TEMPE ENTERTAINMENT DISTRICT

Proposed $1.7 Billion Mixed Use Development

May 2022

Gensler

SPORTS

Executive Summary

- **Developer Transparency / Cooperation:** Since Developer's September 2021 commitment, we've held 5 meetings with airport technical team
- **FAA Compliance:** TED will comply with all FAA regulations and we will not seek any special exemptions
- **Part 150 Residential Land Use Compatibility:** Residential construction *with sound insulation,* including protections to the City of Phoenix, is an allowable land use
- **Residential Construction within 65 DNL Noise Contour:** Occurs throughout the US and is not an onerous standard based on current construction methods and materials

Executive Summary

- **Official Noise Exposure Map:** Last FAA approved Part 150 Noise Exposure Map is from 1999. Tempe utilized its discretion in allowing 15 developments within 65 DNL contour around Tempe Town Lake totaling over 3,600 residential units
- **TED Proposed Construction Cranes:** TED's proposed 155-165' construction cranes will receive a favorable FAA determination, similar to Carvana's new campus 190' construction crane across the street from TED and located at the same distance to airport
- **Arthur B. Little / Sky Harbor Economic Loss Analysis:**
  - Utilizes incorrect construction crane heights which exaggerates OEI penetrations
  - Ties economic losses to forecasted runway delays from these construction cranes
    - Similar *and even taller* construction cranes **did not** cause increased runways delays for the airport (FAA OPSNET delay data)

1. Part 150 Program: 1994 IGA

Tempe agreed to follow the Federal Aviation Regulations under the Part 150 program in the 1994 IGA.

3. Land Use

Tempe and Phoenix agree to take all actions necessary, consistent with applicable laws and regulations, to implement the land use management strategies recommended in the F.A.R. Part 150 Noise Compatibility Plan and Program. Tempe, consistent with applicable laws and regulations, will take such measures as are necessary to ensure that new development undertaken in connection with the Rio Salado project or in noise sensitive environs within its jurisdiction will be compatible with the noise levels predicted in the F.A.R. Part 150 Noise Compatibility Plan and Program.

1. Part 150 Program: Residential Compatibility

Sky Harbor Part 150 Noise Compatibility Study (Chapter 3 - Page 2)

"The FAA guidelines outlined in Exhibit 3A show that residential development including **standard construction** (residential construction **without** special acoustical treatment), mobile homes and transient lodging are incompatible with noise above 65 DNL. Homes of standard construction and transient lodging may be considered **compatible where local communities have determined these uses are permissible, however sound insulation measures are recommended**."

1. Part 150 Program: Protections to the City of Phoenix

Sky Harbor Part 150 Noise Compatibility Study (Chapter 5 - Page 12)

TABLE 5B
Potential Land Use Compatibility Standards
Phoenix Sky Harbor International Airport

SLUCM No.	Land Use Name	Noise Zones/Levels in DNL AIA	N-1 65-70	N-2 70-75	N-3 75+
10	**Residential**				
11	Household Units	Y[5,7]	Y[1,5,7]	Y[1,5,7]	N
11.11	Single Units - detached	Y[5,7]	Y[1,5,7]	Y[1,5,7]	N
11.12	Single Units - semi-detached	Y[5,7]	Y[1,5,7]	Y[1,5,7]	N
11.13	Single Units - attached row	Y[5,7]	Y[1,5,7]	Y[1,5,7]	N
11.21	Two Units side-by-side	Y[5,7]	Y[1,5,7]	Y[1,5,7]	N
11.22	Two Units over-under	Y[5,7]	Y[1,5,7]	Y[1,5,7]	N
11.31	Apartments - walk-up	Y[5,7]	Y[1,5,7]	Y[1,5,7]	N
11.32	Apartments - elevator	Y[5,7]	Y[1,5,7]	Y[1,5,7]	N
12	Group Quarters	Y[5,7]	Y[1,5,7]	Y[1,5,7]	N
13	Residential Hotels	Y[5]	Y[1,5]	Y[1,5]	N
14	Mobile Home in and out of Parks[6]	N	N	N	N
15	Transient Lodgings, Hotels, Motels	Y[5]	Y[1,5]	Y[1,5]	Y[3,5]
16	Other Residential	Y	Y	Y	N

1. Noise Attenuation/Insulation & Avigation Agreement with City of Phoenix

All residences in the N-1 and N-2 Zones are marginally noise compatible. As a condition of issuance of a building permit, the builder of the dwelling shall soundproof to achieve a 25 dB reduction from outdoor noise levels (NLR) in the N-1 Zone and a 30 dB NLR in the N-2 Zone. All such soundproofed residential units should be provided with heating, cooling, and ventilation systems capable of permitting closed windows and doors year round. An avigation easement for noise also shall be provided to the City of Phoenix.

