground Transportation Center (GTC) located in between the Airport's terminal roadways and the Smart Parking Garage serves as a drop-off and pick-up point for ride-share, off-airport parking and other commercial vehicle customers.

#### *Burke Lakefront Airport*

Located downtown on the shores of Lake Erie, Burke serves as a designated reliever airport to the Airport. Burke has two parallel runways, the longer being Runway 6L/24R (6,604 feet), which is equipped with an instrument landing system. Runway 6R-24L is 5,200 feet in length. In CY 2017, Burke handled approximately 51,000 operations, serving mostly corporate and general aviation aircraft.

### **Airport Five-Year Capital Improvement Program**

The City maintains an ongoing Capital Improvement Program (CIP) for the Airport System. Airport management has identified approximately \$148.4 million in new CIP projects that are anticipated to be implemented during the next five years (the Five-Year CIP). As indicated below, the Series 2018 Bonds will provide

funding for certain elements of the CIP. The following is a summary and description of the Five-Year CIP projects:

#### Airfield Projects

*North Airfield Improvements (Phases II-IV).* This project will eliminate two airfield-related “hot spots” (areas with the potential for collision or runway incursion) as determined by the Federal Aviation Administration (FAA). The project will provide geometric updates to current FAA standards and eliminate direct aircraft access into the runway environment to enhance airfield safety. Estimated cost: \$52.9 million.

*Full Depth Rehabilitation of Runway 6R-24L.* Includes the environmental assessment, design and construction of the complete rehabilitation of the Airport’s inboard runway. Estimated cost: \$27.7 million.

*Airfield Sanitary Sewer Relocation Project.* Includes the design and relocation of an airfield sanitary sewer line to comply with environmental standards. Estimated cost: \$7.0 million. Portion to be funded by the Series 2018 Bonds: \$7.0 million.

*BKL Runway 6R/24L Rehabilitation.* Includes the complete resurfacing and remarking of Burke’s Runway 6R/24L to FAA specifications. Estimated cost: \$2.3 million.

*BKL Taxiway Rehabilitation.* Includes the complete resurfacing and remarking of Taxiways B, D, E and F at Burke. Estimated cost: \$1.0 million.

*BKL Exhibit A.* This project maps the Burke property to update real estate assessment information for City-owned parcels. Estimated cost: \$0.4 million.

#### Terminal Projects

*Main Terminal Boiler Replacement.* Replacement of six of the existing eight boilers for the main terminal with more energy-efficient units. Estimated cost: \$3.3 million. Portion to be funded by the Series 2018 Bonds: \$0.6 million.

*Main Terminal Chiller Replacement.* Complete replacement of the Airport’s central cooling plant equipment, which is more than 20 years old. This project will allow for a more efficient chiller plant (plus associated equipment) to meet the current and future service needs of the Airport’s terminal complex. Estimated cost: \$5.3 million. Portion to be funded by the Series 2018 Bonds: \$5.3 million.

*Life Safety & Security Access Control Replacement.* A complete replacement of the existing access control system is required due to the obsolescence of the existing system and evolving security requirements of the federal agencies that impact Airport operations. Estimated cost: \$2.4 million. Portion to be funded by the Series 2018 Bonds: \$2.4 million.

*Life Safety & Security Fire Alarm Suppression Replacement.* This project replaces field devices (detectors and alarms) placed throughout terminal complex that are antiquated and require upgrading to integrate with more recent installed systems (e.g., sprinkler release systems). Estimated cost: \$2.1 million. Portion to be funded by the Series 2018 Bonds: \$2.1 million.

*Airport Baggage Handling System Expansion.* The design and implementation of additional capacity to the Airport's in-line baggage handling system. Estimated cost: \$2.5 million. Portion to be funded by the Series 2018 Bonds: \$2.5 million.

*Airport Signage Upgrades-Phase II.* Signage will be designed and placed in public circulation areas to enhance way finding for Airport customers, including the replacement of existing static signs with digital messaging. Estimated cost: \$0.3 million.

#### *Landside Projects*

*Primary Road Utilities & Roadway Improvements.* Rehabilitation of Primary Road, including the re-rerouting of adjacent underground utilities and sanitary systems. Estimated cost: \$4.5 million. Portion to be funded by the Series 2018 Bonds: \$4.5 million.

*Ground Transportation Center Upgrades.* This project provides customer service improvements to the existing GTC, including a new canopy system, new lighting and signage and sectional heating. Upgrades to the GTC are required given the increased utilization of ride-share vehicles by passengers entering and exiting the Airport. Estimated cost: \$3.0 million. Portion to be funded by the Series 2018 Bonds: \$3.0 million.

*Roadway Storm Sewer Pump Replacement.* The replacement of five (5) storm sewer pumps that service the terminal roadway system. Estimated cost: \$1.0 million. Portion to be funded by the Series 2018 Bonds: \$1.0 million.

*BKL Shoreline Restoration.* The restoration of Burke's northwest revetment (shoreline) due to damage sustained from storms impacting the area. The City has applied and received a Federal Emergency Management Agency grant to apply towards cost of the restoration. Estimated cost: \$8.0 million.

*BKL Parking Lot Upgrades.* This project will rehabilitate the existing pavement surface to provide safety improvements and structural strength to support vehicles entering and exiting the parking lot. Estimated cost: \$2.5 million.

#### *Other Projects*

*Snow Removal Equipment.* New snow removal equipment will be purchased to assist with the Airport's snow and ice control plan that addresses poor weather conditions and prompt removal requirements to provide a safe and efficient operation. Estimated cost: \$10.6 million

*Electrical Vault 6 (EV-6) Replacement.* Removes and replaces all electrical switchgear in the electrical vault due to damaged panels and automatic transfer switch requirements. Estimated cost: \$0.6 million. Portion to be funded by the Series 2018 Bonds: \$0.6 million.

*Information Technology Upgrades.* Upgrade of switches and other core networking infrastructure to enhance the information technology network across the Airport. Estimated cost: \$1.3 million. Portion to be funded by the Series 2018 Bonds: \$1.3 million.

*Aircraft Rescue & Firefighting (ARFF) Vehicle.* Includes the purchase of a new ARFF vehicle to comply with airport safety standards and response times. Estimated cost: \$2.1 million.

*Airport Master Plan.* The development of a new Airport Master Plan to address the short and long-term development needs for the Airport, especially critical given the Airport's aging landside infrastructure and transition to an O&D airport. The plan addresses five primary goals for the Airport: 1) provide a development strategy for the future; 2) identify long-range facilities requirements; 3) develop an implementation program; 4) satisfy the requirements of FAA airport needs; and 5) span a 20-year planning horizon. Estimated cost: \$4.5 million. Portion to be funded by the Series 2018 Bonds: \$4.5 million.

*Vehicle Replacement.* This project will replace a portion of the Airport's existing vehicle fleet due to age and operating condition of certain vehicles. Estimated cost: \$0.4 million.

*General Design and Planning Services.* This project allows for the engagement of consultants to provide design, planning and construction management services, as extension support to the staff of the Department of Port Control for the implementation of the CIP. Estimated cost: \$0.3 million.



*On-Call Environmental and Other Professional Planning Services.* The Department of Port Control maintains a pool of qualified professional firms that can provide airport planning and environmental services on an as-needed basis. This project will fund those services over the next five fiscal years. Estimated cost: \$2.4 million.

*Noise Monitoring Equipment Replacement.* This project replaces noise monitors at various locations that have reached the end of their useful life to comply with the Airport's Part 150 Noise Compatibility Program. Estimated cost: \$0.2 million.

### **Funding Sources – The Five-Year CIP**

Funding sources for the Five-Year CIP projects are anticipated to include proceeds from the issuance of the Series 2018 Bonds, proceeds from outstanding Airport System Revenue Bonds, federal and state grants-in-aid, and other Airport discretionary funds. Table 4 summarizes the anticipated sources and uses of funding for the Five-Year CIP.

**Table 4: Sources and Uses – Five-Year CIP**

Project	Project Cost Estimate (in \$000's)	Sources of Funding (in \$000's)			
		Outstanding Bond Proceeds	Airport Discretionary Funds	Federal and State Grants	Series 2018 Bonds
Airfield Projects	\$91,215	\$ --	\$20,394	\$63,821	\$7,000
Terminal Projects	15,880	2,700	280	-	12,900
Landside Projects	18,980	--	4,495	5,985	8,500
Other Projects	22,320	--	8,057	7,913	6,350
Total	\$148,395	\$2,700	\$33,226	\$77,719	\$34,750

### *Outstanding Bond Proceeds*

The City expects to allocate approximately \$2.7 million in unspent proceeds of outstanding Airport System Revenue Bonds to fund a portion of the Five-Year CIP projects. The Scheduled Airlines have also provided certain approvals for the use of such proceeds for funding projects in the Five-Year CIP. All projects funded from the original issuance of Airport System Revenue Bonds are complete or substantially complete.

### *Airport Discretionary Funds*

In accordance with the Airline Agreements (see *Financial Framework for Operation of the Airport*), the City receives annual discretionary funds via the Airport Development Fund. The City anticipates using a portion of annual Airport Development Fund receipts to fund certain projects in the Five-Year CIP. The City plans to utilize \$33.2 million in Airport Development Fund and other discretionary fund monies to provide local matches to certain federal and state grants-in-aid as well as fund other capital improvements.

### *Federal Grants-in-Aid*

In accordance with FAA Record of Decision dated December 22, 2000 and subsequently amended on August 25, 2005 and August 18, 2017, the City anticipates receiving a total of \$181.6 million in Letter-of-Intent (LOI) funds to pay project costs of the Runway Uncoupling Project (\$42.8 million) and debt service associated with airfield projects funded in part from the Series 2000 Bonds (\$148.4 million). As of December 31, 2017, the City had received \$172.9 million of the LOI proceeds. The following table presents the anticipated schedule for receiving the remaining LOI fund balance:

Year	LOI Payment	Year	LOI Payment
2018	\$2,045,253	2021	\$2,090,031
2019	\$2,059,960	2022	\$400,248
2020	\$2,074,885		

Source: FAA letter AGL-01-01 dated August 18, 2017

In addition, the City anticipates receiving \$77.7 million in additional federal and state (ODOT) grant-in-aid revenues for the implementation of certain airfield and other improvements at the Airport and Burke.

### *Series 2018 Bonds*

The City anticipates issuing a portion of the Series 2018 Bonds to fund a portion of the Five-Year CIP projects and related issuance costs. The City has received all requisite approvals for the issuance of the Series 2018 Bonds, including those from the Scheduled Airlines. Please see *Financial Analysis for the Financial Forecasts* for more information on the Series 2018 Bonds.

### *Passenger Facility Charges*

Under the *Aviation Safety and Capacity Expansion Act of 1990* and reauthorization in 2000 (the *Wendell H. Ford Aviation Investment and Reform Act for the 21<sup>st</sup> Century*), the FAA may authorize a public agency that controls an airport to impose a PFC of \$1.00, \$2.00, \$3.00, \$4.00 or \$4.50 for each qualifying enplaned

passenger at such airport to be used to finance eligible airport-related projects. The City currently imposes a \$4.50 PFC at the Airport, with total impose and use collection authority of \$596.6 million. As of June 30, 2018, the Airport had received a total of \$492.6 million in PFC revenues. The remaining balance of collection authority is anticipated to extend through 2023, with 100% of annual PFC revenues allocated to pay debt service associated with already approved PFC projects. While there has been discussion in the U.S. Congress about raising the current \$4.50 PFC collection cap, for purposes of preparing the financial forecast contained in this Report, it is assumed that the City will continue to impose a PFC at the \$4.50 level during the forecast period.

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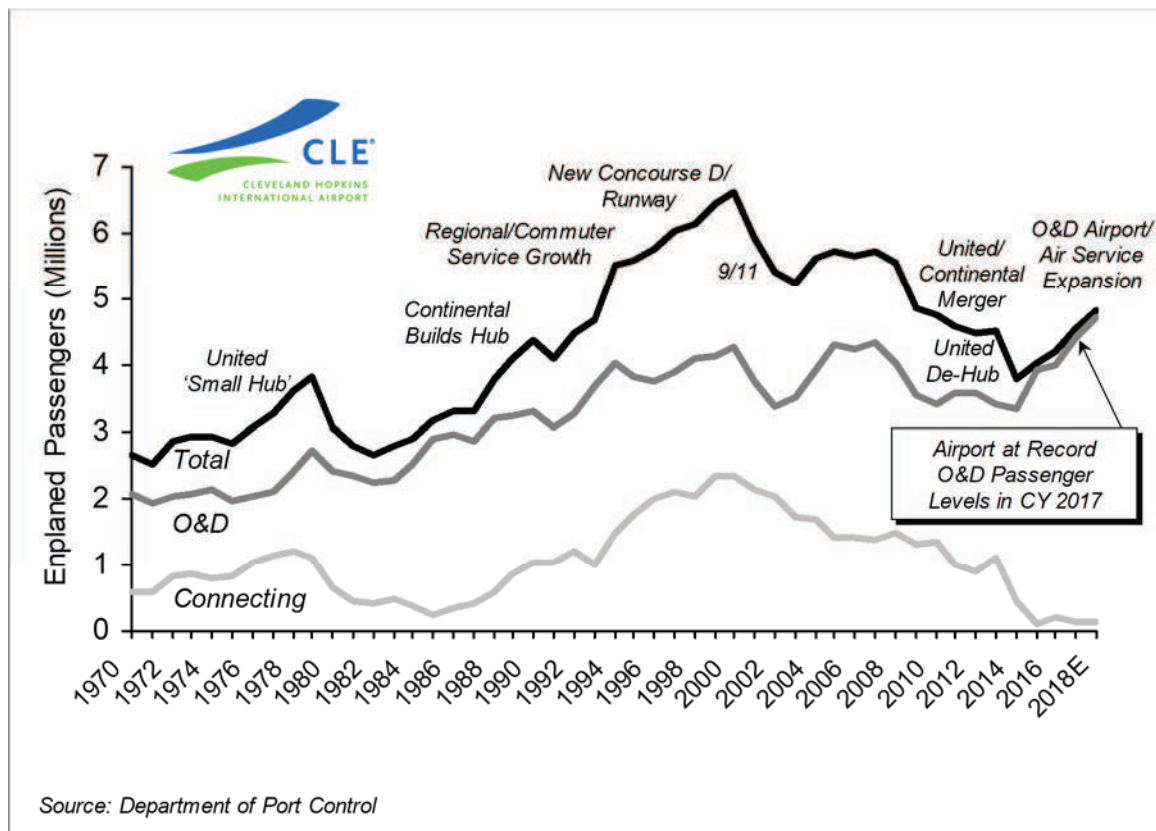
### III. AIR TRAFFIC ACTIVITY

#### The Airport

The region served by the Airport is classified as a "medium hub" community by the FAA. A "medium hub" is defined as a community that accounts for 0.25% or more, but less than 1% of the total revenue passengers enplaned in all services and operations of U.S. certificated route carriers within the 50 states, the District of Columbia and other U.S. territorial possessions. The Airport enplaned approximately 4.56 million passengers in CY 2017 which represented 0.62% of total U.S. enplaned passengers (the term "enplaned passengers" and "enplanements" have the same meaning as used in this Report). CY 2017 enplaned passengers and total scheduled non-stop departures at the Airport increased 8.5% and 4.3%, respectively compared to CY 2016 levels.

According to the FAA, the Airport ranked 43<sup>rd</sup> in terms of total passengers at U.S. airports in CY 2017. Over the last ten years, enplaned passengers at the Airport decreased at an average annual rate of approximately 2.2%, primarily due to the effects of United's decision to reduce flight operations at the Airport starting in April 2014. Since CY 2014, enplaned passengers at the Airport have increased 6.3% per year on average due to new entry and expanded incumbent air service.

**Figure 11. Historical Enplaned Passenger Activity (000s)**



## **Airlines Serving the Airport**

As of August 1, 2018, the Airport was served by eight national/major domestic airlines, three foreign-flag airlines (Air Canada/ Air Georgian, Icelandair and WOW air), 15 commuter/regional airlines and four cargo airlines. Scheduled passenger air service is currently provided by the following national air carriers – Allegiant; American Airlines (American); Delta Air Lines (Delta); Frontier Airlines; JetBlue Airways; Southwest Airlines (Southwest); Spirit Airlines; and, United – and the three foreign-flag airlines.

Primary commuter and regional air carriers include: Air Wisconsin; Envoy; GoJet; Mesa; PSA Airlines; Republic; Skywest; Shuttle America; and Trans States. The Airport is served by the following scheduled cargo carriers: United Parcel Service; Federal Express; Mountain Air Cargo; and, MRK Aviation. The Airport is also served regularly by several charter air carriers providing non-scheduled service to both domestic and international destinations.

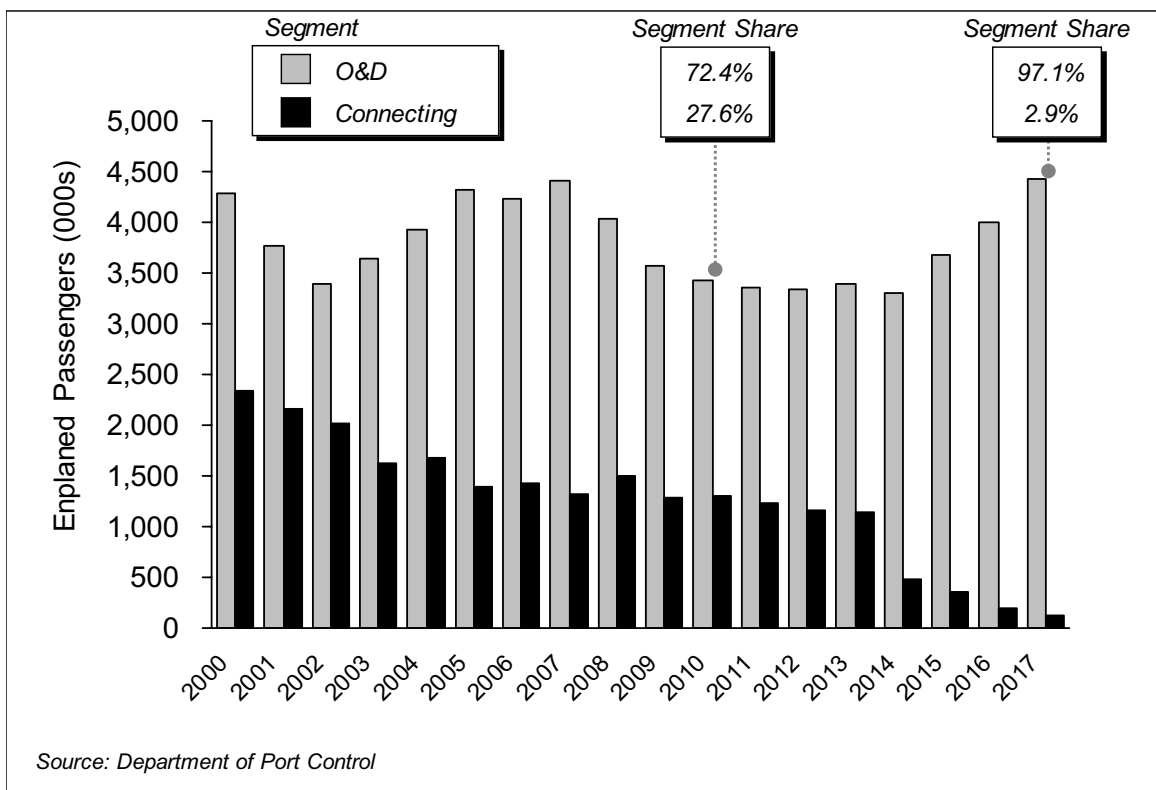
## **Historical Role as Connecting Hub**

Until 2010, the Airport served as one of three domestic connecting hub airports, in addition to George Bush Intercontinental Airport (Houston) and Newark Liberty Airport (Newark), for Continental. The Airport experienced rapid growth, in terms of departures and total enplaned passengers during the mid and late-1990s as Continental increased capacity, in particular, introducing regional code-share affiliates to increase air service frequencies and non-stop destinations served from the Airport. In CY 2000, the Airport experienced its “peak” total enplaned passenger level, serving more than 6.62 million enplanements (2.34 million of which were connecting enplanements).

Continental and United announced on May 3, 2010, and subsequently closed on October 1, 2010, a merger of the two air carriers. The air carriers were awarded a single operating certificate on November 30, 2011, after which the combined air carrier operated under the United name and livery. In CY 2011, United accounted for 68.3% of total enplaned passengers at the Airport. (Approximately 1.24 million connecting enplaned passengers were served at the Airport in CY 2011, representing 26.9% of total enplaned passengers.) After the merger, the Airport served as one of eight domestic hub airports in the route network of United. The Airport represented the smallest domestic connecting hub for United, ranking behind Chicago O’Hare International Airport (Chicago), Houston, Newark, Denver International Airport (Denver), San Francisco International Airport (San Francisco), Washington Dulles International Airport (Dulles) and Los Angeles International Airport (Los Angeles), in terms of the number of non-stop scheduled departures, scheduled seats, and available seat miles offered by United.

On February 1, 2014, United announced its plans to substantially reduce flight operations (by more than 60%) at the Airport, removing the connecting hub operation at the Airport beginning in April 2014. United's non-stop departures from the Airport in CY 2017 were 24.3% of the air carrier's total non-stop departures from the Airport in CY 2010 (average daily departures decreased from 180 to 44 for these years). Due to the reduced flight activity, United consolidated its operations on its Concourse C premises in June 2014, which effectively closed Concourse D for commercial operations at the Airport. (Concourse D was used primarily for regional/commuter flight operations which represented approximately 75% of United's total flight operations at the Airport at that time.) United accounted for 26.0% of total enplaned passengers at the Airport in CY 2017, which represented the single largest airline market share for the year.

**Figure 12. Historical O&D and Connecting Enplaned Passenger Activity (000s) and Segment Share**



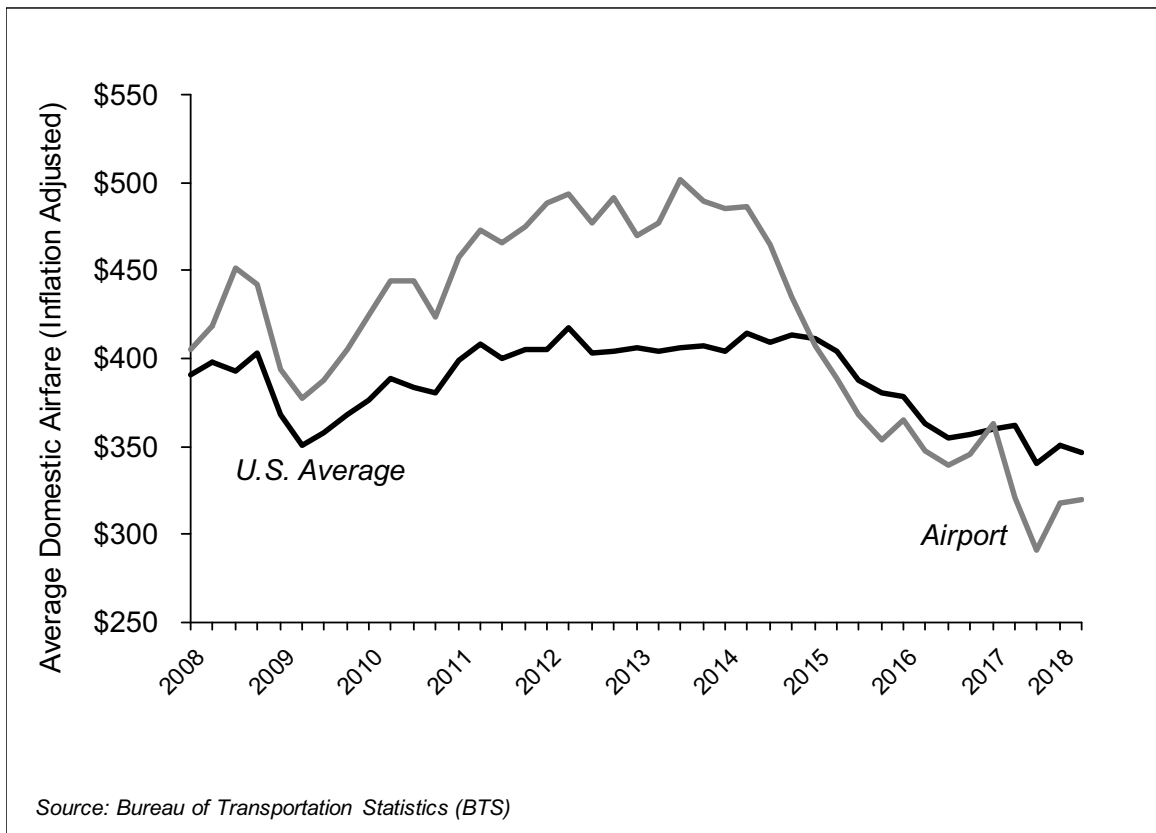
### Transition to Origin–Destination Airport

The Airport serves a significant O&D market, accounting for 97.1% of total Airport enplaned passengers in CY 2017, up from 74.9% in CY 2013 (last full year of United's hubbing operation at the Airport). Total O&D passengers in CY 2017 were the highest levels of local passengers achieved in the Airport's history. Since

CY 2010, O&D passengers increased on average 3.7% per year through CY 2017. Since United's downsizing of operations in CY 2014, O&D passenger levels have increased 10.2% per year on average at the Airport. The Airport enplaned 4.43 million O&D enplaned passengers in CY 2017, a one-million increase over the 3.43 million O&D enplaned passengers in CY 2011. Figure 12 presents O&D and connecting service levels, and their respective segment shares, at the Airport since CY 2000.

The increase in O&D enplaned passengers at the Airport is a result of multiple factors, including increased air service from incumbent and new entry air carriers (most notably Frontier, Spirit and JetBlue) that have created service opportunities due to United's pullback; the substantial reduction in average airfares from the Airport that continues to stimulate aviation demand; the financial framework of the Airport that incentivizes efficient capacity utilization; and, the consolidation of regional flight operations to the Airport versus other airports in the Region (most notably from the air carriers Southwest, Frontier and Spirit).

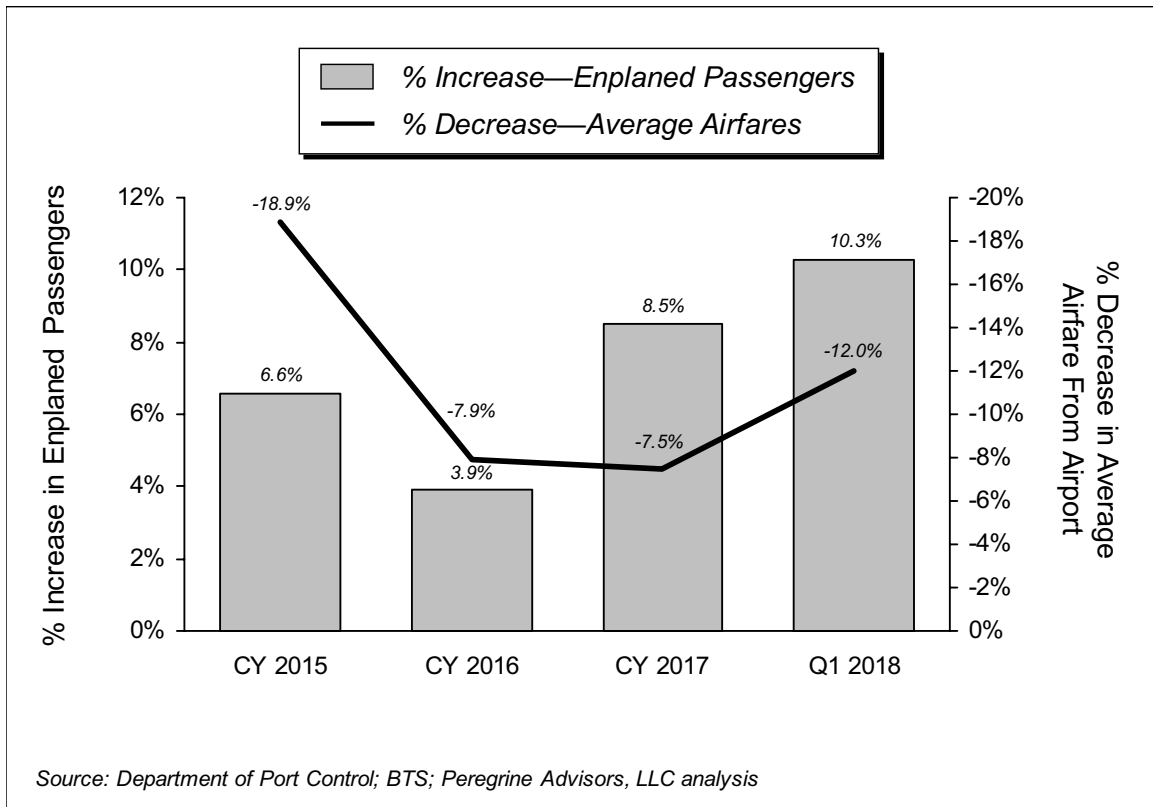
**Figure 13. Historical Average Airfares Quarterly Since CY 2008  
(Airport vs. U.S.)**





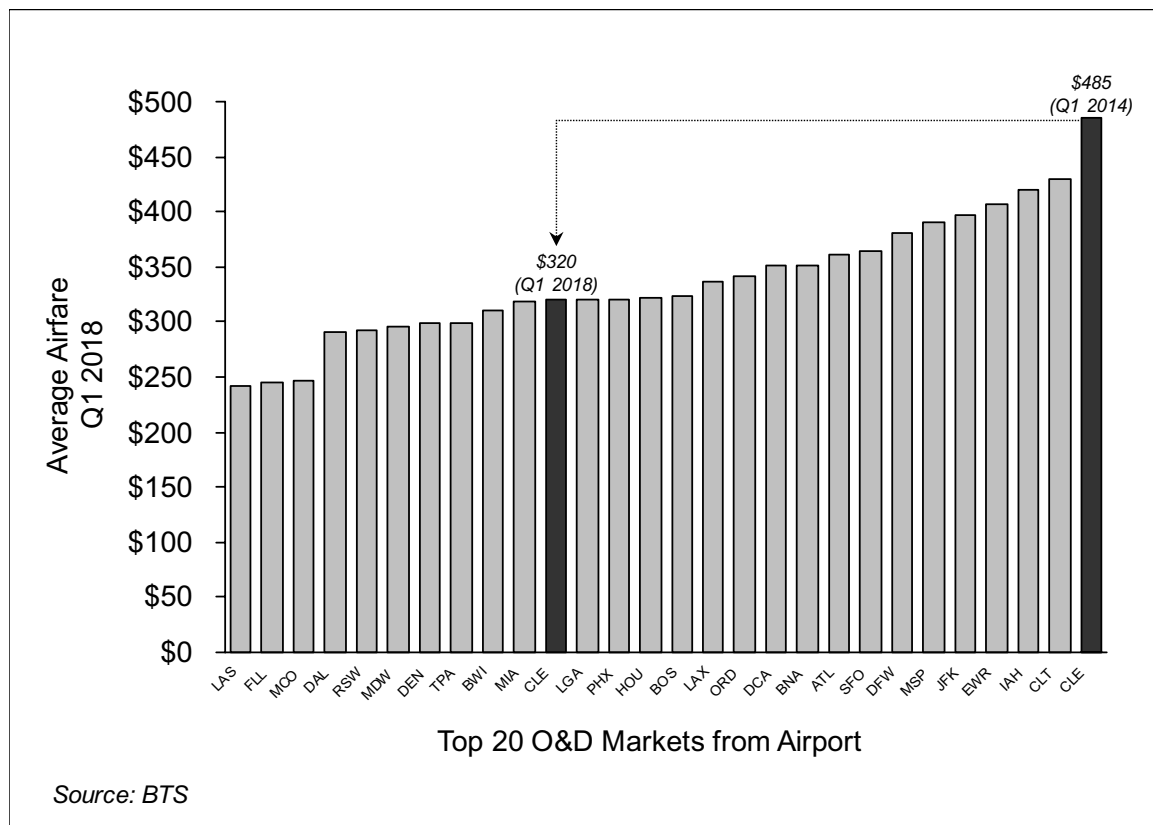
The decrease in average airfares from the Airport is one of the most influential factors contributing to the substantial increase in O&D traffic at the Airport. The Airport historically represented one of most expensive major airports in terms of airfares, an environment conditioned during the hubbing operation of United and the resulting limitation of competitive air service. As presented in Figure 13, average airfares began to decrease after United’s downsizing at the Airport in 2014, and consistently have been lower, as compared to the nation, since then. Average airfares at the Airport decreased 30.9% in CY 2017 from CY 2014 (compared to 13.9% for the nation during the same period). For the first quarter of CY 2018 (latest data available), average airfares at the Airport decreased 34.1% compared to the first quarter of CY 2014 (the U.S. averaged a 14.4% decline in average airfares for the same period). As illustrated in Figure 14, the declines in average airfares are correlated with the increases in passenger activity the Airport experienced since CY 2015. Average airfare declines of 18.9%, 7.9%, 7.5% and 12.0% for CY 2015 through CY 2017 and the 1<sup>st</sup> quarter of CY 2018, respectively, contributed to enplaned passenger activity increases of 6.6%, 3.9%, 8.5% and 10.3% for the same periods. The Airport added 1.54 million enplanements (in aggregate) from CY 2015 through the first quarter of CY 2018, when compared to CY 2014.

