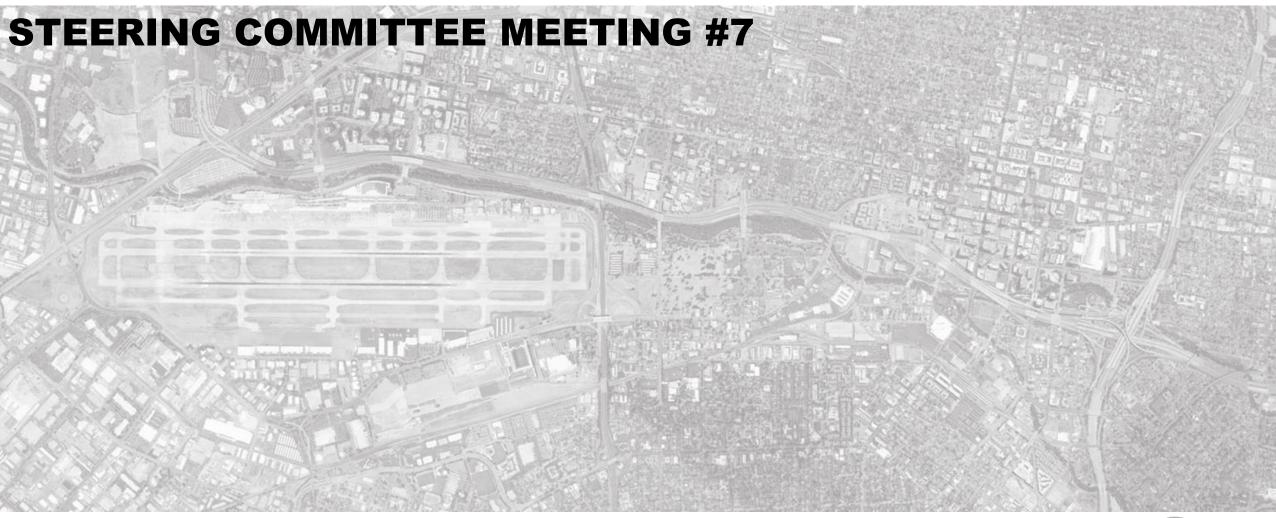
## DOWNTOWN SAN JOSÉ AIRSPACE & DEVELOPMENT CAPACITY STUDY (PROJECT CAKE)







## **AGENDA**

- Introduction
- Real Estate Economic Impact Assessment
- Aircraft Performance Assessment
- Aviation Direct Economic Impacts





# PRELIMINARY REAL ESTATE ECONOMIC IMPACT ASSESSMENT

(JLL)





#### PURPOSE AND SCOPE OF REAL ESTATE ECONOMIC IMPACT ASSESSMENT

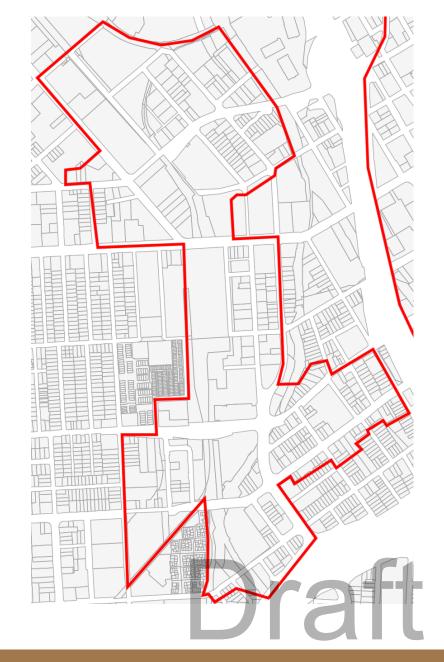
- Identify potential development sites in both Downtown Core and Diridon Station development areas
- Assess the local real estate market to understand the pace and feasibility of new development
- Estimate the increase in new development density for development areas due to airspace protection scenarios
- Support an economic impact assessment by providing key outputs to be used as IMPLAN inputs





## **DIRIDON STATION AREA**

- JLL assessed the impact on total development potential of the Diridon Station area of each airspace protection scenario
- Analysis focuses on APN's that are underutilized or vacant and larger than 0.2 acres
- Analysis is agnostic to any specific development project, focusing instead on development potential in the aggregate





## DENSITY INCREASE IN DIRIDON STATION AREA

Scenario	Net New Square Feet
4: No OEI	8,600,000
7: Straight-Out OEI	8,500,000
9: No OEI, incr. height limits	10,000,000
10A: Straight-Out OEI w/ West OEI Alts.	1,100,000
10B: Straight-Out OEI w/ West OEI Alts.	3,100,000
10C: Straight-Out OEI w/ West OEI Alts.	4,900,000
10D: Straight-Out OEI w/ West OEI Alts.	6,800,000

Note: Includes both office and residential development.





#### CONSTRUCTION VALUE AND TAX REVENUE IN DIRIDON STATION AREA

Scenario	Net New Construction Value	Net New Annual Tax Revenue
4: No OEI	\$4,380,000,000	\$5,550,000
7: Straight-Out OEI	\$4,300,000,000	\$5,450,000
9: No OEI, incr. height limits	\$5,030,000,000	\$6,370,000
10A: Straight-Out OEI w/ West OEI Alts.	\$560,000,000	\$710,000
10B: Straight-Out OEI w/ West OEI Alts.	\$1,590,000,000	\$2,020,000
10C: Straight-Out OEI w/ West OEI Alts.	\$2,500,000,000	\$3,160,000
10D: Straight-Out OEI w/ West OEI Alts.	\$3,490,000,000	\$4,420,000

Note: Values represent both office and residential development, are <u>aggregate</u>, and represent the total potential increase without regard to a specific timeframe.





## NET NEW ONE-TIME FEES IN DIRIDON STATION AREA

Scenario	Building Fees	Development Taxes	Park Impact Fees	School District Fees
4: No OEI	\$7,300,000	\$177,150,000	\$131,040,000	\$4,830,000
7: Straight-Out OEI	\$7,170,000	\$173,890,000	\$128,790,000	\$4,740,000
9: No OEI, incr. height limits	\$8,340,000	\$203,720,000	\$148,810,000	\$5,580,000
10A: Straight-Out OEI w/ West OEI Alts.	\$930,000	\$22,660,000	\$16,830,000	\$620,000
10B: Straight-Out OEI w/ West OEI Alts.	\$2,660,000	\$64,260,000	\$47,920,000	\$1,750,000
10C: Straight-Out OEI w/ West OEI Alts.	\$4,180,000	\$101,050,000	\$75,150,000	\$2,740,000
10D: Straight-Out OEI w/ West OEI Alts.	\$5,810,000	\$141,100,000	\$104,600,000	\$3,830,000

Note: Values represent both office and residential development, are <u>aggregate</u>, and represent the total potential increase without regard to a specific timeframe.





