ROGER H. BATES
Airport Consultant

December 27, 2023

Mr. Clint Stephen
Chief Financial Officer
Houston Airport System
16930 JFK Boulevard
Houston, TX 77032

Re: 2024 Annual Rate Report—Consolidated Rental Car Facility

Dear Mr. Stephen:

Acting in the capacity of the City of Houston's designated Independent Rate Consultant, I am pleased to submit this annual Rate Report for Calendar Year 2024 regarding the Consolidated Rental Car Facility (the Facility) at George Bush Intercontinental Airport / Houston (the Airport).

In March 2001, the City of Houston (the City) issued *$130,250,000 City of Houston, Texas, Airport System Special Facilities Taxable Revenue Bonds (Consolidated Rental Car Facility Project), Series 2001* (the Bonds) to finance the Facility. The Bonds are secured in large part by a pledge of CFC Revenues—revenues derived from a Customer Facility Charge imposed by the City and collected by the rental car operators (the Operators). The City imposed a Customer Facility Charge of $3.00 per transaction day at the Airport as of April 1, 2001. The Operators have been collecting and forwarding CFC revenues to the Trustee since that date. The CFC rate has subsequently been adjusted on several occasions over the years. The current CFC is $4.00 per transaction day, a rate that has been in effect since April 1, 2017.

Purposes of the Rate Report

In connection with the issuance of the Bonds, the City (as the Issuer of the Bonds) entered into a Trust Indenture, dated March 1, 2001, with Chase Manhattan Bank (now The Bank of New York Mellon Trust Company, N.A.) as Trustee.

The specific requirements for the Rate Report are set forth in Section 7.2 of the Trust Indenture.

Section 7.2.a of the Trust Indenture states:

> The City shall cause the Customer Facility Charge to be calculated, established and imposed as herein provided so long as any Bonds remain Outstanding, and the City shall use diligence to cause the Customer Facility Charge to be collected by the Operators in accordance with the terms of the Agreement and deposited with the Trustee directly by the Operators. The Customer Facility Charge shall be established initially and reviewed and adjusted (if necessary) annually by the Director based upon the Rate Reports from the Independent Rate Consultant (or, with the consent of the LLC, by the City) at rates estimated to generate CFC revenues, along with other Pledged Revenues, in such calendar year equal to not less than:

(1) 125% of the debt service requirements on the Bonds for such calendar year; and

(2) the amounts necessary to fund in each calendar year all transfers from the Revenue Fund as required by Article IV of this Indenture.

This provision is referred to as the Rate Covenant.

Section 7.2.b of the Trust Indenture goes on to state:

> The Director [the City's Director of Aviation] shall cause the Rate Reports to be prepared and to be filed with the Trustee prior to each calendar year, based upon the Transaction Day and other rental information required to be provided annually to the Independent Rate Consultant by the Operators pursuant to the Agreement.

The Trust Indenture defines "Rate Reports" as follows:

> "Rate Reports" shall mean the written reports and recommendations of the Independent Rate Consultant...which shall include the following information:
>
> (1) the recommended Customer Facility Charge for the ensuing calendar year (or other stated period);
>
> (2) the recommended transfers to the Revenue Fund from the CFC Stabilization Account or from other amounts in the Facility Improvement Fund;
>
> (3) pro forma Customer Facility Charge collection data for the ensuing calendar year (or other stated period) on a monthly basis, together with calculations showing 90% and 80% of such monthly amounts;
>
> (4) the estimated Administrative Cost Requirement for the ensuing calendar year (or other stated period); and
>
> (5) any additional documentation to support the recommended CFC rate and reflecting the anticipated disposition of the CFC revenues among the funds established and maintained under the Indenture.

This Rate Report has been prepared to respond to the requirements of Section 7.2 of the Trust Indenture.

The Houston Rental Car Operators

The Houston rental car market is served by four companies operating 11 brands: *Avis Budget Group, Inc.* (operating Avis, Budget, Payless and Zipcar); *Enterprise Holdings Inc.* (operating Enterprise, Alamo and National); *The Hertz Corporation* (operating Hertz, Dollar and Thrifty) and *Sixt Rent a Car, LLC* (operating Sixt).

COVID 19 and the Air Transportation Industry

The year 2020 saw a precipitous decline in air traffic and rental car activity at the Airport (and worldwide) as a result of the COVID-19 pandemic. But fortunately, air traffic activity—and with it, rental car demand—have significantly and steadily recovered since the severely depressed levels of 2020.

Air traffic statistics published by the FAA and airport organizations are available only after a significant lag of time. A reliable real time measure of air traffic demand is the number of travelers passing through TSA checkpoints—data which is available with a lag of only a few days. The table below shows the total number of passengers passing through TSA checkpoints by month from January 2019 though November 2023. In April 2020 TSA checkpoint traveler throughput declined over 95% from the previous year, evidencing how hard air travel demand was affected by widespread business closures and lockdowns. During the depths of the crisis in 2020, the consensus appeared to be that it would take three to four years for air travel demand to recover fully to pre-COVID (2019) air traffic levels. That consensus proved to be correct. For the 11 months ending November 2023, total U.S. air travel demand was 0.4% ahead of the same period of 2019, indicating that the air traffic market recovery is now complete.

TSA Checkpoint Traveler Throughput
Total United States
2019 - 2023 by Month

Date	2019	2020	2021	2022	2023	2023 / 2019
January	59,357,493	61,673,279	23,421,229	46,000,046	58,603,981	
February	57,525,435	60,463,775	24,867,048	48,528,013	57,913,402	
March	72,683,832	31,029,383	38,562,607	63,643,054	73,181,158	
April	70,075,772	3,332,788	41,599,455	63,436,314	70,111,486	
May	74,731,369	7,481,008	50,231,199	67,182,736	74,588,923	
June	76,510,126	15,252,076	57,177,210	68,163,881	76,324,227	
July	79,931,926	20,858,398	63,279,389	70,290,673	80,367,079	
August	73,646,197	21,293,376	56,710,858	67,343,384	73,136,649	
September	67,578,986	22,107,158	51,636,312	63,580,597	67,390,313	
October	71,984,802	25,705,632	57,143,187	68,031,983	72,068,718	
November	68,364,056	25,106,377	57,294,066	64,371,135	71,415,621	
December	70,374,968	26,977,997	58,820,299	65,648,031		
Total	842,764,962	321,281,247	580,742,859	756,219,847		
1st 11 Months	**772,389,994**	269,196,873	464,628,494	626,200,681	**775,101,557**	**0.4%**

Source: Transportation Security Administration

During the recovery from the pandemic, the mix of air travel demand shifted away from business travel and toward leisure travel. The strengthening of leisure travel demand reflected, in part, the release of pent-up demand following two years of lockdowns, restrictions and fear of exposure to the virus. The successful development and distribution of vaccines helped significantly in driving this release. The relatively slower rebound in business travel reflected in part the growing acceptance of video conferencing (with apps such as Zoom) in lieu of face-to-face business meetings.

