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The Airport of the Future – A Sustainable & Equitable Ground Transportation Management Paradigm

The redevelopment of John F. Kennedy International Airport (“JFK Airport”) is a major project that aims to modernize and expand the facilities and services of one of the busiest airports in the world. One of the key aspects of this project is how it will affect landside ground transportation, which includes taxis, Uber and Lyft, black cars, liveries, and limousines – as well as private motor vehicles, buses, and shared-ride vans.

In May 2023, the University Transportation Research Center (“UTRC”) at The City College of New York released a report with potential solutions (best and/or recommended practices) for managing commercial ground transportation at JFK Airport and other airports, including during construction: <https://bit.ly/3MrCER1>. The goal of the report is to provide best management practices and guiding policy and operational principles that can be used by airport operators and other stakeholders to ensure that commercial ground transportation services at airports are efficient, easy to use, sustainable, and satisfying customers.



One of the most common complaints among air travelers is the hassle of getting to and from the airport. Long lines, traffic jams, and expensive parking fees can make the journey stressful and frustrating. This year, the Port Authority of New York and New Jersey (the “Port

Authority”) – which operates the New York airports – began announcing operational changes for taxis, black cars, limousines, and Uber/Lyft services at JFK Airport due to construction impacting Terminals 1, 5, and 6. In late April 2023, the Terminal 5 taxi stand was relocated to the Ground Level of the Yellow Garage.

In May 2023, the Port Authority notified pre-arranged for-hire vehicle (“FHV”) services of operational changes at Terminals 1 and 5 that would eliminate curbside pick-up service and “meet and greet” service—the backbone of luxury limousine airport operations. The plan is to move the Terminal 5 pick-up area for FHV, as well as Uber and Lyft, to the Orange Garage near Terminal 7, which is accessible by a 15 minute ride on the AirTrain. At Terminal 1, rideshare and FHV pick-ups will be relocated to a remote lot accessible by a 15-minute bus ride. The decision to eliminate terminal curbside pick-up and “meet and greet” service could have far-reaching consequences. Travelers who use limousines and black cars could opt to use another airline to avoid the inconvenience of flying in to Terminal 5, which houses the New York-based JetBlue as well as Cape Air, and Terminal 1, which is home to numerous international airlines.¹ Limousine and black car customers are often first class and business travelers, which are a critical segment for airline profitability. These travelers pay higher fares, book more flexible tickets, and buy closer to departure. Though they represent only about 12% of all passengers on average, they can account for up to 75% of an airline’s revenue on some flights.²

The Port Authority should consult with the airlines and reassess the need to relocate pre-arranged service to a remote location. The proposed roadway construction is not closing or altering the frontage at Terminal 5 or Terminal 1 – and personal motor vehicles will still be allowed to pick-up friends and family outside baggage claim as usual. So, why ban FHV from continuing their operations as usual, too?

For years, airports have been attempting to manage pick-up and drop-off (“PUDO”) traffic while balancing the needs and expectations of airport customers, ground transportation service providers, and other stakeholders. This has not always gone smoothly. For example, during construction at LaGuardia Airport (LGA), regular changes to the road patterns, holding lot locations, and pick-up areas for taxis and FHV resulted in horrific traffic and passenger dissatisfaction – especially with long treks to find a taxi or rideshare. I was hired by LGA as a consultant at the beginning of their reconstruction process many years ago, and there were many changes or tweaks that had to be made after we first met with and heard from mobility stakeholders. It took a while to adjust and obtain construction period equity among modes, and while there are

¹ <https://www.jfkairport.com/flight/airlines>. Terminal 1 serves Air China, Air France, Air New Zealand, Air Serbia, Air Senegal, Asiana Airlines, Austrian Airlines, Azores Airlines, Brussels Airlines, Cayman Airways, China Airlines, China Eastern, Eastern Airlines, EgyptAir, EVA Air, Flair Airlines, ITA Airways, Korean Air, Lufthansa, Philippine Airlines, Royal Air Maroc, Saudi Arabian Airlines, SWISS, TAP Portugal, Turkish Airlines, Viva Aerobus, and Volaris.

² <https://www.investopedia.com/ask/answers/041315/how-much-revenue-airline-industry-comes-business-travelers-compared-leisure-travelers.asp>

many in the industry happy with the final layout at LGA, the process of getting there was a little rocky.

