6. Ground Access

By 2022, passenger activity levels began to recover at a faster pace than the previous year as the aviation industry continued to recover from the COVID-19 worldwide pandemic and airport passengers returned to international travel. In 2022, passenger activity levels totaled 36.1 million passengers, which was about 15 percent lower than the 2019 pre-pandemic levels.

To respond to the changes in passenger air travel demand, Massport continues to evaluate and plan for the recovery of air passenger activity and remains committed to implementing the broad range of ground access and trip reduction strategies, which are outlined throughout this chapter. Massport continues to carefully review both on and off-Airport ground transportation activity levels and will adjust its ground access programs to align with air passenger and employee needs. High-occupancy vehicle (HOV) services have resumed, and further ground access improvements will continue to be reviewed and adjusted according to current conditions. Massport remains committed to implementing project-related ground access mitigation strategies, as documented in Chapter 10, *Project Mitigation*.

Massport remains committed to promoting numerous HOV modes, including transit and shared-ride options to enhance on-Airport roadway and curbside operations, alleviate constraints on parking, reduce drop-off and pick-up activities, and improve customer service. Massport has a comprehensive, multi-pronged trip reduction strategy to diversify and enhance ground transportation options for passengers and employees traveling to and from Logan Airport. The ground transportation strategy is designed to offer passengers a choice of HOV modes that are convenient, reliable, and reduce environmental and community impacts.

The strategy also aims to provide sufficient on-Airport parking for air passengers choosing automobile access modes or who have limited HOV options. Improving the Airport's multimodal connectivity can alleviate traffic congestion and provide environmental benefits by reducing vehicle trips, **vehicle miles traveled (VMT)**, and **greenhouse gas (GHG)** emissions associated with travel to and from Logan Airport. The cost, speed, convenience, safety, and reliability of transportation modes connecting to the Airport

affect how passengers and employees choose among these access modes. Offering a range of ground access options also improves the customer experience for Airport users.

The following efforts encourage passengers, employees, and Airport users to choose more environmentally sustainable modes of ground transportation:

- Massport continues to invest in and operate Logan Airport with a goal of increasing the number of passengers and Airport employees arriving by HOV, including transit, and other shared-ride modes of transportation. Massport provides financial incentives to promote HOV use and reduce single occupancy vehicle (SOV) trips or **deadhead trips.** Massport implements initiatives to improve HOV service availability, HOV service quality, HOV supporting infrastructure, marketing for HOV options, and traveler information about shared-ride alternatives.
- Massport promotes initiatives to reduce the total number of vehicles that access Logan Airport; in particular, the environmentally undesirable single passenger drop-off and pick-up mode, which generates up to four vehicle trips instead of two and contributes to greater terminal area roadway congestion.[1]
- The Airport parking supply is managed with the intent to reduce drop-off and pick-up modes that result in deadhead trips, which promotes long-term, rather than short-term, parking. Long-term parking reduces the number of daily trips to Logan Airport; supports efficient use of parking facilities; provides a better overall customer experience; and complies with the provisions of the **Logan Airport Parking Freeze**.[2]

In addition to highlighting more recent changes to ground transportation services, operations, and pricing, this chapter reports on ground access conditions and activity levels in 2022 and past conditions. In this chapter, activity levels refer to a measurement of ridership on various ground access modes (unless noted otherwise) and traffic volumes. This chapter provides an overview of parking demand and its impacts under Logan Airport's constrained parking supply. Regional transportation efforts related to the Airport, as well as planning efforts to diversify transportation options in the New England region, are discussed in Chapter 5, *Regional Transportation*.

1 If an air passenger is dropped off when departing on a flight and is picked up upon return, that single air passenger generates a total of four ground access trips: two for the drop-off trip (one inbound to Logan Airport, one outbound from Logan Airport) and two for the pick-up trip (one inbound to Logan Airport, one outbound from Logan Airport). The air passenger may be dropped off and picked up in a private vehicle, taxi, RideApp, or a black car limousine and the vehicle may not carry a passenger during all segments of travel to and from Logan Airport.

2 310 Code of Massachusetts Regulations 7.30; 40 Code of Federal Regulations 52.1120.

2022 Ground Access Key Findings

The following details key findings of ground access at the Airport in 2022:

- Research indicates that even post-pandemic, Logan Airport will continue to be one of the top U.S. airports in terms of HOV mode share, including transit mode share.
- Massport set a target to reach a 35.5 percent HOV mode share by 2022 and 40 percent by 2027. The *2022 Air Passenger Ground-Access Survey* found HOV mode share reached 38.4 percent, which exceeds the 2022 target and indicates Massport is also on track to meet the 2027 target.

In 2022, HOV mode share reached 38.4 percent, exceeding the 2022 target of 35.5 percent.

- Key initiatives implemented in 2022 or planned for the immediate future to promote sustainable transportation mode usage, improve Airport roadway and curbside operations, and alleviate traffic congestion and parking constraints include:
  - Promoting Logan Express ridership by expanding offsite parking options, increasing trip frequency, investing in facility upgrades, and providing reduced fares for online ticket purchases.
  - Purchasing ten replacement **Massachusetts Bay Transportation Authority (MBTA)** Silver Line buses to enhance service to the Logan Terminals as part of a Spring 2023 MBTA procurement; and
  - Continuing the ***RideApp*** *Management Plan* implementation to improve roadway function at the Airport, including a focus on improving ride **rematch** and promoting passenger-shared rides.
- Average weekday on-Airport VMT in 2022 was 21.6 percent lower than the VMT on-Airport in 2019, with 164,625 average daily miles traveled in 2022. Airport activity and on-Airport VMT were trending higher in 2022 compared to 2021 due to the reduction in air travel restrictions and continued transit capacity limitations associated with COVID-19 social distancing guidelines.
- Each type of ground transportation service available in 2022 showed increased ridership compared to 2021, indicating access modes to Logan Airport are returning to pre-pandemic usage levels and trends.
- Mode share data from the *2022 Air Passenger Ground-Access Survey* showed some lingering effects from the pandemic on passenger choices in travel to and from the Airport, with private automobiles transporting more passengers than previously reported and bus services transporting less.

Future Forecast Ground Access Key Findings

The following details key findings of ground access at the Airport for the **Future Planning Horizon**:

- In the next 10 to 15 years (the Future Planning Horizon) Logan Airport is anticipated to reach 53.5 million air passengers (MAP). A VMT analysis was conducted for the Future Planning Horizon using the VISSIM model of Logan Airport. On-Airport vehicle trips were estimated based on available flight forecast information and anticipated mode shares.

- In the Future Forecast, daily on-Airport VMT is estimated to be 212,022, which is 1 percent more than the 2019 daily VMT of 209,900 and 29 percent more than the 2022 daily VMT of 164,625. The increase in VMT is primarily attributed to forecast increase in air passenger activity.
- Massport has a standing policy to maintain ground access operations and minimize traffic congestion to accommodate passengers arriving and departing the Airport. This policy has resulted in several infrastructure and operational modifications that complement broader policy changes and allow terminal-area roadways and curbsides to continue functioning adequately and minimize vehicle idling and associated emissions. Some modifications, such as the Terminal B/C Roadway project, the Terminal C Curbside Optimization, and changes to Terminal B curbsides and RideApp operations are already complete. These modifications appear to have a lasting benefit on future airport ground access conditions and are projected to improve terminal roadway congestion through future peak summer average day forecast levels.

6.1 Ground Transportation Modes of Access to Logan Airport

For over four decades, Logan Airport *Environmental Data Reports (EDRs)* and ESPRs have tracked and reported on ground access and ground transportation at the Airport. Air passengers and employees have a variety of options for getting to and from Logan Airport, including:

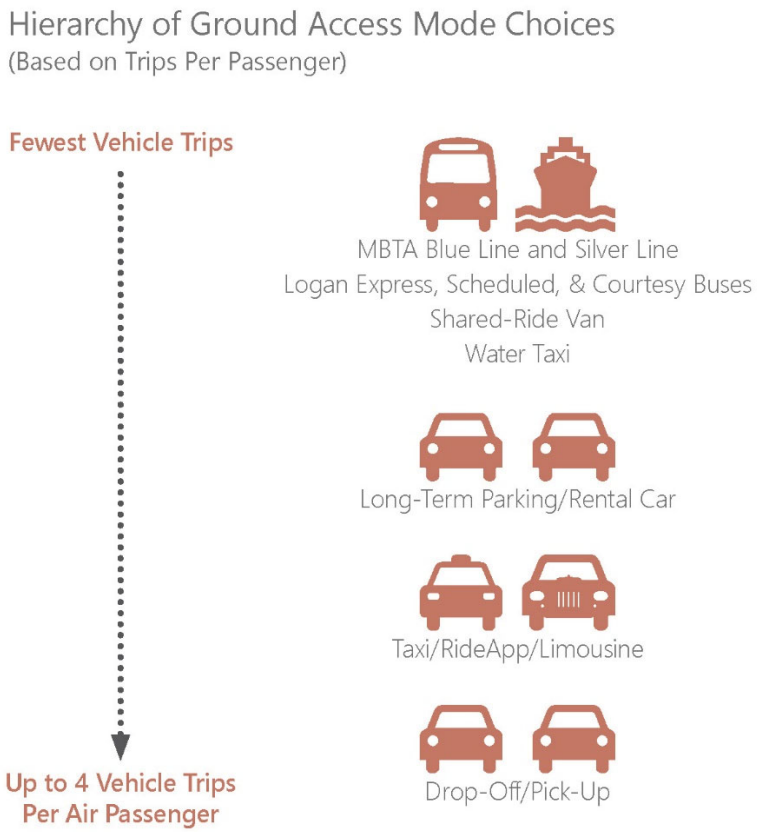
- Public transit modes, such as the MBTA Blue Line subway, the rapid transit Silver Line 1 bus service, other MBTA bus routes, and water transportation
- Massport's Logan Express scheduled bus service
- Scheduled buses and vans
- Courtesy shuttle buses
- Charter buses
- Private automobiles
- Unscheduled, or on-demand, private black car limousines and vans
- Taxis
- Rental cars
- RideApp services, such as Uber™ and Lyft™

Mobile ride-sharing application (RideApp) services, such as Uber™ and Lyft™, are increasingly becoming a mode of choice for ground access at airports throughout the country. To address the substantial shift to RideApp services, Massport reported on its comprehensive plan to address RideApp-related impacts in the *2017 ESPR*, and a status update of that plan is provided later in this chapter.

HOV, including transit, and shared-ride modes are designed for the efficient transport of multiple travelers within a single vehicle. With a higher occupancy, the number of vehicle trips per passenger is low compared to single occupancy private vehicles. Private vehicles that park at the Airport or at an off-Airport lot generate a single-vehicle trip to the Airport for the departing air passenger and a

single-vehicle trip from the Airport for the arriving air passenger. Even less desirable, vehicles that do not remain at the Airport for an air passenger's trip duration, such as a private vehicle that drops off an air passenger at the curb, generate two trips, a trip to and a trip from the Airport, for a departing air passenger and an additional two trips for the arriving passenger. Taxis, RideApp services, and black car limousines may also result in a trip without passengers (deadhead trip) when they depart Logan Airport empty after dropping off an air passenger, particularly in the morning, or when these vehicles arrive empty at the Airport to pick-up air passengers. As **Figure 6-1** shows, when measured in terms of the fewest number of vehicle trips generated, HOV is the most environmentally desirable mode, followed by drive-and-park, with the least desirable being drop-off and pick-up modes.

Figure 6-1 Ground Access Mode Choice Hierarchy



Source: VHB.
Notes: Short-term parking is included under "Drop-off/Pick-up."
Rental cars are included in the "Long-Term Parking" category.

6.2 2022 On-Airport Vehicle Traffic: Volumes and Vehicle Miles Traveled (VMT)

The effects of ground transportation associated with airport operations are measured in two ways; the number of vehicles that enter the airport and the vehicle miles traveled (VMT) by those vehicles while on airport roadways. This section reports on Logan Airport's traffic-related activity for 2022, specifically:

- Gateway traffic volumes (airport access points)
- Estimated On-Airport VMT

Massport's leadership in and commitment to developing, promoting, and providing alternative means of ground transportation for access to and from Logan Airport is key to reducing gateway traffic volumes and on-Airport VMT. The diverse range of environmentally responsible ground transportation modes by which air travelers, employees, and other Airport users can access the Airport reduces reliance on automobile travel, minimizes traffic congestion, and improves air quality.

6.2.1 Gateway Traffic Volumes

Gateway roadways are defined as access points to and from Logan Airport, which primarily include:

- Route 1A to and from the north
- Sumner and Callahan Tunnels (Route 1A to and from the south)
- Interstate 90 (I-90) Ted Williams Tunnel ramps (to and from east and west)
- Frankfort Street to Service Road to and from the northeast.

Figure 6-2 shows the primary gateway roadway infrastructure access points at Logan Airport in 2022.

6.2.1.1 Data Collection and Annual Average Daily Calculation Method

The Airport's gateway roadways are equipped with permanent traffic count stations, which are part of the Airport-wide **Automated Traffic Monitoring System (ATMS)**. These stations provide the data used to calculate:

- **Annual average daily traffic (AADT)**
- **Annual average weekday daily traffic (AWDT)**
- **Annual average weekend daily traffic (AWEDT)**

Since these data are automatically collected continuously throughout the year, seasonal adjustment factors are only necessary when significant gaps in the data occur, typically due to equipment failure or malfunction, or due to construction activity. Seasonal adjustment factors, when used, are generally estimated from a combination of the monthly variation of counts from other ATMS stations, or from data collected from the same station in the previous year, at a similar time.

