FAIRBANKS INTERNATIONAL AIRPORT

Terminal Ground Access Study

FINAL REPORT

PREPARED FOR

Fairbanks International Airport
AeroNexus®

PREPARED BY

InterVISTAS
a company of Royal HaskoningDHV

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EXECUTIVE SUMMARY

This Terminal Ground Access Study describes the existing landside facilities at Fairbanks International Airport (FAI or the Airport) and its operations. The report presents:

- Proposed improvements to address concerns with existing and future facility operations. The landside facilities addressed in this report include the terminal area access and circulation roadways, curbside areas, and public parking facilities.
- Recommended changes to FAI's existing business arrangements with the Ground Transportation (GT) providers at FAI and the fees these providers are charged. These GT providers include the operators of taxicabs, limousines, buses/motor coaches, and Transportation Network Companies (TNC) such as Lyft and Uber.

ES 1.1 Relevant Goals of FAI Management

The improvements and recommended changes described in this report were prepared to help FAI management meet its relevant goals which include:

- Be a model government-owned enterprise, adaptive and agile
- Proactively address global changes and world markets
- Operate safely while striving for efficiency
- Be a coveted place to work
- Optimize our contribution to Alaska's economy and quality of life
- Involve, value, and balance the interest of stakeholders

Management also strives to provide exceptional customer experience and to allow customers to select from a broad range of transportation services. These goals were used to evaluate potential improvements to existing facilities, and potential revisions to FAI's GT business arrangements, regulations, and fees. These improvements and revisions are described in subsequent sections of this report.

Existing and Future Landside Facility Operations

The following paragraphs describe the anticipated future requirements for FAI's landside facilities and the ability of the existing facilities to properly accommodate these future requirements. Recommended improvements are presented for those facilities expected to operate unsatisfactorily in the future.

Access and Circulation Roadways

Forecasts of future terminal area roadway traffic volumes were prepared using data obtained from Alaska Department of Transportation and Public Facilities (AKDOT&PF) and surveys conducted in August

2019 as part of this study. It was assumed that roadway traffic volumes will increase at the same rate as airline passengers who are originating or terminating at FAI—commonly referred to as O&D airline passengers. Roadway traffic volumes were compared to the calculated capacities of key segments of the existing roadway network. Based upon the ratio of the roadway traffic volumes and capacities, existing, 2025, 2030, and 2035 Levels of Service (LOS) were determined for these roadway segments. The critical terminal area roadway segments and the 2035 LOS on these segments are displayed in Figure ES- 1. As shown in Figure ES- 1, all roadway segments are expected to operate at an acceptable level of service (LOS A) through 2035.

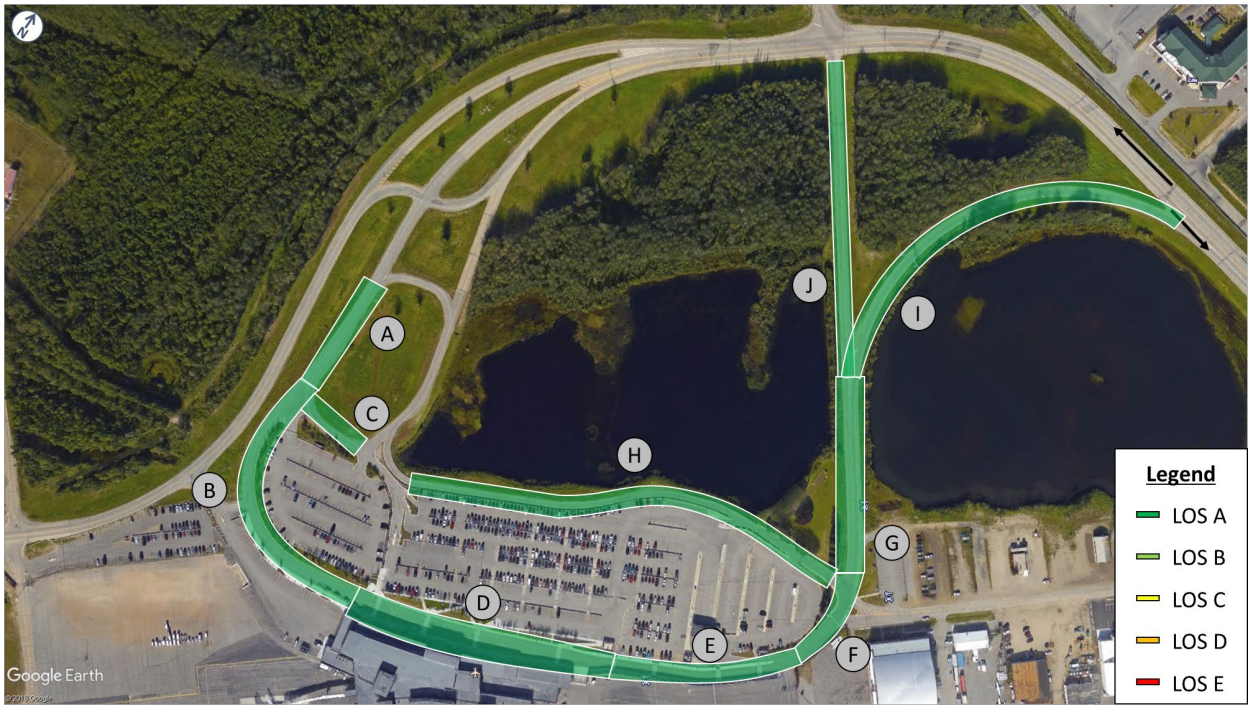


Figure ES- 1 Future LOS of FAI Access and Circulation Roadways

Terminal Curbsides

FAI terminal has a single-level, four-lane curbside roadway serving both arrivals and departures. This curbside roadway is utilized by all private vehicles and commercial GT vehicles.

The LOS of the terminal curbside area was determined based upon surveys of peak hour traffic volumes, vehicle classifications, and vehicle dwell times conducted in August 2019. Analyses indicate that the terminal curbside is expected to become increasingly congested, operating at LOS E by 2035. The existing and expected future curbside congestion is caused by motorists remaining at the curbside two to five times longer than motorists at other airports. These long vehicle dwell times are the result of insufficient enforcement staff at present and motorists having grown accustomed to being able to dwell at the curbs for long periods due to past inconsistent enforcement of shorter dwell times.

To improve curbside operations and reduce congestion it is recommended that FAI management change enforcement policies and procedures and only allow motorists to remain at the curbsides when actively unloading or loading passengers. The recommended changes to enforcement policies and procedures include:

- Implement a public relations program explaining the need for the stricter enforcement and encouraging changes in driver behavior.
- Use part-time traffic control officers (TCOs) to augment Airport police. These TCOs would be authorized to issue tickets to motorists for non-moving violations.
- Establish a Cell Phone Parking Lot. In January 2020, prior to the completion of this report, Airport management established a cell phone lot across from Everts Air Fuel Operations on Old Airport Road.
- Station tow trucks occasionally at the entrance to the curbside as a visual warning to motorists.

Public Parking Facilities

Analyses of future public parking requirements on a typical busy day or "design day" were prepared assuming (1) that parking requirements will increase at the same rate as O&D airline passengers, and (2) two alternative growth rates for TNC market share or passenger propensity to park (i.e., low and high parking requirements). Table ES- 1 presents the existing number of parking spaces in each Airport facility and the forecast parking requirements for 2019, 2025, 2030, and 2035.

Table ES- 1 Existing and Estimated Future Design Day Parking Requirements

Year	Originating and Terminating Passengers	Low Parking Requirements		High Parking Requirements	
		Short-Term	Long-Term	Short-Term	Long-Term
2019	1,179,116	79	490	79	490
2025	1,397,000	100	580	110	640
2030	1,505,000	150	640	160	710
2035	1,621,000	190	730	210	810
Existing Capacity	--	150	517	150	517

Parking requirements now exceed the capacity of the parking area during holidays including Thanksgiving, Christmas, and Spring Break. As shown in Table ES- 1, it is estimated that by 2025 public parking requirements will regularly exceed the capacity of the existing Long-Term parking area. It is estimated that between about 250 and 350 additional spaces will be required by 2035, depending on the future use of TNCs and increases in airline passenger traffic.

Four options to provide additional public parking were evaluated. Remotely located options, requiring the use of shuttle buses, were not considered because of the expected operating costs and poor

customer experience (i.e., customers waiting outside for buses during winter weather). The four options considered include:

- **Option 1—Expand the lot by filling in the pond**. This option would provide additional parking spaces near the terminal building. However, the extent of the required environmental mitigation is unknown as are the costs of the mitigation and construction.
- **Option 2—Revise the layout of the existing lot**. By using a more efficient layout, the capacity of the existing lot could be increased to about 940 spaces which would be sufficient to accommodate parking requirements through 2030 or 2025, depending on the future use of TNCs. It is estimated that modifying the lot would cost about $2.2 million. However, Airport staff expressed concerns with the ability to maintain/plow the lot, the loss of spaces when motorists park improperly because the stripes are covered with snow, and other concerns.
- **Option 3—Construct a New Lot to the North.** Potentially a new lot could be built north of the rental car lot in the median of Airport Way. This new surface lot could be used for either rental cars or for an expanded public lot. However, there are reported wetlands on this site which would require remediation. The extent of the required environmental mitigation is unknown as are the costs of the mitigation and construction. In addition, this site would have longer walking distances than the other options.
- **Option 4—Build a Parking Deck**. A parking deck could be built above a portion of the existing Lot, providing covered parking. A 350-space deck would accommodate estimated parking requirements through 2035. Of the four options considered, a parking deck provides the best customer service as it offers covered spaces nearer to the terminal. It is estimated that a deck would cost over $20 million to build and generate about $1.3 million/year by 2035 in net new revenue (in 2019$). This assumes use of today's short-term parking rates for the covered parking and deck. Because of the large difference between the estimated amortized costs of construction and net new revenues, it appears that supplemental revenue sources would be required to finance the structure as the net new parking revenues alone would be insufficient.

Other Facility Improvements

It is recommended that warning signs and painted pavement chevrons be installed on Van Horn Road approaching University Avenue South to improve the level of traffic safety.

ES 1.2 Ground Transportation Business Arrangement and Fees

FAI's business arrangements with GT providers and the fees it charges these providers were reviewed considering (1) the business arrangements and fees charged by peer airports, (2) the amount FAI charges other Airport tenants, and (3) the revenues FAI receives from the GT providers at FAI in comparison to those received at peer airports.

Ground Transportation Fees at Selected Peer Airports

In cooperation with Airport staff, six peer airports were selected for comparison considering airports (1) serving a similar volume of O&D passengers, (2) serving a large volume of non-resident tourists and passengers travelling to/from rural airports, (3) experiencing significant fluctuations between peak and off-peak seasons, and (4) experiencing cold weather and snow. The selected peer airports included those serving Bozeman (Montana), Burlington (Vermont), Eugene (Oregon), Harrisburg (Pennsylvania), Hilo (Hawaii), Midland (Texas), and Sioux Falls (South Dakota).

The review of their business arrangements and fees indicated that the peer airports require:

- All GT providers to pay fees and that these fees are higher than those charged at FAI
- All GT providers to pay an annual airport fee as well as a fee calculated based on the GT provider's volume of airport activity (e.g., a fee per vehicle trip or per passenger transported)
- Hotel/motels and other operators of courtesy vehicles to pay Airport fees
- TNCs to pay a fee for each passenger pick-up trip or a fee for both pick-up and drop-off trips as required by four of the selected airports

The fees charged at the peer airports are presented in Table 10-3.

Need for Ground Transportation Revenues

Like other U.S. airport operators who receive federal grants, Airport management is required to maintain a fee structure that will make the airport as financially self-sustaining as possible; it does not receive financial support from local taxpayers, the State, the City, or the Borough.

In order to achieve its stated goals, Airport management seeks to attract new airline service and maintain existing service by offering airlines competitive rates and charges. Accordingly, airport management strives to:

- Maintain its current non-airline revenues and generate additional revenues consistent with management's other goals (e.g., reduce cost per enplanement). Revenues from GT, parking, and rental cars represent about 36**%** of FAI's non-airline revenues.
- Ensure that companies doing business at FAI pay a reasonable share of the costs of providing, operating, and maintaining the facilities they use and for the benefits they receive.
- Recover foregone revenues (i.e., decreases in the revenues historically received from GT, parking and rental cars due to the introduction of new GT services).

FAI incurs significant costs in providing, operating, and maintaining the roadways and other facilities used by the commercial GT providers doing business at FAI. The GT providers benefit from their access to airline passengers and their use of Airport roadways, curbsides, and other facilities.

Since the GT providers benefit from FAI facilities and activity, it is rational that they be required to pay Airport fees and contribute to the costs of providing, operating, and maintaining FAI. Most, but not all,

GT providers at FAI currently pay fees which allow FAI to recover some of the costs it incurs in providing, operating, and maintaining the FAI facilities. To the extent that some GT providers do not contribute to these costs they are, in effect, being subsidized by other GT providers and other Airport tenants.

During the 12 months ending June 30, 2019, FAI received about $51,700 from GT providers. (This amount excludes revenues received from public parking and rental cars.) Compared to FAI, the selected peer airports receive (1) substantially more revenues from GT providers and (2) three to ten times more revenue per O&D passenger. This is because, as noted, TNCs are charged fees at all the peer airports but not at FAI. It is estimated that FAI would receive between $75,000 and $100,000 per year from GT providers were it to modify the existing GT fees, as proposed below.

Recommended Changes to TNC Business Arrangements and Fees

Currently, TNCs doing business at FAI are not required to obtain an Airport permit, abide by Airport rules, or pay any Airport fees. As a result, TNCs do not contribute to any Airport revenues despite FAI incurring significant costs providing, maintaining, and enforcing the roadways, curbsides, and other facilities used by TNCs.

TNCs attract passengers who would otherwise use parking, rental cars, or taxicabs. As a result, FAI is receiving less revenue from the operators of these services. Since the TNCs pay no revenues, FAI must rely upon the fees paid by other tenants and other GT providers to finance the roadway, curbside and other facilities that the TNCs require to conduct business.

It is recommended that FAI management implement a start-up program governing TNC operations at FAI. As part of this start-up program, it is recommended that TNCs be required to (a) obtain an Airport permit, (b) pay $1.50 for each pick-up trip, (c) on a monthly basis report to FAI the number of trips made and pay the required FAI fees, and (d) establish geofences to monitor the number of trips their affiliated drivers make and limit where drivers can receive requests for a fare. It is also recommended that FAI management reserve the right to modify the fee and charge for passenger drop-off in the future after reviewing operations and activity data gathered during the start-up program.

This fee amount is recommended based upon (1) the fees charged at other airports (see Figure ES- 2), (2) the impacts TNCs are having on the revenues other providers as indicated by the August 2019 Airport passenger survey, (3) the fees charged other FAI tenants and GT providers, (4) the impacts TNCs are having upon FAI facilities, and (5) the potential revenues FAI would receive. It is recommended that FAI not acquire a TNC tracking system at this time.

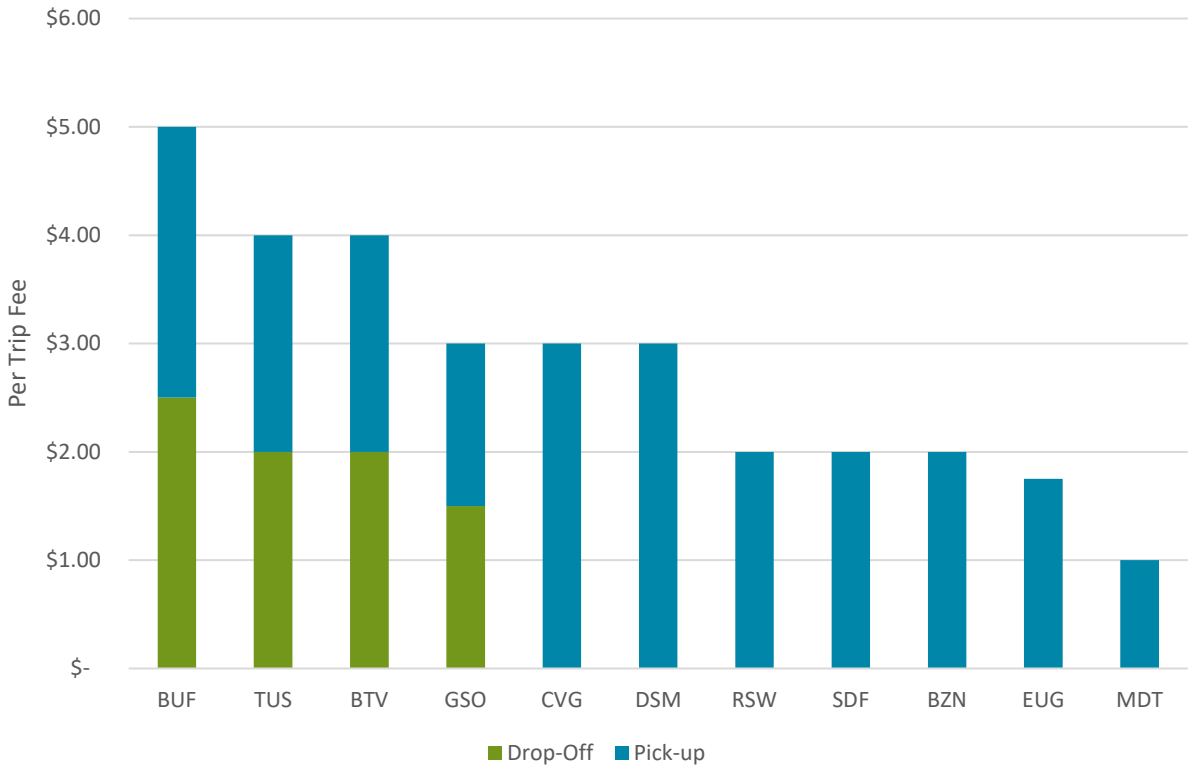


Figure ES- 2 Per-Trip TNC Fees at Similar Airports

Source: Information provided by individual airport operators, December 2019

Note: The airport codes used in this table are: BUF = Buffalo Niagara International, TUS = Tucson International, BTV = Burlington International, GSO = Piedmont Triad International, CVG = Cincinnati/Northern Kentucky International, DSM = Des Moines International, RSW = Southwest Florida International, SDF = Louisville International, BZN = Bozeman Yellowstone International, EUG = Eugene, MDT = Harrisburg International

Recommended Changes to Taxicab Business Arrangements and Fees

It is recommended that Airport management replace the existing annual fee of $150 per taxicab vehicle with a fee per passenger pick-up trip. It is proposed that taxicab operators be charged $1.50 per pick-up trip and that the fare be additive to the existing meter rate (i.e., the fee would be paid by the passenger, not the driver). For comparison, the existing fare from FAI to downtown is $17 to $22.

This fee is recommended considering (1) the costs FAI now incurs in providing, operating, maintaining, and enforcing the roadways, curbside areas, and hold areas used by taxicabs, and (2) the recommended fees to be charged TNCs and other GT providers at FAI, and (3) the taxicab fees charged at peer airports. It is recommended that FAI management charge an activity-based fee (e.g., a fee per trip) rather than a flat fee as some taxicab drivers make fewer Airport trips than others. Alternate methods of collecting the fee are described in subsequent sections of this report.

Recommended Changes to Courtesy Vehicle Business Arrangements and Fees

At present, Title 17 of the State's Regulations prohibits the operators of courtesy vehicles (any vehicle for which the operator does not charge a fare) from being required to pay an Airport fee at FAI although these operators are required to pay an Airport fee at Ted Stevens Anchorage International Airport. It is recommended that Title 17 be modified to require the operators of courtesy vehicles to pay Airport fees at FAI.

After Title 17 has been changed, it is recommended that the operators of courtesy vehicles be required to obtain Airport permits and pay the following fees:

- **Hotel/Motels**: $250 per vehicle per year unless paid parking is offered to non-hotel guests in which case the GT provider would be considered an off-airport parking business.
- **Off-Airport Rental Cars**: $250 per company per year plus a privilege fee calculated as 10% of the company's Airport-related gross receipts.
- **Off-Airport Parking**: $250 per company per year plus a privilege fee calculated as 10% of the company's Airport-related gross receipts.

It is recommended that (1) off-Airport rental car businesses continue to be required to pay a privilege fee and off-airport parking businesses be required to pay a similar privilege fee, and (2) the fee be calculated based upon the volume of business these companies conduct on FAI, as measured by their FAI-related gross receipts. At present, there are no nationally recognized off-Airport rental car companies or major off-Airport parking lot operators at FAI.

The fee to be charged hotel/motels equates to less than $1.00 per day. When distributed among all hotel guests transported, this fee amount represents a few cents per guest since hotel/motel operators make numerous daily trips to and from FAI, most transporting several guests.

Recommended Changes to the Limousine, Van, and Bus Fees

It is recommended that fees charged the operators of limousines, vans, and buses be increased to (1) recognize the costs FAI incurs, (2) be consistent with the fees at peer airports and the fees charged other GT providers; and (3) generate additional revenues. It is proposed that FAI management require all operators to obtain Airport permits and pay the following fees:

- **Pre-arranged Limousines**. The greater of $0.25 per passenger transported by the operator to or from FAI or $150/vehicle/year. Operators of pre-arranged limousines making fewer than 10 vehicle trips per year would be charged a fee of $75/vehicle/year.
- **Pre-arranged/Chartered Coaches, Buses and Vans**. The greater of $0.25 per passenger transported by the operator to or from FAI or $250/vehicle/year. Operators of pre-arranged vans, buses, and coaches making fewer than 10 vehicle trips per year would be charged $125/vehicle/year.

Limousine, van, and bus operators would be required to certify their passenger counts on a monthly basis.

It is recommended that FAI management continue to require pre-arranged limousine, bus, and van providers to pay fees that are calculated per passenger transported rather than a fee calculated per vehicle trip as is done at some other airports. This is because (1) the number of passengers transported is a better indication of the amount of business activity each provider conducts at FAI, (2) avoids the need to distinguish between various sized vans, mini-buses, buses, and coaches, (3) reflects the seasonal variations in Airport activity better than a flat annual fee (and allows a provider to only pay fees when a vehicle is in use), (4) avoids the need for and cost of an Automatic Vehicle Identification (AVI) system, and (5) has proven successful in the past at FAI.

Recommended Changes to Scheduled Services Business Arrangements and Fees

It is recommended that FAI management charge private businesses operating scheduled, fixed-route services (i.e., those following a fixed route and having multiple interim stops) an annual fee of $250 per vehicle. It is recommended that management not charge a fee to not-for-profit public operators such as military transports or scheduled public bus services.

Summary of Recommended Airport Fees

Type of GT Provider	Existing Fee	Recommended Fee
TNC	None	$1.50/pick-up trip (a)
Taxicab	$150/vehicle/year	$1.50/pick-up trip
Off-Airport Rental Car Courtesy Vehicle	$250/company/year + 10% of gross receipts	$250/company/year + 10% of gross receipts
Off-Airport Parking Courtesy Vehicle	None	$250/company/year + 10% of gross receipts
Hotel/Motel Courtesy Vehicle	None	$250/vehicle/year
Pre-arranged Limousine	$150/vehicle/year (b)	Greater of $150/vehicle or $0.25/passenger transported (b)
Pre-arranged Van or Bus	Greater of $250/vehicle or $0.25/passenger transported (b)	Greater of $250/vehicle or $0.25/passenger transported (b)
Scheduled, Fixed-route Service	None	$250/vehicle/year
Off-Airport Shuttle	$250/vehicle/year	$250/vehicle/year
Air Crew Transportation	N/A	None

(a) Recommended fees to be reviewed, and as necessary revised by Airport management, after completion of start-up program.

(b) GT providers making fewer than 10 vehicle trips per year would be charged lower fees

1 Introduction

This section describes the content of this report and the study scope.

1.1 Introduction

This report presents the results of the Terminal Ground Access Study prepared for Fairbanks International Airport (FAI). The study describes:

- The existing landside facilities and their operations, existing concerns, and estimated future landside facility needs and deficiencies. These landside facilities include the terminal area roadways, curbsides, and parking facilities.
- FAI's existing business arrangements with the providers of commercial ground transportation (GT) services. These providers include the operators of taxicabs, limousines, courtesy vans, buses/motor coaches, and Transportation Network Companies (TNC) such as Lyft and Uber. This document also presents the fees these operators are now required to pay, compares these fees with those at peer airports, and recommends changes to FAI's business arrangements with GT providers and their Airport fees.

1.2 Scope of Study

This Study addresses near- and long-term needs for Airport terminal area roadways and other GT facilities as well as the operation of these facilities and FAI's business arrangement with commercial GT operators. It addresses:

1. Existing GT landside facilities, services, and operations.
2. Existing and future near- and long-term GT facility requirements and deficiencies.
3. Potential improvements to GT facilities and operations.
4. FAI's existing business arrangements with the commercial GT operators and the fees the operators are now required to pay.
5. A comparison of FAI's existing fees and revenues with those at selected peer airports.
6. Recommended changes to GT business arrangements and fees.

2 Project Goals

The primary goals of this project were to:

1. Gain an understanding of the existing GT operations at FAI.
2. Estimate future near- and long-term (through 2035) GT facility needs.
3. Contrast future GT requirements with the capacity of the available facilities, and identify those facilities expected to operate unsatisfactorily in the future.
4. Develop and evaluate potential improvements to enhance the capacity and operations of those facilities expected to operate unsatisfactorily in the future.
5. Review and, as necessary, revise the existing GT business arrangements, regulations, and fees to meet the relevant goals and objectives of Airport management. These goals and objectives are described in the next section of this report.