Recent Trends in Air Traffic Demand

Air traffic demand at the Airport has exhibited significant growth in 2023. Table 1 on the following page shows recent trends in air traffic activity at the Airport by month for calendar year 2022 and year-to-date (January through October) 2023, as obtained from HAS records. For the purposes of documenting the recovery of the air traffic market from the pandemic, columns have been included to show both "% Change from Prior Year" and "% Change from 2019."

During the first 10 months of 2023 the number of enplaned passengers at the Airport increased by 13.9% over the same period of 2022, indicating strong traffic demand in the Houston market. Also, for that same 10-month period, enplanements were 1.9% above the same period of 2019 indicating a more than complete market recovery from pandemic lows.

More significantly, for the first 10 months of 2023 total passenger originations at the Airport (the driver of rental car activity) increased by 17% from the same period of 2022 and 12% from 2019, marking significant growth in air travel demand over and above pre-pandemic levels.

Table 1

RECENT TRENDS IN AIR TRAFFIC ACTIVITY
Calendar Years 2023 and 2022
George Bush Intercontinental Airport / Houston

Year / Month	Enplaned Passengers			Originating Passengers			
	Number	% Change from Prior Year	% Change from CY 2019	Number	% Change from Prior Year	% Change from CY 2019	% of Total Enplaned Passengers
			Pre Pandemic			*Pre Pandemic*	
2023							
Jan	1,742,060	31.6%	-0.7%	1,005,108	35.5%	10.8%	57.7%
Feb	1,677,261	24.5%	4.8%	973,375	28.5%	16.5%	58.0%
Mar	1,949,436	14.6%	-1.1%	1,191,533	18.2%	11.3%	61.1%
Apr	1,866,408	11.0%	0.8%	1,151,055	18.4%	13.9%	61.7%
May	1,986,868	7.0%	-0.7%	1,264,521	11.4%	8.4%	63.6%
Jun	2,060,632	13.7%	-0.7%	1,346,443	19.2%	10.5%	65.3%
Jul	2,139,644	14.5%	1.6%	1,361,975	15.5%	10.0%	63.7%
Aug	1,953,876	15.0%	0.5%	1,181,425	14.3%	5.9%	60.5%
Sep	1,849,128	9.0%	13.0%	1,151,503	11.7%	23.2%	62.3%
Oct	1,976,035	5.5%	3.9%	1,209,593	7.2%	13.2%	61.2%
	19,201,348	**13.9%**	**1.9%**	**11,836,531**	**17.0%**	**12.0%**	**61.6%**
Nov							
Dec							
Total 2022							
2022							
Jan	1,324,049	83.4%	-24.5%	742,002	84.4%	-18.2%	56.0%
Feb	1,346,965	115.3%	-15.8%	757,656	111.8%	-9.3%	56.2%
Mar	1,700,644	54.6%	-13.7%	1,008,098	62.8%	-5.8%	59.3%
Apr	1,682,016	35.6%	-9.1%	972,460	40.8%	-3.8%	57.8%
May	1,856,346	30.3%	-7.2%	1,135,259	31.8%	-2.7%	61.2%
Jun	1,812,593	9.1%	-12.7%	1,129,228	15.8%	-7.3%	62.3%
Jul	1,869,500	-1.2%	-11.2%	1,178,767	7.2%	-4.8%	63.1%
Aug	1,699,060	4.0%	-12.6%	1,033,796	16.8%	-7.4%	60.8%
Sep	1,695,846	16.1%	3.6%	1,030,960	26.9%	10.3%	60.8%
Oct	1,873,207	12.8%	-1.5%	1,128,278	22.0%	5.6%	60.2%
	16,860,226	**25.6%**	**-10.5%**	**10,116,504**	**32.6%**	**-4.3%**	**60.0%**
Nov	1,816,348	7.3%	-0.7%	1,127,262	13.1%	9.5%	62.1%
Dec	1,887,492	7.9%	-7.8%	1,167,927	15.2%	1.4%	61.9%
	3,703,840	7.6%	-4.4%	2,295,189	14.2%	5.2%	62.0%
Total 2022	**20,564,066**	**21.9%**	**-9.5%**	**12,411,693**	**28.8%**	**-2.6%**	**60.4%**

Source: Houston Airport System

Recent Trends in Transaction Days and CFC Revenues

Recent Trends in Transaction Days and CFC Revenues

Tables 2A and 2B on the following page show (1) rental car transaction days and (2) CFC revenues, respectively, at the Airport for the first 10 months of Calendar Years 2023 and all of 2022. Actual CFC revenues and transaction days for 2023 are then compared with the projections for 2023 prepared in December 2022. (Note that CFC Revenues are shown on an accrual basis; i.e., the revenues *earned* in the particular month.)

Total rental car transaction days and CFC revenues for the first 10 months of 2023 were *4.4% less than* the totals for the same period of 2019, indicating that, unlike passenger demand, rental car demand has not yet fully recovered to pre-pandemic levels. The softness in rental car business activity (i.e., transaction days) compared to passenger traffic is likely attributable to (1) the relatively higher reduction a business travel relative to leisure travel during the pandemic (as business travelers generally have a higher propensity to rent cars than leisure travelers) and (2) the continued growth and popularity of ride share services such as Uber and Lyft.

For the first 10 months of 2023, the total number of transaction days and CFC revenues are 3.9% ahead of the projections for 2023 prepared in December 2022.

