ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
429 East Cotati Avenue Cotati, California 94931
Tel: 707-794-0400 *Fax: 707-794-0405*
www.illingworthrodkin.com *illro@illingworthrodkin.com*

January 27, 2026

Ms. Natalie Noyes, AICP
Senior Project Manager
David J. Powers & Associates, Inc.
1736 Franklin, Suite 400
Oakland, CA 94612
VIA E-Mail: **nnoyes@davidjpowers.com**

SUBJECT: Mills-Peninsula Medical Center, 1501 Trousdale Drive, Burlingame, CA
Peer Review of Helicopter Noise Assessment and Helicopter Noise Modeling

Dear Ms. Noyes:
Illingworth & Rodkin, Inc. (I&R) has completed a peer review the Mills Peninsula Medical Center Updated Helicopter Noise Analysis prepared for Sutter Health by Shen Milsom Wilke (SMW) and dated April 21, 2025[1] and independent computer noise modeling of the sound levels produced by helicopter operations considering the use of the three designated flight paths and potential flight path deviations between these paths. A summary of our findings is listed below:

SUMMARY OF FINDINGS

1. The presentation and discussion of existing conditions in the study is acceptable,
2. The study was found to accurately present and discuss Federal, State and Local noise criteria,
3. Consistent with the prior EIR, I&R concurs with the use of the 60 dBA CNEL criteria when considering noise impacts from the annual average helipad operations,
4. The methodology used and operations considered in the noise study were found to be acceptable for the FAA required noise study,
5. The helicopters modeled in the study were found to be acceptable substitutions for the actual helicopters using the facility,
6. The flight paths defined in the study were found to coincide with the 3 designated flights included in the facilities Heliport permit and be acceptable for use,
7. Independent noise modeling indicated that the modeling completed in the study was accurate and utilized the three designated flight paths and approved flight profiles.
8. Based on a review of flight logs, recommendations were made to model a condition with 2 flights per day occur to better determine the actual worst-case noise exposure of area residents,
9. This review finds the use of a 65 dBA CNEL standard, as prescribed in City General Plan Policy CS-4.8, reasonable for use in determining the compatibility of the surrounding land uses with noise resulting from 2 or more flights per day,
10. Independent noise modeling of the condition with 2 flights per day indicated that operation of the helipad with this level of use, would expose surrounding sensitive uses to noise levels of less than 65 dBA CNEL,
11. Independent noise modeling flights which deviate to the west of the designated flight paths indicated that annual average noise levels resulting from flights which deviate to the west from the north/south and southeast flight paths would not exceed 60 dBA CNEL at surrounding noise sensitive uses, and that noise levels resulting from 2 flights per day at the facility would only exceed 65 dBA CNEL at the nursing home to the northwest of the helipad.

[1]SMW, Inc., "Mills Peninsula Medical Center, Updated Helicopter Noise Analysis," April 21, 2025.

PEER REVIEW

The SMW study has been reviewed for approach, accuracy, and completeness. The computer noise modeling was completed considering operations based on the flight logs for the heliport provided by the project sponsor using the Federal Aviation Administration (FAA) Aviation Environmental Design Tool (AEDT). Key issues examined in the peer review were to confirm accuracy of the noise modeling results, that the correct significance criteria was used, and that key issues were properly evaluated. Our comments on each section of the SMW study are summarized below:

Existing Conditions

The discussion of the site and surrounding land uses is thorough and is judged to be acceptable for the purposes of the 4/21/25 Noise Assessment. However, considering that this report seeks to update both the noise analysis of helicopter operations and their potential impacts on the surrounding community as previously studied in a 2004 EIR and subsequent 2008 Addendum, we would expect that an ambient environmental noise study at sensitive receptors in the project vicinity would also be completed as a part of the update of these 17 to 21 year studies.

Though the noise criteria used in the original and updated studies does not include adjustments for ambient noise conditions in the site vicinity, conducting ambient noise measurements in sensitive receptor areas most affected by helicopter operations would allow for noise levels from these operations to be to be understood in terms of the existing environment and thereby allow for a greater understanding of potential effects of helicopter noise on the surrounding community.