3 Mission and Relevant Goals

This section describes the mission and relevant goals of Airport management.

3.1 Mission of the FAI Management

The mission of Fairbanks International Airport is “Providing interior Alaska’s gateway to the world while keeping Alaska flying and thriving.”

3.2 Relevant Goals of FAI Management

The relevant goals of FAI management are:

- Be a model government-owned enterprise, adaptive and agile
- Proactively address global changes and world markets
- Operate safely while striving for efficiency
- Be a coveted place to work
- Optimize our contribution to Alaska’s economy and quality of life
- Involve, value, and balance the interest of stakeholders

Management also strives to provide exceptional customer experience and allow customers to select from a broad range of transportation services. These goals were used to evaluate potential improvements to existing facilities, and potential revisions to the GT business arrangements, regulations, and fees. These improvements and revisions are described in subsequent sections of this report.

4 Existing Landside Facilities and Operations

This section presents the existing landside facilities and their operations.

4.1 Existing Conditions

FAI's terminal has a single-level, four-lane linear curbside roadway serving both arrivals and departures. This curbside roadway is utilized by all private vehicles and commercial GT services. Based upon discussions with FAI staff, the vehicle allocation plan for terminal curbside activity is shown in Figure 4-1.

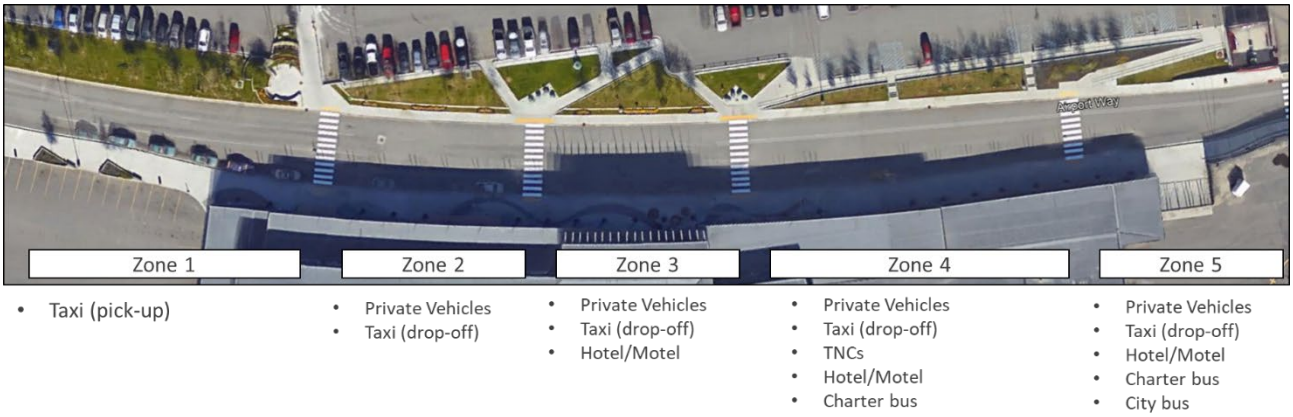


Figure 4-1 Vehicle Allocation Plan

Short-term and long-term parking is located in a surface lot, north of the terminal building.

4.1.1 Data Sources

Existing roadway and parking data were gathered to support analyses of access and curbside roadway operations and to contrast public parking requirements and space availability.

Traffic Volume/Dwell Time Data

Existing traffic volume data for FAI access roadways are collected by Alaska Department of Transportation and Public Facilities (AKDOT&PF) via short-term loops, hose counts, and permanent traffic volume stations. To supplement this data, Kittleson and Associates (Kittleson) was retained to conduct traffic volume surveys in August 2019. This month was selected to capture peak season curbside roadway activity. As part of the traffic volume surveys, vehicle classification counts were conducted on the curbside roadway. Additionally, Kittleson recorded curbside dwell times, by vehicle classification, at the curbsides.

Parking Data

Historical parking data was provided by Airport staff and Republic Parking.

4.2 Historical Trends

Figure 4-2 shows the variation in monthly O&D passengers at FAI. O&D passengers are passengers who are originating or terminating their air travel at an airport. O&D passenger volumes exclude passengers making a connection from one aircraft to another, and who do not use airport GT facilities. Analyses of airport landside or GT are traditionally based upon existing and forecast O&D passengers - the passengers using landside facilities. As shown, FAI has experienced consistent growth during the past five years with July traditionally being the peak month of activity.

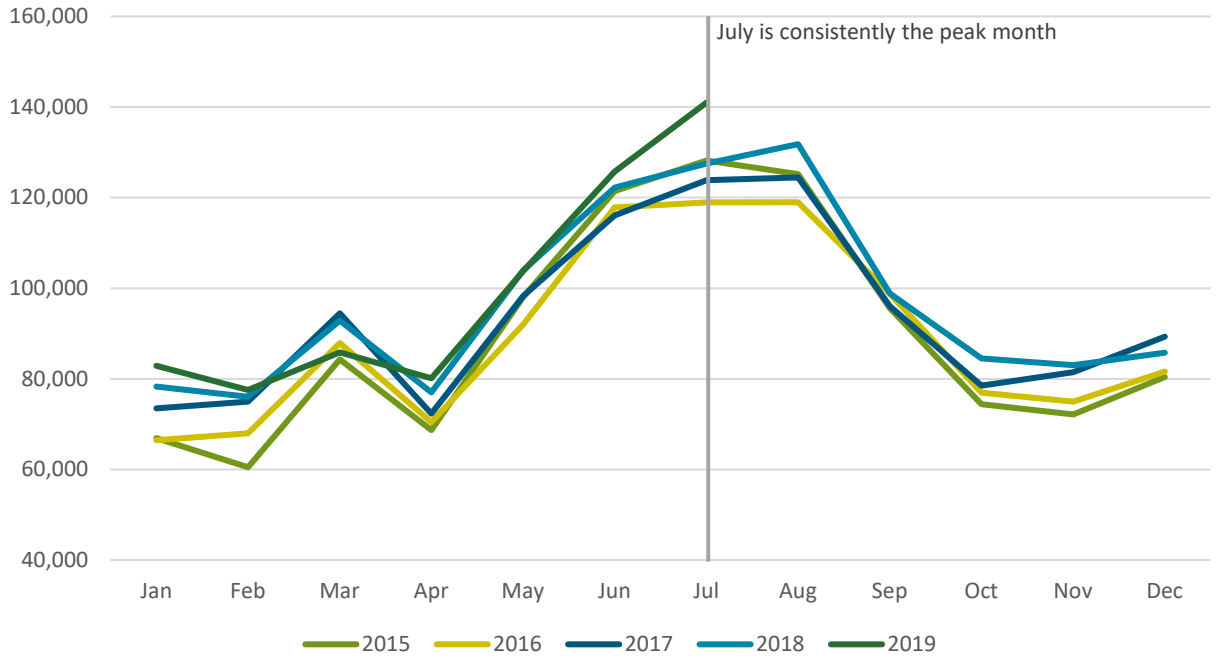


Figure 4-2 Monthly O&D Passengers

Source: Inter*VISTAS* Consulting based on data obtained from IATA via Diio Mi, October 2019

4.3 Access and Circulation Roads

Analyses of terminal area roadways operations are typically based on calculations of roadway Level-of-Service (LOS). LOS for unsignalized roadways is determined by the roadway's volume/capacity (v/c) ratio. The roadway volume or demand represents the traffic volumes occurring during the peak hour (design hour) of a typical busy day during the peak month. Airport roadway capacities are calculated based on:

- **Design Speed** – the speed vehicles are assumed to operate under uncongested (free-flow) traffic conditions. This speed is based on geometric factors, such as curve radii, and policies regarding desired traffic speeds or speed limits.

- **Reduction Factors** – capacity reduction factors that reduce operating speeds and/or increase the distance drivers provide between vehicles. Such factors include, but are not limited to, the proportion of heavy vehicles in the traffic, lane width, proximity of adjacent fixed objects to the lane, and the familiarity of drivers with the roadway.

Table 4-1 presents a description of each LOS and the v/c ratio defining the LOS.

Table 4-1 LOS Definitions for Roadways

LOS	Description	Typical Volume/Capacity (v/c) Ratio (a)
A	Free-flow conditions with unimpeded maneuverability. Minor disruptions to flow are easily absorbed	0.00 to 0.26
B	Reasonably unimpeded operations with slightly restricted maneuverability. Minor disruptions are still easily absorbed, although local deterioration in LOS is more obvious.	0.27 to 0.41
C	Stable operations with somewhat more restrictive operations. Minor disruptions can cause serious local deterioration in service.	0.42 to 0.59
D	Approaching unstable operations where small increases in volume produce substantial increases in delay and decreases in speed.	0.60 to 0.81
E	Operations at or near capacity. Disruptions cannot be dissipated readily, often causing queues to form.	0.82 to 1.00
F	Forced or breakdown in flow. Operations within queues are highly unstable, motorists experience brief periods of movement followed by stoppages.	Greater than 1.00

(a) Ratios vary depending on the assumed design speed for the roadway

Source: Transportation Research Board, Highway Capacity Manual 2010

LOS C is commonly used as a standard for the planning of new airport roadways while LOS D is commonly used as a standard for traffic operations in urban areas. LOS C is used as an airport planning standard because, compared to commuters and others on urban streets, motorists at airport are generally unfamiliar with the roads, sensitive to and stressed about the severe consequences of delays (i.e., missing a flight or an arriving passenger), and lack alternative routes that can be used to avoid congestion. Also, at LOS C, any incidents or blockages may be absorbed without causing major delays.

Traffic count data from AKDOT&PF and from the August 2019 surveys directed by Kittleson were used to determine representative peak hour volumes on the terminal area roadways. These peak hour volumes were compared with the calculated capacities of key links of the terminal area roadway network to determine the existing roadway v/c ratios and LOS. Figure 4-3 depicts the key links of the terminal area roadway network and existing (2019) LOS. Table 4-2 presents the LOS C capacity for each link, the 2019 peak hour volumes, and LOS. As shown, all terminal area roadway links currently operate at LOS A

during the peak hours during the peak month. A map of the critical terminal area roadway links and LOS is identified in Figure 4-3.

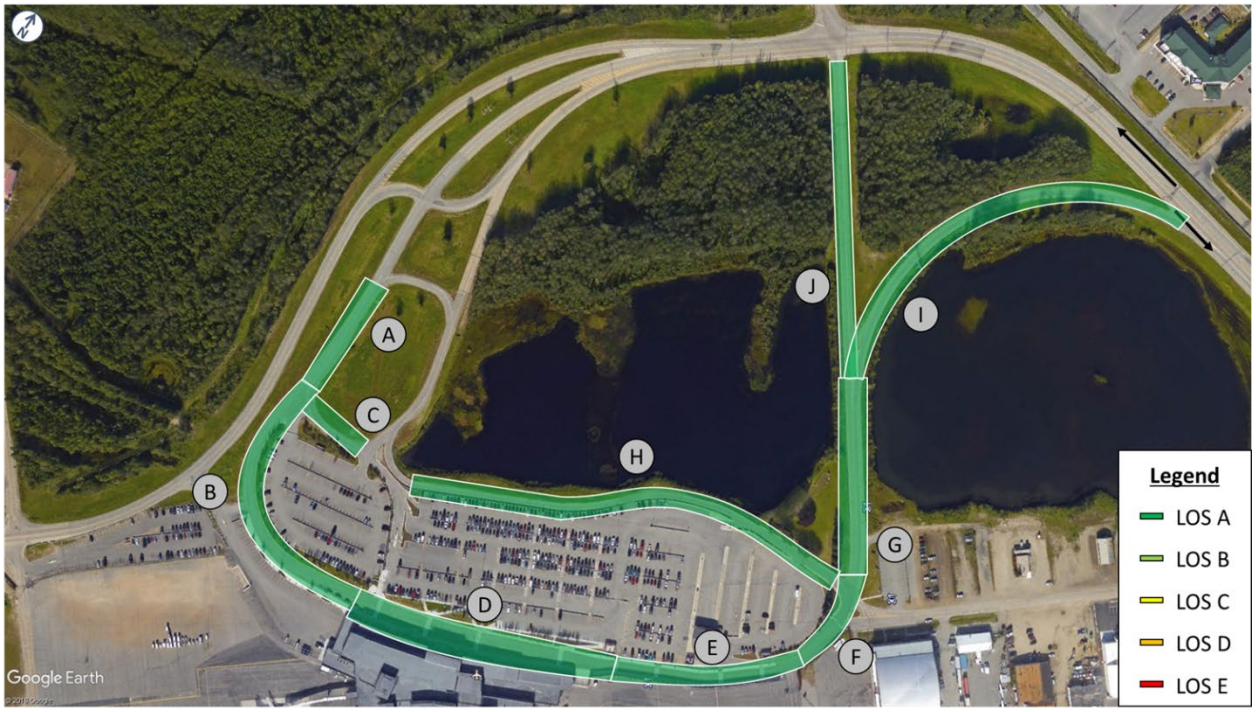


Figure 4-3 August 2019 Design Hour Levels of Service on Key FAI Roadway Links

Source: Inter*VISTAS* Consulting, October 2019

Table 4-2 Level-of-Service and Traffic Volumes by Airport Roadway Links

Link Designation	Roadway Classification	Location	Speed (mph)	Number of Lanes	LOS C Capacity	2019 Peak Hour Volume	2019 Peak Hour LOS
A	Entry/Exit Roadway	Airport Entrance	25	2	1,200	235	A
B	Terminal Access Roadway	Terminal Approach after Parking Entrance	15	2	1,200	207	A
C	Terminal Access Roadway	Parking and Rental Car Entrance	15	1	600	29	A
D	Terminal Access Roadway	Terminal	15	4	2,400	207	A
E	Terminal Access Roadway	Terminal before Parking Exit	15	3	1,800	207	A
F	Terminal Access Roadway	Terminal after Parking Exit	15	2	1,200	235	A
G	Terminal Access Roadway	Airport Exit	15	2	1,200	225	A
H	Terminal Access Roadway	Recirculation	15	1	600	10	A
I	Entry/Exit Roadway	Airport Exit toward Airport Way	25	1	600	113	A
J	Entry/Exit Roadway	Airport Exit toward Western Ave	25	1	600	112	A

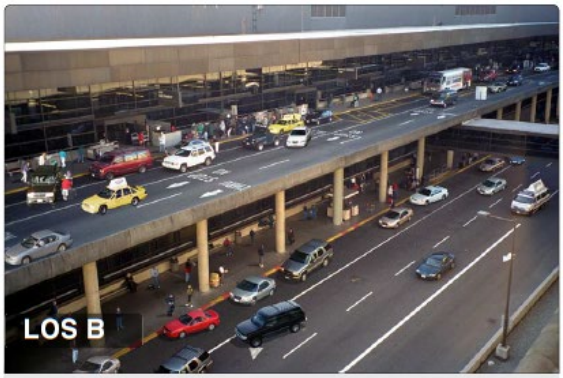
Source: Inter*VISTAS*, October 2019 based upon Airport traffic surveys conducted by Kittleson & Associates, August 2019 and AKDOT&PF surveys.

Level of Service calculated based upon Airport Cooperative Research Program (ACRP) Report 40 - Terminal Area and Curbside Roadway Operations.

4.4 Terminal Curbside

For terminal curbside roadways, LOS is based upon the operation of both the curbside and through lanes because the number of vehicles stopped in the curbside lanes directly affects the flow of vehicles in the adjacent by-pass or through lanes. A key indication of the terminal curbside roadway LOS is the number of vehicles that are double- and triple-parking, as shown in Figure 4-4. As the number of vehicles double- and triple-parking increases, the ability of motorists to access the curbside space of their choice is hindered, in extreme cases, forcing the motorist to circle past the curbside area in order to search for an empty space. As with terminal access and circulation roadways, LOS C is typically used as a standard for planning terminal curbsides.

Drivers experience no interference from other vehicles or pedestrians. Motorists arriving at the airport terminal can stop adjacent to the curb at preferred locations. Demand is equal to or less than 0.50 of the double-parking capacity of the curbside. Capacity of adjacent through lanes is unaffected.



Relatively free-flow conditions, although double-parking can be observed at some curbside locations (i.e., baggage check-in, major entrance/exit points). Demand is between 0.5 and 0.55 of the double-parking capacity of the curbside. Capacity of adjacent through lanes is virtually unaffected.

Double-parking near doors is common and some intermittent triple-parking may occur. This level of service is appropriate for peak period design conditions at major airports. Demand is between 0.55 and 0.65 of the double-parking capacity of the curbside. Capacity of adjacent through lanes is reduced by approximately 5% due to the increased frequency of double-parking.

Triple-parking occurs more frequently and vehicle maneuverability is somewhat restricted. Intermittent vehicle queues may form both in the through lanes and at the entrance to the curbside area. Demand is between 0.65 and 0.85 of the double-parking capacity of the curbside. Capacity of adjacent through lanes is reduced by over 20% due to the increased frequency of double- and triple-parking.

LOS E—Motorists experience delays and queues along the length of the curbside. Both congestion and double- or triple-parking are evident throughout the curbside area. Momentary breakdowns in operation occur as traffic in the through lanes is increasingly delayed by vehicle maneuvering in and out of the parking lanes. Demand is between 0.85 and 1.0 of the double-parking capacity of the curbside. Capacity of adjacent through lanes is reduced by over 35% due to the increased frequency of double- and triple-parking.

LOS F—Motorists experience significant delays at the curbside entrance and along the length of the curbside. Parked vehicles are unable to leave the curbside due to stopped vehicles in adjacent lanes. Demand exceeds 1.0 of the double-parking capacity of the curbside. The flow of vehicles in all lanes frequently comes to a halt.

Figure 4-4 LOS Definition for Airport Terminal Curbsides

Source: Airport Cooperative Research Program, Report 40 *Airport Curbside and Terminal Area Operations*

The LOS of FAI's terminal curbside was determined using the Quick Analysis Tool for Airport Roadways (QATAR) based upon the peak hour volume counts and vehicle dwell times surveyed in August 2019. The results of the curbside LOS analyses are provided in Figure 4-5.

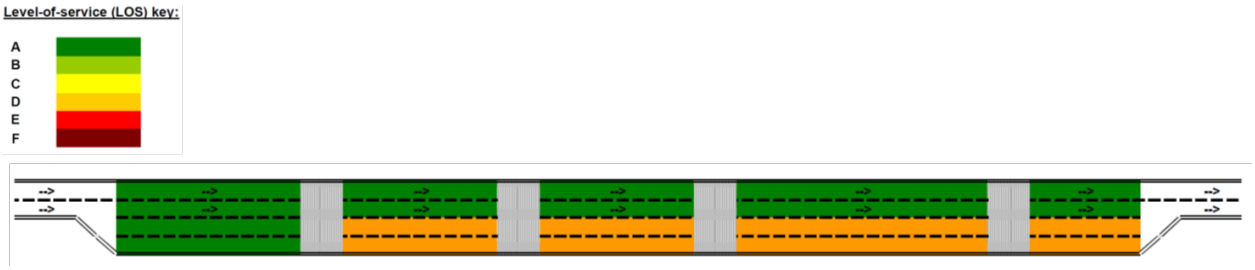


Figure 4-5 2019 LOS of Terminal Curbside

Under current conditions, the overall terminal curbside now operates at LOS D during the peak hour, although the through lanes operate at LOS A. The average observed private vehicle dwell times are 3 minutes and 14 seconds for drop-offs and 6 minutes and 50 seconds for pick-ups. The comparable times at other airports are approximately 1 minute and 30 seconds for drop-offs and 2 minutes for pick-ups. The curbside lanes operate at LOS D primarily due to the long dwell times of private vehicles.

4.5 Public Parking

Public parking is provided in a single surface lot located north of the Terminal, which is depicted in Figure 4-6. The short-term parking area, which is located directly opposite the Terminal, is separated from long-term parking. As shown in Figure 4-6, the eastern portion of the Lot is over 600 feet from the center of the Terminal, and therefore used less than the areas located within a more convenient walking distance. None of the spaces are covered. Head bolt heaters are provided throughout the lot.

Public parking demands were estimated using overnight counts provided by Republic Parking revised to reflect peak period occupancies of the public parking facilities. The relationship between overnight and peak period occupancies was based on observations of parking activity at other similar-sized airports.

Figure 4-6 Public Parking Overview

Source: Google Earth, 2018

The 2019 short-term and long-term parking demands during a typical busy day during the peak month are shown in Table 4-3. The capacity of the Short-Term area and Long-Term parking areas exceed current peak period parking demands.

Table 4-3 Public Parking Demand and Capacity

Year	Originating and Destination Passengers	Parking Requirements	
		Short-Term	Long-Term
2019	1,179,116	79	490
Existing Capacity	--	150	517

Source: Inter*VISTAS* based on data provided by Republic Parking, October 2019

4.6 Rental Car Facilities

There are five rental car companies with six counters operating at FAI. The ready and return car spaces are in the surface lot west of the public parking lot, as shown in Figure 4-7. Rental car company counters and offices are in the baggage claim area.

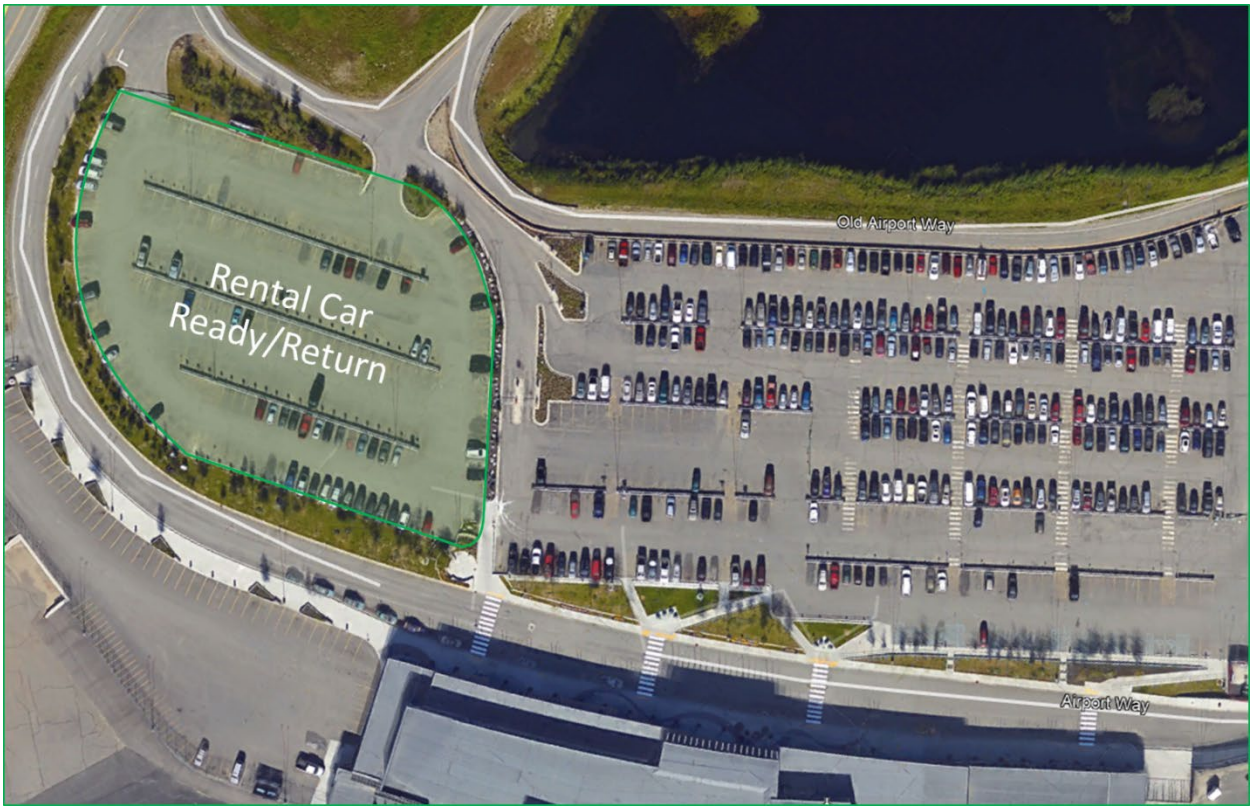


Figure 4-7 Rental Car Ready Return Lot

Rental cars are serviced (i.e., washed, fuelled, and maintained) outside of the terminal area.

It is understood that the existing facilities provide adequate capacity to accommodate future demands. As a result, rental car facilities are not further addressed in this report.

4.7 Cell Phone Lot and Transit Services

When this study was initiated, there was no cell phone waiting lot at FAI. There are no airport-operated parking shuttles, or regularly scheduled, privately operated shuttle services. The Metropolitan Area Commuter System (MACS) Transit's Yellow route connects FAI with the University, Fred Meyer, the East Ramp of FAI, and other destinations.

5 Airline Passenger Travel Characteristics

A brief intercept survey of airline passengers was conducted in the FAI boarding lounges to determine the access modes, trip purposes, and places of residence of airline passengers. The findings were used to support the forecasts of facility requirements and recommendations described in subsequent chapters. These surveys were conducted by Kittleson during the following dates and times:

- 7:30 p.m. to 11:15 p.m. on Tuesday, August 20, 2019
- 4:30 a.m. to 5:30 a.m. on Wednesday, August 21, 2019
- 10:15 a.m. to 11:15 a.m. on Wednesday, August 21, 2019

A total of 138 usable survey responses were collected by Kittleson staff.