**Figure 14. Change in Average Airfares and Passenger Activity at the Airport Since CY 2015**



The average airfare from the Airport in the 1<sup>st</sup> quarter of CY 2018 was approximately \$320, down from \$485 in the same quarter of CY 2014. During the 1<sup>st</sup> quarter of CY 2018, average airfares at the Airport were comparable or lower than the most of the Airport's O&D top 20 markets (includes multiple airports serving the market destination<sup>4</sup>). Figure 15 presents the comparative average airfares for the Airport and top O&D markets from the Airport for the 1<sup>st</sup> quarter of CY 2018.

**Figure 15. Average Airfares Top 20 O&D Markets from Airport (Q1 CY 2018)**



### International Air Service

The Airport predominately serves a domestic-focused passenger operation, with international passenger activity limited, historically, to approximately 2-3% of the Airport's total passenger base. The Airport enplaned 87,809 international passengers in CY 2017, representing 1.9% of the Airport's total enplaned passengers. For CY 2017, international enplaned passenger levels at the Airport decreased by 6.9% from those recorded for CY 2016. Through the first five months

<sup>4</sup> Example – Chicago market is served by both Chicago O'Hare (ORD) and Chicago Midway (MDW) airports.

of CY 2018, international enplaned passengers increased 3.6% (compared to the same period in CY 2017), led by the air carriers WOW air and Icelandair that initiated service from the Airport to Reykjavik (Iceland) in May 2018. In August 2018, Icelandair extended its seasonal service to year-round service with reservations available through July 2019. WOW air's seasonal service at the Airport ends in October 2018 and its spring schedule has not been announced. Frontier announced in August 2018 new scheduled service from the Airport to Punta Cana (Dominican Republic), with three weekly flights beginning January 2019. Total scheduled international non-stop departures increased by 31.5% in June 2018 compared to the same month in 2017, primarily driven by the new service added to Iceland. According to *Diio Mi*, international destinations offered from the Airport in CY 2018 include non-stop service to Toronto, Reykjavik, Cancun, Montego Bay (Jamaica), and Punta Cana<sup>5</sup>, with an average of 40 scheduled weekly departures.

In addition to non-stop, scheduled international air service offered from the Airport, approximately 2% of domestic passengers in CY 2017 connected through other U.S. airports to international flights offered by national and foreign-flag air carriers. Data available through the *Diio Mi* database reveal that more than 54% of flight destinations for these passengers were to points in Europe, followed by 24% to the Middle East and 15% to Asia-Pacific destinations. The largest code-share affiliate air carriers (in terms of passengers served) from the Airport in CY 2017 were Lufthansa, Emirates and Air France.

### **Scheduled Seats Capacity**

Enplaned passenger activity at the Airport has historically tracked scheduled seat levels offered by air carriers. Figure 16 presents changes in Airport enplanement activity and scheduled seats since January 2011. Post the United-Continental merger in 2010, and while the Airport was continuing to serve as a hub operation for United, the Airport experienced nominal scheduled seat gains and relatively flat passenger activity levels. United began downsizing its operation at the Airport in 2014, pulling down scheduled seat capacity by 35.5% in CY 2014. As a result, Airport enplanement activity levels decreased 16.1% in CY 2014, approximately 90% of which was related to the loss of United's connecting passengers at the Airport.

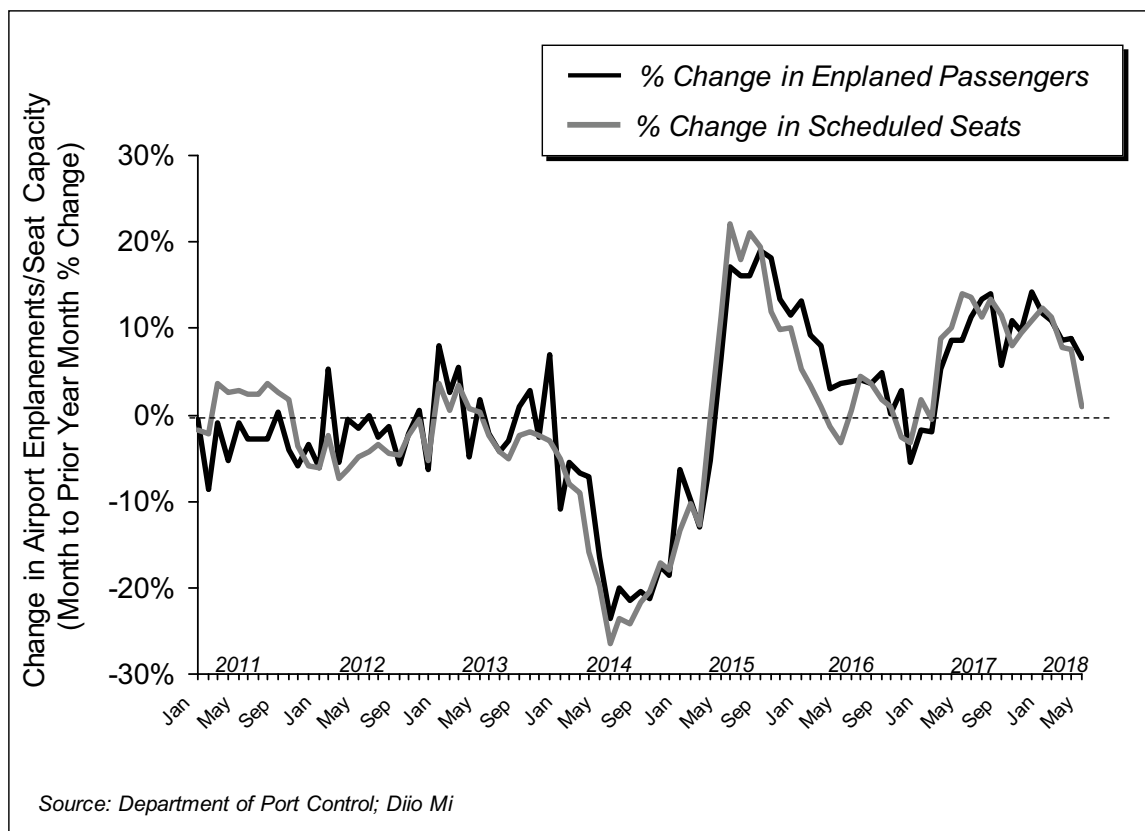
As United decreased operations at the Airport (decreasing scheduled seats by another 32.4% in CY 2015), other air carriers (both incumbent and new entrant) introduced and expanded air service offerings at the Airport. The Airport experienced scheduled seat capacity gains of 6.5%, 0.9% and 9.6% in CY 2015, CY

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<sup>5</sup> Served in CY 2018 by charter operators. Scheduled service from Frontier begins January 2019.

2016 and CY 2017, respectively<sup>6</sup>. These were accompanied by total enplanement activity increases at the Airport of 6.6%, 3.9% and 8.5%. Total O&D enplaned passengers at the Airport increased 11.2%, 8.8% and 10.5% for CY 2015, CY 2016 and CY 2017, respectively, a result of expanded air service offered at the Airport from incumbent and new entrant air carriers. From May 2015 through May 2018, scheduled seat capacity levels at the Airport increased 32 out of 37 months for that period. As of the date of this Report, the Airport experienced monthly scheduled seat capacity increases every month since the beginning of CY 2017.

**Figure 16. Change in Airport Enplanement Activity and Scheduled Seats Since January 2011**

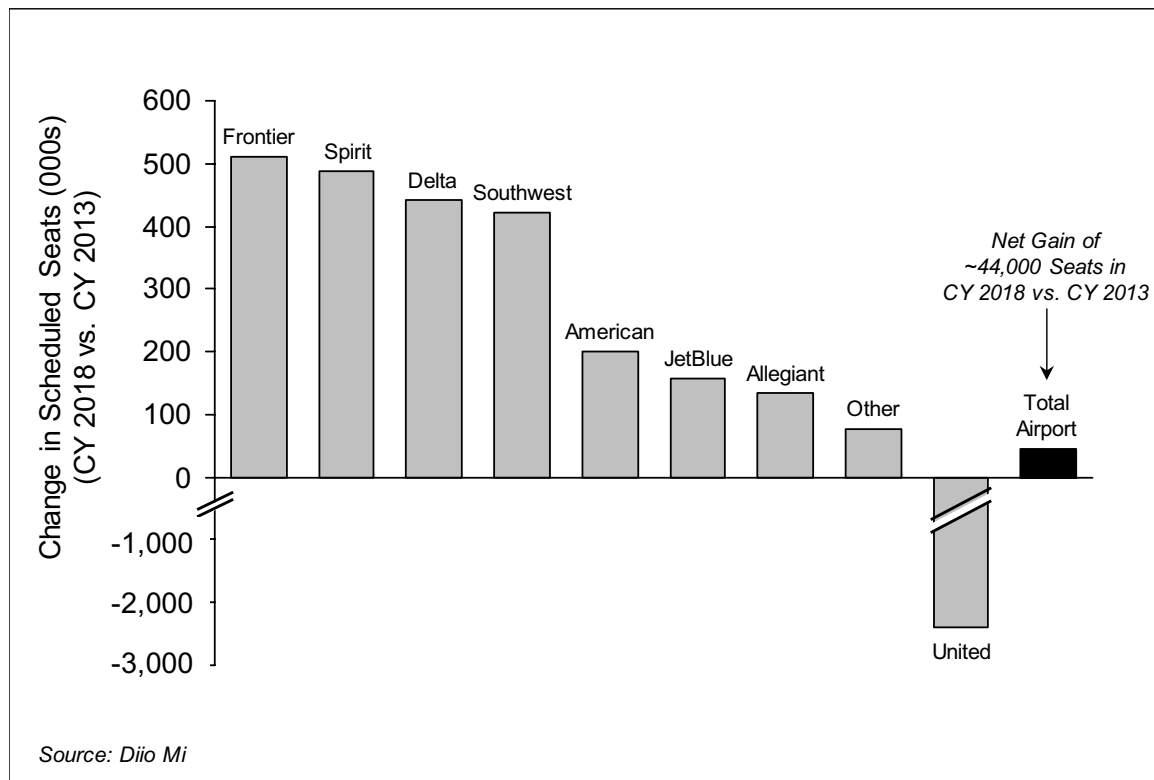


As presented in Figure 17, all air carriers, except United (decrease of 2.38 million seats), registered incremental scheduled seat increases between CY 2013 and CY 2018. The largest (in terms of annualized difference) scheduled seat capacity gains at the Airport between CY 2013 and CY 2018 were delivered by Frontier (512,466), Spirit (489,203), Delta (440,671) and Southwest (423,219). Total scheduled seat capacity at the Airport in CY 2018 is anticipated to surpass seat

<sup>6</sup> For comparison purposes, the nation experienced scheduled seat increases of 3.7%, 3.9% and 3.9% for CY 2015, CY 2016 and CY 2017, respectively. These contributed to enplaned passenger increases of 5.0%, 3.4% and 3.0% for the nation for the same years.

levels experienced in CY 2013 (the last full operating year of the United hub at the Airport) by approximately 44,000 seats.

**Figure 17. Change in Scheduled Seats at the Airport  
(By Air Carrier – CY 2018 vs. CY 2013)**



### Airline Market Share of Passenger Traffic

Despite its reduction of flight activity at the Airport, United accounted for the largest share of total enplaned passengers in CY 2017 (26.0%). After United, Southwest represented the next largest air carrier market share at the Airport, accounting for 16.1% of total enplaned passengers in CY 2017. Through the first five months of CY 2018, United accounted for 24.8% and Southwest for 17.4% of total enplaned passengers at the Airport. Regional/commuter air service accounted for 26.7% of total enplaned passengers in CY 2017 (compared to 54.7% in CY 2010). Figure 18 presents domestic and international market shares for the airlines serving the Airport in CY 2017.

#### Domestic Market Share

Domestic enplaned passengers represented 98.1% of total enplaned passengers at the Airport in CY 2017. Mainline air carriers (such as those as set forth in Figure 18) accounted for 73.5% of domestic traffic in CY 2017 (compared

Figure 18. CY 2017 Airline Market Shares

<b>Domestic</b>	<b>Enplaned Passengers</b>	<b>Market Share- Category</b>	<b>Market Share- Total</b>
<b>Mainline</b>			
Allegiant Airlines	122,480	2.7%	2.7%
American Airlines	270,282	6.0%	5.9%
Delta Air Lines	374,456	8.4%	8.2%
Frontier Airlines	566,013	12.6%	12.4%
JetBlue Airways	137,648	3.1%	3.0%
Southwest Airlines	733,040	16.4%	16.1%
Spirit Airlines	374,161	8.4%	8.2%
United Airlines	711,647	15.9%	15.6%
Total Mainline	3,289,727	73.5%	72.1%
<b>Regional/Commuter</b>			
<i>American Airlines</i>			
Air Wisconsin	27,355	0.6%	0.6%
Envoy	157,061	3.5%	3.4%
Piedmont	32,146	0.7%	0.7%
PSA Airlines	73,773	1.6%	1.6%
Republic	54,101	1.2%	1.2%
Skywest	41,308	0.9%	0.9%
Trans States	28,835	0.6%	0.6%
<i>Delta Air Lines</i>			
Express Jet	124,315	2.8%	2.7%
GoJet	5,821	0.1%	0.1%
Endeavor	105,813	2.4%	2.3%
Republic	1,324	0.0%	0.0%
Skywest	59,213	1.3%	1.3%
<i>United Airlines</i>			
Commutair	2	0.0%	0.0%
Express Jet	246,873	5.5%	5.4%
GoJet	26,498	0.6%	0.6%
Mesa	104,170	2.3%	2.3%
Republic	62,749	1.4%	1.4%
Shuttle America	618	0.0%	0.0%
Skywest	19,390	0.4%	0.4%
Trans States	6,803	0.2%	0.1%
Total Regional/Commuter	1,178,168	26.3%	25.8%
<b>Charter</b>	7,036	0.2%	0.2%
<b>Total Domestic</b>	4,474,931	100.0%	98.1%
<b>International</b>			
<b>Mainline</b>			
Frontier	29,622	33.7%	0.6%
United	9,580	10.9%	0.2%
Total Mainline	39,202	44.6%	0.9%
<b>Regional/Commuter</b>			
Air Canada	39,913	45.5%	0.9%
Total Regional/Commuter	39,913	45.5%	0.9%
<b>Charter</b>	8,694	9.9%	0.2%
<b>Total International</b>	87,809	100.0%	1.9%
<b>Total Enplaned Passengers</b>	4,562,740		100.0%

Source: Department of Port Control

to 44.1% in CY 2010). Southwest and United represented the two largest mainline air carriers in terms of domestic market share in CY 2017, accounting for 16.4% and 15.9%, respectively.

Commuter/regional airlines represented 26.3% of total domestic enplaned passengers in CY 2017 (compared to 55.8% in CY 2010). The reduction is primarily the result of two factors: 1) the discontinuance of United's hubbing operation at the Airport which utilized more than 70% of regional/commuter aircraft to fulfill its flight operations; and, 2) the use of larger gauged, mainline aircraft to meet increasing passenger demand levels at the Airport (versus multiple flight departures on smaller aircraft). United's code-share regional affiliates, Express Jet, GoJet, Mesa, Republic, Skywest and Trans States, collectively, accounted for 10.4% of domestic enplaned passengers at the Airport in CY 2017. The next largest non-United affiliated commuter/regional air carrier in terms of domestic market share was American with 9.3%, followed by Delta with 6.6%.

#### *International Market Share*

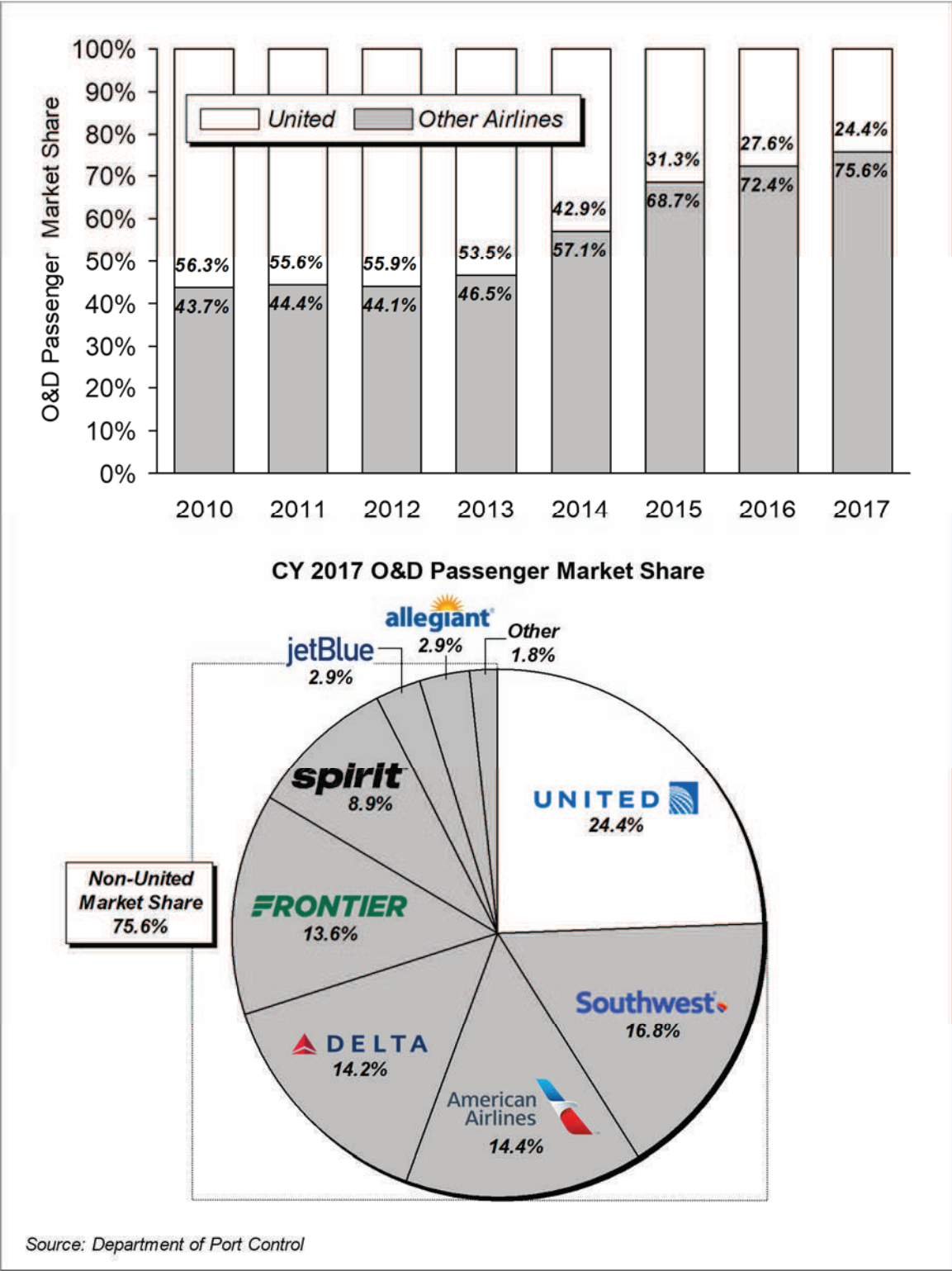
International enplaned passengers represented 1.9% of total enplaned passengers at the Airport in CY 2017. Frontier and United were the only air carriers offering mainline international air service and accounted for 33.7% and 10.9%, respectively, of total international enplaned passengers in CY 2017.

International enplaned passengers served by Air Canada's affiliate commuter/regional airlines represented 45.5% of total international enplaned passengers. Charter air carriers accounted for approximately 9.99% of total international enplaned passengers at the Airport in CY 2017.

#### *O&D Market Share*

The Airport enplaned 4.43 million O&D passengers in CY 2017, representing 97.1% of total enplaned passengers at the Airport. The CY 2017 O&D enplaned passenger total was approximately 1.0 million O&D passengers higher than that experienced in CY 2010. Historically, United served approximately 55% of the Airport's O&D passenger base until it reduced flight operations at the Airport in CY 2014. United's share of O&D passengers decreased to 42.9% in CY 2014 and has decreased every year since then as incumbent and new entrant air carriers served a larger portion of the Airport's total O&D passenger base. As presented in Figure 19, the majority (75.6%) of the Airport's O&D traffic in CY 2017 was served by air carriers other than United. United represented 24.4% of total O&D enplaned passengers in CY 2017, followed by Southwest (16.8%), American (14.4%), Delta (14.2%), Frontier (13.6%), and Spirit (8.9%).

Figure 19. Historical Market Share of  
O&D Enplaned Passengers at the Airport





For CY 2017, the Airport's top 25 O&D domestic passenger markets accounted for 72.3% of total domestic O&D revenue enplaned passengers. The top five markets—Orlando, Chicago, New York, Las Vegas, and Los Angeles—accounted for 25.8% of the Airport's domestic passenger origins and destinations during CY 2017. The top two O&D markets (Orlando and Chicago), represented 11.7% of total domestic O&D revenue enplaned passengers in CY 2017. Table 5 presents the top 25 O&D markets from the Airport in CY 2017, including market shares of the top three air carriers per each O&D market.

**Table 5. Top 25 O&D Markets from Airport (CY 2017)**

Top 25 O&D Market From Airport			Top Three Air Carriers in O&D Market Share					
			Air Carrier #1	Market Share	Air Carrier #2	Market Share	Air Carrier #3	Market Share
1	Orlando	6.3%	Frontier	43.6%	Spirit	19.8%	United	17.1%
2	Chicago	5.4%	United	44.7%	Southwest	34.9%	American	19.9%
3	New York	4.9%	United	48.6%	Delta	36.4%	American	13.5%
4	Las Vegas	4.8%	Frontier	36.4%	Southwest	27.2%	Spirit	23.1%
5	Los Angeles	4.4%	United	41.5%	Spirit	29.3%	Southwest	12.4%
6	Atlanta	4.4%	Delta	58.7%	Spirit	21.7%	Southwest	13.0%
7	Ft. Lauderdale	3.6%	Spirit	32.3%	JetBlue	26.5%	United	18.6%
8	Tampa	3.6%	Frontier	45.6%	Spirit	17.1%	Allegiant	12.5%
9	Ft. Myers	3.4%	Frontier	54.9%	Spirit	18.3%	United	14.0%
10	Boston	3.3%	JetBlue	49.7%	United	28.1%	Spirit	10.6%
11	Washington DC	3.2%	United	44.3%	Southwest	39.2%	American	13.7%
12	Phoenix	3.2%	Southwest	42.4%	Frontier	39.4%	United	8.7%
13	Denver	3.1%	United	43.7%	Southwest	29.9%	Frontier	22.2%
14	San Francisco	2.7%	United	57.2%	Southwest	16.9%	Frontier	9.1%
15	Dallas-Fort Worth	2.6%	American	60.6%	Southwest	16.0%	Spirit	10.5%
16	Houston	1.9%	United	47.1%	Southwest	20.5%	Delta	12.0%
17	Nashville	1.6%	Southwest	88.8%	American	3.7%	United	3.4%
18	Charlotte	1.5%	American	74.8%	Delta	5.3%	United	5.4%
19	Minneapolis-St Paul	1.5%	Delta	65.3%	Southwest	11.9%	United	6.0%
20	Miami	1.2%	American	65.8%	Frontier	19.1%	Delta	7.7%
21	Seattle	1.2%	United	27.3%	Frontier	27.2%	Delta	16.1%
22	New Orleans	1.1%	Spirit	33.3%	Southwest	20.5%	Delta	13.6%
23	San Diego	1.1%	Southwest	31.8%	United	27.5%	Frontier	22.0%
24	St Louis	1.1%	Southwest	81.1%	United	6.8%	Delta	6.3%
25	Philadelphia	1.0%	American	92.8%	United	4.5%	Delta	2.1%

Source: Diio Mi database; Peregrine Advisors, LLC analysis.

Note: Chicago includes Chicago O'Hare (ORD) and Chicago Midway (MDW); New York includes LaGuardia (LGA), Newark Liberty (EWR) and John F. Kennedy (JFK); Los Angeles includes Los Angeles International (LAX), Burbank (BUR) and John Wayne (SNA); Tampa includes Tampa International (TPA) and St. Petersburg (PIE); Washington DC includes Reagan National (DCA), Dulles (IAD) and Marshall Baltimore (BWI); San Francisco includes San Francisco International (SFO), Oakland International (OAK) and Mineta San Jose (SJC); Dallas Fort-Worth includes Dallas-Fort Worth International (DFW) and Dallas Love Field (DAL); Houston includes Bush International (IAH) and Hobby (HOU) airports.

United was the leading air carrier in terms of O&D passenger market share in three of the Airport's top five domestic markets in CY 2010—Chicago, New York, and Los Angeles, while Frontier was the leading air carrier in terms of O&D passenger market share in the Orlando and Las Vegas Markets.

## 2018 Year-to-Date Results and Schedule

Aviation demand levels at the Airport remain robust due to expanded air service and generally strong economic conditions. For the first five months of CY

2018, enplaned passenger activity at the Airport increased 9.1% compared to the same period in CY 2017. Southwest, Spirit and Delta increased enplaned passenger levels by 26.1%, 14.9% and 14.8%, respectively, in the first five months of CY 2018 compared to the same period in CY 2017. United increased enplaned passengers by 1.9% in the first five months of CY 2018.

As discussed in the *Scheduled Seats Capacity* section, scheduled seat levels are a key factor influencing enplaned passenger activity levels at the Airport. Table 6 provides CY 2018 YTD (through May) data regarding scheduled seat levels and enplaned passenger activity at the Airport, highlighting the continued strong demand for air transportation the Airport has experienced over the last several years. Total scheduled seats at the Airport increased by 10.3% for the first five months of CY 2018 compared to the same period in CY 2017. The top three air carriers in terms of scheduled seat increases in the first five months of CY 2018 were Southwest (28.7%), Spirit (14.3%), and Delta (12.2%) with resulting enplaned passenger activity increases of 26.1%, 14.9% and 14.8%, respectively. Through the first five months of CY 2018, total enplaned passengers at the Airport increased 9.1% compared to the same period in CY 2017.

**Table 6. Changes in Scheduled Seats and Enplaned Passengers  
(First Five Months of CY 2018)**

<b>Air Carrier</b>	<b>% Change in Scheduled Seats</b>	<b>% Change in Enplaned Passengers</b>	<b>Market Share – Total Enplaned Passengers</b>
Southwest	28.7%	26.1%	17.4%
Spirit	14.3%	14.9%	8.7%
Delta	12.2%	14.8%	15.3%
American	5.2%	9.5%	15.7%
Allegiant <sup>7</sup>	3.5%	13.2%	2.8%
JetBlue	0.5%	1.0%	2.9%
United	-1.5%	1.9%	24.8%
Frontier	-5.8%	-5.7%	9.9%
<b>Total Airport</b>	<b>10.3%</b>	<b>9.1%</b>	

*Source: Department of Port Control; Diio Mi*

Air carriers load advance schedules for reservation booking purposes that typically extend six to nine months out. While these typically vary as air carriers frequently update advance schedules, the schedules themselves provide visibility into future operating and capacity plans, and some guidance on anticipated service levels at the Airport. According to the *Diio Mi* database (as of August 9, 2018), scheduled seats are anticipated to increase by 1.6% over the next six months.

<sup>7</sup> Allegiant initiated scheduled service at the Airport in February 2017.

However, this database is not updated for recent air service developments (e.g., Frontier announcement of four new markets on August 13, 2018). Advanced schedules for Delta and United also show scheduled seat capacity increases of 13.6% and 11.9%, respectively, in CY 2019 (through July) compared to the same period in CY 2018.

According to *Diio Mi Database* (as of July 1, 2018), the Airport will average 204 daily non-stop scheduled departures to 53 destinations (48 domestic, 5 international) in CY 2018 (compared to 248 non-stop departures and 77 destinations in CY 2010). Figure 20 provides a list of destinations added and dropped from the Airport since the beginning of CY 2017.

**Figure 20. Changes in Non-Stop Destinations Served from the Airport  
(CY 2017 and CY 2018)**

<b>Air Carrier</b>	<b>Added Destinations</b>	<b>Dropped Destinations</b>
<b>Allegiant</b>	Austin TX Destin FL Ft. Lauderdale FL Jacksonville FL New Orleans LA Myrtle Beach SC St. Petersburg FL Punta Gorda FL Savannah GA Orlando FL Phoenix-Mesa AZ	Phoenix-Mesa AZ Austin TX* Destin FL* Ft. Lauderdale FL* New Orleans LA* Myrtle Beach SC*
<b>Delta</b>	Salt Lake City UT	
<b>Frontier</b>	Austin TX Miami FL Minneapolis-St Paul, MN San Diego CA San Antonio TX Sarasota, FL West Palm Beach, FL Punta Cana, DOMINICAN REPUBLIC	Atlanta GA Charlotte NC Houston TX Los Angeles CA Miami FL San Francisco, CA
<b>Icelandair</b>	Reykjavik ICELAND	
<b>Southwest</b>	Atlanta GA Milwaukee WI St. Louis MO	
<b>Spirit</b>	New Orleans LA	
<b>United</b>		Milwaukee WI Tampa FL
<b>WOW air</b>	Reykjavik ICELAND	

\*Per Allegiant's announcement on August 29, 2018, the air carrier will temporarily spend these routes from the Airport due to aircraft shortages related to the air carrier's transition to a new fleet of aircraft.

Source: Individual air carriers

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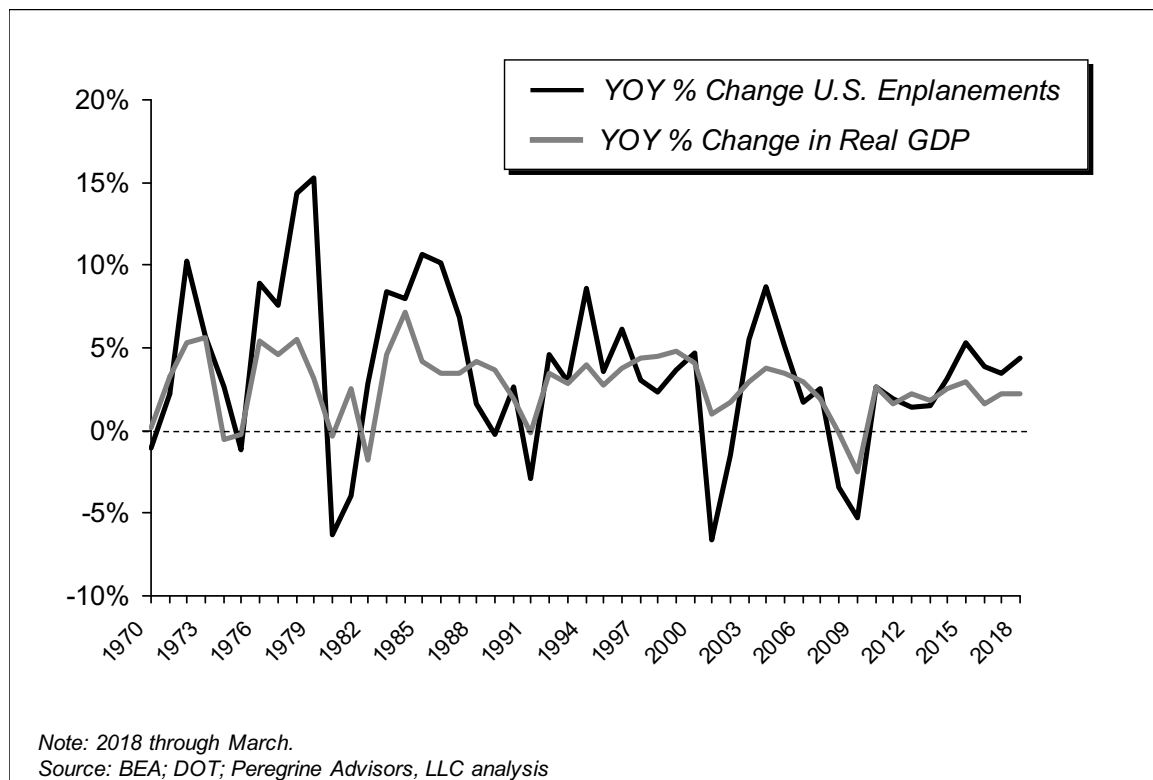
#### IV. KEY FACTORS AFFECTING FUTURE AVIATION DEMAND

This section addresses certain key factors (the Key Factors) that may impact future demand levels at the Airport. The Key Factors section summarizes the following: National and International Economic Conditions and Events; State of the U.S. Airline Industry; and Regional Competition. Previously, in Airport Service Region, one additional Key Factor (the size, demographics and economic profile of the Region) was discussed.