Table 2A

2023 TRANSACTION DAYS[1]

Consolidated Rental Car Facility
George Bush Intercontinental Airport / Houston

Applicable Month	Month of Payment	Total Transaction Days: Actual 2023	Total Transaction Days: Actual 2019	Increase (Decrease)	Percentage Change	2023 Projection[2]	Actual 2023 vs. Projection	Percentage Change
			Pre Pandemic					
Jan	Feb	299,231	319,041	(19,810)	-6.2%	348,000	(48,769)	-14.0%
Feb	Mar	315,473	331,059	(15,586)	-4.7%	325,000	(9,527)	-2.9%
Mar	Apr	386,358	407,095	(20,737)	-5.1%	377,000	9,358	2.5%
Apr	May	395,404	400,206	(4,802)	-1.2%	382,000	13,404	3.5%
May	Jun	385,553	427,931	(42,378)	-9.9%	368,000	17,553	4.8%
Jun	Jul	348,517	373,433	(24,916)	-6.7%	328,000	20,517	6.3%
Jul	Aug	351,184	363,067	(11,883)	-3.3%	324,000	27,184	8.4%
Aug	Sep	350,904	375,518	(24,615)	-6.6%	344,000	6,904	2.0%
Sep	Oct	340,219	330,749	9,470	2.9%	283,000	57,219	20.2%
Oct	Nov	386,185	393,515	(7,330)	-1.9%	345,000	41,185	11.9%
		3,559,028	**3,721,614**	**(162,586)**	**-4.4%**	3,424,000	135,028	**3.9%**
Nov	Dec		363,963			329,000		
Dec	Jan		336,504			338,000		
			700,467			667,000		
			4,422,081			**4,091,000**		

1. Source: Derived from reported CFC revenues by dividing by the $4.00 CFC rate.
2. Roger H. Bates, "2023 Annual Rate Report--Consolidated Rental Car Facility," dated December 17, 2022.

Table 2B

2023 CFC REVENUES[1]

Consolidated Rental Car Facility
George Bush Intercontinental Airport / Houston

Month of Accrual	Month of Payment	Total CFC Revenues: Actual 2023	Total CFC Revenues: Actual 2019	Increase (Decrease)	Percentage Change	2023 Projection[2]	Actual 2023 vs. Projection	Percentage Change
			Pre Pandemic					
Jan	Feb	$1,196,925	$1,276,164	($79,239)	-6.2%	$1,392,000	($195,075)	-14.0%
Feb	Mar	$1,261,893	$1,324,236	($62,343)	-4.7%	$1,300,000	($38,107)	-2.9%
Mar	Apr	$1,545,432	$1,628,380	($82,948)	-5.1%	$1,508,000	$37,432	2.5%
Apr	May	$1,581,616	$1,600,824	($19,208)	-1.2%	$1,528,000	$53,616	3.5%
May	Jun	$1,542,212	$1,711,724	($169,512)	-9.9%	$1,472,000	$70,212	4.8%
Jun	Jul	$1,394,068	$1,493,732	($99,664)	-6.7%	$1,312,000	$82,068	6.3%
Jul	Aug	$1,404,737	$1,452,268	($47,531)	-3.3%	$1,296,000	$108,737	8.4%
Aug	Sep	$1,403,614	$1,502,072	($98,458)	-6.6%	$1,376,000	$27,614	2.0%
Sep	Oct	$1,360,874	$1,322,995	$37,879	2.9%	$1,132,000	$228,874	20.2%
Oct	Nov	$1,544,740	$1,574,060	($29,320)	-1.9%	$1,380,000	$164,740	11.9%
		$14,236,111	**$14,886,455**	**($650,344)**	**-4.4%**	**$13,696,000**	**$540,111**	**3.9%**
Nov	Dec		$1,455,852			$1,316,000		
Dec	Jan		$1,346,015			$1,352,000		
			$2,801,867			$2,668,000		
			$17,688,322			**$16,364,000**	**$540,111**	**-100.0%**

1. Source: As reported by the Operators to the Trustee.
CFC payments are required to be sent to the Trustee by the 20th day of the month following collection.
Therefore, for example, the payments received the Trustee in May represent CFC revenues accrued in April.
2. Roger H. Bates, "2023 Annual Rate Report--Consolidated Rental Car Facility," dated December 17, 2022.

Projection of Rental Car Demand and CFC Revenues in 2022

Table 3, "Estimated Rental Car Transaction Days and CFC Revenues—Calendar Year 2023," on the following page, shows relationships between air traffic activity, rental car transaction days and CFC revenues and CFC collections for the first 10 months of 2023 and develops projections of CFC revenues and CFC collections for the full year 2023.

For reasons discussed in the next section, despite the precipitous decline in rental car demand occasioned by the pandemic, HAS decided to (1) leave the current $4.00 CFC rate in place throughout calendar years 2020, 2021, 2022 and 2023 and (2) supplement available CFC revenues with additional monthly transfers from the Facility Improvement Fund.

In Table 3, CFC revenues are projected for the months of November and December 2023 based on assumptions regarding originating passenger traffic growth (5% increase from 2019), percentage of originating passengers to total enplaned passengers (60%), and transaction days per originating passenger (0.300 and 0.275 respectively) highlighted in green. The gap between 2023 CFC revenues and 2019 CFC revenues closed gradually in 2023 evidencing a continuing recovery in the rental car market at the Airport.

Total CFC *revenues* are projected to be $16,872,000 in 2023—*4.6% below* actual CFC revenues in 2019 but 3.1% above the projection of 2023 CFC revenues made last December. Total CFC *collections* are projected to be $16,786,000 in 2023—*4.7% below* actual CFC collections in 2019 but 2.7% above the projection of 2023 CFC collections made last December.

How HAS Addressed the 2020 CFC Revenue Shortfall

Under the Trust Indenture, scheduled debt service payments are pre-funded by monthly transfers from the Revenue Fund to the Debt Service Fund. Then, moneys then accumulated in the Debt Service Fund are used to pay annual principal and semi-annual interest on the bonds when due.

During the first half of 2020, HAS adapted its business plan for the enterprise to address the precipitous decline in CFC revenues and collections that began in the wake of the COVID-19 pandemic. HAS's principal objective in 2020 was to make sure that debt service payments on the outstanding bonds were made on July 2nd and January 2nd each year as required.