It is my fear that we may not have learned from the LGA reconstruction process, and the JFK team needs to immediately engage with a more limited number of stakeholders that lead the industry, and ensure that TLC experts are engaged to help manage their interests. Just as my best practices report was issued, unfortunately, the first plans released tentatively by the Port for JFK Terminal 5 violate the principles recommended in the report. However, there is still time to correct the course, but the Port needs to move quickly to remedy the unfair advantages given to one mode over the other in its reconstruction plans.

Managing commercial ground transportation at airports requires balancing the needs and expectations of customers, airport management, providers, and other stakeholders. The best and/or recommended practices identified in the UTRC report for managing commercial ground transportation at airports are explained below. This report involved identifying airports that have implemented commercial ground transportation programs, procedures, and facilities considered to be examples of best and/or recommended practices, and citing to relevant research, evidence, and expert opinion.

This report was peer reviewed by experts in the field that include former airport ground transportation professionals and airport executives, including at the Port Authority, as well as lawyers, civil rights experts and academics.³

Also, a preview of the report was provided to airport ground transportation operators from all around the United States on May 1, 2023, during my keynote speech at the Airport Ground Transportation Association (“AGTA”). The report was very well received by airport operators everywhere, including the Port Authority, and nothing but positive feedback was received.

³ **Patty Clark**: CEO, Project Gestalt, Inc. (current), Principal, PCAA, a business unit of Project Gestalt, Inc. (current), and Aviation Strategy Officer, The Port Authority of New York & New Jersey (prior); **Patricia L. Gatling**: Commissioner and Chair, New York City Human Rights Commission (2002–2015); **Dr. Camille Kamga**: Director, UTRC, and Associate Professor of Civil Engineering, The City College of New York; **Ray A. Mundy, Ph.D.**: Executive Director, Airport Ground Transportation Association; **Carlton Thomas**: Board Chair, International Association of Transportation Regulators (current), and Airport Landside Access Manager, City of Austin Aviation Department (prior); **Brian Sadek**: Counsel, Dentons (current), Principal, Sadek Legal PLLC (current), and Vice President of Legal and Authority Affairs, Wayne County Airport Authority (prior); **Vincent Vesce**: Principal and CEO, V Squared Strategies, LLC (current), and Senior Manager – Airport Access Programs, The Port Authority of New York and New Jersey (prior); and **Christopher O. Ward**: Executive Vice President of Business Development, BRAVO (current), Executive Director, Port Authority of New York and New Jersey (2008–2011), and Commissioner, New York City Department of Environmental Protection (2002–2005).



Photos Above: Matthew W. Daus, Esq., presenting a keynote speech at the Airport Ground Transportation Association (“AGTA”) Spring 2023 Conference in New Orleans in April 2023.

“Fair Modal Curbside PUDO Separation”

If an airport has the physical space, competing modes of transportation, such as taxicabs, limousines, shared-ride services, transportation network companies (“TNCs”), courtesy vehicles, buses, and vans, should have separate pick-up locations. Separate pick-up areas can help to improve efficiency. When taxis and rideshare vehicles are all competing for the same space, it can lead to congestion and delays. By having separate pick-up areas, it is possible to reduce congestion and make it easier for passengers to get where they need to go. Separate pick-up areas can be accomplished by clearly designating distinct boarding areas for different services, while attempting to provide operators with equivalent access to deplaning airline passengers.

PUDO Locations Should Be Visible and Walkable

Curbside pick-up and drop-off service at the airport terminal has been synonymous with air travel since the golden age of commercial aviation, beginning in the 1950s.⁴ A goal and best and/or recommended practice for many airport managers is to address customer expectations by locating ground transportation services that customers normally expect to find at an airport curbside in a visible location adjacent to, or a walkable distance from, the terminal. This makes sense for three main reasons: convenience, safety, and efficiency.

Many airports relocated ride hailing loading areas and limited their curbside access in an effort to reduce congestion. This has the downside of increased wait times and travel time for

⁴ <https://portfolio.panynj.gov/2015/05/26/vintage-laguardia-airport/#jp-carousel-389>

passengers who use those services. From a customer satisfaction perspective, the redevelopment of JFK Airport should enhance the experience of arriving passengers by locating ground transportation at a walkable distance from baggage claim.

Intermodal Ground Transportation Centers

Intermodal ground transportation centers (“GTCs”) are facilities that integrate different modes of transportation, such as taxis, for-hire vehicles, rental cars, buses, shuttles, and trains, in a single location. GTCs can provide many benefits for airports, such as reducing congestion, enhancing accessibility, and improving customer satisfaction. They can also provide amenities and services for travelers, such as information kiosks, luggage storage, restrooms, food outlets, and Wi-Fi. If these facilities have a flexible design that allows the physical structure to be altered, then they can accommodate changes in the transportation landscape.