##### National and International Economic Conditions and Events

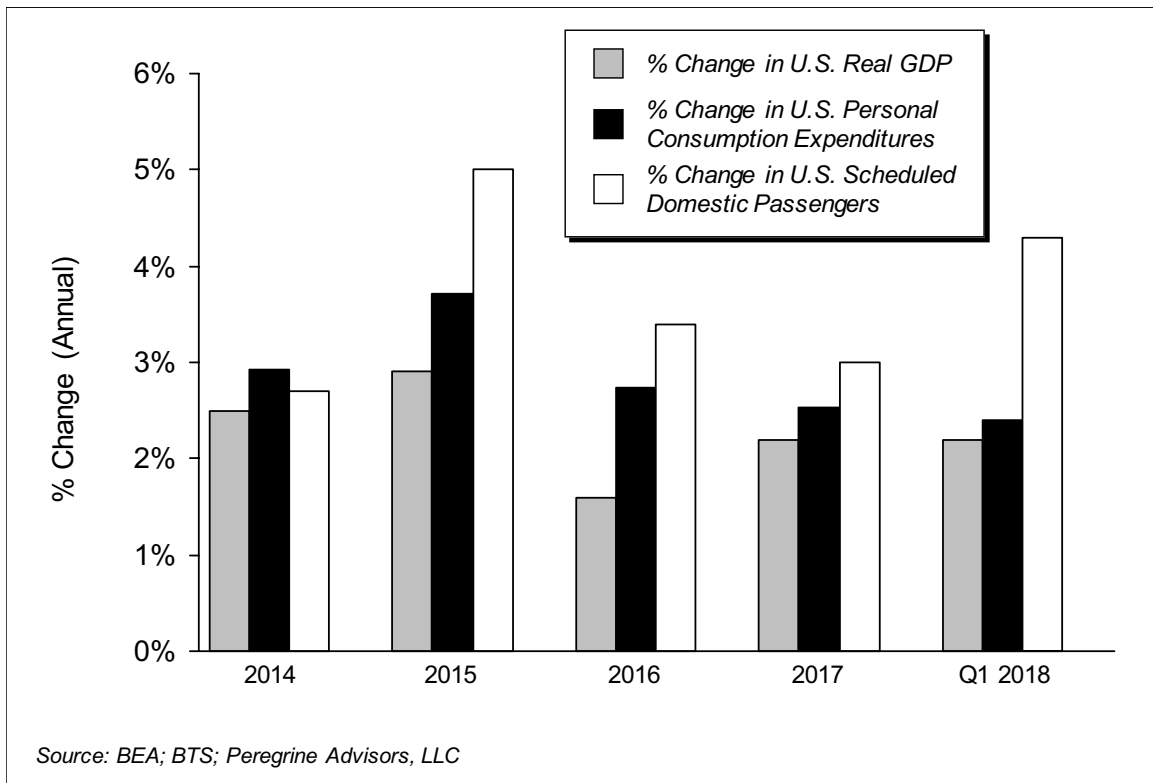
Airline passenger traffic—both globally and nationwide—has historically been correlated with prevailing economic conditions such as GDP growth, employment levels and increases in real disposable income levels. The demand for air travel at the Airport will be a function of both the strength of the national economy as well as that of the regional economy. This is particularly true for the leisure travel segment, which represents approximately two-thirds of total passengers in the U.S (and 70% of passengers at the Airport). Consumer spending, which accounts for more than 60% of U.S. Real GDP, is a key indicator of the economic strength in the U.S. and correlates to levels of aviation demand.

**Figure 21. Historical Change in Real GDP Output and U.S. Enplanement Levels**



Since the recessionary period between December 2007 and June 2009 (labeled the Great Recession due to its length and severity of economic impacts), the U.S. has been experiencing robust economic conditions, resulting in low unemployment rates and substantial economic output. In more recent years, the rate of economic output and personal consumption expenditure has accelerated and is anticipated to continue over the next several years due to recent changes in fiscal policies (e.g., Tax Cuts and Jobs Act of 2017). According to the *Bureau of Economic Analysis*, Real GDP increased 2.2% in CY 2017, with continued growth of 2.2% in Q1 2018 and 4.1% in Q2 2018. National personal consumption expenditures (consumer spending benchmarks) also continued strong increases of 2.5%, 2.4% and 4.0% for CY 2017, Q1 2018 and Q2 2018, respectively. Figure 22 presents changes in national Real GDP, personal consumption levels and resulting impacts on aviation demand since CY 2014.

**Figure 22. Impact of Economy on U.S. Aviation Demand Levels**



As part of the Federal Reserve, the Federal Open Markets Committee (FOMC) meets routinely to establish monetary-based policies in light of current and anticipated economic conditions. The FOMC publishes quarterly economic estimates that provide guidance into forecast economic growth levels of the U.S. that are useful for planning purposes. The most recent economic projections from the FOMC (released in June 2018) highlighted estimated GDP growth in the U.S.

through 2020, albeit with slowing growth rates in the longer run. Specifically, GDP growth was forecast for 2.8% in 2018; 2.4% in 2019; 2.0% in 2020; and 1.8% for longer run years. Unemployment rates are forecast to remain below 4% for the near term climbing above 4% after 2020. Personal consumption expenditures are also expected to remain positive and increase by approximately 2% per year for the next several years.

In recent years, international economic conditions, currency exchange rates, trade balances, political relationships and conflicts within and among foreign countries have become increasingly important influences on passenger traffic at major U.S. airports. Given the limited nature of international air carrier operations at the Airport (1.9% of the total passenger base in CY 2017), the Airport is somewhat insulated from international economic events impacting passenger demand levels.

In addition to economic factors, the level of aviation demand at the Airport may be impacted negatively from exogenous events such as terrorist attacks and natural disasters. While such events may have temporary impacts on air carrier service at the Airport some of them may have more lasting impacts on travel patterns, air carrier service offerings, and passenger demand levels.

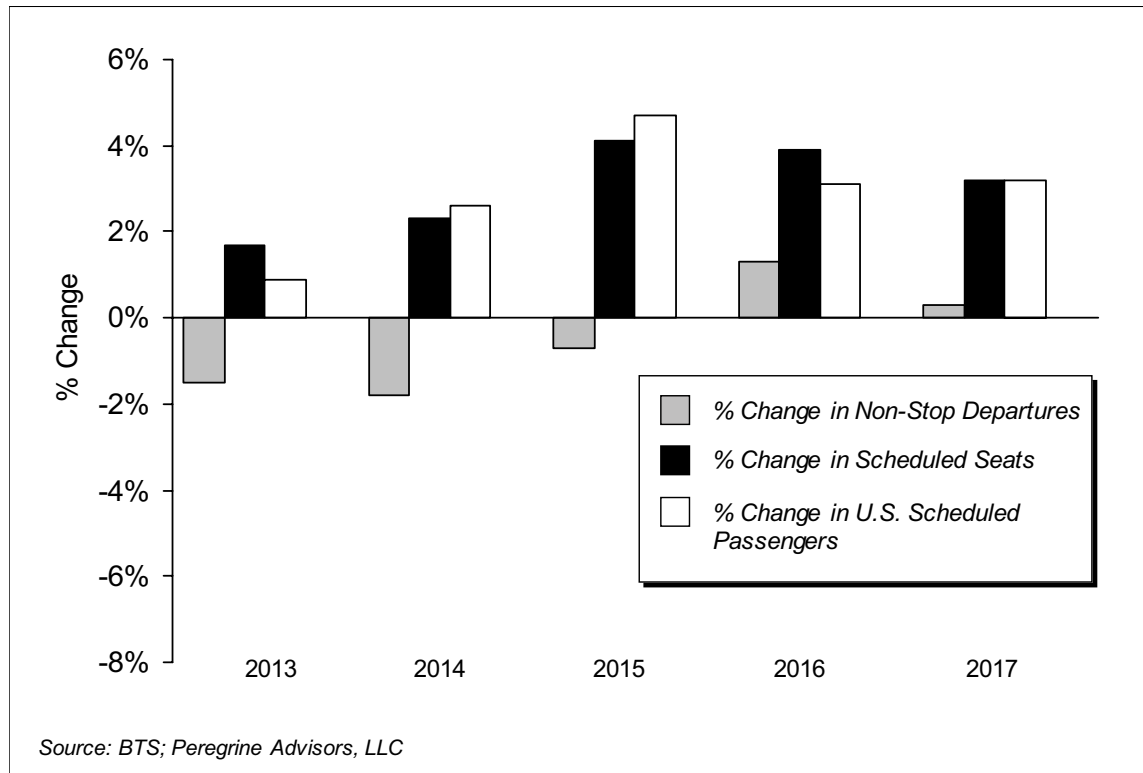
### **State of the U.S. Airline Industry**

Scheduled air carriers have generally benefited from the strong economic climate with increased activity levels and improving financial performance. Collectively, U.S. scheduled airlines generated \$77 billion in net margin since CY 2010 with an aggregate net margin of 6.0% (compared to \$65 billion in losses and a negative 6.3% net margin in the previous decade). Efficiencies in aircraft operations, additional pricing options and fees beyond the airfare (e.g. baggage), and a low fuel cost environment contributed to substantial margin performance over the last several years (e.g., CY 2017 load factor of 83.5% was 12.4 points above break-even load factor). According to the *Airline Trade Association*, domestic scheduled seats are forecast to increase 4.4% in CY 2018, compared to 3.6% in CY 2017. Figure 23 presents the annual change in total scheduled non-stop departures, seats and passengers for the U.S. over the last five years.

Although the population and economic characteristics of an airport service region are the most significant influences on air traffic, the overall level of airline service and the number of passengers using an airport also depend to some extent on the route networks of the airlines serving that airport. Since deregulation in 1978, many airlines have emphasized the development of "hub-and-spoke" route networks as a means of increasing their service frequencies, passenger volumes, and profitability. Because most major airlines operate hub-and-spoke route

networks, many passengers have a choice of airlines (and connecting hubs) for their travels, and hubbing airlines must compete for these passengers.

**Figure 23. Change in Total U.S. Scheduled Non-Stop Departures, Seats and Passengers Since CY 2013**



The last decade witnessed the consolidation of the U.S. airline industry through mergers, most notably, between Delta and Northwest (2008); United and Continental (2010); Southwest and AirTran (2011); American and USAir (2013); and, recently Alaska and Virgin America (2018). Historically the Airport was impacted by decisions made by the hub carrier, initially Continental and then United, in terms of network planning and route structures to support a connecting hub operation. However, given United's decision to downsize flight operations at the Airport in 2014, further impacts to the Airport's air service levels are likely to be moderated due to the sizable O&D passenger base of the Region. In addition, every destination that United serves from the Airport is also served by at least one other air carrier.

In addition to general economic conditions, fuel costs represent a key determinant of airline operating profitability. While jet fuel prices remain similar to historical levels, prices paid by the U.S. scheduled air carriers in the first five months of CY 2018 were the highest since 2014. For the first half of 2018, jet fuel



prices were on average \$0.36 per gallon higher compared to the same period in CY 2017. According to the Airline Transportation Association (ATA), every penny increase in jet fuel price equates to more than \$100 million in additional annual operating expenses.

Airports have naturally felt the impact of the evolving aviation environment. Like the Airport, some airports have experienced the effects of airline dehubbing or downsizing while other airports continue to grow, especially as lower-cost carrier service enters and/or expands in their markets. The Airport also benefits from an expanded presence of air carriers, most notably from those deemed “low-cost” or “ultra low-cost” (e.g., Allegiant, Frontier and Spirit) that have initiated service over the last several years. These categories of air carriers have rapidly expanded across the U.S. over the last decade and now carry about one-quarter of the nation’s O&D passengers.

Due to their strong market positions, airport operators have historically demonstrated financial stability even when the airline industry has performed poorly. Despite the historical losses in the airline industry (including resulting bankruptcy filings), airport owners have not defaulted on payments on bonds issued and secured by revenues generated from airport operations. Further, given that more than 97% of the Airport’s passenger base is O&D-oriented, it is anticipated that this passenger segment will continue to be served and O&D demand levels maintained at the Airport.

### **Regional Competition**

While more than 90% of the Airport’s O&D passenger base is within a 75-miles radius of the Airport, Akron-Canton Regional Airport (Akron) located approximately 60 miles away from the Airport provides competition for the Region’s O&D passenger base. Youngstown-Warren Regional Airport (Youngstown) located in Trumbull County is also situated in the Region but as of the date of this Report offered no commercial air service (Allegiant terminated air service in January 2018). In peak years (CY 2012 and CY 2013), Akron accounted for approximately 20% of the Region’s O&D passenger base. This began to reverse in CY 2014 after United’s downsizing of flight operations at the Airport and the advent of new air carriers offering service at the Airport. The result was a substantial decrease in average airfares that shifted a larger percentage of the Region’s O&D base to the Airport. Southwest (operating at Akron per its acquisition of AirTran Airways in May 2011), Allegiant and Frontier consolidated air service operations in the Region at the Airport. Southwest terminated air service at Akron in June 2017, and Allegiant in February 2017. Frontier terminated air service at Akron in 2012 and began offering seasonal service to Cancun and Punta Cana at the Airport in 2013. Frontier rapidly expanded service at the Airport starting in 2014, increasing its scheduled seats capacity 993.6% between

CY 2013 and CY 2017. Table 7 presents the respective Airport, Akron and Youngstown market shares of O&D passengers in the Region. As indicated in Table 7, the Airport's O&D passenger market share for the Region was 87.2% in CY 2017, increasing to 90.6% for the first five months of CY 2018.

**Table 7. Region O&D Passenger Market Share  
(Airport vs. Akron and Youngstown)**

Year	Airport Market Share	Akron Market Share	Youngstown Market Share
2005	86.0%	14.0%	0.0%
2006	85.6%	14.3%	0.1%
2007	86.3%	13.5%	0.2%
2008	84.7%	15.0%	0.2%
2009	83.2%	16.5%	0.3%
2010	81.3%	18.1%	0.5%
2011	80.0%	19.2%	0.8%
2012	78.0%	21.2%	0.8%
2013	79.2%	19.8%	1.0%
2014	80.0%	18.5%	1.5%
2015	81.8%	16.8%	1.4%
2016	84.5%	14.4%	1.1%
2017	87.2%	12.1%	0.7%
2018*	90.6%	9.4%	0.0%

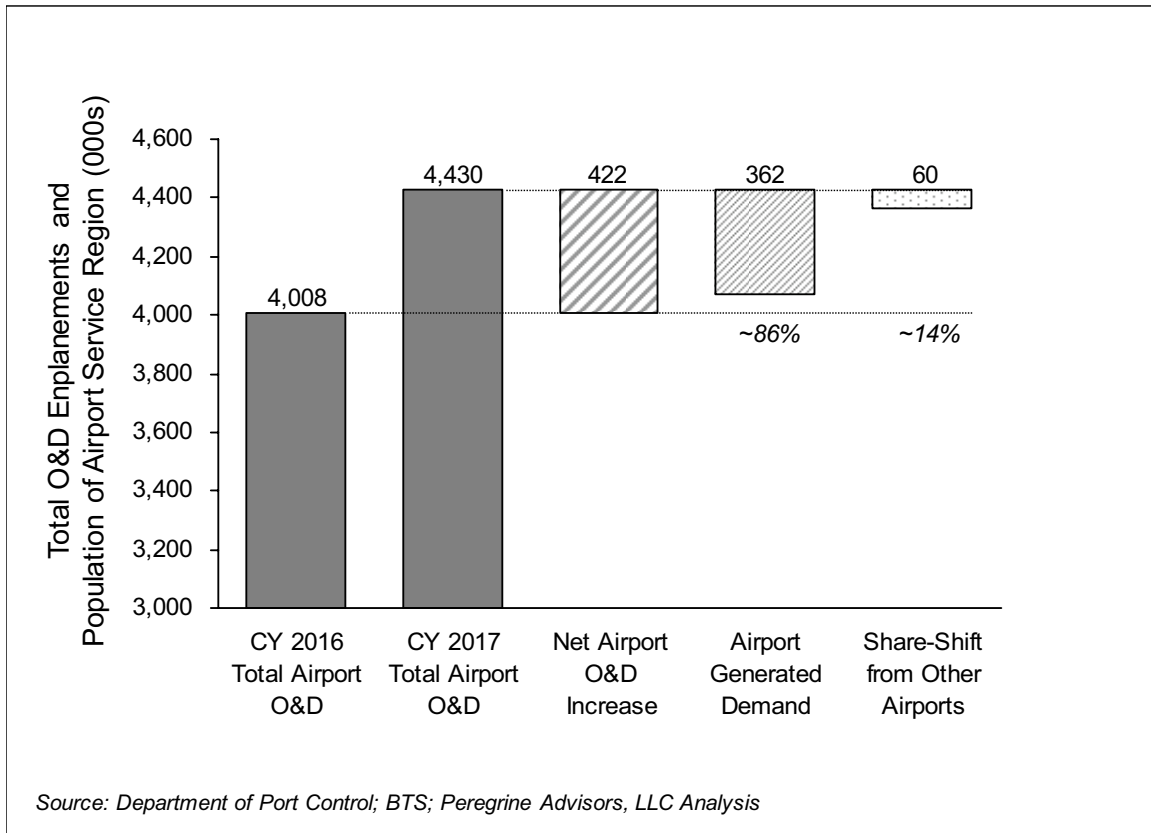
\*2018 through May.

Source: Department of Port Control; DOT; Peregrine Advisors, LLC analysis

O&D enplaned passengers decreased 3.1% annually from CY 2010 to CY 2017 at Akron, while in comparison the Airport's O&D passenger base increased on average 3.7% per year for the same period. Akron enplaned approximately 616,000 passengers in CY 2017, a decrease of 9.7% compared to CY 2016. Akron's enplaned passengers in CY 2017 represented 13.5% of the Airport's total enplaned passengers for CY 2017. Akron's market share of the combined Airport and Akron O&D passenger market decreased from 18.1% in CY 2010 to 12.1% in CY 2017 (see Table 7 for respective market shares of the Region's O&D passengers). Akron enplaned passengers decreased 34.3% for the first five months of CY 2018, compared to the same period in CY 2017 (DOT data).

Figure 24 illustrates the primary components of O&D demand construction for the Airport in CY 2017. The majority of O&D passenger demand increases (approximately 86%) in CY 2017 are estimated to be attributable to organic demand generated in the Region and captured by air service offerings located at the Airport. The remaining 14% of O&D demand in CY 2017 is estimated to be the effect of pulling demand away from Akron and Youngstown airports.

**Figure 24. CY 2017 O&D Demand at Airport  
(Airport-Generated vs Market Share Shift)**



As of July 1, 2018, Akron provided non-stop service to 11 destinations, (some on a seasonal and/or less than daily basis), all of which are also offered by air carriers serving the Airport. According to *Diio Mi* schedules for CY 2018, Akron offers 27 average daily non-stop departures, compared to 203 for the Airport, to the following destinations: Atlanta, Chicago, Houston, New York, Orlando, Fort Myers, Washington, DC, Tampa, Detroit, Philadelphia and Charlotte. Spirit operates service to Orlando, Fort Myers and Tampa from Akron as well as the Airport.

Further air service development at Akron, especially any increases in low-fare air carrier service, may impact future O&D passenger growth at the Airport. However, these impacts will most likely be experienced on a limited city-pair basis as competitive air service is introduced at Akron. All of the top 25 O&D destinations from the Region are already served by multiple air carriers operating at the Airport, so any impact to the Airport's O&D passenger base is likely to be minimal.

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## **V. AVIATION DEMAND FORECAST**

The following section summarizes the aviation demand forecast for the Airport for the period FY 2018 through FY 2022 (the forecast period). Aviation demand and the financial forecasts are presented in fiscal years for ease of comparison with provisions in the Indenture (the Airport's fiscal year is the calendar year). The Airport's successful transition to, and underlying strength of, an O&D passenger base, support the continuing role of the Airport as a major aviation facility (in the top 50 airports in the U.S.). In CY 2017, O&D passengers accounted for 97.1% of total enplaned passengers at the Airport.

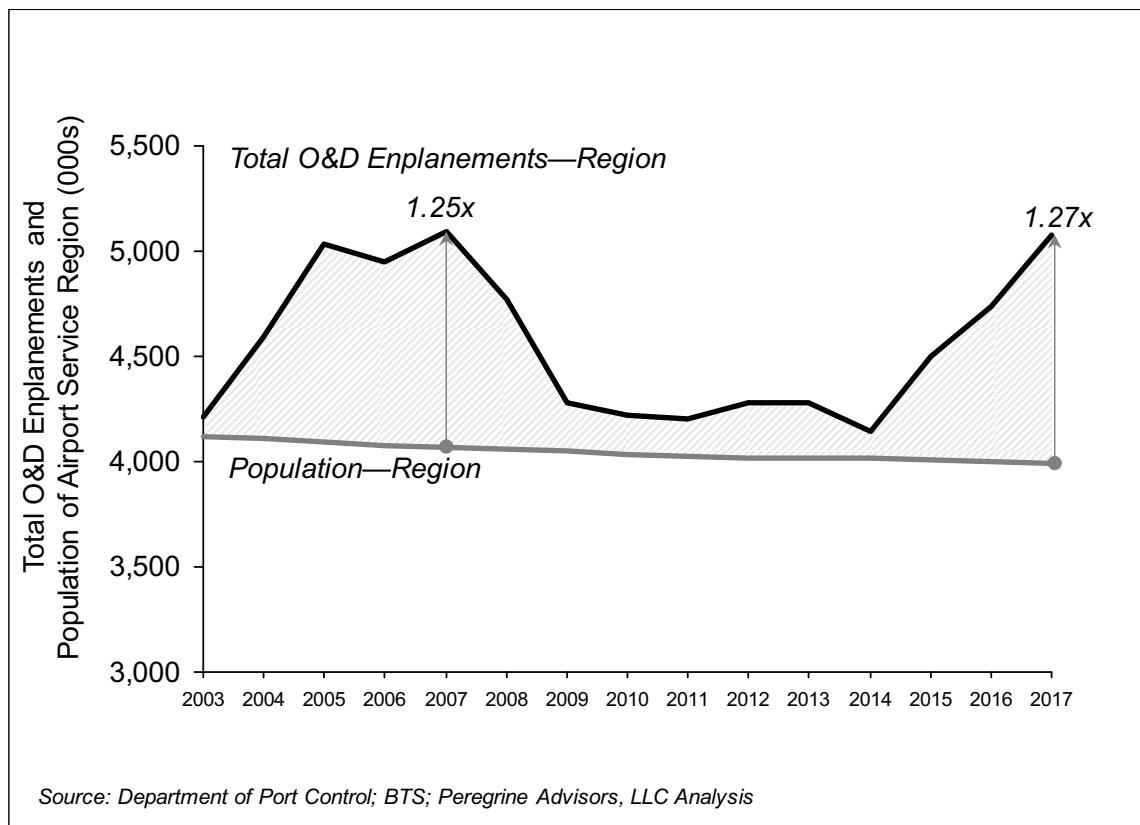
### **Assumptions**

The forecast is based on conservative assumptions regarding the continued growth in the general economy of the Region and the U.S. Accordingly, the forecast was based on the analyses of historical and forecast population and economic indicators for the Region, historical airline traffic at the Airport, the Airport continuing to primarily serve an O&D passenger base and an analysis of Airport air service activity. In general, it was assumed that future growth in airline traffic at the Airport will not be constrained by the availability of aviation fuel, limitations in airline service at the Airport, limitations in the capacity of the air traffic control system or conditions/capacity of existing Airport facilities, or government policies or actions that restrict growth, including tighter security measures. In particular, it also was assumed that over the forecast period:

1. At the national level, economic fundamentals, albeit currently strong, will likely moderate in the 2020-2021 years of the forecast period. While the forecast does not incorporate any recessionary periods in these years, it is estimated that economic growth will slow to less than 2% annual GDP growth before returning to greater economic expansion in 2022 and beyond. Given forward schedules and results to date, aviation demand levels are forecast to remain robust in CY 2018. Total scheduled seats are forecast to increase by 3.9% for CY 2018 with all air carriers, but with Frontier, anticipated to increase capacity at the Airport. Through May 2018, total enplaned passenger levels increased 9.1% compared to the same period in CY 2017.
2. At the local level, the Region's population levels will remain stable (trail national growth trends), and incremental job growth will be moderate during the forecast period. Despite relatively stable population levels in the Region, the Airport is the beneficiary of stimulated O&D market demand through a diversified air service offering and competitive airfare pricing. Employment and income levels will continue to generally track with historical relationships to

changes in U.S. economic conditions. The Airport will continue to consolidate the regional O&D passenger market base despite the presence of Akron. No commercial air service is assumed to be introduced at Youngstown during the forecast period. As illustrated in Figure 25, in CY 2017, the Region's O&D passengers (defined as O&D passengers enplaned at the Airport, Akron and Youngstown) represented the highest "multiple" (1.27x) to the Region's total population level from the last 15 years (calculated as total O&D enplaned passengers served by airports located in the Region divided by the Region's population). Future O&D growth at the Airport will likely be driven by expanded air service and continued competitive airfare pricing offered by air carriers serving the Airport.

**Figure 25. O&D Passenger "Multiple" to Region's Population Level**

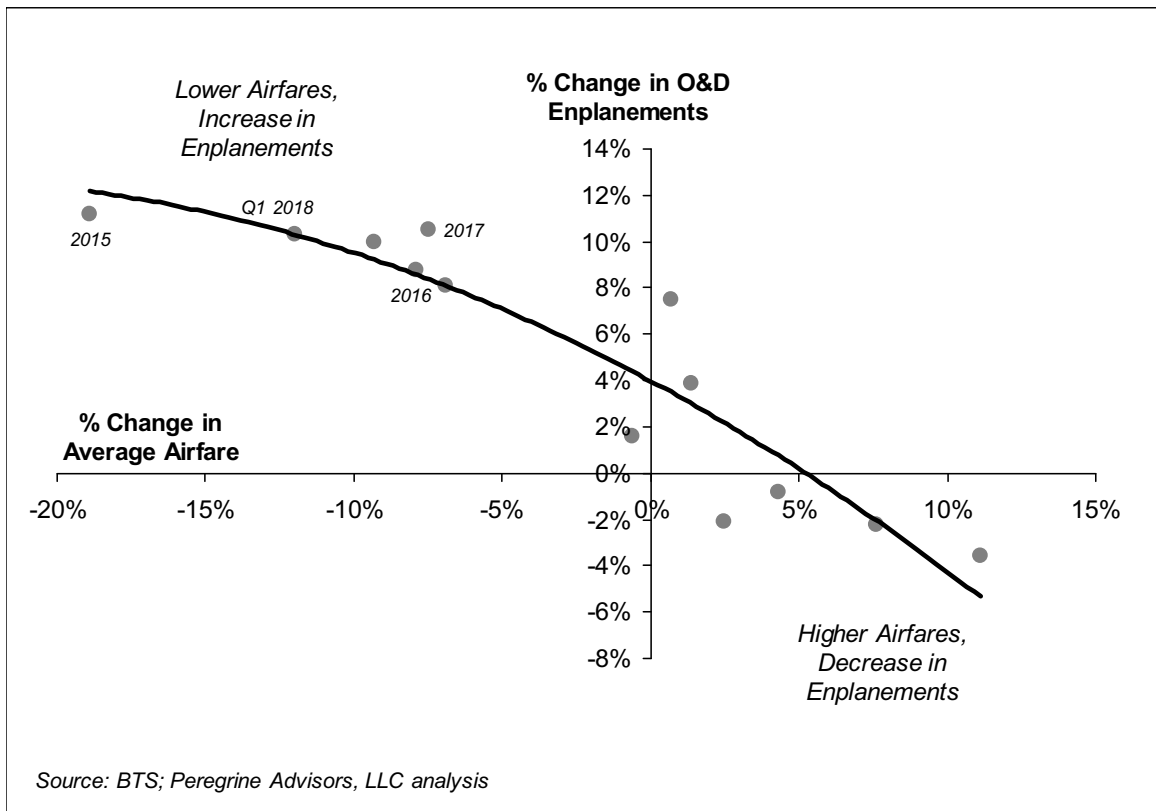


3. Jet fuel prices will continue to increase from current levels as trading ranges for crude oil and refinery spreads widen (\$65-\$95/bbl), with occasional spikes in prices due to global demand and supply conditions experienced during the forecast period. Any rise in fuel prices will place upward pressure on airfare levels which given the

Airport's historical pricing-demand elasticity would likely impact demand for air travel in the Region.

4. No other scheduled air carriers currently operating at the Airport are anticipated to cease operations, either through merger or liquidation. Flight schedules for air carriers will reflect forecast market conditions and further opportunities to grow market share at the Airport given United's pullback in service. No potential bankruptcy filings will impair the Airport's ability to attract air service, meet aviation demand levels and/or financially impact other air carriers operating at the Airport. All Scheduled Airlines serving the Airport will also remain signatory to a new, or extended, Agreement and Lease starting in CY 2022 (see the section *Financial Framework for Operation of the Airport* for more information).

**Figure 26. Airport Airfare Price to Demand Sensitivity (Estimate)**



As Figure 26 illustrates, the Airport's ability to increase O&D enplaned passengers is estimated to be highly correlated to airfare pricing levels. Data analyzed over the last 15 years supports that pricing levels dramatically influence the resulting changes in enplaned passenger

levels at the Airport. As average airfares have decreased over the last several years there may be less opportunities in the future for further substantial declines in pricing. The forecast assumes that pricing will vary across air carriers and that the Airport will average an annual pricing range between a 5% decrease and 5% increase for the forecast period.

5. The Airport will continue to predominantly serve a domestic network operation; however, as experienced with the recent entry and announcement of air service provided by WOW air, Icelandair, and Frontier, opportunities to initiate new scheduled international air service from the Airport, likely to mainland Europe and other leisure destinations (e.g., Caribbean, Mexico, etc.), will occur during the forecast period.
6. For the remainder of CY 2018, there will be continued strength in the overall demand for air travel in the U.S. (up 4.5% through the first four months of CY 2018), resulting in an estimated 3-4% annual increase in national passenger activity. Given forward schedules and results to date, aviation demand levels at the Airport are forecast to remain robust in CY 2018 (forecast 6.1%) and outpace national trends for the year. The availability of forward scheduled seat schedules provided by certain air carriers (e.g., United and Delta) as well as recent expanded air service announcements (i.e., Frontier) also signal a continued, sustained growth for passenger activity at the Airport moving into CY 2019.
7. No external events (e.g., terrorism, local natural disasters, etc) are assumed to occur, nor are any anticipated to impact activity levels, during the forecast period.

### **Enplaned Passengers**

The base year for the purposes of generating traffic forecasts is CY 2017. This data was obtained from the Airport in the form of monthly traffic reports. The total number of passengers enplaned at the Airport is forecast to increase from 4,562,740 in CY 2017 to 5,259,000 in CY 2022. Enplaned passengers are forecast to increase by 2.9% on average per year from CY 2017 to CY 2022. The modest growth in enplaned passengers during the interim years of the forecast period is attributable to anticipated slower growth in general economic conditions of the nation and U.S. The enplaned passenger growth rate is forecast to be higher in CY 2022 as economic conditions are forecast to improve but on a more moderate, measured pace. The annual forecast and compounded average rates assumed for the forecast period are presented in Table 8.

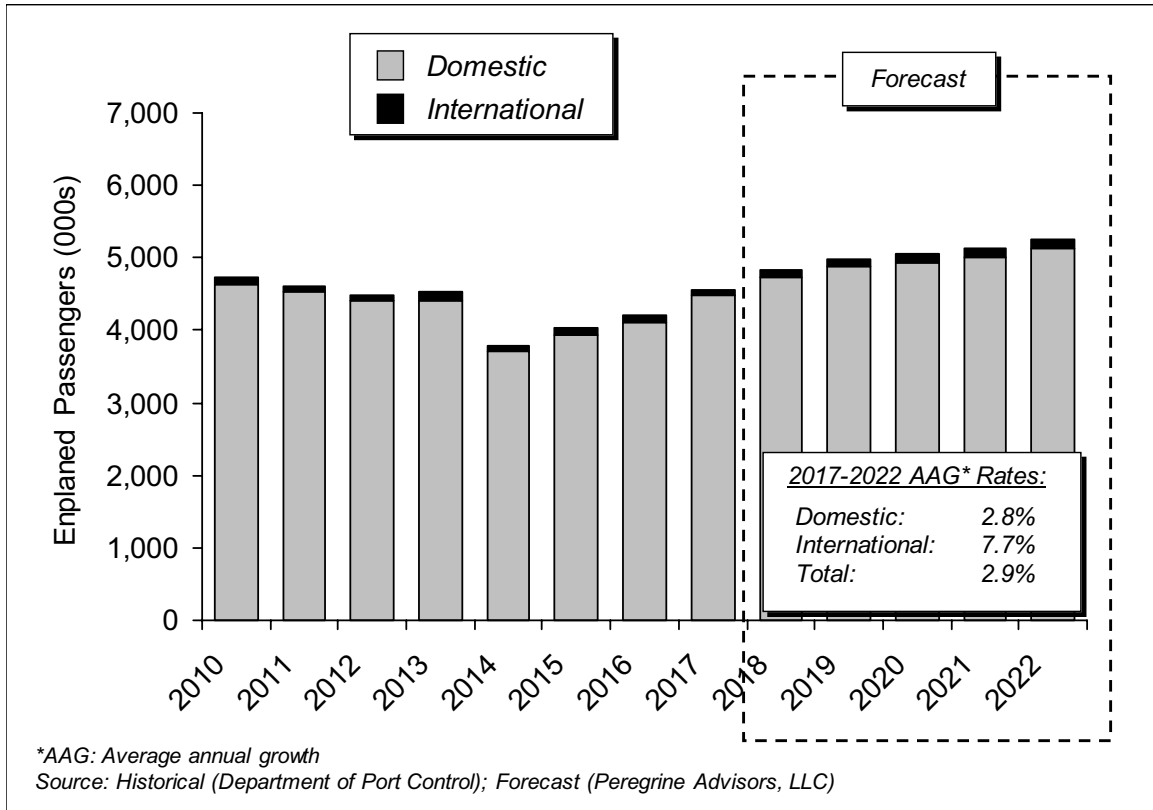


**Table 8. Enplaned Passenger Forecast (CY 2018 to CY 2022)**

Forecast Year	% Change Over Prior Year	% Compounded Average Change
2018	6.1%	6.1%
2019	2.9%	4.5%
2020	1.3%	3.4%
2021	1.5%	3.0%
2022	2.6%	2.9%

The forecast assumes that the Airport will surpass 5 million enplaned passengers in CY 2020 of the forecast period. Figure 27 presents historical and forecast enplaned passenger levels for the Airport.