The following figures summarize the results of the survey:

- Figure 5-1 shows the current curbside vehicle mode split. Over half (51%) of passengers traveling to FAI in a private vehicle.
- Figure 5-2 identifies the prior access mode of those passengers who used Transportation Network Companies (TNCs) to travel to FAI. 2% of those who traveled to FAI used TNCs. Of the 2%, the majority (67%) used to travel to FAI using private vehicles.
- Figure 5-3 depicts the trip purpose of those interviewed. 33% of travelers were traveling for business purposes. The resident vs. non-resident split showed a relatively even mix, 46% were residents, while 54% were non-residents.
- Figure 5-4 displays how often customers use FAI. Over half of the passengers (56%) were infrequent users of FAI.

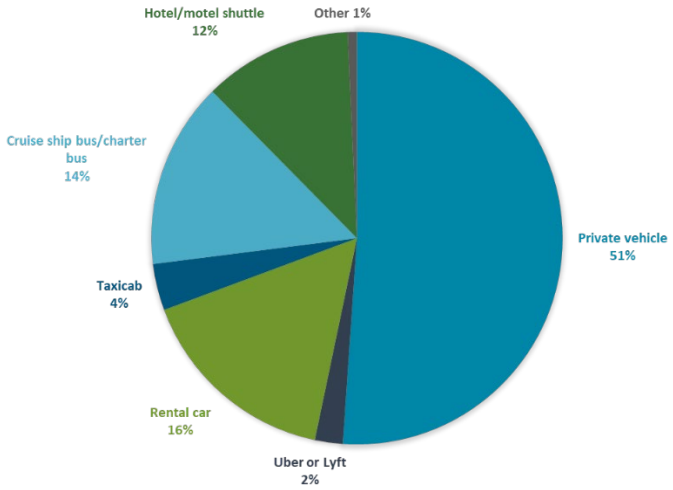


Figure 5-1 Vehicle Access Mode

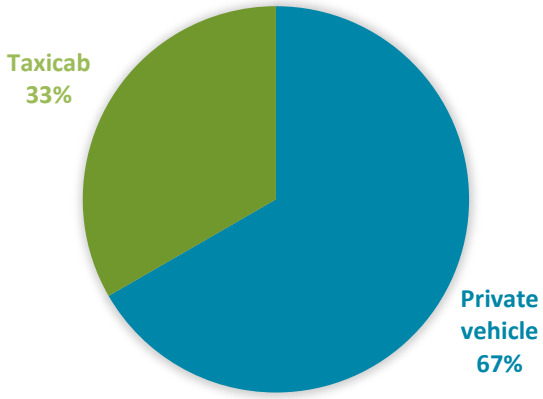


Figure 5-2 Vehicle Access Mode Prior to Uber/Lyft

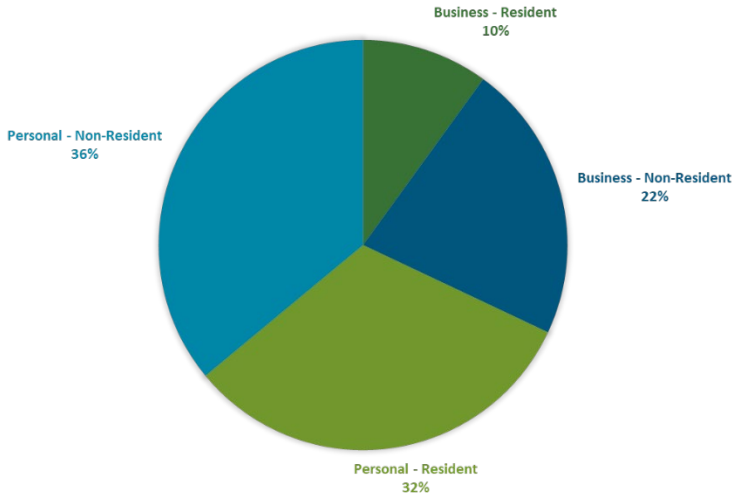


Figure 5-3 Trip Purpose

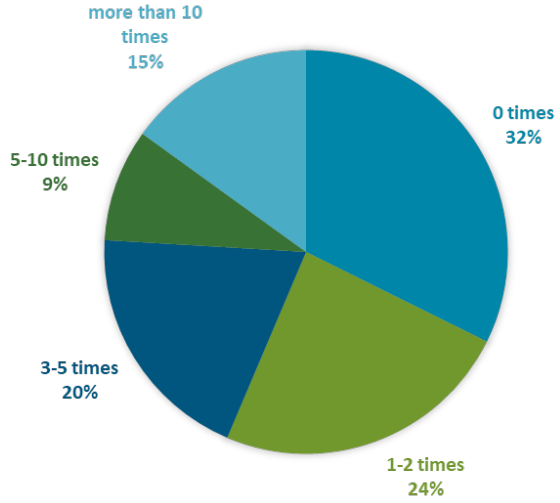


Figure 5-4 Trip Frequency

6 Future Roadway and Parking Needs and Deficiencies

This section presents the estimated future landside facility needs and deficiencies.

6.1 Future Access and Circulation Roads

Forecasts of future roadway traffic were prepared assuming that traffic volumes will increase at the same rate as future O&D passengers, which are forecast to increase at a compound annual growth rate of 1.50%.

The critical terminal area roadway links and the estimated future LOS on these links are displayed in Figure 6-1. For these same roadway links, Table 6-1 presents the estimated future peak hour traffic volumes, calculated roadway capacities, and resulting LOS for 2025, 2030, and 2035. As shown, all roadway links are expected to operate at an acceptable level of service (LOS A) through 2035.

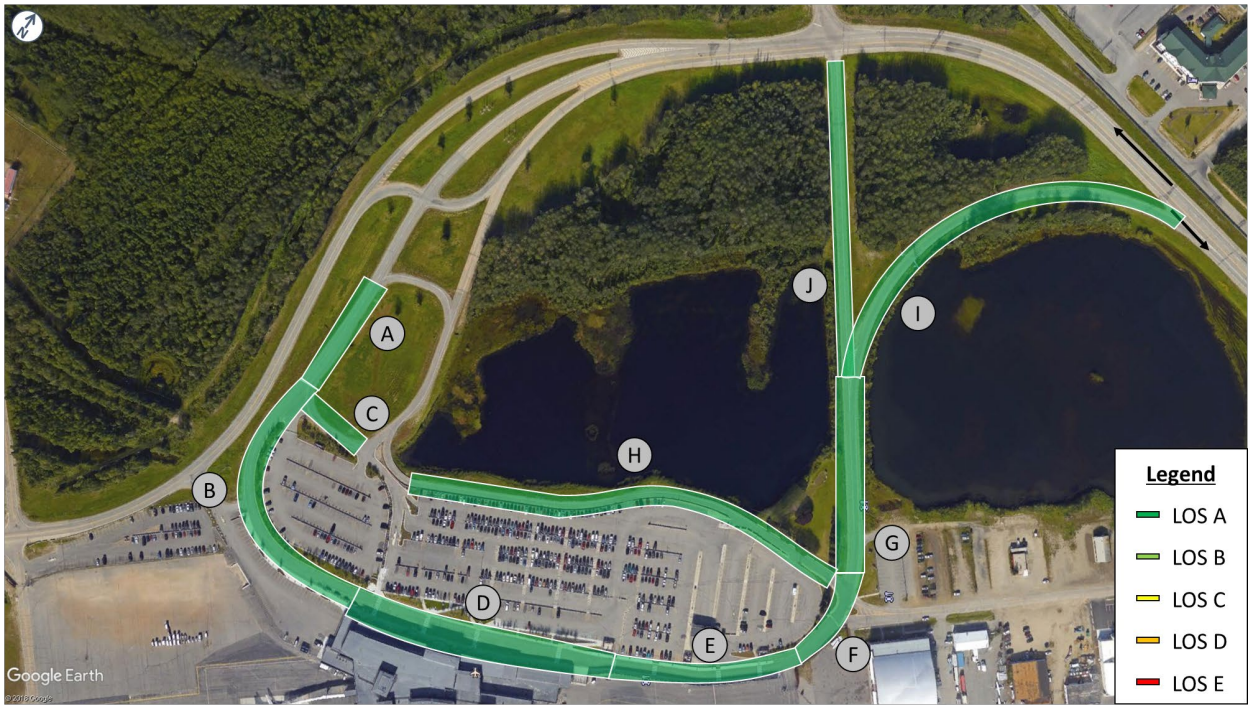


Figure 6-1 Estimated 2035 Design Hour LOS on Key FAI Roadway Links

Table 6-1 2019 and Future (2025-2035) Estimated LOS and Volumes by FAI Roadway Links

Link Designation	Roadway Classification	Location	Speed (mph)	Number of Lanes	LOS C Capacity	2019 Peak Hour		2025 Peak Hour		2030 Peak Hour		2035 Peak Hour	
						Volume	LOS	Volume	LOS	Volume	LOS	Volume	LOS
A	Entry/Exit Roadway	Airport Entrance	25	2	1,200	235	A	279	A	356	A	490	A
B	Terminal Access Roadway	Terminal Approach after Parking Entrance	15	2	1,200	207	A	245	A	313	A	430	A
C	Terminal Access Roadway	Parking and Rental Car Entrance	15	1	600	29	A	34	A	43	A	60	A
D	Terminal Access Roadway	Terminal	15	4	2,400	207	A	245	A	313	A	430	A
E	Terminal Access Roadway	Terminal before Parking Exit	15	3	1,800	207	A	245	A	313	A	430	A
F	Terminal Access Roadway	Terminal after Parking Exit	15	2	1,200	235	A	279	A	356	A	490	A
G	Terminal Access Roadway	Airport Exit	15	2	1,200	225	A	267	A	341	A	469	A
H	Terminal Access Roadway	Recirculation	15	1	600	10	A	12	A	15	A	21	A
I	Entry/Exit Roadway	Airport Exit toward Airport Way	25	1	600	113	A	134	A	171	A	234	A
J	Entry/Exit Roadway	Airport Exit toward Western Ave	25	1	600	112	A	133	A	169	A	233	A

6.2 Future Terminal Curbside Operations

Estimates of future curbside traffic volumes and operations were prepared assuming that through 2035 there will no change in the (1) mix of vehicles (i.e., proportion of GT and private vehicles) and (2) the dwell times of these vehicles. The estimated future terminal curbsides LOS for each horizon year is shown in Figure 6-2.

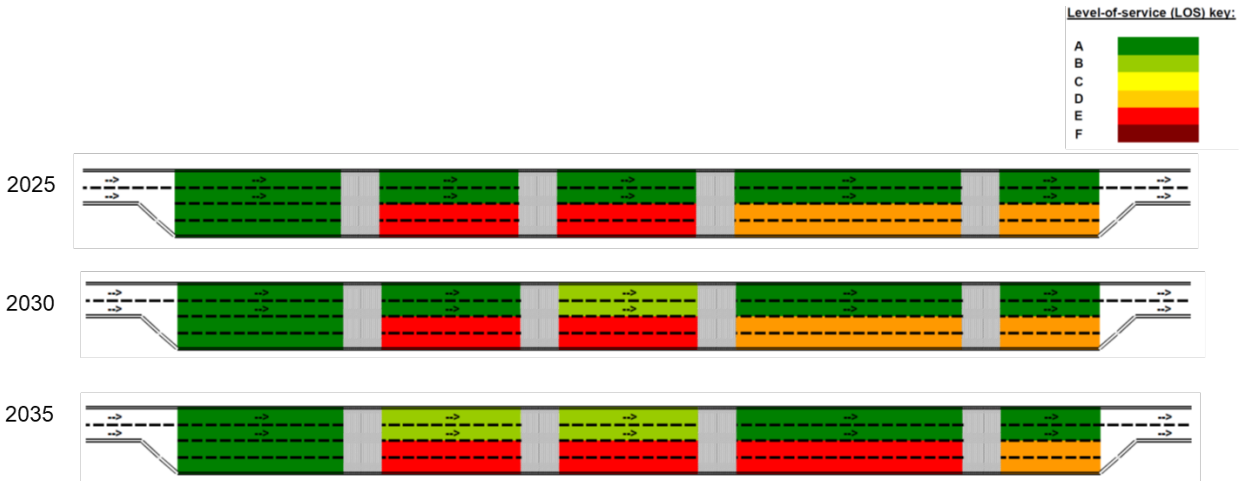


Figure 6-2 Future (2025 – 2035) LOS on Terminal Curbside

During the peak hour, the terminal curbside is expected to become increasingly congested due to long dwell times. By 2035, the overall curbside roadway is expected to operate at LOS E while the through and maneuvering lanes are expected to operate at LOS A/B.

6.3 Future Parking Needs and Deficiencies

Parking transactions (e.g., the number of exiting vehicles) from 2017 through July 2019 are shown in Figure 6-3 and Figure 6-4. The data indicates that the monthly transactions per O&D passenger were declining prior to March 2019. This is likely due to TNCs attracting customers who would have otherwise parked at FAI.

Existing parking requirements exceed the number of available spaces during peak holiday periods such as Thanksgiving, Christmas, and Spring Break.

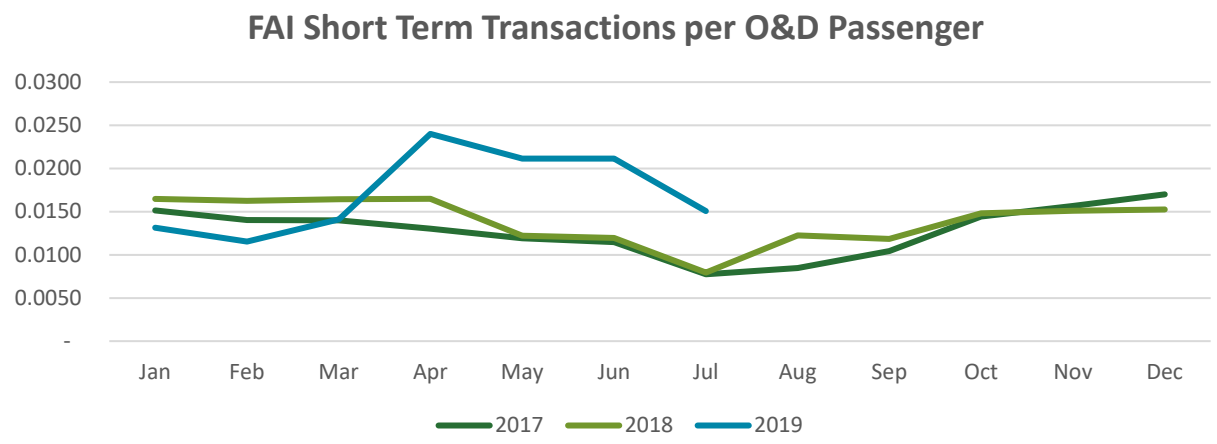


Figure 6-3 Short-term Parking Transactions per O&D Passenger

Source: Republic Parking, September 2019

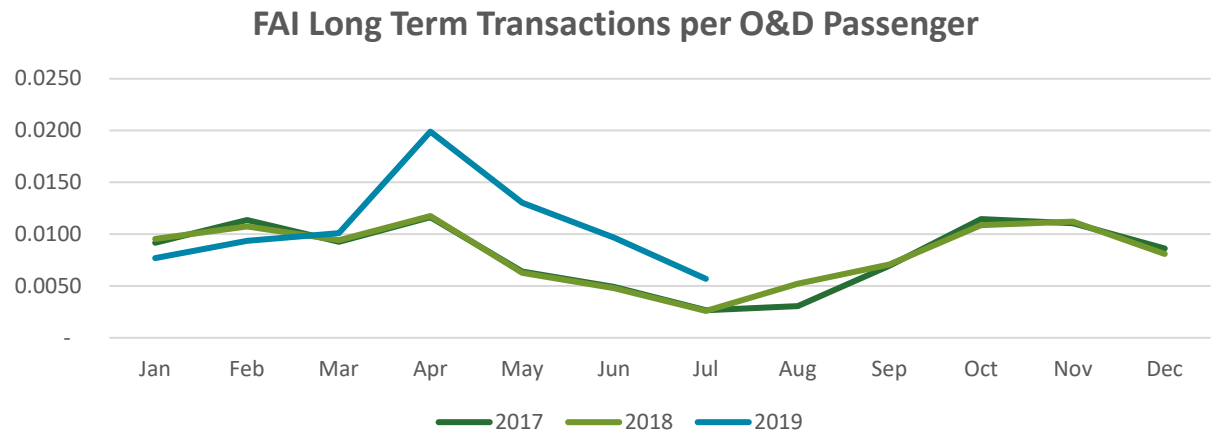


Figure 6-4 Long-term Parking Transactions per O&D Passenger

Source: Republic Parking, September 2019

TNCs are expected to reduce the propensity of FAI passengers to park but to have less impact on FAI parking demands than the impacts observed at other airports. Recognizing the possibility that the TNC market at FAI will continue to mature, two alternative growth rates were considered when estimating future public parking demands:

1. High parking requirements alternative which assumes TNCs will cause a 5% reduction in passenger propensity to park.
2. Low parking requirements alternative which assumes TNCs will cause a 15% reduction in passenger propensity to park

Additional considerations incorporated into the estimates of future public parking requirements include:

- Typical busy day during the peak month is representative of the "design day".
- Public parking demand will increase at the same rate as the annual O&D passenger growth rate of 1.5% per year.
- A 10% circulation factor was applied to the demand. This factor is commonly used in parking facility planning to reflect the difficulty motorists have finding the last empty spaces in a large parking facility, improperly parked vehicles, and vehicles circulating within the lot.

Table 6-2 depicts the forecasted design day public parking requirements for 2025, 2030, and 2035. As shown, assuming the low parking requirements alternative, it is estimated that the peak parking demands will regularly exceed the capacity of the short-term parking area by 2035 and long-term parking area by 2025.

Assuming the high parking requirements alternative, peak design day parking demand will regularly exceed the current capacity of the short-term parking by 2030 and long-term parking by 2025.

Table 6-2 Estimates of Future FAI Public Parking Demands

Year	Originating and Terminating Passengers	Low Parking Requirements		High Parking Requirements	
		Short-Term	Long-Term	Short-Term	Long-Term
2019	1,179,116	79	490	79	490
2025	1,397,000	100	580	110	640
2030	1,505,000	150	640	160	710
2035	1,621,000	190	730	210	810
Existing Capacity	--	150	517	150	517

Source: Inter*VISTAS* based upon data from Republic Parking, September 2019

As shown, the 2035 short-term parking deficit is estimated to be approximately 40 – 60 spaces and the long-term parking deficit is estimated to be approximately 213 – 293 spaces.

7 Results of Benchmarking Comparison

The airports, which are listed below in Table 7-1, were selected in cooperation with Airport staff for a benchmarking comparison. Among other factors, these airports were selected to include those having:

- A similar number of airline passengers who are originating or terminating (or have their destination) at the airport. O&D passengers excludes airline passengers who are connecting between flights and only includes those who have used GT services to travel to or from the airport.
- A high percentage of visitors reflecting the large volume of tourists and passengers from rural airports at FAI.
- International airports;
- Airports experiencing cold weather and snow;
- Significant seasonal fluctuation reflecting the variation between peak and off-peak season travel volumes;
- GT operations reflecting best industry practices; and
- Form of governance (e.g., city, state, or independent authority).

Table 7-1 Selected Benchmarked Airports

Airport	State	IATA Code	2018 O&D Passengers (a)
Bozeman Yellowstone International	Montana	BZN	1,422,720
Burlington International	Vermont	BTV	1,328,850
Harrisburg International	Pennsylvania	MDT	1,310,447
Midland Airport	Texas	MAF	1,264,949
Hilo International	Hawaii	ITO	1,111,275
Eugene Airport	Oregon	EUG	1,083,483
Sioux Falls Airport	South Dakota	FSD	1,055,874
Fairbanks International	Alaska	FAI	1,052,287

(a) Source: USDOT, O&D Survey and FMg Database via Diio, U.S. DOT T100 Database via Diio, Year End June 2019

Parking Rates. The parking rates at the benchmarked airports are shown in Table 7-2. FAI's hourly parking fees are comparable to peer airports while daily parking fees exceed those in place at peer airports.

Table 7-2 Fees at Benchmarked Airports

Airport	Garage up to 30 min.	Garage 2 hours	Garage 24 hours	Covered Lot 2 hours	Covered Lot 24 hours	Walkable Short-Term Surface Lot 2 hours	Walkable Short-Term Surface Lot 24 hours	Walkable Long-Term Surface Lot 2 hours	Walkable Long-Term Surface Lot 24 hours	Shuttle Lot 2 hours	Shuttle Lot 24 hours
Bozeman Yellowstone International	$0.00	--	--	$12.00	$18.00	$6.00	$12.00	$6.00	$9.00	--	--
Burlington International	$1.00	$3.00	$12.00	--	--	--	--	--	--	--	--
Harrisburg International	$4.40	$6.60	$20.00	--	--	--	--	--	--	$6.60	$9.50
Midland Airport	$3.00	--	--	$4.75	$12.00	$2.75	$8.00	$2.50	$6.00	--	--
Hilo International	$1.00	--	--	--	--	$5.00	$15.00	--	--	--	--
Eugene Airport	$2.00	--	--	--	--	$5.00	$14.00	$5.00	$12.00	$5.00	$10.00
Sioux Falls Airport	$1.00	--	--	--	--	$3.00	$14.00	$2.00	$8.00	$2.00	$7.00
Fairbanks International	$0.00	--	--	--	--	$6.00	$16.00	$5.00	$13.00	--	--

Source: Inter*VISTAS* based upon data published on individual airport websites, October 2019

Notes: Bozeman offers three walkable surface lots available at $18, $12, and $9 per day.
Midland offers four walkable surface lots, two of which are covered, available at $12, $9, $8, and $6 per day.

Parking Amenities. The parking amenities provided at the benchmarked airports are shown in Table 7-3. The amenities provided at FAI are comparable to those offered to customers at the peer airports. Options not now offered and which is suggested that FAI management consider implementing, include:

- **Credit-Card In and Out**. Many airport operators are encouraging the use of credit-card in and credit-card out, replacing or reducing the need for parking tickets and exit booth cashiers. Promoting the use of credit cards, by potentially increasing the costs of cash payment (or offering a discount for the use of credit cards) can reduce labor costs, cash handling, and security needs.
- **A Frequent Parking Program or Loyalty Program**. Many airport operators have implemented loyalty or frequent parker programs. These programs, which have proven popular with airport customers, offer frequent parkers discounted or free parking. Frequent parking cards can be tied to a customer's credit card and used to enter and exit parking facilities. A frequent parking program also enables FAI management to develop a customer database which can be useful to promote future parking products or offerings.

- **Customer Marketing**. Several airports actively market and promote the use of airport parking to major employers in the region. For example, access cards - offering discounted parking - can be sold to both individuals and employers.

Table 7-3 Parking Amenities

Airport	Valet	Credit Card Only Lot	Credit Card In and Out	Parking access cards	Loyalty Program	Frequent Parker	Weekly discount rate	EV Charging Station	Reserved Spaces	Pay-on-foot kiosk	Cell phone Lot
Bozeman Yellowstone International											
Burlington International											
Harrisburg International											
Midland Airport											
Hilo International											
Eugene Airport											
Sioux Falls Airport											
Fairbanks International											

Source: Inter*VISTAS* based upon data published on individual airport websites, October 2019

Ammenty Provided

Ammenty Not Provided

8 Existing, Near-, and Long-term Concerns

This section presents the existing, near- and long-term concerns with FAI's curbside and other landside facilities and their operations.

8.1 Parking Lot Operations and Rates

The parking lots at FAI are currently operating under a concession contract. The agreement is awarded in conjunction with the management agreement for parking operations at Ted Stevens Anchorage International.

It is recommended that FAI management continue to use a concession contract to operate FAI's parking facilities. This is due to the limited Airport staff resources, the lack of Airport staff having experience in the day-to-day management of parking operations, and FAI management's satisfaction with existing operations.

As noted in Section 7, the existing daily rates for the short-term ($16) and long-term lots ($13) are comparable to those at the selected peer airports. It is recommended that FAI's parking rates be reviewed regularly considering the costs of operations, revenue goals, and public response.

8.2 Parking Lot Capacity

As described in Section 6, public parking requirements now exceed the number of available spaces during peak periods such as Thanksgiving, Christmas, Spring Break. These requirements are expected to regularly exceed the capacity of the existing Long-Term parking area by 2025. By 2035 it is estimated that between about 250 and 350 additional spaces will be required depending on the future use of TNCs and increases in airline passenger traffic.