5. Noise Easement and Non-Suite Covenant to the City of Phoenix

A noise easement and non-suit covenant should be provided to the City of Phoenix for all new residential development and other specified noise-sensitive uses.

7. Fair Disclosure Agreement & Covenant

A fair disclosure agreement and covenant shall be recorded as a condition of development approval for all permitted uses.

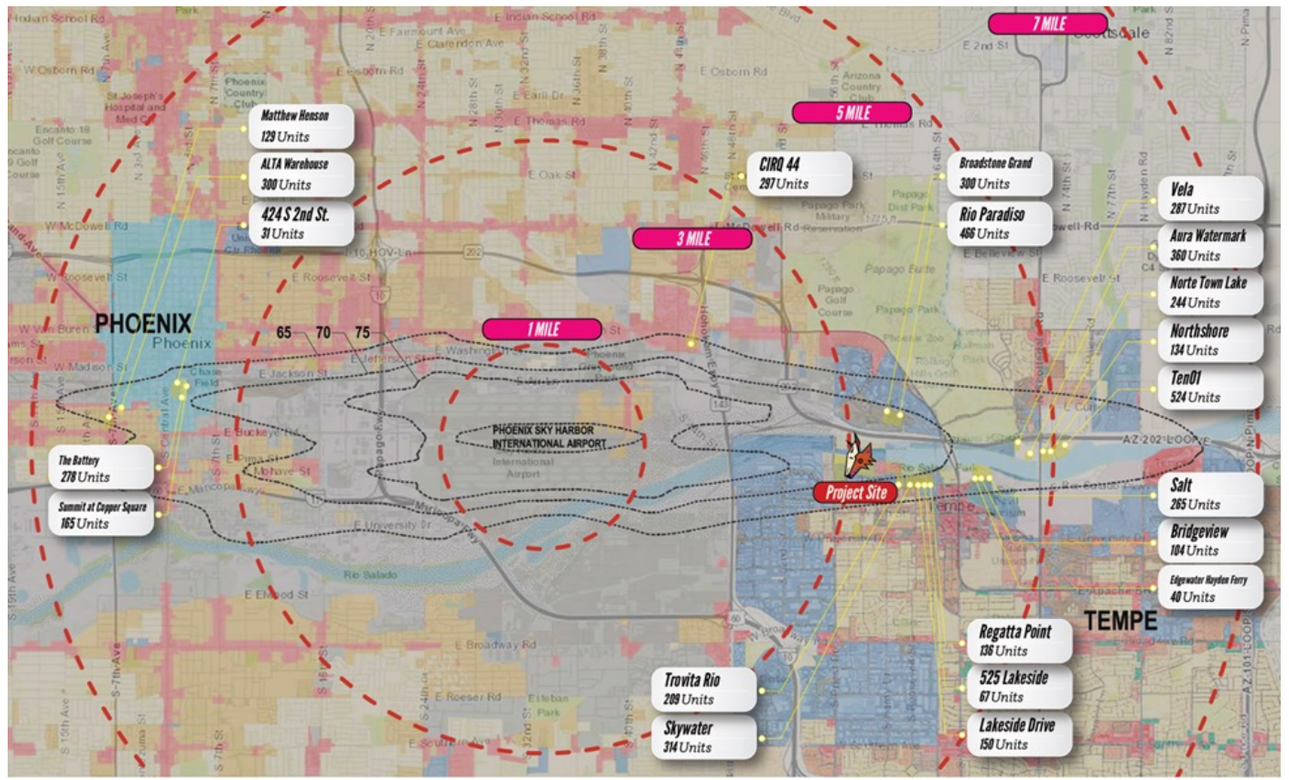
1. Part 150 Program: Official Noise Exposure Map ("NEM")