**Figure 27. Historical and Forecast Enplaned Passenger Activity**



Domestic enplaned passengers at the Airport are forecast to increase 2.8% per year through CY 2022. International enplaned passengers (accounting for 1.9% of the Airport total in CY 2017) are forecast to increase an average of 7.7% per year between CY 2017 and CY 2022. This figure appears high but given the small base of existing international passengers, recently added international service is

forecast to comprise much of the future growth in this segment. International enplaned passengers are forecast to represent 2.4% of total enplaned passengers in CY 2022. Passenger load factors are anticipated to increase in the interim forecast years as air carriers will moderate incremental capacity. The Airport is forecast to experience average passenger load factor rates in the mid 80%'s during the forecast period. Air carriers at the Airport have increasingly up-gauged aircraft to meet aviation demand levels.

**Figure 28. Historical and Forecast O&D Enplaned Passenger Activity**

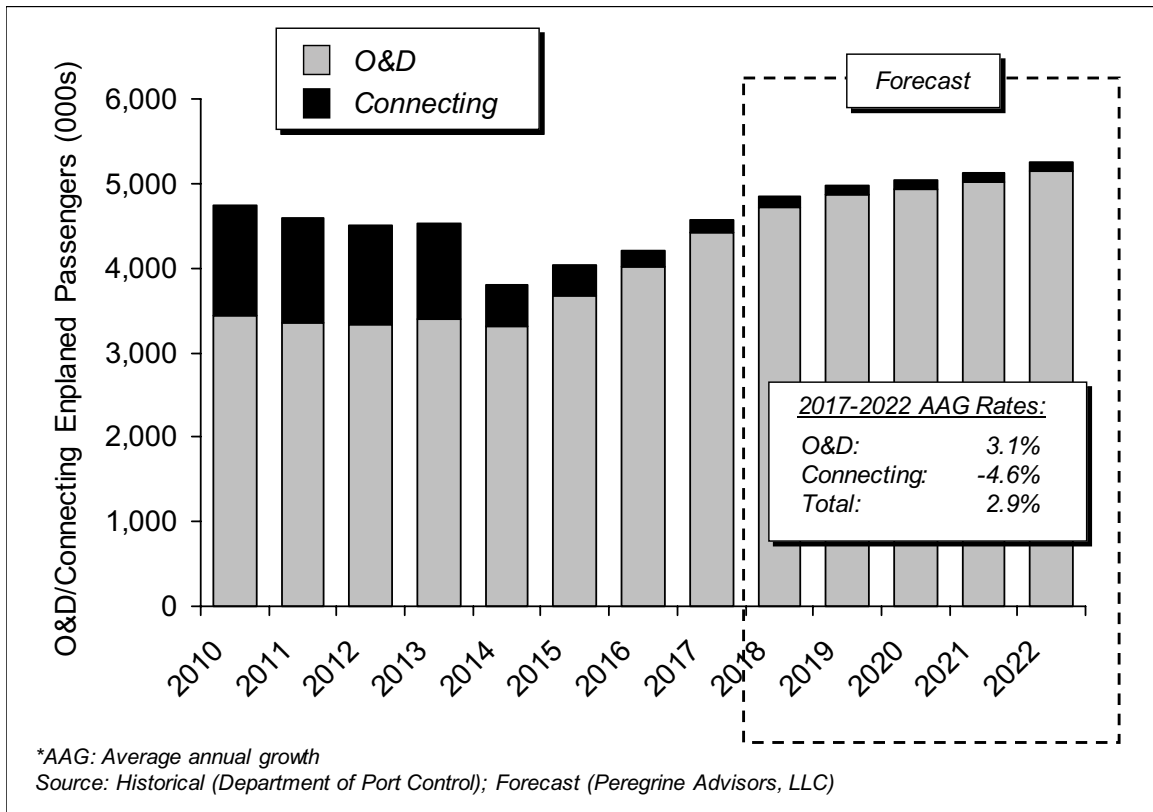


Figure 28 presents historical and forecast originating and connecting passenger levels for the Airport. The number of originating passengers is forecast to increase 3.1% per year from CY 2017 to CY 2022. Originating passengers are forecast to represent 98.0% of all enplaned passengers in CY 2022. The Airport experienced record levels of O&D passengers in CY 2017 surpassing previous totals achieved more than a decade ago. The number of connecting passengers enplaned is forecast to decrease 4.6% per year from CY 2017 to CY 2022. The decrease in connecting traffic reflects the diminished network opportunities at the Airport as a result of United's decision to downsize flight operations in 2014. Table 9 summarizes historical and forecast enplaned passenger activity for the Airport.

**Table 9. Historical and Forecast Enplaned Passenger Activity**

Total Enplaned Passengers (in Thousands)								
	Domestic	International	Total Enplaned	% Change	Origination & Destination	% Share	Connecting	% Share
<b>Historical</b>								
2000	6,422	202	6,624	2.6%	4,278	64.6%	2,346	35.4%
2001	5,754	164	5,918	-10.7%	3,766	63.6%	2,152	36.4%
2002	5,235	171	5,406	-8.7%	3,386	62.6%	2,020	37.4%
2003	5,099	158	5,257	-2.8%	3,639	69.2%	1,618	30.8%
2004	5,450	163	5,613	6.8%	3,933	70.1%	1,680	29.9%
2005	5,579	146	5,724	2.0%	4,327	75.6%	1,397	24.4%
2006	5,511	136	5,646	-1.4%	4,236	75.0%	1,410	25.0%
2007	5,586	136	5,722	1.3%	4,401	76.9%	1,321	23.1%
2008	5,394	151	5,545	-3.1%	4,044	72.9%	1,501	27.1%
2009	4,737	118	4,855	-12.4%	3,563	73.4%	1,292	26.6%
2010	4,631	114	4,745	-2.3%	3,436	72.4%	1,309	27.6%
2011	4,522	76	4,598	-3.1%	3,361	73.1%	1,237	26.9%
2012	4,412	83	4,495	-2.2%	3,336	74.2%	1,160	25.8%
2013	4,408	118	4,526	0.7%	3,390	74.9%	1,136	25.1%
2014	3,710	87	3,797	-16.1%	3,311	87.2%	486	12.8%
2015	3,946	100	4,047	6.6%	3,682	91.0%	364	9.0%
2016	4,111	94	4,206	3.9%	4,008	95.3%	198	4.7%
2017	4,475	88	4,563	8.5%	4,430	97.1%	133	2.9%
<b>Year-to-Date*</b>								
2017	1,682	44	1,726		1,662		64	
2018	1,837	45	1,883	9.1%	1,837	97.6%	45	2.4%
<b>Forecast</b>								
2018	4,739	102	4,841	6.1%	4,710	97.3%	131	2.7%
2019	4,875	108	4,983	2.9%	4,864	97.6%	119	2.4%
2020	4,935	112	5,047	1.3%	4,931	97.7%	116	2.3%
2021	5,006	119	5,125	1.5%	5,012	97.8%	113	2.2%
2022	5,132	127	5,259	2.6%	5,154	98.0%	105	2.0%
<b>2017-2022</b>	<b>2.8%</b>	<b>7.7%</b>	<b>2.9%</b>		<b>3.1%</b>		<b>-4.6%</b>	
<b>Growth Rates</b>								

\*Through May 2018.

Source: Historical (Department of Port Control); Forecast (Peregrine Advisors, LLC)

## Landed Weight

Landed weight levels are forecast to change in relation with enplanement activity, albeit at a slightly lower pace due to the continued trend to upgauge aircraft versus adding additional frequencies. As a result, landed weight levels have moderately increased due to larger mainline aircraft. Scheduled Airline landed weight levels are forecast to increase from 5,363,000 1,000-lb units in CY 2017, to 5,722,000 1,000-lb units in CY 2022, representing a 1.3% annual average increase.

## **Cargo**

Approximately 164.3 million pounds of total cargo were enplaned at the Airport in CY 2017, representing a 1.4% decline from the prior year. The Airport is served by three scheduled cargo carriers: United Parcel Service; Federal Express; and MRK Aviation. The three cargo carriers represented 93.6% of all cargo volume enplaned at the Airport in CY 2017. Cargo volume is forecast to increase from 164.3 million pounds in CY 2017, to 173.1 million pounds in CY 2022, representing a 1.0% annual average increase.

## **Operations**

The Airport experienced approximately 122,000 operations in CY 2017, a 2.6% increase over CY 2016. Total Airport operations are forecast to follow a similar pattern as forecasted enplanement activity. Total Airport operations are forecast to increase from 122,000 in CY 2017, to 128,700 in CY 2022, representing a 1.1% annual average increase.

## **VI. FINANCIAL FRAMEWORK FOR OPERATION OF THE AIRPORT**

### **The Airline Agreements**

The City has historically entered into lease agreements (the Agreement and Lease) with most of the airlines serving the Airport. The airlines signatory to the Agreement and Lease are referred to as the Scheduled Airlines (also commonly referred to as the Signatory Airlines). Pursuant to Ordinance No. 1162-16 passed by City Council on October 24, 2016, a new Agreement and Lease was entered into with the Scheduled Airlines effective January 1, 2017 to, among other items, extend the lease period five (5) years to December 31, 2021. The Agreement and Lease contains two (2), two-year options which are executable upon mutual agreement between the City and majority of Scheduled Airlines. As of the date of this Report, eight passenger airlines (Allegiant, American, Delta, Frontier, JetBlue, Spirit, Southwest, and United) and two cargo carriers (FedEx, UPS) serving the Airport were party to the new Agreement and Lease. (The eight Scheduled Airlines represented 98.8% of total enplaned passengers at the Airport in CY 2017 and 98.7% of total enplaned passengers at the Airport for the first five months of CY 2018.) Airlines serving the Airport who are not Scheduled Airlines pay the same rates and charges as the Scheduled Airlines, but with a 25% administrative fee added to their payments. Certain capitalized terms used in this Report are as defined in the Agreement and Lease and/or Indenture.

The Agreement and Lease establishes procedures for the periodic review and adjustment of the terminal building space rental rates and landing fees paid by the Scheduled Airlines, as well as other airlines serving the Airport who are not party to the Agreement and Lease. The Airport operates under a “cost-center residual cost” formula for setting initial terminal building rental fee rates, and an “Airport System residual cost” formula for calculating landing fees. Terminal building rental rates and landing fee rates are adjusted annually to produce Airport Revenues sufficient to meet the Rate Covenant, as discussed in the next section. One change of the new Agreement and Lease was to standardize rental rates across all of the concourse areas of the terminal complex. All Leased Premises covered by the Agreement and Lease are on a Preferential Use basis, which allows the City to accommodate any air carrier requiring space (either new entry or expanded) on existing Leased Premises of the Scheduled Airlines. In order to achieve access and balanced utilization of Airport gate/holdroom facilities, the City can consider multiple factors, including but not limited to, the average number of flight arrivals and departures per gate position.

The City frequently evaluates Airport Revenue requirements during each fiscal year and historically has taken action in a timely manner to adjust rates and charges accordingly to meet the Rate Covenant. Pursuant to the Agreement and Lease, if at any time during the fiscal year Airport Revenues are insufficient to

cover the costs of operating the Airport System, the City may, upon providing 90 days' notice to the Scheduled Airlines, increase landing fees. In recent years, the City has also adjusted (both increased and decreased) certain non-airline revenue credits (the Passenger Credit) to the Scheduled Airlines based on actual operating performance during the fiscal year. Given the airport-residual nature of the Airport's rate-making methodology, actual revenues and operating expenses are subject to a year-end reconciliation which may result in a credit to/deficit due from the Scheduled Airlines.

The Agreement and Lease also establishes voting rights of the Scheduled Airlines (so-called Majority-In-Interest provisions) for the funding of certain capital projects at the Airport. The Scheduled Airlines may elect to not approve capital improvements which will be funded through rentals, fees and charges and which will require the commitment by the City for the purchase or construction of (i) a single item at a cost of \$500,000 or more, or (ii) items which in the aggregate cost in excess of \$2,000,000. If such capital improvements are not approved, the City may still budget the cost of such capital improvements for the next Fiscal Year under certain circumstances (e.g., to comply with a rule, regulation or order of any federal or state agency). The new Agreement and Lease also slightly modified approval thresholds required to be obtained from the Scheduled Airlines. Majority-In-Interest (MII) approval for projects is defined, either as: (i) fifty percent (50%) or more in number of all the Scheduled Airlines, which percentage has, on the date in question, more than fifty percent (50%) of the aggregate by Maximum Landing Weight of Revenue Aircraft Arrivals of all Scheduled Airlines at the Airport during the latest twelve-month period for which such figures are available as to all Scheduled Airlines; or, alternatively, (ii) forty percent (40%) or more in number of all Scheduled Airlines, which percentage has, on the date in question, more than fifty-five percent (55%) of the aggregate by Maximum Landing Weight of Revenue Aircraft Arrivals of all Scheduled Airlines at the Airport during the latest twelve-month period for which such figures are available as to all Scheduled Airlines.

The Agreement and Lease increased the annual amounts deposited to the Airport Development Fund, a discretionary funding source to be used by the City for any Airport System purpose. Beginning in FY 2017 this amount was increased to \$10 million (from \$7.8 million in the prior FY) and from FY 2018 to FY 2021 the annual deposit will further increase to \$12 million.

For purposes of preparing financial forecasts contained in this Report, it is assumed that the Airport and the Scheduled Airlines will operate under the terms of the Agreement and Lease throughout the forecast period (including FY 2022 which is beyond the initial five-year term of the Agreement and Lease). The rate-

making methodology included in the Agreement and Lease will govern the Airport's financial structure and financial forecasts included in this Report.

### **United Special Facility Leases**

In addition to the Agreement and Lease, United is also party to several long-term operating leases associated with certain terminal-related facilities at the Airport (which United assumed as part of the merger with Continental). Originally entered into by Continental to expand the air carrier's operation at the Airport, the 1989 Special Facilities Lease and 1997 Special Facilities Lease (combined, the Special Facilities Leases) governed the development and operation of specific facilities (primarily the Concourse C Rotunda and Concourse D) funded in part by Special Revenue Bonds. Principal and interest payments associated with the outstanding Special Revenue Bonds are unconditionally guaranteed by United. The Special Revenue Bonds are not part of the City's outstanding Airport System Revenue Bonds and therefore are excluded from Rate Covenant, Additional Bonds Test and other provisions of the Indenture.

In light of United's decreased operation at the Airport, the Special Facility Leases were amended and restated (the Amended Special Facility Leases) between the City and United effective January 1, 2016. Upon United consolidating its flight operations at the Airport in Concourse C in June 2014, the City officially shuttered Concourse D for any passenger-related operations (and remain closed as of the date of this Report). The Amended Special Facility Leases require United to pay the City on an annual basis starting in FY 2016: 1) the debt service requirements with respect to Airport System Revenue Bonds issued by the City to develop a portion of Concourse D premises and 2) all direct operating and maintenance costs (the Direct Costs) incurred by the City to keep the Concourse D premises in good repair and safe condition. For FY 2016 and FY 2017, United remitted \$6.8 million and \$6.9 million, respectively, to the City for the debt service requirements and Direct Costs allocable to Concourse D premises. The amount of square footage associated with United's Concourse D Leased Premises is not included in annual rates and charges calculations for the Airport. However, payments associated with the remittance of allocable costs (as discussed above) are treated as Airport Revenues and included in annual rates and charges calculations.

United's Special Facility Leased Premises in Concourse C include more than 93,000 square feet of gate/holdroom space, offices, United Club lounge, and baggage handling areas. Those areas contained within Concourse C are used to reflect United's Leased Premises for purposes of calculating annual rates and charges at the Airport. Similar to Concourse D, United is required to pay annual debt service requirements and direct operating costs associated with the air carrier's Leased Premises in Concourse C. Beginning on January 1, 2019 and every two (2) years thereafter, United may seek permission from the City to return up to

15% of its Leased Premises in Concourse C. The City is under no obligation to permit United to return any of the Leased Premises prior to the expiration date of the Amended Special Facility Leases. The Amended Special Facility Leases expire on May 31, 2029, or earlier, should the premises be relet under substantially similar economic terms and agreed to by the City.

### **The Trust Indenture**

The Series 2018 Bonds are being issued pursuant to Ordinance No. 1364-17 passed by City Council on November 20, 2017, Ordinance No. 666-18 passed by City Council on May 21, 2018, and the Amended and Restated Trust Indenture (Seventeenth Supplemental Trust Indenture dated November 1, 2011), effective as of January 31, 2012, as supplemented and amended (the Indenture) between the City and The Bank of New York Mellon Trust Company, National Association as trustee (the Trustee). Pursuant to the Indenture, the City has pledged and granted to the Trustee a first lien on Airport Revenues and Special Funds as security for the payment of the Bond Service Charges on all Bonds.

Pursuant to the Rate Covenant provision in the Indenture, the City has covenanted to prescribe and charge such rates, fees and charges for the use of the Airport System as to produce in each Fiscal Year (FY) Airport Revenues, together with Other Available Funds, less Operating Expenses at least equal to 125% of the amount maturing and becoming due in such FY for the payment of principal of and interest on all outstanding Revenue Bonds. Should the City have any outstanding General Obligation Debt or Temporary Revenue Bonds for use by the Airport System, the Indenture includes an alternative Rate Covenant provision of 116% of the amount maturing and becoming due in such FY for the payment of principal and interest on such bonds. (The City has not had any outstanding General Obligation Debt or Temporary Revenue Bonds for use by the Airport System since 1997, nor does the City anticipate issuing any in the future).

Further, the Indenture requires that, as a condition of issuing any Additional Revenue Bonds, the City must demonstrate that the projected Airport Revenues, together with Other Available Funds, during each of the five complete Fiscal Years immediately following the issuance of the Additional Revenue Bonds, less the projected Operating Expenses during each of such Fiscal Years, are at least equal to 125% of the Bond Service Charges on all outstanding Revenue Bonds, including the Additional Revenue Bonds proposed to be issued, due during each of such Fiscal Years, less, in each case, such Bond Service Charges on any Revenue Bonds which are to be redeemed or retired with the proceeds of such Additional Revenue Bonds. This is referred to as the Additional Bonds Test. (An alternative Additional Bonds Test ratio applies if there is General Obligation Debt outstanding for the Airport System.)

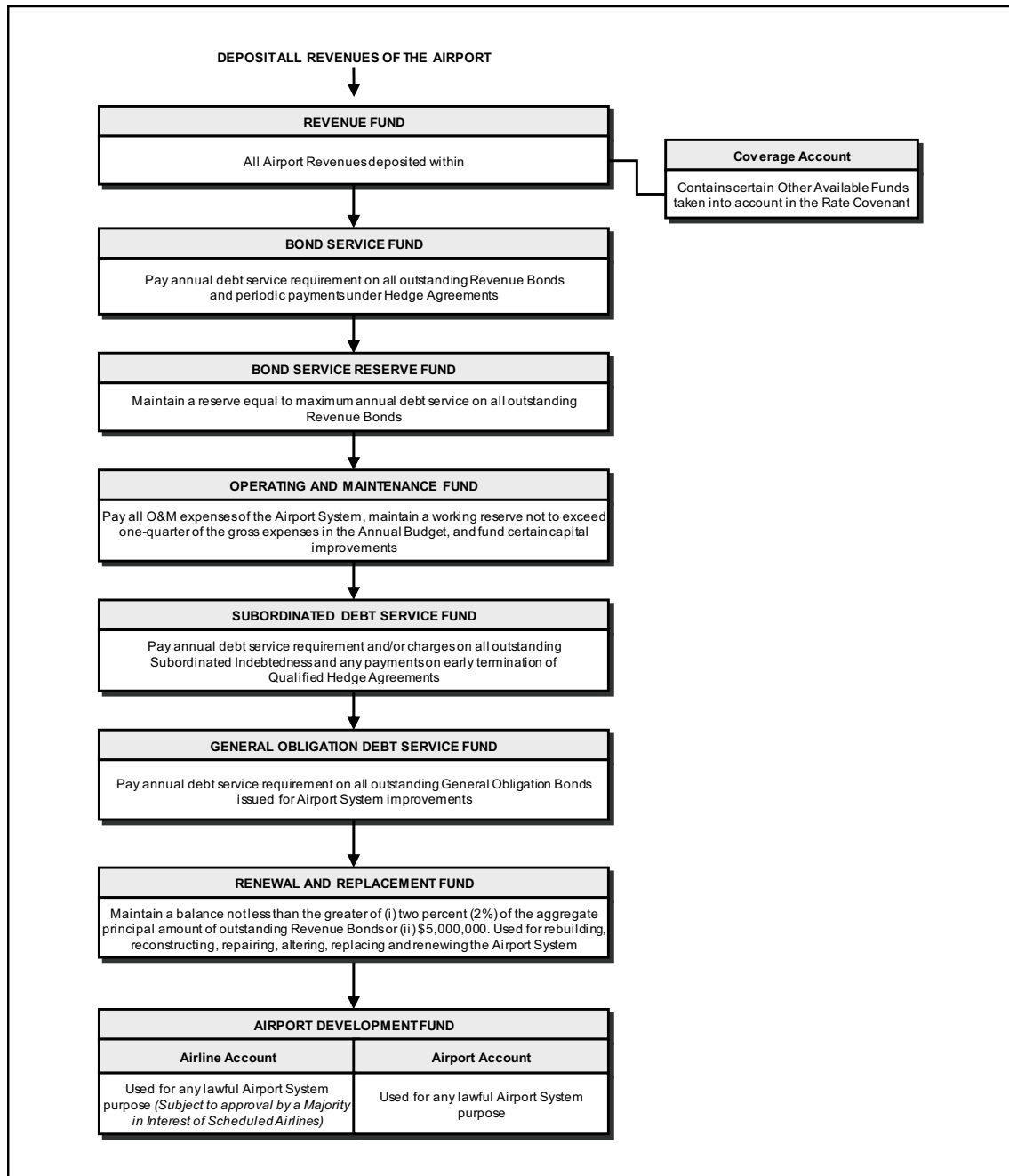


Under the Indenture, all Airport Revenues are to be paid to the Trustee and deposited by the Trustee in the Revenue Fund, one of the Special Funds created by the Indenture and held by the Trustee. Land and facilities comprising the Airport have not been pledged or mortgaged pursuant to the Indenture nor have they been pledged to secure payment of the Series 2018 Bonds or any other Bonds. The Indenture establishes certain funds and accounts and the priority flow of such funds through which Airport Revenues are deposited. Figure 29 depicts the Flow of Funds for the Airport. The moneys on deposit in the Revenue Fund are to be applied monthly in the following order:

- First, to the Bond Service Fund to provide for the payment of debt service on outstanding Airport Revenue Bonds and to pay periodic payments under Hedge Agreements.
- Second, to the Bond Service Reserve Fund to maintain a reserve for debt service equal to the maximum annual debt service charges to be paid on all outstanding Airport Revenue Bonds secured by the Bond Service Reserve Fund in any Fiscal Year.
- Third, to the Operating and Maintenance Fund to pay all Operating Expenses of the Airport System, maintain a working capital reserve and fund certain capital improvements of the Airport System.
- Fourth, to the Subordinated Debt Service Fund to provide for the payment of debt service on any outstanding Subordinated Indebtedness and any amount owed on an early termination of a Qualified Hedge Agreement. (The City has no Subordinated Indebtedness outstanding, and has no Hedge Agreements in place with respect to its Airport System Revenue Bonds.)
- Fifth, to the General Obligation Debt Service Fund to provide for the payment of debt service on any outstanding General Obligation Debt. (The City has no General Obligation Debt outstanding with respect to the Airport System.)
- Sixth, to the Renewal and Replacement Fund to maintain a reserve equal to the greater of (i) two percent (2.00%) of the aggregate principal amount outstanding of Airport Revenue Bonds, or (ii) \$5,000,000. Monies in the Renewal and Replacement Fund may be used at the City's discretion to pay for the costs of rebuilding, reconstructing, repairing, altering, replacing and renewing the Airport System. As of June 30, 2018, there was a cash balance of \$22.5 million in the Renewal and Replacement Fund which exceeds the fund requirement of \$12.9 million.
- Seventh, to the Airport Development Fund, annually in an amount not to exceed \$10,000,000 in FY 2017 and \$12,000,000, thereafter, shall be deposited in the Airport Account of the Airport Development Fund, in equal monthly installments. Money in the Airport Development Fund

may be used for any Airport System purpose. Money in the Airport Account may be used at the discretion of the City. At the discretion of an MII of the Scheduled Airlines, additional monies may also be deposited in the Airline Account of the Airport Development Fund to be used for certain capital improvements within the Airport System. As of June 30, 2018, there was a cash balance of \$15.7 million in the Airport Account of the Airport Development Fund.

**Figure 29. Flow of Funds**



The Indenture also establishes a Coverage Account within the Revenue Fund which is funded at a level equal to at least 25% of the maximum annual debt service on all outstanding Revenue Bonds. In the event that the amount in the Coverage Account of the Revenue Fund exceeds 25% of the maximum annual debt service on all outstanding Revenue Bonds occurring in any subsequent Fiscal Year, the amount in excess of 25% may be transferred to the Airport Development Fund per concurrence between the City and the Scheduled Airlines. As of June 30, 2018, the Coverage Account cash balance was \$18.4 million, with a coverage requirement of \$17.1 million. No additional deposits (other than interest income accrual) are anticipated to the Coverage Account during the forecast period as the current balance is forecast to be sufficient to provide at least 25% coverage on maximum annual debt service requirements, including those associated with the Series 2018 Bonds.

### Accounting Principles and Historical Airport Financial Operations

The Airport System is owned by the City and operated by the Department of Port Control. The Airport accounts for its activities according to generally accepted accounting principles for governmental entities. Revenues and Operation and Maintenance Expenses are accounted for on an accrual basis. Table 10 presents a summary of five-year historical operating results from CY 2013 to CY 2017, based on the Airport's audited financial statements.

**Table 10. Historical Operating Results (in \$000's)**

	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017
<b>Airport Revenues</b>					
Airline Revenues	\$66,626	\$78,579	\$77,248	\$73,017	\$83,832
Non-Airline Revenues	46,618	49,387	53,795	57,558	69,511
<b>Total Airport Revenues</b>	<b>\$113,244</b>	<b>\$127,966</b>	<b>\$131,043</b>	<b>\$130,575</b>	<b>\$153,343</b>
<b>Airport Operating Expenses</b>					
Personnel & Benefits	\$29,165	\$28,509	\$29,242	\$30,506	\$31,237
Utilities	5,598	5,450	5,650	6,579	6,731
Contractual Services	12,376	16,547	17,521	16,889	18,908
Repairs & Maintenance	3,757	3,601	3,954	4,686	4,212
Property Tax	5,965	5,842	5,432	5,056	5,213
Materials & Supplies	2,981	3,709	3,558	3,815	4,680
City Service Charges	7,803	7,933	8,413	8,666	8,525
Other	1,528	1,495	1,526	3,715	3,438
<b>Total Airport Expenses</b>	<b>\$69,172</b>	<b>\$73,085</b>	<b>\$75,296</b>	<b>\$79,912</b>	<b>\$82,943</b>
<b>Net Operating Revenues</b>	<b>\$44,072</b>	<b>\$54,881</b>	<b>\$55,747</b>	<b>\$50,663</b>	<b>\$70,400</b>

Source: Department of Port Control

Accounting for approximately 34.5% of total operating revenues, United represented the single largest source of revenue for the Airport in CY 2017 (total revenue of \$53.7 million remitted to the Airport). Approximately \$45.6 million, or 85% of total United revenues remitted to the Airport in CY 2017 are related to terminal rentals associated with United's Amended Special Facility Leases (\$38.7 million and \$6.9 million for Concourse C and D premises, respectively). Landing fees, which are governed by the Agreement and Lease, represented approximately 13.6% of total United revenues. Table 11 summarizes United revenues remitted to the Airport for CY 2017.

**Table 11. United Revenue Summary (CY 2017)**

<b>Revenue Item</b>	<b>Revenue Received (\$000's)</b>	<b>% of Total Revenues</b>
Amended Special Facility Leases— Terminal Rentals	\$45,610	85.0%
Agreement and Lease— Landing Fees	7,281	13.6%
Agreement and Lease— Other Rentals	785	1.4%
Total	\$53,676	100.0%

### **Outstanding Debt**

The City has issued, under the Indenture, in aggregate, more than \$1.1 billion (excluding the Series 2018 Bonds) in principal amount of Airport System Revenue Bonds to provide funds for the capital development of the Airport. Assuming issuance of the Series 2018 Bonds in the amount of \$109,355,000\*, and refunding of a portion of the Series 2009C Bonds, minus the current principal portion due on January 1, 2019, the total principal amount outstanding of Airport System Revenue Bonds issued by the City will be \$634,955,000\*. The Airport's outstanding debt is rapidly amortizing with approximately 54% anticipated to be paid down or redeemed by January 1, 2026. The Airport's outstanding debt per enplaned passenger was \$156 in CY 2017 and is forecast to decrease to \$96 in CY 2022.

### **Operating Liquidity**

The City has established and maintained a significant level of cash reserves to sustain the financial position of the Airport. In addition to funding capital improvement projects and other initiatives, Airport discretionary funds have been employed to redeem certain outstanding series of Airport System Revenue Bonds, reduce costs and improve operating liquidity. As of December 31, 2017, the City maintained 655 days of cash on hand (from unrestricted cash accounts).

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\* Preliminary, subject to change.

## **VII. FINANCIAL ANALYSIS FOR THE FINANCIAL FORECASTS**

### **Overview**

The following section provides an analysis of the estimated financial impacts associated with the issuance of the Series 2018 Bonds. Financial projections are presented through FY 2022 (the forecast period) in accordance with the Indenture and amended Agreement and Lease provisions. The Airport accounts for its activities according to generally accepted accounting principles for governmental entities. All Airport System Revenues and Operating Expenses are accounted for on an accrual basis with moneys maintained in accounts and funds separate from the City's General Fund. However, for comparative purposes, historical and forecast financial projections are presented on a cash basis. *Financial Framework for Operation of the Airport* provided detail on those provisions of the Indenture and Agreement and Lease that impact the Airport's financial structure and projections, as included herein. For purposes of estimating financial impacts contained in this report, it is assumed that the terms of the Agreement and Lease govern the Airport's financial operations, including rates and charges for those air carriers who are currently Scheduled Airlines.

### **The Series 2018 Bonds**

The City is issuing the Series 2018 Bonds to 1) pay for a portion of the Five-Year CIP projects, 2) current refund the 2019 to 2027 maturities associated with City's Airport System Revenue Bonds, Series 2009C for debt service savings, 3) fund any Bond Service Reserve Fund requirements, 4) fund capitalized interest requirements and 5) pay related costs of issuance. The Series 2018 Bonds will be issued and secured under the Indenture on parity with the City's outstanding Airport System Revenue Bonds and any Additional Revenue Bonds that may be issued from time to time.

Exhibit B summarizes the estimated sources and uses of funds for the Series 2018 Bonds as provided by Morgan Stanley & Co. LLC, senior managing underwriter of the Series 2018 Bonds. The Series 2018 Bonds will be issued in two series. Bond Counsel has advised that interest on the Series 2018A Bonds will be tax exempt but subject to alternative minimum tax and that interest on the Series 2018B Bonds will be excluded from gross income for federal tax purposes and not be subject to the alternative minimum tax. The total principal amount of the Series 2018 Bonds to be issued is estimated to be \$109,355,000\*.

### **Bond Service Charges Requirements**

Exhibit C presents historical and estimated Bond Service Charges requirements for FY 2015 through FY 2022 as provided by the City and the senior

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\* Preliminary, subject to change.

managing underwriter of the Series 2018 Bonds. Projections of Bond Service Charges associated with outstanding Airport System Revenue Bonds in a variable rate mode are calculated in accordance with the Indenture versus current market rates. Variable rate assumptions used during the forecast period for associated outstanding Airport System Revenue Bonds are included on Exhibit C.

Total Bond Service Charges are estimated to increase from \$68.4 million in FY 2017 to \$70.5 million in FY 2019, and then decreasing to \$66.7 million in FY 2022. Pursuant to the Rate Covenant provision of the Indenture, the landing fee calculation includes 125% of the Bond Service Charges on all Airport System Revenue Bonds outstanding in FY 2018 through FY 2022.

Per prior agreements with the Scheduled Airlines to fund CIP projects for the Series 2011A Bonds Airport System Revenue Bonds, the City anticipates utilizing 100% of annual PFC revenue collection through FY 2022 to pay PFC-eligible debt on existing and Five-Year CIP projects. The Airport collects a PFC at the \$4.50 level with a currently anticipated collection period through June 2023. For purposes of estimating financial impacts contained in this report, it is assumed that the City's \$4.50 PFC collection authority will continue throughout the forecast period. The PFC balance as of June 30, 2018 was \$12.7 million.

In accordance with FAA Record of Decision dated December 22, 2000 and subsequently amended on August 25, 2005 and August 18, 2017, the City anticipates receiving a total of \$181.6 million in Letter-of-Intent (LOI) funds to pay project costs of the Runway Uncoupling Project (\$42.8 million) and debt service associated with airfield projects funded in part from the Series 2000 Bonds (\$148.4 million). As of December 31, 2017, the City received \$172.9 million of the LOI proceeds. For the latter, LOI funds (as well as PFC revenues) are considered Other Available Funds which are credited against payment of Bond Service Charges (See Exhibit C).

### **Airport System Operating Expenses**

Exhibit D presents historical and forecast Airport System Operating Expenses for FY 2015 through FY 2022. FY 2018 Operating Expenses represent estimated expenditure levels based on five months of actual performance.