To remedy the existing issues with the roadway network and access to JFK Airport, the Port Authority is planning a centralized GTC hub for all modes of transport. The proposed GTC at JFK Airport will have multiple levels to accommodate parking, a staging area for taxis, for-hire-vehicles, private vehicles, and buses, and access to regional rail and subway lines (*i.e.*, AirTrain station). The GTC will feature a flexible design that improves the passenger experience by providing a seamless flow of traffic, and it will also provide clear and safe pedestrian access.⁵ From an efficiency perspective, the GTC will improve the flow and coordination of landside ground transportation by creating a centralized hub for all modes of transport.

For JFK Airport to realize congestion mitigation benefits of a central intermodal transportation center, it is important to locate taxis and ride hailing vehicles together in the Centralized Ground Terminal. If taxis are allowed to pick-up passengers at the curb, then more travelers will opt for the more convenient option than to traverse to the CGT to take a ride hailing service. The traffic congestion reduction benefits will be lost along with any rematch benefits.

Premium Terminal Access (“First Class Curbside Service”)

Airports should offer premium curbside access for those willing to pay a higher fee for it. This service could be offered to passengers regardless of their mode of transportation. It would generate revenue for the airports, which could be used to improve their facilities and services, while also encouraging passengers to use PUDO locations away from the terminal for a lower fee. Premium curbside access would benefit both travelers and airports, and create a more efficient and pleasant travel experience.

San Francisco’s Airport (SFO) launched a limited curb pricing pilot in March 2019 to test if a \$3 discount would be effective at diverting TNC pick-ups from the terminal curb to a parking garage.⁶ Pick-ups at the terminal were charged \$5, while pick-ups at the parking garage were just

⁵ Request for Expressions of Interest, The Roof Level Plaza Part of the New Ground Transportation Center John F. Kennedy International Airport, 6000000820.

⁶ <https://medium.com/sharing-the-ride-with-lyft/solving-airport-congestion-through-curb-pricing-62fb91e13751>

\$2. At the end of the pilot, the \$3 discount ultimately diverted almost 10% of standard TNC trips in the first month before tapering off.⁷ While the SFO pilot failed to achieve the airport’s desired goal, it succeeded in showing that a modest \$3 discount can incentivize 10% of ride-hailing customers to opt for a pick-up location away from the terminal curbside. A larger discount over a longer time period could yield higher diversion rates.

***Personal Motor Vehicles (“PMVs”):
Curbside Access Fees and Remote PUDO Locations***

Airports should consider charging a fee for all vehicles to access the airport curbside for pick-ups and drop-offs, not just for taxis, black cars, limousines, and TNCs. One way to reduce congestion and its negative effects is to charge personal vehicles a fee to access terminals. This would encourage more people to use public transportation, carpooling, or other alternatives to having a friend or family member drop take them to/from the airport. It would also generate revenue for airports to invest in infrastructure and services that improve the quality of air travel for passengers and airlines.⁸ Charging personal vehicles a fee to access terminals is a fair and effective policy that would benefit airports and their stakeholders in the long run.

The more visible and convenient curbside spaces should be reserved for those transportation services that generate significant airport revenues. In the U.S., friends and family pick-ups and drop-offs generate no revenue for the airport, with one exception: Dallas Fort Worth International Airport (“DFW”).⁹ In addition to charging taxis, limos, and TNCs to access the airport terminals, DFW uses a tiered toll fee structure based on the amount of time personal motor vehicles spend on the access road that leads to DFW’s terminals. These fees are common in the United Kingdom, as well as in Vietnam and at Cairo International Airport in Egypt.

According to Dr. Ray Mundy, Executive Director of the Airport Ground Transportation Association (“AGTA”), “a pick-up and drop-off charge for private automobiles will be the next major charge for U.S. airports. The rationale is to encourage more and more people to use high occupancy vehicles and public transportation. It also has the effect of raising revenue for airports.”¹⁰ Dr. Mundy believes those two rationales could “overcome resistance to charging people for pick-up and drop-off.”¹¹

If charging for friends and family pick-ups or drop-offs is not desirable, then airports may want to reconsider allowing PMVs to access terminal curbsides. Instead, travelers who receive a ride from a friend or family member should be required to use a remote PMV PUDO location – such as the “Kiss and Fly” zone or the cell phone lot where their rides should be waiting for them.

⁷ SFO stopped the pilot after three months and moved all ridesourcing pickup operations to L5.