## EMPLOYEES AND RESIDENTS IN DIRIDON STATION

Scenario	Net New Employees	Net New Residents
4: No OEI	4,700	12,800
7: Straight-Out OEI	4,500	12,600
9: No OEI, incr. height limits	6,200	14,500
10A: Straight-Out OEI w/ West OEI Alts.	500	1,600
10B: Straight-Out OEI w/ West OEI Alts.	1,600	4,700
10C: Straight-Out OEI w/ West OEI Alts.	2,500	7,300
10D: Straight-Out OEI w/ West OEI Alts.	3,500	10,200

Note: Values are <u>aggregate</u> and represent the total potential increase without regard to a specific timeframe.





## DOWNTOWN CORE AREA

- There is already significant density available in the Downtown core.
- Any increase in height restrictions due to airspace protection scenarios will not have an aggregate impact for a long period of time.

	Office*	Residential <sup>†</sup>
Development Potential	34,800,000 sf	32,900,000 sf
Historical Annual Net Absorption (speculative development)	50,000 sf/year	750 unit/year (637,500 sf @ 850sf/unit)

<sup>\*</sup> Includes parking.



<sup>†</sup> Includes parking. In addition, Downtown zoning limits developments to 800 du/acre; at an average of 850 sf/unit, in some cases residential projects will be less dense than office developments

## IMPACT ON INDIVIDUAL DOWNTOWN SITES

- Though Downtown can accommodate significant development potential under existing height limits, discrete development sites may still be impacted.
- In particular, build-to-suit development opportunities that occur outside of the normal "churn" of demand and supply will be impacted
- JLL and the City identified 9 test case development sites in Downtown and tested how the Scenarios 4 and 9 would impact development potential

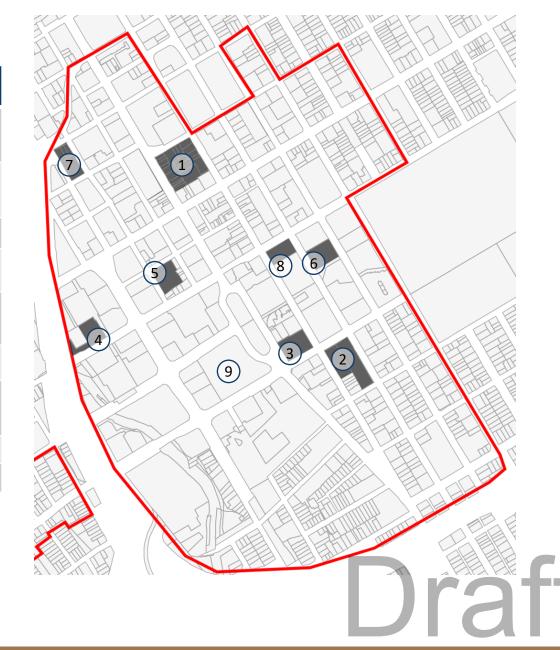
#### **Assumptions:**

- Sites are "underutilized" or "vacant" surface parking, parking structures, commercial buildings two stories or less, generally
- Includes contiguous underutilized or vacant spaces
- 14 feet average per story
- 80% lot coverage
- Office land use (residential and hospitality uses are not build-to-suit)
- Test case height limits established by airspace protection scenarios, though no more dense than limits established by the General Plan (3-30 stories and 30 FAR for Downtown)



## IMPACT ON INDIVIDUAL DOWNTOWN SITES

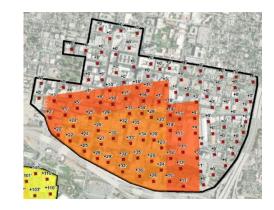
	APN(s)	ADDRESS	CURRENT	NOTES	AREA
1	•	66 N Market St (Approximate)	Surface Parking + Low-Rise Commercial		170,017 sf
2		345 S 2nd Street, 300 S 1st Street	Surface Parking + Low-Rise Commercial		123,173 sf
3	25942080	282 S Market St	Surface Parking		65,781 sf
4		333 W San Fernando St		Planned site of Adobe Tower 4 (750,000sf)	62,242 sf
5	25940012	60 S Almaden Ave	Former Greyhound Terminal	Planned site of 708 residential units and 20,000 SF retail	61,874 sf
6	46722160	174 S 2nd St	Surface Parking	Site of planned Sobrato parking structure	58,456 sf
7	25931072, 25931077-80		One-Story industrial, Surface Parking		55,200 sf
8	46722142	8 E San Fernando St	Surface parking		43,513 sf
9	25942023	201 Market Street	Museum	Museum Place Development	107,815 sf

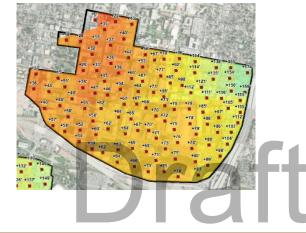




## EXISTING DENSITY AND INCREASES FOR DOWNTOWN SITES

Address			Scenario 4		Scenario 4 Scenario 9	
	Parcel Area	Existing Potential Density (SF)	Net New SF	% Increase	Net New SF	% Increase
66 N Market St (Approximate)	170,017	2,441,000	0*	0%	300,000	12%
345 S 2nd Street & 300 S 1st Street†	123,173	2,232,000	Not Impacted	Not Impacted	782,000	35%
282 S Market St	65,781	1,090,000	52,000	5%	363,000	33%
333 W San Fernando St	62,242	910,000	101,000	11%	202,000	22%
60 S Almaden Ave	61,874	966,000	107,000	11%	215,000	22%
174 S 2nd St	58,456	981,000	Not Impacted	Not Impacted	187,000	19%
115 Terraine St	55,200	653,000	44,000	7%	174,000	27%
8 E San Fernando St	43,513	754,000	36,000	5%	144,000	19%
Museum Place	107,815	988,203 (planned)	100,000	10%	250,000	25%







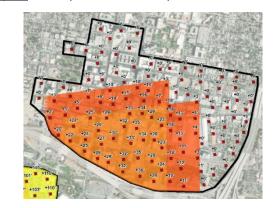
<sup>\*</sup> An increase of zero square feet means either 1) the height limits imposed by the San Jose General Plan are below either the existing or the altered airspace protection scenarios or 2) an average of at least 14 feet must be achieved for each new floor, and the height increase afforded by a scenario does not meet this minimum.