Noise Criteria

The report accurately presents and discusses the noise criteria which have been used in the previous EIR, the Current City of Burlingame General Plan, Federal (FAA) standards, and State of California Standards. Though the Ldn/CNEL metric includes a penalty for noises that occur during the nighttime and evening hours and has proven to be an excellent indicator of potential adverse community response in cases where the dominant noise source is highway or major roadway noise, in cases where the noise environment is composed of relatively infrequent high noise level events, such as in the vicinity of an emergency helipad, the Ldn/CNEL descriptor has a tendency to average out the effect that high noise level events can have in terms of sleep disturbance and annoyance. I&R finds the use of the 60 dBA CNEL criteria to be consistent with the prior EIR and Addendum to be acceptable. The use of this criteria also acceptance in that it results in a more conservative analysis than would be allowed with the use a 65 dBA Ldn Federal or 65 dBA CNEL State criteria.

Noise Analysis

Methodology and Operations

The use of the Aviation Environmental Design Tool (AEDT) computer noise model is the correct tool to analyze helicopter noise and thus is acceptable for use. Considering the date of the report, the use of available logs for years 2022 through 10/2024 appears to be adequate for this analysis. The FAA noise impact methodology used in the analysis, which considers an average annualization of the flights during a given study period is considered adequate for an Airport Noise Compatibility Planning (14 CFR Part 150) noise study as required by the FAA, and the use of a worst-case average daily flights count of 0.32 operations per day is conservative for this type of analysis.

However, an examination of the flight logs for conditions where multiple flights took place on a single day, as shown in Table 1, indicates that, though days when more than one flight occurred in a given day (multiflight days) only happened on an average of 4% of the days in the study period, 28% of the flights during the study period took place on a day with more than one flight occurred at the helipad, and that the majority of these multi-flight days involved 2 flights per day.

Table 1: Number and percent of total flights occurring during multiflight days

				2 flights/day		3 flights/day		4 flights/day		All multi-flight days	
Year	Total Multi-flight days	*% of total days*	Total Multi-day flights (#)	#	% of total flights	#	% of total flights	#	% of total flights	#	% of total flights
2022	13	4%	101	22	22%	3	3%	4	4%	29	29%
2023	16	4%	117	26	22%	6	5%	4	3%	36	31%
2024	8	3%	79	12	15%	6	8%	0	0%	18	23%
Total	**37**	4%	**297**	**60**	**20%**	**15**	**5%**	**8**	**3%**	**83**	**28%**

While Federal noise guidelines, which are used to regulate the operation of helipads, consider annual average Ldn/CNEL levels in determining noise and land use compatibility, the City of Burlingame General Plan does not contain an annualization requirement. Additionally, residents in the helipad vicinity experience noise on a daily, not an average annual, basis. Considering this, and that over 25% of flights operations at the helipad occur during days when 2 or more flights occur, I&R recommends that the noise from helicopter operations at the Mills-Peninsula Medical Center also be modeled for an average worst-case condition where 2 or more flights per day occur to determine the actual noise exposure of area residents to judge the noise and land use compatibility of helipad operations with the City's General Plan standards.

Helicopter Flight Paths

The three (3) flight paths defined in the 4/21/25 Noise Assessment were found to coincide with the 3 designated flights included in the facilities Heliport permit, and thus we find these acceptable for use in Noise Assessment. Additionally, though the flight logs do not specify flight path use, we have no reason to question the percent of total operations for both approach and departure for each path given in the report, as these are reported to have been provided by project helicopter consultant.

Helicopter Models

I&R concurs with the finding in the 4/21/25 Noise Assessment that AEDT does not include all helicopter models and the substitution of similar, older aircraft to be used for modeling purposes. With this regard, the Messerschmitt-Bölkow-Blohm Bo 105 is seen as an acceptable substitution for the Airbus H135 Helicopter, and the Bell 429 is seen as an acceptable substitution for the Airbus H145 Helicopter. Additionally, the use of the standard helicopter operational profiles as prescribed in the AEDT noise model are appropriate for use the 4/21/25 Noise Assessment.

Modeling Results

I&R conducted independent AEDT noise modeling of the annual average noise levels reported in the 4/21/25 Noise Assessment report which considered the three flight paths and the flight path usage described in the report. The results of this independent modeling and that in the are shown 4/21/25 Noise Assessment report are shown in Figures 1 and 2, attached.

A review of these noise contours indicates that, with the exception of the inclusion of the designated flight paths in the graphic and better contour resolution (likely due to increased contour grid resolution), the 60 dBA and 65 dBA CNEL contours are quite similar. Additionally, both show that the 60 dBA and 65 dBA CNEL contours do not extend to any noise-sensitive parcels outside the Mills-Peninsula Medical Center. Therefore, as discussed in the 4/21/25 Noise Assessment report, I&R finds that, when considered on an annual average basis, Helicopter Noise would be compatible with applicable Federal, State and Local noise requirements.