Total Operating Expenses are anticipated to increase from \$82.9 million in FY 2017 to \$98.2 million in FY 2022, representing an annual average increase of 3.4%. As a basis of comparison, the Airport averaged a 2.4% annual increase in Operating Expenses over the last five years (and a 1.8% average annual increase over the last ten years). Operating expense growth rates are based on forecast inflation rates, historical trends and relationships in the Airport's Operating Expenses, planned initiatives and hiring plans, and Airport management's

strategies for reducing costs. The following annual average growth rates are assumed for the forecast period:

O&M Expense Item	Ten-Year Historical Average	Five-Year Historical Average	Forecast Compounded Annual Growth Rate (FY 2017 to FY 2022)
Salaries & Wages	2.1%	1.1%	4.0%
Employee Benefits	-2.6%	0.6%	4.8%
Utilities	6.9%	10.3%	3.5%
Contractual Services	-1.8%	-5.0%	1.8%
Materials & Supplies	-3.4%	-3.1%	4.6%
Maintenance	-1.9%	-0.2%	4.8%
Claims, Refunds & Miscellaneous	2.8%	2.0%	2.9%
Inter-Departmental Service Charge	12.7%	16.8%	3.8%
Total	1.8%	2.4%	3.4%

### Airport System Revenues

Exhibit E presents historical and forecast Airport Revenues for FY 2015 through FY 2022. Total Airport Revenues are anticipated to increase from \$146.3 million in FY 2017 to \$164.0 million in FY 2022.

#### *Airline Revenues*

The Airport operates under a “cost-center residual cost” formula for setting initial terminal building rental fee rates and an “Airport System residual cost” formula for calculating landing fees. Terminal complex rental rates (for both the terminal building and concourses) and landing fee rates are adjusted annually to produce Airport Revenues sufficient to meet the Rate Covenant. Non-airline revenues from terminal and landside cost centers are allocated to the Scheduled Airlines based on share of total Scheduled Airlines’ enplaned passengers. This provision is referred to as the “passenger credit” and respective shares are calculated on a trailing 12-month basis.

Total airline revenues are estimated to decrease from \$81.2 million in FY 2017 to \$75.7 million in FY 2022, reflecting decreases in Bond Service Charges requirements, and increased non-airline revenues generated at the Airport. Signatory Airline revenues are forecast to decrease from \$78.5 million in FY 2017 to \$74.5 million in FY 2022. Signatory Airline revenues are forecast to represent 45.4% of total Airport System Revenues in FY 2022, down from 53.6% in FY 2017.<sup>8</sup>

<sup>8</sup> As a basis of comparison, Signatory Airline revenues represented 60.8% of total Airport System Revenues in FY 2014.

### *Non-Airline Revenues*

Total non-airline revenues are forecast to increase from \$63.3 million in FY 2017 to \$84.7 million in FY 2022, representing an annual average increase of 6.0%. Much of the growth is attributable to higher revenues the Airport is experiencing from increased O&D passenger traffic as well as the implementation of various initiatives to enhance non-airline revenues, including new rideshare fees, increased parking rates and expanded concessions outlets. Rent increases associated with extension of certain facilities located on Airport property (including the I-X Center, airline hangars and corporate office space) also increase rent revenues by more than \$2 million annually. Primary non-airline revenue sources at the Airport consist of public parking, rental cars and terminal concessions (food and beverage, retail and advertising). The contractual agreements for the operations of these concessions establish certain financial terms that allow the City to earn the greater of a percentage of gross revenues and a minimum annual guarantee. For example, rental car companies pay a "Privilege Fee" for operating on the Airport which is calculated as the greater of 10 percent of gross revenues or a minimum annual guarantee equal to 85% of the Privilege Fee paid for the prior lease year.

In February 2008, the City awarded BAA USA, Inc. (later changed to AIRMALL™ USA, Inc.) a 10-year concessions contract to operate and manage terminal retail and food and beverage operations. As a result of the redeveloped concessions program, the total number of retail outlets doubled at the Airport and average spend per enplaned passenger increased by more than 50%. Effective January 1, 2018, the City exercised its option to extend the concessions and lease agreement with Fraport, Inc. (formerly named AIRMALL™ USA) for an additional five (5) year term. The agreement contains minimum annual guarantees and revenue sharing fees payable to the City based on actual concession revenue performance. During the option term, the City shall receive the greater of a fixed minimum annual guarantee (initially set at \$4.1 million and in no case lower in subsequent years) or 75% of the gross concession revenues realized by Fraport in any Fiscal Year.

The concessions development program currently includes more than 51,000 square feet of concession space with plans to transition several concessions concepts and to add new outlets. The concessions program includes local, regional and nationally branded concepts. Five new concepts will be added by early 2019, including offerings such as Shake Shack and Cantina Taqueria, representing an approximate 7% increase in concessions-leased premises. Annual concession spending levels at the Airport have increased from \$5.38 in FY 2008 to \$10.90 (through June 2018).



The City is currently in the process of extending per trip fees to all commercial vehicles entering and exiting the Airport. Currently only rideshare vehicles and taxis remit a \$4 fee for pick-up and drop-off at the Airport, a ground transportation fee that generated \$2.3 million in FY 2017. Airport management has introduced legislation to City Council to extend the per trip fee to commercial vehicles (which include off-airport parking shuttles and limos) to start collection on January 1, 2019. The Airport forecasts these fees will result in an additional \$1.8 million in annual revenues. Accordingly, revenues associated with the additional per trip fee collections has been added to the forecast.

The Airport's public automobile parking facilities currently consists of 5,906 parking spaces, with 3,811 spaces in the Smart Parking Garage (1,584 spaces located on-Airport in various surface lots (Red, Blue and Orange), and 511 spaces located in the off-Airport economy surface lot (Brown Lot). The Airport's public automobile parking facilities are managed by Standard Parking under a multi-year agreement that provides for the remittance of net parking revenues to the Airport after deducting direct operating expenses and management fees. The City implemented a \$2 per day increase across all parking areas in May 2018, which is estimated to increase net parking revenues for the Airport by \$3.25 million on an annualized basis. As of the date of this Report, current daily parking rates were \$20, \$18, \$16, \$15 and \$11 for the Smart Garage Red, Blue, Orange and Brown lots, respectively. Revenue per available parking space day increased from \$12.07 in FY 2015 to \$13.92 in FY 2017. Through June 2018, revenue per available parking space day was \$15.35, reflecting additional revenue associated with the \$2 parking rate increase. Parking utilization increased to 92.7% for the first six months of FY 2018, compared to 87.7% in FY 2017 and 80.6% in FY 2016.

Non-airline revenues are anticipated to increase during the forecast period with enplaned passenger levels, increased retail capacity, and enhanced yield or sales per passenger levels especially given the predominate O&D operation of the Airport. For example, parking revenues are forecast to primarily change in conjunction with airport O&D enplaned passenger levels and an anticipated \$1 parking rate in FY 2020 across all the parking lots and garage. No additional parking capacity is assumed to be added during the forecast period. Airport management's commitment to improving customer service, which directly influences increased non-airline revenue performance, was recognized in March 2018 with the award of Most Improved Airport from Airports Council International-North America (ACI-NA).

### **Signatory Airline Landing Fees and Airline Cost per Enplaned Passenger**

Exhibit F presents historical and estimated Signatory Airline landing fees and airline cost per enplaned passenger for FY 2015 through FY 2022. Signatory Airline cost per enplaned passenger is forecast to decrease from \$17.42 in FY 2017 to \$14.31

(or \$12.91 in 2018 dollars) in FY 2022. The Airport's Signatory Airline cost per enplaned passenger was \$21.56 in FY 2014. Signatory Airline landing fees (as measured per 1,000-lb units) are forecast to also decrease from \$6.18 in FY 2018 to \$4.43 (or \$4.00 in 2018 dollars) in FY 2022. While the Airport will average a CPE level higher than airport industry averages during the forecast period, there exists a significant range of CPEs which reflect the operating efficiencies of individuals air carriers. Some of these CPE levels are substantially lower than both the Airport and industry averages.

#### **Calculation of Bond Service Charges Coverage and Additional Bonds Test**

Exhibit G presents the calculation of Net Revenues and Bond Service Charges coverage for FY 2018 through FY 2022. Coverage levels are forecast to remain at or above 1.25x debt service throughout the forecast period, fulfilling the requirements of the Indenture's Additional Bonds Test. Other Available Funds consist of PFCs, federal grant (LOI) receipts and Airport Development Fund monies used at the discretion of the City and/or Scheduled Airlines. As of June 30, 2018, the Coverage Account contained a balance of \$18.4 million. The City may adjust the Coverage Account balance over the course of the forecast period should coverage levels be less than 1.25x debt service.

## Attachment A: Financial Exhibits

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Exhibit A

AIR TRAFFIC  
Cleveland Airport System  
For Fiscal Years Ending December 31  
(In thousands, except as noted)

This exhibit is based on information from the sources indicated and assumptions provided by, or reviewed with and adopted by, Airport management, as described in the accompanying text. Inevitably, some assumptions used to develop the forecasts will not be realized, and unanticipated events and circumstances could occur. Therefore, the actual results will vary from those forecast, and the variations could be material.

	Historical			Forecast				
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Enplaned Passengers								
Domestic	3,946	4,111	4,475	4,739	4,875	4,935	5,006	5,132
International	100	94	88	102	108	112	119	127
Total Enplaned Passengers	<u>4,047</u>	<u>4,206</u>	<u>4,563</u>	<u>4,841</u>	<u>4,983</u>	<u>5,047</u>	<u>5,125</u>	<u>5,259</u>
Signatory Airline Enplaned Passengers	3,992	4,154	4,507	4,783	4,929	4,995	5,074	5,207
Origination & Connecting								
Origination	3,682	4,008	4,430	4,710	4,864	4,931	5,012	5,154
Connecting	365	198	132	131	120	116	113	105
Total Enplaned Passengers	<u>4,047</u>	<u>4,206</u>	<u>4,563</u>	<u>4,841</u>	<u>4,983</u>	<u>5,047</u>	<u>5,125</u>	<u>5,259</u>
Air Carrier Landed Weight (1,000 -lb units)								
Signatory Airline Landed Weight (1,000-lb)	5,011	5,042	5,363	5,408	5,423	5,490	5,598	5,722
Non-Signatory Airline Landed Weight	108	75	92	95	97	97	100	102
Total Air Carrier Landed Weight	<u>5,119</u>	<u>5,117</u>	<u>5,455</u>	<u>5,503</u>	<u>5,520</u>	<u>5,587</u>	<u>5,699</u>	<u>5,824</u>

*Note: Totals may not add due to rounding. Figures include non-revenue passengers.*

Sources:

Historical: Department of Port Control

Forecast: Peregrine Advisors, LLC

Exhibit B

ESTIMATED SERIES 2018 BONDS SOURCES & USES  
Cleveland Airport System  
(in thousands of dollars, except as noted)

	Series 2018A Bonds (AMT)	Series 2018B Bonds (Non-AMT)	Total Series 2018 Bonds
<u>SOURCES OF FUNDS</u>			
Par Amount Revenue Bond Proceeds	\$ 89,040	\$ 20,315	\$ 109,355
Net Premium	8,113	2,432	10,545
Accrued Interest	1,003	-	1,003
Total Sources of Funds	<u>\$ 98,156</u>	<u>\$ 22,747</u>	<u>\$ 120,903</u>
<u>USES OF FUNDS</u>			
Deposit to Project Fund	\$ 14,150	\$ 20,600	\$ 34,750
Refunding Escrow Deposits	82,045	-	82,045
Deposit to Capitalized Interest Fund	1,421	2,023	3,444
Cost of Issuance	534	122	656
Additional Proceeds	6	2	8
Total Uses of Funds	<u>\$ 98,156</u>	<u>\$ 22,747</u>	<u>\$ 120,903</u>

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*Note: Totals may not add due to rounding.*

*Source:*

*Morgan Stanley & Co. LLC (dated 08/24/2018)*

Exhibit C

BOND SERVICE CHARGES REQUIREMENT

Cleveland Airport System

For Fiscal Years Ending December 31

(In thousands, except as noted)

This exhibit is based on information from the sources indicated and assumptions provided by, or reviewed with and adopted by, Airport management, as described in the accompanying text. Inevitably, some assumptions used to develop the forecasts will not be realized, and unanticipated events and circumstances could occur. Therefore, the actual results will vary from those forecast, and the variations could be material.

Bond Service Charges Requirement	Historical			Forecast				
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Airport System Revenue Bonds								
Outstanding Bonds <sup>1</sup>	\$ 67,832	70,724	68,437	\$ 65,985	\$ 57,762	\$ 57,726	\$ 56,410	\$ 53,527
Series 2018 Bonds <sup>2</sup>	\$ -	\$ -	\$ -	\$ 1,300	\$ 14,229	\$ 14,080	\$ 13,508	\$ 13,146
Less: Capitalized Interest Portion	-	-	-	418	1,729	1,297	-	-
Total Bond Service Charges	\$ 67,832	\$ 70,724	\$ 68,437	\$ 66,867	\$ 70,262	\$ 70,509	\$ 69,918	\$ 66,673
Bond Service Charges Coverage	16,958	17,681	17,109	16,717	17,566	17,627	17,479	16,668
Total Bond Service Charges Requirement	\$ 84,790	\$ 88,405	\$ 85,547	\$ 83,583	\$ 87,828	\$ 88,137	\$ 87,397	\$ 83,341
Less: Other Available Funds								
Passenger Facility Charges	\$ 16,000	\$ 16,000	\$ 17,020	\$ 18,307	\$ 19,690	\$ 19,940	\$ 20,248	\$ 20,779
AIP Grants (LOI)	2,148	1,973	2,533	2,045	2,060	2,075	2,090	400
Transfers from other funds	-	-	-	-	-	-	-	-
Total Other Available Funds	\$ 18,148	\$ 17,973	\$ 19,553	\$ 20,352	\$ 21,750	\$ 22,015	\$ 22,338	\$ 21,180
Net Bond Service Charges Requirement	\$ 66,642	\$ 70,432	\$ 65,994	\$ 63,231	\$ 66,078	\$ 66,121	\$ 65,059	\$ 62,161

Note: Totals may not add due to rounding.

<sup>1</sup> Bond Service Charges for Outstanding Bonds includes debt service on variable rate demand obligations (Series 2008D, Series 2009D, Series 2013A, Series 2014A and Series 2014B) calculated in accordance with the Indenture. These Bonds are calculated at the following rates: 2008D--2.640%, 2009D--2.640%, 2013A--4.580%, 2014A--3.280% and Series 2014B--3.500%).

<sup>2</sup> The Series 2018 Bonds are being issued to pay costs associated with certain capital improvements of the Airport System, refund the outstanding Series 2009C Bonds, deposit monies in required funds per the Indenture and pay costs of issuance.

Sources:

Department of Port Control; Peregrine Advisors, LLC; Morgan Stanley & Co. LLC (August 24, 2018)

Exhibit D

AIRPORT SYSTEM OPERATING EXPENSES  
Cleveland Airport System  
For Fiscal Years Ending December 31  
(In thousands, except as noted)

This exhibit is based on information from the sources indicated and assumptions provided by, or reviewed with and adopted by, Airport management, as described in the accompanying text. Inevitably, some assumptions used to develop the forecasts will not be realized, and unanticipated events and circumstances could occur. Therefore, the actual results will vary from those forecast, and the variations could be material.

Operating Expenses by Type	Historical			Forecast				
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Salaries & Wages	\$ 20,743	\$ 21,860	\$ 22,145	\$ 24,330	\$ 25,060	\$ 25,561	\$ 26,200	\$ 26,986
Employee Benefits	8,499	8,646	9,092	10,158	10,475	10,710	11,056	11,469
Utilities	5,650	6,579	6,731	6,818	7,091	7,374	7,669	7,976
Contractual Services & Taxes	22,953	21,945	24,121	22,497	23,172	24,099	25,063	26,316
Materials & Supplies	3,558	3,815	4,680	5,194	5,350	5,511	5,676	5,846
Repairs & Maintenance	3,954	4,686	4,212	4,097	4,220	4,515	4,876	5,315
Claims, Refunds & Miscellaneous	1,526	3,715	3,438	3,519	3,625	3,734	3,846	3,961
Inter-Departmental Service Charges	8,413	8,666	8,525	9,049	9,411	9,693	9,984	10,283
Total Airport System Operating Expenses	<u>\$ 75,296</u>	<u>\$ 79,912</u>	<u>\$ 82,943</u>	<u>\$ 85,662</u>	<u>\$ 88,403</u>	<u>\$ 91,197</u>	<u>\$ 94,371</u>	<u>\$ 98,153</u>

*Note: Totals may not add due to rounding.*

*Sources:*

*Department of Port Control; Peregrine Advisors, LLC*



Exhibit E

AIRPORT SYSTEM REVENUES  
Cleveland Airport System  
For Fiscal Years Ending December 31  
(In thousands, except as noted)

This exhibit is based on information from the sources indicated and assumptions provided by, or reviewed with and adopted by, Airport management, as described in the accompanying text. Inevitably, some assumptions used to develop the forecasts will not be realized, and unanticipated events and circumstances could occur. Therefore, the actual results will vary from those forecast, and the variations could be material.

	Historical			Forecast				
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Airport System Revenues								
Airline Revenues								
Signatory Airline Revenues								
Terminal Complex Space Rentals	\$ 29,928	\$ 36,322	\$ 42,443	\$ 40,362	\$ 43,202	\$ 42,105	\$ 42,686	\$ 42,181
United Airlines Concourse D Payment	-	6,790	6,964	6,655	6,735	6,816	6,898	6,981
Landing Fees	45,252	34,627	29,097	33,448	27,817	26,487	25,994	25,333
Subtotal Signatory Airline Revenues	\$ 75,180	\$ 77,738	\$ 78,504	\$ 80,465	\$ 77,754	\$ 75,409	\$ 75,579	\$ 74,494
Non-Signatory Airline Landing Fees	2,076	1,957	1,960	734	619	585	583	566
Non-Signatory Airline Space Rentals	500	111	392	159	175	200	225	240
FIS Fees	366	364	325	397	409	422	434	447
Total Airline Revenues	\$ 78,123	\$ 80,170	\$ 81,180	\$ 81,756	\$ 78,957	\$ 76,615	\$ 76,821	\$ 75,747
Non-Airline Revenues								
Terminal Complex								
Rental Cars	\$ 10,407	\$ 10,920	\$ 10,755	\$ 10,869	\$ 11,430	\$ 11,686	\$ 11,879	\$ 12,215
Concession Revenues	4,425	6,268	3,739	5,639	6,728	7,066	7,431	7,889
Security Badging Fees	302	209	350	365	372	380	387	395
Space Rentals/Fees	2,124	2,106	4,611	4,726	5,645	5,814	5,989	6,168
Other Rentals/Fees	892	476	425	500	510	520	531	541
Utility Reimbursements/Other	1,507	1,172	1,146	1,187	1,222	1,259	1,297	1,336
Subtotal Terminal Complex	\$ 19,657	\$ 21,151	\$ 21,026	\$ 23,286	\$ 25,907	\$ 26,725	\$ 27,513	\$ 28,545
Parking & Roadways								
Automobile Parking	\$ 26,187	\$ 27,684	\$ 32,204	\$ 34,454	\$ 36,965	\$ 39,447	\$ 40,096	\$ 41,233
Employee Parking	758	824	1,062	1,010	1,040	1,079	1,111	1,152
Ride Share Fees	-	4	2,291	2,450	2,524	2,599	2,677	2,757
Commercial Vehicle Fees	-	-	-	-	1,800	1,825	1,855	1,907
Utility Reimbursements/Other	130	411	425	308	321	333	347	361
Subtotal Parking & Roadways	\$ 27,074	\$ 28,923	\$ 35,983	\$ 38,222	\$ 42,650	\$ 45,283	\$ 46,086	\$ 47,411
Airfield Area								
Fuel Flowage Fees	\$ 85	\$ 105	\$ 221	\$ 500	\$ 501	\$ 528	\$ 538	\$ 550
In-flight Catering	50	102	115	150	154	156	159	163
Utility Reimbursements/Other	222	95	210	200	208	216	225	234
Subtotal Airfield Area	\$ 357	\$ 302	\$ 547	\$ 850	\$ 864	\$ 901	\$ 922	\$ 947

Exhibit E (Continued)

AIRPORT SYSTEM REVENUES  
Cleveland Airport System  
For Fiscal Years Ending December 31  
(In thousands, except as noted)

This exhibit is based on information from the sources indicated and assumptions provided by, or reviewed with and adopted by, Airport management, as described in the accompanying text. Inevitably, some assumptions used to develop the forecasts will not be realized, and unanticipated events and circumstances could occur. Therefore, the actual results will vary from those forecast, and the variations could be material.

Airport System Revenues	Historical			Forecast				
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Hangars & Other Areas								
Concession and Ground Rents	\$ 4,754	\$ 5,560	\$ 5,099	\$ 5,100	\$ 5,263	\$ 6,490	\$ 6,704	\$ 6,932
Utility Reimbursements/Other	1,031	850	677	750	780	811	844	877
Subtotal Hangars & Other Areas	\$ 5,785	\$ 6,410	\$ 5,776	\$ 5,850	\$ 6,043	\$ 7,301	\$ 7,547	\$ 7,809
Total Non-Airline Revenues	\$ 52,874	\$ 56,787	\$ 63,330	\$ 68,208	\$ 75,464	\$ 80,209	\$ 82,069	\$ 84,711
Burke Lakefront Airport Revenues	1,391	1,590	1,454	1,450	1,479	1,509	1,539	1,570
Interest Income	95	192	377	825	1,158	1,581	1,827	2,006
Total Airport System Revenues	\$ 132,482	\$ 138,739	\$ 146,342	\$ 152,239	\$ 157,058	\$ 159,914	\$ 162,255	\$ 164,034

*Note: Totals may not add due to rounding.*

*Sources:*

*Department of Port Control; Peregrine Advisors LLC*

Exhibit F

SIGNATORY AIRLINE LANDING FEE AND AIRLINE COST PER ENPLANED PASSENGER  
Cleveland Airport System  
For Fiscal Years Ending December 31  
(In thousands, except as noted)

This exhibit is based on information from the sources indicated and assumptions provided by, or reviewed with and adopted by, Airport management, as described in the accompanying text. Inevitably, some assumptions used to develop the forecasts will not be realized, and unanticipated events and circumstances could occur. Therefore, the actual results will vary from those forecast, and the variations could be material.

Airport System Requirement	Historical			Forecast				
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Airport System Operating Expenses	\$ 75,296	\$ 79,912	\$ 82,943	\$ 85,662	\$ 88,403	\$ 91,197	\$ 94,371	\$ 98,153
Airport System Equipment Capital & Outlay	1,407	1,407	1,407	1,407	1,407	1,407	1,407	1,407
Airport System Bond Service Charges	67,832	70,724	68,437	66,867	70,262	70,509	69,918	66,673
Airport Development Fund	4,200	7,800	10,000	12,000	12,000	12,000	12,000	12,000
Total Airport System Requirement	\$ 148,735	\$ 159,843	\$ 162,788	\$ 165,936	\$ 172,073	\$ 175,113	\$ 177,695	\$ 178,233
Less Credits:								
Non-Airline Revenues	\$ 52,874	\$ 52,874	\$ 63,330	\$ 68,208	\$ 75,464	\$ 80,209	\$ 82,069	\$ 84,711
Allocable Passenger Credit Revenues	46,731	46,731	57,008	61,508	68,557	72,008	73,599	75,955
Other Non-Airline Revenues	6,142	6,142	6,322	6,700	6,907	8,201	8,469	8,756
Burke Lakefront Revenues	1,391	1,391	1,454	1,450	1,479	1,509	1,539	1,570
Signatory Airline Terminal Rentals <sup>1</sup>	29,928	36,322	42,443	40,362	43,202	42,105	42,686	42,181
Non-Signatory Airline Fees and Rentals	2,942	2,432	2,676	1,291	1,204	1,207	1,242	1,253
Interest Income	95	192	377	825	1,158	1,581	1,827	2,006
Other Available Funds	18,148	17,973	19,553	20,352	21,750	22,015	22,338	21,180
Total Credits	\$ 105,378	\$ 111,183	\$ 129,833	\$ 132,488	\$ 144,256	\$ 148,626	\$ 151,701	\$ 152,900
Signatory Airline Landing Fee Requirement				\$ 33,448	\$ 27,817	\$ 26,487	\$ 25,994	\$ 25,333
Signatory Airline Landed Weight (1,000-lb)				5,408	5,423	5,490	5,598	5,722
Signatory Landing Fee (per 1,000-lb unit)	\$ 7.12	\$ 8.33	\$ 5.74	\$ 6.18	\$ 5.13	\$ 4.82	\$ 4.64	\$ 4.43
(in 2018 Dollars)				\$ 6.18	\$ 5.00	\$ 4.58	\$ 4.30	\$ 4.00
Signatory Airline Cost Per Enplaned Passenger								
Signatory Airline Revenues (Exhibit E)	\$ 75,180	\$ 77,738	\$ 78,504	\$ 80,465	\$ 77,754	\$ 75,409	\$ 75,579	\$ 74,494
Signatory Enplaned Passengers (Exhibit A)	3,992	4,154	4,507	4,783	4,929	4,995	5,074	5,207
Signatory Airline Cost Per Enplaned Passenger	\$ 18.83	\$ 18.72	\$ 17.42	\$ 16.82	\$ 15.78	\$ 15.10	\$ 14.90	\$ 14.31
(in 2018 Dollars)				\$ 16.82	\$ 15.38	\$ 14.34	\$ 13.79	\$ 12.91

<sup>1</sup> Net of Allocable Passenger Credit Revenues.

Note: Totals may not add due to rounding.

Sources:

Department of Port Control; Peregrine Advisors, LLC

Exhibit G

BOND SERVICE CHARGES COVERAGE AND ADDITIONAL BONDS TEST  
Cleveland Airport System  
For Fiscal Years Ending December 31  
(In thousands, except as noted)

This exhibit is based on information from the sources indicated and assumptions provided by, or reviewed with and adopted by, Airport management, as described in the accompanying text. Inevitably, some assumptions used to develop the forecasts will not be realized, and unanticipated events and circumstances could occur. Therefore, the actual results will vary from those forecast, and the variations could be material.

		Historical <sup>1</sup>	Forecast				
Bond Service Charges Coverage		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Airport System Revenues		\$ 146,342	\$ 152,239	\$ 157,058	\$ 159,914	\$ 162,255	\$ 164,034
Other Available Funds:							
Passenger Facility Charges		17,020	18,307	19,690	19,940	20,248	20,779
AIP Grants (LOI)		2,533	2,045	2,060	2,075	2,090	400
Coverage Account Balance		18,258	18,509	18,764	19,039	19,319	19,609
Total Airport System Revenues		<u>\$ 184,153</u>	<u>\$ 191,100</u>	<u>\$ 197,572</u>	<u>\$ 200,968</u>	<u>\$ 203,912</u>	<u>\$ 204,823</u>
Less: Airport System Operating Expenses		82,943	85,662	88,403	91,197	94,371	98,153
Net Revenues	[A]	<u>\$ 101,209</u>	<u>\$ 105,438</u>	<u>\$ 109,169</u>	<u>\$ 109,771</u>	<u>\$ 109,541</u>	<u>\$ 106,669</u>
Bond Service Charges	[B]	\$ 68,437	\$ 66,867	\$ 70,262	\$ 70,509	\$ 69,918	\$ 66,673
Bond Service Charges Coverage	=[A]/[B]	1.48	1.58	1.55	1.56	1.57	1.60
<b>Additional Bonds Test</b>							
Airport System Revenues		\$ 146,342	\$ 152,239	\$ 157,058	\$ 159,914	\$ 162,255	\$ 164,034
Other Available Funds		37,811	38,861	40,514	41,054	41,657	40,789
		<u>\$ 184,153</u>	<u>\$ 191,100</u>	<u>\$ 197,572</u>	<u>\$ 200,968</u>	<u>\$ 203,912</u>	<u>\$ 204,823</u>
Less: Operating Expenses		82,943	85,662	88,403	91,197	94,371	98,153
Net Revenues	[C]	<u>\$ 101,209</u>	<u>\$ 105,438</u>	<u>\$ 109,169</u>	<u>\$ 109,771</u>	<u>\$ 109,541</u>	<u>\$ 106,669</u>
125% of Bond Service Charges	[D]=1.25x[B]	\$ 85,547	\$ 83,583	\$ 87,828	\$ 88,137	\$ 87,397	\$ 83,341

[C] is at least equal to or greater than [D]

*Note: Totals may not add due to rounding.*

<sup>1</sup> The FY 2017 Bond Service Charges Coverage presented in Exhibit G (1.48x) is based on a cash accounting basis for comparison purposes to the forecast period projections, and equates to the 1.50x Bond Service Charges Coverage level of 1.50x reported by the City on an accrual accounting basis for FY 2017.

Source:

Peregrine Advisors, LLC

## APPENDIX B

### DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS AND THE TRUST INDENTURE

The following is a summary of certain of the terms and provisions of the Amended and Restated Trust Indenture (Seventeenth Supplemental Trust Indenture dated as of November 1, 2011) effective as of January 31, 2012 (the “Trust Indenture”) and of the Use Agreements (defined below). The following summary does not purport to be a complete description of the Trust Indenture or the Use Agreements and is subject in all respects to the provisions of, and is qualified in its entirety by reference to, the Trust Indenture and the Use Agreements. The following summary supplements the information set forth elsewhere in this Official Statement and should be read in conjunction therewith. Capitalized terms used herein and not otherwise defined herein have the meaning given to such terms in the Official Statement or in the Trust Indenture.

#### DEFINITIONS

**“Additional Revenue Bonds”** means any Revenue Bonds authorized pursuant to and issued under the Trust Indenture on a parity with the outstanding Revenue Bonds, but will not include Special Revenue Bonds.

**“Aircraft Arrivals”** means any aircraft arrival at the Airport. Aircraft Arrivals shall be determined by the City’s Passive Secondary Surveillance Radar (“PASSUR”) or other such systems that accurately verify aircraft arrivals at the Airport, with Airline able to audit said systems or verify landings through said system upon Airline’s reasonable request for such audit or verification. A flight that returns to the Airport because of mechanical, meteorological, or other precautionary reasons, without landing at another airport, shall not be considered or included in an Aircraft Arrival.

**“Airport Revenues”** means (a) all rentals, charges, landing fees, use charges and concession revenues now or hereafter received by or on behalf of the City in its proprietary capacity as the owner of the Airport System in connection with the operation, improvement and enlargement of the Airport System, or any part thereof; (b) subject to the provisions of the Trust Indenture, all income or revenues resulting from the investment of any of the Special Funds; and (c) all gifts, grants, reimbursements or payments received from governmental units or public agencies for the benefit of the Airport System which are (i) not restricted in application to a special purpose and (ii) otherwise lawfully available for the payment of charges with respect to the Revenue Bonds. Airport Revenues will not include any passenger facility charge or tax which may be authorized by the United States Congress (unless the City otherwise elects) or any revenue or income from any Special Facilities to the extent such revenue or income is pledged to pay principal, interest or any other charges for Special Revenue Bonds or other obligations issued in anticipation thereof, or to the extent such revenue or income is for the use of the City in reimbursement of costs incurred by it in the construction or provision of Special Facilities.

**“Airport System”** means Cleveland Hopkins International Airport and Burke Lakefront Airport.

**“Airport System Expense”** means the amount determined pursuant to the Use Agreements for purposes of computing the landing fee and certain other payments and deposits.

**“Annual Budget”** means the annual budget of the Airport System prepared by the City for the succeeding Fiscal Year.

**“Annual Reports”** means the reports prepared by the City’s Director of Port Control pursuant to the Use Agreements.

**“Assumed Amortization Period”** means the period of time specified in paragraph (a) or paragraph (b) below, as selected by the Fiscal Officer:

(a) Five years; or

(b) The period of time, exceeding five years, set forth in a written opinion delivered to the City, of an investment banker selected by the City and experienced in underwriting indebtedness of the character of the Revenue Bonds, as being not longer than the maximum period of time over which indebtedness having comparable terms and security issued or incurred by similar issuers of comparable credit standing would, if then being offered, be marketable on reasonable and customary terms.

**“Assumed Interest Rate”** means the rate per annum (determined as of the last day of the calendar month next preceding the month in which the determination of the Assumed Interest Rate is being made except for the initial determination for Balloon Bonds of any series which will occur on the date of issuance of such series) set forth in an opinion delivered to the City of an investment banker selected by the City and experienced in underwriting indebtedness of the character of the Revenue Bonds, as being not lower than the lowest rate of interest at which indebtedness having comparable terms, security and federal tax status amortized on a level debt service basis over a period of time equal to the Assumed Amortization Period, and issued or incurred by similar issuers of comparable credit standing would, if being offered as of the date of such opinion, be marketable on reasonable and customary terms; provided that such rate will be neither (a) lower than the lower of (i) the rate specified in the Fixed Rate Index, as in effect on the date of such opinion, or (ii) the rate on fixed rate Revenue Bonds of the City having comparable terms (except for interest rate), security and federal tax status as the Balloon Bonds and issued on or not more than 30 days prior to the date of such opinion, nor (b) higher than the highest rate permitted by law at which such Revenue Bonds could be sold on that day.

**“Balloon Bonds”** means any Revenue Bonds, or notes issued in anticipation thereof, including any Variable Rate Bonds, if (a) 25% or more of the principal payments of which are due in a single year, excluding any such principal payments that are subject to mandatory sinking fund requirements in a prior year, or (b) 25% or more of the principal of which may, at the option of the holder or holders thereof, or will, upon the occurrence of events specified in the Bond proceedings providing for those Revenue Bonds or notes, be redeemed or tendered at one time.