Of principal concern in 2020 was the fact that no one knew how long the decline in rental car activity—and with it, CFC revenues—would continue. Rather than attempt to guess the longer term timing and financial consequences of the market decline, HAS decided to *eliminate any risk of default* (due to a revenue shortfall) *by transferring moneys from the Facility Improvement Fund to the Revenue Fund each month to provide for the full amount of required debt service transfers.*

Such transfers are allowable under the Trust Indenture. The Trust Indenture defines "Pledged Revenues" as:

> "...the aggregate of (i) the Special Facilities Rent [i.e., Customer Facility Charges] received or receivable; (ii) all investment income of every kind derived from amounts credited to the Pledged Funds..., and (iii) *amounts transferred to the Revenue Fund from* the Coverage Fund or *[the] Facility Improvement Fund.*" [Italics added.]

Table 3

ACTUAL AND ESTIMATED RENTAL CAR TRANSACTION DAYS AND CFC REVENUES

Calendar Year 2023

Consolidated Rental Car Facility

George Bush Intercontinental Airport / Houston

	CFC Rate
Jan-Mar	$4.00
Apr-Dec	$4.00

Applicable Month	Actual or Projection	Enplaned Passengers	*% Change from 2019*	Originating Passengers	*% Change from 2019*	Percent Originating	Transaction Days	*% Change from 2019*	Transaction Days per O.P.	*% Change from 2019*	CFC Revenues	*% Change from 2019*	CFC Collections	*% Change from 2019*
Jan	Actual	1,742,060	-0.7%	1,005,188	10.8%	56.0%	299,231	-6.2%	0.298	-15.4%	$1,196,925	-6.2%	$1,198,280	-5.9%
Feb	Actual	1,677,261	4.8%	973,375	16.5%	56.2%	315,473	-4.7%	0.324	-18.2%	1,261,893	-4.7%	1,196,925	-6.2%
Mar	Actual	1,949,436	-1.1%	1,191,533	11.3%	59.3%	386,358	-5.1%	0.324	-14.7%	1,545,432	-5.1%	1,261,893	-4.7%
Apr	Actual	1,866,408	0.8%	1,151,055	13.9%	57.8%	395,404	-1.2%	0.344	-13.3%	1,581,616	-1.2%	1,545,432	-5.1%
May	Actual	1,986,868	-0.7%	1,264,521	8.4%	61.2%	385,553	-9.9%	0.305	-16.8%	1,542,212	-9.9%	1,581,616	-1.2%
Jun	Actual	2,060,632	-0.7%	1,346,443	10.5%	62.3%	348,517	-6.7%	0.259	-15.6%	1,394,068	-6.7%	1,542,212	-9.9%
Jul	Actual	2,139,644	1.6%	1,361,975	10.0%	63.1%	351,184	-3.3%	0.258	-12.1%	1,404,737	-3.3%	1,394,068	-6.7%
Aug	Actual	1,953,876	0.5%	1,181,425	5.9%	60.8%	350,904	-6.6%	0.297	-11.7%	1,403,614	-6.6%	1,404,737	-3.3%
Sep	Actual	1,849,128	13.0%	1,151,503	23.2%	60.8%	340,219	2.9%	0.295	-16.5%	1,360,874	2.9%	1,403,614	-6.6%
Oct	Actual	1,976,035	3.9%	1,209,593	13.2%	60.2%	386,185	-1.9%	0.319	-13.3%	1,544,740	-1.9%	1,360,874	2.9%
		19,201,348	1.9%	11,836,611	12.0%	60.0%	3,559,028	-4.4%	0.301	-14.6%	14,236,111	-4.4%	13,889,651	-4.8%
Nov	Estimated	1,920,000	**5.0%**	1,127,000	9.5%	**60.0%**	338,000	-7.1%	**0.300**	-15.2%	1,352,000	-7.1%	1,544,740	-1.9%
Dec	Estimated	2,150,000	**5.0%**	1,168,000	1.4%	**60.0%**	321,000	-11.0%	**0.275**	-5.9%	1,284,000	-4.6%	1,352,000	-7.1%
Total	Estimated	**23,271,000**		**14,132,000**			**4,218,000**		**0.298**		**$16,872,000**	**-4.6%**	**$16,786,000**	**-4.7%**

	Enplaned Passengers		Originating Passengers		Percent Originating	Transaction Days		Transaction Days per O.P.		CFC Revenues		CFC Collections	
Prior Projection (Dec 2022	**22,716,000**		**13,631,000**		**60.0%**	**4,091,000**		**0.368**		**$16,364,000**		**$16,340,000**	
Change from Projection	**555,000**		**501,000**			**127,000**				**508,000**		**446,000**	
% Change	**2.4%**		**3.7%**			**3.1%**				**3.1%**		**2.7%**	

Source: Houston Airport System

Therefore, amounts transferred from the Facility Improvement Fund to the Revenue Fund, for any reason, may be used to pay debt service and counted as Pledged Revenues for the purposes of debt service coverage.

In April 2020 HAS began making such transfers in the amount of *$1,250,000 a month.* That practice continued throughout 2020. Beginning in January 2021 the monthly amount was reduced to $1,000,000 a month and gradually reduced thereafter as the recovery in air traffic demand and CFC revenues continued:

MONTHLY TRANSFERS FROM THE FACILITY IMPROVEMENT FUND TO THE REVENUE FUND 2020, 2021, 2022 and 2023

	2020	2021	2022	2023	
Jan	$0	$1,000,000	$500,000	$250,000	
Feb	$0	$1,000,000	$500,000	$250,000	
Mar	$0	$1,250,000	$500,000	$250,000	
Apr	$1,250,000	$1,000,000	$500,000	$250,000	
May	$1,250,000	$750,000	$500,000	$250,000	
Jun	$1,250,000	$750,000	$500,000	$250,000	
Jul	$1,250,000	$750,000	$500,000	$250,000	
Aug	$1,250,000	$500,000	$500,000	$250,000	
Sep	$1,250,000	$500,000	$500,000	$250,000	
Oct	$1,250,000	$500,000	$500,000	$250,000	
Nov	$1,250,000	$250,000	$500,000	$250,000	
Dec	$1,250,000	$250,000	$500,000	$250,000	est
Total	$11,250,000	$8,500,000	$6,000,000	$3,000,000	

Transfers *from* the Facility Improvement Fund *to* the Revenue Fund are made toward the middle of each month. Then, at the end of each month, the amount by which CFC collections plus FIF transfers exceed the cash flow requirements of the enterprise (including required debt service transfers) is transferred *back to* the FIF from the Revenue Fund. Throughout 2023, the month-end transfers from the Revenue Fund back to the FIF have exceeded the early-in-the-month transfers from the FIF to the Revenue Fund, contributing to a moderately increasing balance of cash reserves in the FIF as the recovery has continued.

