APPLICATION FOR LAND USE CONSISTENCY DETERMINATION
San Mateo County Airport Land Use Commission
C/CAG ALUC

APPLICANT INFORMATION		
Agency: City of South San Francisco		
Project Name: El Camino Mixed Use Project - 180 El Camino Real		
Address: 180 El Camino Real	APN: 014-183-110	
City: South San Francisco	State: CA	ZIP Code: 94080
Staff Contact: Billy Gross, Principal Planner	Phone: 650-877-8535	Email: billy.gross@ssf.net

PROJECT DESCRIPTION
Remove existing vacant buildings and subdivide the site into three parcels - B, C, and D. Project development includes a 7-story residential
building with covered parking and courtyard of approximately 83,000 square feet on Lot B; 3, 6-story R&D buildings of approximately 720,000
plus 30,000 square feet of amenity space on Lot C; and a 7-story parking garage on Lot D. An alternative site plan would be fully R&D, replacing
the residential building with a 6-story R&D building, reducing the other R&D buildings to 5 stories each, and adding 2 levels to the garage.
Lot A is the site of a separate, approved project currently in the construction drawing phase, and is not a part of this project.

REQUIRED PROJECT INFORMATION PLEASE SEE ENCLOSED SUPPLEMENTAL MATERIALS AND ATTACHMENTS

For General Plan, Specific Plan or Zoning Amendments and Development Projects:

A copy of the relevant amended sections, maps, etc., together with a detailed description of the proposed changes, sufficient to provide the following:

1. Adequate information to establish the relationship of the project to the three areas of Airport Land Use compatibility concern (ex. a summary of the planning documents and/or project development materials describing how ALUCP compatibility issues are addressed):

   a) Noise: Location of project/plan area in relation to the noise contours identified in the applicable ALUCP.

      - Identify any relevant citations/discussion included in the project/plan addressing compliance with ALUCP noise policies.

   b) Safety: Location of project/plan area in relation to the safety zones identified in the applicable ALUCP.

      - Include any relevant citations/discussion included in the project/plan addressing compliance with ALUCP safety policies.

   c) Airspace Protection:

      - Include relevant citations/discussion of allowable heights in relation to the protected airspace/proximity to airport, as well as addressment of any land uses or design features that may cause visual, electronic, navigational, or wildlife hazards, particularly bird strike hazards.

C/CAG Application for Land Use Consistency Determination – Supplemental Information

AGENCY NAME: City of South San Francisco
PROJECT NAME: El Camino Real Mixed Use Project - 180 El Camino Real
APN: Portion of 014-183-110
GENERAL PLAN: El Camino Real Mixed Use
ZONING: El Camino Real Mixed Use (ECRMX)

PROPERTY AND PROJECT DESCRIPTION

On January 31, 2022, Steelwave submitted an application for a mixed-use development on the 11.21-acre, irregularly shaped property at 180-188 El Camino Real and 415 Spruce Avenue (the "Project Site"). The Project Site is bounded by El Camino Real to the west, South Spruce Avenue to the north, and Huntington Avenue to the east, and is currently the site of a vacant, approximately 140,000 square foot former shopping center. Remaining areas of the Project Site consist of paved parking areas, and 179 trees exist on-site.

Surrounding existing land uses include a See's Candies warehouse and single-family residences to the north, across South Spruce Avenue; two office buildings to the northeast; commercial and light industrial uses to the east, across Huntington Avenue; commercial businesses to the south; and commercial businesses and single-family residences to the west, across El Camino Real. The project site is located within the San Francisco Airport Land Use Compatibility Plan Area

The Project would consist of the demolition of the existing on-site building and subsequent redevelopment of the Project Site into a life sciences campus. Two Site Plans are being considered for the project. The Preferred Site Plan ("proposed project") would include three, six-story research and development (R&D) buildings, a seven-story parking structure, and a seven-story multi-family residential building. A new interior street would bisect the site, and the proposed project would include pedestrian and bike-friendly connections between all proposed buildings.

The Alternative Site Plan would replace the multi-family residential building with a six-story R&D building, resulting in a full R&D/life sciences project. In addition, under the Alternative Site Plan, the parking structure would include two additional levels of parking, and the other R&D buildings would be reduced to five stories.

The proposed project would require approval of a Vesting Tentative Parcel Map, Conditional Use Permit, Transportation Demand Management Program, Design Review and California Environmental Quality Act ("CEQA") clearance.

