COVID-19: Planning for for and and



Airports are open. And have been.

Along with every other industry in the US, domestic airports have been impacted by COVID-19. The distinction is airports have been open throughout the pandemic. Travel has been decimated, concessions closed, but flights continue, albeit at reduced frequency. In many ways an uptick in airport business can be viewed as a leading indicator for other sectors of the economy. The communities and businesses that rely on airport activity anxiously await for signs of improvement and return to normalcy.

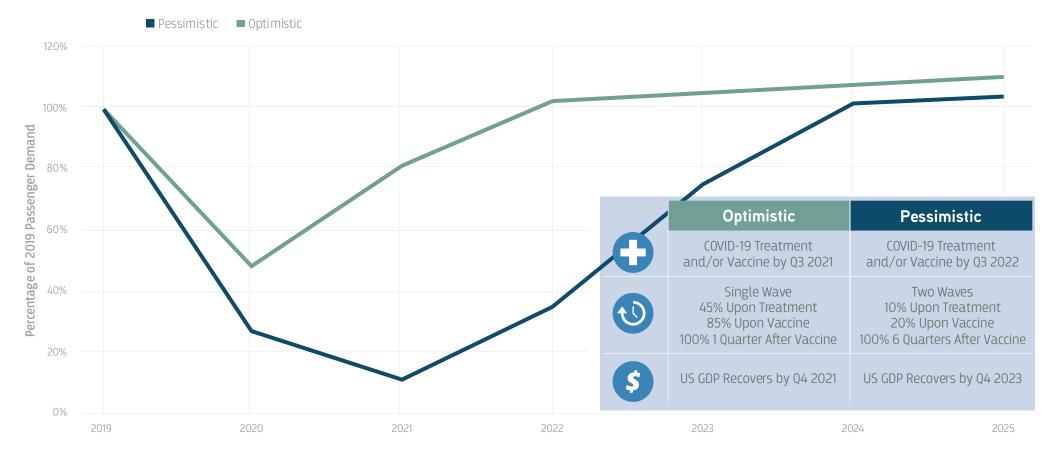


Effects of COVID-19: demand



US industry demand

Every airport should consider a range of recovery scenarios





Response to transportation modes

Mode	Distancing Options	Landside Facility Demand: Potential Changes in Ground Access Mode Share	Airport Response/ Best Practices	
Private Vehicle Pick-up/Drop-Off	MOST DISTANCING		In parking facilities	
Private Vehicle Parked			In parking facilities, install touchless entry/exit and payment systems	
Rental Car				
TNC				
Taxi/Limo			Establish distancing guidelines at curb for passengers queuing for taxis	
Transit		Pre-COVID-19		
Door-to-Door Van, Charter Bus, Hotel Shuttle	LEAST DISTANCING	Future		

Effects of COVID-19: Concessions

In-terminal concessions

- The commercial opportunities at airports will be viewed as riskier by concessionaires and their lenders
- \cdot A pro forma that worked in 2019 might not anymore
- Even if airports, concessionaires and health professionals do everything right, external or international issues could spark another disruption

Planning Concept: Key Issue	Spatial	Financial	Legal	
Capital Investment	 Reduced utilization of F&B seating area Viability of specialty retail? 	• Lower floor of capital investment	• Longer term may be needed to generate a return	
Operating Expenses	 Need for more sanitization? Changes to support and Goods In/Waste Out (GIWO)? 	• Utilize technology to reduce personnel expenses	 End of Minimum Annual Guarantee (MAG)? By what metrics do locations open incrementally? 	
Customer Demand	 Expectations of social distancing Storefront is now on a cell phone 	 Decline in specialty retail & duty-free Who else gets a cut of e-commerce? 	• Who owns and has access to gathered data?	

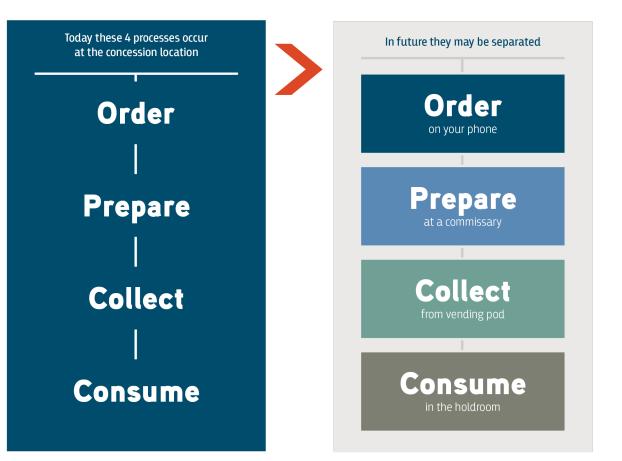


Effects of COVID-19: Concessions

Food + Beverages: Processes must adapt

A separation of activities may be the solution to maintain social distance, reduce personnel costs and capital investment, yet meet customer needs