The recovery of the Airport rental market from the COVID pandemic is now essentially complete, suggesting that further monthly transfers from the FIF to the Revenue Fund are no longer necessary.

Availability of Funds for Upcoming Debt Service Payment

Projected CFC collections for November and December of 2023, together with (1) moneys currently available in the Debt Service Account and (2) projected transfers from the FIF in November and December, are projected to be more than sufficient to provide for the debt service payments coming due on January 2, 2024

Funds Available for January 2, 2024 Debt Service Payment	
Balance in Debt Service Fund - October 31, 2023	$8,595,985
Estimated CFC Collections - November and December 2023	$2,896,740
Total Funds Available	**$11,492,725**
Debt Service Requirements--January 2, 2024	
Remaining 2001 Bonds	
Principal	$8,165,000
Interest	2,087,392
Total Debt Service Payment--January 2, 2024	**$10,252,392**

Trends in Transaction Days per Originating Passenger

Table 4 shows historical patterns in monthly transaction days per enplaned passenger for calendar years 2019, 2020, 2021, 2022 and year-to-date 2023, and projected monthly transaction days per originating passenger for the last two months of 2023 and all of calendar year 2024.

Table 4

Trends in Transaction Days per Originating Passenger
Rental Car Market
George Bush Intercontinental Airport / Houston

	Actual					Projected
	2019	2020	2021	2022	2023	2024
						assume no change from actual 2023
Jan	0.352	0.345	0.744	0.331	0.298	**0.298**
Feb	0.396	0.386	0.882	0.339	0.324	**0.324**
Mar	0.380	0.425	0.624	0.318	0.324	**0.324**
Apr	0.396	1.099	0.572	0.343	0.344	**0.344**
May	0.367	0.794	0.448	0.306	0.305	**0.305**
Jun	0.307	0.680	0.357	0.263	0.259	**0.259**
Jul	0.293	0.381	0.320	0.257	0.258	**0.258**
Aug	0.336	0.356	0.396	0.295	0.297	**0.297**
Sep	0.354	0.362	0.419	0.288	0.295	**0.295**
Oct	0.368	0.376	0.418	0.306	0.319	**0.319**
					Projected	
Nov	0.354	0.314	0.290	0.300	**0.300**	**0.300**
Dec	0.292	0.277	0.264	0.256	**0.275**	**0.275**
Annual Average	**0.347**	**0.384**	**0.427**	**0.297**	**0.298**	**0.298**

Assumptions regarding transaction days per originating passenger are the principal drivers of the projection of transaction days and, in turn, CFC revenues. Monthly transaction days per originating passenger fluctuated widely from historical patterns in the aftermath of the pandemic compared to 2019. But those patterns have now stabilized, albeit at somewhat lower levels (an average of 0.298 in 2023 versus an average of 0.347 in 2019, as highlighted above). The lower levels of monthly transaction days per originating passenger are likely attributable to a slower recovery in business travel compared to leisure travel in the Houston market and the rise in popularity of ride share services. It is difficult to anticipate when or if business travel will fully recover or if transaction days per originating passenger will return fully to pre-pandemic (2019) patterns.

For the purposes of projecting CFC revenues in 2023, it is assumed that the monthly transaction days per originating passenger in 2024 would be the same as in 2023, reflecting a continuation of the relatively slower recovery of business travel.

Projected CFC Revenues and Collections at the Current CFC Rate

Table 5, "Projection of Rental Car Transaction Days and CFC Revenues—Calendar Year 2024," extrapolates the historical relationships shown in Table 3 to produce a projection of CFC revenues and CFC collections for 2024 *assuming continuation of the current $4.00 CFC Rate.* The forecast of CFC revenues is also based on the following key assumptions:

- Overall air traffic activity (passenger enplanements) would increase by 2.5% in 2024 over 2023.
- Originating passengers would account for an average of 60% of enplanements in 2024, the average level sustained during 2023.
- Monthly transaction days per originating passenger in 2024 would be the same as in 2023 and consistent with the seasonal patterns of the past year.

Assuming no change in the CFC rate, CFC *revenues* are projected to be $17,100,000 and CFC *collections* are projected to be $16,928,000 in 2024.

Although not shown in this report, based on the above assumptions the computed "breakeven" CFC rate for 2024 (the rate required to cover only debt service requirements and fund replenishments, without any supplemental transfers from the FIF) is **$2.79**—significantly less than the $4.00 rate currently in place.

Recommended CFC Rate

As noted above, the current $4.00 CFC rate exceeds the minimum "breakeven" rate. However, HAS historically has pursued rate stability as a goal, even where moderate rate reductions or increases might otherwise be supportable. This has allowed HAS to maintain CFC rate stability and demonstrate debt service coverage margins well in excess of the minimum requirements of the Trust Indenture. The Operators and the Trustee have concurred with this policy.

In addition, in past years HAS has kept the CFC rate above minimum "breakeven" rates in order to accumulate reserves in the Facility Improvement Fund for potential future Facility expansion and improvement. (Those reserves were available to help HAS address the COVID-19 market disruption without having to resort to increasing costs to rental car customers.) As described later in this report, HAS expects to start another major shuttle bus replacement cycle in the next year or two. In addition, HAS believes there may be a need to improve the Customer Service Building at some point to better accommodate the changing market shares of the current Operators. For these reasons, HAS has decided to *keep the current $4.00 CFC rate in place in 2024.* I concur with this decision.