**“Bond Insurer”** means, with respect to a series of Revenue Bonds, any issuer of a municipal bond insurance policy insuring the payment of the principal of and interest on the Revenue Bonds of that series.

**“Completion Date”** means, for each Project or component thereof, the cost of which is to be paid in whole or in part from the proceeds of a series of Revenue Bonds, the date on which such Project, or component thereof, is substantially completed and placed in service, as evidenced pursuant to Section 6.03 of the Trust Indenture.

**“Credit Provider”** means, with respect to a series of Revenue Bonds, the provider of any Credit Support Instrument for the payment of Bond service charges for that series of Revenue Bonds specified in the applicable Supplemental Indenture.

**“Credit Support Instrument”** means letters of credit, lines of credit, stand-by, contingent, or firm securities purchase agreements, insurance, surety arrangements, guarantees, and other arrangements

that provide for direct or contingent payment of Bond service charges on Revenue Bonds, debt charges on Subordinated Indebtedness or General Obligation Debt or amounts owed under Hedge Agreements, or for security in the event of nonpayment of those Bond service charges, debt charges or other amounts, or upon certain conditions occurring under put or similar arrangements, or for otherwise supporting the credit or liquidity of Revenue Bonds, Subordinated Indebtedness, General Obligation Debt or Hedge Agreements, and includes credit, reimbursement, marketing, remarketing, indexing, carrying, and subrogation agreements, and other agreements and arrangements for payment and reimbursement of the person providing the credit support.

**“Defeasance Obligations”** means Government Obligations and Government Certificates.

**“Eligible Investments”** means and includes any of the following, if and to the extent the same are at the time legal for the investment of the City’s money:

- (a) Government Obligations and Government Certificates;
- (b) Obligations issued or guaranteed by any of the following:
  - (i) Federal Home Loan Bank System,
  - (ii) Export-Import Bank of the United States,
  - (iii) Federal Financing Bank,
  - (iv) Government National Mortgage Association,
  - (v) Farmers Home Administration,
  - (vi) Federal Home Loan Mortgage Company,
  - (vii) Federal Housing Administration,
  - (viii) Private Export Funding Corp.,
  - (ix) Federal National Mortgage Association,
  - (x) Federal Farm Credit Bank, and
  - (xi) Resolution Trust Corporation,

or any indebtedness issued or guaranteed by any instrumentality or agency of the United States;

(c) Pre-refunded municipal obligations rated in the highest rating category by at least two Rating Agencies and meeting the following conditions:

- (i) (A) such obligations are not to be redeemed prior to maturity or the Trustee has been given irrevocable instructions concerning their call for redemption, and (B) the issuer of such obligations has covenanted not to redeem such obligations other than as set forth in such instructions;
- (ii) such obligations are secured by Government Obligations or Government Certificates that may be applied only to interest, principal, and premium payments on such obligations;
- (iii) the principal of and interest on such Government Obligations or Government Certificates (plus any cash in the escrow fund with respect to such pre-refunded obligations) are sufficient to meet the liabilities of the obligations;
- (iv) the Government Obligations or Government Certificates serving as security for the obligations are held by an escrow agent or trustee; and

(v) such Government Obligations or Government Certificates are not available to satisfy any other claims, including those against the trustee or escrow agent;

(d) Direct and general long-term obligations of any state of the United States of America or the District of Columbia (a “state”), to the payment of which the full faith and credit of such state is pledged and that are rated in either of the two highest rating categories by at least two Rating Agencies;

(e) Direct and general short-term obligations of any state, to the payment of which the full faith and credit of such state is pledged and that are rated in the highest rating category by at least two Rating Agencies;

(f) Interest-bearing demand or time deposits with, or interests in money market portfolios rated AAA-m by S&P issued by state banks or trust companies or national banking associations that are members of the Federal Deposit Insurance Corporation (“FDIC”). Such deposits or interests must be (i) continuously and fully insured by FDIC, (ii) if they have a maturity of one year or less, with or issued by banks that are rated in one of the two highest short-term rating categories by at least two Rating Agencies, (iii) if they have a maturity longer than one year, with or issued by banks that are rated in one of the two highest rating categories by at least two Rating Agencies, or (iv) fully secured by Government Obligations or Government Certificates. Such Government Obligations or Government Certificates must have a market value at all times at least equal to the principal amount of the deposits or interests. The Government Obligations or Government Certificates must be held by a third party (who will not be the provider of the collateral), or by any Federal Reserve Bank or depository, as custodian for the institution issuing the deposits or interests. Such third party will have a perfected first lien in the Government Obligations or Government Certificates serving as collateral, and such collateral is to be free from all other third party liens;

(g) Eurodollar time deposits issued by a bank with a deposit rating in one of the two highest short-term credit rating categories by at least two Rating Agencies;

(h) Repurchase agreements, (i) the maturities of which are 30 days or less or (ii) the maturities of which are longer than 30 days and not longer than one year, provided the collateral subject to such agreements is marked to market daily, and in either case is entered into with financial institutions such as banks or trust companies organized under state law or national banking associations, insurance companies, or government bond dealers reporting to, trading with, and recognized as a primary dealer by, the Federal Reserve Bank of New York and a member of the Security Investors Protection Corporation (“SIPC”), or with a dealer or parent holding company that is rated investment grade (“A” or better) by at least two Rating Agencies. The repurchase agreement will be in respect of Government Obligations or Government Certificates or obligations described in paragraph (b) of this definition. The repurchase agreement securities and, to the extent necessary, Government Obligations and Government Certificates or obligations described in paragraph (b), exclusive of accrued interest, will be maintained in an amount equal to at least 103% of the amount invested in the repurchase agreements. In addition, the provisions of the repurchase agreement will meet the following additional criteria:

(i) the third party (who will not be the provider of the collateral) has possession of the repurchase agreement securities and the Government Obligations or Government Certificates;

(ii) failure to maintain the requisite collateral levels will require the third party having possession of the securities to liquidate the securities immediately; and



(iii) the third party having possession of the securities has a perfected, first priority security interest in the securities;

(i) Public housing bonds issued by public agencies. Such bonds must be: (i) fully secured by a pledge of annual contributions under a contract with the United States of America; (ii) temporary notes, preliminary loan notes, or project notes secured by a requisition or payment agreement with the United States of America; or (iii) obligations of a State, public agency or municipality rated in the highest credit rating category by at least two Rating Agencies;

(j) Money market accounts of any state or federal bank, or bank whose holding parent company is rated in one of the two highest short-term or long-term rating categories by at least two Rating Agencies;

(k) Investment agreements, the issuer or guarantor of which is rated in one of the two highest rating categories by at least two Rating Agencies; and

(l) Any debt or fixed income security, the issuer of which is rated in the highest rating category by at least two Rating Agencies.

Ratings of Eligible Investments referred to herein will be determined at the time of purchase of such Eligible Investments and without regard to ratings subcategories. As used in this definition of Eligible Investments, unless provided otherwise in a Supplemental Indenture, "Rating Agency" means Fitch, Moody's or S&P.

**"Fiscal Officer"** means the Director of Finance of the City.

**"Fiscal Year"** means the twelve-month period commencing on January 1 of any year and expiring on December 31 of such year.

**"Fitch"** means Fitch Ratings, and its successors and assigns, or, if such firm will be dissolved or liquidated or will no longer perform the functions of a securities rating service, Fitch means any other nationally recognized securities rating service designated by the City.

**"Fixed Rate Index"** means (a) if the outstanding Revenue Bonds (without regard to any credit enhancement) are rated not lower than A3 by Moody's or A by S&P, the yields for Aaa insured bonds as provided by Municipal Market Data or any successor thereto and published or made available in *The Bond Buyer* or similar publication, or, if Municipal Market Data ceases to provide that index, then such other publicly available and comparable index selected by the City and acceptable to the Rating Agencies, and (b) if the outstanding Revenue Bonds (without regard to any credit enhancement) are rated lower than the aforesaid ratings by either Rating Agency, the Revenue Bond Index or successor index published in *The Bond Buyer*, or, if *The Bond Buyer* ceases to publish such an index, then such other publicly available and comparable index selected by the City and not disapproved by the Trustee after reasonable notice from the City.

**"General Obligation Debt"** means the general obligation notes and bonds issued by the City in connection with the financing of improvements and additions to the Airport System. Currently there is no outstanding General Obligation Debt.

**"Governing Body"** means the Council of the City.

**"Government Certificates"** means (in the case of Government Obligations) evidences of ownership of proportionate interests in future interest or principal payments of Government Obligations,

including depository receipts thereof. Investments in such proportionate interest must be limited to circumstances wherein (a) a bank or trust company acts as custodian and holds the underlying Government Obligations; (b) the owner of the investment is the real party in interest and has the right to proceed directly and individually against the obligor of the underlying Government Obligations; and (c) the underlying Government Obligations are held in a special account, segregated from the custodian's general assets, and are not available to satisfy any claim of the custodian, any person claiming through the custodian, or any person to whom the custodian may be obligated.

**“Government Obligations”** means direct and general obligations of, or obligations the timely payment of principal and interest on which are unconditionally guaranteed by, the United States of America.

**“Hedge Agreement”** means an interest rate swap, swap option, rate cap, rate collar and other arrangements undertaken with respect to Revenue Bonds or Subordinated Indebtedness to reduce costs of borrowing or optimize relative amounts of fixed and variable rate obligations or reduce the risk of variations in debt service costs, including without limitation, arrangements by which different interest costs or receipts at, between or among fixed or variable interest rates, or at different fixed or variable interest rates or maturities are exchanged in respect of Revenue Bonds or Subordinated Indebtedness.

**“Majority In Interest”** means either: (i) fifty percent (50%) or more in number of all the Scheduled Airlines, which percentage has, on the date in question, more than fifty percent (50%) of the aggregate by Maximum Landing Weight of Aircraft Arrivals of all Scheduled Airlines at the Airport during the latest twelve-month period for which such figures are available as to all Scheduled Airlines; or (ii) forty percent (40%) or more in number of all Scheduled Airlines, which percentage has, on the date in question, more than fifty-five percent (55%) of the aggregate by Maximum Landing Weight of Aircraft Arrivals of all Scheduled Airlines at the Airport during the latest twelve-month period for which such figures are available as to all Scheduled Airlines.

**“Maximum Landing Weight”** means the maximum weight, in 1,000 pound units, at which each aircraft operated by Airline or the Signatory Airlines is authorized to land at the Airport, as specified in Airline's flight manual approved by the Federal Aviation Administration governing that type of aircraft, and as may be accurately verified by the City.

**“Moody's”** means Moody's Investors Service, Inc., a corporation existing under the laws of the State of Delaware, its successors and assigns, and, if such corporation will no longer perform the functions of a securities rating agency, “Moody's” will mean any other nationally recognized rating agency designated by the City.

**“Operating Expenses”** means all costs and expenses for the operation, maintenance, repair and administration of the Airport System in order to maintain, repair and operate the Airport System in a reasonable and prudent manner, and including items normally included as essential expenses in the operating budget of a municipally owned facility comparable to the Airport System, and including without limiting the generality of the foregoing: (a) insurance premiums; (b) the City's administrative expenses allocable to the Airport System (including, without limitation, engineering, architectural, legal, consultants, and accounting fees and expenses); (c) the City's Airport System employees' compensation (including, without limitation, costs of worker's compensation insurance and all employee fringe benefits applicable to such employees from time to time); (d) any taxes or assessments, whether general or special, which are lawfully imposed on the Airport System or on the revenue or income derived from the operation thereof; (e) charges for electricity, water, telephone and other public or private utility services; (f) fees and expenses of the Trustee and Paying Agents; (g) fees and expenses of independent engineers, architects, consultants, accountants and attorneys retained by the City in connection with the Trust Indenture; (h) fees and expenses of any remarketing agent for Revenue Bonds and fees and expenses of

any Credit Facility Provider for Revenue Bonds; and (i) other reasonable current expenses, which will include repayment to the City for any moneys voluntarily advanced from its general funds to the Airport System, and all as calculated and determined in accordance with generally accepted accounting practices. Operating Expenses will not include: (i) any such expenses (including payment of principal, interest and redemption premium, if any, on Special Revenue Bonds paid or incurred by the City in connection with a Special Facility) to the extent such expenses are not properly includable in the City's Annual Budget; (ii) Bond service charges; (iii) debt service on General Obligation Debt; (iv) any charges for depreciation or obsolescence, or reserves therefor, amortization of intangibles or other bookkeeping entries of a similar nature; (v) any other expenses for which or to the extent to which the City has been reimbursed from or through any source whatsoever (including the Renewal and Replacement Fund, the Airport Improvement Fund, or any similar funds or accounts), and the amount so received or credited, or to be received or credited, is not included or includable as Airport Revenues; (vi) expenditures for capital improvements to the Airport System; (vii) losses from the sale, abandonment, reclassification, revaluation or other disposition of any properties of the Airport System; and (viii) to the extent any Use Agreements restrict the expenses associated with Burke Lakefront Airport that may be considered in the rates and charges to be paid by the Signatory Airlines, all maintenance, operating and administrative expenses attributable to the operation of Burke Lakefront Airport and all debt service on General Obligation Bonds issued by the City in connection with improvements at Burke Lakefront Airport, to the extent that such expenses and debt service exceed the Burke Deficit as defined in the Use Agreements and as adjusted pursuant to Section 8.05(b)(vi) thereof.

**“Original Indenture”** means the Trust Indenture, dated as of November 1, 1976, between the City and the Trustee, as amended by the First Supplemental Trust Indenture dated as of April 1, 1990, the Second Supplemental Trust Indenture dated as of August 1, 1994, the Third Supplemental Trust Indenture dated as of November 1, 1997, the Fifth Supplemental Trust Indenture dated as of October 15, 2003, and the Sixth Supplemental Trust Indenture dated as of January 1, 2006, each between the City and the Trustee, which Original Indenture was amended and restated by the Amended and Restated Trust Indenture (Seventeenth Supplemental Trust Indenture dated as of November 1, 2011) effective January 31, 2012.

**“Other Available Funds”** means any moneys transferred to the Revenue Fund by the City from any other Special Fund, including without limitation, moneys transferred to the Revenue Fund from the Airport Development Fund, and any moneys not otherwise constituting Airport Revenues and deposited in, or transferred to, the Revenue Fund or the Bond Service Fund, including without limitation Passenger Facility Charges; provided that such moneys have not been taken into account in the calculation of the amount of Bond service charges on outstanding Revenue Bonds with the effect of reducing those Bond service charges.

**“Outstanding Bonds”, “Outstanding Revenue Bonds” or “Revenue Bonds outstanding”, “Outstanding” or “outstanding”** means all Revenue Bonds which have been authenticated and delivered or are then being delivered, by the Trustee, as of any date, under the Trust Indenture except: (i) Revenue Bonds surrendered for exchange or transfer or cancelled because of payment or redemption at or prior to such date; (ii) Revenue Bonds for the payment, redemption or purchase for cancellation of which sufficient moneys have been deposited prior to such date with the Trustee (whether upon or prior to the maturity or redemption date of any such Revenue Bonds), or which are deemed to have been paid and discharged pursuant to the provisions of the Indenture; provided that if such Revenue Bonds are to be redeemed prior to the maturity thereof, notice of such redemption will have been given or arrangements satisfactory to the Trustee will have been made therefor, or waiver of such notice satisfactory in form to the Trustee will have been filed with the Trustee, and provided further that if such Revenue Bonds are to be purchased for cancellation, a firm offer for sale stating the price has been received and accepted; and

(iii) lost, stolen, mutilated or destroyed Revenue Bonds in lieu of which others have been authenticated (or payment, when due, of which is made without replacement) under the Trust Indenture.

**“Paying Agent”** means the Trustee and any other commercial bank or trust institution organized under the laws of any State of the United States of America or any national banking association designated by any applicable supplemental indenture as paying agent for the Revenue Bonds at which the principal of and redemption premium, if any, and interest on such Bonds will be payable.

**“Qualified Hedge Agreement”** means a Hedge Agreement provided that: (a) the City’s obligations to the Hedge Counterparty in respect of periodic, interest-equivalent payments are insured by a policy of insurance or financial guarantee issued by a monoline insurance company with a claims paying ability rating at the time of issuance from S&P or Fitch of AAA or a financial strength rating from Moody’s of Aaa or an equivalent rating determined by another nationally recognized ratings service, or (b) the Hedge Counterparty does not have any right to terminate the Hedge Agreement, or to require collateral to be posted by the City, upon the downgrade of the City’s credit rating by S&P or Moody’s or Fitch or other nationally recognized ratings service, or (c) the Hedge Agreement permits the City to elect to satisfy any payment owed to the Hedge Counterparty upon early termination in annual installments over a period of not less than five years.

**“Rating Agency”** means, with respect to any series of Revenue Bonds, Moody’s, S&P, or Fitch, or any other nationally recognized credit rating agency or agencies specified as such in the applicable Supplemental Indenture.

**“Renewal and Replacement Fund Requirement”** means, an amount not less than the greater of (i) 2% of the aggregate principal amount of Airport Revenue Bonds Outstanding, from time to time, or (ii) \$5,000,000.

**“Required Bond Service Reserve”** means as of any date of calculation an amount equal to the highest annual Bond service charges to be paid on the Revenue Bonds in any Fiscal Year.

**“Revenue Bonds”** or **“Bonds”** means the Revenue Bonds issued and outstanding from time to time under the Trust Indenture.

**“Revenue Bond Anticipation Notes”** means any notes issued in anticipation of the issuance of a series of Additional Revenue Bonds.

**“Series Bond Legislation”** means, with respect to any series of Revenue Bonds, the ordinance passed by the Governing Body authorizing the issuance of such series of Revenue Bonds.

**“Series Bond Proceedings”** means, with respect to any series of Revenue Bonds, the Series Bond Legislation for such series of Revenue Bonds, any resolution of award or Series Certificate of Award applicable to such series of Revenue Bonds and the Supplemental Indenture authorizing the issuance of such Revenue Bonds.

**“Series Certificate of Award”** means, with respect to any series of Revenue Bonds, a certificate executed on behalf of the City by the Director of Finance, setting forth and determining, pursuant to the applicable Series Bond Legislation and subject to any limitations, restrictions, and requirements as may be specified therein, such terms, conditions, and other details of such series of Revenue Bonds (including, without limitation, the original purchasers thereof) as are authorized to be set forth and determined therein by such Series Bond Legislation.

**“Signatory Airline (or Scheduled Airline)”** means any Air Carrier that has entered into an agreement with the City substantially similar to the Use Agreements and either (a) commits to lease from the City one or more preferential gates and holdroom space located in the Terminal Complex and either (i) four or more ticketing counters positions in the ticketing lobby and Airport Ticketing Office space, or (ii) at least 1,000 square feet of combined ticketing or office space in the ticketing lobby or Ramp Area; or (2) in the case of an all-cargo Air Carrier commits to concurrently sign a lease for a cargo building or other premises containing at least 5,000 square feet, if that space is available. If that minimum amount of square footage is not available for lease to an all-cargo Air Carrier, the City’s Director of Port Control may grant Signatory Airline status to an all-cargo Air Carrier leasing a lesser amount of space until such time as additional space becomes available.

**“Special Facility or Facilities”** means any hangar, maintenance buildings, or any other facility, improvement, or structure to be acquired or constructed on the Airport System, the cost of construction, acquisition, maintenance and operation of which are financed by Special Revenue Bonds and user charges.

**“Special Funds”** under the Trust Indenture means collectively the Revenue Fund, the Construction Fund, the Bond Service Fund, the Bond Service Reserve Fund, the Operating and Maintenance Fund, the Subordinated Debt Service Fund, the General Obligation Debt Service Fund, the Renewal and Replacement Fund, the Airport Development Fund (and the Airport Account and the Airline Account therein), and any other funds or accounts permitted by, established under, or identified in the Trust Indenture, except the Rebate Fund.

**“Special Revenue Bonds”** means revenue bonds or obligations authorized and issued by the City for the purpose of acquiring, constructing or improving a Special Facility to be leased to, or contracted for operation by, any person or entity, including the City, with the income therefrom to be used for the payment of sums adequate to pay all principal, interest, redemption premiums, if any, and reserves, if any, as required in the legislation authorizing such Special Revenue Bonds and all operating expenses incurred in the operation of the Special Facility. Special Revenue Bonds are not issued under or secured by the Trust Indenture.

**“S&P”** means S&P Global Ratings, a division of S&P Global, Inc., a corporation existing under the laws of the state of New York, its successors and assigns, and, if such corporation will no longer perform the functions of a securities rating agency, “S&P” will mean any other nationally recognized rating agency designated by the City.

**“Subordinated Indebtedness”** means any obligation or evidence of indebtedness incurred by the City in accordance with the Trust Indenture, the debt service charges on which are payable and secured on a basis subordinate to the Bond service charges on Revenue Bonds. In determining the interest payable with respect to any Subordinated Indebtedness, there will be included any amounts owed by the City to a provider of a Credit Support Instrument for that Subordinated Indebtedness and to a counterparty under any Hedge Agreement relating to that Subordinated Indebtedness in respect of periodic, interest equivalent payments but not any amounts owed in respect of early termination of any Hedge Agreement.

**“Trust Indenture”** means the Amended and Restated Trust Indenture (Seventeenth Supplemental Trust Indenture dated as of November 1, 2011) between the City and the Trustee that amended and restated the Original Indenture, effective January 31, 2012.

**“Variable Rate Bond”** means any Revenue Bond that does not bear interest throughout its term at a fixed rate, but that does bear interest at a rate that, during part or the entirety of the term of such Revenue Bond, varies from time to time based upon a formula or other method of determination set forth in the applicable Supplemental Indenture, subject to a maximum rate of interest set forth therein. Once

the rate of interest on any Revenue Bond that had been a Variable Rate Bond becomes fixed for the balance of the period until its maturity that Revenue Bond will cease to be a Variable Rate Bond. A Revenue Bond will not be deemed a Variable Rate Bond solely on the basis that the rate of interest thereon may be adjusted if such interest becomes includable in gross income for purposes of federal income taxation.

## **SUMMARY OF CERTAIN PROVISIONS OF THE USE AGREEMENTS**

Each of the Use Agreements between the City and the Signatory Airlines is in substantially the same form. The Use Agreements consist of the Agreement and Lease, effective as of the later of January 1, 2017 or the date it was signed by the Signatory Airline. Each Use Agreement generally provides that the Signatory Airline will pay rentals for space occupied at the Airport and will pay landing fees in consideration for the rights to use the Airport granted under the Use Agreement. The Use Agreements enable the City to adjust the landing fees and rentals of the Signatory Airlines to provide Airport Revenues sufficient to meet the financial requirements of the Airport System, including debt service.

### **Term**

The current Use Agreements terminate at midnight on December 31, 2021 with two, two-year options to extend based upon mutual acceptance of the City and Signatory Airlines.

### **Calculation of Signatory Airline Payments**

The Use Agreements require the City to prepare and submit to the Signatory Airlines, at least 90 days prior to each Fiscal Year, Annual Reports setting forth (a) the proposed Annual Budget (as defined in the Use Agreements) for the Airport System for the next Fiscal Year, reflecting all estimated Airport System maintenance, operating and administrative expenses and certain capital improvements; (b) a schedule of all debt service to accrue in such Fiscal Year in connection with Revenue Bonds, any Subordinated Indebtedness, any General Obligation Debt, any Credit Support Instrument and any Hedge Agreement; (c) a statement of estimated Airport Revenues for such Fiscal Year from parties other than the Signatory Airlines; (d) a schedule of the capital improvements proposed for the succeeding term which are subject to Majority In Interest review; and (e) the City's calculation of rentals and landing fees for such Fiscal Year.

The Use Agreements, while permitting the Signatory Airlines to raise objections to the Annual Reports, authorize the City to adopt the Annual Budget substantially in accordance with the proposed Annual Reports, as it may have been revised as a result of the City's giving due consideration to Signatory Airline's suggestions, comments or requests. A Majority In Interest of the Signatory Airlines, however, may disapprove capital improvements which will be funded through rentals, fees and charges and which will require the commitment by the City for the purchase or construction of (a) a single item at a cost of \$500,000 or more, or (b) items which in the aggregate cost in excess of \$2,000,000. If such capital improvements are not approved, the City may still budget the cost of such capital improvements for the next Fiscal Year under certain circumstances unless the Signatory Airlines file an action for declaratory judgment in a court of competent jurisdiction contesting either the justification for the proposed capital improvements based on factors set forth in the Use Agreements or the reasonableness of the City's method of financing the costs of such improvements. If, after diligent prosecution by the Signatory Airlines of such action, it is dismissed by Signatory Airlines or a ruling thereon is ultimately made in favor of the City, the City may then proceed with the capital improvements at issue.

The Use Agreements authorize the City to adjust rentals and landing fees annually to reflect budgeted Airport Revenues, debt service coverage, and Airport System Expense (including debt service

and capital improvements) included in the Annual Report for the Fiscal Year. In addition, if at any time during a Fiscal Year, Airport Revenues are insufficient to pay, when due, all items included in the Annual Reports for such Fiscal Year or to pay any other expense or cost incidental or necessary to, or arising out of, the operation of the Airport System, the City may at any time during such Fiscal Year, upon 90 days' notice to the Signatory Airlines, increase landing fees to such amount as is sufficient to assure the City that all such items, costs and expenses will be paid in full solely from Airport Revenues. The Use Agreements also permit the landing fees to be adjusted if any of the quarterly statements for a Fiscal Year vary by more than 10% from the projected landing fees for such quarter. Finally, if the audited financial statements for any Fiscal Year indicate that Airport Revenues did not equal Airport System Expenses, the difference will be charged to the Signatory Airlines over the remaining billing periods of the then current Fiscal Year. In the event that the landing fees produce Airport Revenues in excess of Airport System Expenses and a rebate is to be made to any Signatory Airlines, the City will reduce landing fees paid by general aviation users so that the resulting reduction in landing fees charged to general aviation users will equal any rebate paid to the Signatory Airlines.

Landing fees may not be payable by the Signatory Airlines in any period during which the Airport is closed or none of the Signatory Airlines are landing aircraft and, if such period is an extended one, Airport Revenues could be adversely affected.

### **Incentive Compensation**

As an incentive to the City to provide efficient management of the Airport System, the Use Agreements provide that deposits will be made to the Airport Account of the Airport Development Fund (the City's discretionary account) in an amount not to exceed \$12,000,000 in equal monthly installments from the balance remaining in the Operating and Maintenance Fund after all other deposits have been made pursuant to the Use Agreement.

### **Damage or Destruction**

The Use Agreements generally require that, prior to payment and discharge of all Revenue Bonds (or provision for their payment having been made), the Signatory Airlines must continue to pay rentals and landing fees without abatement or reduction if the leased premises are damaged or partially or totally destroyed by a casualty. The portion of the leased premises that was damaged or destroyed will generally be repaired from insurance proceeds, after payment of any expenses of obtaining or recovering them, as well as any additional moneys necessary therefor. To the extent such proceeds are insufficient to pay the costs of repair, each Signatory Airline is required to pay the costs of repairing the premises leased by such Signatory Airline. In addition, the City and the Signatory Airlines may determine to issue Additional Revenue Bonds to pay such costs. If Revenue Bonds are outstanding, any excess insurance proceeds will be paid into the Revenue Fund.

### **Condemnation**

The Use Agreements generally require that, prior to payment and discharge of all Revenue Bonds (or provision for their payment having been made), the Signatory Airlines must continue to pay rentals and landing fees without abatement or reduction if title to or temporary use of the Airport System or any part of the Airport System is taken under the exercise of eminent domain. The proceeds of any condemnation award will be used to restore the remaining facilities of the Airport System to substantially the same prior condition or to acquire additional land or improvements. Any remaining net proceeds of a condemnation award will be used to redeem Revenue Bonds if any Revenue Bonds are then subject to redemption.

## **Events of Default and Remedies**

Events of default under the Use Agreements include:

- (a) the failure of the Signatory Airline to pay rentals, landing fees or other payments within ten days after written demand for such payment;
- (b) the failure of the Signatory Airline to observe and perform any other covenant, condition or agreement on its part to be observed or performed and to remedy same, or commence action which will promptly remedy same which action is thereafter diligently pursued, within 30 days after written notice is given by the City to the Signatory Airline;
- (c) any execution or attachment will be issued against the Signatory Airline in connection with its operations at the Airport System and will not be discharged within 90 days after levy or seizure thereunder or the leased premises will be occupied by someone other than the Signatory Airline;
- (d) the City will determine that the Signatory Airline has deserted or vacated the leased premises;
- (e) the Signatory Airline will violate any provision of any insurance policy referred to in the Use Agreement resulting in such policy becoming void or unenforceable and the Signatory Airline will not cure the violation or the inadequate insurance within 10 days after written notice; or the Signatory Airline will in any way fail to perform and satisfy the requirements of any insurance policy referred to in the Use Agreement and the Signatory Airline will fail to conform to such requirements within 30 days after written notice; and
- (f) the occurrence of certain events of bankruptcy.

Unless governmental restrictions or any other cause beyond its control have prevented the defaulting Signatory Airline from curing any event of default (other than a non-payment default), or the Signatory Airline is contesting or protesting such default, the City may, in addition to other remedies, reenter the leased premises and terminate the Use Agreement. The defaulting Signatory Airline is thereupon required to pay all amounts then owing to the City, and the City may relet the leased premises. The defaulting Signatory Airline is also required to pay to the City each month, as liquidated damages, an amount equal to the difference between amounts received from subsequent users of the leased premises and the monthly rentals, fees and charges which would have been payable had the Signatory Airline maintained the same average monthly level of operations at the Airport as the Signatory Airline maintained during the calendar year preceding the default.

## **Assignment and Subletting**

The Signatory Airline may not assign or sublet the leased premises without the prior approval of the City, but no such approval is required for the assignment of the Use Agreement to an Affiliate (as defined in the Use Agreement), subject to certain requirements, or to any corporation with which the Signatory Airline may merge or consolidate or which may succeed to the Signatory Airline's business.

## **Signatory Airline's Right to Terminate**

After either the payment in full of the Revenue Bonds or the aggregation of moneys in certain funds sufficient to pay and redeem the Revenue Bonds then outstanding, a Signatory Airline may terminate its Use Agreement. A Signatory Airline may also terminate its Use Agreement if, as a result of



any legislative action of the United States or any action or non-action of any federal or other governmental agency, such Signatory Airline will cease to have the necessary authority to transport persons, property and mail at the Airport; however, no Signatory Airline will have the right to terminate the Use Agreement under such circumstances, unless such governmental action or non-action was not requested by the Signatory Airline, the Signatory Airline made all reasonable efforts to prevent it, and it was not part of legislative action affecting any other Signatory Airline.

### **Expiration of the Use Agreements**

The City may agree, in its sole discretion, to permit a Signatory Airline to continue a tenancy at the Airport on a month-to-month basis. The City or the Signatory Airline may terminate that month-to-month tenancy upon 30 days' prior written notice to the other. During such tenancy, the Signatory Airline will pay to the City the same rates of rental and landing fees as were in effect at the expiration of the term of the Use Agreement, as subsequently adjusted as provided in the Use Agreement, unless different rates are agreed upon. The Signatory Airline will be bound by all of the additional provisions of the Use Agreement insofar as they may be pertinent.

## **SUMMARY OF CERTAIN PROVISIONS OF THE TRUST INDENTURE**

### **Pledge of Airport Revenues**

Revenue Bonds issued under the Trust Indenture are secured by a pledge and assignment of the Airport Revenues and the Special Funds. For a description of the Special Funds, see "SECURITY FOR THE SERIES 2018 BONDS – Allocation of Airport Revenues to Special Funds, – Bond Service Reserve Fund, – Renewal and Replacement Fund, and – Airport Development Fund." Neither Revenue Bonds nor the Trust Indenture constitute general obligation debt of the City, and the general resources of the City will not be required to be used, nor the full faith and credit of the City be pledged, for the performance of any duty thereunder, and the holders of Revenue Bonds will have no right to have excises or taxes levied by the City Council or any taxing authority of the State of Ohio or any political subdivision for the payment of debt service on the Revenue Bonds.

The City has assigned to the Trustee all its rights and interests in and to the Use Agreements for the benefit of the Holders of the Revenue Bonds. The City covenants in the Trust Indenture to instruct the Signatory Airlines and all other users of the Airport System, including concessionaires and other aircraft operators, to pay directly to the Trustee all amounts due to the City as the owner and operator of the Airport System.

The City will hold all amounts received by it from the Trustee pursuant to the Trust Indenture in trust and such moneys will be held separate and apart from, and will not be commingled with, the general funds or any other funds of the City. The City will restrict the use and application of such amounts in the manner set forth in the Trust Indenture. The amounts held by the City are pledged to the payment of Bond service charges on the Revenue Bonds, subject to the condition that such amounts will be appropriated, transferred, expended or used for the purposes of the Airport System as provided in the Trust Indenture.

### **Additional Bonds Test**

Additional Revenue Bonds may be issued by the City if there will have been received by the Trustee, among other things, a written report of the Airport Consultant that the projected Airport Revenues together with Other Available Funds, during each of the five complete Fiscal Years immediately following the issuance of the Additional Revenue Bonds, less the projected Operating Expenses during each of such Fiscal Years, are at least equal to 125% of the Bond service charges on all

outstanding Revenue Bonds, including the Additional Revenue Bonds proposed to be issued, due during each of those five Fiscal Years, less, in each case, such Bond service charges on any Revenue Bonds that are to be redeemed or retired with the proceeds of such Additional Revenue Bonds. An alternative coverage ratio applies if there is General Obligation Debt of the City Outstanding for Airport System purposes. Currently, there is none.