Please see the enclosed **Attachment 1 – 180 ECR Project Description** for further Project details, including site plans and project renderings.

As discussed in more detail below and in **Attachment 3 - Airspace Analysis**, the Project is ***consistent*** with the safety and airspace protection policies of the Airport Land Use Compatibility Plan (ALUCP) for San Francisco International Airport (SFO). And, as discussed in more detail below and in **Attachment 2 - Environmental Noise Analysis**, recent noise data contained in 2021 3rd Quarter contours indicates that the Property is outside of the 65 dB contour for airport noise. The currently adopted Exhibit IV-6 of the ALUCP (adopted in 2012 based on 2011 data), shows the site within or directly on the CNEL 70 dB contour, and the currently adopted FAA Part 150 2019 Noise Exposure Map (published in 2015 based on 2014 data), shows the Property in the CNEL 65-70 dB contour. However, using the most current data based on noise monitoring as noted above, the Project Site is fully beyond the CNEL dB contour. Further, the Project can achieve the State Building Code standard of CNEL 45 dB indoors with the use of commercially-available windows and conventional wood-frame construction. Therefore, all Project uses including the residential use is ***compatible*** with the land use and noise policies of the ALUCP.

POLICY ANALYSIS

As proposed, the project would be consistent with the ECRMX zoning district land use and development standards, and is consistent with the General Plan Land Use Designation of El Camino Real Mixed Use (ECRMU), which is intended to accommodate high-intensity active uses and mixed-use development in the South El Camino Real area. Retail and department stores; eating and drinking establishments; hotels; commercial recreation; financial, business, and personal services; residential; educational and social services; and office uses are permitted in this district. The mixed-use project is consistent with and implements many of the City's General Plan policies, focusing on high-quality transit-oriented development, improving the pedestrian environment and providing a wide range of housing options:

Land Use Guiding Policies:

- 2-G-6 Maximize opportunities for residential development, including through infill and redevelopment, without impacting existing neighborhoods or creating conflicts with industrial operations.
- 2-G-7: Encourage mixed-use residential, retail, and office development in centers where they would support transit, in locations where they would provide increased access to neighborhoods that currently lack such facilities, and in corridors where such developments can help to foster identity and vitality.
- 2-G-8: Provide incentives to maximize community orientation of new development, and to promote alternative transportation modes.

El Camino Real Sub-Area Policies

- 3.4-G-7: Develop the South El Camino area as a vibrant corridor with a variety of residential and non-residential uses to foster a walkable and pedestrian-scaled environment.
- 3.4-1-24: Promote visually intricate development, using horizontal and vertical building articulation that engages pedestrians; and diversity in color, materials, scale, texture, and building volumes.

- 3.4-1-25: Maintain an open, walkable environment throughout the area by providing space at the ground level for enhanced pedestrian connections, either through open promenades or internal semi-public pathways.
- 3.4-1-26: Limit curb cuts along pedestrian routes, so that pedestrian circulation and safety are not compromised by vehicle access to parking.
- 3.4-1-30: Require development be oriented to El Camino Real, with the ground floor of buildings designed so that pedestrians can see shops, restaurants, and activities as they walk along the sidewalk. The ground floor of buildings along Huntington, Noor, and South Spruce avenues should also be designed to provide visual interest and promote pedestrian comfort.

Transportation

- 4.2-G-10 Make efficient use of existing transportation facilities and, through the arrangement of land uses, improved alternate modes, and enhanced integration of various transportation systems serving South San Francisco, strive to reduce the total vehicle-miles traveled.

Housing Element

- Goal 1: Promote the provision of housing by both the private and public sectors for all income groups in the community.

- Policy 1-5: The City shall encourage a mix of residential, commercial, and office uses in the areas designated as Planned Development Areas (PDAs), properties located in the South San Francisco BART Transit Village Zoning District and in proximity to BART and Caltrain stations and along El Camino Real, consistent with the Grand Boulevard Initiative.

Further, the inclusion of residential development as part of the Project is consistent with State housing law mandates and will provide 184 needed units of housing in an appropriate infill, transit-oriented redevelopment location. The California Legislature has found and declared that a lack of housing "is a critical problem that threatens the economic, environmental, and social quality of life in California," and that "[t]he excessive cost of the state's housing supply is partially caused by activities and policies of many local governments that limit the approval of housing, increase the cost of land for housing, and require that high fees and exactions be paid by producers of housing." Approval of the Project will help efforts to combat the State's housing crisis.