Table 5

PROJECTION OF RENTAL CAR TRANSACTION DAYS AND CFC REVENUES
Calendar Year 2024
Consolidated Rental Car Facility
George Bush Intercontinental Airport / Houston

CFC Rate: Jan-Mar $4.00; Apr-Dec $4.00

2024	Assumptions:		2.5%			60.0%								
Applicable Month	Actual or Projection	Enplaned Passengers	*% Change from 2023*	Originating Passengers	*% Change from 2023*	Percent Originating	Transaction Days	*% Change from 2023*	Transaction Days per O.P.	*% Change from 2023*	CFC Revenues	*% Change from 2023*	CFC Collections	*% Change from 2023*
Jan	Projection	1,786,000	**2.5%**	1,072,000		**60%**	319,000		0.298		**$1,276,000**		$1,284,000	
Feb	Projection	1,719,000	**2.5%**	1,031,000		**60%**	334,000		0.324		**$1,336,000**		$1,276,000	
Mar	Projection	1,998,000	**2.5%**	1,199,000		**60%**	389,000		0.324		**$1,556,000**		$1,336,000	
Apr	Projection	1,913,000	**2.5%**	1,148,000		**60%**	394,000		0.344		**$1,576,000**		$1,556,000	
May	Projection	2,037,000	**2.5%**	1,222,000		**60%**	373,000		0.305		**$1,492,000**		$1,576,000	
Jun	Projection	2,112,000	**2.5%**	1,267,000		**60%**	328,000		0.259		**$1,312,000**		$1,492,000	
Jul	Projection	2,193,000	**2.5%**	1,316,000		**60%**	339,000		0.258		**$1,356,000**		$1,312,000	
Aug	Projection	2,003,000	**2.5%**	1,202,000		**60%**	357,000		0.297		**$1,428,000**		$1,356,000	
Sep	Projection	1,895,000	**2.5%**	1,137,000		**60%**	336,000		0.295		**$1,344,000**		$1,428,000	
Oct	Projection	2,025,000	**2.5%**	1,215,000		**60%**	388,000		0.319		**$1,552,000**		$1,344,000	
Nov	Projection	1,968,000	**2.5%**	1,181,000		**60%**	354,000		0.300		**$1,416,000**		$1,552,000	
Dec	Projection	2,204,000	**2.5%**	1,322,000		**60%**	364,000		0.275		**$1,456,000**		$1,416,000	
Total - 2024		**23,853,000**	**2.5%**	**14,312,000**	**1.3%**	**60%**	**4,275,000**	**1.4%**	**0.299**	**0.0%**	**$17,100,000**	**1.4%**	**$16,928,000**	**0.8%**

Given the extent of the recovery from the recent rental car market recession, monthly transfers from the FIF to the Revenue Fund can be eliminated in 2024 while still ensuring debt service payments are made as required.

Assuming no change in the CFC rate, projected monthly CFC collections in 2024 are summarized in Table 6 below:

Table 6

PROJECTED CFC COLLECTIONS
Calendar Year 2024
George Bush Intercontinental Airport / Houston

	Projected CFC Collections		
	100.0%	90.0%	80.0%
January	**$1,284,000**	$1,155,600	$1,027,200
February	**1,276,000**	1,148,400	1,020,800
March	**1,336,000**	1,202,400	1,068,800
April	**1,556,000**	1,400,400	1,244,800
May	**1,576,000**	1,418,400	1,260,800
June	**1,492,000**	1,342,800	1,193,600
July	**1,312,000**	1,180,800	1,049,600
August	**1,356,000**	1,220,400	1,084,800
September	**1,428,000**	1,285,200	1,142,400
October	**1,344,000**	1,209,600	1,075,200
November	**1,552,000**	1,396,800	1,241,600
December	**1,416,000**	1,274,400	1,132,800
Total	**$16,928,000**	**$15,235,200**	**$13,542,400**

Operating Cash Flow

Table 7 below on the following page shows historical operating cash flow associated with the Consolidated Rental Car Facility for 2021, 2022, and 2023 and projected cash flow for 2024 *assuming continuation of the current $4.00 CFC rate in 2024.*

Table 7

PROJECTED ANNUAL CFC REQUIREMENT AND CASH FLOWS
For Calendar Years Ending December 31
Consolidated Rental Car Facility
George Bush Intercontinental Airport / Houston

		Actual 2021	Actual 2022	Estimated 2023	Projected 2024
CFC Rate: *Jan-Mar*		$4.00	$4.00	$4.00	$4.00
Apr-Dec		$4.00	$4.00	$4.00	$4.00
CFC Collections (from Tables 3 and 5)		**$11,360,306**	**$14,634,186**	**$16,786,000**	**$16,928,000**
Transfers from CFC Rate Stabilization Account		0	0	0	0
Transfers from Facility Improvement Fund					
Amount of monthly transfer:		*various*	*$500,000*	*$250,000*	*$0*
Months of transfers:		*Jan-Dec*	*Jan-Dec*	*Jan-Dec*	*Jan-Dec*
Total amount transferred:	D	**8,500,000**	**6,000,000**	**3,000,000**	**0**
Investment Income		2,139	127,263	430,000	500,000
Total Revenues and Transfers	A	**$19,862,445**	**$20,761,449**	**$20,216,000**	**$17,428,000**
Replenish Administrative Costs Account		0	78,420	52,700	50,000
Replenish CFC Rate Stabilization Account (to $300,000)		0	0	0	0
Transfers to Debt Service Fund					
Principal		7,505,000	8,165,000	8,870,000	9,630,000
Interest		4,691,128	4,174,784	3,613,032	3,003,000
		12,196,128	12,339,784	12,483,032	12,633,000
Total Requirement	B	**$12,196,128**	**$12,418,204**	**$12,535,732**	**$12,683,000**
Projected surplus @ proposed CFC rate (= estimated transfers back to Facility Improvement Fund)	C = A-B	**$7,666,317**	**$8,343,245**	**$7,680,268**	**$4,745,000**
Net Transfers from the FIF (subsidy)	C-D	**$833,683**			
Net Transfers to the FIF (surplus)	C-D		**$2,343,245**	**$4,680,268**	**$4,745,000**

In 2021, CFC collections, together with *$8.5 million* of monthly transfers from the FIF and other available resources, were sufficient to cover all the funding requirements under the Trust Indenture and generate a surplus cash flow of $7.7 million. So that year the *net subsidy* of the enterprise from the FIF was $0.8 million. In 2022, CFC collections, together with *$6.0 million* of monthly transfers from the FIF and other available resources, were sufficient to cover all the funding requirements under the Trust Indenture and generate a surplus cash flow of $8.3 million. In 2023, CFC collections, together with *$3.0 million* of monthly transfers from the FIF and other available resources, should be sufficient to cover all the funding requirements under the Trust Indenture and generate a surplus cash flow of $7.7 million. In 2022 and 2023, *no net subsidy from the FIF was required*, and some $7.0 million ($2.3 million in 2022 and $4.7 million in 2023) was added to the balance in the FIF.