Four options to provide additional public parking were evaluated. Remotely located options, requiring the use of shuttle buses, were not considered because of the expected operating costs and poor customer experience (i.e., customers waiting outside for buses during winter weather). As shown in Figure 8-1, the four options considered include:

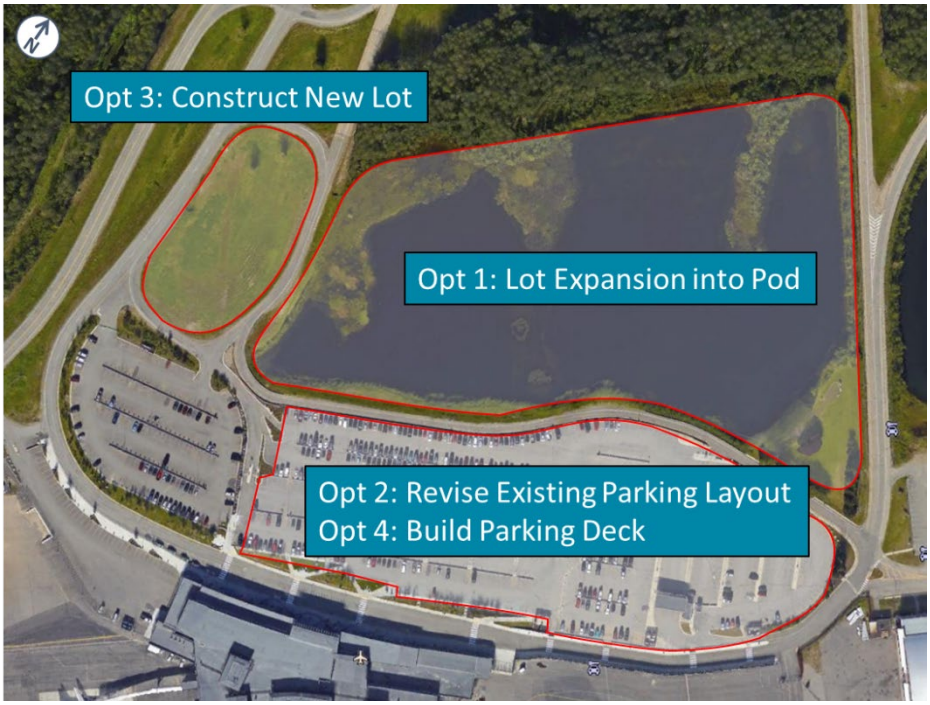


Figure 8-1 Options to Address Parking Capacity

- **Option 1—Expand the lot by filling in the pond.** This option would provide parking spaces near the terminal building by filling a portion of the pond. However, the extent of the required environmental mitigation is unknown as are the costs of this mitigation and construction.
- **Option 2—Revise the layout of the existing lot.** The existing parking lot provides 667 spaces. If a more efficient layout were used, such as the layout shown in Figure 8-2, the Lot's capacity could be increased to about 940 spaces, an increase of over 40%. A breakdown of the additional capacity by parking product is shown in Table 8-2. This layout would provide enough capacity to accommodate parking requirements through 2030 assuming the high parking requirements alternative, or through 2035 assuming the low parking requirements alternative.

Table 8-1 Revised Layout Parking Capacity

Airport	Stall Width (ft)	Bay Length (ft)
Buffalo Niagara International	9.5	65
Edmonton International Airport	9	65
Calgary International Airport	9	65
Syracuse Hanock International	9	60
Bozeman Yellowstone International	9	65
Fairbanks International	9.5	65-70

The layout shown in Figure 8-2 uses angled (70-degree), 9.0' wide parking stalls and a 61' bay depth. In comparison, the lot now uses 90-degree, 9.5' wide parking stalls and a 70' bay depth. The proposed dimensions were selected based upon a review of the parking space layouts at other airports with heavy snow and passengers driving large pick-up trucks and SUVs (e.g., the airports serving Bozeman, Buffalo, Calgary, Edmonton, and Syracuse). However, Airport staff expressed concerns with the ability to maintain/plow the lot, the loss of spaces when motorists park improperly because the stripes are covered with snow, and other concerns.

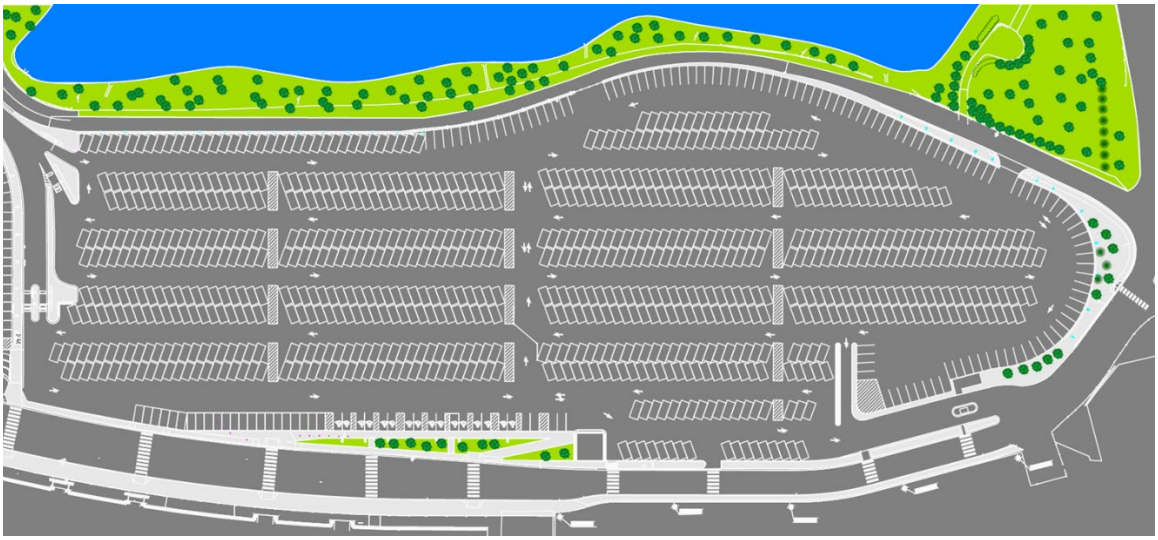


Figure 8-2 Revised Parking Lot Layout

It is estimated that revising the layout of the Lot would cost about $2.2 million based on unit costs provided by Airport staff, which assumes completely new construction. The costs might be less if it is possible to retain a portion of the existing pavement base course, drainage structures, light poles, or electrical conduit.

- **Option 3—Construct a New Lot to the North.** Potentially a new lot could be built north of the rental car lot in the median of Airport Way. This new surface lot could be used for either rental cars or for an expanded public lot. However, there are reported wetlands on this site which would require remediation. The extent of the required environmental mitigation is unknown as are the costs of this mitigation and construction. In addition, this site would have longer walking distances than the other options considered.
- **Option 4—Build a Parking Deck**. A parking deck could be built above a portion of the existing Lot, providing convenient, covered parking. A 350-space deck would provide enough capacity to accommodate the estimated high parking requirements alternative through 2035. Of the four options considered, a parking deck provides the best customer service as it would offer covered spaces close to the terminal.

A rough estimate of the financial feasibility of this deck was prepared using the following assumptions:

- The area of the deck would be about 112,000 square feet, assuming 320 square feet per space to allow for vehicular circulation and vertical ramps.
- The unit cost for a parking deck is $180/square foot based upon information provided by Airport staff. Sensitivity analyses were conducted assuming $150 and $160/square foot.
- The estimated cost to build a 350-space deck is roughly $20 million (or $17 million and $18 million if the unit cost is $150 and $160/square foot, respectively). The amortized annual cost would be about $2 million depending on financing methods and interested rates

As shown in Table 8-2, it is estimated that the deck would generate about $3.4 million in 2035, or about $1.3 in net new revenue (in 2019$). This assumes use of the short-term parking rates for the covered parking and deck. Because of the large difference between the estimated amortized annual costs and the net new revenues, it appears that supplemental revenue sources would be required to finance the structure as the net new parking revenues alone would be insufficient.

Table 8-2 Estimated Net New Revenue

Year	Required Spaces	Annual Revenue	Net New Revenue
2019	569	$ 2,108,926	--
2025	750	$ 2,529,000	$ 420,000
2030	870	$ 2,934,000	$ 825,000
2035	1,020	$ 3,439,000	$ 1,330,000

Source: Inter*VISTAS*, September 2019

- **Trunk-to-Terminal Shuttle Service.** To improve customer service a shuttle van or minibus could be used to transport customers between the trunk of their vehicle and the terminal during busy hours of the winter months. This shuttle could operate within the lot, stopping at one of the crosswalks directly opposite the terminal. This service could (1) minimize customer travel time on the shuttle (as the shuttle would not need to exit the Lot and use Western Avenue), (2) encourage the use of the more distant portions of the Lot, and (3) potentially encourage customers picking up or dropping off passengers to park rather than to wait at the curbside. At some airports, these vans wait for customers at the entrance to a lot, follow the customers to their parking space, and wait for them to unload their baggage.

8.3 Existing Concerns – Curbside Congestion

Curbside congestion occurs during peak periods because motorists "dwell" at the curbs 2x to 5x longer than motorists at other airports. This is largely due to:

- **Insufficient Enforcement Staff**. Airport police are responsible for curbside enforcement. The amount of time and number of officers devoted to actively enforcing the curbsides is limited because of their additional responsibilities. At times, a single officer is responsible for curbside enforcement. Other airports of similar size assign more staff to curbside enforcement during peak periods.
- **Local Culture**. As observed during curbside surveys, motorists remain at the curbsides for long periods, rather than just only when actively unloading or loading passengers and their baggage. It is believed that motorists have grown accustomed to being able to dwell at the curbs for long periods due to past inconsistent enforcement of shorter dwell times.

The following section lists potential measures to relieve existing curbside congestion.

8.4 Proposed Changes to Curbside Enforcement Policies

The following changes to enforcement policies and procedures are recommended as they are expected to reduce curbside dwell times and congestion:

- A public relations program explaining the need for forthcoming stricter enforcement, and encouraging changes in "culture" or driver behavior
- Use part-time traffic control officers (TCOs) to augment Airport police, potentially hired through Republic Parking. TCO's would be authorized to issue tickets for non-moving violations.
- Station tow trucks at the entrance to the curbside as a visual warning for motorists, encouraging motorists to only remain at the curbside while actively loading/unloading.
- Construct a cell phone waiting lot. This option is further discussed in Section 8.6. Prior to the completion of this report, FAI management established a cell phone lot across from Evert Air Fuel Operations on Old Airport Road.

8.5 Roadway Safety – Van Horn Road Improvements

Airport staff indicated concerns with the level of safety on Van Horn Road west of the intersection with University Avenue South. A motor vehicle fatality and serious motor vehicle accidents have recently occurred on this roadway segment because drivers, operating at high speeds, were unable to negotiate the curve.

Potential improvements include:

- Re-alignment and reconstruction of Van Horn Road to eliminate the S-curve and increase the radii of the curve. This is not recommended due to costs.

- Install rumble strips. This is not recommended as this is a treatment not typically used by AKDOT&PF.
- Install caution (curve ahead) and speed limit signs on the tangent section approaching the intersection as well as delineators on the outside of the curve. This is recommended.
- Consider painted chevrons on the pavement to encourage motorists to slow down. This is recommended.

8.6 Cell Phone Waiting Lot

When this study was initiated, there was no cell phone waiting lot at FAI while most of the peer airports had a cell phone waiting lot. A conveniently located lot would support curbside enforcement by allowing FAI police officers to direct motorists to the lot, rather than allowing them to continue to wait at the curbside. It is preferred that (a) the cell phone lot not be located within a convenient walk of the terminal as some parkers might opt for this free parking, and (b) parking durations in the cell phone lot be limited to one hour or less.

Three alternative locations for a Cell Phone Waiting Lot were identified. These alternatives which are depicted in Figure 8-3 are:

- Alternative A located on Airport Industrial Road, south of the U.S. Postal Service.
- Alternative B located near Western Avenue or along Airport Way
- Alternative C located in the parking lot across from Everts on Old Airport Road. (Prior to the completion of this study a cell phone lot was established at this site and, to make passengers aware of this lot, signage was installed and social media was used.

Figure 8-3 Potential Cell Phone Lot Sites at FAI

A picture of the site of Alternative A is shown in Figure 8-4.

Figure 8-4 Cell Phone Lot Site A

With either Alternative A or B, it is suggested that consideration be given to, at some future date, co-locating the cell phone lot with a convenience store/gas station, developed and operated by a third-party developer, awarded through a competitive selection process. This would minimize FAI's construction and operating costs. Similar cell phone lots have been built at other airports (e.g., IND and DEN).

9 Available GT Services

FAI is served by a wide-variety of GT services. The services now available, as well as those commonly available at other airports, are described in this section.

9.1 Taxicabs

Taxicab companies provide on-demand transportation service using vehicles which typically transport five passengers and a driver. Fares are calculated on a time-and-distance base using a taximeter. Airport management establishes minimum standards for taxicab vehicles and taxicab drivers. Moose Cab is an example of a local taxicab operator.

9.2 Pre-arranged Limousines

Limousine operators provide transportation service which is pre-arranged or requested in advance (e.g., normally before the customer arrives in Fairbanks, and before the customer leaves the terminal). Limousine service is normally provided in a full-size sedan, SUV, or luxury vehicle. Fares are set beforehand, normally on a time-and-distance basis. Greatland Taxi and Tours is an example of a local limousine operator.

9.3 Transportation Network Companies

A Transportation Network Company (TNC) is a transportation provider that uses a digital network to connect customers to company drivers who provide “prearranged” rides. Customers request a ride using the company’s application or “app,” typically when they approach the curbside but can do so immediately after arriving at FAI. Company drivers, who provide service in their personal vehicles, can only accept rides offered through the company app. Fares, which are set by the company before the trip starts, are based on the distance to the customer’s destination with extra amounts or “surge” prices included during busy periods when there are insufficient TNC drivers available. There are now two TNC operators in Fairbanks--Lyft and Uber.

9.4 Pre-arranged Chartered Vans and Buses

The operators of chartered or tour vans, buses, and coaches provide transportation services which are pre-arranged or requested in advance (e.g., normally before the travel party arrives in Fairbanks). Chartered services can be provided in vans, mini-buses, full-size buses, and motor coaches depending on the vehicle requested and the number of people in the travel party. Baggage can be transported in the same or separate vehicle (e.g., a baggage truck). Fares are set beforehand, normally on a time-and-distance basis and vary based on the size of the vehicle chartered. Premier and Holland America are examples of a tour bus operator.

9.5 Courtesy Vans

Operators of off-airport rental car companies, parking facilities, and hotel/motels provide on-demand transportation for their customers between airports and their place of business. This service is typically provided in vans, cut-aways, or mini-buses. No fares are charged for this transportation service as the transportation cost is incidental to the service being offered (e.g., the cost of the renting a car.) La Quinta Inn is an example of a hotel providing courtesy vehicle service. Currently there are no major or nationally recognized off-airport rental car or off-airport parking businesses at FAI.

9.6 Peer-to-Peer Rental Car

A peer-to-peer rental car company operates a business that hosts a website listing personally owned vehicles available for rent and facilitates the business transaction between customers and the individuals who are offering to rent their vehicles. The company websites list a wide variety of cars and pick-up trucks available for rent as well as the rental cost. Turo is an example of a peer-to-peer rental car company.

9.7 Scheduled Shuttle

Operators of scheduled transportation service provide service along a fixed route and having multiple interim stops where passengers may board and alight the vehicle. Schedules and stop locations are published in advance. Service may be provided in vans, mini-buses, or full-size buses. Customers pay for each seat as opposed to a paying for an entire vehicle as they do for taxicabs, limousines and other pre-arranged services. While such services are available at many other airports, currently there are no privately-operated scheduled shuttle services available at FAI.

9.8 Door-to-Door Shuttle

Operators of door-to-door shuttles services provide on-demand transportation services to and from an airport. Shuttles make multiple stops to pick-up (or drop-off) customers and transport them to the airport. Service is typically provided in eight-passenger vans. Fares are charged on a per-seat basis according to the distance travelled. At other airports, demand for door-to-door shuttle service has declined due to the introduction of TNCs. SuperShuttle was an example of a door-to-door shuttle operator. Although two businesses hold shuttle permits at FAI neither operator offers on-demand, door-to-door service as defined above. It is suggested that these operators, Anderson & Trotter and Alaskan Safari, be classified and permitted as pre-arranged transportation services.

9.9 Air Crew Transportation

Some operators of shuttles have agreements with air carriers (or other businesses) to transport their employees (e.g., the flight and cabin crew of these air carriers) between the airport and a hotel or other place of lodging. Typically, these shuttle operators do not transport members of the public and only

provide point-to-point transportation. While not an air carrier, Pogo Mine is an example of a business providing transportation to and from FAI for its employees.

For purposes of this report, commercial GT services are considered to exclude Airport-operated parking shuttles, fixed-route scheduled services operated by public agencies (e.g., MACS Transit), or package or baggage delivery services.

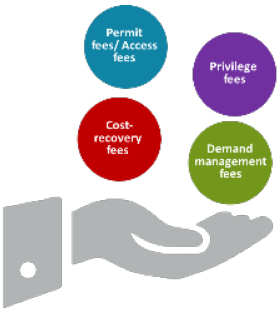
10 GT Fees and Business Arrangements at Other Airports

This section describes the types of fees other airports charge GT providers, the specific fees selected peer airports charge GT providers, and the amount of revenue these peer airports receive from GT providers.

10.1 Types of Airport GT Fees

Airport operators charge GT providers a variety of fees, with individual airports using different names for the same or similar fees. These GT fees are commonly categorized into the following four categories or types:

- Permit Fees or Access Fees
- Cost Recovery Fees
- Demand Management Fees
- Privilege Fees



The following paragraphs describe each of these types of fees.

10.1.1 Permit Fees/Access Fees

Airport operators generally require that all GT provider doing business on the airport (i.e., picking up passengers) enter into a formal business arrangement with the airport operator. Airport operators require GT providers to obtain and sign an airport permit signifying that they will comply with the terms of the business arrangements including abiding by the airport's rules and regulations and paying required fees. Airport operators require that all providers pay a permit fee or access fee for this permit.

Typically, all GT providers qualified to do business on an airport are required to obtain a permit. Exceptions may include traditional, multi-stop publicly operated bus services.

Frequently, each GT provider is required to obtain a decal that is applied to each of their vehicles operating at the airport. The decals signify that the vehicles are authorized at the airport and supports identification and enforcement of unauthorized GT vehicles.

For example, pre-arranged llimousines are required to obtain a permit at FAI and are charged $150/vehicle/year.

10.1.2 Cost-Recovery Fees/Per-Trip Fees

Many airport operators require all GT providers pay fees that allow the airport operator to recover the costs it incurs in providing, operating and maintaining the roadways and other facilities used directly by the GT providers. These fees are established to reflect the volume of activity or amount of use of airport facilities by individual GT providers or businesses.

Cost-recovery fees are most commonly calculated based on the volume of vehicle trips made by a GT provider, although they can be charged per hotel room or parking space. As a result, these fees are often referred to a per-trip fees. As the fees paid by the GT providers increase in direct proportion of the number of vehicle-trips made, per-trip trip fees promote the efficient use of airport roadways and other facilities.

At many airports, the amount of per-trip fee charged varies based upon the:

- Type of transportation service, with those providers using more facilities (e.g., commercial vehicle hold areas or dispatching services) charged higher fees
- Vehicle size, with larger vehicles charged higher fees reflecting the greater wear and tear they place on airport roadways and other facilities
- Type of fuel used, with airports charging lower fees for vehicles that use alternative fuels

At present, no GT provider at FAI is required to pay cost-recovery fees that are established based on FAI's costs and the GT provider's number of trips or other measure of activity.

10.1.3 Demand Management Fees

Numerous airports charge fees or fines to encourage the efficient use of airport roadways and curbside facilities. These demand management fees include fees that penalize GT providers whose vehicles:

- Remain, or dwell, at a curbside or other passenger loading area in excess of an allowed maximum length of time. These fees are commonly referred to as dwell time fees. It is necessary to record the time each GT vehicle enters and exits a curbside or passenger loading area in order to charge such fees.
- Exceed the allowed number of monthly trips or approved headways (i.e., time interval between successive vehicle trips). These fees are most often charged the operators of hotel/motels, off-airport parking, or off-airport rental car courtesy vehicles. It is necessary to record the number of vehicle trips and/or the time between successive vehicle trips in order to charge such fees.

At present, no GT provider at FAI is charged any form demand management fee.

10.1.4 Privilege Fees

Privilege fees reflect the business benefits or "privileges" GT providers derive from the presence of the entire airport and access to its passengers, not just for the use of airport roadways and other facilities that GT providers use directly. Most airport operators require that such fees be paid by companies whose business model depends on the presence of the entire airport such as off-airport rental car companies and off-airport parking businesses.

The benefits a GT provider receives from an airport can be measured in several ways, but the industry standard is to calculate the fee as a percentage of the gross revenues the provider derives from its airport business. Some airports require that businesses pay both a per-trip and privilege fee, while

some allow the businesses to credit one against the other thus resulting in the business only paying the higher of the two.

At present, off-airport rental car companies at FAI are required to pay a $250 annual permit fee plus a fee calculated as of 10% of their airport-related gross revenues.

10.1.5 Types of Fees Charged GT Providers

Table 10-1 depicts the types fees airport operators commonly charge each type of commercial GT provider. As shown, all commercial GT providers are required to pay permit fees and cost-recovery fees but only off-airport rental car and parking businesses are required to pay privilege fees. Possible exceptions include airport operators having an exclusive or semi-exclusive contract with the providers of taxicab, shared-ride van, or limousine services. Typically, only the operators of courtesy vehicles and shared-ride vans are required to pay demand management fees.

Table 10-1 Types of Fees Charged Commercial GT Services

Type of Commercial GT service	Permit	Per-Trip	Privilege	Demand Management
Taxicabs	●	●	(a)	--
Limos	●	●	(a)	--
Shared-ride vans	●	●	(a)	●
Courtesy Vehicles				
Hotel/motel	●	●	--	●
Off-airport rental car	●	●	●	●
Off-airport parking	●	●	●	●
Scheduled buses/vans	●	●	--	--
Chartered buses/vans	●	●	--	--
Public transit	--	--	--	--
TNCs	●	●	--	--

(a) Only if exclusive or-semi-exclusive contract

10.2 Fees Charged by Selected Peer Airports

The GT fees and operations at FAI were compared with six peer airports that were selected in cooperation with Airport management. As noted in Section 7 of this report, these airports were selected to include those having:

- A similar number of airline passengers who are originating or terminating (or have their destination) at the airport. O&D passengers excludes airline passengers who are connecting

between flights and only includes those who have used GT services to travel to or from the airport.

- A high percentage of visitors reflecting the large volume of tourists and passengers from rural airports at FAI.
- Passengers travelling to/from worksites where they will remain for extended periods (e.g., those working on the North Slope)
- Airports experiencing unusually cold weather and snow
- Significant seasonal fluctuation reflecting the variation between peak and off-peak season travel volumes
- GT operations reflecting best industry practices
- Form of governance (e.g., airports operated by a city or state)

Table 7-2 lists the selected peer airports, their location and number of annual O&D passengers. As shown these airports vary in size from Bozeman International to Sioux Falls.

Table 10-2 presents the fees the providers of GT providers are charged at FAI and at the peer airports. As shown, each of the peer airport operators requires:

- All the GT providers to pay for an annual airport permit, charged per vehicle or per company and pay a calculated per vehicle trip
- The GT providers to pay fees which are higher than those at FAI
- The operators of courtesy vehicles to pay fees. At present, Title 17 of the State's Regulations prohibits the operators of courtesy vehicles (any vehicle for which the operator does not charge a fare) from being required to pay an Airport fee at Fairbanks International Airport although these operators are required to pay an Airport fee at Ted Steven Anchorage International Airport
- TNCs to pay a fee per pick-up trip, with two airports charging for both drop-off and pick-up trip (Burlington and Hilo)

Off-airport parking businesses are required to pay a privilege fee calculated as a percentage of their gross revenues at Midland Airport.

Table 10-2 Ground Transportation Fees at Peer Airports

Airport	Taxicab	Limousine	TNC	Courtesy Vehicle			Scheduled Bus	Tour Bus
				Hotel/motel	Off-airport rental car	Off-airport parking		
Bozeman Yellowstone International	$2.00/trip	$2.00/trip	$2.00/trip	$300/veh./yr	10% of gross less parking fees	N/A	$4.00/trip	$4.00/trip
Burlington International (a)	$1.00/trip	$0.50/trip	$2.00/pick-up or drop-off trip	$1.00/trip	$1.00/trip	$1.00/trip	$1.00/trip	$1.00/trip
Harrisburg International (b)	N/A	$2.00/trip	$3.40/trip	$2.00/trip	$2.00/trip	$2.00/trip	--	$5.00/trip
Midland Airport	$300/veh./yr	$300/veh./yr	$1.00/pick-up trip	$300/veh./yr	N/A	10% of gross receipts	$300/veh./yr	$300/veh./yr
Hilo International	$150/mon + 3% of gross revenues	$100/year + 3% of gross receipts	$100/year + 3% of gross receipts	$250/veh./yr. + $2/room	$250/veh./yr. + $20/car in the fleet	$250/yr. + $250/veh.yr	$100/year + 3% of gross receipts	$100/year + 3% of gross receipts
Eugene Airport (c)	$1.50/trip	$1.50/trip for pick-up and drop-off	$1.50/trip	$1.50/trip	$1.50/trip	$1.50/trip	$1.50/trip	$1.50/trip
Sioux Falls Airport (d)	--	--	--	--	--	--	--	--
Fairbanks International	$150/veh./yr	$150/veh./yr	$0	$0 (Title 17 AAC 42)	$250/company + 10% of gross revenues	$0	$0	Greater of $250/veh./yr or $0.25/enpl. and depl. passenger

Source: Information provided by individual airport operators, October 2019
(a) At Burlington International, each GT provider must also pay annual permit fee which is $500 per vehicle for taxicabs and limousines, and $125 per vehicle for courtesy vehicles.
(b) At Harrisburg International, each GT provider is charged $50 per Automatic Vehicle Identification (AVI) transponder. The fees shown exclude additional dwell time charges which are also charged.
(c) At Eugene, the airport operator plans to increase the per-trip fee to $1.75/trip in 2020
(d) Unable to obtain information from airport staff

Table 10-3 presents the GT facilities provided at each of the peer airports. This table shows where passengers board GT vehicles, the amenities provided waiting passengers (e.g., benches, shelters, or other weather protection) and drivers (e.g., a hold lot) and the methods used to dispatch

taxicabs and enforce GT operations. The taxicab boarding area is generally visible from the taxicab queueing area at the peer airports eliminating the need for a technology to support taxicab dispatching.