- Technology will enable customers, operators & airport sponsors to drive sales, cut costs, and decrease public-facing space requirements
- \cdot Order through airline app
- \cdot Generate purchasing profile
- \cdot Push advertising to phone
- \cdot Scan QSR code to open door of vending pod
- \cdot Know where passengers are, and when



Recovery = shouldering the ebbs and flows.

Ricondo has helped airport clients react to the changes in activity.

In some cases, operations are nearing 100 percent during peak periods compared to pre-COVID-19 conditions, yet as low as 5 percent during off-peak periods. Staffing for the peaks leads to an excess number of workers during the off-peaks. Airports operators must adapt to the changing activity levels and plan for recovery.





Recovery

Air travel necessities

Hedical Milestones

COVID-19 treatment: The point when medical options are available to treat the effects of COVID-19

COVID-19 vaccine: The point when a vaccine is available to prevent COVID-19



The estimated timeline to passenger demand recovery (returning to pre-COVID-19 demand levels) after reaching medical milestones

Several possibilities modeled to reflect short- medium- and long-term lags in passenger return

Considers a "two-wave" scenario where COVID-19 has a second peak driving down passenger demand



Economic Recovery (Longer-Term Growth)

The estimated initial impact on and resulting trajectory of growth of economic drivers of demand

Considers a range of estimates provided by several sources (including the IMF, WTO, The Conference Board, The World Bank, etc.)

Recovery
Airport
operations
are affected
by different
recovery
drivers

			PAS	SENGER ACTIV	/ITY	
Category	Airport Element	Daily Total	Hourly Total	Hourly Departing	Hourly Arriving	Hourly International Arriving
Terminal Facilities	Baggage Claim					
	CBP Facilities					
	Holdroom Capacity					
	Restrooms					
	Security Screening/Queue					
	Ticketing/Ticket Queue					
Financial	Revenue					
Ground Transportation	Commercial Facilities					
	Curbfront/Curbside Roads					
	Parking Entry/Exit Plaza					
	Parking Facilities					
Passenger Conveyance	APM Platform					
	APM System					
	Escalators/Elevators					





Recovery: passenger activity

Unique conditions at each airport



What are the primary socioeconomic drivers of underlving demand and how will the forecast of those drivers change?

GDP, personal income, employment, etc.

How does the local economy change?

- Demand for local goods/ services/attractions
- I ocal market attractions forced to change the way it does business (e.g. theme park)
- Permanent or temporary changes



What role has the airport served, hub or spoke?

Future changes and planning

How does/will the airport serve O&D passengers?

- Regionalization of airports
- Increase/decrease competition from other airports

What changes occur among competing connecting hubs?

- Changes in competition from other hubs
- Higher or lower share at other airports



Travelers that use the airport?

- International • Leisure
- Domestic • Age
 - Destination

Originating

draw at

in hub

destination

connectivity

Mode shifts

 Business Connecting

Does their propensity to travel change?

- Disposable Change in
- income
- Business • Change
- needs • Health
- concerns
- Age differences



How much industry capacity will remain to serve demand?

What will the airlines' P&L goals be?

How do airlines match capacity to demand to meet **P&L** goals?

- Resulting network
- Required services

How will input costs change?

Fuel, Labor, etc.

· |((s

How does competitive landscape change?

- Consolidation Regulatory
 - restrictions

Recovery: passenger activity
After the pandemic





Regional/National/ Global Macroeconomics

Post COVID-19 factors that will define an airport's activity



Competing Airports and Services



Passenger

Demographics

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Recovery: passenger activity Regional/National/Global Macroeconomics

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GDP, personal income, employment, etc.

How does the local economy change?

- \cdot Demand for local goods/services/attractions
- Local market attractions forced to change the way it does business (e.g. theme park)
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Recovery: passenger activity Competing airports and services

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Recovery: passenger activity Passenger demographics

Travelers that use the airport?

International

• Leisure

- Domestic
- Age
- Business

- Originating
- Destination
- Connecting

Does their propensity to travel change?