The similarity of these two noise modeling results and I&R's knowledge that our AEDT noise model only considered helicopter approaches and departures from the helipad on the three designated flight paths further indicates that the 4/21/25 Noise Assessment report only modeled helicopter use on the three designated flight paths and not on "nearly 360-degree flightpaths" as a has been suggested in a letter to the City from Heliplanners dated 9/4/25 with the subject line, "Mills Peninsula Medical Center Heliport Flightpaths for Noise Study"

To address I&R's concerns that over 25% of flights operations at the helipad occur during days with 2 or more flights to the helipad, we have developed an additional AEDT noise model for 2 operations/day based on the use of the three designated flight paths and with the same percent flight path usage as presented in Table 4 of the 4/21/25 Noise Assessment report. To develop this model, we also conducted an additional analysis of the time of day use on multiflight days at the helipad. This analysis indicated that, similar to the pattern found in the 4/21/25 Noise Assessment Report, most (61%) of the multi-flight days flights occurred during daytime hours, with 25% of flights occurring during nighttime hours and 23% of the operations occurring during evening hours. The result of this noise modeling are shown in Figure 3, attached.

A review of the noise contours in Figure 3 indicates that, while the 65 dBA CNEL does cross the property line shared with the nursing home to the northwest, it does not extend to this structure or any other residential structures on noise-sensitive parcels outside the Mills-Peninsula Medical Center. However, the 60 dBA CNEL contour in Figure 3 does extend to residential parcels and structures to the northwest and southeast and to commercial uses to the southwest. However, though noise levels would exceed 60 dBA CNEL at residential uses in the site vicinity on days when 2 or more flights occur in a 24-hour period, I&R considers it reasonable to use the 65 dBA CNEL standard, as prescribed in City General Plan Policy CS-4.8, in determining the compatibility of the surrounding land uses with multi-flight daily helipad operations.

Considering the use of the 65 dBA CNEL standard for multi-flight day helipad operations, while the 65 dBA CNEL contour does cross the property line shared with the nursing home to the northwest, it does not extend to the residential structure on the site. Considering this finding, while residential and commercial uses surrounding the site would be exposed to a CNEL of 60 dBA during multi-flight day helipad operations, I&R concurs with the finding of the 4/21/25 Noise Assessment report that helicopter noise from the operation of the helipad at the Mills-Peninsula Medical Center be compatible with applicable Federal, State, and local noise requirements.

SUPPLEMENTAL NOISE MODELING

At the request of the City, I&R has also conducted AEDT noise modeling of helipad operations for helicopter approaches and departures which deviate to the west of the north/south (#1) and southeast (#2) flight paths to address concerns about noise impacts to land uses under flight path deviations in these areas. The noise modeling results for both the annual average 0.32 flight/day

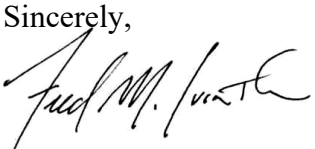
and 2 flight/day multi-flight day helipad operations along these flights path deviations are shown in Figures 4 and 5, attached.

A review of the noise contours resulting from the annual average (0.32 flight/day) operational condition for flights which deviate to the west from the north/south and southeast flight paths indicates that, as with flights using the three standard flight paths, the 60 dBA and 65dBA CNEL contours resulting from these deviations to the northwest and southwest would also result in 60 dBA and 65 dBA CNEL contours which do not extend to any noise-sensitive parcels outside the Mills-Peninsula Medical Center. Thus, annual average CNEL noise levels resulting from flights which deviate to the west from the north/south and southeast flight paths would also be compatible with applicable Federal, State, and local noise requirements.

A review of the noise contours resulting from the average multi-operation day (2 flight/day) condition for flights which deviate to the west from the north/south and southeast flight paths indicates that, though the 65 dBA CNEL does extend to residential structures of the nursing home to the northwest, it does not extend to any other residential structures on noise-sensitive parcels outside the Mills-Peninsula Medical Center. As with the use of the standard flight paths, the 60 dBA CNEL contour extends to residential parcels and structures to the northwest and southeast and to commercial uses to the southwest. As per the discussion above, because I&R considers it reasonable to use the 65 dBA CNEL standard in determining the compatibility of the surrounding land uses with multi-flight daily helipad operations. Considering this, we would expect average multi-operation day (2 flight/day) conditions resulting from flights which deviate to the west from the north/south and southeast flight paths to result in levels which exceed the applicable Federal, State, and local noise requirements only at the nursing home to the northwest of the helipad, with noise levels at all other residential and commercial uses in the area in compliance with these noise requirements.