Finally, the project is consistent with Plan Bay Area 2050 (or PBA), the Bay Area's long-range Regional Transportation Plan and Sustainable Communities Strategy. PBA integrates land use and transportation strategies to achieve state and regional emissions reduction targets pursuant to SB 375. PBA has been designed to support a growing economy, provide more housing and transportation choices, and reduce pollution caused by transportation by clustering areas of more intense development near transportation. The Project is located in a Priority Development Area (PDA) and a Transit Priority Area (TPA) as designated by Plan Bay Area 2050, and is therefore an appropriate location for dense development (including housing) consistent with long-range,

regional planning goals. As discussed below under CEQA compliance, we note that PBA contemplates additional density in appropriate locations near airports, and the Project is able to ensure interior noise levels are less than 45 dB.

DISCUSSION OF RELATIONSHIP TO AIRPORT LAND USE COMPATIBILITY

Noise

ALUCP Exhibit IV-6 "Noise Compatibility Zones – Detail" shows the Project Site within or directly on the border of the CNEL 70dB contour. According to the ALUCP (published in 2012 based on 2011 data) Table IV-1, Noise and Land Use Compatibility Criteria, multi-family residential land uses are typically deemed "Not Compatible" within this zone, but are considered conditionally compatible in areas exposed to noise above CNEL 70 dB if the proposed use is on a lot of record zoned exclusively for residential use as of the effective date of the ALUCP. The currently adopted FAA Part 150 Noise Exposure Map (FAA Part 150 Map), published in 2015 based on 2014 data, shows the Project Site in the CNEL 65-70 dB contour.

Attachment 2 - Environmental Noise Analysis has been conducted for the Project. As discussed in Attachment 2, SFO noise monitoring data from 2017 to the present indicate that the project site is outside the 65 dB CNEL. While the Project is not consistent with the ALUCP noise contours published in 2012, this much more recent site-specific data shows that the airport noise patterns are changing over time, and that the Project Site is less impacted by noise than at the time the ALUCP was adopted. Attachment 2 also confirms that the Project interiors can be reduced to less than 45 dB, consistent with the ALUCP noise policy and the City's General Plan policies.

CNEL Range	Land Use
Less than 65 dB	Land use and related structures compatible without restrictions.
65 to 70 dB	Land use and related structures are permitted, provided that sound insulation is provided to reduce interior noise levels from exterior sources to CNEL 45 dB or lower and that an avigation easement is granted to the City and County of San Francisco as operator of SFO.
70 dB to 75 dB	Land use and related structures are not compatible. However, use is conditionally compatible only on an existing lot of record zoned only for residential use as of the effective date of the ALUCP. Use must be sound-insulated to achieve an indoor noise level of CNEL 45 dB or less from exterior sources.
Over 75 dB	Land use and related structures are not compatible

The Project is compatible without restrictions, but nonetheless will be required to comply with requirements to ensure Project interior noise can be reduced to less than 45 dB.

Safety

As shown in **Attachment 3 - Airspace Analysis**, a portion of the Project Site is within Safety Zone 4, and the majority of the Project's R&D use (which as noted above would consist of Biosafety

Level 1 and 2) is proposed within this area. The ALUCP does not consider Biosafety Level 1 uses hazardous (SP-3 subsection D), and therefore the Project's Biosafety Level 1 uses would be permitted without restriction or further analysis. With regard to Biosafety Level 2 uses, ALUCP Table IV-2 notes they are not an "incompatible" use in Safety Zone 4, but are to be "avoided" unless the City finds that the use is safe and that "no feasible alternative is available." (See ALUCP Table IV-2 Safety Compatibility Criteria, page IV-31 and SP-3 Hazardous Uses, page IV-33).

First, the City concludes that the use is safe.