- Disposable income
- Business needs
- Health concerns
- \cdot Age differences

- Change in draw at destination
- \cdot Change in hub connectivity
- Mode shifts





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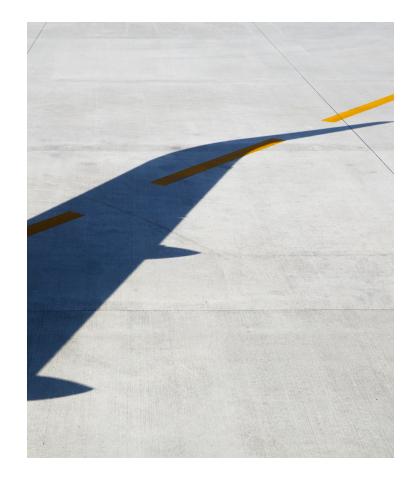
How does competitive landscape change?

 \cdot Consolidation

Regulatory restrictions

• LCCs







Airports respond continuously.

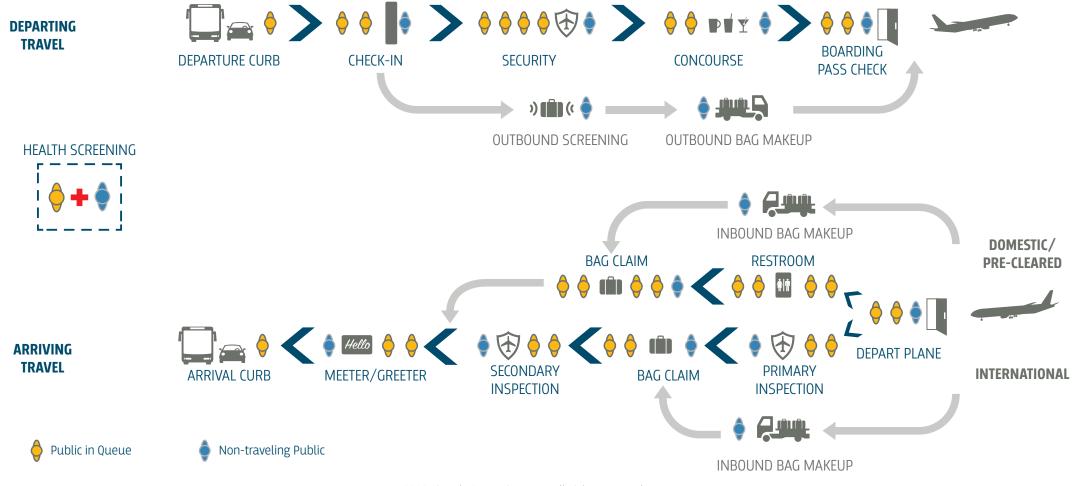
This time is no different. A response means an abundance of communication with airlines, businesses, customers and employees. Consistent and active engagement with all stakeholders and the airport community is paramount.



Response: plan and respond Requirements > Prepare > Respond		
Impacts & Constraints	Requirements must be determined to understand effective facility capacity and operational challenges as demand evolves	
Preparedness & Resiliency	Prepare to implement fiscally responsible strategies for facility resiliency Consider lessons learned	
Operational Readiness & Recovery	Respond to identify opportunities to incrementally increase and balance system capacity, while maintaining adherence to local/state/federal guidelines	



All processes are affected





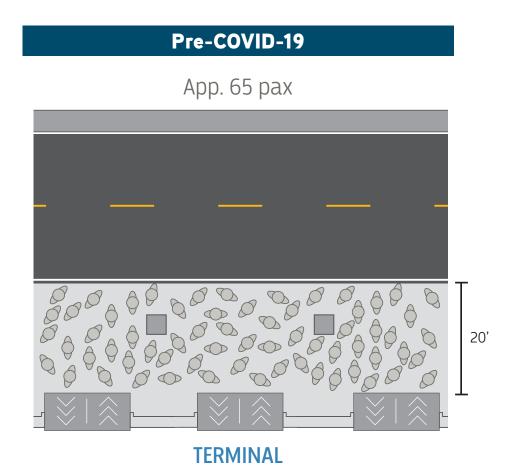
12'-5"