<https://medium.com/sharing-the-ride-with-lyft/solving-airport-congestion-through-curb-pricing-62fb91e13751>

⁸ https://www.lek.com/sites/default/files/insights/pdf-attachments/Future-Airport-Ground-Access-Report_0.pdf

⁹ <https://standbywithme.com/why-does-dfw-international-airport-charge-visitors-a-drop-off-pick-up-fee/>

¹⁰ <https://www.businesstraveller.com/business-travel/2017/08/30/airport-tolls-may-coming-us/>

¹¹ *Id.*

This would free-up terminal frontage space for revenue-generating commercial ground transportation operators. From an efficiency perspective, a separate entrance/exit at the PMV PUDO location would allow vehicles to move directly onto surface streets and avoid traffic in the central terminal area.

Rematch

Rematch should be used, where practical given the airport roadway layout, to allow ride hailing and taxi drivers to make a pick-up at the airport immediately after a drop-off without going to the designated holding lot or pick-up area.¹² Ride hailing services that use rematch can effectively halve congestion on airport roadways.

After implementing rematch at Seattle-Tacoma International Airport, the number of “deadhead” trips decreased by 48%, and passenger waiting time fell by almost 38 percent.¹³ When rides hailing services are not allowed to enable rematch, it results in increased wait time and deadhead trips for the driver, and more greenhouse gas emissions that are harmful to everyone.¹⁴ JFK Airport should allow Uber and Lyft to employ rematch and expand the feature to taxis that use e-hail apps, like Curb and Arro, to achieve additional traffic congestion mitigation.

Accessible PUDOs for Passengers with Disabilities

When implementing any of the above general principles, airport operators must consider and make accommodations as necessary for people requiring assistance, and/or people with disabilities. This is especially important with respect to location discussions. It is advisable to identify disability advocacy groups and other stakeholders in the local disability community, and to incorporate their input into planning. These key players may also potentially serve as an ally in the future with respect to messaging, and communication and responding to criticism.

During Construction

Executing a large infrastructure redevelopment project, while also minimizing disruption to passengers, will involve complex planning and maneuvering. There are additional guiding principles and best and/or recommended practices for airports to following during construction. For example, while construction continues, impacts to the day-to-day operation and the traveling public must be minimized as much as possible. Airports should consider performing work that is disruptive to passengers and airport operations during overnight or low traffic times.

Another best practice is to maintain clear and frequent communication with all for-hire passenger ground transportation stakeholders—operators, drivers, passengers, airport personnel, and airlines—regarding impacts on operations, and changes to PUDO locations, processes, and/or

¹² <https://www.uber.com/en-US/blog/airport-rematch/>

¹³ <https://comotionnews.com/2020/01/21/congestion-at-the-curb/>

¹⁴ <https://www.businesstravelnews.com/Transportation/Ground/Scrambling-for-Solutions-As-Airport-Curbside-Congestion-Reaches-Critical-Mass>; <https://comotionnews.com/wp-content/uploads/2020/01/Congestion-at-the-curb.pdf>

procedures. Changes in pick-up locations and/or procedures should be communicated to drivers and passengers before they arrive at the airport, and wayfinding signage should be intuitive and updated as needed. If budgets allow, airport operators should consider using digital (variable messaging) roadway signage that can provide real-time updates.

At JFK Airport, relocating pick-up areas may have financial repercussions on the mostly minority Uber, Lyft, and taxi drivers. The Port Authority should consider conducting a study on the adverse disproportionate impact on these drivers' income while planning for airport renovations that may impact landside commercial ground transportation. Comments from drivers – and possibly a survey of those drivers who endured the LaGuardia Airport renovations detailing their income losses – could be helpful in the planning process to minimize negative effects.

Conclusion

There are no perfect airports. However, as the UTRC report explains, there are guiding principles, strategies, and practical tools for adapting airport landside access programs to evolving ground transportation modes. Commercial ground transportation at airports is a dynamic and evolving industry that requires constant adaptation and innovation. By following these best practices, airport operators can ensure the provision of safe, comfortable, easy-to-use, and efficient commercial ground transportation services for their customers and employees.

It is my hope that the Port Authority, as part of its JFK redevelopment project (and any other airports undertaking improvement projects), will digest this report carefully, consider these principles and ideas, and make innovative changes to plan ahead for the airport of the future. The airport of the future is a place where passengers and drivers remain safe, where vehicle congestion is minimized, passenger convenience is maximized, and where sustainability, accessibility and equity are promoted in every way. There is a well-known phrase – “When you have seen one airport – you have seen one airport!” While all of us recognize that every airport may have slightly different issues and layouts, the principles of the report can and should be applied everywhere and anywhere.