A written report of the Airport Consultant is not required upon the issuance of Additional Revenue Bonds (1) when Airport Revenues, together with Other Available Funds, less Operating Expenses, for 12 of the past 18 months immediately preceding the proposed issuance of Additional Revenue Bonds or for the most recent Fiscal Year for which audited financial statements are available, are at least equal to 125% of Bond service charges on all Outstanding Revenue Bonds, including the Additional Revenue Bonds proposed to be issued, in each of the three complete Fiscal Years immediately following the issuance of the Additional Revenue Bonds, evidenced by a written certificate of the Director of Finance of the City delivered to the Trustee, (2) to refund Revenue Bonds when either the refunding will result in aggregate net present value debt service savings or in each bond year that Bond service charges were payable on the refunded Revenue Bonds, the Bond service charges on the refunding Revenue Bonds are not greater than the Bond service charges on the refunded Revenue Bonds or the maximum annual Bond service charges on all Revenue Bonds to be Outstanding after the issuance of such Additional Revenue Bonds will not be greater than the maximum annual Bond service charges on all Revenue Bonds Outstanding prior to the issuance of such Additional Revenue Bonds, evidenced by a written certificate of the Director of Finance of the City delivered to the Trustee, or (3) to provide additional funds for the completion of a capital improvement project for which a series of Revenue Bonds has been issued, provided the principal amount of the Additional Revenue Bonds does not exceed 10% of the total cost of such project.

### **Computation of Bond Service Charges**

The City may exclude from the calculation of Bond service charges on Outstanding Revenue Bonds due in any Fiscal Year under any provision of the Trust Indenture, principal and/or interest on Revenue Bonds for which sufficient moneys have been irrevocably deposited with the Trustee prior to the date of calculation, including, without limitation, Capitalized Interest Payments, passenger facility charges or other moneys not otherwise constituting Airport Revenues deposited in the Bond Fund, amounts deposited with the Trustee to defease Outstanding Revenue Bonds and Net Proceeds of insurance or condemnation awards deposited in the Bond Fund.

For purposes of determining whether Additional Revenue Bonds may be issued in compliance with the Additional Bonds Test, the debt service coverage ratio calculation will exclude from the aggregate amount of Bond service charges amounts to be paid from revenues that are not then included in the pledged Airport Revenues if the City has contractually agreed (in the case of Outstanding Revenue Bonds) or will contractually agree (in the case of Additional Revenue Bonds) to make deposits from those revenues into the Bond Service Fund under a payment schedule specified in the applicable Supplemental Indenture and those revenues have not been counted as Other Available Funds in the debt service coverage calculation.

For purposes of determining whether Additional Revenue Bonds issued for the purpose of refunding Revenue Bonds may be issued in compliance with the Additional Bonds Test, the Bond service charges for such Additional Revenue Bonds will be used in lieu of Bond service charges for the Revenue Bonds being refunded.

Any series of Additional Revenue Bonds may be issued as Variable Rate Bonds. The Supplemental Indenture applicable to any series of Variable Rate Bonds will specify the method and procedure by which the rate of interest to be borne thereby will be determined and may provide for the

right of the holders thereof to tender such Variable Rate Bonds for purchase by the City at the times, on the terms, and subject to the conditions set forth therein.

In the event that all or any portion of any series of Additional Revenue Bonds have been issued as or are proposed to be issued as Variable Rate Bonds, then in order to compute the Bond service charges on such Additional Revenue Bonds for the purposes of the Trust Indenture, the following rules will apply:

(a) For the purpose of determining compliance with the rate covenant for any period prior to the date of calculation, the rate of interest borne by such Variable Rate Bonds, including Variable Rate Bonds which are Balloon Bonds, will be deemed to be the actual weighted average rate in effect thereon during such period;

(b) For the purpose of determining whether Additional Revenue Bonds may be issued in compliance with the Additional Bonds Test, regardless of whether such Additional Revenue Bonds are to be Variable Rate Bonds, the rate of interest borne by any outstanding Variable Rate Bonds, except for Variable Rate Bonds which are Balloon Bonds, will be deemed to be the highest of (i) the highest rate of interest borne by such Variable Rate Bonds during the preceding twelve months or such shorter period that such Variable Rate Bonds may have been outstanding, (ii) the actual rate on the date of calculation, (iii) if the outstanding Variable Rate Bonds have been outstanding for at least twelve months, the average rate over the twelve months immediately preceding the date of calculation, or (iv)(A) if interest on the outstanding Variable Rate Bonds is excludable from gross income under the applicable provisions of the Internal Revenue Code, the most recently published Fixed Rate Index plus fifty (50) basis points, or (B) if interest is not so excludable, the interest rate on direct U.S. Treasury Obligations with comparable maturities plus fifty (50) basis points; and

(c) For the purpose of determining whether Additional Revenue Bonds that are to be Variable Rate Bonds may be issued in compliance with the Additional Bonds Test, and for the purpose of determining the amount of the Required Bond Service Reserve attributable to those Additional Revenue Bonds, those Additional Revenue Bonds will be deemed to bear interest at the Assumed Interest Rate and to be amortized on the basis of the Assumed Amortization Period;

(d) If the City has entered into a Hedge Agreement with respect to any Variable Rate Bonds under which the City will make fixed interest rate payments in exchange for a Hedge Counterparty making variable rate payments to the City, (i) at the election of the City, those Variable Rate Bonds may be assumed to bear interest at the fixed rate of interest simulated by the Hedge Agreement, in lieu of the rate determined under the above clauses (a), (b) or (c) and (ii) for purposes of determining compliance with the rate covenant, payments owed and received under the Hedge Agreement may be netted against each other for purposes of determining the interest paid on the Variable Rate Bonds.

(e) For the purpose of determining whether any outstanding Variable Rate Bond is deemed paid and discharged under the Trust Indenture, such Variable Rate Bond will be deemed to bear interest at the actual rate of interest borne thereby for the remainder of the period that such rate will remain in effect, and for any subsequent period prior to the time at which such Variable Rate is actually to be paid and discharged, such Variable Rate Bond will be deemed to bear interest at the maximum rate of interest such Variable Rate Bond may bear pursuant to the Series Bond Proceedings.

All or any portion of any series of Additional Revenue Bonds may be issued as Balloon Bonds. Regarding any Additional Revenue Bonds that are or are to be Balloon Bonds, for the purpose of (a) determining compliance with the rate covenant for any period prior to the date of calculation (except for

Revenue Bonds that are to be issued as Variable Rate Bonds), (b) determining whether Additional Revenue Bonds, regardless of whether they are to be Balloon Bonds, may be issued in compliance with the Additional Bonds Test when any Balloon Bonds are outstanding, (c) determining whether Additional Revenue Bonds that are to be Balloon Bonds may be issued in compliance with the Additional Bonds Test, and (d) determining the amount of the Required Bond Service Reserve attributable to such Balloon Bonds, the Bond service charges on such Additional Revenue Bonds will be determined:

(i) if such Balloon Bonds are not Capital Appreciation Bonds (as defined in the Trust Indenture), by assuming that such Bonds are to be amortized on the basis of level debt service over the Assumed Amortization Period at the Assumed Interest Rate; and

(ii) if such Balloon Bonds are Capital Appreciation Bonds, by assuming that the Appreciated Principal Amount (as defined in the Trust Indenture) of such Bonds at maturity is to be amortized on the basis of level principal payments over the Assumed Amortization Period.

All or any portion of any series of Additional Revenue Bonds may be issued as Capital Appreciation Bonds. Regarding any Additional Revenue Bonds that are or are to be Capital Appreciation Bonds, for the purpose of (a) determining compliance with the rate covenant for any period prior to the date of calculation, (b) determining whether Additional Revenue Bonds, regardless of whether they are to be Capital Appreciation Bonds, may be issued in compliance with the Additional Bonds Test when any Capital Appreciation Bonds are outstanding, (c) determining whether Additional Revenue Bonds that are to be Capital Appreciation Bonds may be issued in compliance with the Additional Bonds Test, and (d) determining the amount of the Required Bond Service Reserve attributable to such Capital Appreciation Bonds, the Bond service charges on such Additional Revenue Bonds will include the Appreciated Principal Amounts at maturity.

Bond service charges will not include payments potentially required to be made by the City under any Reimbursement Agreement to reimburse any Credit Provider for payments made to pay the principal of or interest or any premium on Revenue Bonds, but Bond service charges will include such payments if the City's obligation to make such payments will have accrued and become actual.

In anticipation of the issuance of any series of Additional Revenue Bonds, the City may issue one or more series of Revenue Bond Anticipation Notes. All requirements of the Trust Indenture applicable to Revenue Bonds will apply to Revenue Bond Anticipation Notes, including, without limitation the conditions precedent for the issuance of a series of Revenue Bonds. For the purpose of (a) determining compliance with the rate covenant for any period prior to the date of calculation, (b) determining whether Additional Revenue Bonds may be issued in compliance with the Additional Bonds Test when any Revenue Bond Anticipation Notes are outstanding, (c) determining whether Revenue Bond Anticipation Notes may be issued in compliance with the Additional Bonds Test and (d) determining the amount of the Required Bond Service Reserve attributable to such Revenue Bond Anticipation Notes, the Bond service charges payable on any Revenue Bond Anticipation Notes will be computed for purposes of the Trust Indenture in the same manner as for Balloon Bonds.

### **Credit Providers**

In addition to the Airport Revenues payable into the Special Funds and other amounts, proceeds, moneys, investments, rights, and interests pledged and assigned by the City to the Trustee under the Trust Indenture to secure the payment of the Bond service charges on the Revenue Bonds, the Supplemental Indenture for any series of Additional Revenue Bonds may provide for a Credit Support Instrument applicable to such series of Revenue Bonds without any requirement that the security or protection

afforded by such Credit Support Instrument extend or apply to the Revenue Bonds of any other series. Provided that the Credit Support Instrument is in full force and effect and the Credit Provider has made all payments and met its obligations under the Credit Support Instrument and is not in any insolvency proceedings, then the Supplemental Indenture for any series of Revenue Bonds to which any such Credit Support Instrument applies may include provisions permitting the Credit Provider to act as, or in the place of, the holders of such Revenue Bonds for the purposes and on the terms and conditions set forth in such Supplemental Indenture.

### **Bond Service Reserve Fund**

In connection with any issuance of Additional Revenue Bonds, and provided that the City maintains a rating on Outstanding Revenue Bonds determined without regard to any credit enhancement (an underlying rating), the City may, in the applicable Supplemental Indenture, provide that no deposit to the Bond Service Reserve Fund will be made for or with respect to such Additional Revenue Bonds, in which case: (a) the holders of such Additional Revenue Bonds will have no right or entitlement to have any portion of the Bond service charges on such Additional Revenue Bonds be paid from amounts in the Bond Service Reserve Fund, (b) the lien of and pledge on the Bond Service Reserve Fund will not extend to or be for the benefit of the holders of such Additional Revenue Bonds, and (c) the Bond service charges on such Additional Revenue Bonds will not be taken into account in determining the Required Bond Service Reserve. In the event that the Supplemental Indenture applicable to an issue of Additional Revenue Bonds provides as described in the preceding sentence, then such Supplemental Indenture may also provide for the creation of a special reserve fund solely for such Additional Revenue Bonds, separate from the Bond Service Reserve Fund, and may provide for the deposit therein, at the time of issuance or in one or more subsequent deposits thereto, of an amount specified in the applicable Supplemental Indenture as the required reserve for such Additional Revenue Bonds, or may require the City to provide a municipal bond insurance policy, a bank letter or line of credit, or a surety bond to enhance the security for such Additional Revenue Bonds in lieu of a funded reserve fund, provided that such credit facility meets certain requirements set forth in the Trust Indenture. If the Supplemental Indenture applicable to such a series of Additional Revenue Bonds so provides for such a special reserve fund and further requires that deposits be made thereto from Airport Revenues at any time, then such deposits may be made from Airport Revenues on a parity with payments made to the Bond Service Reserve Fund to replenish any cash withdrawals from the Bond Service Reserve Fund.

In addition, if the Supplemental Indenture applicable to a series of Additional Revenue Bonds provides as described in the immediately preceding paragraph, then such Supplemental Indenture will also provide that the amount of any defaulted interest or principal on such series of Revenue Bonds, which would have been timely paid had the Required Bond Service Reserve for those Revenue Bonds been fully funded in the Bond Service Reserve Fund, will be paid from Airport Revenues on a parity with payments to be made to any providers of credit facilities held for the Bond Service Reserve Fund in lieu of cash and investments to reimburse those providers for claims or draws on those credit facilities.

### **Subordinated Indebtedness**

The City may, at any time and from time to time, issue or incur Subordinated Indebtedness for the purpose of financing any capital improvement to the Airport System. In addition, any amounts owed by the City to a Hedge Counterparty in respect of termination of a Qualified Hedge Agreement will be considered as Subordinated Indebtedness. Subordinated Indebtedness is secured by, and is payable from, Airport Revenues on a basis subordinate to payment of Bond service charges on Revenue Bonds, the replenishment of the Bond Service Reserve Fund and the payment of maintenance and operating expenses of the Airport System.

Any supplemental indenture providing for the issuance of Subordinated Indebtedness will provide that the trustee for such Subordinated Indebtedness will have no right, power or authority to cause acceleration of such Subordinated Indebtedness unless and until the Trustee has exercised its power to accelerate the Revenue Bonds.

### **Particular Covenants**

Payment: The City will pay, solely from the sources provided in the Trust Indenture, the Bond service charges on the Revenue Bonds on the dates and at the places and in the manner mentioned in the Revenue Bonds, and it will faithfully observe and perform at all times all agreements, covenants, undertakings, stipulations and provisions contained in the Series Bond Proceedings, in the Trust Indenture and in every Revenue Bond executed, authenticated and delivered under the Trust Indenture and in all proceedings of the Governing Body pertaining to the Revenue Bonds.

Maintenance and Operation of Airport System: The City will, but only from Airport Revenues, maintain or cause to be maintained the Airport System in a good state of repair and sound operating condition, will with reasonable diligence prudently develop, improve, and at all times operate in an economical and efficient manner the Airport System, and will comply with all valid acts, rules, regulations, orders and directions of any executive, legislative, administrative or judicial body applicable to the Airport System.

Payment of Taxes and Claims: The City will cause the payment of all lawful taxes, assessments and charges at any time levied or assessed upon or against the Airport Revenues or the Airport System, and will not create or suffer to be created any debt, lien or charge on the Airport System or on the Airport Revenues.

Insurance: To the extent reasonably obtainable at a reasonable cost, the City will procure, and maintain at all times while any of the Revenue Bonds will be outstanding, insurance covering the Airport System and its operations.

Accounting Records and Financial Statements: The City will have an annual audit of the Airport System made by nationally recognized independent certified public accountants in accordance with generally accepted accounting principles, and will furnish a copy of such audit to the Trustee promptly upon its completion along with a copy of the financial statements and reports which are regularly prepared by the City.

Tax-Exempt Status of Bonds: With respect to Revenue Bonds issued as obligations bearing interest that is excluded from gross income for federal income tax purposes, the City will take or cause to be taken such actions that may be required of it for the interest on those Revenue Bonds to be and to remain excluded from gross income for federal income tax purposes and will not omit to take any actions that may be required of it for that purpose.

Rates and Charges: So long as any Revenue Bonds are outstanding, the City will at all times prescribe and charge such rates, fees and charges for the use of the Airport System, its services and supplies, and will provide for the charging of such rates, fees and charges and the making of payments to the City of such rentals or other considerations for the use and operation of the Airport System, so as to produce, in each fiscal year, Airport Revenues, together with Other Available Funds, less Operating Expenses at least equal to 125% of the amount maturing and becoming due in such fiscal year for the payment of principal of and interest on all Outstanding Revenue Bonds.

## Supplemental Indentures

The City and the Trustee, without the consent of the Bondholders, may enter into supplemental indentures for the following purposes: correcting ambiguities or inconsistencies in the Trust Indenture, granting additional rights to the Trustee, subjecting additional revenues to the lien of the Trust Indenture, adding to the covenants of the City, evidencing any succession of the City with respect to the Airport System, in connection with the issuance of Additional Revenue Bonds in accordance with the Trust Indenture, complying with Federal tax or securities laws, making further provisions for use of a book entry system of registration, to permit the Trustee to comply with obligations imposed on it, to specify further the duties of and relationship among the Trustee, Bond Registrar and any Authenticating Agents or Paying Agents, and to permit any other amendment that, in the judgment of the Trustee, will not materially adversely affect the interests of the Trustee or the holders of Revenue Bonds.

With the consent of the holders of not less than two-thirds in aggregate principal amount (and Appreciated Principal Amount) of the Revenue Bonds then outstanding, the City and the Trustee may enter into supplemental indentures modifying, altering, amending, adding to or rescinding any of the terms or provisions of the Trust Indenture. No such supplemental indenture, however, will (a) extend the maturity of the principal of or the interest on any Revenue Bond issued under the Trust Indenture, or reduce the principal amount thereof, or reduce the rate or extend the time of payment of interest thereon, or reduce any premium payable or redemption thereof, or extend the time of any payment required by any mandatory sinking fund requirements, without the consent of the holder of each Revenue Bond affected thereby, or (b) permit a privilege or priority of any Revenue Bond or Revenue Bonds, or a reduction in the aggregate principal amount of the Revenue Bonds required for consent to such supplemental indenture, without the consent of the holders of all of the Revenue Bonds then outstanding.

*Effective upon obtaining the consent of all of the holders of all Outstanding Revenue Bonds, the Trust Indenture requirement that the consent of the holders of not less than two-thirds of the aggregate principal amount of all outstanding Revenue Bonds be obtained for amendments of the Trust Indenture subject to bondholder consent is to be amended so that the holders of a majority in aggregate principal amount of all Outstanding Revenue Bonds may consent to such amendments. In addition, upon obtaining such consent, the provision in the Trust Indenture requiring the consent of all holders of all Outstanding Revenue Bonds to any amendment reducing the percentage of holders whose consent is required is to be eliminated.*

## Events of Default

Each of the following occurrences or events is declared to be an Event of Default under the Trust Indenture:

- (a) The failure to make payment of any interest on any Revenue Bond when and as the same will have become due.
- (b) The failure to make payment of the principal or mandatory sinking fund payment of, or any premium on, any Revenue Bond when and as the same will become due, whether at the stated maturity thereof, by acceleration or call for redemption.
- (c) The filing by the City of a petition for reorganization or rearrangement or readjustment of its obligations under the provisions of any bankruptcy or moratorium laws or similar laws relating to or affecting creditors' rights.
- (d) Default in the performance or observance of any other of the covenants, agreements or conditions on the part of the City included in the Trust Indenture or in the Revenue

Bonds and the continuance thereof for a period of 90 days after written notice to the City given by the Trustee or the holders of not less than 25% in aggregate principal amount of Revenue Bonds then outstanding.

### **Remedies for Default**

Upon the occurrence of an Event of Default the Trustee may, and upon the request of the holders of at least 25% in aggregate principal amount of Revenue Bonds outstanding, the Trustee will, declare the principal of all Revenue Bonds to be immediately due and payable. The Trustee may require indemnification before taking any such action under the Trust Indenture. The Trust Indenture does not require the filing of any periodic evidence as to the absence of default or as to compliance with the Trust Indenture.

Upon the occurrence of an Event of Default, the City will, upon demand of the Trustee, surrender control of any Special Funds held by the City and possession of the Airport System to the Trustee, and the Trustee may operate the Airport System for the benefit of the holders of Revenue Bonds.

Provision has been made, and may be made, in Supplemental Indentures for Revenue Bonds secured by a Credit Support Instrument that the Credit Provider will be deemed to be the holder of all the Revenue Bonds secured by that Credit Support Instrument and may act in the place of the holders of those Revenue Bonds for purposes of (i) making requests and giving directions and consents to the Trustee and exercising any and all other rights which Bondholders would have the power and authority to make, give, or exercise with respect to remedies under the Trust Indenture as a result of the occurrence and continuation of an Event of Default, and (ii) making or giving any other consent, direction, or approval permitted or required under the Trust Indenture to be made or given by holders of Revenue Bonds secured by that Credit Support Instrument.

### **Waiver of Events of Default**

The Trustee may in its discretion waive any event of default at the request of the holders of 25% in aggregate principal amount (and Appreciated Principal Amount) of Revenue Bonds then outstanding; provided, however, an event of default occasioned by the failure to pay principal or interest may not be waived until such principal or interest payment, plus penalty interest at the rate borne by the Revenue Bonds, and all expenses of the Trustee, will be paid.

At any time after the Revenue Bonds have been accelerated and before a receiver has been appointed and confirmed and if all sums then due on the Revenue Bonds (other than pursuant to the acceleration) have been paid and all existing defaults have been cured, the holders of not less than 25% in aggregate principal amount of all Revenue Bonds then outstanding may rescind such acceleration.

### **Defeasance**

If the City will pay or cause to be paid the principal of, premium, if any, and interest due on the outstanding Revenue Bonds at the times and in the manner stipulated in the Trust Indenture, and will have paid all fees and charges of the Trustee and any Paying Agents, the Trust Indenture will cease, determine and become null and void, and the Trustee will release the Trust Indenture and discharge the lien thereof.

Any outstanding Revenue Bonds of one or more series will be deemed to have been paid and discharged within the meaning of the Trust Indenture if:

- (a) the Trustee and the Paying Agents will hold, in trust for and irrevocably committed thereto, sufficient moneys, or



(b) the Trustee will hold, in trust for and irrevocably committed thereto, Defeasance Obligations which an independent public accounting firm of national reputation certifies to be of such maturities and interest payment dates and to bear such interest as will, without further investment or reinvestment of either the principal amount thereof or the interest earnings therefrom (likewise to be held in trust and committed, except as hereinafter provided), be sufficient together with moneys referred to in (a) above, for the payment, at their maturity, redemption or due date, as the case may be, of all Bond service charges thereon to the maturity, redemption, or due date, as the case may be, or if default in such payment will have occurred on such date, then to the date of the tender of such payment;

provided, that if any of such Revenue Bonds are to be redeemed prior to the stated maturity thereof, notice of such redemption will have been duly given or irrevocable provision satisfactory to the Trustee will have been duly made for the giving of such notice, which provision, however, will be subject to change as to the date or dates specified for such redemption as described below.

If a forward supply contract is employed in connection with the defeasance (a) the verification report will expressly state that the adequacy of the escrow to accomplish the defeasance relies solely on the initial Defeasance Obligations and the maturing principal thereof and interest income thereon and does not assume performance under or compliance with the forward supply contract and (b) the applicable escrow agreement will provide that in the event of any discrepancy or difference between the terms of the forward supply contract and the escrow agreement, the terms of the escrow agreement will be controlling.

Any moneys held by the Trustee for the defeasance of Revenue Bonds may be invested by the Trustee but only in Defeasance Obligations the maturities or redemption dates of which, at the option of the Trustee, will coincide as nearly as practicable with, but not later than, the time or times at which those moneys will be required to pay Bond service charges. Any income or interest earned by, or increment to, the investments held will, to the extent determined from time to time by the Trustee to be in excess of the amount required to be held by it for the purpose, be transferred to the City free and clear of the lien of the Trust Indenture, pursuant to instructions by the Fiscal Officer.

In the event that the Trust Indenture is satisfied and discharged and if, but only if, the City will then so direct the Trustee, the holders of any Revenue Bonds then outstanding, the maturity or redemption dates of which have not then arrived, may (to the extent that such will not be in conflict with the provisions of a trust agreement, if any, under which the Trustee holds moneys and/or Defeasance Obligations and will not result in insufficient moneys to pay Bond service charges on other Revenue Bonds at maturity or redemption) as of and on any Interest Payment Date or Dates stated in such direction by the City to the Trustee, surrender those Revenue Bonds to a Paying Agent and, upon such surrender, be paid the principal amount of any Revenue Bond surrendered, with any applicable redemption premium, as stated in the direction by the City to the Trustee, plus interest accrued on any such Revenue Bond so surrendered. Such right may be exercised only after the holders of any such Revenue Bonds to be surrendered have given written notice to the Trustee, at least 70 days (or such other period as may be stated in such direction to the Trustee) before the Interest Payment Date on which they request such payment, of their intent so to surrender the Revenue Bonds for such payment and setting forth in such notice the Revenue Bonds to be surrendered. If any Revenue Bond as to which such notice of intent has been given is not surrendered on or before such Interest Payment Date, surrender thereof for payment need not be accepted at any time thereafter prior to maturity or call for redemption. After receiving the aforesaid directions from the City and within 30 days after such discharge and satisfaction of the Trust Indenture, the Trustee will give Bondholders notice of the provisions described in this paragraph in the same manner as provided for in the Trust Indenture for mailing notice of redemption of Revenue Bonds.

In the case of discharge and satisfaction of the Trust Indenture pursuant to an advance refunding, a second notice of such discharge and satisfaction will be given by the Trustee to the holders of the Revenue Bonds so affected, by the same manner as provided for the mailing of notice of redemption, at least 30 days prior to the actual redemption date of such Revenue Bonds.

Notwithstanding the foregoing, those provisions of the Trust Indenture or any Supplemental Indenture relating to the maturity of Revenue Bonds, interest payments and dates thereof, optional and mandatory redemption provisions, credit against mandatory sinking fund installments, exchange, transfer and registration of Revenue Bonds, replacement of mutilated, destroyed, lost, or wrongfully taken Revenue Bonds, the safekeeping and cancellation of Revenue Bonds, non-presentment of Revenue Bonds, the holding of moneys in trust, repayments to the City from the Special Funds, compliance with any applicable Federal tax law and the duties of the Trustee in connection with all of the foregoing, will remain in effect and will be binding upon the Trustee and the Bondholders notwithstanding the release and discharge of the lien of the Trust Indenture.

### **Condemnation and Destruction**

In the event of the condemnation or destruction of the Airport System or a portion thereof, the net proceeds of any insurance or condemnation award will be applied to reconstruct or restore the Airport System to substantially the same level as prior to such condemnation or destruction. The Trust Indenture does not provide for any extraordinary optional redemption of Revenue Bonds in the event of condemnation or destruction of the Airport System, but any excess net proceeds not required to reconstruct or restore the Airport System may, and in the event of condemnation will, be used to redeem Revenue Bonds then subject to redemption.

### **Investments of Amounts in Special Funds**

Moneys held in any Special Fund maintained by the Trustee will be invested in Eligible Investments by the Trustee at the written request of the City's Director of Finance, and moneys held in any Special Fund maintained by the City will be invested by the City only in Eligible Investments. Any such investment will be deemed at all times a part of the Special Fund from which the investment has been made, and profits and losses on such investments will be credited or charged, as the case may be, to such Special Funds; provided that earnings on amounts in the Bond Service Reserve Fund which are not needed to satisfy the Required Bond Service Reserve will be transferred to the City for deposit in the Renewal and Replacement Fund.

### **Release of Property**

The Trust Indenture provides that the City may remove from the Airport System any unimproved and unneeded part of the real property or interests in real property comprising part of the Airport System, and may grant easements with respect to any such real property or interests therein, upon delivery of certain documents to the Trustee, including the following:

- (a) An ordinance adopted by the City's Council stating that the City is not in default under the Trust Indenture, giving an adequate legal description of the real property to be released, stating the purpose for which the release is desired and the improvements to be made on such real property, and requesting its release from the lien of the Trust Indenture; and
- (b) A certificate of an Airport Consultant stating that real property proposed to be released is not otherwise needed for, or has become inexpedient to use in connection with, the Airport System, and that such release would not impair the City's ability to produce Airport

Revenues sufficient to meet all the requirements to be met therefrom under the Trust Indenture and the Revenue Bonds.

The Trust Indenture also permits the City to sell Burke Lakefront Airport at any time without having to deliver an ordinance of the City Council or a certificate of an Airport Consultant. All net proceeds of the sale of Burke Lakefront Airport, after reimbursing the Airport System for all amounts paid from any of the Special Funds in excess of the Burke Deficit (as defined in the Use Agreement), will be paid to the City and may be applied by the City for any purpose, whether or not related to the Airport System.

The proceeds from the sale of any other real property or interests in real property, which are part of the Airport System, as improved with the proceeds from the sale of Revenue Bonds, will be deposited in the Revenue Fund, except where in conflict with agreements between the City and the United States of America. The proceeds from the sale of any future-acquired property will be payable to the City after reimbursing the Airport System for all costs and expenses incurred by the Airport System in connection with the acquisition, improvement and disposition of any such future-acquired property.

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## **APPENDIX C**

### **FORM OF OPINION OF BOND COUNSEL**

To: City of Cleveland, Ohio

Morgan Stanley & Co. LLC, as Representative of the Underwriters

The Bank of New York Mellon Trust Company, N.A.

We have served as bond counsel to our client the City of Cleveland, Ohio (the “City”) in connection with the issuance by the City of its \$87,940,000 Airport System Revenue Bonds, Series 2018A (AMT) (the “Series 2018A Bonds”), and \$21,745,000 Airport System Revenue Bonds, Series 2018B (Non-AMT) (the “Series 2018B Bonds” and, together with the Series 2018A Bonds, the “Series 2018AB Bonds”), each dated the date of this letter.

The Series 2018AB Bonds are issued pursuant to the authority of the Constitution and laws of the state of Ohio, the Charter of the City, Ordinance No. 1364-17 passed by the Council of the City on November 20, 2017 and Ordinance No. 666-18 passed by the Council of the City on May 21, 2018 (together, the “Bond Legislation”). The Series 2018AB Bonds are issued and secured under the Amended and Restated Trust Indenture (Seventeenth Supplemental Trust Indenture dated as of November 1, 2011), effective January 31, 2012 (the “Trust Indenture”), between the City and The Bank of New York Mellon Trust Company, N.A., as successor trustee (the “Trustee”), as supplemented by the Twenty-third Supplemental Trust Indenture, dated October 4, 2018 (the “Twenty-third Supplemental Indenture” and, together with the Trust Indenture, the “Indenture”), between the City and the Trustee. Capitalized terms not otherwise defined in this letter are used as defined in the Indenture.

In our capacity as bond counsel, we have examined the transcript of proceedings relating to the issuance of the Series 2018AB Bonds, a copy of the signed and authenticated Bond of the first maturity for each series of Series 2018AB Bonds, a certified copy of the Bond Legislation, an executed counterpart of the Trust Indenture, an executed counterpart of the Twenty-third Supplemental Indenture, and such other documents, matters and law as we deem necessary to render the opinions set forth in this letter.

Based on that examination and subject to the limitations stated below, we are of the opinion that under existing law:

1. The Series 2018AB Bonds and the Indenture are valid and binding obligations of the City, enforceable in accordance with their respective terms.
2. The Series 2018AB Bonds constitute special obligations of the City, and the principal of and interest on (collectively, “debt service”) the Series 2018AB Bonds, together with debt service on any other obligations issued and outstanding on a parity with the Series 2018AB Bonds as provided in the Trust Indenture, are payable from and secured solely by the Airport Revenues and Special Funds established under the Trust Indenture. The payment of debt service on the Series 2018AB Bonds is not secured by an obligation or pledge of any money raised by taxation, and the Series 2018AB Bonds do not represent or constitute a general obligation or a pledge of the faith and credit of the City, the State of Ohio or any of its political subdivisions.

3. Interest on the Series 2018AB Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the “Code”), except interest on any Series 2018A Bond for any period during which it is held by a “substantial user” or a “related person,” as those terms are used in Section 147(a) of the Code. Interest on the Series 2018A Bonds is an item of tax preference under Section 57 of the Code and therefore may be subject to the alternative minimum tax imposed on individuals and, for taxable years beginning before January 1, 2018, corporations under the Code. Interest on the Series 2018B Bonds is not an item of tax preference for purposes of the federal alternative minimum tax; however, interest on the Series 2018B Bonds is included in the calculation of a corporation’s adjusted current earnings for purposes of, and thus may be subject to, the corporate alternative minimum tax (applicable only to taxable years beginning before January 1, 2018). Interest on, and any profit made on the sale, exchange or other disposition of, the Series 2018AB Bonds are exempt from all Ohio state and local taxation, except the estate tax, the domestic insurance company tax, the dealers in intangibles tax, the tax levied on the basis of the total equity capital of financial institutions, and the net worth base of the corporate franchise tax. We express no opinion as to any other tax consequences regarding the Series 2018AB Bonds.

The opinions stated above are based on an analysis of existing laws, regulations, rulings and court decisions and cover certain matters not directly addressed by such authorities. In rendering all such opinions, we assume, without independent verification, and rely upon (i) the accuracy of the factual matters represented, warranted or certified in the proceedings and documents we have examined, (ii) the due and legal authorization, execution and delivery of those documents by, and the valid, binding and enforceable nature of those documents upon, any parties other than the City and (iii) the due authorization, signing and delivery by, and the binding effect upon and enforceability against, the Trustee of the Indenture.

We express no opinion herein regarding the priority of the lien on Airport Revenues and Special Funds or other funds created by the Indenture.

In rendering those opinions with respect to treatment of the interest on the Series 2018AB Bonds under the federal tax laws, we further assume and rely upon compliance with the covenants in the proceedings and documents we have examined, including those of the City. Failure to comply with certain of those covenants subsequent to issuance of the Series 2018AB Bonds may cause interest on the Series 2018AB Bonds to be included in gross income for federal income tax purposes retroactively to their date of issuance.

The rights of the owners of the Series 2018AB Bonds and the enforceability of the Series 2018AB Bonds, the Bond Legislation and the Indenture are subject to bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or transfer and other laws relating to or affecting the rights and remedies of creditors generally; to the application of equitable principles, whether considered in a proceeding at law or in equity; to the exercise of judicial discretion; and to limitations on legal remedies against public entities.