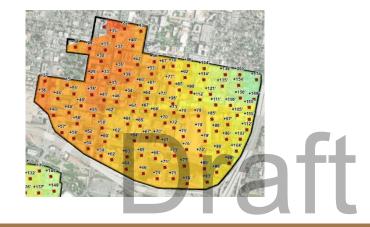
<sup>&</sup>lt;sup>†</sup> Some parcels included in this test case site do fall under Scenario 4; however the majority do not, and therefore the development site as configured/tested assumes no height gain realized from Scenario 4.

## CONSTR. VALUE AND TAXES FOR DOWNTOWN SITES

Address	Scenario 4		Scenar	rio 9
	Net New Construction Value	Net New Annual Tax Revenue	Net New Construction Value	Net New Annual Tax Revenue
66 N Market St (Approximate)	Not Impacted	Not Impacted	\$91,100,000	\$115,000
345 S 2nd Street & 300 S 1st Street	Not Impacted	Not Impacted	\$237,400,000	\$301,000
282 S Market St	\$15,800,000	\$100,000	\$110,300,000	\$140,000
333 W San Fernando St	\$30,700,000	\$39,000	\$61,300,000	\$78,000
60 S Almaden Ave	\$32,600,000	\$41,000	\$65,100,000	\$82,000
174 S 2nd St	Not Impacted	Not Impacted	\$56,700,000	\$72,000
115 Terraine St	\$13,200,000	\$17,000	\$52,900,000	\$67,000
8 E San Fernando St	\$10,900,000	\$41,000	\$43,600,000	\$55,000
Museum Place	\$30,300,000	\$38,000	\$75,800,000	\$96,000

Note: Values represent both office development, are <u>aggregate</u>, and represent the total potential increase without regard to a specific timeframe.







## ONE-TIME FEES AND TAXES FOR DOWNTOWN SITES

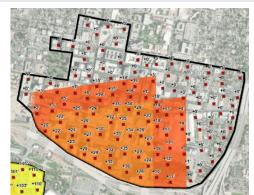
Address	Scenario 4					
	Net New City Building Fees	Net New City Development Taxes	Net New School District Fees			
66 N Market St (Approximate)	Not Impacted	Not Impacted	Not Impacted			
345 S 2nd Street & 300 S 1st Street	Not Impacted	Not Impacted	Not Impacted			
282 S Market St	\$14,700	\$700,000	\$500,000			
333 W San Fernando St	\$28,700	\$1,400,000	\$60,000			
60 S Almaden Ave	\$30,500	\$1,500,000	\$60,000			
174 S 2nd St	Not Impacted	Not Impacted	Not Impacted			
115 Terraine St	\$12,400	\$600,000	\$20,000			
8 E San Fernando St	\$10,200	\$500,000	\$20,000			
Museum Place	\$28,400	\$1,400,000	\$60,000			
		Scenario 9				
66 N Market St (Approximate)	\$85,300	\$4,100,000	\$170,000			
345 S 2nd Street & 300 S 1st Street	\$222,200	\$10,700,000	\$440,000			
282 S Market St	\$103,200	\$5,000,000	\$200,000			
333 W San Fernando St	\$57,400	\$2,800,000	\$110,000			
60 S Almaden Ave	\$61,000	\$2,900,000	\$120,000			
174 S 2nd St	\$53,000	\$2,600,000	\$100,000			
115 Terraine St	\$49,500	\$2,400,000	\$100,000			
8 E San Fernando St	\$40,800	\$2,000,000	\$80,000			
Museum Place	\$71,000	\$3,400,000	\$140,000			

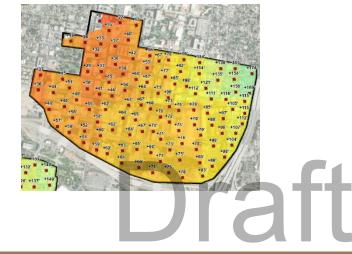




## EMPLOYMENT IN DOWNTOWN SITES

Address	Scenario 4	Scenario 9
	Net New Employees	Net New Employees
66 N Market St (Approximate)	Not Impacted	1,400
345 S 2nd Street & 300 S 1st Street	Not Impacted	3,700
282 S Market St	200	1,700
333 W San Fernando St	500	900
60 S Almaden Ave	500	1,000
174 S 2nd St	Not Impacted	900
115 Terraine St	200	800
8 E San Fernando St	200	700
Musem Place	500	1,200







## UPDATE AIRCRAFT PERFORMANCE ASSESSMENT





## HAWAII WEIGHT PENALTY ASSESSMENT

Hawaii - HNL		A321 NEO (189	seats/18,481 lbs.)	B737-800 (173 seats <sup>1</sup> /No Cargo)	
	Winter (63° F)	PAX Penalty	Cargo Penalty (lbs.)	PAX Penalty	Cargo Penalty (lbs.)
Scenario 1	Existing airspace protection	-	-	-	-
Scenario 4	TERPS Only	-	-	-	-
Scenario 7	Straight-Out ICAO OEI surface protection without West OEI Corridor	-	-	-	-
	Existing Conditions: 85' - 166' AGL	-	-	-	-
	Opt 10A: 100' - 195' AGL	-	-	-	-
Scenario 10	Opt 10B: 115' - 224' AGL	-	-	-	-
	Opt 10C: 129' - 240' AGL	-	-	-	-
	Opt 10D: 146' - 260' AGL	-	-	-	-
	TERPS only with increased TERPS				
Scenario 9	departure climb gradients and approach	-	2,537	3	-
	procedure minima				
	Hawaii - HNL	A321 NEO (189	seats/21,658 lbs.)	B737-800 (175 se	ats/1,599 lbs. cargo)
9	Summer (81.3° F)	PAX Penalty	Cargo Penalty (lbs.)	PAX Penalty	Cargo Penalty (lbs.)
Scenario 1	Existing airspace protection	-	-	-	-
Scenario 4	TERPS Only	-	593	-	-
Cooperio 7	Straight-Out ICAO OEI surface protection				
Scenario 7	without West OEI Corridor	-	-	-	-
	Existing Conditions: 85' - 166' AGL	-	-	-	-
	Opt 10A: 100' - 195' AGL	-	-	-	-
Scenario 10	Opt 10B: 115' - 224' AGL	-	-	-	-
	Opt 10C: 129' - 240' AGL	-	-	-	-
	Opt 10D: 146' - 260' AGL	-	-	-	
	TERPS only with increased TERPS				
Scenario 9	departure climb gradients and approach		3,565	1	1,599

#### Notes:

1. HNL is fuel capacity limited in Feb to 173 PAX and no cargo (i.e., not a takeoff weight limitation) for the B737-800.



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## WEIGHT PENALTY ASSESSMENT – ANC, BOS AND MIA

#### Notes:

1. 1 and 3 Pax penalties as being due to Max Structural Takeoff Weight limits (and not related to the obstacles or runway length.)