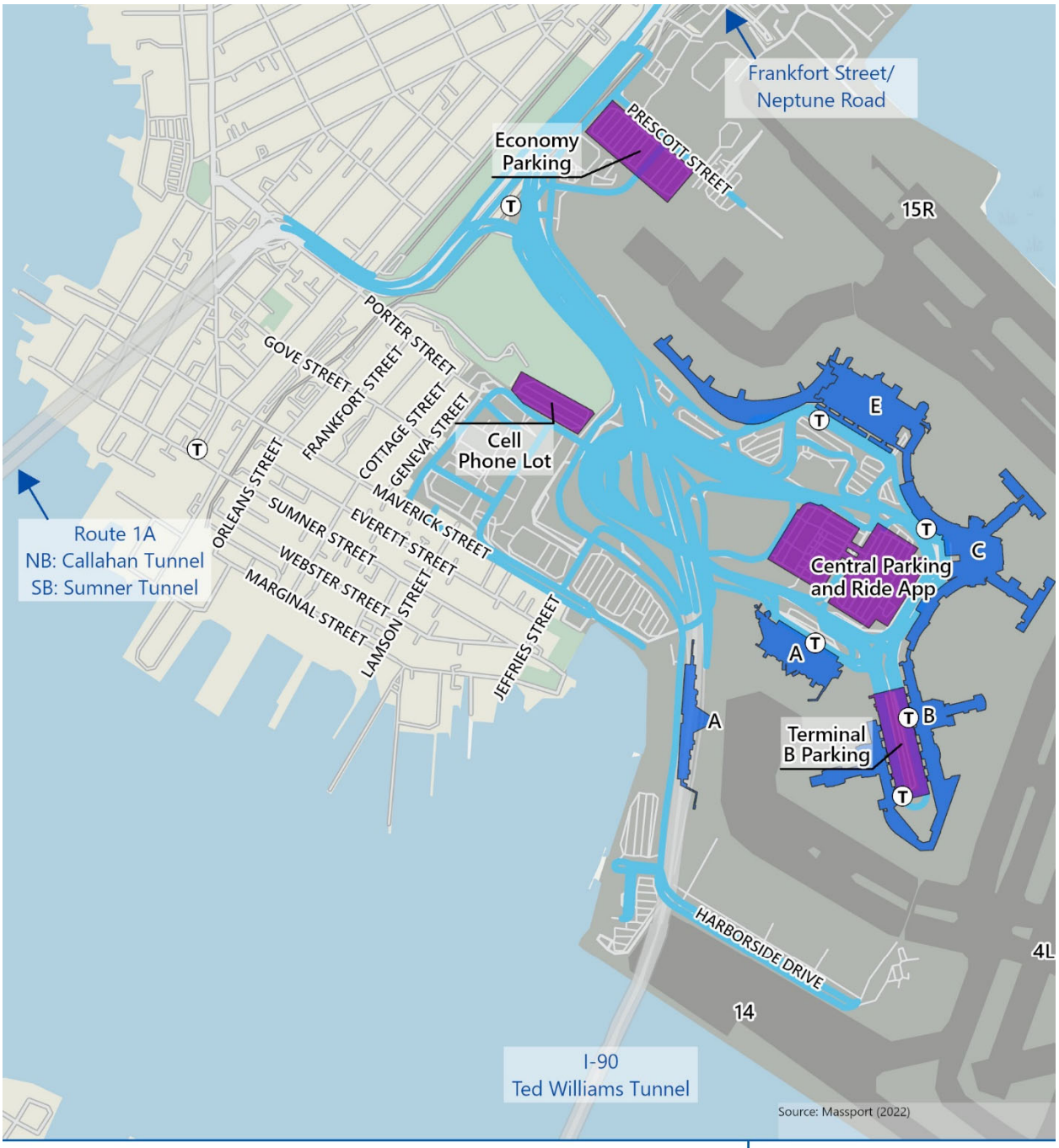


Figure 6-2 Logan Airport Roadways

2022 Environmental Status and Planning Report

Terminal Buildings
Parking Facilities
Ⓣ MBTA Stops
Airport Roadways

Status as of 12/2022.

0 450 900 1,800 Feet

6.2.1.2 Annual Average Daily Activity Levels

Table 6-1 summarizes the average daily gateway traffic volumes at Logan Airport for the two most recent ESPR submission years, 2011 and 2017, and 2018 through 2022. The historical high year of 2011 is used as a frame of reference for consistency in comparison across the ground access metrics (see Section 6.3.2 for more information). A detailed table with average daily gateway traffic volume data for the years 2010 through 2022 is found in Appendix H*, Ground Access Supporting Documentation,* and includes AADT, AWDT, AWEDT, and annual air passengers' data for reference.

The AADT entering and departing Logan Airport via its gateway roadways increased by 26.1 percent between 2021 and 2022 but was 18.9 percent less than the 2019 AADT benchmark values established for this ESPR. The change in average daily traffic can be attributed primarily to the impacts of COVID-19 and a slow recovery to pre-pandemic activity levels, as illustrated by:

- A roughly 15.1 percent decrease in air passenger activity between 2019 and 2022; and
- The associated decrease in riders across all applicable transportation modes.

It is notable that unlike in 2021, ridership numbers in 2022 (for all applicable surface transportation modes [including HOV]) rebounded to align with the Airport passenger numbers more closely, although both the number of riders and passengers in 2022 were still less than reported 2019 levels. This trend was first reported in 2021 based on the preliminary 2022 data available and was confirmed when the complete 2022 dataset was reviewed and analyzed.

6.2.2 2022 On-Airport VMT

On-Airport VMT is calculated based on the total number of miles traveled by vehicles on Logan Airport's roadways. VMT is an indication of the level of traffic on roadways in specific areas and at specific times. VMT is an important metric that is used to calculate on-Airport motor vehicle air quality emissions. As discussed in the *2020/2021 EDR*, to estimate on-Airport VMT, Massport migrated from the previous VISSIM[3] microsimulation model to a new spreadsheet-based volumetric model. The spreadsheet-based volumetric model was in place from 2018 to 2021 and took advantage of the data available through Massport's various transportation and transaction-based data collection systems. The *2022 ESPR* requires modeling and reporting on future forecast conditions, which the new spreadsheet-based volumetric model could not accomplish. Massport has returned to the previous VISSIM model, appropriately updated to reflect the on-Airport ground transportation and infrastructure changes that have occurred since 2017, the last time the model was used for this purpose. The VISSIM model is used to develop both existing and future VMT estimates.

3 PTV America. 2021. Verkehr In Städen Simulationsmodell – VISSIM version 2021 [computer software].

Table 6-1 Logan Airport Gateways: Annual Average Daily Traffic, 2011, 2017–2022

Year	AADT		AWDT		AWEDT		Annual Air Passengers	
	Volume	Percent Change	Volume	Percent Change	Volume	Percent Change	Level of Activity	Percent Change
2011	99,449	-	104,863	-	85,879	-	28,907,938	-
2017	124,646	-	130,601	-	109,723	-	38,412,419	-
2018	131,432	5.4%	137,105	5.0%	117,425	7.0%	40,941,925	6.6%
2019	137,331	4.5%	143,189	4.4%	122,678	4.5%	42,522,411	3.9%
2020	55,668	(59.5%)	57,210	(60.0%)	51,744	(57.8%)	12,618,128	(70.3%)
2021	88,238	58.5%	90,185	57.6%	83,371	61.1%	22,678,499	79.7%
2022	111,312	26.1%	114,690	27.2%	101,948	22.3%	36,090,716	59.1%
(2019-2022)		(18.9%)		(19.9%)		(16.9%)		(15.1%)

Source: Massport.

Notes: Numbers in parentheses ( ) indicate negative numbers. Gateway roadways include access to and from: Route 1A (including the Sumner and Callahan tunnels), I-90/Ted Williams Tunnel, Frankfort Street and Neptune Road, and Maverick Street. See Table 6-2 for the historical benchmark justification.

AADT Annual average daily traffic.

AWDT Annual average weekday daily traffic.

AWEDT Annual average weekend daily traffic.

6.2.2.1 Estimated VMT Calculations and Modeling Results

Consistent with previous years, the following specific time periods were analyzed for 2022:

- Morning peak hour
- Evening peak hour
- Highest consecutive 8-hour (High 8-Hour)
- Average weekday VMT

Table 6-2 summarizes the VMT estimates for Logan Airport-related traffic from 2011 and 2017 to 2022. Absent any major shift in traffic volumes entering the gateways, the change in VMT is expected to generally mirror the change in traffic volume. Following the trends identified above, the VMT increases seen between 2021 and 2022 were similar to the associated passenger activity level increases but were still below the 2019 VMT values. When compared to 2019, the average weekday VMT in 2022 was lower than 2019 by 21.6 percent, while AADT gateway volumes increased by 18.9 percent, suggesting trends are returning to more typical conditions as Airport operations and passenger behavior continue to normalize.

The decrease in VMT, when compared to passenger volume over the same time period, suggests passengers are returning to HOV modes in greater numbers. However, no direct correlations can be made at this time, as ground and passenger operations continue toward recovery to pre-pandemic conditions. Details of the 2022 VMT modeling results are presented in Appendix H, *Ground Access Supporting Documentation*.

Table 6-2 Airport Study Area Vehicle Miles Traveled (VMT) for Airport-Related Traffic, 2011, 2017-2022

Analysis Year[1]	AM Peak Hour	PM Peak Hour	High 8-Hour	Average Weekday	Average Weekday Percent Change
2011	8,391	10,978	76,920	167,647	-
2017	9,844	12,009	86,678	196,503	
2018	9,452	12,447	91,450	205,344	4.5%
2019	9,477	12,577	91,336	209,900	2.2%
2020	2,904	3,394	24,072	52,794	(74.8%)
2021	5,993	7,424	53,180	118,937	125.3%
2022	7,555	10,309	72,526	164,625	38.4%
Percent Change (2019-2022)	(20.3%)	(18.0%)	(20.6%)	(21.6%)	

Source: VHB and Massport.

Notes: Numbers in parentheses ( ) indicate negative numbers.

Data provided for 2011, 2017, and 2022 use the VISSIM model. Data from 2018 to 2021 used a spreadsheet based VMT model.

1 2011 is used as the historical benchmark for comparison because prior years only included the terminal roadways. The entire Airport campus roadway system was modeled starting in 2011, and thus would artificially show a substantially higher number than previous years due to the scope of modeling.

6.3 2022 Ground Transportation Ridership and Activity Levels

Many transportation service options are available to Logan Airport users from the Boston Metropolitan Area. This section highlights 2022 ridership levels and recent trends; Massport's progress in meeting its ground access goals; and Massport's cooperative planning with other transportation agencies in Massachusetts.

6.3.1 Logan Express, MBTA Transit, and Water Transportation Modes

Annual ridership levels for HOV, including transit, and shared-ride transportation modes serving Logan Airport are summarized in **Table 6-3**. A discussion of these services follows.

Table 6-3 Annual Ridership and Activity Levels on Logan Express, MBTA, and Water Transportation Services, 2011, 2017–2022

Year	MBTA Transit		Logan Express Bus			Water Transportation	
	Blue Line[1]	Silver Line[2]	Air Passengers	Employees	Total	MBTA Ferry[3]	Private Water Taxis[4]
2011	2,277,311	900,359	649,609	536,513	1,186,122	33,403	58,879
2017	2,197,783	N/A	1,140,235	695,504	1,835,736	7,424	83,689
2018	2,295,250	N/A	1,182,097	750,574	1,932,671	6,609	77,813
2019	1,635,147	N/A	1,381,700	824,084	2,205,784	7,467	61,071
2020	1,041,968	395,465	347,440	314,982	662,422	938	4,080
2021	1,361,036	512,872	514,702	266,062	780,764	1,760	19,363
2022	1,754,144	798,314	1,055,215	638,974	1,694,189	5,613	23,214
Percent Change (2019-2022)	7.3%	N/A	(23.6%)	(22.5%)	(23.2%)	(24.8%)	(62.0%)

Source: Massport.
Notes: Numbers in parentheses ( ) represent a decrease in annual ridership.
N/A Not available.
1 Airport Station fare gate entrances only.
2 Silver Line 1 boardings at Logan Airport. Fares have not been collected since June 6, 2012, but ridership estimates from automated counters available since 2020.
3 Boardings at Logan Airport. MBTA Ferry is the Harbor Express F2/F2H service, Hingham/Hull-Logan and Long Wharf.
4 Private water taxis include: Boston Water Bus and Boston Water Taxi

6.3.1.1 Logan Express Bus Service

Due to COVID-19, Massport temporarily suspended bus service to Logan Airport for air passengers and employees from suburban park-and-ride facilities in the towns of Peabody and Woburn, as well as the Back Bay Logan Express service. Logan Express also operated under reduced, hourly schedules for the Braintree and Framingham lines. In 2021, Massport improved **headways** to 30 minutes on the Braintree and Framingham lines and restored the Woburn Line at 30-minute headways. Massport restored the Peabody line service in February 2022 and Back Bay service in October 2022.

Bus customer facilities and secure parking are provided at the four suburban locations while no customer parking is provided at the Back Bay since this is an urban location. The cost of an adult Logan Express bus trips is $12 each way for a standard fare and $9 each way with advanced online ticket purchases. Back Bay Logan Express tickets are $3 to Logan, and free from Logan to Back Bay. Parking at suburban lots is $7 per day.

In 2022, all Logan Express services suspended during COVID-19 were restored.

Figure 6-3 depicts Logan Express bus locations with respect to the regional transportation network.

Due to reduced passenger demand, Logan Express passenger ridership from suburban park-and-ride locations decreased by 23.2 percent between 2019 and 2022 but now shows strong growth back towards pre-pandemic levels. A breakdown of Logan Express ridership is presented in Appendix H, *Ground Access Supporting Documentation*. **Table 6-3** compares 2019 and 2022 ridership on Logan Express.