FAA Part 150 Program Page

Airport Noise and Land Use Information Links		
Airport (3-letter Identifier) *	**Airport Noise and Land Use Information**	**Date FAA Determined NEMs to be Prepared in Compliance with Part 150 ****
Arizona		
Sky Harbor International Airport, Phoenix (PHX)	Noise Information Page Map (PDF) (1999)	10/10/2000

https://www.faa.gov/airports/environmental/airport_noise/noise_exposure_maps/

Official NEM Map With New Residential Development Overlay



Tempe New Residential Units: 3,600

Phoenix New Residential Units: 1,200

2. Acoustical Engineer Discussion

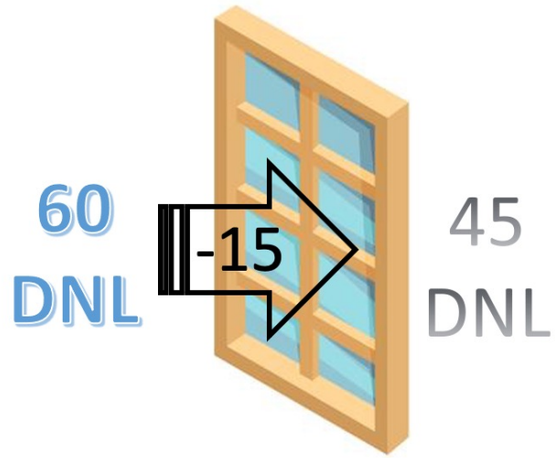
- **Veneklasen has designed over 300,000 residential units for transportation noise created by aircraft, rail, and road vehicles in the last 25 years.**
- **Residential housing in areas exceeding 60 DNL is regularly developed**
- **Veneklasen has worked on each development project listed below within aircraft noise exposure zones**

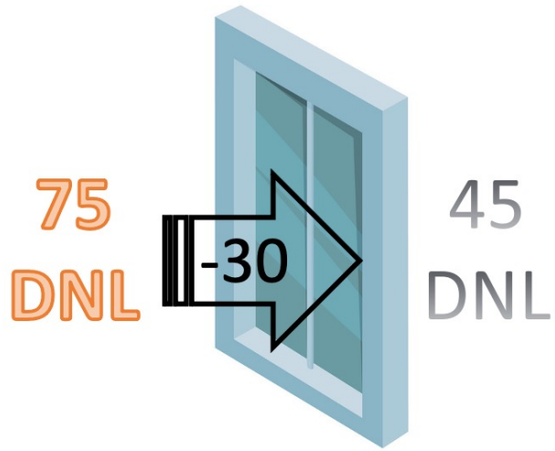
Airport	Site DNL	Year	Project Location
PHX	67	2022	Phoenix , Arizona
PHX	66	2019	Tempe, Arizona
PHX	68	2017	Phoenix, Arizona
PHX	67	2006	Tempe, Arizona
PHX	62	2015	Tempe, Arizona
PHX	75	2004	Phoenix, Arizona
DAL	66	2018	Dallas, Texas
FUL	72	2019	Buena Park, California
ATL	72	2021	Hapeville, Georgia
SNA	72	2019	Costa Mesa, California
SNA	71	2015	Santa Ana, California
SNA	66	2012	Newport Beach, California
LGB	73	2020	Long Beach, California
LAX	73	2019	Los Angeles, California
LAX	68	2018	Los Angeles, California
LAX	77	2018	Los Angeles, California

Airport	Site DNL	Year	Project Location
LAX	65	2018	El Segundo, California
LAX	62	2019	El Segundo, California
LAX	70	2019	El Segundo, California
LAX	70	2019	El Segundo, California
LAX	66	2020	El Segundo, California
LAX	70	2021	El Segundo, California
NKX	70	2021	San Diego, California
MSP	64	2014	Bloomington , Minnesota
MSP	64	2017	Bloomington , Minnesota
MSP	68	2018	Bloomington , Minnesota
MSP	71	2019	Minneapolis, Minnesota
MSP	70	2007	Bloomington , Minnesota
SJC	70	2018	San Jose, California
SJC	71	2015	Santa Clara, California
VUO	69	2019	Vancouver , Washington
SEA	70	2018	Des Moines, Washington

2. Acoustical Engineer Discussion

- Air traffic is not the only source that generates levels in excess of 60 DNL. Other environmental sources (vehicles, rail traffic) also can.
- A summary of residential projects in high DNL (75+) areas, from vehicular and/or rail traffic, can be presented for more detail.
- Exterior façade for each project designed to mitigate to acceptable interior level (45 DNL or less).