Spacial impacts vary

IATA Optimal Guidelines **Social Distancing Guidelines** 6'-0" 5'-2" Standing Passenger 6'-0" Passenger in Queue Passenger 4'-0" in Queue 4'-6" 24 sq. ft. 28.3 sq. ft. (with plexi barrier only) 3'-11" Standing Passenger 3'-0" 6'-0" 6'-0" 10.8 - 12.9 sq. 6'-0" Seated 5'-3" 31. 5 sq. ft. 3'-0" Passenger (with stanchion barrier only) 6'-0" Seated 36 sq. ft. Passenger 6'-2" 8'-6" 16.2 - 18.3 sq. ft. 0 36 sq. ft. (with stanchion barrier only) 6'-0"

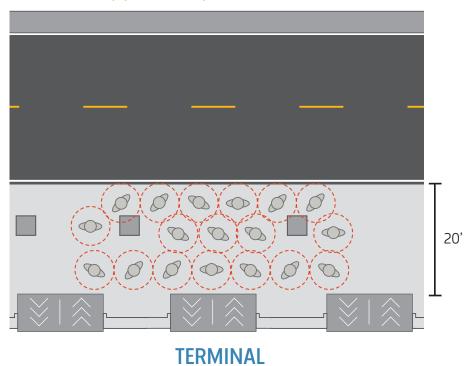
6'-0"

Arrivals curb Private vehicles / Taxis /TNCs



Post COVID-19: Social Distancing

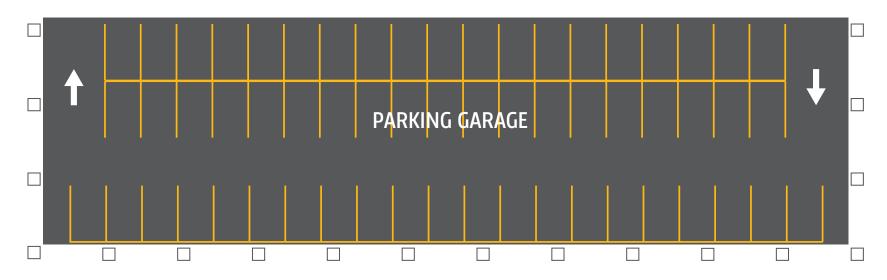
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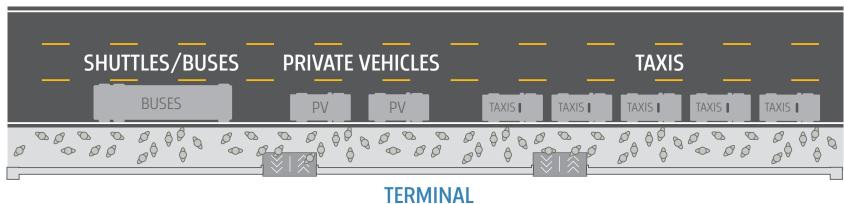


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Ground transportation: Pre-COVID (example)

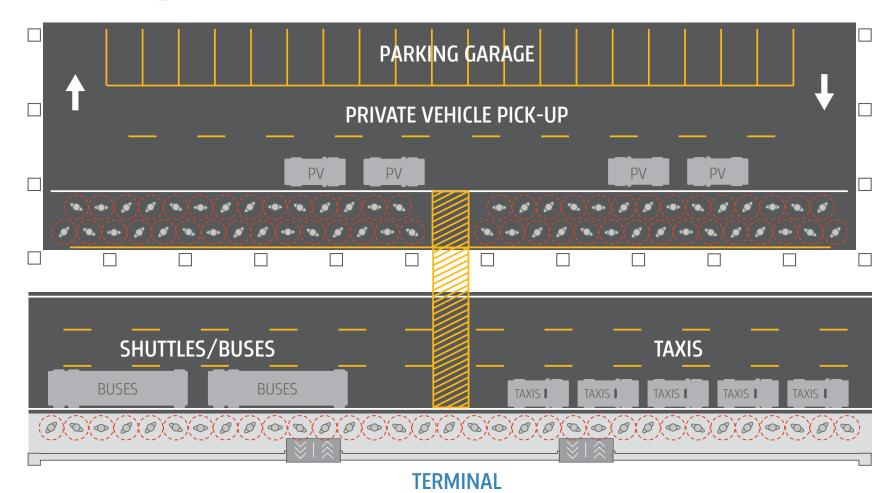




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Response: plan and respond

Ground transportation: Post-COVID (hypothetical)



Strength in planning.

Continuous planning for uncertainty. All responses to the pandemic will be unique. Success of every plan will be measured by the ability to react to unforseen events and unpredicted changes. Ricondo is here to partner and assist in your journey to recovery.





www.ricondo.com/RicondoCOVID19Response

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