Massport promotes Logan Express ridership through initiatives to reduce VMT, on-Airport traffic congestion, and air quality emissions. Massport is implementing the following at suburban locations:

- Increasing capacity for air passengers at Braintree Logan Express service in the short-term by relocating commuters to a new dedicated employee park and ride lot in nearby Quincy
- Improving frequencies on the Braintree, Framingham, Woburn, and Back Bay Logan Express services
- Adding approximately 1,000 additional spaces to the Framingham garage
- Enhancing marketing efforts to support the Logan Express strategy and increase ridership
- Investing in a new, larger facility in Danvers to temporarily relocate the Peabody Logan Express
- Identifying at least one new urban Logan Express location (North Station or similar location), and potential additional locations west of Boston
- Exploring RideApp Last Mile connections
- Continuing to monitor parking capacity across Logan Express sites

The Back Bay Logan Express restarted operations in October 2022 operating daily trips between the hours of 5:00 AM and 10:00 PM. Pre-pandemic enhancements that improved ridership from Back Bay include:

- Changed pick-up and drop-off location from Copley to Back Bay Station
- Provided discount one-way fare from $7.50 to $3.00, and free service from Logan Airport
- Piloted priority Airport passenger security line status for riders
- Implemented a marketing campaign to encourage increased ridership (ongoing)
- Implemented Logan Express electronic ticketing

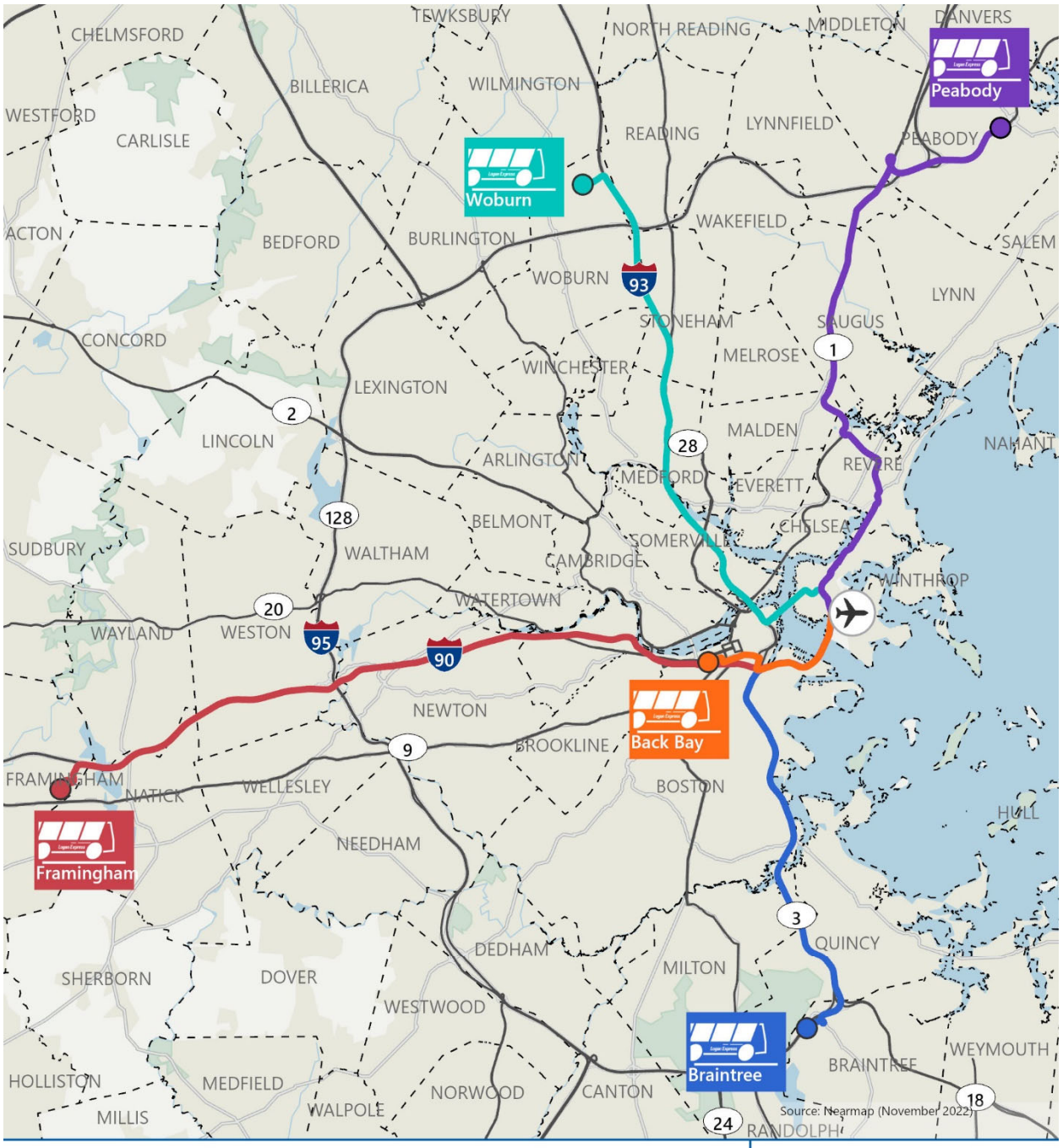


Figure 6-3 Logan Express Bus Locations and Routes

2022 Environmental Status and Planning Report

Logan Express Route
- Back Bay
- Braintree
- Framingham
- Peabody
- Woburn

Major Roadways

Massachusetts Municipalities

0 1.25 2.5 5 Miles

6.3.1.2 Rapid Transit

Table 6-3, previously shown, compares 2019 and 2022 ridership on rapid transit to prior years. Passengers with trip origins in Boston, Cambridge, Brookline, and Somerville use MBTA public transit to travel to the Airport via the Blue Line or Silver Line 1. Both services are important for reducing automobile travel to the Airport; as the 2019 passenger survey results showed, over three-quarters of users of the Blue Line and Silver Line 1 indicated their alternative mode of travel to Logan Airport would have been a taxi or RideApp service, or they would have been dropped off at the Airport by private vehicle. **Figure 6-4** illustrates the public transportation options to access Logan Airport.

As noted in previous reports, MBTA Airport Station fare gate data do not distinguish between Airport-related riders and riders traveling to and from the neighborhood of East Boston, nor does it distinguish between Logan Airport air passengers and employees. Therefore, air passenger ridership levels on the Blue Line cannot be directly identified.[4]

Bus service on the Silver Line 1 from Logan Airport is free; transfers to the Red Line at South Station are also free, eliminating the need for fareboxes. Eliminating fare collection allows all three vehicle doors to be used for boarding, thus improving Logan Airport's curb operations, schedule adherence, and reducing idling. As a result of that change, passenger boarding data were no longer available. Starting in 2020, the MBTA was again able to provide Silver Line 1 boarding data.

6.3.1.3 Water Transportation

Table 6-3 compares water transportation 2022 ridership to prior years. Water transportation to Logan Airport's dock on Harborside Drive is provided from several locations: Long, Rowes, and Central Wharves in downtown Boston; the World Trade Center and the Moakley Courthouse in South Boston; and stops in the North End, Charlestown, Chelsea, and East Boston. A new stop opened in 2019 at Lovejoy Wharf near North Station. The MBTA Hingham/Hull ferry provides service to Long Wharf and destinations outside of the Inner Harbor, including Hingham and Hull.[5] Massport provides a free shuttle bus service between the Logan Airport dock, the MBTA Airport Station, and the Airport Terminals. These stops and routes are illustrated in **Figure 6-4**. Massport also provides its employees with a subsidy for water transportation modes. Currently, the one-way fare on the Hingham/Hull ferry to Logan Airport is $9.75 from Long Wharf and from Hingham/Hull.

4 Based on automated fare gate entrance counts, approximately 50 percent of entrances occur via the Bremen Street Park fare gates at Airport Station. Based on Massport curbside observations, approximately 45 percent of Airport Station entrances are attributable to Airport users.

5 The MBTA ferry from Hingham/Hull to the Logan Airport Ferry Dock runs less frequently and is less consistent than Blue Line and Silver Line services throughout the day. Frequencies between ferries range from one hour to several hours. There are 14 MBTA ferries to and from Logan Airport on weekdays; however, there are no MBTA ferries direct to Logan Airport from the South Shore during morning commuting times.

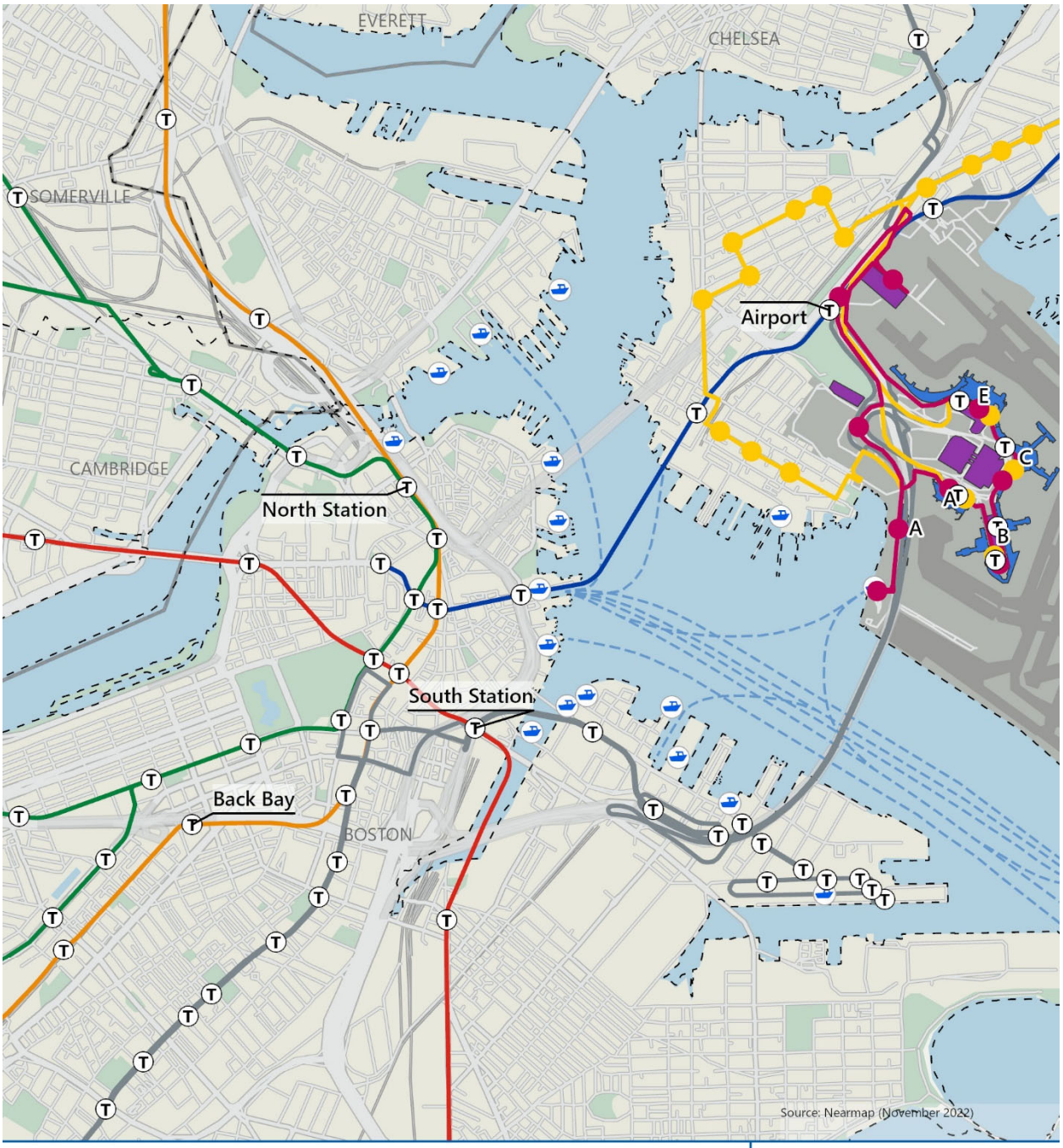


Figure 6-4 Public Transportation Options

2022 Environmental Status and Planning Report

6.3.1.4 Other HOV Modes: Scheduled Buses, Shared-Ride Vans, Courtesy Vehicles, and Black Car Limousines

Massport provides priority, designated curb areas at all Airport Terminals to support the use of HOV, including privately operated scheduled buses, charter buses, and other passenger bus or van shuttles. The majority of scheduled shared-ride carriers use a combination of 15- to 40-passenger vehicles and 50+ passenger coach buses. Scheduled express bus service is offered by several privately operated carriers from outlying areas of the Boston metropolitan area and neighboring states. Courtesy vehicle services include routes between Logan Airport and many hotels in the Greater Boston area. Shared-ride vans also provide service from central and western Massachusetts and other regional points throughout New England.

As shown in **Table 6-4**, the estimated total number of seats provided by these HOV modes decreased by 31.7 percent in 2022 compared to the number of seats provided in 2019. The increased use of RideApp services over the past few years and the impact of COVID-19 have reduced the number of scheduled vans and black car limousines used for Airport transportation.

Table 6-4 Other Scheduled and Unscheduled HOV Modes: Scheduled Buses, Shared-Ride Vans, Courtesy Vehicles, and Black Car Limousines, 2011, 2017–2022

Year	Estimated Seats			
	Scheduled Buses	Scheduled Vans & Limousines	Courtesy Vehicles	Limousines (unscheduled)
2011	2,251,480	996,208	1,885,575	1,991,672
2017	2,969,395	385,221	3,057,645	2,528,057
2018	2,856,260	325,032	3,235,875	2,133,060
2019	2,752,970	297,631	3,125,865	1,953,236
2020	949,960	47,976	1,091,895	467,564
2021	2,094,730	34,648	1,418,745	705,904
2022	2,350,480	81,344	2,006,220	1,111,864
Percent Change (2019 – 2022)	(14.6%)	(72.7%)	(35.8%)	(43.1%)

Source: Massport.
Notes: Numbers in parentheses ( ) represent a decrease in annual seats.