	Anchorage - ANC	A320 (150 seat	:s/1,379 lbs. cargo)	B737-800 (175 se	eats/7,100 lbs. cargo)	
9	Summer (81.3° F)	PAX Penalty	Cargo Penalty (lbs.)	PAX Penalty	Cargo Penalty (lbs.	
Scenario 1	Existing airspace protection	-	-	-	-	
Scenario 4 TERPS Only		-	-	-	-	
	Boston - BOS	A320 (150 se	eats/0 lbs. cargo)	B737-800 (175	seats/0 lbs. cargo)	
9	Summer (81.3° F)	PAX Penalty	Cargo Penalty (lbs.)	PAX Penalty	Cargo Penalty (lbs	
Scenario 1	Existing airspace protection	7	-	1	-	
Scenario 4	TERPS Only	23		1	-	
	Miami - MIA	A320 (150 se	eats/0 lbs. cargo)	B737-800 (175	seats/0 lbs. cargo)	
9	Summer (81.3° F)	PAX Penalty	Cargo Penalty (lbs.)	PAX Penalty	Cargo Penalty (lbs	
Scenario 1	Existing airspace protection	1	-	3	-	
Scenario 4	TERPS Only	17		3	_	





### WEIGHT PENALTY ASSESSMENT – INTERNATIONAL MARKETS

- Assessment is underway to further evaluate Scenario 4
- Review of the following potential SJC markets
  - Rio
  - Taipei
  - Hong Kong
  - Delhi
  - Dubai
- Review of the following aircraft types
  - A350-9
  - A330
  - B787-9
  - B777-300





## AVIATION DIRECT ECONOMIC IMPACT ASSESSMENT





## METHODOLGY – AIRLINE COST

- Impacted flights calculated using percent of Southeast Flow departures
- Weight penalties for markets in winter and summer
- Account for airline load factors (average occupied seats)
- Annual passengers lost = lost passengers per flight X annual operations impacted
- Lost passenger cost
  - Average revenue per passenger to each market
  - Voucher cost (assume \$200, no industry average data available)

Season	Percentage of Southeast Departures
Winter	22.30%
Summer	7.00%
Total	13.00%

Airline Load Factor by Market									
Region	Winter	Summer							
Hawaii – SJC	89.70%	90.50%							
Transcontinental – SJC	84.90%	82.20%							
Europe – Bay Average	73.00%	87.20%							
Asia – Bay Average	78.10%	81.50%							



## ASSUMPTIONS – AIRLINE COST

- BTS O&D Survey was used to calculate revenue per one-way, nonstop passenger revenue excluding fees and taxes
- Representative aircraft used in weight penalty analysis on routes

### **Airline Cost Per Passenger**

Market	Passenger Revenue	Voucher	Total Airline Cost	Aircraft	Seats
Hawaii	\$251	\$200	\$451	A321 NEO	189
Паман	\$231	<b>\$200</b>	<b>\$451</b>	B737-800	173
Transcentinental	\$211	\$200	\$411	A320-200	150
Transcontinental	\$211	\$200	<b>3411</b>	B737-800	175
Europe	\$658	\$200	\$858	B787-9	290
Asia	\$683	\$200	\$883	B787-9	290





#### ASSUMPTIONS – AIRPORT REVENUE AND LOCAL ECONOMIC SPENDING

- The number of annual passengers lost was calculated by multiplying the lost passengers by annual operations impacted
- Aircraft operations data based upon 2018 flight operations
- Airport Revenue Loss
  - Passenger Facility Charge (PFC): \$4.39 per outbound passenger
  - Airport concession revenue: \$2.26 per passenger
- Local Economic Spending Loss
  - Terminal Concession Spending: \$13.60 per passenger (includes \$2.26 airport concessions portion)
  - Local International Visitor Spending: \$746.94 per passenger
  - Local Domestic Visitor Spending \$433.01 per passenger



#### SUMMARY OF 2018 ANNUAL DIRECT IMPACTS BY SCENARIO HISTORICAL LOAD FACTORS

	Summary of Losses	Airline Revenue	PFC Revenue	Terminal Concession Spending	Local Visitor Spending	Total
Scenario 1	Existing airspace protection	\$0	\$0	<b>\$0</b>	\$0	\$0
Scenario 4	TERPS Only	\$56,000	\$1,000	\$2,000	\$55,000	\$114,000
Scenario 7	Straight-Out ICAO OEI surface protection without West OEI Corridor	\$0	\$0	\$0	\$0	\$0
	Existing Conditions: 85' - 166' AGL	\$0	\$0	<b>\$0</b>	\$0	\$0
	Opt 10A: 100' - 195' AGL	\$0	\$0	\$0	\$0	\$0
Scenario 10	Opt 10B: 115' - 224' AGL	\$0	\$0	\$0	\$0	\$0
	Opt 10C: 129' - 240' AGL	\$0	\$0	\$0	\$0	\$0
	Opt 10D: 146' - 260' AGL	\$0	\$0	\$0	\$0	\$0
Scenario 9	TERPS only with increased TERPS departure climb gradients and approach procedure minima	\$2,247,000	\$25,000	\$74,000	\$1,618,000	\$3,976,000