This concludes our peer review of the Mills Peninsula Medical Center Updated Helicopter Noise Analysis and independent computer noise modeling of the sound levels produced by helicopter operations considering the use of the three designated flight paths and potential flight path deviations between these paths. Please do not hesitate to call with any questions or concerns.

Sincerely,



Fred M. Svinth, INCE, Assoc., AIA
Senior Consultant, Principal
Illingworth & Rodkin, Inc.
Attachments: Figures 1-5
(25-109)

Figure 1: Independent Noise Modeling of Annual Average CNEL Contours (0.32 flights/day)

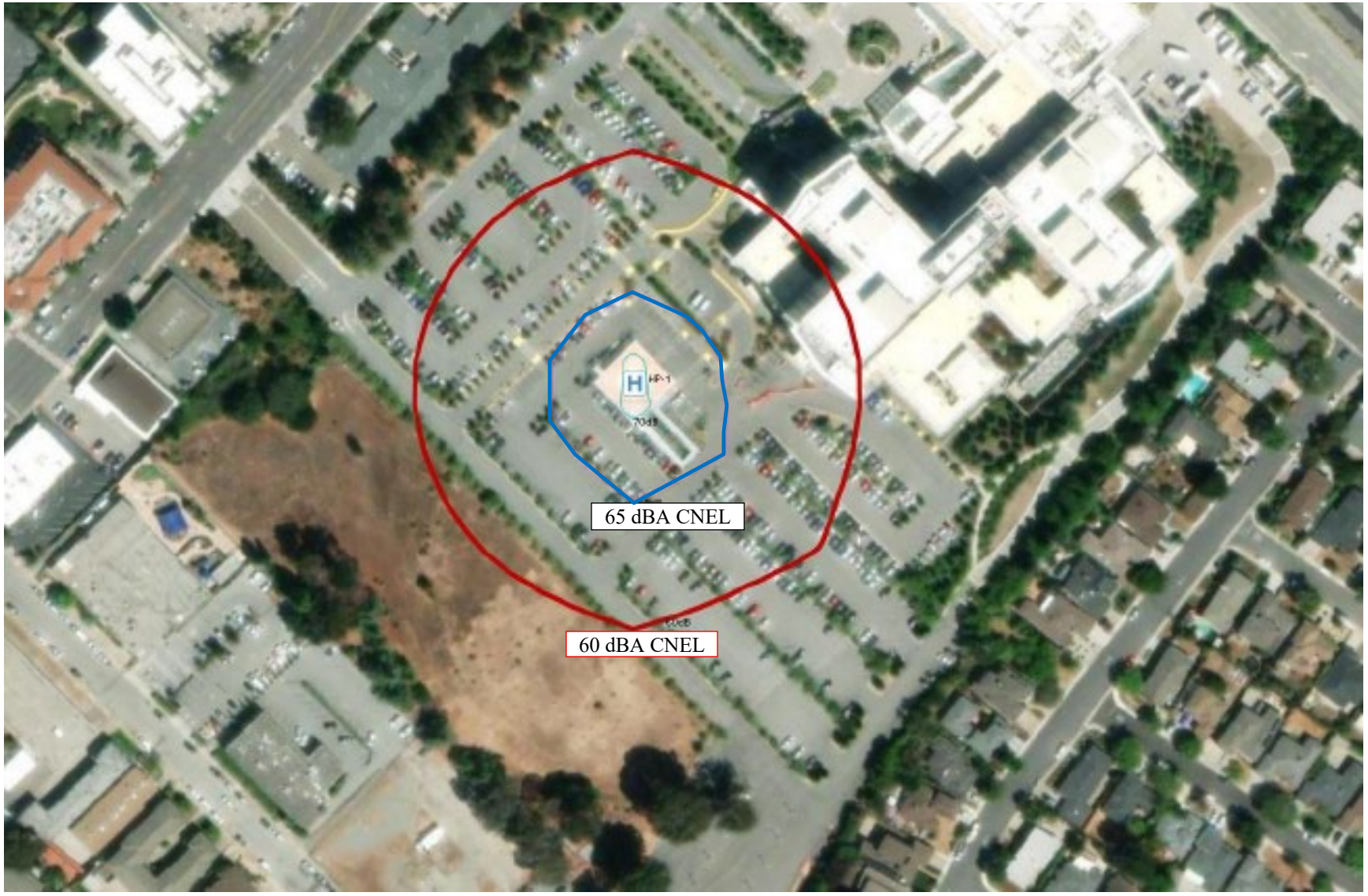


Figure 2: Noise Modeling of Annual Average (0.32 flights/day) CNEL Contours from 3/14/25 Report