6.3.2 Pedestrian Facilities and Bicycle Parking

Massport provides a substantial Airport-wide pedestrian network that links the Terminals to the neighboring community. Sidewalks along Harborside Drive and Hotel Drive connect to the Terminals, where a series of overhead, enclosed walkways provide pedestrian access to the Central and West Parking garages, as well as to and from the Hilton Hotel. The sidewalks along Harborside Drive, Transportation Way, North Service Road, and the Harborwalk facilitate pedestrian access to the Airport water transportation dock, MBTA Blue Line Airport Station, and the pedestrian and bicycle pathways at Memorial Stadium Park, Bremen Street Park, and the East Boston Greenway.

Bicycle parking racks are provided at many landside facilities. Generally, these racks are expected to primarily serve employees, but are open for use by air passengers as well. Currently, Terminal A, Terminal E, the Logan Office Center, Signature General Aviation Terminal, the Economy Parking Garage, the Green Bus Depot, and the Airport MBTA Blue Line Station have bicycle racks (covered bike parking is provided at Terminal A). The Rental Car Center has sheltered bicycle parking racks for use by both employees and passengers. Shower and changing facilities are provided at the Logan Office Center for Massport employees.

6.3.3 Non-HOV Modes

Logan Airport passengers also access the Airport by a number of automobile modes, including private automobiles, taxis, RideApp services, and rental cars. As of 2018, taxis, RideApp, and limousine services are classified as HOV or non-HOV for mode share purposes, depending on the number of passengers carried.

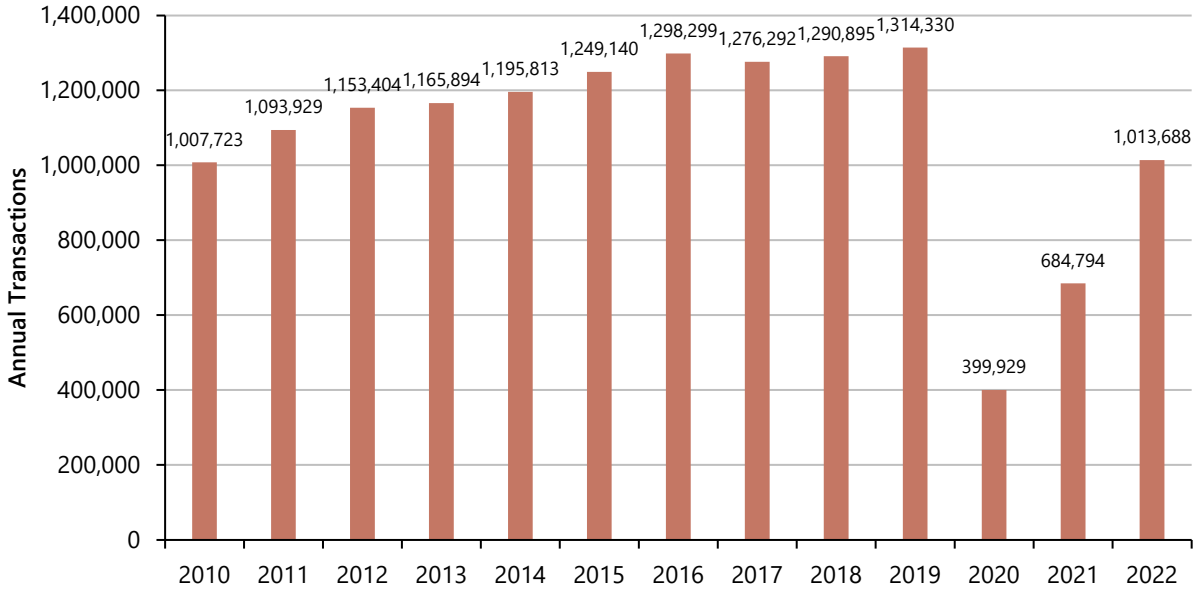
6.3.3.1 Automobile Access

Private automobile access to the Airport is classified as either curbside drop-off or parked on-Airport via the terminal area or remote economy parking areas. Volumes and VMT associated with these trips are described in Section 6.2.

6.3.3.2 Rental Cars

Eleven rental car brands served Logan Airport in 2022: Advantage, Alamo, Avis, Budget, Dollar, Enterprise, Hertz, National, Thrifty, Payless, and Firefly. Zipcar also provided services from the Rental Car Center. Due to the impact of COVID-19 on air travel, rental car transactions dropped significantly (see **Figure 6-5**). As of 2022, the number of transactions was 22.9 percent below 2019 pre-COVID levels.

Figure 6-5 Annual Rental Car Transactions at Logan Airport, 2010–2022



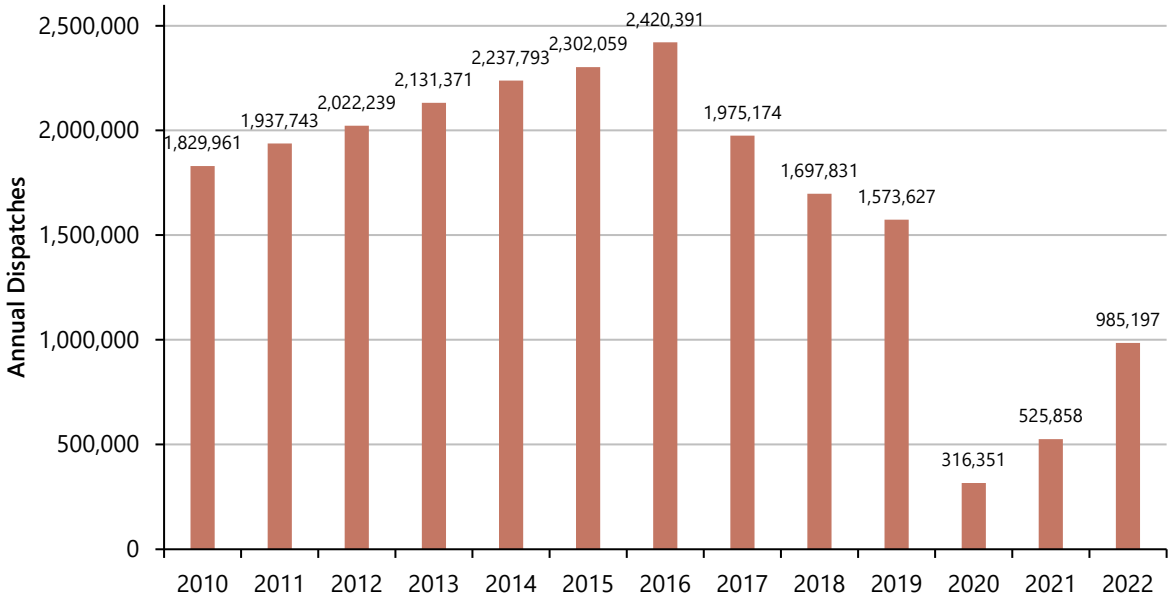
Source: Massport.

6.3.3.3 Taxis and RideApp Services

Taxi ridership trends were reflected in the total number of taxis dispatched from Logan Airport serving outbound passengers. The number of taxis dispatched has generally declined since 2016 (see **Figure 6-6**), which is primarily attributed to an increase in RideApp services at the Airport. COVID-19 further impacted taxi ridership. As of 2022, the number of taxi dispatches is now approximately 37.4 percent below pre-COVID levels.

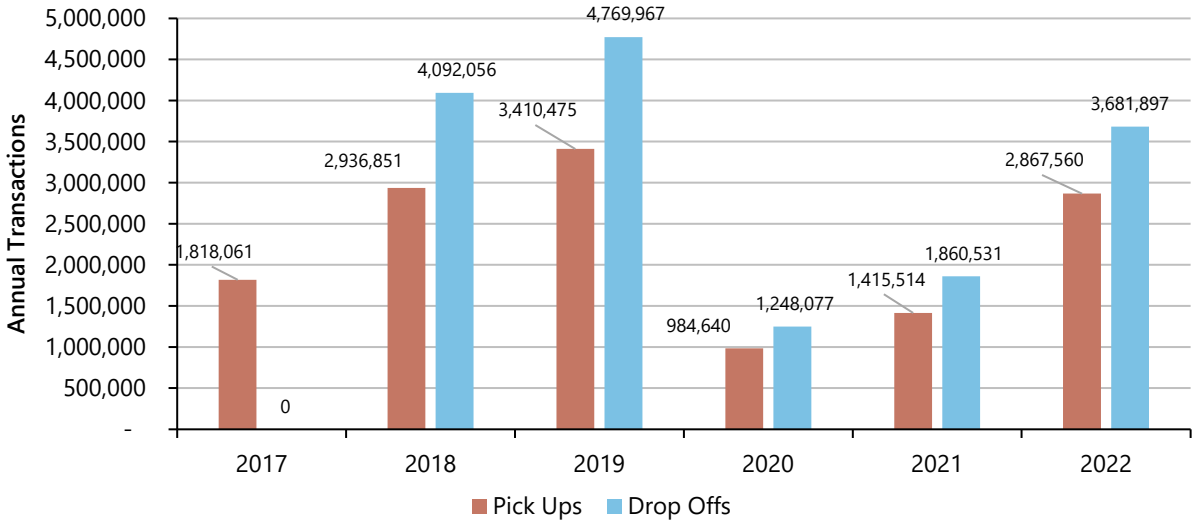
Figure 6-7 presents RideApp transaction data for 2017 through 2021. Prior to the pandemic, to address congestion issues caused by RideApp vehicles, Massport reconstructed the ground floor of the Central/West Parking Garage to facilitate passenger drop-off between 10:00 AM and midnight, and pick-up at all times. This service change was completed in December 2019. As with other for-hire modes, COVID-19 has impacted RideApp activity; 2022 activity levels were around 19.9 percent of the pre-COVID activity levels. RideApp operations serving Terminal B, including rematch, were moved from the Central Garage to the Terminal B Garage in November 2022.

Figure 6-6 Annual Taxi Dispatches at Logan Airport, 2010-2022



Source: Massport.

Figure 6-7 Annual RideApp Transactions at Logan Airport, 2017-2022



Source: Massport.

Notes:

1 Does not include January 2017.

2 RideApp drop-off was first authorized at Logan Airport in 2018.

6.4 2022 Parking Conditions

Massport manages the on-Airport parking supply at Logan Airport to promote long-term, rather than short-term parking to reduce the number of daily trips to Logan Airport; support efficient use of parking facilities; provide good customer service; and comply with the provisions of the Logan Airport Parking Freeze. Logan Airport offers multiple commercial parking facilities, including the Central/West Parking Garage, the Terminal B Garage, and the Economy Garage, which has free shuttle bus service to and from the Terminals 24 hours a day. Parking directly at Terminal E is provided on a short-term basis and requires a driver to remain with the vehicle. Details on 2022 parking conditions are presented in the following sections.

Massport has a comprehensive parking monitoring and management program that tracks on-Airport parking conditions, including parking facilities and supply, demand and parking rates, parking programs and preferred parking for hybrid and electric vehicle (EV) charging stations.

6.4.1 Logan Airport Parking Freeze and 2022 On-Airport Parking Availability

The number of commercial and employee parking spaces permitted at Logan Airport is regulated by the Logan Airport Parking Freeze (310 Code of Massachusetts Regulations 7.30), which is an element of the *Massachusetts State Implementation Plan* (SIP) under the Federal Clean Air Act (42 U.S.C. §7401 et seq. [1970]). As required, Massport submits semi-annual filings to the Massachusetts Department of Environmental Protection (MassDEP) demonstrating Massport's compliance with the Logan Airport Parking Freeze. The full reports for March and September 2022 are provided in Appendix H, *Ground Access Supporting Documentation*. Reports for March 2017 through March 2024 are available online here: (https://www.massport.com/massport/about-massport/project-environmental-filings/logan-airport/).

Total in-service commercial spaces are illustrated in **Figure 6-8**, along with the total number of parking spaces permitted on-Airport and the allocation of those spaces between commercial and employee spaces through 2022. Construction at the Airport and the shifting of total spaces among facilities account for the fluctuation of in-service spaces from year to year.

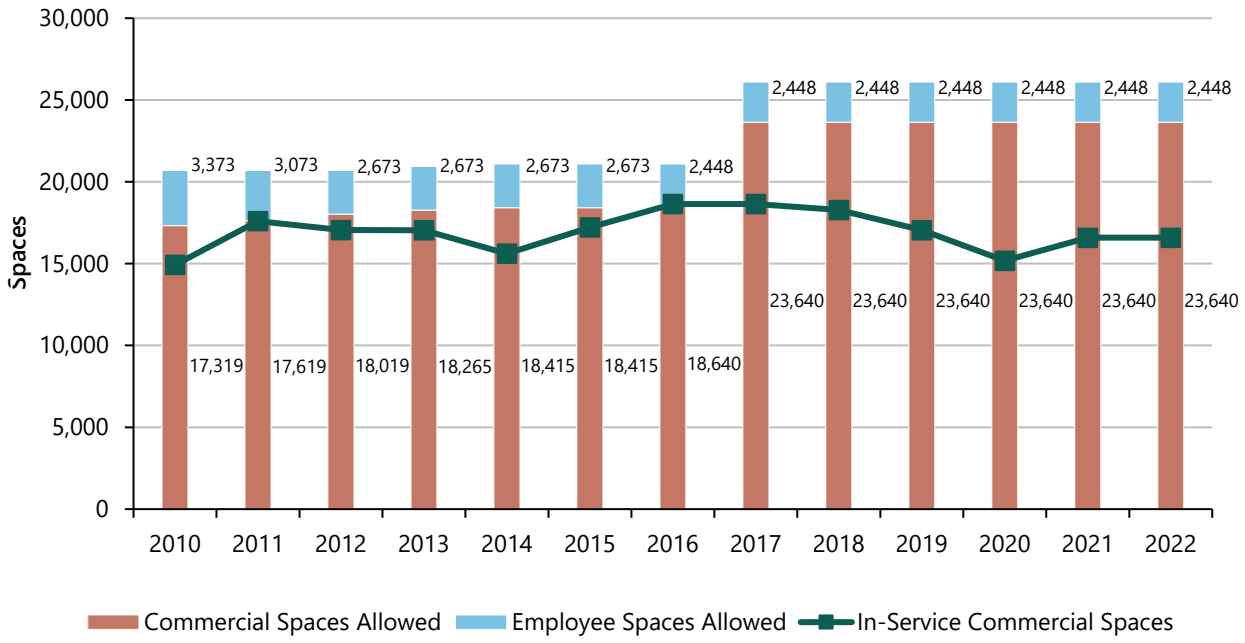
The Logan Airport Parking Freeze sets an upper limit on the supply of commercial and employee parking spaces at Logan Airport. The parking freeze limits were not exceeded in 2022. As permitted by the Parking Freeze provisions, over the past several years, Massport has converted employee spaces to commercial spaces within the overall limit imposed by the Logan Airport Parking Freeze. Massport has also transferred management of Airport-related park-and-fly spaces, previously part of the East Boston Parking Freeze,[6] to the Logan Airport Parking Freeze.