Table 10-3 Ground Transportation Facilities at Peer Airports

Airport	GT passegner boarding area location	TNC passenger boarding area location	Amenities offered passengers	Facilities provided GT drivers	Technologies used to support GT operations	Who is responsible for:			Has airport established supplementary standards
						Taxicab dispatching	CGT enforcement	Establishing minimum standards for vehicles and drivers	
Bozeman Yellowstone International	Curbside	Curbside	Benches	None	None	Visual	Airport police	City and Airport	No
Burlington International	Curbside	Curbside	Benches + schedules	Hold Lot	None	GT manager	Airport police	City	Yes
Harrisburg International	Garage (GTC)	Garage-3rd floor	Inside garage	Restrooms and vending machines	AVI	Concessionaire + call to office	Airport police	Airport staff	N.A.
Midland Airport	GT Lot near bag claim	Curbside	Benches	None	None	Visual	Airport police	City and Airport	No
Hilo International	Curbside	Curbside	Benches by RAC	Hold Lot	None	Visual	Airport police	State	No
Eugene Airport	Curbside	Curbside	Benches	None	Proximity card	Visual	Airport police	City	No
Sioux Falls Airport	Outer Curbside	Curbside	Covered benches	Hold lot w/ portable toilets	None	Visual	Airport police	Airport staff	No
Fairbanks International	Curbside	Curbside	Benches	None	None	Visual	Airport police	Airport staff	N.A.

Source: Information provided by individual airport operators, October 2019

10.3 GT Revenues Received at Selected Peer Airports

The following pages describe the amount of revenue the selected peer airports receive from GT providers and explain why airport operators, including FAI, rely upon such revenues.

10.3.1 Need for GT Revenues

Like other U.S. airport operators who receive federal grants, airport management is required to maintain a fee structure that will make the airport as financially self-sustaining as possible; it does not receive financial support from local taxpayers, the State, the City or the Borough.

Section 3 of this report described the goals of Airport management. These goals included delivering exceptional customer service, stimulating economic growth, and providing convenient air service. In order to achieve these goals Airport management seeks to attract new airline service and maintain existing service by offering airlines competitive rates and charges. Accordingly, the management of FAI strives to:

- Maintain its current non-airline revenues and generate additional revenues consistent with management's other goals (e.g., reduce cost per enplanement). Airport staff report that revenues from GT, parking, and rental cars represent about 36% of FAI's non-airline revenues.
- Ensure that all companies doing business at FAI pay a reasonable share of the costs of providing, operating, and maintaining the facilities they use and for the benefits they receive.
- Recover foregone revenues (i.e., decreases in the revenues that FAI has historically received from GT, parking and rental cars due to the introduction of new GT services).

FAI incurs costs in providing, operating, and maintaining the roadways and other facilities used by the commercial GT providers doing business at FAI. These costs include those of roadway maintenance, enforcement, construction, and utilities. The GT providers benefit from their access to airline passengers and their use of Airport roadways, curbsides, and other facilities.

Since the GT providers benefit from FAI facilities and passenger activity, it is rational that they be required to pay Airport fees and contribute to FAI's costs of providing, operating, and maintaining FAI. Most, but not all, GT providers at FAI now pay fees which allow FAI to recover some of the costs it incurs in providing, operating, and maintaining these Airport facilities. To the extent that some GT providers do not contribute to these costs they are, in effect, being subsidized by other GT providers and other Airport tenants.

During the 12 months ending June 30, 2019, FAI received about $51,700 from the GT providers doing business at FAI. This amount, which excludes revenues from parking and rental cars, equates to about $0.05 per annual originating-terminating airline passenger. As shown in Table 10-4, compared to FAI, each of the selected peer airports which shared annual revenue data receives (1) substantially more revenues from GT providers and (2) three to ten times more revenue per originating and terminating airline passenger. This is because, as noted, TNCs are required to pay airport fees at all the peer airports.

Table 10-4 Ground Transportation Revenues at Peer Airports

Airport	Annual total revenues	Estimated annual revenue/enplanement
ITO	Not available [(a)]	--
BTV	$185,000	$0.25
BZN	$132,153	$0.18
MDT	$230,000	$0.32
MAF	$100,000	$0.15
FAI	$51,700	$0.05
EUG	$462,000	$0.70
FSD	Not available [(a)]	--
Additional airports having similar number of enplaned passengers as FAI		
DAY	$20,000—excluding TNCs [(b)]	$0.34
ROC	$333,000	$0.28

Source: Information provided by individual airport operators, October 2019

(a) Unable to obtain information from airport staff

(b) Airport management is unable to share TNC revenue information

The airport codes used in this table are: ITO = Hilo International, BTV = Burlington International, BZN = Bozeman, MDT = Harrisburg International, MAF = Midland, FAI = Fairbanks International, GEG = Eugene, FSD = Sioux Falls, DAY = Dayton, ROC = Rochester

It is estimated that FAI would receive between $75,000 and $100,000 per year from GT providers doing business at FAI were it to modify the existing GT fees, as proposed in Section 11 of this report. This estimate is based upon assumptions about the volume of TNC volumes at FAI and the revenues resulting from the other changes proposed in Section 11.

11 Potential Changes to GT Business Arrangements

This section reviews the existing operations of each of FAI's GT providers and recommends changes to the existing business arrangements and fees. The GT providers discussed include TNCs, taxicabs, courtesy vehicles, and pre-arranged or chartered limousines, vans, and buses.

11.1 Transportation Network Companies

The following paragraphs describe the current operation and regulation of TNCs at FAI and their estimated impact upon FAI's revenues. It also recommends that the TNC companies be required to enter into formal business agreements with FAI, pay Airport fees, and comply with regulations outlined in the following paragraphs.

11.1.1 Current Operation of TNCs at FAI

Currently, TNCs drop off passengers at any location along the curbside after the taxicab queue. There is a column-mounted sign indicating the designated TNC drop-off and pick-up area; however, use of this location is not actively enforced.

TNC drivers waiting for passengers, park on the shoulder of Western Avenue. There is no designated hold lot for TNCs.

11.1.2 Existing Regulation of TNCs at FAI

Currently, TNCs doing business at FAI are not required to obtain an Airport permit, Consequently, there is no formal requirement that TNC drivers abide by Airport rules and regulations other than those governing private vehicles. TNC companies are not required to pay any Airport fees. As a result, TNCs do not contribute any Airport revenues despite FAI incurring significant costs providing, maintaining, and enforcing the roadways, curbsides, and other facilities used by TNCs.

TNCs are causing FAI to forego revenues. TNCs attract passengers who would otherwise use public parking, rental cars, or taxicabs. As a result, FAI is receiving less revenue from the operators of these services. These foregone revenues may be significant.

Other Airport tenants are subsidizing TNC business. To the extent that TNCs pay no revenues, FAI must rely upon the fees paid by other tenants and GT providers to provide, maintain, and operate FAI roadways and others facilities that TNCs require to conduct business at FAI.

As noted in Section 10, each of the selected peer airports and most other major U.S. airports require TNCs to pay fees for picking up passengers, and in many cases for dropping off passengers, except for airports where the State prohibits such fees.

11.1.3 Impact of TNCs at Other Airports

As shown by the intercept passenger survey of passengers conducted at FAI in August 2019, most TNCs passengers would have used private vehicles or taxicabs if TNCs were not available. At other airports,

TNCs have attracted passengers who would have otherwise used rental cars, taxis, shared-ride vans, or parked at FAI.

In the past, some airport operators had reported that the introduction of TNCs, and the resulting reduced use of rental cars, airport parking, taxicabs, and vans, had caused little impact on the revenues the airport received from parking or rental cars. However, these revenue impacts were often masked by increases in airline passenger volumes, changes in parking or rental car fees, or other factors. To better analyze these revenue impacts, detailed studies were prepared as part of an Airport Cooperative Research Program (ACRP) study—ACRP Synthesis 84, *Transportation Network Companies: Challenges and Opportunities for Airport Operators.* Rather than using reported revenues, this research project analyzed changes in parking and rental car transaction per airline passenger to determine if TNCs were impacting the use of parking, rental cars, or GT services at airports. These analyses showed that while many airports receive significant revenue from TNCs, these revenues were less than the foregone revenues from public parking and rental cars. Specifically, the ACRP research study indicated that at other airports TNCs had caused:

- A 10% to 30% decrease in the use of taxicabs, with greater decreases occurring at some airports
- An 18% to 30% decrease in the use of shared-ride vans
- A 10% to 20% decrease in the use of private vehicles
- A 5% to 10% decrease in parking transactions
- A 4% to 13% decrease in rental car transactions

Over 40% of the airports surveyed as part of the ACRP project reported they had experienced increased roadway congestion as a result of TNCs.

11.1.4 Impacts of Reduced Parking and Rental Car Revenue at FAI

FAI relies upon the revenues from parking, rental cars, and GT to support required capital investments and on-going operational and maintenance costs. At other airports, GT revenues per passenger have not kept pace with FAI management's objectives and business plans. Reductions in GT revenues adversely impact the ability of FAI management to provide exceptional customer, convenient air service, stimulate economic growth, and achieve its other goals. It appears, based upon passenger surveys and discussions with Airport staff and others, that TNCs have adversely impacted Airport parking and traditional GT providers. It is recommended that Airport management evaluate possible options or revenue models to replace or recover foregone parking, rental car, and GT revenues.

11.1.5 Options to Replace or Recover Foregone Revenues

There are several potential options that FAI management could use to recover the foregone revenues which have resulted from TNC operations. These options, including several that are not recommended, include:

- **Increase Airline Fees** - Airport management could increase the fees charged the airlines to generate additional revenues, but this is not recommended as it would discourage airline service
- **Increase Parking Fees** - Airport management could increase public parking fees to generate additional revenues, but this is not recommended because higher parking costs would encourage the use of TNCs by existing parkers further reducing Airport revenues.
- **Increase Fees Charged Other Tenants** - Airport management could increase the fees charged existing Airport tenants, but this is not recommended as it would increase the costs of these other tenants and possibly reduce the customer's experience.
- **Seek Grants or Loans** - Airport management could seek grants or loans, but this is not recommended as normally Federal grants can only be applied to capital improvements, and loans, along with their associated interest, must be repaid.
- **Increase Other GT Fees** - Airport management could increase the fees charged other GT providers, some of whom have lost market share to TNCs, in order to recover the foregone revenues. This is not recommended as it would result in these GT providers subsidizing their competitors.
- **Require TNCs to Pay Fees** - Airport management could require the TNCs doing business at FAI to pay Airport fees. This option is recommended as it is rational that TNCs contribute to the costs of operating FAI and for the benefits they receive from access to FAI passengers.

11.1.6 Options to Collect Fees from TNCs

FAI management could use of one of the methods now used by other airport operators to collect fees from TNCs. These methods include charging TNCs:

- **An Annual or Monthly Permit** - FAI management could require each TNC company to pay a flat annual or monthly fee amount. A flat fee is not recommended. This is because it does not reflect the volume of business each TNC company conducts at FAI, but instead requires that each company pay the exact same fee.
- **A Percent of Gross Receipts** - FAI management could require each TNC company to pay a fee calculated as a percentage of the company's Airport-related gross receipts. This method is not recommended. The State of Hawaii uses this method to collect fees from all GT providers including TNCs. However, collecting monthly revenue data, assuring the confidentially of these data, and auditing the reported revenues requires considerable staff time and effort.
- **A Fee Per Airport Trip** - FAI management could require each TNC company to pay a fee calculated based upon the number of Airport trips its affiliated drivers make. This method is recommended. This method has several advantages including (a) each TNC company's business volume (i.e., number of trips) determines the fees they are required to pay, (b) fee collection and trip monitoring requires relatively little effort by FAI staff compared to fees calculated as a

percentage of gross receipts, (c) it has proven to be reliable and accurate as it is used at most other airports, and (d) airports can track and monitor TNC trips using readily available software.

11.1.7 Recommended Changes to TNC Business Arrangements and Fees

It is recommended that Airport management implement a start-up program governing TNC operations at FAI. As part of this start-up program, it is recommended that TNCs be required to (a) obtain a FAI permit, and (b) pay $1.50 for each pick-up trip with the number of trips reported to FAI and fees paid on a monthly basis. It is also recommended that FAI management reserve the right to modify the fee and charge for passenger pick-up after analyzing data obtained during the start-up program. This fee amount is recommended based upon:

- **The Fees Charged at Other Airports**. Figure 11-1 depicts the per-trip fees charged at other similar sized airports. As shown, the fees charged for passenger pick-up range from $1.00 per trip (Harrisburg) to $3.00 per trip (Cincinnati), with most peer airports charging TNCs $2.00 per trip. Several peer airports charge TNCs for both passenger pick-up and drop-off trips. The fees charged at the airports that do so range from $1.50 to $2.50 for each drop-off and pick-up trip at Piedmont Triad (GSO) and Buffalo Niagara (BUF) international airports respectively.

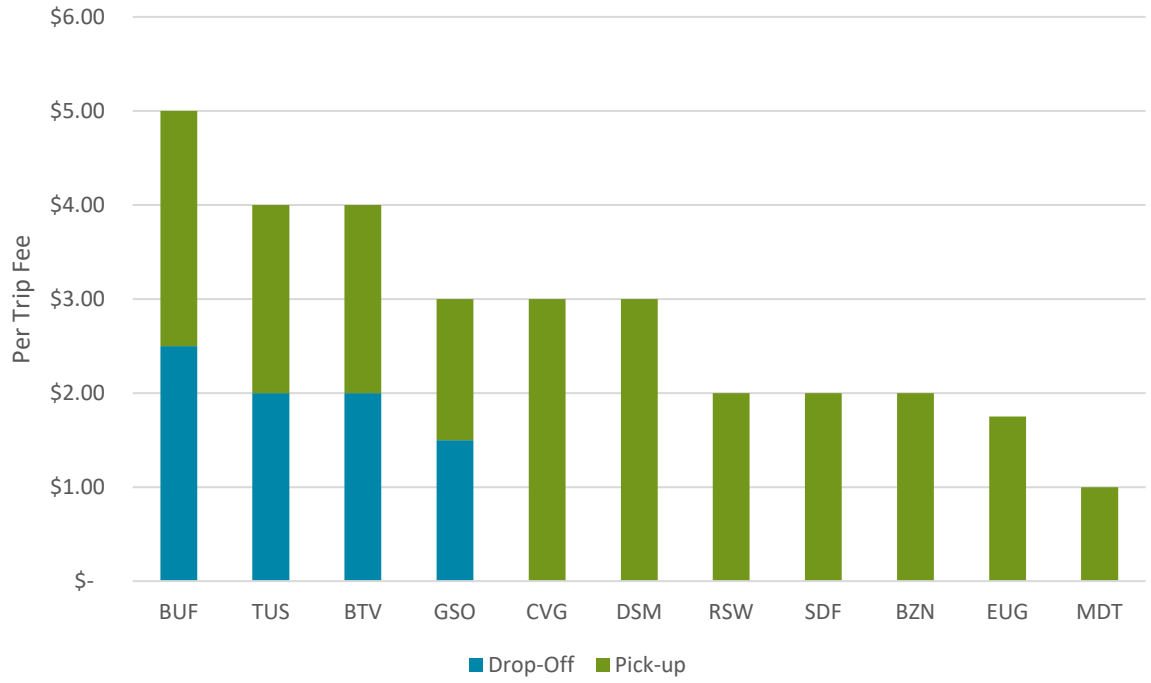


Figure 11-1 Per Trip Fees at Similar Airports

Source: Information provided by individual airport operators, December 2019

Note: The airport codes used in this table are: BUF = Buffalo Niagara International, TUS = Tucson International, BTV = Burlington International, GSO = Piedmont Triad International, CVG = Cincinnati/Northern Kentucky International, DSM = Des Moines International, RSW = Southwest Florida International, SDF = Louisville International, BZN = Bozeman Yellowstone International, EUG = Eugene, MDT = Harrisburg International

- **Impacts Upon Existing Airport Revenues**. The August 2019 passenger intercept surveys indicated that about 2% of the passengers surveyed used TNCs with most of the surveyed passengers previously using either a private vehicle (67%) some of which were likely parked, or taxicabs (33%). The actual TNC market share is believed to be greater than 2% because of statistical errors resulting from when the survey was conducted, and the mix of passengers interviewed. Reductions in taxicab, parking, or rental car revenues adversely impact FAI's business model and the ability of FAI management to provide exceptional customer, convenient air service, stimulate economic growth, and achieve its other goals. These revenues need to be recovered.
- **Comparison with Other Tenants.** As noted, unlike the TNCs, all other GT providers and all FAI tenants are required to pay Airport fees in order to do business on FAI. Many of these tenants pay substantial fees in order to pick-up passengers or use Airport property.
- **Impacts Upon Existing Facilities.** As noted, TNCs are adversely impacting existing Airport facilities which they use. FAI management is required to fund the efforts needed to properly maintain and operate these facilities.
- **Potential New Revenues.** One goal of Airport management is to maintain and enhance existing revenues, consistent with its other goals. The TNCs now pay no fees at FAI although they benefit from the privilege of being afforded convenient access to FAI and its passengers. It is estimated that FAI would receive about $35,000 to $45,000 per year were TNCs required to pay a fee of $1.50 per pick-up trip. This amount is considered reasonable considering the fees charged at other airports, the fees paid by existing tenants, and the estimated impacts TNCs have upon FAI revenues and facilities.

In summary, it is recommended that, like all other GT providers, each TNC company doing business at FAI be required to enter into a formal business agreement with FAI, agree to abide by Airport regulations, and pay required fees. It is recommended that TNC companies be required to pay a fee of $1.50 per pick-up trip made by each of their affiliated vehicles. These fees and regulations should be established as part of a start-up program. After reviewing the volume of TNC trips made during the start-up program, it is suggested that Airport management review and, as necessary, revise the amount of the fee and consider a fee per drop-off trip. The recommended fee amount recognizes the costs FAI incurs in providing, operating, and maintaining the facilities the TNC companies use and the benefits they receive from access to Airport passengers. Key components of FAI permit are outlined in Section 11.1.9.

11.1.8 Supporting Technologies

More than 40 other airports employ TNC tracking software to verify the vehicle trip data reported by the individual TNC companies on a monthly basis. The software commonly used are American Association of Airport Executives' App-Based Transportation system (AAAE/ABT) clearinghouse and GateKeeper Systems' TNC-Ops Software (GKS).

Both systems (a) gather and report TNC trip data on a real-time or nearly-real time basis, and (b) rely upon trip data recorded by each TNC company which the companies transmit to AAAE or GKS. Neither system collects original trip data from an independent source or can verify vehicle trip data reported by each TNC company. Both vendors sponsor user groups which allow airport operators to share information and their experiences.

The key differences between these systems are:

- GKS is well known for its GT software which is used by more than 45 airports to report the number of trips made by courtesy vehicles, limousines, shuttles, and other GT vehicles, calculate airport trip fees, and interface with FAI's financial system, among other tasks. The TNC-Ops tracking software is normally an add-on to the GKS system used to monitor and calculate GT vehicle trips.
- AAAE/ABT is considered to be a clearinghouse or service rather than a software product. ABT interacts directly with the TNC companies on behalf of the participating airports, bills the TNC companies, reconciles and collects the fees due to the airport, and reports/transfers the funds to the airport. For these services, AAAE retains a percentage of the revenues it collects from the TNCs. More than 20 airports use AAAE/ABT.

Many airport operators have not acquired any TNC tracking system preferring instead to rely upon the TNC companies to self-report trips. These airports have deferred acquiring a tracking system until they are able to assess the benefits offered by and the costs associated with a tracking system, and the revenues they receive from TNCs. The reported benefits included the ability to track individual vehicle trips, support TNC curbside enforcement, critically review monthly invoices, and analyze trends in trip volumes. The costs include not only the costs of acquiring and maintaining the system but also the staff costs needed to monitor individual vehicles for enforcement purposes. It is suggested that FAI management defer procuring any tracking system and instead initially rely upon self-reporting by the TNC companies.

11.1.9 Recommended Regulation of TNCs at FAI

This section outlines key regulations which it is recommended be incorporated into FAI's TNC permit.

- **Insurance** - The TNC companies must always maintain $1,000,000 in insurance coverage on each of their affiliated vehicles when the vehicles are on Airport property, whether transporting a customer or not.
- **Vehicle Identification** - Authorized TNC vehicles must display the trade dress (or logo) of their affiliated company. Trade dress must be visible from 50 feet, approved beforehand by FAI management, and placed in the location prescribed by FAI management (e.g., left hand corner of the front windshield).
- **Driver Identification** - When requested by Airport staff or police, TNC drivers must present an electronic ID furnished by the TNC company.

- **Use of Roadways** - The locations where TNCs can drop-off and pick-up customers (i.e., curbside zones) and wait for customer requests should be clearly identified. TNC drivers must be required to comply with Federal security and other regulations.
- **Geofence** – FAI management should define at least two geofences (i.e., an electronic boundary) - one around FAI's terminal area and a second around the area where drivers are required to park while waiting for customers. TNC companies would be charged a fee based upon the number of vehicle trips crossing the first geofence. TNC drivers would only be able to accept customer requests when they are parked within the second geofenced area.
- **Payment of Fees** - TNC companies must pay the fees due on a monthly basis and provide supporting evidence of the number of trips made.
- **Cooperation with Third-party** - TNC companies must share data with a third party (e.g., GateKeeper Systems or AAAE) if requested to do so by FAI management.

11.2 Taxicabs

This section describes the current operation and regulation of taxicabs at FAI. It also recommends changes to their business agreements and Airport fees.

11.2.1 Current Operation and Regulation of Taxicabs at FAI

Taxicabs are regulated by FAI rather than by the City or Borough. Taxicab companies must obtain permits from FAI to operate at FAI. At present, about 10 companies have permits ranging in size from Fairbanks Taxi Services which holds over 40 permits to several companies having a single permit (e.g., Airport Express Taxi and Northern Lights Taxi).

Existing Airport Operations. Taxicab drivers wait for passengers in a queue located at the west end of terminal curbside, adjacent to baggage claim behind the first crosswalk. More than 14 cabs were observed in the queue. There is no hold lot for taxicabs at FAI. There is no taxicab dispatcher to control waiting drivers or assist passengers. A dispatcher is not required as waiting drivers can observe when vehicles in front of them at the curbside advance or exit the terminal area.

Airport staff expressed several concerns with existing taxicab service including:

- Lack of service during late night hours or when there are irregular flight operations
- Some cabs provide an unsatisfactory image to customers and visitors—dirty, rusty or having an odor
- Drivers smoking in cabs, despite taxicabs advertised as being non-smoking
- Drivers leaving their vehicles to use toilets in the terminals or smoking in non-smoking areas

- Drivers refusing short-trips, or improperly stating that the minimum fare is $15.00 (Note, prior to the completion of this study, FAI management eliminated the prohibition on minimum fares, allowing drivers to set a minimum fare for trips from FAI.)

FAI management is responsible for inspection of drivers and their vehicles and may suspend or fine a driver found to be in violation of Airport regulations. However, in the past individual drivers appealed their suspensions and which were then overturned by State staff not located at FAI. It is was reported that the lack of a satisfactory appeals process has discouraged enforcement. In addition, there are insufficient FAI staff to oversee, enforce, and manage taxicab operations.

11.2.2 Recommended Changes to Existing Taxicab Fees and Regulations

This section presents recommended changes to the existing taxicab fees and regulations at FAI.

Changes to Taxicab Operations. It is suggested that Airport management consider the following options to improve taxicab service which could be initiated sequentially.

1. At outset, retain a management contractor to oversee/enforce taxicab operations. Potentially FAI's parking contractor could serve in this role.
2. Work with the local Fairbanks taxicab industry to form a taxicab cooperative. All taxicab companies and drivers wishing to serve FAI would be required to join the cooperative. Members of the cooperative would be responsible for selecting a leadership group, enforcing regulations, and seeking measures to improve customer service and taxicab operations. The cooperative leadership would serve as the single point of contact for Airport staff. Similar have cooperatives have been used to oversee taxicab operations at the airports serving Honolulu, Los Angeles, and Seattle.

To address concerns about the lack of service during late night hours, it is suggested that FAI management install a kiosk in baggage claim area having a tablet or screen listing the phone numbers of all authorized taxicab companies (e.g., a courtesy phone board). This would allow passengers seeking a taxicab to request service when there are no waiting taxis at the curbsides. It is recommended that when the summoned taxicab arrives at FAI it be required to wait at a location apart from the taxicab queue (e.g., near the TNC boarding area). A sign stating "Pre-arranged taxicabs" or similar message could be posted at this location.

Changes to Taxicab Fees. It is recommended that Airport management replace the existing annual fee of $150 per taxicab vehicle with a fee per pick-up trip. it is proposed that taxicabs be charged $1.50 per pick-up trip and that fare be additive to the existing meter rate (i.e., the fee would be paid by the passenger, not driver). For comparison the existing fare from FAI to downtown is about $20 to $22.