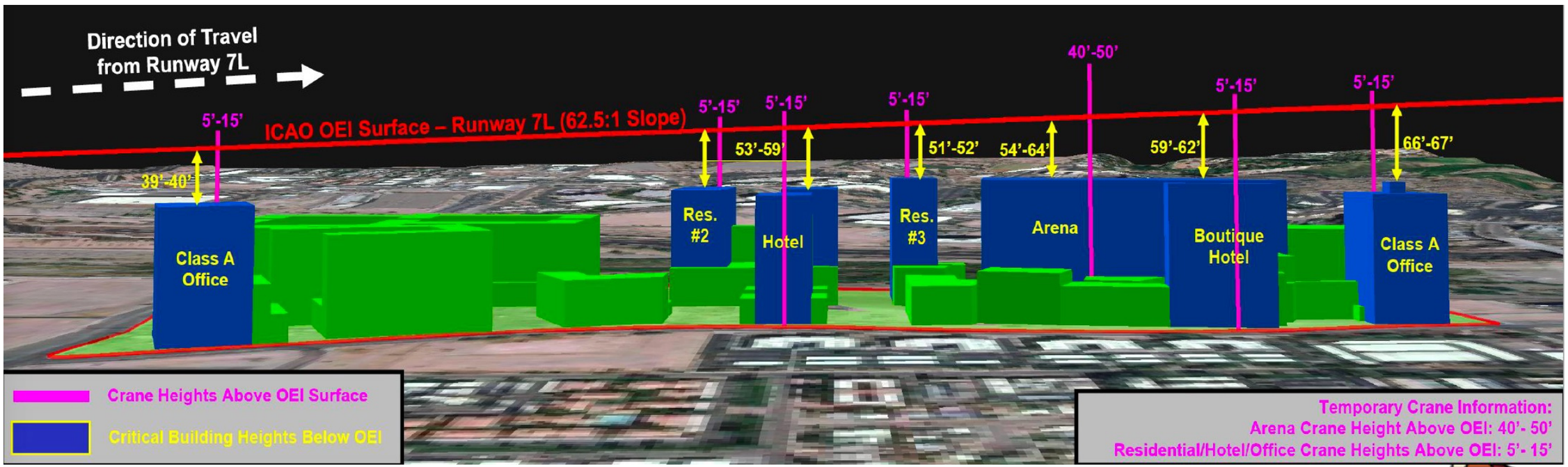




DNL	Project Count	Years
85-87	7	2014-2022
80-84	15	2006-2021
75-79	42	2006-2022

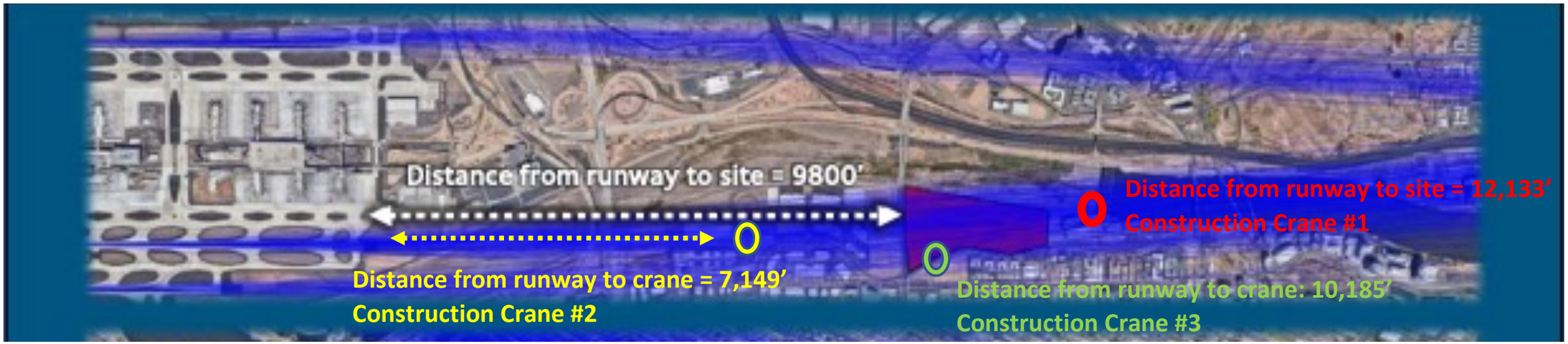
3. Construction Crane Analysis

- Sky Harbor circulated the below graphic to airlines, city council members and PAAB. **<u>It is inaccurate and is being used to fabricate economic losses</u>**
- No TED construction cranes will protrude the OEI surface for 7L as