6 310 Code of Massachusetts Regulations 7.31.

The Logan Airport Parking Freeze limits were not exceeded in 2022.

Under the Logan Airport Parking Freeze regulation, Massport must monitor the number of commercial and employee vehicles parked on-Airport and verify the total number of parked commercial and employee vehicles does not exceed the Parking Freeze limits. If the number of commercially parked vehicles exceeds the allocated commercial parking limit under the Parking Freeze on any day, those additional vehicles are considered to be using "Restricted Use Parking Spaces." Use of Restricted Use Parking Spaces is allowed under the regulation when Logan Airport experiences "extreme peaks of air travel and corresponding demand for parking spaces" and may be made available for use only at such times, with a limit of up to ten days in any calendar year. These spaces must be provided free of charge when demand exceeds the limit.

Figure 6-8 Allocation of On-Airport Parking Spaces



Source: Massport.

Notes: Commercial spaces and employee spaces represent the number of parking spaces Massport is allowed to have under the Logan Airport Parking Freeze. In-service parking spaces are those currently available for users.

In 2011, 700 employee spaces were converted to commercial spaces under the Logan Airport Parking Freeze.

In July 2012 and June 2013, Massport acquired property in East Boston that reallocated 396 park-and-fly spaces from the East Boston Parking Freeze area to the Logan Airport Parking Freeze area.

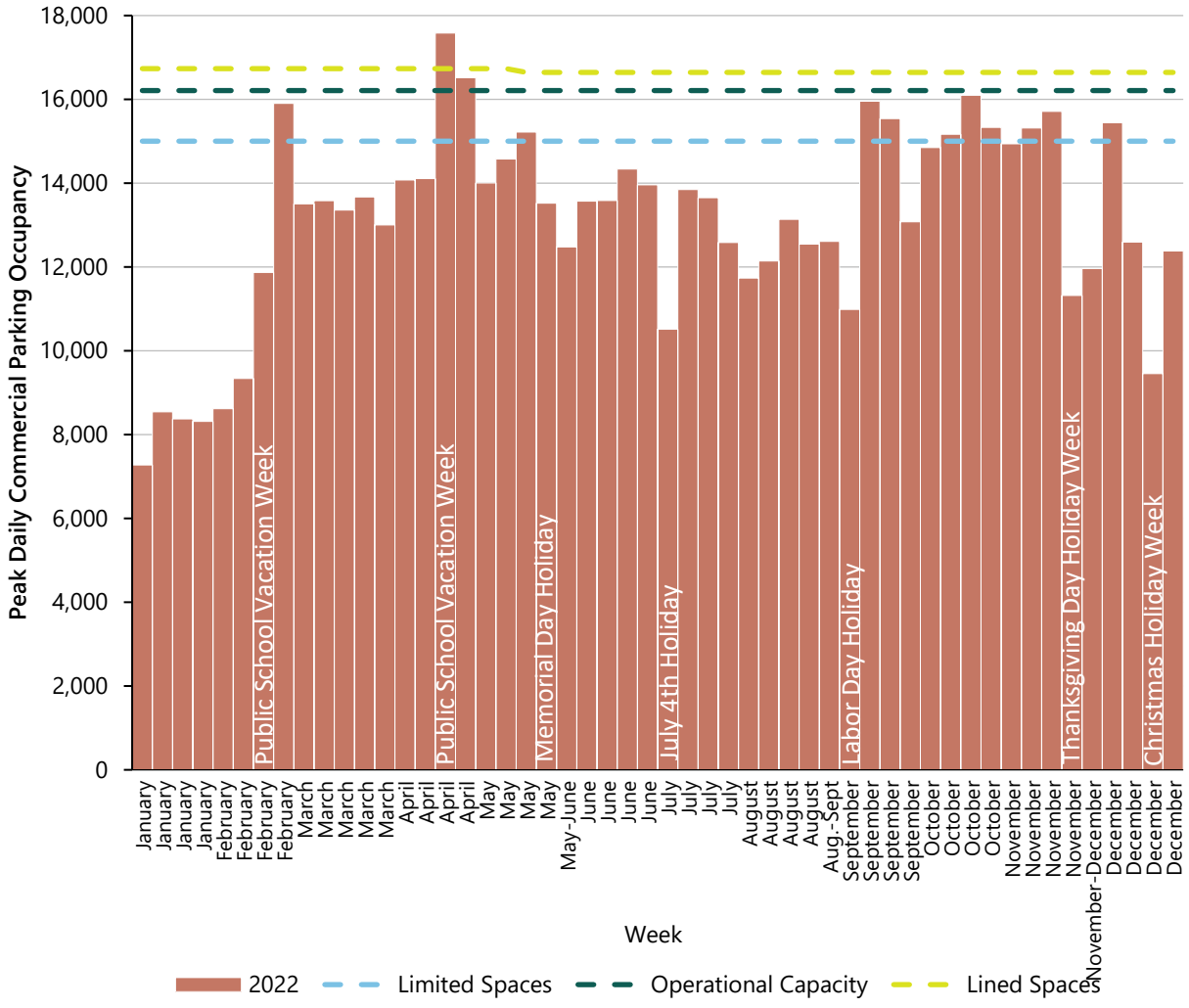
In 2016, Massport opened the West Garage Expansion, reallocating 225 employee spaces to commercial and increasing the total number of in-service commercial spaces.

In 2017, MassDEP approved an additional 5,000 parking spaces, which are included in the total Parking Freeze count but have not yet been constructed and are therefore not in service.

6.4.1.2 2022 Daily Parking Occupancy

On-Airport commercial parking occupancy historically peaks mid-week (Tuesday through Thursday) with lower occupancies occurring Friday through Monday. The number of vehicles parked at Logan Airport in commercial spaces over the course of any 24-hour period was obtained from parked vehicle count data for Tuesdays, Wednesdays, and Thursdays, which are collected throughout the year. The peak daily parking occupancy data for 2022 are presented in **Figure 6-9**.

Figure 6-9 Commercial Parking: Weekly Peak Daily Occupancy, 2022



Source: Massport.
Notes: The chart shows the highest daily count for each week in 2022.

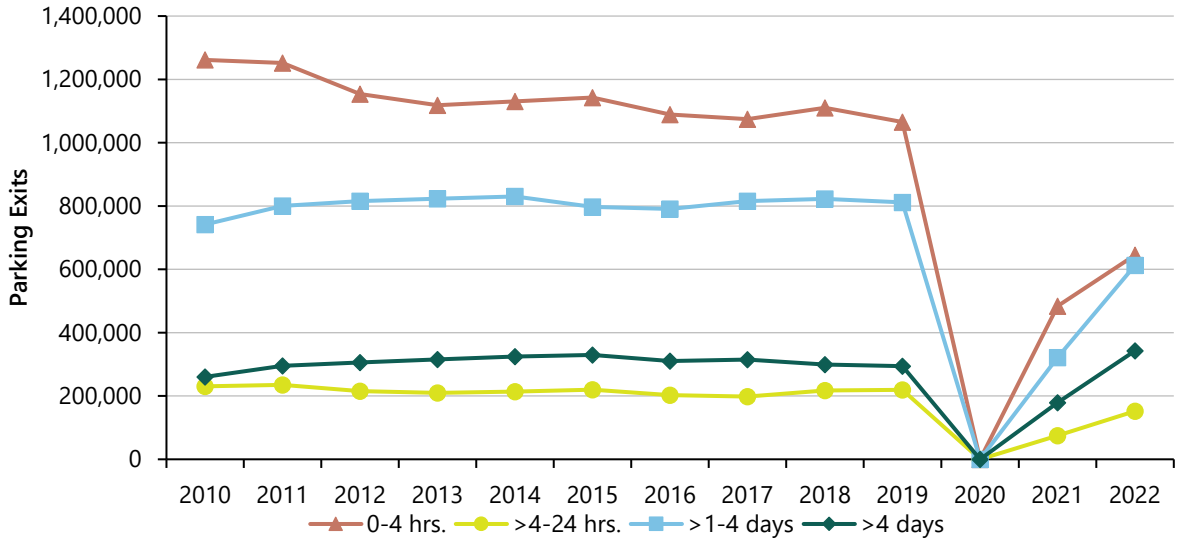
6.4.2 Operational Adjustments to Meet 2022 Parking Demand

Prior to the pandemic, constrained parking conditions were a regular occurrence at Logan Airport, requiring the diversion of vehicles to alternative or overflow parking and the need to employ valet parking operations. Inadequate supply of parking causes air passengers to circulate on Airport roadways to find parking. Parking diversion operations decrease operational efficiency and compromise customer service; as well as increase on-Airport VMT and emissions by generating additional on-Airport trips that would otherwise be unnecessary under uncongested conditions. The number of weeks in 2022 with high parking demand were still significantly fewer than prior to the pandemic. In 2022, Limited Space conditions, defined as peak commercial parking occupancy of between 15,000 and 16,210 vehicles were noted for twelve weeks. Operational capacity, defined as peak commercial parking occupancy between 16,210 and 18,100 vehicles was noted for two weeks and resulted in the deployment of valet parking operations over the course of four days in April, October, and November.

6.4.3 2022 Parking Exits by Duration

As presented in **Figure 6-10**, the total annual parking activity, as defined by revenue parking exits, dropped substantially during the pandemic. Overall, short-term parking has trended downwards since 2010 while other parking durations have remained relatively constant, despite unprecedented growth in air passengers. These general trends appear to be maintained in 2022 despite the substantially lower parking activity. Parking exits were 26.7 percent lower in 2022 compared to 2019.

Figure 6-10 Parking Exits by Length of Stay (Parking Duration)



Source: Massport.

Notes: Tickets are representative of revenue parking exits. Previous data reported in 2015 and 2016 have been adjusted down to account for the unintentional inclusion of non-revenue exits. Parking exit duration data for 2020 are not included due to data challenges related to a system software upgrade migration.

Table 6-5 On-Airport Commercial Parking Rates, 2019 versus 2022

Duration	Central Parking, Terminal B Garage, Terminal E Lot Rates		Economy Rates	
	2019	2022	2019	2022
0 minutes to 1 hour	$8	$8	$8	$8
1 to 2 hours	$21	$21	$20	$20
2 to 3 hours	$26	$26	$22	$22
3 to 4 hours	$30	$30	$25	$25
4 to 7 hours	$34	$34	N/A	N/A
7 to 24 hours	$38	$38	N/A	N/A
4 to 24 hours	N/A	N/A	$29	$29
Additional days 0 to 6 hours	$19	$19	$15	$15
Additional days 6 to 24 hours	$38	$38	$29	$29

Source: Massport.

6.4.4 2022 Commercial Parking Rates

Massport periodically assesses its parking rate structure to support its ground access strategy. As detailed in **Table 6-5**, parking rates in the on-Airport garages remained the same in 2022 as in 2019.

With a pay-on-foot system, Massport requires parking fees to be pre-paid at kiosks inside the Terminals and at garage access points at the pedestrian walkways, thus improving parking exit flow and reducing vehicle idling and associated emissions at exit plazas. Pay stations are located in the Terminals, at the Massport shuttle drop-off and pick-up location in the Economy Garage, and at the pedestrian entrances to the Central Garage, Terminal B Garage, and Terminal E Parking Lot.

6.4.5 Parking Programs and Initiatives

Massport has established the following programs and initiatives to support all Logan Airport users, including those arriving to pick-up travelers, those traveling to Logan Airport frequently, and those who are driving in environmentally friendly vehicles.

6.4.5.1 Cell Phone Waiting Lot

The Cell Phone Waiting Lot was moved in 2022 to be co-located with the RideApp Pool Lot on Porter Street. Before the creation of the Cell Phone Waiting Lot, drivers waiting for arriving passengers either used short-term parking, circulated around the Airport, or dwelled at the curb until asked to move. The Cell Phone Waiting Lot reduces vehicle emissions by minimizing idling and on-Airport VMT associated

with private vehicle pick-up activity. Facility parking is free of charge, with a maximum wait time of 30 minutes. Users of the Cell Phone Waiting Lot are required to adhere to the State's no idling law.

6.4.5.2 Parking PASSport and Parking PASSport Gold

Parking PASSport allows users to enter and exit Logan Airport's parking garages and lots with an access card linked to an established account for convenience. Parking fees are automatically charged to a registered credit card and the receipt is emailed to the account holder. Customers in the Parking PASSport programs accounted for around 3 percent of parking exits at Logan Airport in 2022. Parking PASSport Gold enrollments declined substantially throughout the pandemic. Parking PASSport Gold eliminates the need for a motorist to circle the garage looking for available spaces by reserving 12 percent of spaces in the Central/West Garage and 38 percent of spaces in the Terminal B Garage for customers enrolled in the program. First implemented in 2006, the Parking PASSport Gold program subscribers have declined from 10,466 at the end of 2019 to 5,884 in December 2022.