No opinions other than those expressly stated herein are implied or shall be inferred as a result of anything contained in or omitted from this letter. The opinions expressed in this letter are stated only as of the time of its delivery and we disclaim any obligation to revise or supplement this letter thereafter. Our engagement as bond counsel in connection with the original issuance and delivery of the Series 2018AB Bonds is concluded upon delivery of this letter.

## APPENDIX D

### BOOK-ENTRY ONLY SYSTEM

The Depository Trust Company (“DTC”), New York, NY, will act as securities depository for the securities (the “Series 2018 Bonds”). The Series 2018 Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Bond certificate will be issued for each stated maturity of the Series 2018 Bonds, each in the aggregate principal amount of such issue, and will be deposited with DTC. **So long as Cede & Co. is the registered owner of the Series 2018 Bonds, as partnership nominee for DTC, references herein to Bondholders, holders or owners of the Series 2018 Bonds (other than under the captions “TAX MATTERS” and “CONTINUING DISCLOSURE” herein) shall mean Cede & Co. and shall not mean the Beneficial Owners of the Series 2018 Bonds.**

DTC, the world’s largest securities 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 issues, 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”). DTC has S&P rating 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](http://www.dtcc.com).

Purchases of Series 2018 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2018 Bonds on DTC’s records. The ownership interest of each actual purchaser of each Security (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect 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 or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2018 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Series 2018 Bonds, except in the event that use of the book-entry system for the Series 2018 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2018 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 Series 2018 Bonds with DTC and

their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2018 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2018 Bonds are credited, which may or may not be the Beneficial Owners. The Direct 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.

Redemption notices shall be sent to DTC. If less than all of the Series 2018 Bonds within an issue 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 Series 2018 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 City 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 Series 2018 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Redemption proceeds, distributions, and dividend payments on the Series 2018 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 City 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, the Trustee, or the City, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of 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 and Indirect Participants.

A Beneficial Owner shall give notice to elect to have its Series 2018 Bonds purchased or tendered, through its Participant, to the Paying Agent, and shall effect delivery of such Series 2018 Bonds by causing the Direct Participant to transfer the Participant's interest in the Series 2018 Bonds, on DTC's records, to the Paying Agent. The requirement for physical delivery of Series 2018 Bonds in connection with an optional tender or a mandatory purchase will be deemed satisfied when the ownership rights in the Series 2018 Bonds are transferred by Direct Participants on DTC's records and followed by a book-entry credit of tendered Series 2018 Bonds to the Paying Agent's DTC account.

DTC may discontinue providing its services as depository with respect to the Series 2018 Bonds at any time by giving reasonable notice to the City 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 City may decide to discontinue use of 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.



The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the City believes to be reliable, but the City takes no responsibility for the accuracy thereof.

***Direct Participants and Indirect Participants may impose service charges on book entry interest owners in certain cases. Purchasers of book entry interests should discuss that possibility with their brokers.***

The City and the Trustee have no role in the purchases, transfers or sales of book entry interests. The rights of Beneficial Owners (i.e., book entry interest owners) to transfer or pledge their interests, and the manner of transferring or pledging those interests, may be subject to applicable state law. Beneficial Owners may want to discuss with their legal advisers the manner of transferring or pledging their book entry interests.

The City and the Trustee have no responsibility or liability for any aspects of the records or notices relating to, or payments made on account of, book entry interest ownership, or for maintaining, supervising or reviewing any records relating to that ownership.

The City cannot and does not give any assurances that DTC, Direct Participants, Indirect Participants or others will distribute to the Beneficial Owners payments of debt charges on the Series 2018 Bonds made to DTC as the registered owner, or any redemption or other notices, or that the City will do so on a timely basis, or that DTC will serve and act in a manner described in this Official Statement.

DTC may discontinue providing its services as securities depository with respect to the Series 2018 Bonds at any time by giving reasonable notice to the City or the Trustee. Under such circumstances, in the event that a successor securities depository is not obtained, Series 2018 Bond certificates are required to be printed and delivered.

The City may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Series 2018 Bond certificates will be printed and delivered.

The information in this section concerning DTC and DTC's book-entry system has been obtained from DTC, and neither the City nor either the Underwriters makes any representation, warranty or guarantee, or otherwise take responsibility for, its accuracy or completeness.

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## APPENDIX E

### CONTINUING DISCLOSURE AGREEMENTS

#### Continuing Disclosure Agreement of City

THIS CONTINUING DISCLOSURE AGREEMENT (this “Agreement”) is made and entered into as of October 4, 2018, by and between the City of Cleveland (the “City”), a municipal corporation in, and a political subdivision of, the State of Ohio, and The Bank of New York Mellon Trust Company, N.A., a national banking association duly organized and validly existing under the laws of the United States of America and duly organized to exercise corporate trust powers under the laws of the State of Ohio, as successor trustee (the “Trustee”).

WHEREAS, the City of Cleveland, Ohio (the “City”) has determined to issue its Airport System Revenue Bonds, Series 2018A in the aggregate principal amount of \$87,940,000 (the “Series 2018A Bonds”), and its Airport System Revenue Bonds, Series 2018B in the aggregate principal amount of \$21,745,000 (the “Series 2018B Bonds”, and, together with the Series 2018A Bonds, the “Series 2018 Bonds”), pursuant to the Amended and Restated Trust Indenture (Seventeenth Supplemental Trust Indenture dated as of November 1, 2011) that became effective January 31, 2012 (the “Trust Indenture”), as supplemented by the Twenty-Third Supplemental Trust Indenture dated October 4, 2018, between the City and the Trustee (the Trust Indenture, as supplemented, is herein referred to as the “Indenture”);

WHEREAS, the Series 2018 Bonds have been offered and sold pursuant to a Preliminary Official Statement dated August 30, 2018, and the City has entered into a Bond Purchase Agreement dated September 6, 2018 with Morgan Stanley & Co. LLC, for itself (the “Representative”) and as representative of, Blaylock Van LLC, Raymond James & Associates, Inc., RBC Capital Markets LLC, UBS Financial Services Inc. and Wells Fargo Bank, National Association (together with the Representative, the “Underwriters”), relating to the sale of the Series 2018 Bonds;

WHEREAS, the City wishes to provide for the disclosure of certain information concerning the Series 2018 Bonds, the City and other matters on an on-going basis as set forth herein for the benefit of the holders of the Series 2018 Bonds (the “Bondholders”) in accordance with the provisions of the Rule (as defined herein).

NOW, THEREFORE, in consideration of the mutual promises and agreements made herein and in the Indenture, the receipt and sufficiency of which consideration is hereby mutually acknowledged, the parties hereto agree as follows:

Section 1. Definitions. All terms capitalized but not otherwise defined herein shall have the meanings assigned to those terms in the Indenture. The following capitalized terms shall have the following meanings:

“Annual Financial Information” means annual financial information and operating data (historical only) found in the tables titled “Summary of Recent Historical Airport Activity,” “Monthly Enplanement Comparison at the Airport” and “Historical Domestic Originating and Connecting Enplanements” under “THE AIRPORT SYSTEM – Airport Passenger Activity” and the table under the heading “Airlines and Market Shares” under “THE AIRPORT SYSTEM – Airlines and Market Shares” and in the tables titled “Sources of Airport Revenues,” “Operating Results,” “Reconciliation of Operating Results,” “Bond

Service Coverage Calculation” and “Mid-Year Financial Reporting” in “AIRPORT FINANCIAL INFORMATION.”

“Annual Report” shall mean the Annual Report described in and provided pursuant to Sections 3 and 4 hereof.

“Fiscal Year” shall mean each fiscal year of the City, commencing with the fiscal year ending December 31, 2018.

“Listed Events” shall mean any of the following events with respect to the Series 2018 Bonds:

1. Principal and interest payment delinquencies on the Series 2018 Bonds;
2. Non-payment related defaults on the Series 2018 Bonds, if material;
3. Unscheduled draws on debt service reserves relating to the Series 2018 Bonds reflecting financial difficulties<sup>(a)</sup>;
4. Unscheduled draws on credit enhancements relating to the Series 2018 Bonds reflecting financial difficulties;<sup>(a)</sup>
5. Substitution of credit or liquidity providers, or their failure to perform<sup>(a)</sup>;
6. (Issuance of) Adverse tax opinions with respect to the Series 2018 Bonds, 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 Series 2018 Bonds, or other material events affecting the tax status of the Series 2018 Bonds;
7. Modifications to rights of Holders or beneficial owners of the Series 2018 Bonds, if material;
8. Bond calls, if material, and tender offers;
9. Defeasances;
10. Release, substitution, or sale of property securing repayment of the Series 2018 Bonds, if material<sup>(b)</sup>;
11. Rating changes on the Series 2018 Bonds;
12. Bankruptcy, insolvency, receivership or similar event of the obligated person; *Note: For the purposes of the event identified in this subparagraph, the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the obligated person 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 obligated person, or if such jurisdiction has been assumed by leaving the existing*

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(a) The City has not obtained or provided, and does not expect to obtain or provide, any credit enhancements or credit or liquidity providers for the Series 2018 Bonds (except for the Bond Insurance Policy for the Insured Bonds).

(b) Repayment of the Series 2018 Bonds is not secured by a lien on any property capable of release or sale or for which other property may be substituted.

*governmental 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 obligated person;*

13. The consummation of a merger, consolidation, or acquisition involving the Issuer or the sale of all or substantially all of the assets of the Issuer, 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; and
14. Appointment of a successor or additional trustee or the change of name of a trustee, if material.

“MSRB” shall mean the Municipal Securities Rulemaking Board.

“Participating Underwriters” shall mean any Underwriter required to comply with the Rule in connection with the offering of the Series 2018 Bonds.

“Repository” shall mean the MSRB or any other repository designated hereafter by the Rule to be the repository for receiving continuing disclosure.

“Rule” shall mean Rule 15c2-12(b) adopted by the Securities and Exchange Commission (the “SEC”) under the Securities Exchange Act of 1934, as the same may be amended from time to time, as such amendments apply to the Series 2018 Bonds.

“Tax-exempt” shall mean that interest on the Series 2018 Bonds is excluded from gross income for federal income tax purposes, whether or not such item is includable as an item of tax preference or otherwise includable directly or indirectly for purposes of calculating any other tax liability, including any alternative minimum tax or environmental tax.

Section 2. General Provisions. This Agreement is being executed and delivered by the City for the benefit of the Bondholders and in order to assist the Participating Underwriters in complying with the Rule. Nothing herein shall limit the duties or obligations of the Trustee under the Indenture. In its actions under this Agreement, the Trustee shall be entitled to the same protection in so acting under this Agreement as it has in acting as Trustee under the Indenture.

Section 3. Provision of Annual Reports.

(a) The City shall, not later than the last day of the ninth month following the end of each Fiscal Year (or the next succeeding business day if that day is not a business day), beginning September 30, 2019, provide to the Repository and the Trustee, an Annual Report for the Fiscal Year of the City which ended on the previous December 31, which Annual Report is consistent with the requirements of Section 4 of this Agreement. The Annual Report may be submitted as a single document or as separate documents constituting a package, and may reference other information as provided in Section 4 of this Agreement. Upon receipt of the Annual Report from the City, the Trustee shall be entitled to assume that the City has provided the Annual Report to the Repository. The Trustee shall have no responsibility for providing the Annual Report to the Repository unless directed in writing to do so by the City.

(b) If the City fails to provide to the Repository an Annual Report by the date set forth in subsection (a) of this Section 3, the City shall send a notice in a timely manner to the Repository of such

failure, which shall include a statement as to the date by which the City anticipates that the Annual Report will be provided to the Repository.

(c) The City agrees to use reasonable efforts to cause each obligated person other than the City to provide or cause to be provided to the Repository an Annual Report as such term is defined in the Continuing Disclosure Agreement, dated as of the date hereof, by and between United Airlines, Inc. and the Trustee.

Section 4. Content of the Annual Report. The Annual Report shall contain or incorporate by reference the Annual Financial Information and annual audited financial statements for the City's Department of Port Control, Divisions of Cleveland Hopkins International and Burke Lakefront Airports, if available. If the annual audited financial statements are not available at the time of the submission of the Annual Report, then they shall be submitted when and if available. This information may be included by specific reference from other documents which have previously been provided to the Repository or to the SEC. If the document included by reference is a final official statement, it must be available from the MSRB.

Section 5. Reporting of Listed Events. The City shall provide (or cause to be provided) to the Repository, in an electronic format and containing such identifying information as is prescribed by the Repository and in a timely manner but not later than ten business days after the occurrence of the event, notice of any of the Listed Events as specified by the Rule.

Section 6. Means of Reporting Information. Information provided by the City shall be transmitted electronically, currently through the Electronic Municipal Market Access ("EMMA") system, to the Repository, or by whatever means are mutually acceptable to the City and the Repository, as applicable.

Section 7. Termination of Reporting Obligation; Sources of Payment. The obligations of the City under this Agreement shall remain in effect only for such period that (i) the Series 2018 Bonds are outstanding in accordance with their terms and (ii) the City remains an obligated person with respect to the Series 2018 Bonds within the meaning of the Rule. The obligation of the City to provide the Annual Financial Information and notices of the Listed Events shall terminate, if and when the City no longer remains an obligated person with respect to the Series 2018 Bonds, provided that the City shall provide notice of such termination to the MSRB and the Trustee. The performance of this Agreement shall be subject to the availability of funds and their annual appropriation to meet costs the City would be required to incur to perform it.

Section 8. Amendment; Waiver. The City may amend this Agreement and obtain a waiver of noncompliance with any provision hereof as may be necessary or appropriate to achieve its compliance with any applicable federal securities law or rule, to cure any ambiguity, inconsistency or formal defect or omission, and to address any change in circumstances arising 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 by the City. Any such amendment or waiver will not be effective unless the Agreement (as amended or taking into account such waiver) would have complied with requirements of the Rule at the time of the primary offering of the Series 2018 Bonds, after taking into account any applicable amendments to or official interpretations of the Rule, as well as any change in circumstances, and until the City shall have received either (a) a written opinion of bond or other qualified independent special counsel selected by the City, or determination by the Trustee, that the amendment or waiver would not materially impair the interests of holders or beneficial owners of the Series 2018 Bonds, or (b) the written consent to the amendment or waiver of the Bondholders of at least a majority of the principal amount of the Series 2018 Bonds then outstanding. Any such amendment or waiver shall be described by the City in the next Annual Report following the effective date of such amendment or waiver.

Section 9. Additional Information. Nothing in this Agreement shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Agreement or any other means of communication, or including any other information in any Annual Report or providing notice of occurrence of events, in addition to that which is required by this Agreement. If the City chooses to include any information in any Annual Report or provide notice of occurrence of events which are not Listed Events in addition to that which is specifically required by this Agreement, the City shall have no obligation to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

Section 10. Default; Remedies. This Agreement shall be solely for the benefit of the holders and beneficial owners from time to time of the Series 2018 Bonds. The exclusive remedy for any breach of the Agreement by the City shall be limited, to the extent permitted by law and as hereinafter provided, to a right of holders and beneficial owners to cause proceedings at law or in equity to be instituted and maintained to obtain the specific performance by the City of its obligations hereunder. Any individual holder or beneficial owner may institute and maintain, or cause to be instituted and maintained, such proceedings to require the City to provide or cause to be provided a pertinent filing if such a filing is due and has not been made. Any such proceedings to require the City to perform any other obligation under this Agreement (including any proceedings that contest the sufficiency of any pertinent filing) may be instituted and maintained (i) by a trustee appointed by the holders and beneficial owners of not less than 25% in principal amount of the Series 2018 Bonds then outstanding, which trustee may, and upon request of holders and beneficial owners of not less than 25% in principal amount of the Series 2018 Bonds then outstanding would be required to, institute and maintain such proceedings or (ii) holders and beneficial owners of not less than 10% in principal amount of the Series 2018 Bonds then outstanding. Any failure of the City to comply with the provisions of this Agreement shall not be a default or failure, or an event of default under the Indenture.

Section 11. Beneficiaries. This Agreement shall inure to the benefit of the City and the Underwriters and the holders and beneficial owners of the Series 2018 Bonds, and shall create no rights in any other person or entity.

Section 12. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Ohio; provided that, to the extent that the SEC, the MSRB or any other federal or state agency or regulatory body with jurisdiction over the Series 2018 Bonds shall have promulgated any rule or regulation governing the subject matter hereof, this Agreement shall be interpreted and construed in a manner consistent therewith.

Section 13. Severability; Counterparts. If any provision hereof shall be held invalid or unenforceable by a court of competent jurisdiction, the remaining provisions hereof shall survive and continue in full force and effect. This Agreement may be executed in one or more counterparts, each and all of which shall constitute one and the same instrument.

October 4, 2018

CITY OF CLEVELAND, OHIO

By: \_\_\_\_\_  
Director of Finance

By: \_\_\_\_\_  
Director of Port Control

THE BANK OF NEW YORK MELLON TRUST COMPANY, N.A.

By: \_\_\_\_\_  
Title:

The legal form of the within instrument  
is approved.

Director of Law, City of Cleveland, Ohio

By: \_\_\_\_\_  
Assistant Director of Law



## **Continuing Disclosure Agreement of United Airlines**

THIS CONTINUING DISCLOSURE AGREEMENT (this “Agreement”) is made and entered into as of the October 4, 2018, by and between United Airlines, Inc., a Delaware corporation (the “Company”), and The Bank of New York Mellon Trust Company, N.A., a national banking association, duly organized and validly existing under the laws of the United States of America and duly organized to exercise corporate trust powers under the laws of the State of Ohio, as trustee (the “Trustee”). All terms capitalized but not otherwise defined herein shall have the meanings assigned to those terms in the Indenture (as defined herein).

WHEREAS, the City of Cleveland, Ohio (the “City”) has determined to issue Airport System Revenue Bonds, Series 2018A in the aggregate principal amount of \$87,940,000 (the “Series 2018A Bonds”), and its Airport System Revenue Bonds, Series 2018B in the aggregate principal amount of \$21,745,000 (the “Series 2018B Bonds”, and, together with the Series 2018A Bonds, the “Series 2018 Bonds”), pursuant to the Amended and Restated Trust Indenture (Seventeenth Supplemental Trust Indenture dated as of November 1, 2011) that became effective January 31, 2012 (the “Trust Indenture”), as supplemented by the Twenty-Third Supplemental Trust Indenture dated October 4, 2018, each between the City and the Trustee (the Trust Indenture, as supplemented, is herein referred to as the “Indenture”);

WHEREAS, the Series 2018 Bonds have been offered and sold pursuant to a Preliminary Official Statement dated August 30, 2018, and the City has entered into a Bond Purchase Agreement dated September 6, 2018 with Morgan Stanley & Co. LLC, for itself (the “Representative”) and as representative of, Blaylock Van LLC, Raymond James & Associates, Inc., RBC Capital Markets LLC, UBS Financial Services Inc. and Wells Fargo Bank, National Association (together with the Representative, the “Underwriters”), relating to the sale of the Series 2018 Bonds;

WHEREAS, the City, as an obligated person under the Rule (as defined herein), has entered into a Continuing Disclosure Agreement, dated as of October 4, 2018, between the City and the Trustee in conjunction with the issuance of the Series 2018 Bonds;

WHEREAS, the Company is obligated under certain provisions of the Use Agreements with the City to pay terminal complex rental rates and landing fee rates to the City to produce Airport Revenues sufficient to meet the Rate Covenant;

WHEREAS, as of the date hereof, the Company accounts for 20% or more of the Airport Revenues at Cleveland Hopkins International Airport (the “Airport”); and

WHEREAS, the Company has agreed to provide for the disclosure of certain information concerning the Company and other matters on an on-going basis as set forth herein for the benefit of the Bondholders.

NOW, THEREFORE, in consideration of the mutual promises and agreements made herein and in the Indenture, the receipt and sufficiency of which consideration is hereby mutually acknowledged, the parties hereto agree as follows:

Section 1. Definitions. The following capitalized terms shall have the following meanings:

“Annual Financial Information” shall mean such reports as the Company files with the SEC on Form 10-K or a successor form (including all materials physically included therewith or incorporated by reference therein) and, in the event that the Company no longer is required to file such reports on Form 10-K or a successor form, the Company’s audited financial statements prepared in accordance with generally accepted accounting principles and such related financial and operating data disclosure as is

made available to the Company's public shareholders generally or, in the event that the Company no longer is required to file such reports on Form 10-K or a successor form and no longer has any public shareholders, information concerning the Company's business and properties, selected financial data and management's discussion and analysis, together with the Company's audited financial statements prepared in accordance with generally accepted accounting principles, comparable to the information contained in such report on Form 10-K.

"Annual Report" shall mean the Annual Report described in and provided pursuant to Section 3 hereof.

"Bondholders" or "holders" shall mean the Holders of the Series 2018 Bonds as defined in the Indenture.

"Business Day" shall mean any day other than a Saturday, Sunday, or a day on which the Trustee is required or authorized by law or executive order to close and is closed.

"Filing Date" shall mean the 120th day following the end of each Fiscal Year (or the next Business Day if that day is not a Business Day).

"Fiscal Year" shall mean each fiscal year of the Company, commencing with the fiscal year ending December 31, 2018.

"Notice Addresses":

Trustee:	The Bank of New York Mellon Trust Company, N.A. 1660 West Second Street, Suite 830 Cleveland, Ohio 44113 Attention: Global Corporate Trust Telephone No.: 216-622-6512 Facsimile No.: 216-621-1441
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Company:	United Airlines, Inc. 233 South Wacker Drive, HDQFT Chicago, Illinois 60606 Attention: Carol Manning Telephone No.: 872-825-7655 Facsimile No.: 782-825-0316
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City: City of Cleveland  
Department of Finance  
601 Lakeside Avenue, Room 104  
Cleveland, Ohio 44114  
Attention: Director of Finance  
Telephone No.: 216-664-2536  
Facsimile No.: 216-664-2535

“Obligated Person” has the meaning assigned to it in Section 7 hereof.

“Participating Underwriters” shall mean any Underwriter required to comply with the Rule in connection with the offering of the Series 2018 Bonds.

“Primary Offering” has the meaning assigned to it in paragraph (f) of the Rule.

“Repository” means the Municipal Securities Rulemaking Board, currently through its Electronic Municipal Market Access system (<http://emma.msrb.org/>).

“Rule” shall mean Rule 15c2-12(b) adopted by the SEC under the Securities Exchange Act of 1934, as the same may be amended from time to time.

“SEC” shall mean the Securities and Exchange Commission.

The captions and headings in this Agreement are solely for convenience of reference and in no way define, limit or describe the scope or intent of any Sections, subsections, paragraphs, subparagraphs or clauses hereof. Reference to a “Section” means a section of this Agreement, unless otherwise indicated.

Section 2. General Provisions. This Agreement is being executed and delivered by the Company for the benefit of the Bondholders and in order to assist the Participating Underwriters in complying with the Rule. Nothing herein shall add to or limit the rights, duties or obligations of the Trustee under the Indenture. In its actions under this Agreement, the Trustee shall be entitled to the same protection in so acting under this Agreement as it has in acting as Trustee under the Indenture.

Section 3. Provision of Annual Reports. The Company hereby agrees to provide or cause to be provided, the Annual Financial Information for the preceding Fiscal Year to the Repository, not later than the Filing Date for that Fiscal Year when obligated to do so. If, in a given year during the term hereof, the Company is not so obligated, it shall provide or cause to be provided notice thereof to the Repository not later than 15 Business Days prior to the Filing Date. The Company expects that the Annual Financial Information will be provided by cross-reference to documents filed by the Company with the SEC, including, but not limited to, the Company’s Form 10-K.

Section 4. Content of the Annual Report. The Annual Report shall contain or incorporate by reference the Annual Financial Information. The Annual Financial Information may be included by specific reference from other documents which have previously been provided to the Repository or to the SEC.

Section 5. Notice of Certain Events. The Company agrees to provide or cause to be provided to the Repository and to the Trustee, in a timely manner, as applicable, (i) notice of its failure to provide or cause to be provided the Annual Financial Information on or prior to the Filing Date, (ii) notice of any change in the Company’s Fiscal Year, (iii) notice of any change in the accounting principles applied in the preparation of the Annual Financial Information to the extent not disclosed in such Annual

Financial Information, and (iv) notice of termination of this Agreement. Upon receipt of the information set forth in the preceding sentence from the Company, the Trustee shall be entitled to assume that the Company has provided such information to the Repository. The Trustee shall have no responsibility for providing any of such information received by it hereunder to the Repository unless directed in writing to do so by the Company.

Section 6. Means of Reporting Information. Information provided by the Company shall be transmitted electronically, through the Electronic Municipal Market Access (“EMMA”) system, to the Repository, or by whatever means are mutually acceptable to the Company and the Repository, as applicable.

Section 7. Termination of Reporting Obligation. The obligations of the Company under this Agreement shall terminate at such time as the earlier to occur of the following: (i) all the Series 2018 Bonds are paid and discharged or deemed paid and discharged for purposes of the Indenture or (ii) the Company ceases to be an Obligated Person. For purposes of this Agreement, the Company shall be an “Obligated Person” and shall provide the information and notices in the time and manner called for under this Agreement if and for as long as: (A) for any fiscal year of the City during the term hereof, the Company is obligated under a lease, use agreement or other agreement and, for each of the two preceding fiscal years of the City, accounts for (1) at least 15% of the Airport Revenues and more than 40% of the enplaned passengers at the Airport or (2) 20% or more of the Airport Revenues, or (B) the Company is otherwise an obligated person with respect to the Series 2018 Bonds within the meaning of the Rule, if the Rule has been amended or modified after the date hereof to provide for a standard as to who constitutes such an obligated person that is different from the objective standard set forth in the foregoing clause (A) and that is applicable to the Company or if the SEC publishes information after the date hereof which makes it otherwise clear that the Company is such an obligated person. Notwithstanding the foregoing, in the event that any outstanding Bonds are converted to an interest rate mode not subject to the continuing disclosure provisions of the Rule, the obligations of the Company under this Agreement with regard to such Bonds shall be terminated for the period of time that such Bonds remain in the interest rate mode not subject to the continuing disclosure provisions of the Rule.

Section 8. Amendment; Waiver. Notwithstanding any other provision of this Agreement, the Company may amend this Agreement, and any provision of this Agreement may be revised if the Company and the Trustee have received an opinion of counsel knowledgeable in federal securities laws to the effect that such amendment or waiver would not, in and of itself, cause the undertakings herein to violate the Rule if such amendment or waiver had been effective on the date hereof but taking into account any subsequent change in or official interpretation of the Rule. Any such amendment shall be described by the Company in the next Annual Report following the effective date of such amendment.

Section 9. Additional Information. Nothing in this Agreement shall be deemed to prevent the Company from disseminating any other information, using the means of dissemination set forth in this Agreement or any other means of communication, or including any other information in any Annual Report, in addition to that which is required by this Agreement. If the Company chooses to include any information in any Annual Report in addition to that which is specifically required by this Agreement, the Company shall have no obligation to update such information or include it in any future Annual Report.

Section 10. Default; Remedies. Failure of the Company to perform any of its undertakings contained in this Agreement shall not constitute an event of default with respect to the Series 2018 Bonds. The right of the Bondholders to enforce the provisions of this Agreement shall be limited to an action in mandamus, and no money damages shall be recoverable under any circumstances.

Section 11. Beneficiaries. This Agreement shall inure to the benefit of the Company, the City, the Participating Underwriters and the Bondholders, and shall create no rights in any other person or entity.

Section 12. Governing Law. This Agreement shall be governed by and interpreted in accordance with the laws of the State of Ohio; provided that, to the extent that the SEC or any other federal or state agency or regulatory body with jurisdiction over the Series 2018 Bonds shall have promulgated any rule or regulation governing the subject matter hereof; this Agreement shall be interpreted and construed in a manner consistent therewith.

October 4, 2018

UNITED AIRLINES, INC.

By: \_\_\_\_\_

Title \_\_\_\_\_

THE BANK OF NEW YORK MELLON TRUST  
COMPANY, N.A.

By: \_\_\_\_\_

Title: \_\_\_\_\_

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**APPENDIX F**

**SPECIMEN MUNICIPAL BOND INSURANCE POLICY FOR THE INSURED SERIES 2018  
BONDS**

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## MUNICIPAL BOND INSURANCE POLICY

ISSUER:

BONDS: \$ in aggregate principal amount of

Policy No: -N

Effective Date:

Premium: \$

ASSURED GUARANTY MUNICIPAL CORP. ("AGM"), for consideration received, hereby UNCONDITIONALLY AND IRREVOCABLY agrees to pay to the trustee (the "Trustee") or paying agent (the "Paying Agent") (as set forth in the documentation providing for the issuance of and securing the Bonds) for the Bonds, for the benefit of the Owners or, at the election of AGM, directly to each Owner, subject only to the terms of this Policy (which includes each endorsement hereto), that portion of the principal of and interest on the Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by the Issuer.

On the later of the day on which such principal and interest becomes Due for Payment or the Business Day next following the Business Day on which AGM shall have received Notice of Nonpayment, AGM will disburse to or for the benefit of each Owner of a Bond the face amount of principal of and interest on the Bond that is then Due for Payment but is then unpaid by reason of Nonpayment by the Issuer, but only upon receipt by AGM, in a form reasonably satisfactory to it, of (a) evidence of the Owner's right to receive payment of the principal or interest then Due for Payment and (b) evidence, including any appropriate instruments of assignment, that all of the Owner's rights with respect to payment of such principal or interest that is Due for Payment shall thereupon vest in AGM. A Notice of Nonpayment will be deemed received on a given Business Day if it is received prior to 1:00 p.m. (New York time) on such Business Day; otherwise, it will be deemed received on the next Business Day. If any Notice of Nonpayment received by AGM is incomplete, it shall be deemed not to have been received by AGM for purposes of the preceding sentence and AGM shall promptly so advise the Trustee, Paying Agent or Owner, as appropriate, who may submit an amended Notice of Nonpayment. Upon disbursement in respect of a Bond, AGM shall become the owner of the Bond, any appurtenant coupon to the Bond or right to receipt of payment of principal of or interest on the Bond and shall be fully subrogated to the rights of the Owner, including the Owner's right to receive payments under the Bond, to the extent of any payment by AGM hereunder. Payment by AGM to the Trustee or Paying Agent for the benefit of the Owners shall, to the extent thereof, discharge the obligation of AGM under this Policy.

Except to the extent expressly modified by an endorsement hereto, the following terms shall have the meanings specified for all purposes of this Policy. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the State of New York or the Insurer's Fiscal Agent are authorized or required by law or executive order to remain closed. "Due for Payment" means (a) when referring to the principal of a Bond, payable on the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity unless AGM shall elect, in its sole discretion, to pay such principal due upon such acceleration together with any accrued interest to the date of acceleration and (b) when referring to interest on a Bond, payable on the stated date for payment of interest. "Nonpayment" means, in respect of a Bond, the failure of the Issuer to have provided sufficient funds to the Trustee or, if there is no Trustee, to the Paying Agent for payment in full of all principal and interest that is Due for Payment on such Bond. "Nonpayment" shall also include, in respect of a Bond, any payment of principal or interest that is Due for Payment made to an Owner by or on behalf of the Issuer which has been recovered from such Owner pursuant to the

United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction. "Notice" means telephonic or telecopied notice, subsequently confirmed in a signed writing, or written notice by registered or certified mail, from an Owner, the Trustee or the Paying Agent to AGM which notice shall specify (a) the person or entity making the claim, (b) the Policy Number, (c) the claimed amount and (d) the date such claimed amount became Due for Payment. "Owner" means, in respect of a Bond, the person or entity who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof, except that "Owner" shall not include the Issuer or any person or entity whose direct or indirect obligation constitutes the underlying security for the Bonds.

AGM may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of this Policy by giving written notice to the Trustee and the Paying Agent specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee and the Paying Agent, (a) copies of all notices required to be delivered to AGM pursuant to this Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to AGM and shall not be deemed received until received by both and (b) all payments required to be made by AGM under this Policy may be made directly by AGM or by the Insurer's Fiscal Agent on behalf of AGM. The Insurer's Fiscal Agent is the agent of AGM only and the Insurer's Fiscal Agent shall in no event be liable to any Owner for any act of the Insurer's Fiscal Agent or any failure of AGM to deposit or cause to be deposited sufficient funds to make payments due under this Policy.

To the fullest extent permitted by applicable law, AGM agrees not to assert, and hereby waives, only for the benefit of each Owner, all rights (whether by counterclaim, setoff or otherwise) and defenses (including, without limitation, the defense of fraud), whether acquired by subrogation, assignment or otherwise, to the extent that such rights and defenses may be available to AGM to avoid payment of its obligations under this Policy in accordance with the express provisions of this Policy.

This Policy sets forth in full the undertaking of AGM, and shall not be modified, altered or affected by any other agreement or instrument, including any modification or amendment thereto. Except to the extent expressly modified by an endorsement hereto, (a) any premium paid in respect of this Policy is nonrefundable for any reason whatsoever, including payment, or provision being made for payment, of the Bonds prior to maturity and (b) this Policy may not be canceled or revoked. THIS POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.

In witness whereof, ASSURED GUARANTY MUNICIPAL CORP. has caused this Policy to be executed on its behalf by its Authorized Officer.

ASSURED GUARANTY MUNICIPAL CORP.

By \_\_\_\_\_  
Authorized Officer

A subsidiary of Assured Guaranty Municipal Holdings Inc.  
1633 Broadway, New York, N.Y. 10019  
(212) 974-0100

Form 500NY (5/90)





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