## SUMMARY OF 2018 ANNUAL DIRECT IMPACTS LOAD FACTOR SENSITIVTY TEST

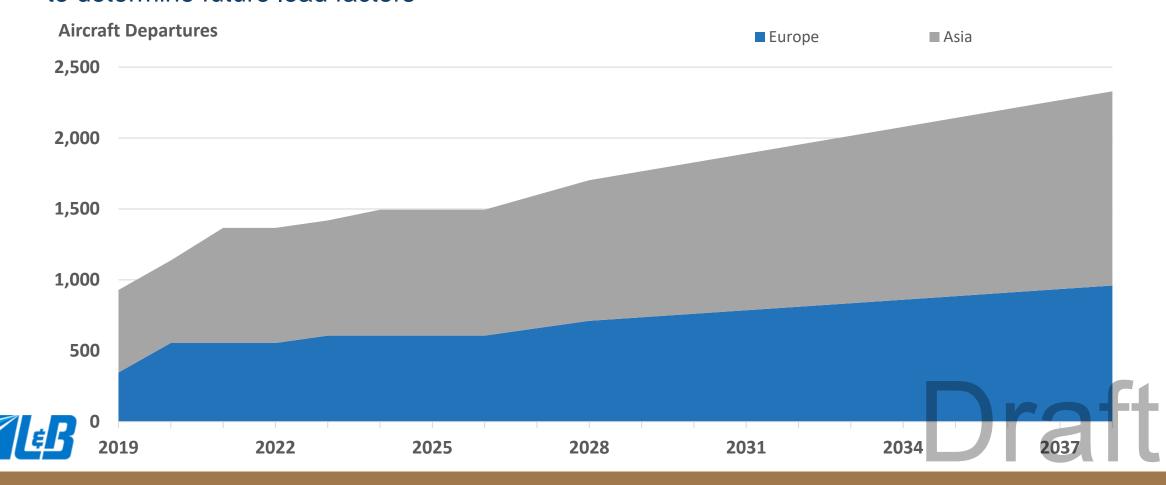
	Summary of Losses	Baseline Load Factor	85% Load Factor	90% Load Factor	95% Load Factor
Scenario 1	Existing airspace protection	\$0	\$0	\$0	\$0
Scenario 4	TERPS Only	\$114,000	\$1,070,000	\$2,716,000	\$4,306,000
Scenario 7	Straight-Out ICAO OEI surface protection without West OEI Corridor	\$0	\$0	\$79,000	\$1,439,000
	Existing Conditions: 85' - 166' AGL	\$0	\$0	\$0	\$0
	Opt 10A: 100' - 195' AGL	\$0	\$0	\$0	\$0
Scenario 10	Opt 10B: 115' - 224' AGL	\$0	\$0	\$0	\$0
	Opt 10C: 129' - 240' AGL	\$0	\$0	\$0	\$67,000
	Opt 10D: 146' - 260' AGL	\$0	\$0	\$663,000	\$2,308,000
Scenario 9	TERPS only with increased TERPS departure climb gradients and approach procedure minima	\$3,964,000	\$5,615,000	\$7,510,000	\$10,164,000





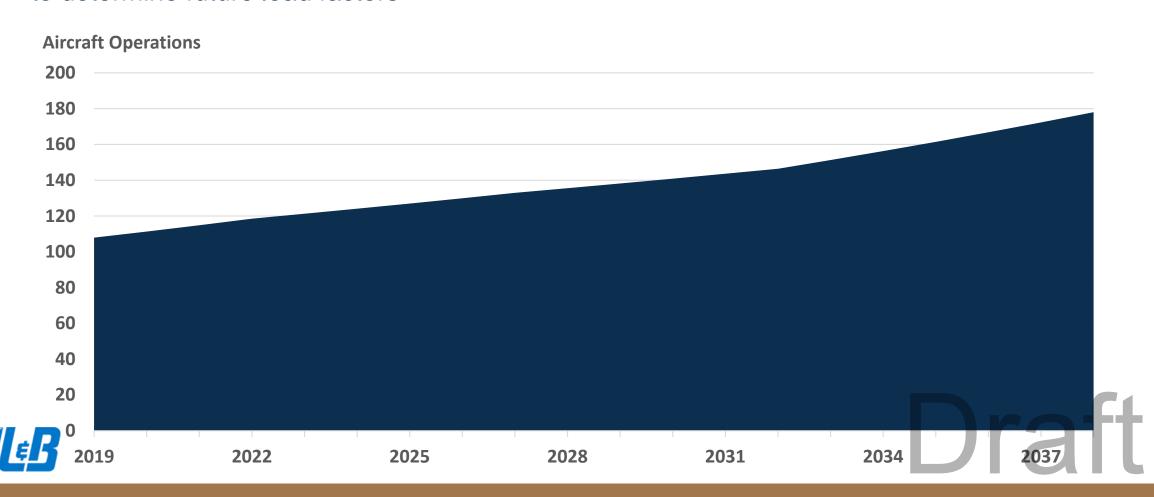
## INTERNATIONAL DEPARTURE FORECAST

- 2019 through 2028 were obtained from the SJC unconstrained international forecast
- A trend analysis was performed for 2029 through 2038
- The year-over-year passenger growth multiplied by the load factors gathered from BTS T100 to determine future load factors



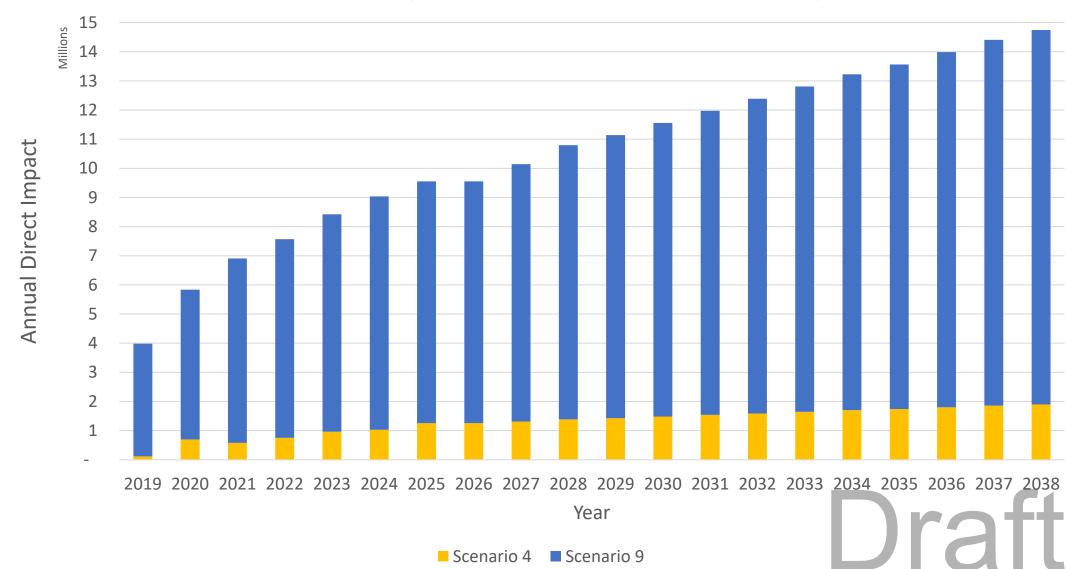
## DOMESTIC OPERATIONS FORECAST

- 2019 through 2037 were obtained from the SJC domestic forecast. 2038 was estimated based on the previous year's growth.
- The year-over-year passenger growth multiplied by the load factors gathered from BTS T100 to determine future load factors