- The Biosafety Levels used in the SFO ALUCP are derived from guidance from the Center for Disease Control, Biosafety in Microbiological and Biomedical Laboratories (SFO ALUP at IV-33), which also explains that Level 2 involves agents "that are already present in the community" and that "[w]ith good microbiological techniques, these agents can be used safely."[1] Because Level 2 does not authorize respiratory or aerosolized agents, some cities have determined that it does not present a materially greater risk to public safety than Level 1 activities.[2]

- As demonstrated in **Attachment 3- Airspace Analysis** (and Attachment A thereto, which contains a letter by laboratory expert Dr. Kinkead Reiling), the risk levels of Biosafety Level 2 facilities are low, and are generally on-par with those of Biosafety Level 1 facilities. Dr. Reiling explains that "safety precautions in a Biosafety Level 2 facility consist of good laboratory practices and training, restricted lab access, decontamination practices, and protective measures such as the use of biosafety cabinets, gloves, lab coat, and safety glasses to allow the handling of generally treatable human diseases; examples could include Hepatitis A, B, and C, and Salmonella. Numerous laboratories throughout the Bay Area and country safely operate Biosafety Level 2 facilities for R&D purposes." Dr. Reiling further explains that "the low-risk level to the community and public from a BSL-1 or BSL-2 research laboratory are not widely different, in that the organisms handled in either of them would not cause harm above organisms already found in the community, are generally treatable, and the robust facility, engineering, biosafety practices and security control measures necessary to effectively contain them are not highly susceptible to human error. Illness and infections spreading into communities surrounding a BSL-1 or BSL-2 lab are generally unheard of because research on high-risk agents and pathogens can only be performed in BSL-3 or 4 laboratories. While serving the health and well-being of our community through research to prevent disease, these labs do not pose high levels of risk by adhering to all relevant biosecurity and safety standards required by law." As concluded on page 20 of **Attachment 3 - Airspace Analysis**, "the difference between BSL-1 and BSL-2 are minimal, and the restrictions in Safety Compatibility Zone 4 at SFO should not restrict the use of BLS-2."

[1] Biosafety In The Laboratory: Prudent Practices for the Handling and Disposal of Infectious Materials, *available at* https://www.ncbi.nlm.nih.gov/books/NBK218631/.
[2] City of Millbrae, City Council Agenda Report, Item 11 (July 27, 2021) at 26, *available at* https://portal.laserfiche.com/Portal/DocView.aspx?id=14209&repo=r-c2783ec8.

- Finally, the project will go through environmental analysis as part of the entitlement process in regards to hazardous materials and any other environmental concerns and could be conditioned to comply with CDC and NIH guidance.

- All of the above supports the City's finding that a Biosafety Level 2 could be considered "non-hazardous" under current conditions, despite the 2012 ALUCP officially restricting this definition to Biosafety Level 1 facilities.

Second, the City finds there is no feasible alternative for the Project Site.

- Decades-long trends specific to the Bay Area, as relayed by Dr. Reiling, indicate that the majority of users will blend Biosafety Levels 1 and 2 in their facilities, and typical Bay Area users *need* the high quality laboratory space that Biosafety Level 2 allows, making it too difficult for a landowner to compete for laboratory tenants if a facility is restricted to Biosafety Level 1.

- This is supported by a 2005 taskforce report for San Francisco, which found that essentially all hospitals and medical and veterinary schools, dental offices and medical laboratories would fall into the BSL 2 category.[3]

- Finally, the applicant Steelwave has represented that in order to make the Project commercially feasible, Biosafety Level 2 is needed.

Airspace Protection

Per the ALUCP, airspace protection policies are established with a two-fold purpose:

1. To protect the public health, safety, and welfare by minimizing the public's exposure to potential safety hazards that could be created through the construction of tall structures.

2. To protect the public interest in providing for the orderly development of SFO by ensuring that new development in the Airport environs avoids compromising the airspace in the Airport vicinity. This avoids the degradation in the safety, utility, efficiency, and air service capability of the Airport that could be caused by the attendant need to raise visibility minimums, increase minimum rates of climb, or cancel, restrict, or redesign flight procedures.

As proposed, the Project is ***consistent*** with the ALUCP Airspace Protection policies, described in detail below, but will require FAA notification:

CFR Part 77 Analysis

[3] *See* San Francisco biosciences Task Force Report to the San Francisco Board of Supervisors and Planning Commission (Feb. 15, 2005) at 8, *available at* https://sfgov.org/sfc/biosciences/Modules/FinalBIOSCIENCE021505__3119.pdf?documentid=1824.

As indicated on page 4 of **Attachment 3 - Airspace Analysis**, an analysis of CFR Part 77 Notice Requirements was conducted and it was determined that the Project would require formal submission to the FAA. The majority of the Project Site is located within the 163' Above Mean Sea Level (AMSL) Horizontal Surface for SFO, and a small portion of the Project's proposed residential building is located within the Conical Surface for SFO. This Conical Surface has an increasing slope of 20:1. A penetration to Obstruction Standards does not mean the structure will have an adverse impact to operations, rather the airport's specific procedures, such as Instrument Approach/Departure and VFR Traffic Pattern procedures, must be studied to determine if the specific procedures will be impacted. The FAA may require an obstruction exceeding Obstruction Standards to be lighted in accordance with FAA Advisory Circular 70/7460-1L to make it more conspicuous to airmen.