depicted below in the airport's graphic, except for the Arena construction crane which will only temporarily protrude the OEI surface by 16 to 26' and only for a period of 21 days over a 3 month time period



3. Crane Case Study Analysis: Eastflow Comparables

Flight Tracks Overlaid with Comparable FAA Approved Construction Cranes Exceeding OEI



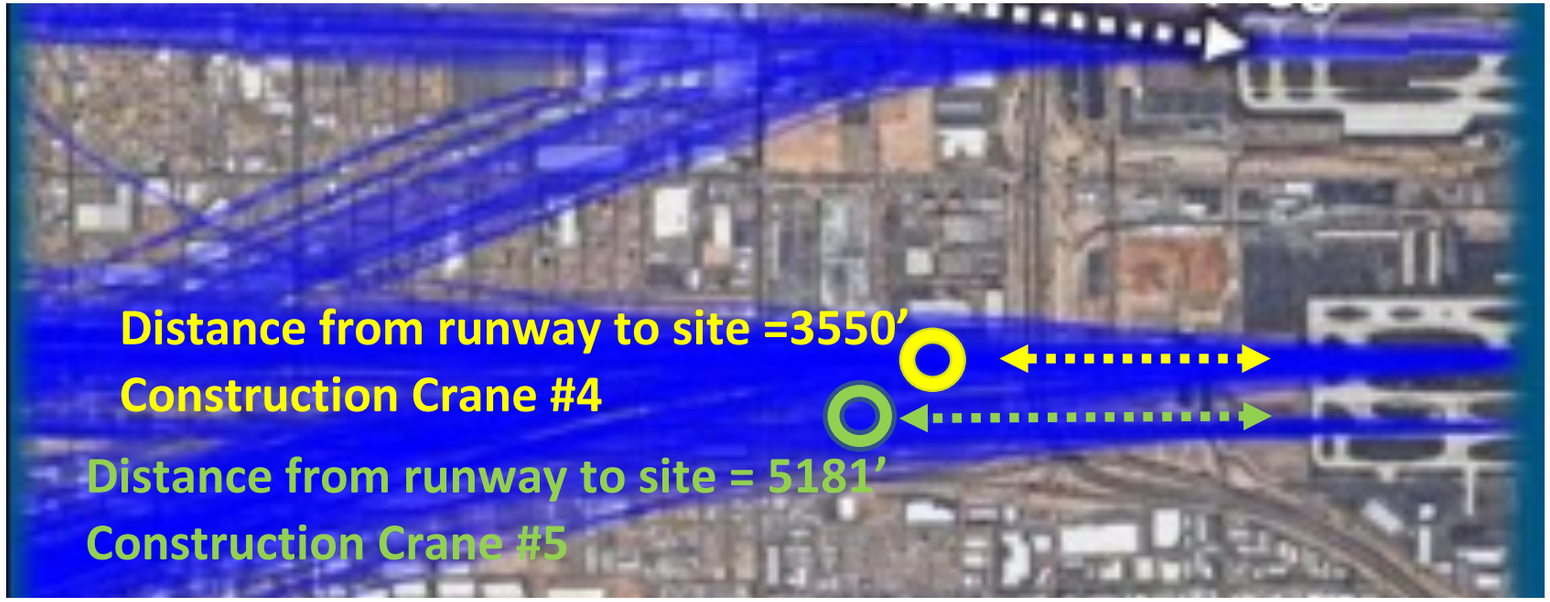
EASTFLOW FAA SKYHARBOR DELAY DATA (OPSNET)