## SUMMARY OF 20-YEAR DIRECT IMPACTS

#### Annual Aviation Impact with Baseline Load Factor Assumption





## SUMMARY OF 20-YEAR DIRECT IMPACTS WITH LOAD FACTOR SENSITIVITY TEST





## SUMMARY OF 20-YEAR CUMULATIVE DIRECT IMPACTS LOAD FACTOR SENSITIVTY TEST

Cumu	lative Summary of Losses	Baseline Load Factor	85% Load Factor	90% Load Factor	95% Load Factor
Scenario 1	Existing airspace protection	\$0	\$0	\$0	\$0
Scenario 4	TERPS Only	\$26,034,000	\$89,217,000	\$148,827,000	\$203,596,000
Scenario 7	Straight-Out ICAO OEI surface protection without West OEI Corridor	\$0	\$2,031,000	\$47,238,000	\$101,472,000
	Existing Conditions: 85' - 166' AGL	\$0	\$0	\$0	\$0
	Opt 10A: 100' - 195' AGL	\$0	\$0	\$0	\$0
Scenario 10	Opt 10B: 115' - 224' AGL	\$0	\$0	\$0	\$0
	Opt 10C: 129' - 240' AGL	\$0	\$0	\$2,255,000	\$49,906,000
	Opt 10D: 146' - 260' AGL	\$0	\$19,636,000	\$76,975,000	\$131,655,000
Scenario 9	TERPS only with increased TERPS departure climb gradients and approach procedure minima	\$211,596,000	\$285,294,000	\$385,051,000	\$455,005,000



#### **NEXT FIVE MONTHS: NOVEMBER 2018 TO MARCH 2019**

- Continue to meet with airline representatives
- Complete additional international aircraft payload/range analysis
- Complete economic impact analysis
- December 13, 2018: Project Steering Committee Meeting
- December 2018: Develop internal strategy recommendation
- January 2019: Stakeholder update meeting
- January 28, 2018: Present strategy recommendation to CEDC
- February/March 2019: Strategy recommendation to City Council





## **APPENDIX**





## KEY ECONOMIC OUTPUTS

Output	Value	Source
All-In Residential Construction Cost*	\$534.51/sf	JLL
All-In Office Construction Cost <sup>†</sup>	\$303.40/sf	JLL
Property Tax Millage Rate (City Only)	0.12660 per \$100 in assessed value	Santa Clara County
Annual New Construction Residential Tax Revenue	\$0.68/sf	JLL
Annual New Construction Office Tax Revenue	\$0.38/sf	JLL
New Residents	Average of 1 new resident per 596 rentable square feet	JLL survey of new construction Downtown
New Employees	Average of 1 new employee per 185 rentable square feet	JLL survey of 90 JLL clients with 550+ million square feet under management

<sup>\*</sup> Includes parking; excludes land; factors in 3% inflation per year

<sup>†</sup> Includes parking @ \$40,000/space, TI allowance, commission; excludes land; factors in 3% inflation per year





## KEY ECONOMIC OUTPUTS (CONT'D)

Output	Value	Source
Plan Review Fee	Office: \$172 per 1,000 sf above 40,000 sf Residential: \$418 per 1,000 sf above 40,000 sf	City of San Jose
Inspection Fee	Office: \$112 per 1,000 sf above 40,000 sf Residential: \$502 per 1,000 sf above 40,000 sf	City of San Jose
CRMP	Office: 3.00% of valuation Residential: 2.42% of valuation	City of San Jose
Building and Structure Construction Tax	Office: 1.50% of valuation Residential: 1.54% of valuation	City of San Jose
Construction Tax	Office: \$0.08 per sf Residential: \$75 - \$100 per unit	City of San Jose
Residential Construction Tax	\$90 - \$180 per unit	City of San Jose
New Construction Fee	Office/Residential: \$0.56 per sf	San Jose Unified School District
Park Impact Fee (Residential Only)	\$14,600 per unit	City of San Jose

Note: Does not include SMIPA or BSARSF.



## ANNUAL TAX REVENUE (ANNUALIZED) IN DIRIDON STATION

Scenario	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$450,600	\$450,600	\$450,600	\$450,600	\$450,600	\$450,600
7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$450,600	\$450,600	\$450,600	\$450,600	\$450,600	\$450,600
9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$450,600	\$450,600	\$450,600	\$450,600	\$450,600	\$450,600
10A	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$450,600	\$250,700	\$6,200	\$0	\$0	\$0
10B	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$450,600	\$450,600	\$450,600	\$450,600	\$181,600	\$19,200
10C	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$450,600	\$450,600	\$450,600	\$450,600	\$450,600	\$450,600
10D	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$450,600	\$450,600	\$450,600	\$450,600	\$450,600	\$450,600

Note: assumes a straight-line increase in office and residential development based on historical absorption/delivery pace. Values are net new tax revenues each year and are not cumulative.





## ONE-TIME FEES (ANNUALIZED) FOR DIRIDON STATION

(\$ millions)

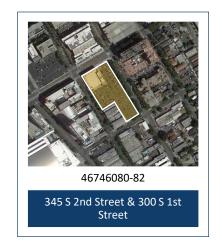
Scenario	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
4	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.97	\$22.97	\$22.97	\$22.97	\$22.97	\$22.97
7	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.97	\$22.97	\$22.97	\$22.97	\$22.97	\$22.97
9	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.97	\$22.97	\$22.97	\$22.97	\$22.97	\$22.97
10A	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.97	\$13.18	\$0.59	\$0.00	\$0.00	\$0.00
10B	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.97	\$22.97	\$22.97	\$22.97	\$9.80	\$1.85
10C	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.97	\$22.97	\$22.97	\$22.97	\$22.97	\$22.97
10D	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$22.97	\$22.97	\$22.97	\$22.97	\$22.97	\$22.97

Note: assumes a straight-line increase in office and residential development based on historical absorption/delivery pace.