Terminal Instrument Procedures

As explained on pages 5-14 of **Attachment 3 - Airspace Analysis**, an analysis of the Terminal Instrument Procedures (TERPS) criteria was completed to determine the maximum elevation to which a structure could be erected without impacting SFO instrument approach and departure procedures.

As concluded on page 9 of the Airspace Analysis, the maximum height over the Project Site, without affecting Instrument Approach Procedure to SFO, is approximately 385' AMSL to the SE and approximately 415' AMSL to the NW. The Project would be far below this height and would not affect Instrument Approach Procedure.

As concluded on page 10 of the Airspace Analysis, the maximum height over the Project Site, without affecting Circle-to-Land to SFO, is 660' AMSL. The Project would be far below this height and would not affect Circle-to-Land.

As concluded on page 11 of the Airspace Analysis, the maximum height over the Project Site, without affecting the VFR Traffic Pattern to SFO is 363' AMSL. The Project would be far below this height and would not affect VFR Traffic Pattern.

As concluded on page 13 of the Airspace Analysis, the maximum height over the Project Site, without affecting the Runway 28R Departure procedure Initial Climb Area is approximately 247' AMSL to the SE and approximately 263' AMSL to the NW. The Project would be far below this height and would not affect the Initial Climb Area.

As concluded on page 14 of the Airspace Analysis, the Project would not exceed maximum One Engine Inoperative heights.

Other Flight Hazards

Per ALUCP Policy A4, proposed land uses with characteristics that may cause visual, electronic, or wildlife hazards, particularly bird strike hazards, to aircraft taking off or landing at the Airport

or in flight are incompatible in Area B of the Airport Influence Area. The Project does not contain any unusual characteristics that would cause these hazards. The South San Francisco Zoning Ordinance (Section 20.300.010) contains performance standards to ensure that all development protects the community from nuisances, hazards and objectionable conditions, including those which could be aircraft hazards, including light, glare, air contaminants, or electromagnetic interference. As proposed, the Project would be consistent with the performance standards contained in the Zoning Ordinance, and would not create an aircraft hazard.

CEQA ANALYSIS

The Project's CEQA analysis is underway.

Attachments:

1. 180 El Camino Real Project Description (includes applicable project plans)
2. Environmental Noise Analysis
3. Airspace Analysis

C. PROJECT DESCRIPTION

The following provides a description of the 180 El Camino Real/Steelwave Project (proposed project), including the project site's current location and setting, as well as a discussion of the project components and necessary discretionary actions.

Project Location and Setting

The 11.21-acre, irregularly-shaped project site is located at 180 – 188 El Camino Real and 415 Spruce Avenue, in the City of South San Francisco, California (see Figure 1 and Figure 2). The site consists of a portion of the parcel identified by Assessor's Parcel Number 014-183-110, and is bound by El Camino Real to the west, South Spruce Avenue to the north, and Huntington Avenue to the east. The project site currently contains a vacant, approximately 140,000-square foot (sf) former shopping center. Remaining areas of the project site consist of paved parking areas, and 179 trees exist on-site.

Surrounding existing land uses include a See's Candies warehouse and single-family residences to the north, across South Spruce Avenue; two office buildings to the northeast; commercial and light industrial uses to the east, across Huntington Avenue; commercial businesses to the south; and commercial businesses and single-family residences to the west, across El Camino Real. The project site is located within the San Francisco Airport Land Use Compatibility Plan Area. The City of South San Francisco General Plan designates the proposed project site as El Camino Real Mixed Use, and the site is zoned El Camino Real Mixed Use (ECRMX).

Project Components

In general, the proposed project would include the demolition of the existing on-site building and subsequent redevelopment of the project site into a life sciences campus. Two Site Plans are being considered for the project. The Preferred Site Plan ("proposed project") would include three, six-story research and development (R&D) buildings, a seven-story parking structure, and a seven-story multi-family residential building. A new interior street would bisect the site, and the proposed project would include pedestrian and bike-friendly connections between all proposed buildings.