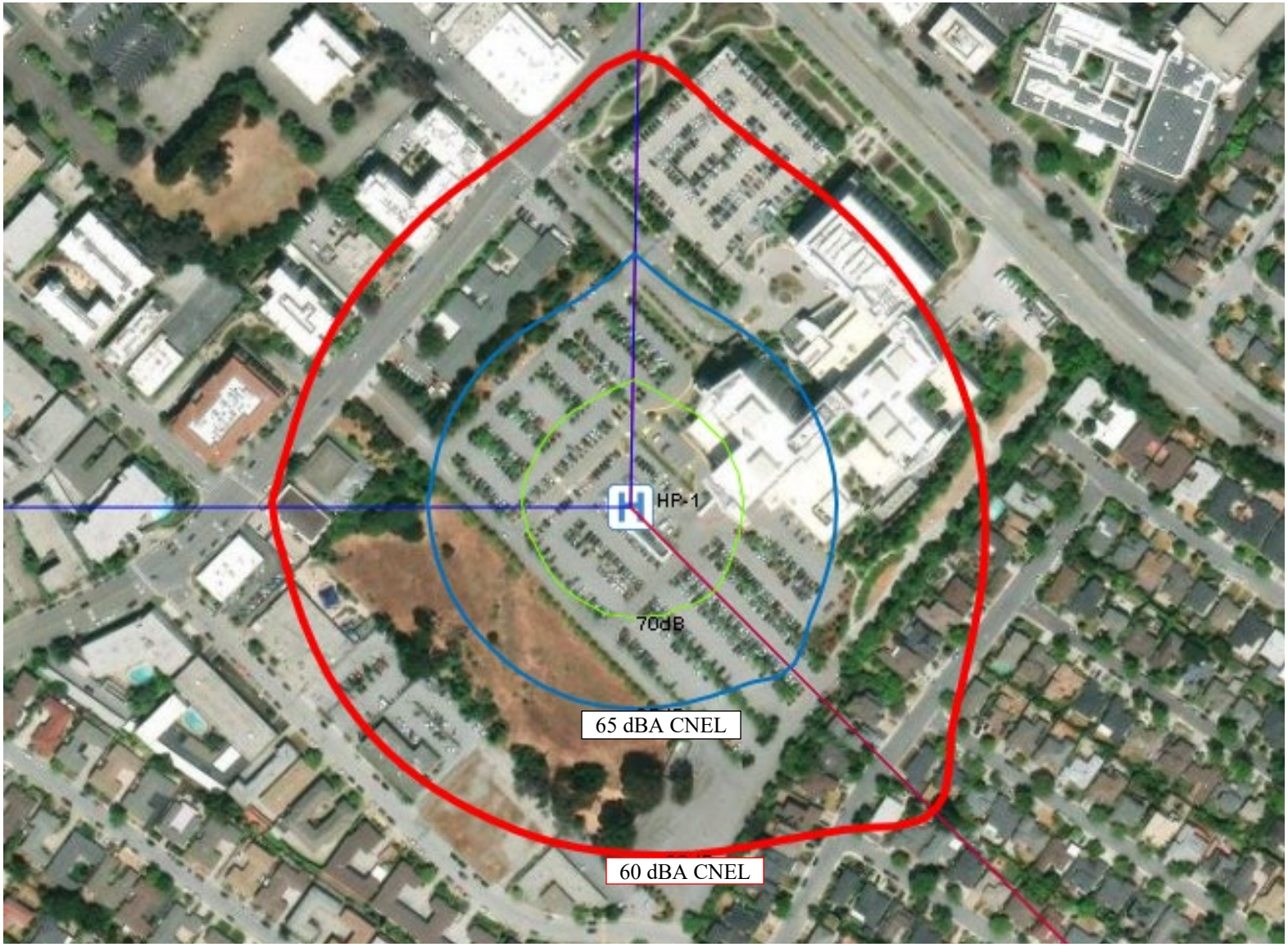


Figure 3: Noise Modeling of Average CNEL Contours with 2 flights/day

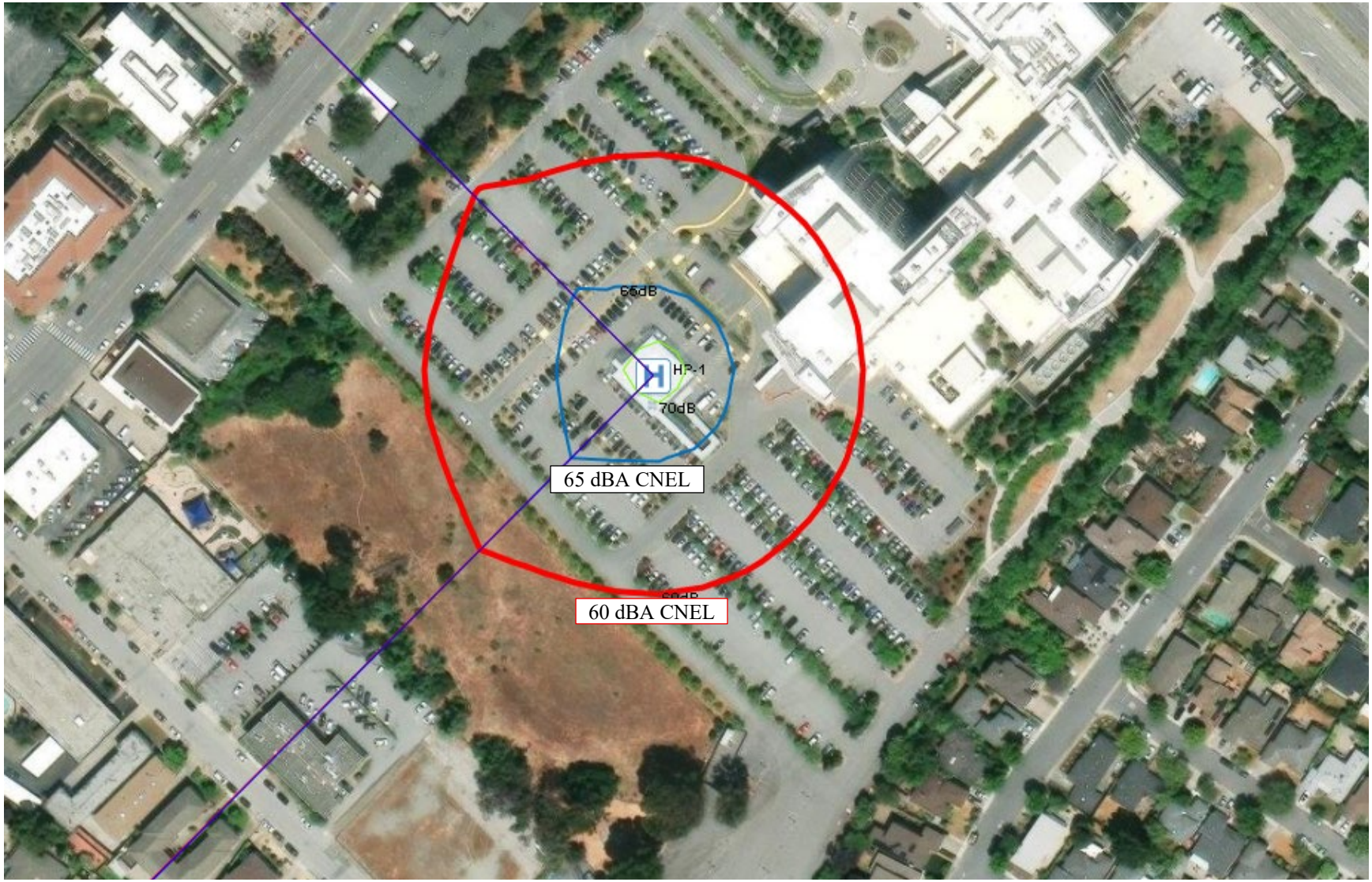


Figure 4: Annual Average CNEL Contours (0.32 flights/day) for Southwest & Northeast flight path deviations

Figure 5: Average CNEL Contours with 2 flights/day for Southwest & Northeast flight path deviations