#		Crane Duration	Year	Crane Height	OEI Penetration	Equivalent Crane Height on TED Site	Runway Delays During Time Period	Average Runway Delays Since 2017[1]	Comment
1	IDEA Campus Phase I	59 days	2019	190'	5'	**154'**	44 delays	53 delays	No evidence of incremental delays from construction crane
2	Donor Network Crane	60 days	2019	177'	63'	**242'**	28 delays	32 delays	No evidence of incremental delays from construction crane
3	Carvana Campus	61 days	2022	190'	28'	**190'**	NAV	NAV	Monthly OPSNET data not yet available, but 190' crane approved

Footnote 1 - Average calculated over same calendar date time period, excluding 2020 (COVID Impact Year)

3. Crane Case Study Analysis: Westflow Comparables

Flight Tracks with Comparable FAA Approved Construction Cranes Exceeding OEI



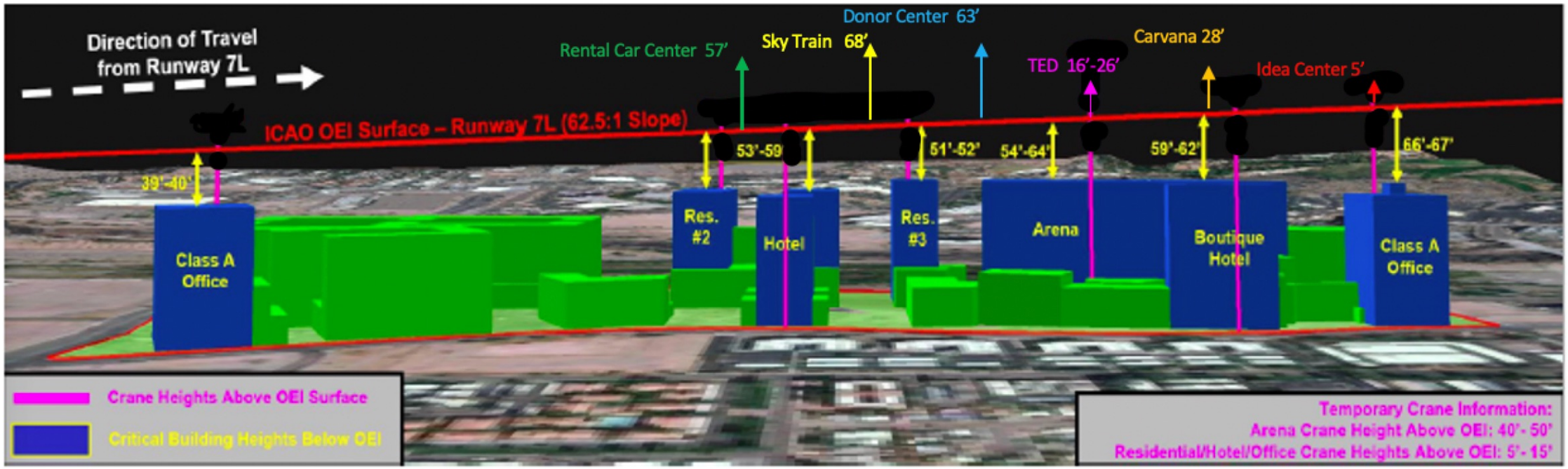
WESTFLOW FAA SKYHARBOR DELAY DATA (OPSNET)

#	Crane Duration	Year	Crane Height	OEI Penetration	Equivalent Crane Height on TED Site	Runway Delays During Time Period	Average Runway Delays Since 2017[1]	Comment
4 Sky Train	62 days	2019	125'	68'	354'	44 delays	63 delays	No evidence of incremental delays from construction crane
5 Rental Car Center	215 days	2019	140'	57'	265'	74 delays	97 delays	No evidence of incremental delays from construction crane

Footnote 1 - Average calculated over same calendar date time period, excluding 2020 (COVID Impact Year)

3. OEI Penetrations of Comparable Cranes

Sky Harbor OEI & Crane Protrusion Graphic



THANK YOU!

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