In 2024, CFC collections, assuming no transfers from the FIF, are projected to be sufficient to cover all funding requirements and generate net transfers to the FIF of $4.7 million.

Other Capital Needs

HAS and the Operators have developed a four-year (2024-2027) capital improvement program for the Facility. In addition, certain other projects are currently in progress or have been completed in 2023. These capital projects are summarized in Table 8 below. The total cost of these projects is estimated by HAS to be approximately $32.6 million over the five-year period, 2023-2027.

Table 8

2023 - 2027 CAPITAL IMPROVEMENTS
Consolidated Rental Car Facility
George Bush Intercontinental Airport / Houston

Project	Actual 2023 and Prior	Projected 2024	2025	2026	2027	2023-2027 Total
Projects in Process or Completed in 2023						
Building Automation System	18,330	231,150	0	0	0	249,480
Bus Level Entrance Upgrade	16,160	84,514	0	0	0	100,674
Chiller Replacement #2	81,513	183,000	0	0	0	264,513
CSB Restroom Renovations	22,710	336,922	0	0	0	359,632
Electric Vehicle Charging Stations	879,489	456,151	0	0	0	1,335,640
	$1,018,202	**$1,291,738**	**$0**	**$0**	**$0**	**$2,309,939**
Projects Planned for 2024-2027						
Alternative Fuel Shuttle Buses	0	0	8,500,000	8,500,000	8,500,000	25,500,000
CSB Lobby Seating	0	7,500	0	0	0	7,500
CSB Terrazzo Floor Replacement	0	250,000	0	0	0	250,000
Electric Vehicle Infrastructure	0	500,000	500,000	0	0	1,000,000
Exterior Escalator Deflector Walls	0	275,000	0	0	0	275,000
Fire Alarm Panel Replacement	0	101,351	0	0	0	101,351
Vertical Transportation Equipment	0	3,000,000	0	0	0	3,000,000
	$0	**$4,133,851**	**$9,000,000**	**$8,500,000**	**$8,500,000**	**$30,133,851**
Total	**$1,018,202**	**$5,425,588**	**$9,000,000**	**$8,500,000**	**$8,500,000**	**$32,443,790**

Source: CBRE (Rental Car Center facility operator) and Houston Airport System.

The major element of the capital improvement program is the replacement of the shuttle bus fleet with new "clean energy" vehicles powered by alternative fuel ($25.5 million). Three options are currently under consideration: electric, natural gas, and hydrogen. A decision regarding the type of vehicle is anticipated to be made in 2024 and procurement is anticipated to begin in 2025. Federal grant funding is being pursued for this project. In addition, HAS is currently studying the need for replacement of certain elevators and escalators in the Customer Service Building. The budget for this project ($3.0 million) is simply an allowance for now.

All of these projects are anticipated to be funded from the Facility Improvement Fund (internally generated cash flow). The balance in the Facility Improvement Fund (FIF) as of October 31, 2023 (approximately $45.9 million) is more than sufficient to fund the currently anticipated capital needs of the Facility including the 2023-2027 capital improvement program.

In 2022, HAS undertook a planning study of long-term Facility expansion needs (the Capacity Study.) The principal findings of the study, as set forth in the consultants' final summary report, are presented on the following page. In general, the Capacity Study concludes that the Facility should be adequate in size and capacity to accommodate projected growth through the year 2035, although some (as yet undefined) improvement of the Customer Service Building and the Parking Structure could be needed to address shifts in Operator market shares and allow more efficient co-location of corporate brands.

Status of the Facility Improvement Fund

As of October 31, 2023 the balance in the FIF was $45.9 million. These funds represent moneys available for planned capital projects and for capital improvements, contingencies, debt retirement, or, if needed, rate stabilization.

Table 9 shows the projected flows in the FIF in 2023 and 2024. The balance in the FIF is projected to be approximately $46.8 million at the end of 2023 and $46.6 million at the end of 2024.

Table 9

PROJECTED CASH FLOWS IN THE FACILITY IMPROVEMENT FUND
Consolidated Rental Car Facility
George Bush Intercontinental Airport / Houston
For Years Ending December 31

	10 Mos YTD 2023	Estimated 2023	Projected 2024
Facility Improvement Fund (FIF)	*Actual as of 1/1/23*		
Beginning balance	**$41,490,762**	**$41,491,000**	**$46,824,000**
Transfers out (to Revenue Fund)	(2,500,000)	(3,000,000)	0
Transfers in (from Revenue Fund)	6,268,657	7,826,000	4,745,000
Capital Expenditures (from CIP)	(1,014,498)	(1,571,000)	(4,997,000)
Investment income	1,675,900	2,078,000	0
Ending Balance	**$45,920,821**	**$46,824,000**	**$46,572,000**

Actual as of 10/31/23
$45,920,821
per Trustee Statement

FINDINGS / NEXT STEPS / AREAS FOR FURTHER STUDY
Capacity Study
Consolidated Rental Car Facility

Findings

Ready/Return Garage - The capacity of the garage is expected to be sufficient for demand until at least 2035, based on analysis of rental transactions. However, a larger footprint may be required for operational improvements, such as the ability to co-locate brands from the same brand-family on the same floor. Areas for planned expansion are available if needed. A reallocation of space may be appropriate at this time to align with changing market share numbers for each company.