This fee is recommended considering (1) the costs FAI now incurs in providing, operating, maintaining, and enforcing the roadways, curbside areas, and other facilities used by taxicabs, and (2) the recommended changes in the fees to be charged TNCs and other GT providers at FAI, and the taxicab

fees charged at peer airports. It is recommended that FAI management charge an activity-based fee (e.g., a fee per trip) rather than a flat fee as some taxicab drivers make fewer Airport trips than others.

Supporting Technology. It is recommended that the proposed fee be collected from taxicab drivers as they enter the terminal area. Collecting fees from drivers rather than a fee collection method tied to taxicab vehicles is preferred because each taxicab may be operated by several drivers over the course of a week. After evaluating alternative fee collection methods (e.g., coin-activated gate arms, the sale of coupons, AVI tags, beacons, or manual controls), it is recommended that Airport management install a proximity-activated ticket-issuing machine near the head of the taxicab queue. Upon entering the queue, taxicab drivers would be required to (a) obtain a ticket using their proximity cards, and (b) place the ticket behind their windshield to indicate to FAI police that the driver had paid the required fee. The per-trip fee would be automatically deducted from a cash balance or credit card linked to that drivers' proximity card. This system, which is used at many airports, eliminates the need for Airport staff to issue monthly invoices or reminder notices to individual drivers. Until FAI management installs the recommended ticket-issuing machine and issues proximity cards, it is recommended that management require drivers to self-report their trips and conduct random checks to verify the reported information.

Future Changes to Operations. In order to improve taxicab operations and reduce the time drivers spend waiting for customers, it is suggested that in the future Airport management evaluate implementing a virtual taxicab queue. A virtual queue allows drivers to (1) join FAI's taxicab queue via their smart phone, (2) monitor their place in the queue and proceed to FAI when they approach the head of the queue, and (3) seek business elsewhere while waiting in the queue. It would benefit drivers as they can generate additional income rather waiting at FAI for long periods. It would benefit FAI as during late night hours the system could be used to alert drivers, located near FAI, that there are customers waiting but no available taxicabs.

Minimum Standards for Taxicab Vehicles and Drivers. The following paragraphs describe proposed minimum standards for the taxicab vehicles and drivers picking up passengers at FAI. These standards are intended to supplement or replace the standards included in FAI's current Taxicab Permit Application (e.g., evidence of certified meter and insurance) and Taxicab Self Certification Checklist (e.g., lights, horn, mirrors, windows, and tires meeting or exceeding FAI Operational Order 6.1).

Proposed Minimum Standards for Taxicab Vehicles

1. Vehicle Safety. The following components shall be in good working order and inspected by the driver daily:
   - Lights, signals, and horn
   - Brakes
   - Heater/air conditioner
   - Muffler and exhaust system (in compliance with State standards)
   - Proper and serviceable seatbelts and shoulder belts for every passenger
   - Adequate remaining tire tread

2. Vehicles in general
   - Vehicles must be less than seven years old.
   - Certified taximeter and computer dispatch system
   - Owners name and phone number permanently affixed to vehicle in properly sized letters
   - Owner to provide evidence of valid insurance policy in the types and amounts required by FAI
   - Owner to provide copy of current vehicle registration or lease agreement
   - Rates clearly posted on exterior vehicle
3. Vehicle appearance and cleanliness. Vehicles must have:
   - No cracks in windshield or windows
   - No noticeable dents, rust, or holes, or offensive odors
   - No ripped or torn seats. Seat covers may not be used to replace upholstery
   - A trunk area that is clean and free of material that would damage customer's luggage
   - All wheel covers must be in place
4. Customer comfort and convenience
   - Credit cards must be accepted safely and securely; without customers being charged any extra fees
   - No smoking sign clearly posted in interior of vehicle

Proposed Minimum Standards for Taxicab Drivers

1. Taxicab drivers must:
   - Be at least 19 years of age and have the legal right to operate a taxicab
   - Hold a valid Alaska Driver's License classified to permit the applicant to operate a taxicab
   - Maintain physical and cognitive condition necessary to exercise ordinary and reasonable control over a taxicab
   - Not have been convicted of more than three moving traffic violations arising out of separate transactions, or involved in more than two motor vehicle accidents in which the driver was at fault within the past two years
   - Not be under the influence of alcohol or narcotics while operating a taxicab.
   - Not operate a taxicab while intoxicated charges are pending, and not have been convicted of driving while intoxicated during the past two years
2. All drivers shall:
   - Conduct themselves in a reasonable, prudent and courteous manner
   - Refrain from sleeping in any taxicab vehicle
   - Not refuse a trip to any location within the region unless the driver is in reasonable fear of his or her personal safety
   - Be able to clearly communicate with customers in the English language
   - Be knowledgeable of the region, its geography, and major attractions

- Comply with all traffic regulations and all Airport rules and regulations

3. All drivers shall not wear:
   - Tailored shorts more than 2 inches above the knee, nor wear cut-offs, beach or shower shoes
   - Apparel with offensive or suggestive language
   - Tank tops or halter-tops
   - Outer apparel made of fishnet or undergarment material
   - Pants or jeans with holes or hems that are frayed or drag the ground
4. All drivers shall wear:
   - Clean and pressed shirts or blouses with a collar, such as sports or dress shirts or polo-type shirts
   - Jeans, dress or sport slacks
   - Clean and pressed shorts or skirts that are no more than 2 inches above the knee
   - Shoes with closed heels and toes as well as socks or hosiery
   - Clothing that conforms to basic standards for hygiene and is neat, clean and sanitary
5. No parking. It is unlawful for a taxicab driver to stand or park his/her vehicle at any location on FAI except in the designated passenger loading zone and unloading zones.
6. Passenger discharge. A taxicab driver shall not dismiss, discharge, or otherwise require any passenger to leave the taxicab other than at the passenger's requested destination without cause.
7. Receipt. Each taxicab driver shall, upon the passenger's request, give a receipt to the passenger making the payment.
8. No use of tobacco products in taxicab. No taxicab driver shall, nor shall he or she permit any person to, smoke or otherwise use any tobacco products in the taxicab.
9. Driving record. Annually, each taxicab driver shall provide an updated copy of his or her motor vehicle driving record to FAI Director or her representative.

11.3 Courtesy Vehicles

This section presents the recommended changes to the existing fees charged the operators of courtesy vehicles doing business at FAI.

Existing Operations at FAI. Several hotel/motels provide courtesy vehicle service for their guests. At present, there are no large off-airport parking businesses or major (i.e., with national presence) off-airport rental car companies. Courtesy vehicle operators are not required to obtain an Airport permit. Hotel/motel courtesy vehicles drop-off and pick-up customers on the curbside with no specific spaces designated.

Recommended Changes to Airport Fees. Title 17, Chapter 42 of the Alaska Administrative Code (See Definitions) states that at Fairbanks International Airport a "courtesy car" is a vehicle that is owned or

operated by hotels and motels and only includes those vehicles for which the operator charges a fare. This language appears to preclude FAI management from requiring any courtesy vehicle operator at FAI to pay an Airport fee.

In order to allow FAI management to achieve its goals; recognize the costs now FAI incurs in providing, maintaining and operating the facilities used by the operators of courtesy vehicles; be consistent with the fees FAI management charges other GT operators and the fees peer airports charge the operators courtesy vehicles; and, to generate additional non-airline revenues it is recommended that (1) all courtesy vehicle operators be required to obtain Airport permits, and (2) Title 17 be modified to allow FAI to charge the operators of courtesy vehicles the following fees:

- Hotel/Motels: $250 per vehicle per year unless paid parking is offered to non-hotel guests in which case the GT provider would be considered an off-airport parking business
- Off-airport Rental Cars: $250 per company per year plus a privilege fee of 10% of the company's Airport-related gross receipts
- Off-airport Parking: $250 per company per year plus a privilege fee of 10% of the company's Airport-related gross receipts

While there are no off-airport parking or off-airport rental car businesses operating courtesy vehicles at present, it is recommended that (1) off-Airport rental car and off-airport parking businesses be required to pay a privilege fee, and (2) the privilege fee be calculated based upon the amount of these businesses' Airport-related gross receipts. A privilege fee is recommended because such businesses benefit from the presence of the entire Airport, not just the roadways and curbside areas they use directly. Further, at the airports where they operate, the business model of these GT providers relies upon FAI and access to its passengers - few, if any, customers would park their vehicles at these parking facilities were it not for FAI. As stated above, more than 40 airport operators now charge off-airport rental car and off-airport parking businesses similar privilege fees.

The fee to be charged hotel/motels equates to less than $1.00 per day. When distributed among all hotel guests transported, this fee amount equates to just a few cents per guest since hotel/motel operators make numerous daily trips to and from FAI, most transporting several guests.

It is recommended that Title 17 be modified to align the GT provider fees at FAI with those at Ted Stevens Anchorage International and allow all GT providers doing business at FAI to contribute to FAI's costs.

11.4 Pre-arranged Limousines, Vans and Buses

This section presents the recommended changes to the existing fees charged the operators of pre-arranged limousines, vans, and buses doing business at FAI.

Existing Operations at FAI - During peak season, numerous pre-arranged limousines, vans, buses, and motor coaches serving tour groups drop-off and pick-up passengers at FAI (e.g., Royal Hyway Tours,

Premier Alaska, and Holland America). All limousines, vans, and buses are now required to obtain an Airport permit. Airport records indicate that in 2019 there were over a dozen permit holders operating pre-arranged services. About 75% of the permit fees collected from GT providers was received from the operators of pre-arranged services—primarily those operating vans and buses. Limousines, vans, and buses drop-off passengers at curbside but pick them up at the courtyard located west of the terminal/adjacent to the baggage area.

Recommended Changes to Existing Airport Fees - Limousines operators are now charged an annual fee of $150/vehicle while bus operators, making more than 10 trips per year, are charged the greater of $250/vehicle or $0.25 per passenger transported to or from FAI. It is recommended that fees be maintained to recognize the costs FAI incurs in providing, operating, and maintaining the facilities used by these pre-arranged services; be consistent with the fees at peer airports (including Anchorage International) and the fees charged other GT providers. It is proposed that FAI management require all operators to obtain Airport permits and charge the following fees:

- **Pre-arranged Limousines** – The greater of $150/vehicle/year or $0.25 per passenger transported by the operator to or from FAI. The operators of pre-arranged limousines (a vehicle transporting fewer than seven passengers plus a driver) making fewer than 10 vehicle trips to or from FAI during any 12-month period would be charged a fee of $75/vehicle/year. Limousine operators would be required to certify their passenger counts on a monthly basis.
- **Pre-arranged/Chartered Coaches, Buses and Vans** – The greater of $250/vehicle/year or $0.25 per passenger transported by the operator to or from FAI. The operators of pre-arranged vans, buses, and coaches (vehicles transporting eight or more passengers plus a driver) making fewer than 10 vehicle trips to or from FAI during any 12-month period would be charged a fee of $125/vehicle/year. Coach, bus and van operators would be required to certify their passenger counts on a monthly basis.

It is recommended that Airport management not charge fees to not-for-profit operators of bus or van service such as the military.

Many of the peer airports require that the operators of courtesy vehicles and pre-arranged services pay a fee calculated on a per-trip basis. It is recommended that a per-trip fee not be implemented at this time due to the seasonal nature of the pre-arranged services and the challenge of monitoring individual vehicles, some of which operate at FAI infrequently.

11.5 Other GT Services

Other GT providers include:

Privately Operated Scheduled Services. At present there are no scheduled operators. It is recommended that Airport management replace the tern "scheduled" operator with "scheduled, fixed-route" operators and require the operator of any such service to pay an annual fee of $250 per vehicle. A scheduled, fixed route operator is defined as a business that only operates a regularly scheduled transportation service following a fixed route(s) and having multiple interim stops where airline passenger may board and alight. The operator of this service must post and adhere to a regular schedule (i.e., departure and arrival times), stop locations and hours of operation.

Airline Crew Transportation. It is recommended that airline crew vehicles not be required to pay a fee at FAI as these fees would be passed onto the air carriers who already pay Airport landing, rental, and other fees.

Publicly Operated Scheduled Services. The Metropolitan Area Commuter System (MACS) Yellow route now serves FAI. It is recommended that Airport management not require the MACS to pay an Airport fee because it is operated by a public, not-for-profit service.

11.6 Summary of Recommended FAI Fees

This section summarizes the existing and recommended Airport fees.

Type of GT Provider	Existing Fee	Recommended Fee
TNC	None	$1.50/pick-up trip (a)
Taxicab	$150/vehicle/year	$1.50/pick-up trip
Off-Airport Rental Car Courtesy Vehicle	$250/company/year + 10% of gross receipts	$250/company/year + 10% of gross receipts
Off-Airport Parking Courtesy Vehicle	None	$250/company/year + 10% of gross receipts
Hotel/Motel Courtesy Vehicle	None	$250/vehicle/year
Pre-arranged Limousine	$150/vehicle/year (b)	Greater of $150/vehicle or $0.25/passenger transported (b)
Pre-arranged Van or Bus	Greater of $250/vehicle or $0.25/passenger transported (b)	Greater of $250/vehicle or $0.25/passenger transported (b)
Scheduled, Fixed-route Service	None	$250/vehicle/year
Off-Airport Shuttle	$250/vehicle/year	$250/vehicle/year
Air Crew Transportation	N/A	None

(a) Recommended fees to be reviewed, and as necessary revised by Airport management, after completion of start-up program.

(b) GT providers making fewer than 10 vehicle trips per year would be charged lower fees

12 Appendix A

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MEMORANDUM

Date: September 18, 2019 Project #: 24156

To: Peter Mandle, InterVISTAS

From: Wende Wilber, PTP, AICP; Andrew Ooms, PE; Ly Nguyen; Lee Rodegerdts, PE

Project: ANC and FAI Terminal Ground Access Plan

Subject: Data Summary

INTRODUCTION

This memorandum documents the data collection effort and summary of the traffic counts, vehicle classification, curb dwell time, and field observations gathered at the Anchorage (ANC) and Fairbanks (FAI) International Airports in support of the ANC and FAI Terminal Ground Access Plan.

Data Collection Objectives

This data collection effort supplements existing data sources and anecdotal reports with a sampling of peak season curbside activity. Kittelson gathered representative counts of vehicles accessing arrivals and departures curbs by type: private vehicle, transportation network company (TNC), commercial shuttle, bus, and rental car.

Data Collection Approach

Vehicle classification counts were collected by video camera and supplemented with peak period curb observations to estimate what proportion of private vehicles accessing the curb are Transportation Network Companies (TNCs), such as Uber and Lyft. The video counts classify vehicles by private vehicle (including TNCs), taxi, shuttle bus, charter bus, transit bus, and rental car, as feasible. Additionally, curbside vehicle dwell time samples were collected from the assembled videos. The video was processed into classification counts for two midday hours and four evening peak hours at ANC and two peak hours at FAI. Curbside observers gathered additional data, including sample proportions of TNCs and sample counts of passengers per vehicle.

FAI DATA COLLECTION SUMMARY

FAI Video Data Collection

Video was collected at Departures from 11:30 a.m. on Tuesday, August 20th through 10 a.m. on Wednesday, August 21st. Vehicle classification counts and dwell time data were collected from the Departures camera from 9:00 to 11:00 p.m. and dwell time data on the Arrivals camera from 8:00 to 10:00 p.m.

The Arrivals camera failed at 10 p.m. on Tuesday, August 20th after recording 10.5 hours of video. As the Departures camera was still operating, vehicle classification counts were collected from that camera. This camera failure did not compromise the data collection objectives.

Two cameras were placed at FAI as shown in the following photos.

1) Arrivals camera to provide vehicle counts and observations of passenger pick up. Mounted on light pole and angled to Arrivals and taxi stand.
2) Departures camera to provide observations of passenger dropoff. Mounted on light pole and angled to Departures.

FAI Cameras Locations

Arrivals and Departures Camera Locations

FAI Curbside Observations

Two staff were positioned on the Arrivals and Departures curb to identify TNC pickups and drop-offs. Due to the sporadic nature of curb activity at FAI, data collection was focused on times of peak operations throughout the day with the intervening time dedicated to passenger surveys. Field observations and vehicle counts were collected from 2:00 p.m. to 2:35 p.m., from 8:15 p.m. to 9:20 p.m., and 10:15 p.m. to 10:40 p.m. on August 20, 2019. In total, reliable data from both observers were collected during 28 five-minute observation periods, during which 180 vehicles were counted and classified.

FAI Field Observations and Data

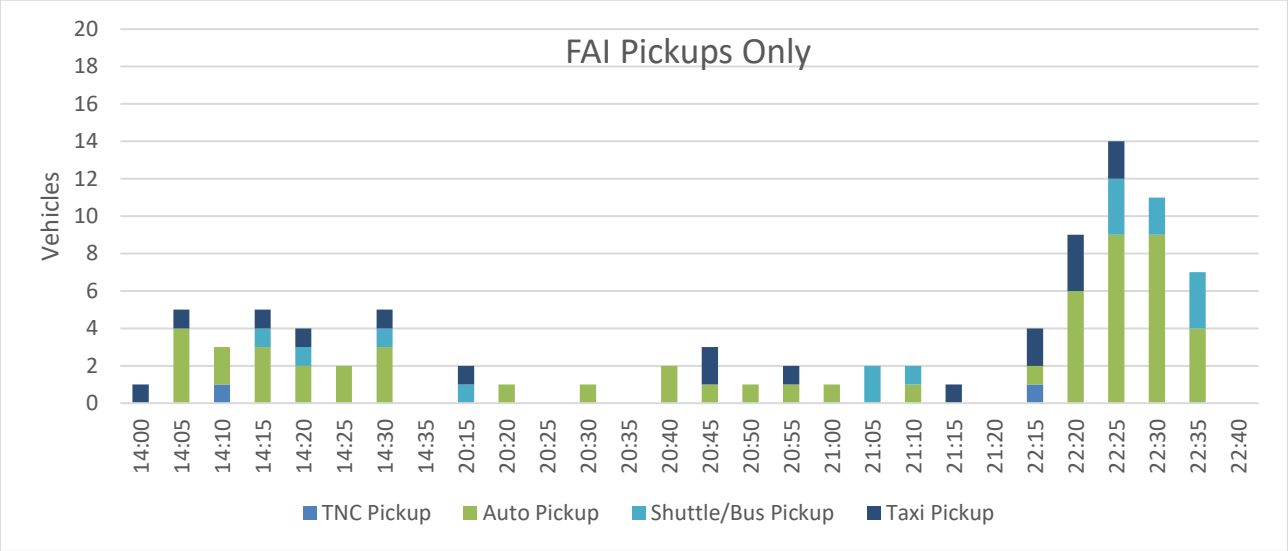
Based on field observations and video data collection, the Kittelson team observed the following:

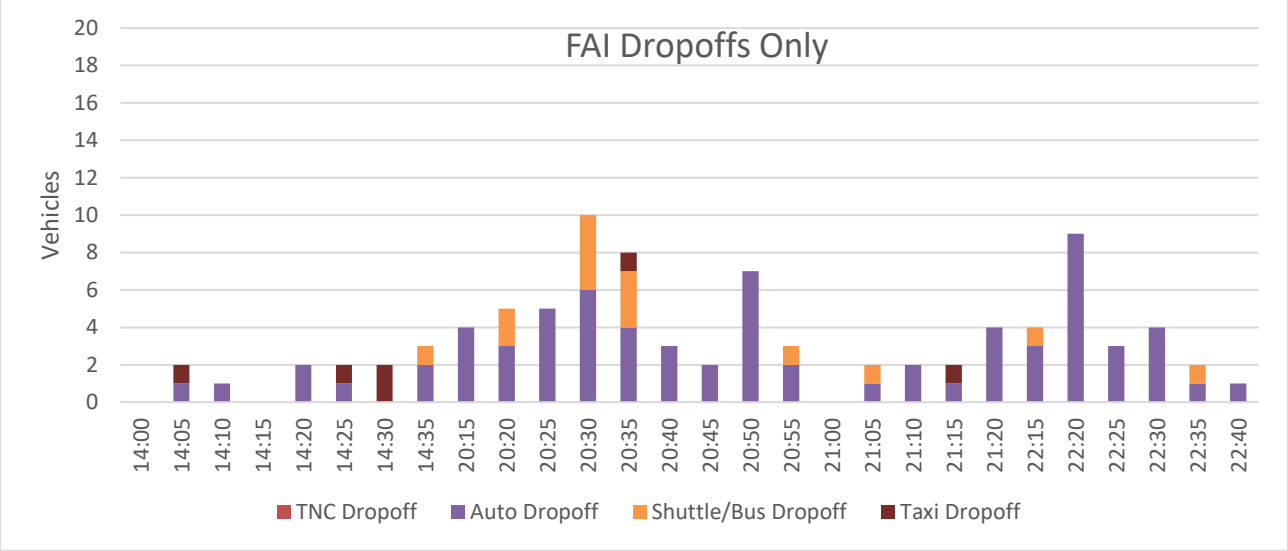
- Per observation and discussion with Airport Police, Airport Police patrol the curb along with many other duties and no other airport staff is tasked with curb management.
- Vehicles waiting for arriving passengers frequently wait at the curb and in the second lane.
- During the observation period, 13 percent of private automobile drivers parked and left their vehicles along the curb.
    - When Airport Police were present, they actively addressed these vehicles, including conducting visual searches, acquiring car keys if the vehicle was left running, and paging drivers over the terminal speaker system using both general messages and messages

specific to the offending vehicle. When the driver returned, the officer questioned the driver, including requesting identification.
    - In one case, two vehicles were left along the curb for 30 minutes while a large family saw a passenger off. The family was well known in the community to have suffered a recent tragedy and the officer was compassionate.
    - While doing curb enforcement, Airport Police vehicles park in the second lane, hindering the flow of arrival and departing vehicles.
- Passenger pickups were more concentrated around plane arrival times, while dropoffs were more dispersed.
- Private automobiles comprised 70 percent of the curbside traffic composition.
- One Turo rental vehicle pickup was observed based on the vehicle handoff procedure (photographing of vehicle)
- Tour and cruise ship buses loaded and unloaded to the southwest of the terminal and were not counted with curbside vehicles.

Summary data from the curbside observations, traffic counts, and dwell time data are shown in Figures 1 and 2 and Tables 1 and 2.