## AERIALS OF SELECTED DOWNTOWN SITES



















## EXISTING DENSITY AND INCREASES FOR DOWNTOWN SITES

Address			Scena	rio 4	Scena	rio 9
	Parcel Area	Max Existing Potential SF	Max SF Increase	% Max SF Increase	Max SF Increase	% Max SF Increase
66 N Market St (Approximate)	170,017	2,441,000	0	0%	300,000	12%
345 S 2nd Street & 300 S 1st Street	123,173	2,232,000	Not Impacted	Not Impacted	782,000	35%
282 S Market St	65,781	1,090,000	52,000	5%	363,000	33%
333 W San Fernando St	62,242	910,000	101,000	11%	202,000	22%
60 S Almaden Ave	61,874	966,000	107,000	11%	215,000	22%
174 S 2nd St	58,456	981,000	Not Impacted	Not Impacted	187,000	19%
115 Terraine St	55,200	653,000	44,000	7%	174,000	27%
8 E San Fernando St	43,513	754,000	36,000	5%	144,000	19%
Museum Place	107,815	988,203 (planned)	100,000	10%	250,000	25%



333 San Ferndando St Adobe Tower 4 Planned SF: 750k Site Capacity: 859k-909k



60 S Almaden Ave Former Greyhound Site Planned SF: 622k (JLL est.) Site Capacity: 980k



## ASSUMPTIONS – ADJUSTED SEATING CAPACITY

	Winter											
Aircraft Data		Adjusted Seating Capacity Based on LFs										
Aircraft	Aircraft Seat Capacity (Max)	Hawaii (89.70% LF)	Transcontinental (84.90% LF)	Europe (73.00% LF)	Asia (78.10% LF)							
A320-200	150		127									
A321 NEO	189	170										
B737-800 (Transcon)	175		149									
B737-800 (Hawaii)	173	155										
B787-9	290			212	226							
		Summer										
Aircraft Data		Adjusted Seating Capacity Based on LFs										
Aircraft	Aircraft Seat Capacity (Max)	Hawaii (90.50% LF)	Transcontinental (82.20% LF)	Europe (87.20% LF)	Asia (81.50% LF)							
A320-200	150		123									
A321 NEO	189	171										
B737-800 (Hawaii & Transcon)	175	158	144									
B787-9	290			253	236							



## PASSENGER PENALTY VS EMPTY SEATS SUMMARY

Destination (Season)	Aircraft Type	Aircraft Seat Capacity	Load Factor	Load Factor Seat Count	Available Empty Seats Due to Load Factor	Additional PAX Lost In Excess of Load Factor	Scenarios Impacted	
Llovesii (NA/imtor)	A321 NEO	189	89.70%	170	19	0	Scenarios 1,4,7,9 & 10	
Hawaii (Winter)	B737-800	173	89.70%	155	18	0	Scenarios 1,4,7,9 & 10	
Llavvaii (Cvmama am)	A321 NEO	189	90.50%	171	18	0	Scenarios 1,4,7,9 & 10	
Hawaii (Summer)	B737-800	175	90.50%	158	17	0	Scenarios 1,4,7,9 & 10	
Troposo (NA/: n+o v)	A320-200	150	84.90%	127	23	0	Scenarios 1,4,7,9 & 10	
Transcon (Winter)	B737-800	175	84.90%	149	26 0		Scenarios 1,4,7,9 & 10	
Transcon	A320-200	150	82.20%	123	27	0	Scenarios 1,4,7,9 & 10	
(Summer)	B737-800	175	82.20%	144	.44 31 0		Scenarios 1,4,7,9 & 10	
Asia (Winter)	B787-9	290	78.10%	226	64	0	Scenarios 1,4,7 & 10	
Asia (Winter)	B787-9	290	78.10%	226	64	30	Scenario 9	
Asia (Summer)	B787-9	290	81.50%	236	54	0	Scenarios 1,4,7 & 10	
Asia (Summer)	B787-9	290	81.50%	236	54	41	Scenario 9	
Europe (Winter)	B787-9	290	73.00%	212	78	0	Scenarios 1,4,7 & 10	
Europe (Winter)	B787-9	290	73.00%	212	78	0	Scenario 9	
Europe (Summer)	B787-9	290	87.20%	253	37	0	Scenarios 1,4,7 & 10	
Europe (Summer)	B787-9	290	87.20%	253	37	4	Scenario 9	
							100++	



## LOST PFC REVENUE

	Total	Annual Flights Impacted	Anuual Lost Passengers	Lost Revenue Per Year
Scenario 1	Existing airspace protection	583	-	\$0
Scenario 4	TERPS Only	583	201	\$884
Scenario 7	Straight-Out ICAO OEI surface protection without West OEI Corridor	583	-	\$0
	Existing Conditions: 85' - 166' AGL	583	-	<b>\$0</b>
	Opt 10A: 100' - 195' AGL	583	-	\$0
Scenario 10	Opt 10B: 115' - 224' AGL	583	-	\$0
	Opt 10C: 129' - 240' AGL	583	-	\$0
	Opt 10D: 146' - 260' AGL	583	-	\$0
Scenario 9	TERPS only with increased TERPS departure climb gradients and approach procedure minima	583	5,794	\$25,435



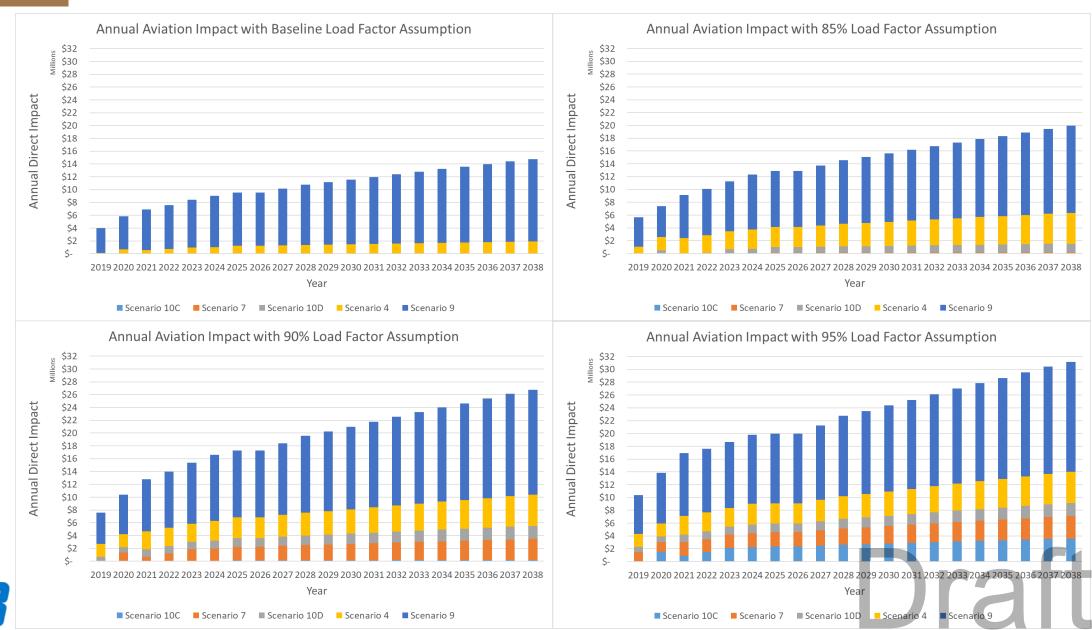
## REVENUE LOSS SUMMARY

 No lost revenue per year for Hawaii and Transcontinental departures under any airspace scenario