6.4.5.3 Parking Reservations

In May 2021, Massport launched a new service that allows customers to make parking reservations in advance of arriving at the Airport. This service offers a limited number of parking spaces but allows the user to guarantee parking up to twelve months in advance. Parking cost is based on the lot chosen and duration of the customer's trip.

6.4.5.4 Hybrid and Alternative Fuel Vehicle (AFV) Parking

Massport provides more than 100 hybrid, EV, and **Alternative Fuel Vehicle (AFV)** only on-Airport parking spaces spread out among the Terminal and Economy Garage in preferred parking locations. Twenty-seven of these spaces provide EV charging locations convenient to the Terminals. While normal parking rates apply, there is currently no cost for electricity use. Real-time availability of spaces can be found on Massport's website (https://www.massport.com/logan-airport/getting-to-logan/parking). Currently, there more than 100 charging ports installed at Logan Airport and its Logan Express sites.

6.5 Ground Access Initiatives

Massport promotes ridership on HOV, including transit, and shared-ride modes and maintains efficient transportation access and parking options in and around Logan Airport to reduce the reliance on automobile modes as a means of achieving the HOV mode share goal. Measures implemented by Massport include a blend of strategies related to pricing, including incentives and disincentives, service availability, service quality, marketing, and traveler information. Because of the different demographics of Logan Airport air passengers, no single measure alone will accomplish the goal.

6.5.1 Future Passenger HOV Mode Share Goal

HOV mode share has reached 38.4 percent, exceeding Massport's near term goal of 35.5 percent.

In the *2017 ESPR*, Massport updated the definition of HOV to include increased knowledge and data from the rapidly changing transportation landscape since the emergence of RideApp services. Starting with the *2019 Logan International Airport Air Passenger Ground-Access Survey*, Massport has used this updated definition of HOV that considers vehicle occupancy among taxi, black car limousine, and RideApp modes. Previously, Massport counted taxis and RideApp services as non-HOV and black car limousines as HOV, regardless of the number of passengers transported. Under the updated definition, taxis, black car limousines, and RideApp services that carry two or more air passengers per vehicle are defined as HOV. With this new definition, Massport has a goal of reaching 35.5 percent HOV by 2022, and 40 percent HOV by 2027. Based on the results of the *2022 Logan International Airport Air Passenger Ground-Access Survey*, HOV mode share has reached 38.4 percent, exceeding the near-term goal.

6.5.2 Logan Airport 2022 Air Passenger Ground-Access Survey

Massport periodically[7] administers an extensive survey of air passengers to better understand the ground access characteristics of air passengers traveling to and from Logan Airport and to track historical trends of these attributes. Since the late 1970s, the *Logan Airport Air Passenger Ground-Access Survey* has been Massport's primary tool for understanding the changes in air passenger travel behavior, including ground access mode choices, travel patterns, and market characteristics. The survey is a tool that assists Massport in evaluating the effectiveness of its transportation policies and services, and the impacts on the regional transportation system. The survey also directs Massport's planning efforts to encourage Logan Airport travelers to use HOV and shared-ride modes instead of SOV modes.

The survey is the principal means of measuring air passenger ground access HOV mode share. **Table 6-6** presents the air passenger ground access mode shares from the 2022 survey findings. Progress toward the future air passenger mode share goal is measured using the *Air Passenger Ground-Access Survey*. The latest survey revealed an air passenger ground access mode share of 38.4 percent for HOV and shared-ride modes, using the definition of HOV presented in the previous section. The result confirms Logan Airport to be at the top of U.S. airports with respect to HOV and shared-ride mode share.[8]

RideApp services[9] (such as Uber™ and Lyft™) are now the predominant air passenger ground access mode to Logan Airport; this mode is used by 27.7 percent of travelers. Traveling in a private vehicle and being dropped-off at the Terminal Area is the second most common mode, at a 25.4 percent share. The

7 Since 2004, a passenger survey has been administered every three years.

8 There is no standard aviation industry definition with respect to categorizing ground access modes as HOV versus single occupancy vehicle (SOV). While some modes (e.g., Logan Express and the Silver Line) clearly fall into the HOV mode category, the appropriate category for a black car limousine or taxi is less clear.

9 RideApp services were not legally allowed to operate for arriving passengers in 2016.

combined mode shares for transit modes (including the MBTA's services, Logan Express, and similar scheduled bus services) is 15 percent of air passengers traveling to the Airport. Driving and parking at the Airport is the mode used by 8.6 percent of air passengers and taxis are now used by 2.8 percent.

Table 6-6 Air Passenger Ground Access Mode Share, 2022

Ground Access Mode	All Trips
Automobile Modes:	
Private Vehicle	
Dropped Off	25.4%
Parked On-Airport	7.4%
Parked Off-Airport	1.2%
Rental Vehicle	16.2%
Taxicab (1 occupant)	1.2%
RideApp (Uber™, Lyft™, and Fasten™) (1 occupant)	9.0%
Car Service (black car, private limousine, etc.) (1 occupant)	0.7%
Subtotal	**61.6%**
HOV and Shared Ride Modes:	
Public Transit	
Logan Express Bus	4.1%
Other Express Bus	3.7%
MBTA Blue Line Subway	1.0%
MBTA Silver Line 1 Bus	2.0%
Water Shuttle and Water Taxi	0.3%
Other Shared-Ride Vehicles	
Taxicab (2 or more occupants)	1.6%
RideApp (Uber™, Lyft™, and Fasten™) (2 or more occupants)	18.7%
Car Service (black car, private limousine, etc.) (2 or more occupants)	2.7%
Free Hotel and Courtesy Shuttle	2.5%
Charter Bus	0.5%
Subtotal	**38.4%**
Total	**100.0%**

Source: Spring 2022 Air Passenger Ground-Access Survey.

Table 6-7 Ground access Mode Share (All Passengers) by Survey Year

Ground access Mode	2010	2013	2016	2019	2022
Private Automobile	40.4%	43.2%	34.5%	32.1%	34.0%
Taxi	18.8%	18.6%	9.8%	3.9%	2.8%
Rental Car	10.9%	10.4%	10.9%	10.7%	16.2%
RideApps	N/A	N/A	14.3%	29.5%	27.7%
Unscheduled HOV	7.6%	8.3%	8.1%	7.8%	4.3%
Scheduled HOV	8.2%	6.9%	9.7%	8.4%	8.3%
Transit	7.6%	7.6%	6.6%	4.1%	3.3%
Courtesy Shuttle	4.6%	3.3%	3.3%	2.6%	2.5%
Other	1.8%	1.7%	2.6%	0.9%	1.9%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Source: Spring 2010, 2013, 2016, 2019, 2022 Air Passenger Ground-Access Surveys.
For this table, air passenger ground access modes are grouped into the following categories:
Private Automobile: Includes all passengers that are dropped-off by a privately-owned automobile, and all passengers who drive and park their vehicles at the Airport.
Taxi: A passenger driven to Logan Airport in a licensed, commercial taxi.
Rental Car: A passenger who rents a car from an on-Airport or nearby off-Airport rental car agency.
RideApps include services such as Uber™, Lyft™, and Fasten™ and are captured in the 2016 survey data for the first time.
Unscheduled HOV Service: Includes passengers who travel to Logan Airport via unscheduled limousine or van providers, depending on the number of passengers.
Scheduled HOV Service: A passenger who arrives at Logan Airport via scheduled bus, including privately-operated services and Massport's Logan Express.
Transit: A passenger who takes an MBTA public transit service (including the Blue Line subway, Silver Line 1 bus rapid transit) or one of the water transportation services (operated in conjunction with a dedicated Massport shuttle bus to and from Logan Airport Terminals).
Courtesy Shuttle: A passenger who arrives at the Airport in a courtesy shuttle, such as those offered by nearby hotels.
Other: Includes passengers that access the Airport by walking, riding a bicycle.

Table 6-7 presents the aggregated air passenger ground access mode shares for survey years 2010, 2013, 2016, 2019, and 2022. As the data indicate, the increased popularity of RideApp as a ground access mode is evident from the last two surveys. RideApp use more than doubled from 2016 to 2019. The RideApp mode share increased again in 2022, diverting mode shares from most other ground access modes, but primarily taxi, black car limousine, and unscheduled HOV.

It is important to note differences in survey administration that likely impacted 2022 results. The survey was extended multiple weeks in order to achieve the sample target – a challenge due in part to increased reluctance to participate in in-person surveys during the COVID-19 pandemic. As a result, the survey extended into peak local college and university graduation seasons resulting in a higher share of inbound visitor travel and, consequently, an unusually high rental car mode share. An MBTA Blue Line shutdown during a portion of the survey period likely resulted in a lower transit mode share than otherwise expected. An uneven restoration of certain services during the COVID-19 recovery, including fewer and less frequent bus services, also potentially impacted transit and scheduled HOV modes.

6.5.3 2022 Average Vehicle Occupancy (Air Passengers) by Ground Access Vehicle Modes

Table 6-8 presents the average vehicle occupancy and the percentage of passengers arriving in SOVs for each applicable mode. As expected, average vehicle occupancy is generally lower for the automobile modes, while the percentage of passengers arriving in SOVs is highest for these modes. Among the automobile modes, however, average vehicle occupancy is slightly higher for private vehicles than taxis and RideApp services, but lower than rental cars. Occupancy is highest for rental vehicles at 2.2 persons per respondent-trip. SOV trips are correspondingly lowest for rental vehicles, at around 15 percent of the total.

Table 6-8 Average Vehicle Occupancy for Selected Ground Access Modes: 2022

	Mode	Average Vehicle Occupancy	% Single Occupancy
Automobile	Private Vehicle	1.6	39.8%
	Rental Vehicle	2.2	14.7%
	Taxicab*	N/A	N/A
	RideApp Services	1.6	32.5%
HOV and Shared Ride	Other car service	2.0	19.7%
TOTAL		**1.82**	**26.8%**

Source: Massport 2022 Air Passenger Ground-Access Survey data
*The analysis excluded taxi data due to insufficient sample size

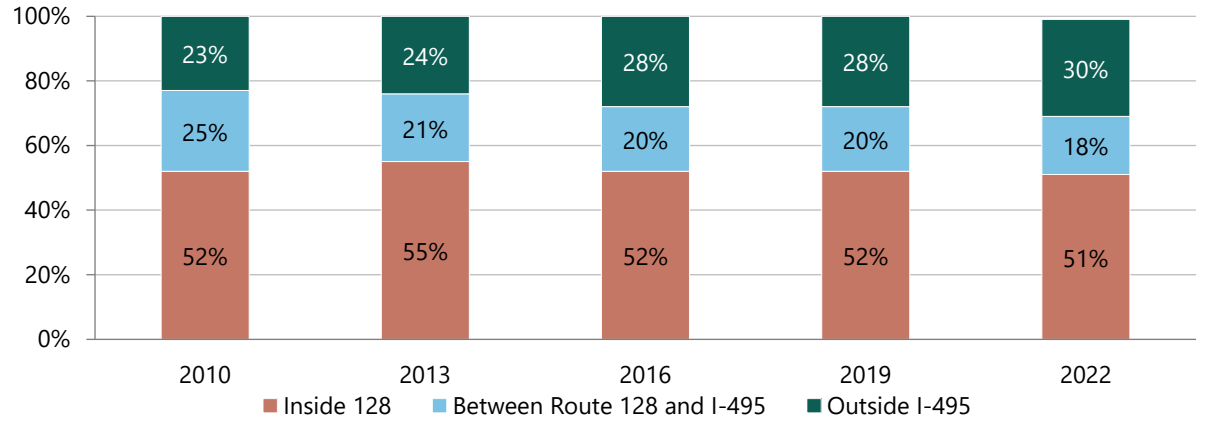
6.5.4 2022 Ground Access Origins of Air Passengers

Figure 6-11 indicates how the distribution of air passenger trips by geographic area has changed over time. The majority of trips still originate in Boston and other communities within Route 128. However, the *2022 Air Passenger Ground-Access Survey* suggests that the share of passengers originating from areas outside of I-495 has reached near parity to those originating within I-95 or Route 128.

The origin of an air passenger ground access trip has an important influence on mode choice. Simply stated, transportation systems and services vary by geographic area, and thus affect the availability and attributes of an air passenger's ground access options of a passenger traveling to Logan Airport. **Table 6-9** illustrates this point in which the distribution of ground access modes among passengers within four geographic areas is provided.

As expected, transit use is highest in the Urban Core (defined as Boston, Brookline, Cambridge, and Somerville) as this area is served by the MBTA's rapid transit system. RideApp and taxi use is also highest in this area (approximately half of all trips), due in part to the proximity to the Airport and the dense availability of these services. The area outside of the Urban Core but within Route 128 has minimal HOV, including transit, and shared-ride options; and automobile mode shares are highest for trips originating in this region. Outside of Route 128, scheduled express bus services provide the bulk of the HOV, including transit, and shared-ride services. Ridership growth in Logan Express and private buses have helped increase HOV and shared-ride services outside of Route 128 (but within Massachusetts) to near parity or better with the Urban Core. Due in large part to the prevalence of private scheduled bus options, overall HOV, including transit, and shared-ride mode use is highest among ground trips originating outside of Massachusetts. Otherwise, private vehicles are the dominant mode of access for passengers originating in areas outside of the Boston metropolitan area urban core.

Figure 6-11 Logan Airport Air Passenger Ground Access Trip Origins



Source: Spring 2010, 2013, 2016, 2019, 2022 Logan Airport Air Passenger Ground-Access Surveys.
Note: Based on air passengers departing on both weekdays and weekend days.