The Alternative Site Plan would replace the multi-family residential building with a six-story R&D building, resulting in a full R&D/life sciences project. In addition, under the Alternative Site Plan, the parking structure would include two additional levels of parking, and the other R&D buildings would be reduced to five stories.

The proposed project would require approval of a Vesting Tentative Parcel Map, Conditional Use Permit, Transportation Demand Management Program, and Design Review. The requested entitlements for the project are discussed in the following sections. The proposed project will also require a compatibility review pursuant to the San Francisco Airport Land Use Compatibility Plan, as discussed below. Depending upon the actions taken by the Airport Land Use Commission, a local agency override pursuant to Public Utilities Code Section 21676 may also be required.

Vesting Tentative Parcel Map

The proposed project would require approval of a Vesting Tentative Parcel Map to subdivide the project site into three parcels (see Figure 3). Lot B would be 1.90 acres, Lot C would be 6.06 acres, and Lot D would be 3.25 acres. Lot A is the site of a separate, approved project, currently in the construction drawings phase, and is not a part of the project (NAPOT). Lot B would be dedicated for residential use (or, under the Alternative, R&D use), Lot C would be dedicated for R&D use, and Lot D would be used for parking.

Figure 2
Project Site

Figure 5
Preferred Site Plan Rendering – R&D Buildings

Figure 7
Preferred Site Plan Rendering – Multi-Family Residential Building

PROJECT AERIAL

RESIDENTIAL LOBBY VIEW

RESIDENTIAL VIEW FROM NE CORNER

MATERIALS BOARD RESIDENTIAL

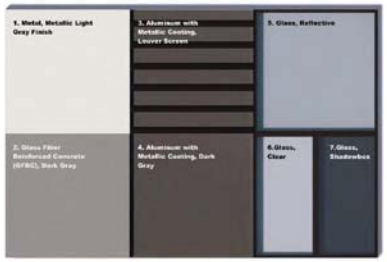
RESIDENTIAL VIEW FROM SPRUCE AVE

Figure 11
Alternative Site Plan Rendering

PROJECT AERIAL - ALTERNATIVE

EL CAMINO VIEW - ALTERNATIVE

SITE ENTRANCE - ALTERNATIVE



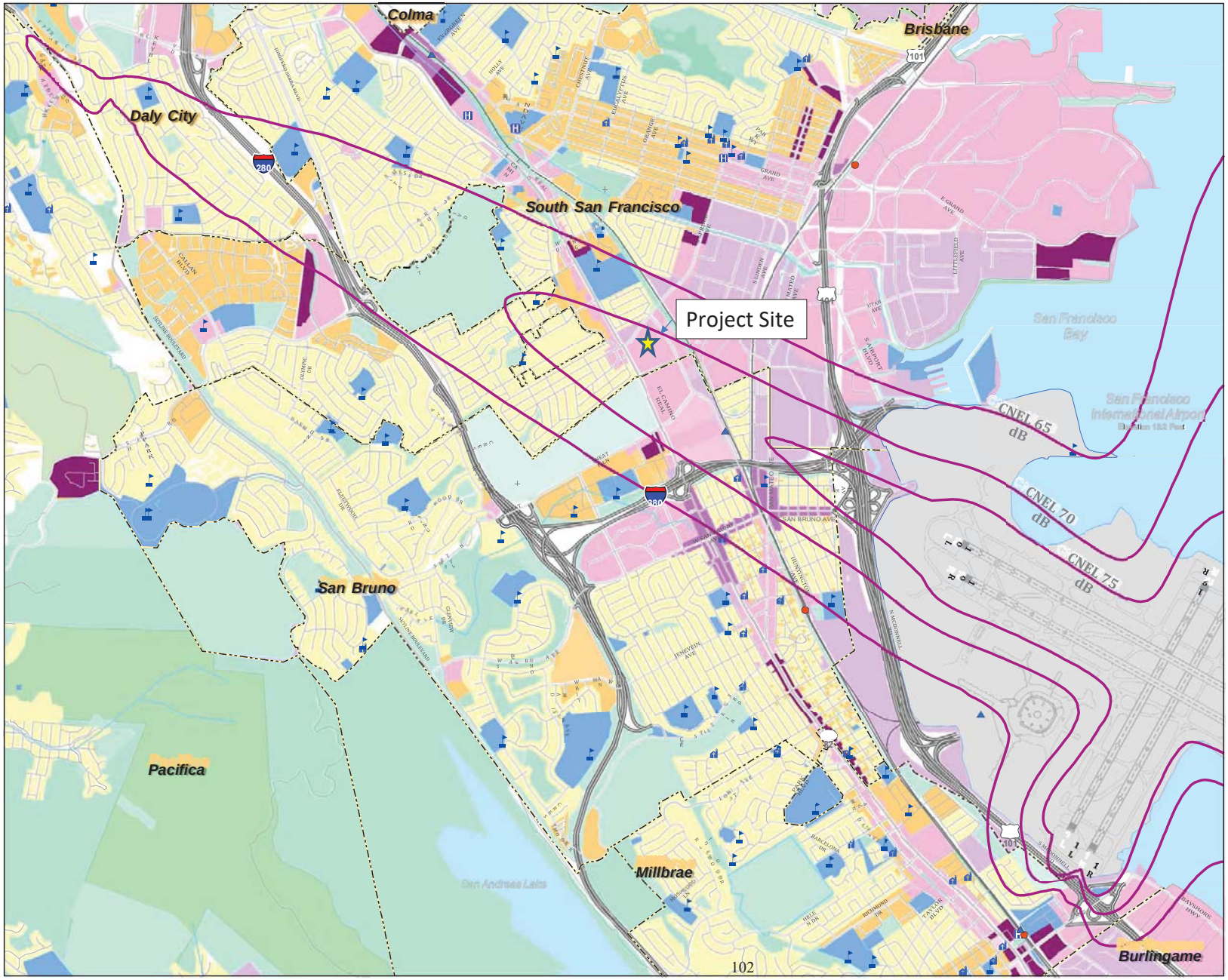
MATERIALS BOARD

INTERIOR COURTYARD - ALTERNATIVE

Figure 13
Preferred Site Plan - Landscaping Plan

Figure 14
Alternative Site Plan – Landscaping Plan

Figure 18 – Study Area with Safety Compatibility Zones