Figure 1 FAI Curb Vehicle Activity (8/20/2019)





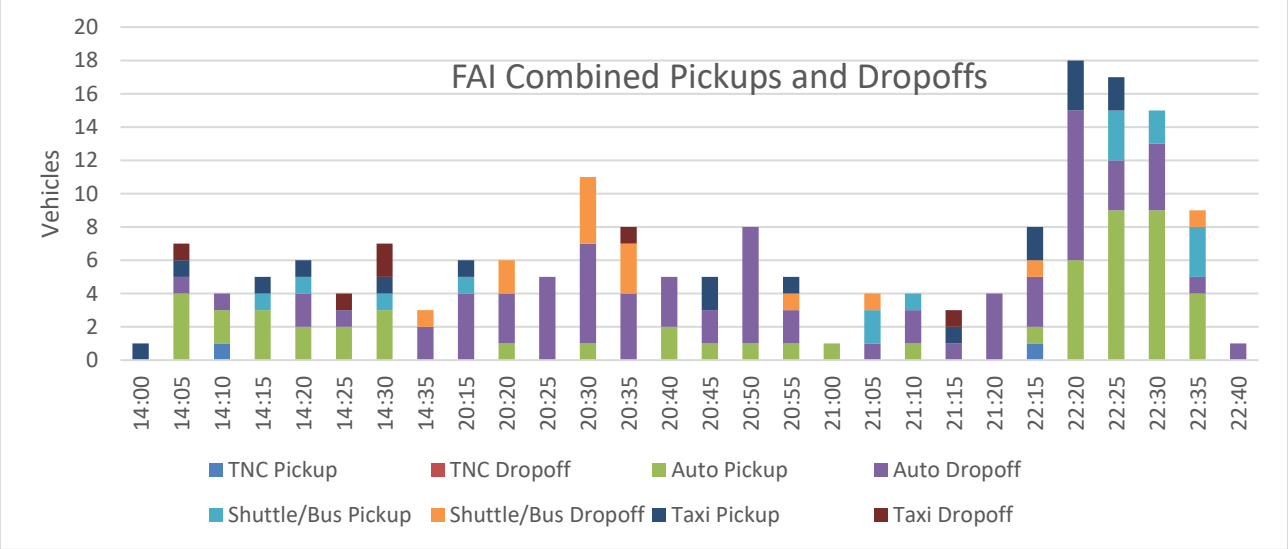


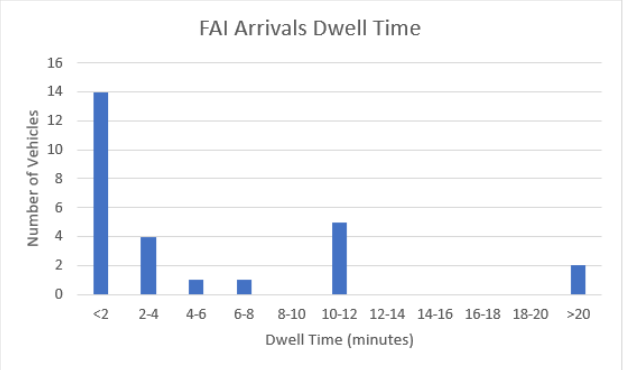
Table 1 FAI Curbside Vehicle Classification Count (8/20/2019)

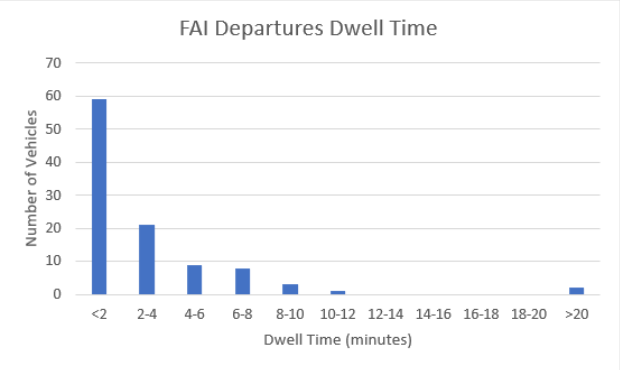
Data	TNC Pickup	TNC Dropoff	Auto Pickup	Auto Dropoff	Shuttle/Bus Pickup	Shuttle/Bus Dropoff	Taxi Pickup	Taxi Dropoff
Vehicle Classification Count	2	0	54	72	15	14	17	6
Percent of Vehicles	1%	0%	30%	40%	8%	8%	9%	3%
Average Number of Passengers	1.0	--	1.5	1.4	2.5	1.3	1.3	1.5

Table 2 FAI Video Vehicle Classification Count (8/20/2019)

Data	Passenger Vehicles	Taxis	Shuttle Vans/Buses	Tour Buses	City Buses
Vehicle Classification Count	182	14	9	2	0
Percent of Vehicles	88%	7%	4%	1%	0%

Figure 2 FAI Vehicle Dwell Time Sample Results Histogram (8/20/2019)



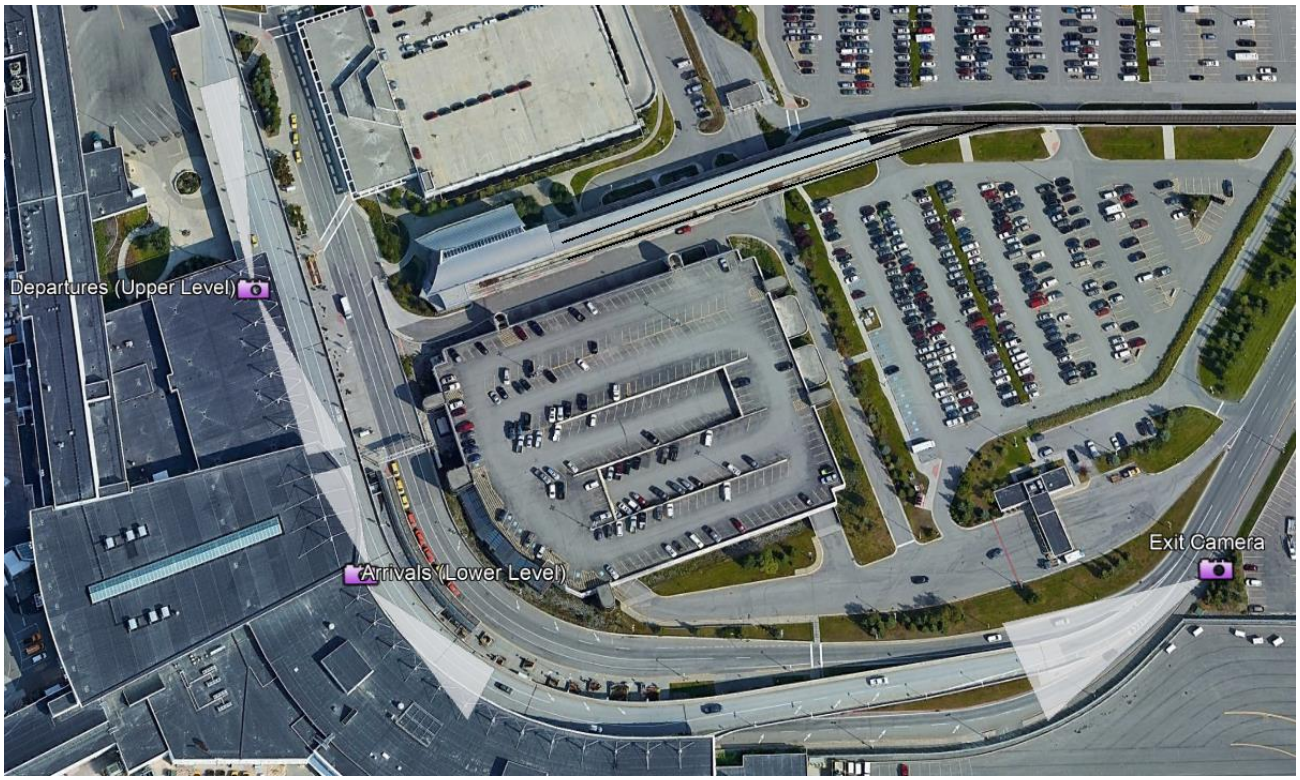


ANC DATA COLLECTION

ANC Video Data Collection

Video was collected from 11:00 a.m. on Thursday, August 22nd through 4:00 p.m. on Friday, August 23rd, 2019. Vehicle classification counts were collected from the video at the exit camera from 11:40 a.m. to 1:40 p.m. and 7:00 p.m. to 11:00 p.m. Vehicle dwell time data were also calculated at the Arrivals and Departures curbs from 8:00 to 10:00 p.m. Cameras were placed at five locations at ANC as shown in the following photos.

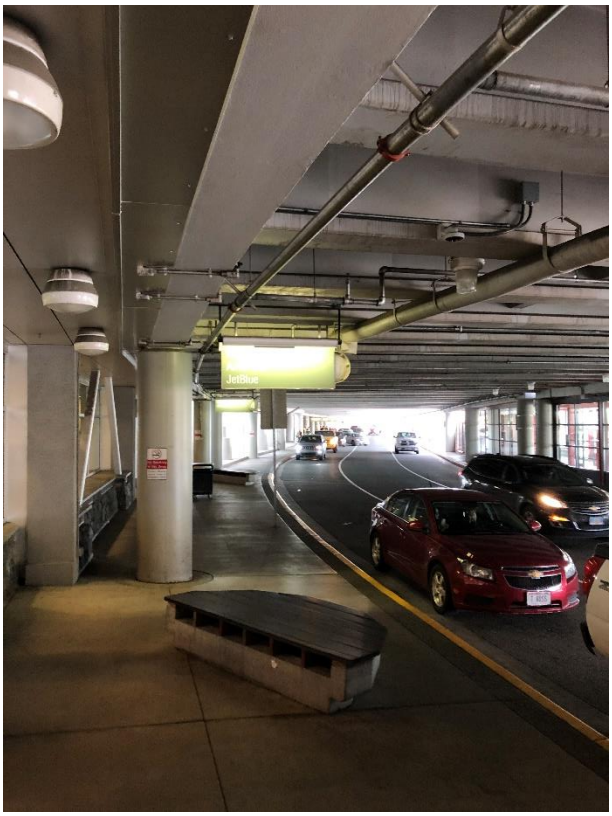
- Camera 1: Exit camera to count and classify all vehicles on the Arrivals/Departures roadway.
- Cameras 2 and 3: Arrivals cameras to provide observations of private vehicle pick-up. Mounted on both sides of pillar at Door 5.
- Cameras 4 and 5: Departures cameras to provide observations of passenger drop-off. Mounted on both side of pillar at Door 1.



ANC Cameras Locations

Camera 1: Exit Camera Location

Cameras 4 and 5: Departures Cameras Location



Camera 2: Arrivals Cameras View (looking north)

ANC Curbside Observations

Two staff were placed on the upper-level Departures curb area to provide general observations and collect sample counts of TNC pick-ups and drop-offs and vehicle classification. The staff observed the two signed TNC loading zones.

Field observations and vehicle counts were collected from 11:40 a.m. to 1:40 p.m. and from 7:00 p.m. to 11:00 p.m. on August 22, 2019. In total, reliable data from both observers were collected during 61 five-minute observation periods, during which 1213 vehicles were counted and classified.

ANC Field Observations and Data

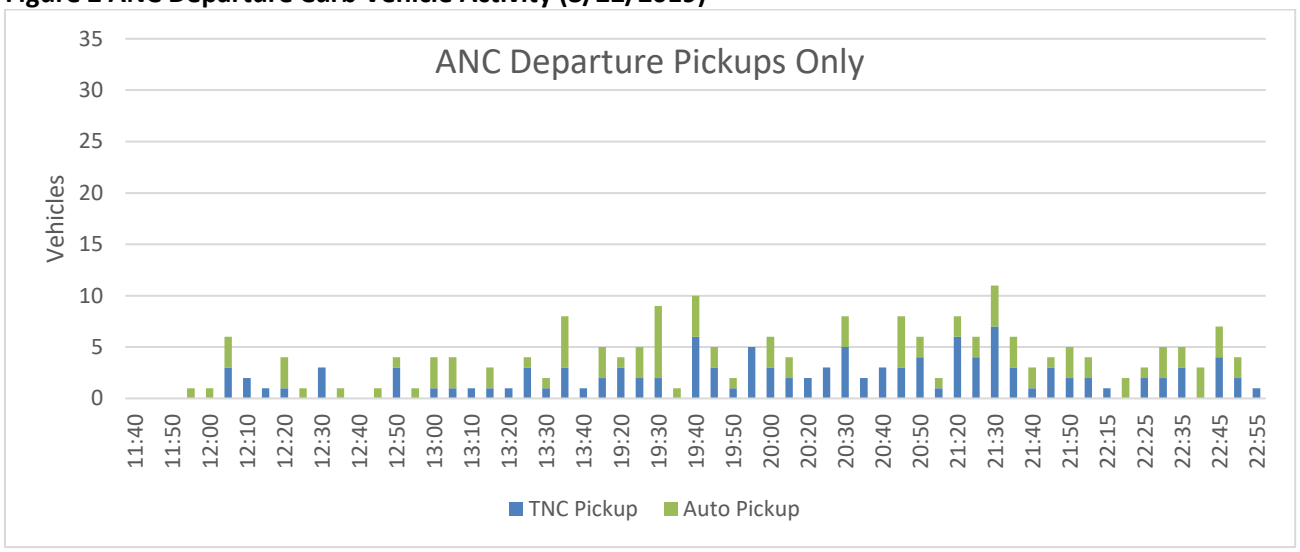
Based on field observations and video data collection, the Kittelson team observed the following:

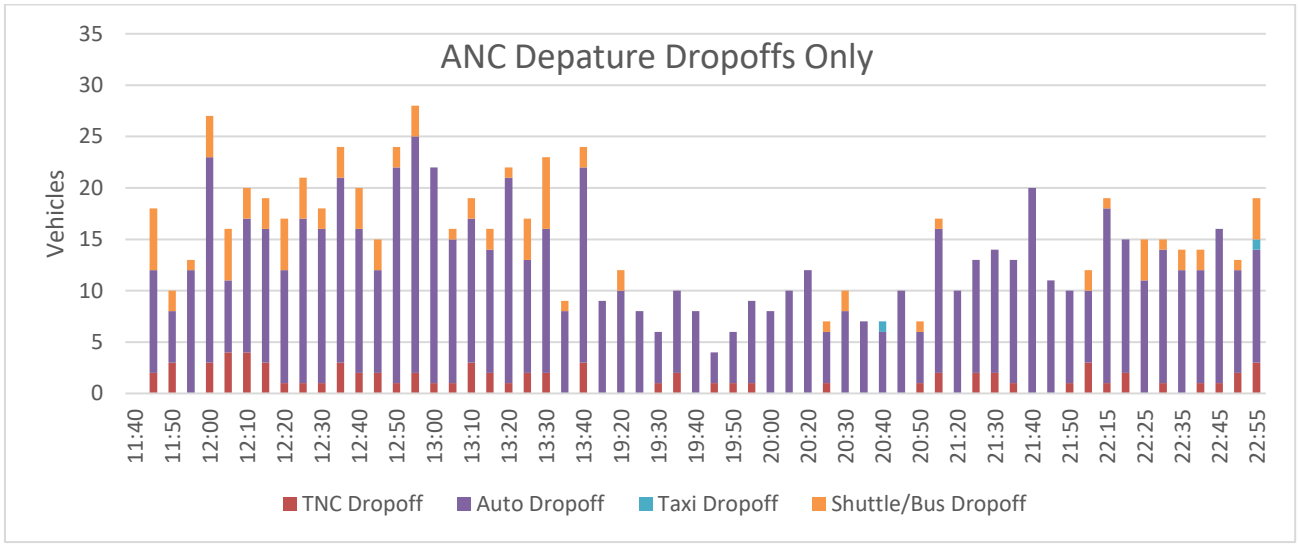
- On the Departures level, 18 percent of vehicles were pickups (10 percent were TNCs in assigned pickup areas and 8 percent were private automobiles).
- TNCs pick-ups were readily identified by a combination of private vehicles picking up passengers in the Departures level, Uber/Lyft decals, and passengers waiting at designated pickup locations along the curb. TNCs dropoffs were counted by noting visible Uber/Lyft decals. However, observations at the TNC pickup locations indicated that not every TNC vehicle included identifying labels, which may have led to undercounting TNC dropoffs.

- Due to the level of high activity, passenger counts were only sampled for 148 of the 1213 vehicles. Based on these counts, TNCs and taxis have higher occupancies with 1.8 to 2.3 passengers per vehicle than private vehicles at 1.4 to 1.7 passengers per vehicle.
- Arrivals dwell times indicated 18 percent of vehicles waited at the curb more than 10 minutes. However, total waiting time in the approach lanes and rolling queue may be longer.
- Airport staff would periodically monitor the curb and encourage drivers to wait in the parking garage or cell phone lot. However, enforcement was sporadic and ineffective as indicated by long dwell times.

Summary data from the curbside observations, traffic counts, and dwell time data are shown in Figures 3 and 4 and Tables 3 and 4.

Figure 2 ANC Departure Curb Vehicle Activity (8/22/2019)





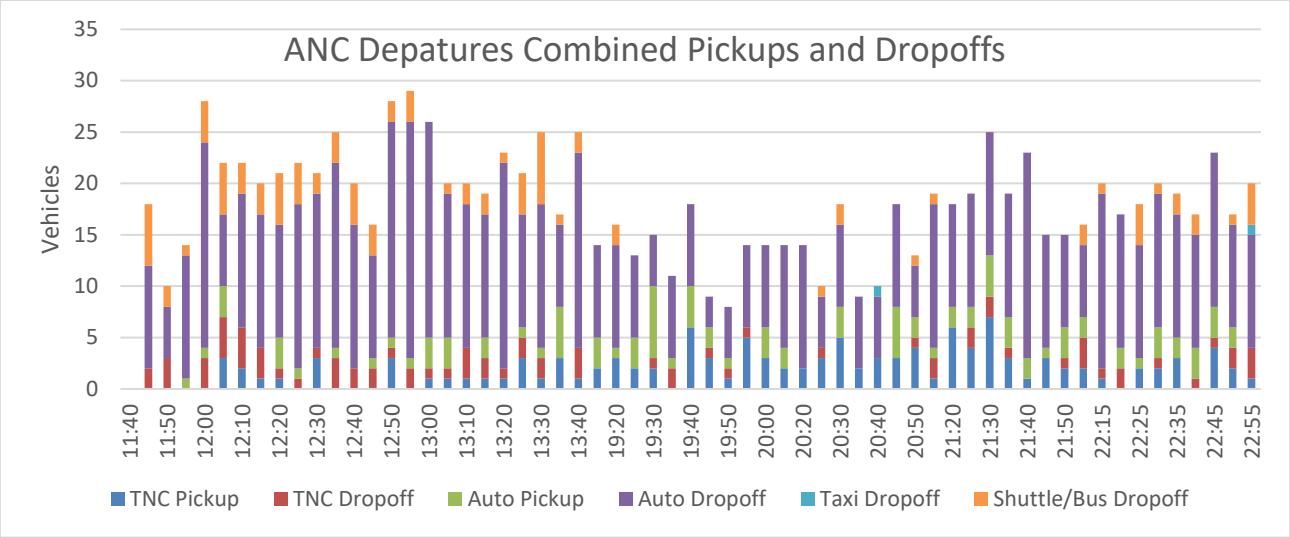


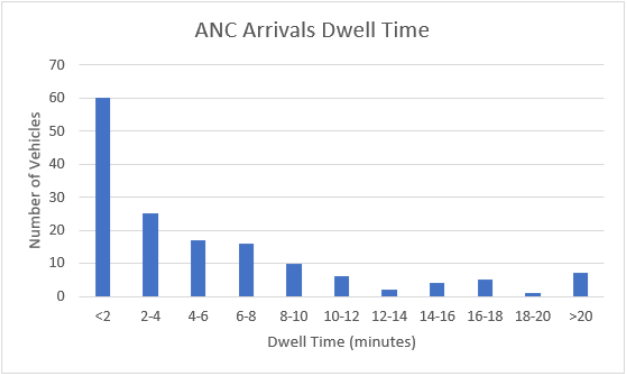
Table 3 ANC Departures Curbside Vehicle Classification Count (8/22/2019)

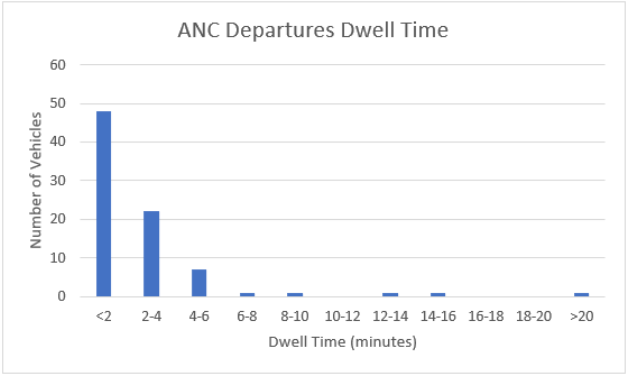
Data	TNC Pickup	TNC Dropoff	Auto Pickup	Auto Dropoff	Shuttle/Bus Dropoff	Taxi Dropoff
Vehicle Classification Count	121	77	101	695	94	123
Percent of Vehicles	10%	6%	8%	57%	8%	10%
Average Number of Passengers	2.1	1.8	1.7	1.4	1.8	2.3

Table 3 ANC Video Vehicle Classification Count (8/22/2019)

Data	Passenger Vehicles	Rental Cars	Taxis	Shuttle Vans/Buses	Tour Buses	City Buses
Vehicle Classification Count	2570	711	359	279	28	24
Percent of Vehicles	65%	18%	9%	7%	1%	1%

Figure 3 ANC Vehicle Dwell Time Sample Results Histogram (8/22/2019)





13 Appendix B

KITTELSON & ASSOCIATES
1600 A STREET, SUITE 105
ANCHORAGE, AK 99501
P 907.646.7995

MEMORANDUM

Date:	September 19, 2019	Project #: 24156
To:	Peter Mandle, InterVISTAS	
From:	Wende Wilber, PTP, AICP; Andrew Ooms, PE; Ly Nguyen; Lee Rodegerdts, PE	
Project:	ANC and FAI Terminal Ground Access Plan	
Subject:	Survey Summary	

INTRODUCTION

This memorandum documents the in-terminal passenger surveys gathered at the Anchorage (ANC) and Fairbanks (FAI) International Airports on August 20-23, 2019 in support of the ANC and FAI Terminal Ground Access Plan.

Survey Objectives

The surveys supplement existing data sources and anecdotal evidence with a sampling of passengers regarding their arrival mode and state of residence.

Survey Questions

Questions 2 and 3 are only asked if the respondent answers Question 1 with options (b) or (c).

1. How did you travel to [insert Anchorage or Fairbanks Airport] today?
    a. Via airplane, flew in from another airport, making a connecting flight. (concludes survey)
    b. Private vehicle
    c. Uber or Lyft
    d. Rental car
    e. Taxicab
    f. Cruise ship bus/charter bus
    g. Turo
    h. Hotel/motel shuttle
    i. Military shuttle bus
    j. Limousine
    k. Scheduled bus/van

   l. Public bus [People Mover/MACs]
   m. Other
2. (if 1b) How did you use a private vehicle today?
   a. Dropped off by others, vehicle left airport
   b. Parked at airport
      i. For the duration of my trip
      ii. While others accompanied me to the terminal
3. (if 1c) How did you travel to the Airport prior to Uber and Lyft being available?
   a. Private vehicle
   b. Rental car
   c. Taxicab
   d. Cruise ship bus/charter bus Limousine
   e. Scheduled bus/van
   f. Public bus [People Mover/MACs]
4. What is the primary purpose of your trip today from this Airport?
   a. Business
   b. Personal
5. How many times during the past 12 months have you flown out of this airport?
   a. 0 times
   b. 1-2 times
   c. 3-5 times
   d. 5-10 times
   e. more than 10 times
6. What is the ZIP code of your primary residence?

FAI SURVEY

FAI Survey Collection Plan

Surveys were gathered in the passenger waiting areas behind security to capture departing passengers since the focus of the survey was to identify the mode of travel to the airport. Surveyors were responsive to flight schedules at FAI by pursuing surveys during peak departure times.

The surveyors determined the most effective approach was to sweep the departure gate waiting area approximately 20 minutes before boarding began. After a flight had boarded, the departure area was generally empty, and surveyors proceeded outside to observe curbside activity.

The surveyors collected surveys for outgoing flights during the peak periods identified by the project team and airport staff:

- 7:30 p.m. to 11:15 p.m. on Tuesday, August 20, 2019
- 4:30 a.m. to 5:30 a.m. on Wednesday, August 21, 2019
- 10:15 a.m. to 11:15 a.m. on Wednesday, August 21, 2019

This survey effort resulted in 138 departing passenger surveys collected via mobile device on the Survey Monkey platform. Surveys were gathered from only one passenger in each group traveling together.

FAI Survey Summary

Full responses to individual questions are included in Attachment A with some key findings highlighted below:

- Mode Choice
  - Of the 150 responses, over half arrived by private automobile travel.
- Time of Day
  - Morning flights include more Alaska residents and private vehicle use as cruise ship buses did not serve those departing flights.
- Alaska Residency
  - Of the 138 respondents, 51 (37 percent) had their primary residence in Alaska, 61 (44 percent) gave a zip code outside Alaska, and 26 (19 percent) did not give a response.
  - Alaska residents were more likely to be on a business trip (45 percent) than those that live outside Alaska (25 percent).
  - Alaska residents are more likely to access the airport via private automobile (75 percent) compared to those that live outside Alaska (26 percent).
- Trip Purpose
  - Over one-half (53 percent) of business travelers reside in Alaska whereas only 31 percent of personal travelers reported that they live in Alaska.

ANC SURVEY

ANC Survey Collection Plan

Surveys were gathered in the passenger waiting areas behind security to capture departing passengers since the focus of the survey was to identify the mode of travel to the airport. Surveyors were responsive to flight schedules at ANC.

The surveyors collected surveys at the following times and locations:

- 12:50 p.m. to 3:00 p.m. on Wednesday, August 21, 2019 (B and C gates)
- 4:30 p.m. to 4:45 p.m. on Friday, August 23, 2019 (A gates)
- 5:50 p.m. to 9:00 p.m. on Friday, August 23, 2019 (B and C gates)

In total, 303 surveys were collected.