Table 6-9 Ground Access Mode Share by Air Passenger Ground Trip Origin, 2022

Ground Access Mode	Ground Trip Origin				
	Urban Core	Between Urban Core and Route 128	Between Route 128 and I-495	Outside I-495	Outside of MA
Dropped off	15%	33%	35%	31%	26%
Parked On-Airport	1%	5%	14%	12%	12%
Parked Off-Airport	0%	0%	3%	1%	3%
Rental Vehicle	10%	16%	13%	27%	25%
Taxi	5%	3%	2%	1%	1%
RideApp	54%	27%	14%	7%	3%
Car service (black car, private limousine, etc.)	1%	3%	5%	5%	5%
Logan Express Bus	1%	3%	9%	9%	3%
Other Express Bus	1%	0%	1%	4%	17%
MBTA Silver Line 1 Bus	5%	1%	0%	0%	0%
MBTA Blue Line Subway	2%	0%	0%	0%	0%
Water Shuttle and Water Taxi	0%	0%	0%	0%	1%
Free Hotel and Courtesy Shuttle	2%	6%	1%	1%	3%
Charter Bus	0%	0%	1%	1%	0%
Other	2%	2%	2%	2%	2%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Source: 2022 Logan Airport Air Passenger Ground-Access Survey. Totals may not add to 100% due to rounding.

6.5.5 2022 Market Segment: Trip Purpose and Residency

Massport characterizes air passengers into four distinct market segments:

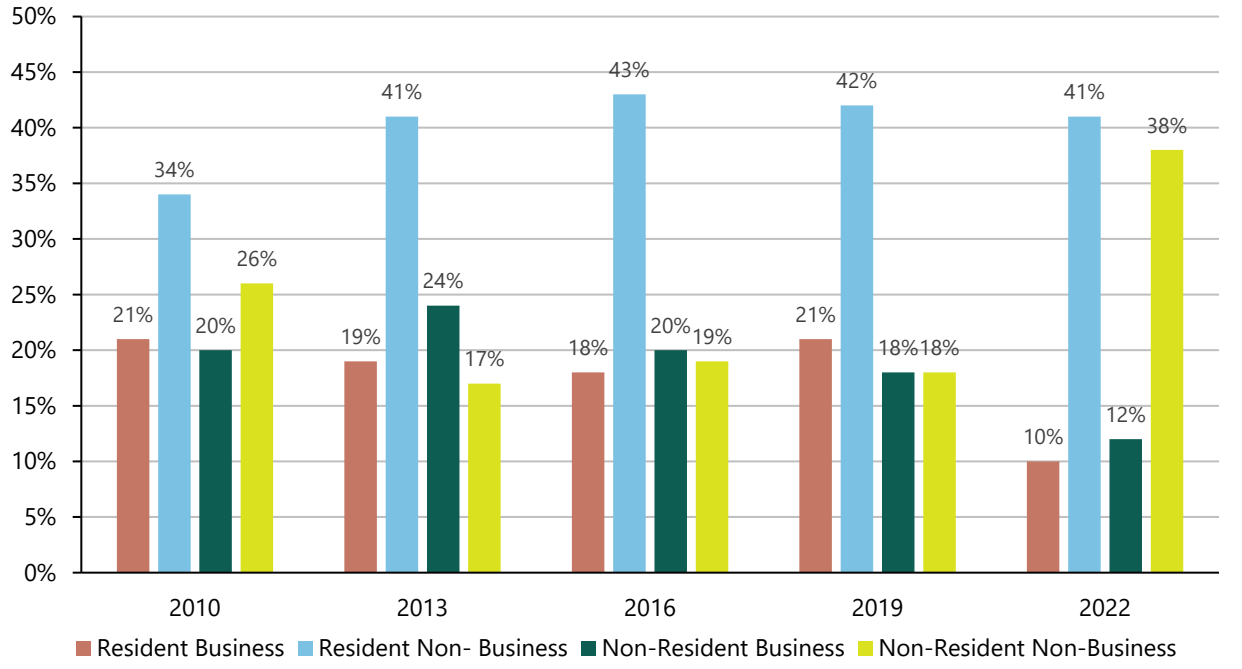
- **Resident Business:** passengers living within the region served by Logan Airport and traveling for business reasons;
- **Resident Non-Business:** passengers living within the region served by Logan Airport and conducting personal travel (e.g., leisure trips);
- **Non-Resident Business:** passengers living outside the region served by Logan Airport and traveling to conduct business; and
- **Non-Resident Non-Business:** passengers living outside the region served by Logan Airport and traveling for personal reasons (e.g., leisure or vacation travelers).

Residents are defined as passengers who use Logan Airport as their "home" airport, regardless of the proximity of the respondent's place of residence or work to other airports. It is important to study the passenger market in this manner because sensitivity to key factors that influence travel behavior such as convenience, time reliability, and pricing varies among these passenger market segments. This information assists Massport in developing appropriate ground access services for passengers.

Figure 6-12 compares the share of weekday trips by market segment across the five most recent surveys. The resident non-business market is the largest market segment, contributing over one-third of all air passengers at Logan Airport. The market share of leisure segments for non-residents had a noticeable increase in 2022 when compared to 2019.

Some of the growth in non-resident, non-business travel is attributable to the 2022 survey administration and, specifically, the survey period. Again, extending the survey period into May captured a peak travel season for inbound visitors due to local university and college graduations. While the overall data suggests an overall significant shift from business to non-business travel, the mix of resident and non-resident non-business travel, respectively, may have been different using the historical survey time period.

Figure 6-12 Weekday Market Segments (Combined Trip Purpose and Residency)[1]



Source: Spring 2010, 2013, 2016, 2019, 2022 Logan Airport Air Passenger Ground-Access Surveys.
Based on air passengers departing on weekdays only. Figures rounded.

There are numerous implications for ground access due to the changing mix of Logan Airport air passengers. **Table 6-10** and **Table 6-11** present ground access mode shares by market segment. HOV mode share is overall typically lower in the business market segments; business travelers typically have a high sensitivity to time, require flexibility and schedule reliability, and often make decisions related more to convenience than to cost (which is often covered by their employer and not by the passenger). Public transit and scheduled HOV services (including Logan Express) have a higher share among the non-business market segments, particularly for residents who have greater familiarity with the systems. Non-business market segments are more sensitive to ground transportation costs, travel less frequently but for longer time periods, and tend to travel at off-peak fly times and days. These factors help account for the increase in HOV and the relatively flat year-over-year changes observed in parking exits.

Table 6-10 Ground Access Mode Share by Market Segment, 2022

	Resident Business	Resident Non-business	Non-resident Business	Non-resident Non-business
Private Automobile	44.4%	50.6%	9.4%	20.3%
Taxi	4.1%	1.7%	6.4%	2.9%
Rental Car	1.3%	1.9%	26.6%	32.2%
RideApp	31.2%	21.7%	40.8%	30.1%
Unscheduled HOV/limousine	4.9%	4.5%	5.4%	1.2%
Public and Water Transit	2.2%	3.1%	1.6%	4.2%
Scheduled Bus	9.2%	13.3%	2.9%	3.9%
Courtesy shuttle	0.3%	1.8%	4.0%	3.2%
Other	2.5%	1.3%	2.9%	2.1%

Source: *Spring 2022 Air Passenger Ground-Access Survey*. Based on air passengers departing on both weekdays and weekend days. Rounded figures.

Table 6-11 Ground Access Mode Share by Market Segment (Recent Surveys)

Ground Access Mode	2010	2013	2016	2019	2022	2010	2013	2016	2019	2022
	Resident Business					Non-Resident Business				
Automobile Modes										
Private Automobile	59%	62%	48%	44%	44%	12%	14%	6%	5%	9%
Taxi	16%	17%	9%	3%	4%	36%	30%	21%	10%	6%
Rental Car	<1%	<1%	2%	1%	1%	27%	25%	29%	28%	27%

Table 6-11 Ground Access Mode Share by Market Segment (Recent Surveys)

Ground Access Mode	2010	2013	2016	2019	2022	2010	2013	2016	2019	2022
RideApp	-	-	14%	33%	31%	-	-	15%	40%	41%
Subtotal Auto Modes	**76%**	**80%**	**74%**	**81%**	**81%**	**75%**	**69%**	**72%**	**83%**	**63%**
HOV Modes										
Unscheduled HOV	10%	9%	12%	5%	6%	10%	12%	10%	4%	5%
Public and Water Transit	6%	6%	3%	3%	2%	3%	2%	4%	2%	2%
Scheduled Bus	4%	5%	8%	8%	9%	5%	9%	3%	2%	3%
Courtesy shuttle	2%	1%	<1%	<1%	<1%	5%	6%	7%	5%	4%
Other	1%	1%	2%	3%	3%	2%	2%	4%	4%	3%
Subtotal HOV Modes	**24%**	**20%**	**26%**	**19%**	**19%**	**25%**	**31%**	**28%**	**17%**	**11%**
	Resident Non-Business					**Non-Resident Non-Business**				
Automobile Modes										
Private Automobile	49%	55%	44%	42%	51%	36%	33%	29%	23%	20%
Taxi	13%	13%	5%	2%	2%	17%	18%	10%	4%	3%
Rental Car	2%	1%	2%	1%	2%	18%	20%	21%	24%	32%
RideApp	-	-	14%	25%	22%	-	-	15%	28%	30%
Subtotal Auto Modes	**63%**	**69%**	**65%**	**70%**	**76%**	**71%**	**71%**	**75%**	**79%**	**87%**
HOV Modes										
Unscheduled HOV	8%	9%	7%	7%	5%	4%	4%	5%	3%	1%
Public and Water Transit	12%	11%	9%	4%	3%	8%	6%	7%	6%	4%
Scheduled Bus	11%	7%	14%	13%	13%	9%	11%	7%	5%	4%
Courtesy shuttle	4%	2%	2%	2%	2%	6%	6%	5%	3%	3%
Other	2%	1%	2%	3%	1%	2%	2%	1%	4%	2%
Subtotal HOV Modes	**37%**	**30%**	**35%**	**30%**	**241%**	**29%**	**29%**	**25%**	**21%**	**13%**

Source: Spring 2010, 2013, 2016, 2019, 2022 Air Passenger Ground-Access Surveys.

6.5.6 RideApp Management Program

Massport officially commenced RideApp pick-up operations in February 2017. RideApps were directed to make pick-ups at locations previously used as small employee lots. As these locations were not designed to process thousands of daily RideApp pick-ups, growing RideApp activity resulted in long wait times for customers and vehicles backing onto terminal-area roadways, thus causing congestion and delays for customers. **Table 6-12** outlines the policies Massport has implemented to manage evolving RideApp operations and the status of each approach.

Table 6-12 Massport RideApp Management

Policy	Goal	Status
Rematch and Shared Ride	Implement RideApp rematch so drivers dropping off can more easily leave with a passenger.	Fully Implemented
	Implement changes such that RideApp passengers will be dropped off or picked up at new dedicated areas in the Central Garage through climate-controlled walkways to and from the Terminals, facilitating rematch and shared ride.	Fully Implemented
	Introduce RideApp shared ride incentives to reduce RideApp vehicles through gateways by increasing vehicle occupancies.	Fully Implemented
RideApp Fee Structure	Adopt new RideApp fee structure to support high-occupancy vehicle (HOV) strategies, encourage shared rides, and reduce gateway congestion.	Fully Implemented
Optimize RideApp Operations On-Airport	Introduce RideApp data reporting, new emerging RideApp products, new enforcement tools.	Ongoing

Source: Massport.

Due in part to continued growth in RideApp activity, and resulting congestion within and along roadways supporting the Central Garage, Massport relocated RideApp pick-ups and drop-offs for Terminal B to the Terminal B Garage. This initiative immediately relieved congestion with negligible change in rematch.

6.5.7 Long-Term Parking Management Plan

In addition to supporting HOV, Massport actively manages parking supply as another strategy to reduce drop-off and pick-up modes. Massport manages the on-Airport parking supply at Logan Airport to:

1. Promote long-term rather than short-term parking (thus reducing the number of daily trips to Logan Airport);
2. Support efficient utilization of parking facilities;
3. Provide good customer service; and
4. Comply with the provisions of the Logan Airport Parking Freeze.

Over time, Massport has reduced the number of on-Airport employee spaces from more than 5,000 to 2,448 spaces to further reduce VMT and promote sustainable transportation options. The 2019 analysis and findings of the *Logan Airport Parking Freeze Amendment Ground Access and Trip Reduction Strategy Studies* can be found on the Massport website: https://www.massport.com/sites/default/files/2023-10/final-massport-dep-report.pdf.

Table 6-13 describes each parking plan element that has been completed or is proposed for the near future, and Massport's progress to date. The *Long-Term Parking Management Plan* describes Massport's prior efforts as well as establishes what actions Massport will take, both now and in the future, to manage the supply, pricing, and operation of parking.

Table 6-13 Long-Term Parking Management Plan Elements and Progress

Parking Plan Element	Progress
Parking Supply:	
• Add revenue-controlled parking spaces in the terminal area to bring supply up to the maximum number of spaces allowed under the Logan Airport Parking Freeze.	• As allowed by the amended Parking Freeze and the Logan Airport Parking Project (through Massachusetts Environmental Policy Act [MEPA] permitting), Massport is permitted to add new commercial spaces in a new garage in front of Terminal E (see Chapter 4, *Airport Planning*, Table 4-2).
• Work to increase the supply of Massport-controlled, off-Airport parking at Logan Express sites.	• Massport is adding approximately 1,000 additional spaces to the parking garage at the Framingham Logan Express site.
Parking Pricing:	
• Discourage air passengers from driving and parking at Logan Airport by ensuring that the Massport-controlled parking provided at remote Logan Express sites is the least expensive.	• Massport has reduced parking rates at Logan Express facilities from $11.00 per day to $7.00 per day. The least expensive drive-up parking rate at Logan Airport is $32.00 per day.