Customer Service Center – The overall capacity is expected to be sufficient now until 2035, unless the number of operators increases. Space can be reallocated to align with changing market share numbers for each company. If additional counter space is required, the option of utilizing non-rental car customer counter areas (building manager, storage) for RAC use could be explored.

Maintenance Service Sites – There is plentiful land area for service site expansion if required in future. No consideration was given at this time for the addition of a consolidated Quick Turnaround Area (QTA) located adjacent to the ready / return garage.

Employee Parking – Currently there is sufficient capacity in the Ready/Return Garage for it to accommodate some RAC employee parking, if that is the approach preferred by the operators. However, if capacity concerns arise in future it is recommended that RAC employees park in the designated employee parking area rather than in the garage.

Recommended Next Steps

• Revisit assessment of requirements with consideration of post-pandemic trends for air travel and rental car demand • Revisit reallocation options with consideration of new transaction data and market shares based on data from a period after demand picked up following the worst phase of the pandemic • A cost/benefit analysis of estimated construction costs for both reallocation and expansion options and their overall impact on CFCs and the facility • Select a preferred alternative and schedule for expansion / reallocation of the ready/return garage, customer service center and service site.

Planning Study Areas for Further Study

Electric Vehicles – By 2035, the majority of privately owned vehicles are expected to be electric. Hertz recently announced they are acquiring 100,000 Tesla Model 3 sedans. This introduces a new set of challenges and considerations for the RCC: • Power requirements will increase, especially if it is necessary to upgrade from Level 2 to Level 3 to expedite charging time. • Garage capacity requirements may increase if cars may need to sit longer in the garage to charge, impacting capacity requirements and vehicle turns, especially if limited to using Level 2 chargers due to existing power availability in the garage. • Refueling system for limited remaining amount of gas vehicles, may not be able to mix high voltage electric plug with gas fuel • Less maintenance bays may be needed as electric fleet grows and less need for oil changes

TNCs and P2P – TNCs and P2P currently enjoy direct access to the airport curb, whereas RAC customers must take a bus to the RCC. There could be a need to address parity of curb access, or at least the price that these competing modes pay for this access.

Other Emerging Technologies and Trends – Other emerging trends such as automated vehicle parking technology and mobile apps could influence design and reduce staffing requirements.

Source: Leigh Fisher / PGAL, 2022.

Projected Debt Service Coverage

Table 10 shows the calculation of debt service coverage on the 2001 Bonds and 2014 Refunding Bonds for actual 2021, actual 2022, estimated 2023, and projected 2024.

Pledged Revenues include CFC collections, investment income on certain funds and accounts, and transfers from the Rate Stabilization Account (if any), the Coverage Account and the Facility Improvement Fund.

Table 10

CALCULATION OF DEBT SERVICE COVERAGE
Consolidated Rental Car Facility
George Bush Intercontinental Airport / Houston
For Years Ending December 31

		Actual 2021	Actual 2022	Estimated 2023	Projected 2024
CFC Rate:	**Jan - Mar**	**$4.00**	**$4.00**	**$4.00**	**$4.00**
	Apr - Dec	**$4.00**	**$4.00**	**$4.00**	**$4.00**
CFC Collections		**$11,360,306**	**$14,634,186**	**$16,786,000**	**$17,412,000**
Investment Income		2,139	127,263	430,000	500,000
Transfers from Facility Improvement Fund		**8,500,000**	**6,000,000**	**3,000,000**	**0**
Transfers from Rate Stabilization Account		0	0	0	0
Transfers from Coverage Account		3,169,143	3,169,143	3,169,000	3,169,000
Total Resources available for Debt Service	A	**$23,031,588**	**$23,930,592**	**$23,385,000**	**$21,081,000**
Total Annual Debt Service[1]					
2001 Bonds		$12,196,128	$12,339,784	$12,483,000	$12,632,776
2014 Refunding Bonds		$0	$0	$0	$0
	B	**$12,196,128**	**$12,339,784**	**$12,483,000**	**$12,632,776**
Debt Service Coverage Ratio	A / B	**1.89**	**1.94**	**1.87**	**1.67**

1. Debt service is shown on an accrual basis. For example, 2023 debt service equals the sum of the July 2, 2023 and January 2, 2024 interest and principal payments.

The Trust Indenture requires that Pledged Revenues provide at least 1.25x coverage of debt service each year. Debt service coverage is projected to be **1.87x in 2023** (based on extrapolating 10 months year-to-date actual results) and **1.67x in 2024**—ratios that substantially exceed the 1.25x Trust Indenture requirement. The projected decline in debt service coverage in 2024 is attributable entirely to the ending of monthly transfers from the FIF to the Revenue Fund, a policy that was put in place during the market decline of 2020 and is no longer required.

* * * *

Conclusions

1. The COVID-19 pandemic led to a precipitous reduction of air traffic and rental car demand at the Airport in the spring of 2020, declines that gradually moderated over the next three years. Air traffic demand at the Airport has now fully recovered to 2019 (pre-COVID) levels and rental car demand has recovered to nearly 96% of 2019 levels.

2. HAS has implemented an effective strategy to mitigate the financial risks of the recent market decline by transferring funds from the FIF to the Revenue Fund to cover debt service requirements. When the Trust Indenture was written, this approach was anticipated as a mechanism to address unexpected contingencies. Such transfers are counted as Pledged Revenues for the purposes of cash flow needs and debt service coverage calculations. However, because the Houston rental car market has essentially recovered to pre-COVID levels, such transfers are no longer required and can be discontinued.

3. The current CFC rate of $4.00 per transaction day substantially exceeds the "breakeven" rate required by the enterprise to meet debt service and other annual funding requirements.

4. The near-term capital needs of the Facility have increased significantly, largely because HAS plans to replace its rental car shuttle bus fleet with new alternative fuel vehicles over the next few years. As a result, HAS intends to leave the current CFC rate in place in 2024.

5. The balance of funds in the FIF (nearly $46 million), coupled with future projected cash flows to the FIF, should be more than sufficient for HAS to fund its capital needs and address any other unexpected contingencies that may emerge over the near term.

Recommendations

Based on the foregoing, I concur with HAS's decision to leave the CFC rate at the current $4.00 per transaction day in 2024.

Respectfully submitted,

Roger H Bates

Roger H. Bates