ANC Survey Summary

Full responses to individual questions are included in Attachment B. Key crosstabulation findings include:

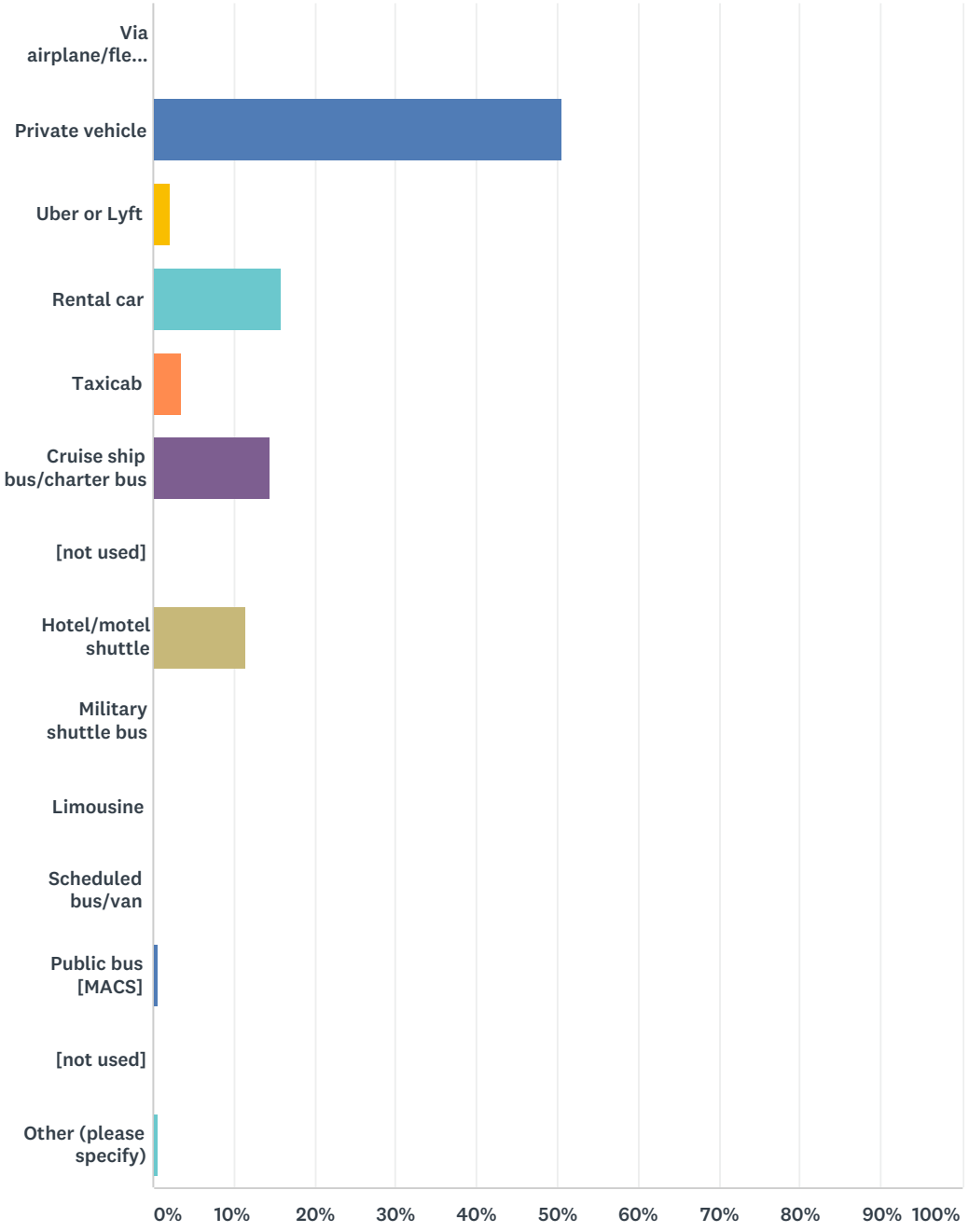
- Mode Choice
    - Of the 303 survey responses, 100 traveled to the airport by private automobile, and over 50 each traveled by hotel shuttle and cruise tour bus.
- Alaska Residency
    - Of the 303 respondents, 72 (24 percent) had their primary residence in Alaska, 159 (52 percent) gave a zip code outside Alaska, and 72 (24 percent) did not give a response.
    - Alaska residents were more likely to be on a business trip (32 percent) than those that live outside Alaska (14 percent).
    - Alaska residents are more likely to access the airport via private automobile (75 percent) compared to those that live outside Alaska (26 percent).
- Trip Purpose
    - One-half (50 percent) of business travelers reside in Alaska whereas only 26 percent of personal travelers reported that they live in Alaska.

ATTACHMENTS

A. FAI Survey Responses
B. ANC Survey Responses

Q1 How did you travel to the Fairbanks Airport today?

Answered: 138 Skipped: 0

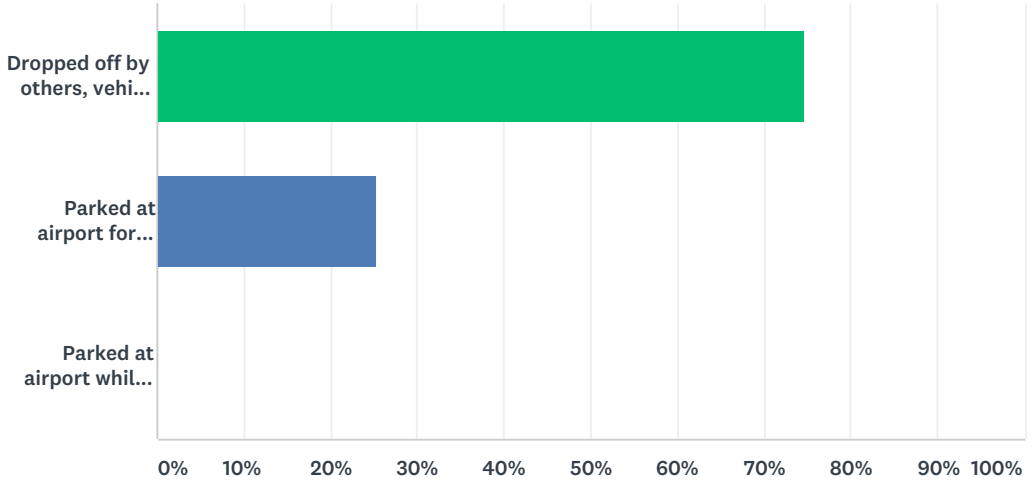


ANSWER CHOICES	RESPONSES	
Via airplane/flew in from another airport/making a connecting flight	0.00%	0
Private vehicle	50.72%	70
Uber or Lyft	2.17%	3
Rental car	15.94%	22
Taxicab	3.62%	5

Cruise ship bus/charter bus	14.49%	20
[not used]	0.00%	0
Hotel/motel shuttle	11.59%	16
Military shuttle bus	0.00%	0
Limousine	0.00%	0
Scheduled bus/van	0.00%	0
Public bus [MACS]	0.72%	1
[not used]	0.00%	0
Other (please specify)	0.72%	1
TOTAL		138

Q2 How did you use a private vehicle today?

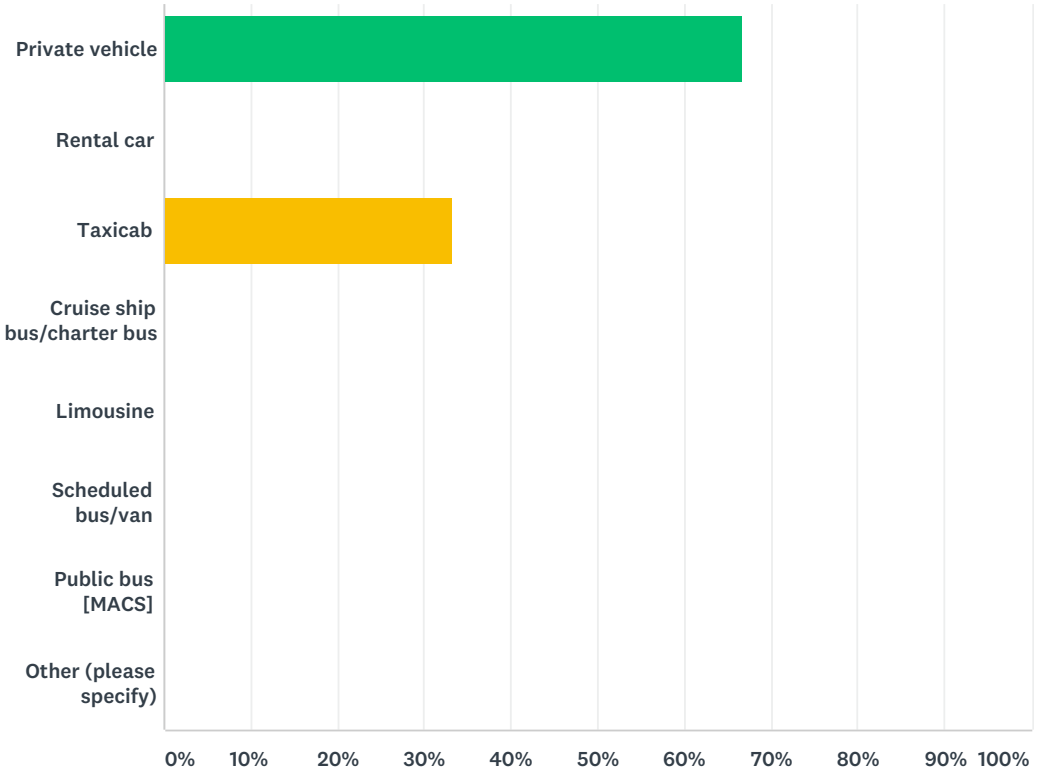
Answered: 67 Skipped: 71



ANSWER CHOICES	RESPONSES	
Dropped off by others, vehicle left airport	74.63%	50
Parked at airport for duration of trip	25.37%	17
Parked at airport while accompanied to terminal by others	0.00%	0
TOTAL		67

Q3 How did you travel to the Airport prior to Uber and Lyft being available?

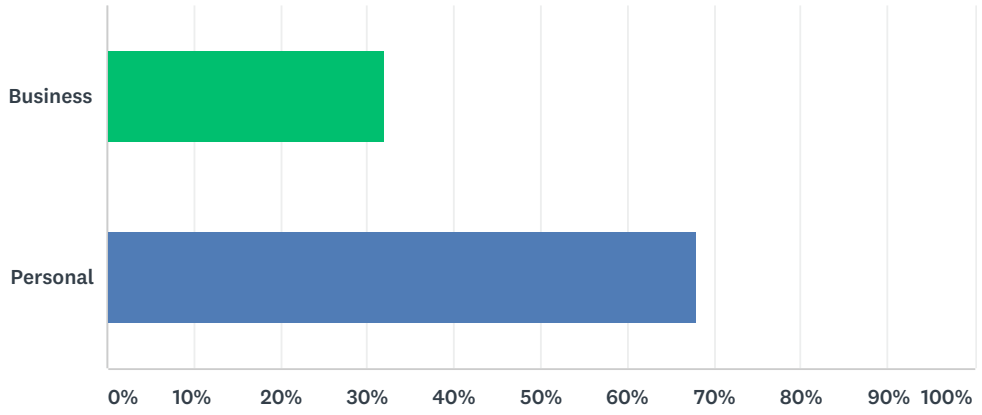
Answered: 3 Skipped: 135



ANSWER CHOICES	RESPONSES	
Private vehicle	66.67%	2
Rental car	0.00%	0
Taxicab	33.33%	1
Cruise ship bus/charter bus	0.00%	0
Limousine	0.00%	0
Scheduled bus/van	0.00%	0
Public bus [MACS]	0.00%	0
Other (please specify)	0.00%	0
TOTAL		3

Q4 What is the primary purpose of your trip today from this Airport?

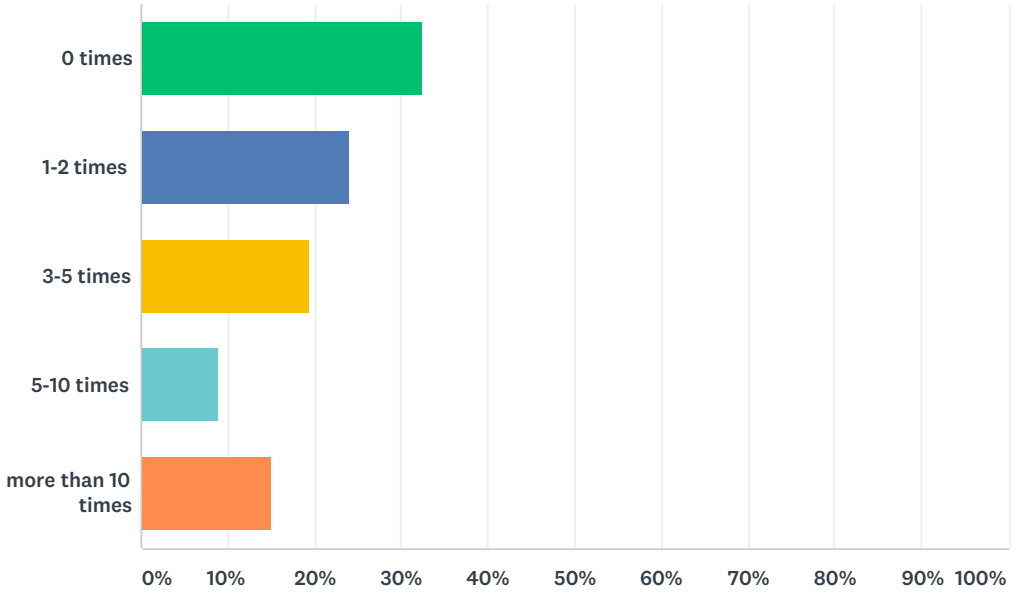
Answered: 134 Skipped: 4



ANSWER CHOICES	RESPONSES	
Business	32.09%	43
Personal	67.91%	91
TOTAL		134

Q5 How many times during the past 12 months have you flown out of this airport?

Answered: 133 Skipped: 5



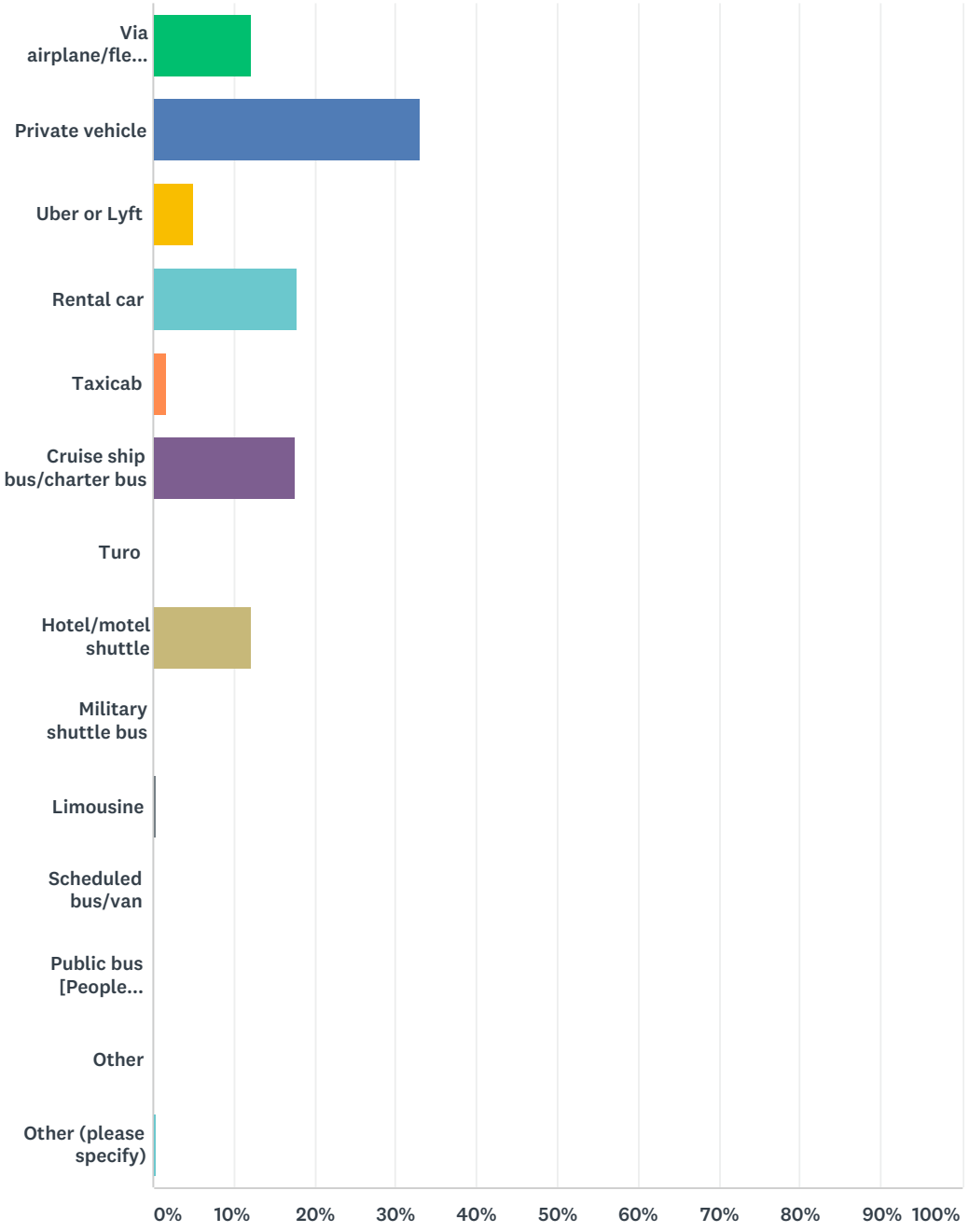
ANSWER CHOICES	RESPONSES	
0 times	32.33%	43
1-2 times	24.06%	32
3-5 times	19.55%	26
5-10 times	9.02%	12
more than 10 times	15.04%	20
TOTAL		133

Q6 What is the ZIP code of your primary residence?

Answered: 112 Skipped: 26

Q1 How did you travel to the Anchorage Airport today?

Answered: 303 Skipped: 0

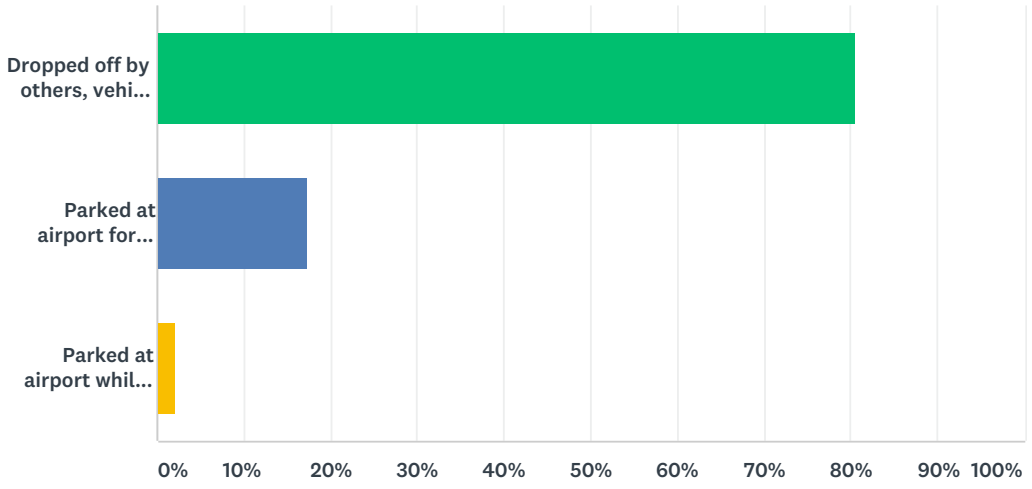


ANSWER CHOICES	RESPONSES	
Via airplane/flew in from another airport/making a connecting flight	12.21%	37
Private vehicle	33.00%	100
Uber or Lyft	4.95%	15
Rental car	17.82%	54
Taxicab	1.65%	5

Cruise ship bus/charter bus	17.49%	53
Turo	0.00%	0
Hotel/motel shuttle	12.21%	37
Military shuttle bus	0.00%	0
Limousine	0.33%	1
Scheduled bus/van	0.00%	0
Public bus [People Mover/Anchor Rides]	0.00%	0
Other	0.00%	0
Other (please specify)	0.33%	1
TOTAL		303

Q2 How did you use a private vehicle today?

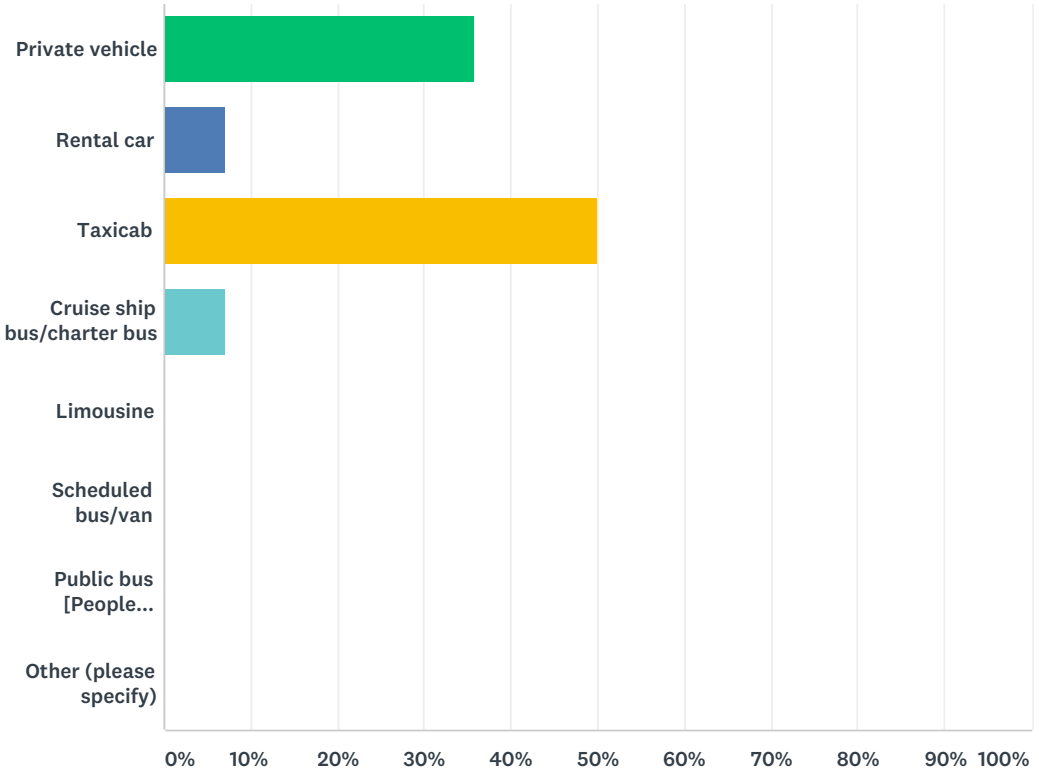
Answered: 98 Skipped: 205



ANSWER CHOICES	RESPONSES	
Dropped off by others, vehicle left airport	80.61%	79
Parked at airport for duration of trip	17.35%	17
Parked at airport while accompanied to terminal by others	2.04%	2
TOTAL		98

Q3 How did you travel to the Airport prior to Uber and Lyft being available?

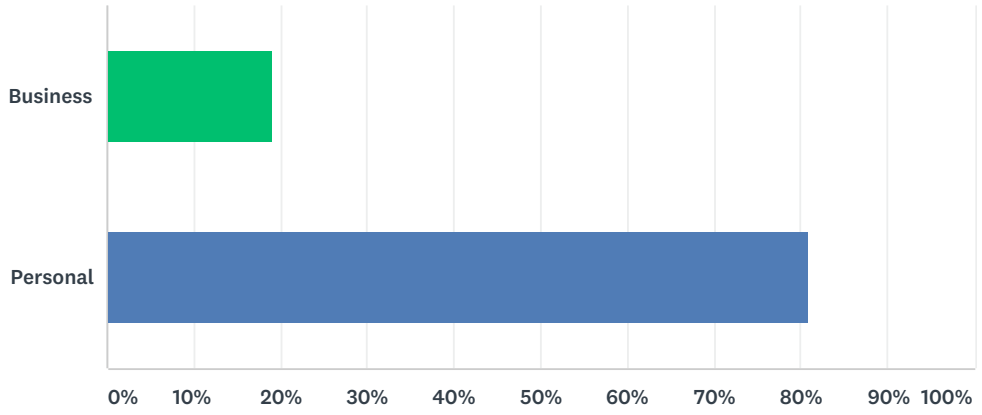
Answered: 14 Skipped: 289



ANSWER CHOICES	RESPONSES	
Private vehicle	35.71%	5
Rental car	7.14%	1
Taxicab	50.00%	7
Cruise ship bus/charter bus	7.14%	1
Limousine	0.00%	0
Scheduled bus/van	0.00%	0
Public bus [People Mover/Anchor Rides]	0.00%	0
Other (please specify)	0.00%	0
TOTAL		14

Q4 What is the primary purpose of your trip today from this Airport?

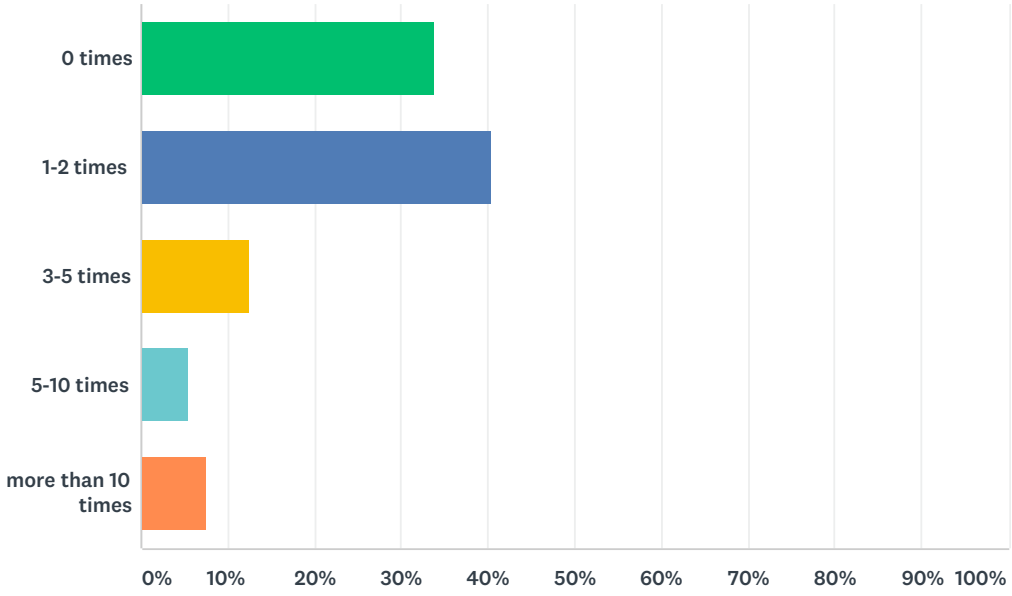
Answered: 262 Skipped: 41



ANSWER CHOICES	RESPONSES	
Business	19.08%	50
Personal	80.92%	212
TOTAL		262

Q5 How many times during the past 12 months have you flown out of this airport?

Answered: 262 Skipped: 41



ANSWER CHOICES	RESPONSES	
0 times	33.97%	89
1-2 times	40.46%	106
3-5 times	12.60%	33
5-10 times	5.34%	14
more than 10 times	7.63%	20
TOTAL		262

Q6 What is the ZIP code of your primary residence?

Answered: 231 Skipped: 72

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