Table 6-13 Long-Term Parking Management Plan Elements and Progress

Parking Plan Element	Progress
Parking Pricing (*continued*):	
• Encourage more efficient use of available on-Airport parking by maintaining a meaningful price differential between rates at the Economy Parking Garage and terminal-area parking garages.	• Economy Parking was raised to $32.00 per day; terminal-area garage and lot rates are $41.00 per day.
• Evaluate increased parking prices for terminal-area parking to encourage Airport passengers and visitors to consider transit and shared-ride alternatives.	• Parking pricing review is continuous.
Parking Demand:	
• Increase the frequency and availability of alternative high-occupancy vehicle (HOV) mode options to decrease use of private vehicles.	• Massport continues to evaluate opportunities to improve Logan Express service and ridership (specific details are provided elsewhere in this chapter). • Massport offers various promotional bus discount fares at Logan Express. • Massport placed signage in all Terminals to help promote the use of the regional express bus carriers. • Massport continues to sponsor free outbound (from Logan Airport) Silver Line bus service and Back Bay Logan Express service. • Massport continues to work with private carriers to provide HOV options to and from Logan Airport.
Employee Parking:	
• Continue to work to reduce the number of Airport employees commuting by private automobile and parking at the Airport by providing off-Airport parking both near Logan Airport and at Logan Express sites and implementing measures to enhance employee commuting options.	• Massport provides employee parking in Chelsea with free shuttle bus transportation to the Airport. Due to the pandemic, the Chelsea Garage was closed during initial phases of the pandemic but reopened in 2022. • Massport offers reduced employee rates to encourage the use of Logan Express facilities. • Additional early morning and late-night bus service has been added to Logan Express sites to encourage use and better serve Logan Airport employee schedules. Massport supports the Sunrise Shuttle, which provides early morning bus service for employees from East Boston and parts of Winthrop and Revere prior to the start of MBTA service.

Source: Massport.

6.5.8 Employee Ground Transportation Initiatives

Airport employee ground access needs are different from passenger transportation needs. Airport employees often have non-traditional, and sometimes unpredictable, working hours that are difficult to match to typical MBTA transit service hours of 5:00 AM to 1:00 AM. Due to the time-sensitive nature of airline operations, on-time reliability is important for employee transportation, as is flexibility during severe weather or other delays that may extend a typical employee workday or work shift.

Massport strives to reduce the number of Airport employees commuting by automobile, enhance commuter options, and reduce traffic and parking demands at Logan Airport. To help accomplish these objectives, Massport continues to:

- Provide off-Airport employee parking in Chelsea, which is served by frequent free shuttle bus service to the Terminals (Route 77) 24 hours a day, seven days a week.
- Run free employee shuttle buses between Airport Station and employment areas in the Southwest Service Area and the South Cargo Area locations (Routes 44, 66, and Logan Office Center).
- Run free shuttle buses between Airport Station and Terminals (Routes 22, 33, 55 and 88).
- Operate early morning and late-night Logan Express bus trips for Airport employees.
- Support the Sunrise Shuttle for early morning bus service from East Boston, Winthrop, and Revere prior to the start of MBTA service.
- Expand and maintain a comprehensive sidewalk and walkway system at Logan Airport to facilitate pedestrian access.
- Provide Massport employee subsidies for water transportation and transit use.
- Provide bicycle racks.[10]
- Advise Airport employers on transit benefits, including transit subsidies, and provide information on available commuting alternatives, ride-matching services, and reduced-rate HOV and transit fare options.
- Consistent with Logan Airport transportation management goals, Massport provides financial support for the Sunrise Shuttle and other benefits noted above.

10 Bicycle racks are provided at terminals, Logan Office Center, MBTA's Airport Station, Economy Parking Garage (covered), Signature general aviation terminal, the Green Bus Depot (Bus Maintenance Facility), and the Rental Car Center (covered).

6.6 Ground Access in the Future Planning Horizon

Logan Airport is anticipated to reach 53.5 MAP in the next 10 to 15 years (the Future Planning Horizon). While the sections above discuss strains placed on the Airport's roadway infrastructure at 2022 levels (36.0 million passengers) and the current trends observed on Airport roadways, the sections below discuss the policies and infrastructure changes Massport is considering to enhance on-Airport traffic flow and ground access operations. The importance of alleviating congestion is twofold: it allows for continued safe and efficient operation of the Airport's landside operations and it is necessary to reduce environmental impacts. Enhancing multimodal transportation options and providing modern, flexible infrastructure is one way an airport can reduce GHG emissions and improve its environmental footprint.

Potential emissions reductions are one reason Massport is committed to a long-term goal to promote and support public and private HOV and shared-ride services aimed at serving air passengers, Airport users, and employees. Other benefits include:

- Improving operations on the terminal-area roadways and at curbside drop-off and pick-up areas;
- Alleviating constraints on parking facilities; and
- Improving customer service (providing a range of transportation options for different travelers).

The following analysis assumes these measures will be implemented by Massport over the next decade. Specifics of the measures themselves are currently under development and will be further documented in subsequent environmental filings and EDRs/ESPRs.

6.6.1 Future Planning Horizon VMT Estimate

The VMT analysis of the Future Planning Horizon is based on a forecasted increase in air passenger activity, associated increases in cargo, and planned policy changes that are anticipated over the next 10 to 15 years. The passenger level evaluated represents an increase of approximately 17.5 million air passengers over 2022, 90 percent of whom start or end their trip at Logan Airport and are expected to use ground transportation to and from the Airport (the remaining 10 percent are air passengers are expected to have connecting flights through Logan Airport and would not use ground transportation services).

The future forecast peak summer, average day passenger forecast described in Chapter 3, *Activity Levels and Forecasting,* was used as the basis for the VMT and parking estimates. Hourly passenger forecasts at terminal gates were translated to reflect the time the passenger would arrive or depart the terminal curbside. Once the hourly curbside passengers were calculated, they were converted into the appropriate vehicle trip and route based on estimates of future mode share and average vehicle occupancy for different vehicle types (passenger cars, RideApp, taxis, etc.).

Massport has a standing policy to maintain ground access operations and improve roadway function to accommodate passengers arriving and departing the Airport. This policy has resulted in a robust HOV program, and several infrastructure and operational modifications that complement broader policy changes that allow terminal-area roadways and curbsides to continue functioning adequately and

minimize vehicle idling and associated emissions. Some modifications, such as the Terminal B/C Roadway project, the Terminal C Curbside Optimization, and changes to Terminal B curbsides and RideApp operations are already complete. These modifications appear to have a lasting benefit on future airport ground access conditions and are projected to reduce terminal roadway congestion through future forecast peak summer, average day forecast levels.

A VMT analysis was conducted for the Future Planning Horizon using the VISSIM model of Logan Airport. As noted above, on-Airport vehicle trips were estimated based on available flight forecast information and anticipated mode shares. Mode share development was based on the following policy changes anticipated to be in place over the next decade:

- Substantial capital investment to increase parking capacity at major Logan Express sites;
- Improved frequencies on the Braintree, Framingham, Woburn, and Back Bay Logan Express services;
- At least one new urban Logan Express location (North Station or similar location), and potential additional locations west of Boston;
- Reduced Logan Express pricing in urban areas and other service enhancements for all passengers who use Logan Express;
- Prioritization of transit on Logan Airport roadways, ensuring optimized bus flow;
- Continued investment in and expansion of the Silver Line 1 bus service to meet demand;
- Ongoing and future improvements to Blue Line access to Logan Airport, including direct service to Terminals and future investments in better integration of Airport Station to Terminal E; and
- Continued partnership with private bus companies to support multi-state and regional transit access to Logan Airport.

Other infrastructure modifications implemented in the next 10 to 15 years may include:

- Construction of a new parking garage near Terminal E;
- Reconstruction of the terminal area roadways between Terminals C and E (arrivals and departures);
- RideApp Lot relocations, pick-up and drop-off modifications, and routing changes;
- Terminal A curbside optimization;
- Some combination of these improvements.

Additionally, roadway improvements currently underway, including the Terminal B Curbside Optimization and intersection modifications along Transportation Way and Harborside Drive have also been assumed.

In the Future Planning Horizon, daily on-Airport VMT is estimated to be 212,022, which is 1 percent more than the 2019 daily VMT of 209,900 and 29 percent more than the 2022 daily VMT of 164,625. The increase in VMT is primarily attributed to forecast increase in air passenger activity.

6.6.2 Future Parking Demand

Prior to the pandemic, on-Airport roadway diversions between on-Airport locations, in addition to valet operations, were regular occurrences. Inadequate supply of parking causes air passengers to circulate on Airport roadways to find parking. These diversions decrease operational efficiency and compromise customer service; as well as increase on-Airport VMT and emissions by generating additional on-Airport trips that would otherwise be unnecessary under less congested conditions. While the number of weeks of high demand for parking in 2022 is still significantly lower than pre-pandemic conditions, Massport continues to actively manage its current parking operation and supply as well as future parking plan through the *Long-Term Parking Management Plan*, as described in Section 6.6.7.

The 2017 Parking Freeze amendment and the Logan Airport Parking Project facilitate the addition of up to 5,000 new commercial parking spaces, which will increase the parking supply and allow drive-and-park to become a more reliable mode choice to the Airport, reducing on- and off-Airport VMT by reducing the number of passengers dropped-off or picked-up at the Airport. See Chapter 4, *Airport Planning*, Section 4.2 for further details on this project. Construction of new parking facilities to achieve the total permitted under Parking Freeze would:

- Shift "would-be parkers" from drop-off and pick-up modes to parking;
- Reduce the number of trips associated with "would-be parkers" traveling to and from Logan Airport;
- Improve on-Airport roadway and terminal curbside congestion associated with drop-off and pick-up activity;
- Reduce air quality effects associated with drop-off and pick-up activity by increasing the parking supply and decreasing the number of passengers choosing drop-off and pick-up modes; and
- Enhance passenger experience by reducing the need to divert parkers to off-Airport satellite parking locations, which increases the time it takes for air passengers to drop-off their cars and access the terminal area and leads to additional VMT per vehicle.

In 2022, it was estimated that roughly 9,800 vehicles entered or exited Massport's parking system on a peak summer average day. This includes all short- and long-term parkers. In the future forecast, this number is anticipated to increase by 65 percent to 16,300 vehicles. However, this estimate does not consider how parking might change on-Airport given the factors discussed above, including parking capacity. Massport will continue to analyze future parking demand and increased passenger activity levels in the context of changes in parking supply, on-Airport access, and new technology such as electric and autonomous vehicles.

6.6.3 Ground Access Goals

Table 6-14 lists each ground access goal and updates on Massport's initiatives associated with each goal. Initiatives are planned, designed, implemented, and continuously refined to account for the changing national, regional, and local conditions that affect Logan Airport and its users.

Table 6-14 Ground Access Planning Goals and Progress (2022)

Goal	2022 Update
Increase air passenger ground access high-occupancy vehicle (HOV) mode share to 40 percent by 2027	• Massport continues to provide and actively promote numerous HOV and shared-ride options, including Logan Express bus service, Silver Line 1, water shuttle services, and frequen free shuttle bus service to and from the Massachusetts Bay Transportation Authority (MBTA) Blue Line Airport Station. Massport has a goal of reaching 35.5 percent HOV by 2022 and 40 percent by 2027. The *2022 Air Passenger Survey* indicates HOV mode share has reached 38.4 percent. • Massport continues its partnership with the MBTA to offer free Silver Line boardings at the Airport. The reduced dwell times and faster travel times through the terminal area led Massport to extend the free-fare program indefinitely. The MBTA operates ten Silver Line buses purchased by Massport in 2023 with Massport paying operating costs for portions of the Silver Line service directly servicing Airport Terminals • Massport restored Back Bay Logan Express Service in October 2022. • Massport is also increasing Logan Express capacity and frequencies for the on the Braintree, Framingham, Woburn, and Back Bay Logan Express services.
Reduce employee reliance on commuting alone by private automobile	• Massport continues to support the Sunrise Shuttle, which provides fixed-schedule service to employees in East Boston, Winthrop, and Revere who have shifts commencing outside of MBTA service hours. Massport continues to provide outreach to employees about commute options. • For employees who reside in neighborhoods and communities closer to the Airport, bicycle parking options have increased with bicycle racks offered at all Terminals, the Economy Garage, the Green Bus Depot, the Rental Car Center, the Logan Office Center, and the Signature general aviation terminal. Massport is also investigating ways to improve safer bicycle access to and around Logan Airport facilities.
Improve roadway function related to increasing use of RideApps	• In November 2022, Massport relocated Terminal B RideApp services to the Terminal B garage. Massport is also considering relocating Terminal E RideApp services to the future Terminal E garage.
Increase the overall efficiency of the MBTA through interagency coordination	• Massport participates in the Boston Metropolitan Planning Organization (MPO) to promote planning and funding of transportation system options that enhance access to the Airport. Massport and the MBTA have worked together on several initiatives including the renovated Blue Line Airport Station and the Silver Line bus service to Logan Airport. Massport has also partnered with the MBTA, the Massachusetts Department of Transportation (MassDOT), the City of Boston, and the Convention Center Authority in implementing transportation improvement plans recommended in the South Boston Waterfront, including sustainable transportation plans, as a means to improve the MBTA Silver Line access between South Station, the South Boston Waterfront, and the Airport.
Improve management of on-Airport ground access and infrastructure through technology	• Massport disseminates ground access and parking information through the Internet (www.massport.com), social media (Twitter and Facebook), a toll-free telephone number (1-800-23-LOGAN), Smartraveler, and in-Airport kiosks. Massport's redesigned website has an interactive tool that helps users access Logan Airport, while providing multimodal options.

Source: Massport.