Market	Airspace Scenario	Lost Passengers Per Flight	Annual Departures	Flights Impacted	Airline Lost Revenue Per Year	Airport Concessions Lost Revenue Per Year	Terminal Concessions Lost Revenue Per Year	Lost Visitors Per Flight	Local Visitor Spending Lost Revenue Per Year
Europe	Scenario 1, 4, 7 & 10	0	359	47	\$0	\$0	\$0	0	\$0
	Scenario 9	4	359	47	\$38,000	\$400	\$2,000	2	\$70,000
Asia	Scenario 1, 7 & 10	0	582	74	\$0	\$0	\$0	0	\$0
	Scenario 4	2	582	74	\$43,000	\$400	\$2,000	1	\$55,000
	Scenario 9	71	582	74	\$1,699,000	\$12,000	\$72,000	28	\$1,548,000



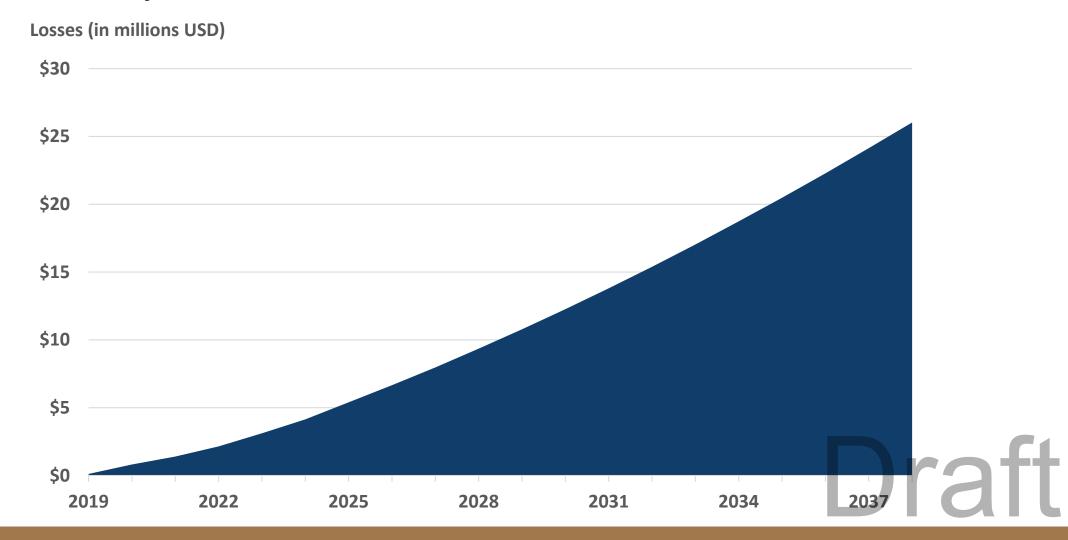
## SUMMARY OF 20-YEAR DIRECT IMPACTS WITH LOAD FACTOR SENSITIVITY TEST





## SCENARIO 4 CUMULATIVE SUMMARY OF LOSSES

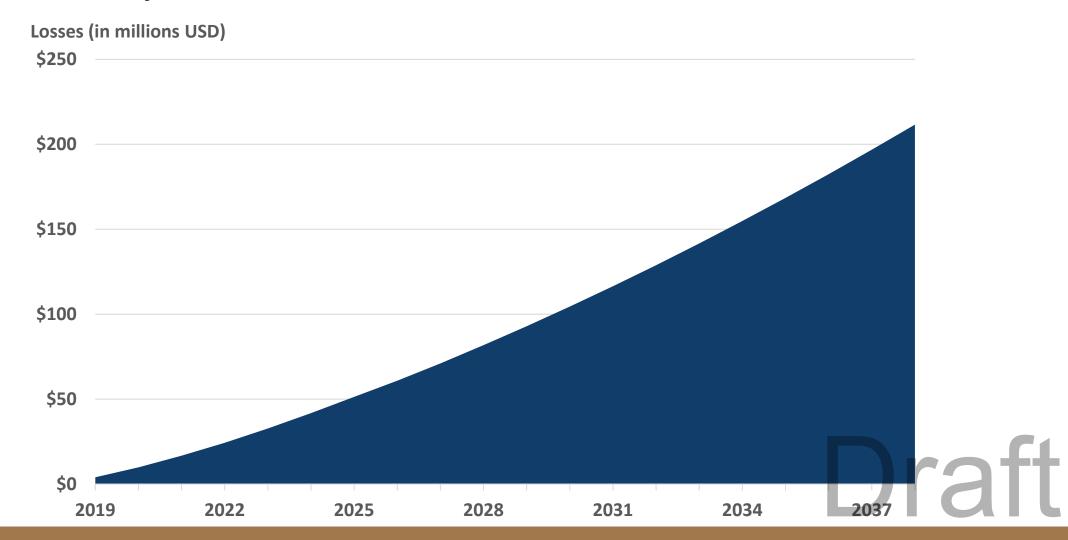
 Scenario 4 is forecast to result in approximately \$26.0 million over the next 20 years.





## SCENARIO 9 CUMULATIVE SUMMARY OF LOSSES

 Scenario 9 is forecast to result in approximately \$211.6 million over the next 20 years.





## SUMMARY OF 20-YEAR CUMULATIVE DIRECT IMPACTS

Cumi	Cumulative Summary of Loses		PFC Revenue	Terminal Concession Spending	Local Visitor Spending	Total
Scenario 1	Existing airspace protection	\$0	\$0	\$0	\$0	\$0
Scenario 4	TERPS Only	\$12,762,000	\$192,000	\$637,000	\$12,443,000	\$26,034,000
Scenario 7	Straight-Out ICAO OEI surface protection without West OEI Corridor	\$0	\$0	\$0	\$0	\$0
Scenario 9	TERPS only with increased TERPS departure climb gradients and approach procedure minima	\$119,389,000	\$1,231,000	\$4,791,000	\$86,185,000	\$211,596,000
	Existing Conditions: 85' - 166' AGL	\$0	\$0	\$0	\$0	\$0
	Opt 10A: 100' - 195' AGL	\$0	\$0	\$0	\$0	\$0
Scenario 10	Opt 10B: 115' - 224' AGL	\$0	\$0	\$0	\$0	\$0
	Opt 10C: 129' - 240' AGL	\$0	\$0	\$0	\$0	\$0
	Opt 10D: 146' - 260' AGL	\$0	\$0	\$0	\$0	\$0