LEGEND

- CNEL Contour, 2020 Forecast
- Airport Property
- BART Station
- CALTRAIN Station
- School
- Place of Worship
- Hospital
- Municipal Boundary
- Railroad
- Freeway
- Road

Planned Land Use Per General Plans:

- Public
- Multi-Family Residential
- Single Family Residential
- Mixed Use
- Transit Oriented Development
- Commercial
- Industrial, Transportation, and Utilities
- Local Park, Golf Course, Cemetery
- Regional Park or Recreation Area
- Open Space
- Planned use not mapped

Sources:

Noise Contour Data:
- Draft Environmental Assessment, Proposed Runway Safety Area Program, San Francisco International Airport. URS Corporation and BridgeNet International, June 2011

County Base Maps:
- San Mateo County Planning & Building Department, 2007

Local Plans:
- Burlingame Bayfront Specific Area Plan, August 2006
- Burlingame Downtown Specific Plan, January 2009
- Burlingame General Map, September 1984
- North Burlingame/ Rollins Road Specific Plan, February 2007
- Colma Municipal Code Zoning Maps, December 2003
- Daly City General Plan Land Use Map, 1987
- Hillsborough General Plan, March 2005
- Millbrae Land Use Plan, November 1998
- Pacifica General Plan, August 1996
- San Bruno General Plan, December 2008
- San Mateo City Land Use Plan, March 2007
- San Mateo County Zoning Map, 1992
- South San Francisco General Plan, 1998

NORTH

0 0.1 0.2 0.4 Miles

Exhibit IV-6
NOISE COMPATIBILITY ZONES -- DETAIL
Comprehensive Airport Land Use Plan
for the Environs of San Francisco International Airport

C/CAG
City/County Association of Governments
of San Mateo County, California

Table IV-1 Noise/Land Use Compatibility Criteria

	COMMUNITY NOISE EQUIVALENT LEVEL (CNEL)			
LAND USE	**BELOW 65 dB**	**65-70 dB**	**70-75 dB**	**75 dB AND OVER**
Residential				
Residential, single family detached	Y	C	N *(a)*	N
Residential, multi-family and single family attached	Y	C	N *(a)*	N
Transient lodgings	Y	C	C	N
Public/Institutional				
Public and Private Schools	Y	C	N	N
Hospitals and nursing homes	Y	C	N	N
Places of public assembly, including places of worship	Y	C	N	N
Auditoriums, and concert halls	Y	C	C	N
Libraries	Y	C	C	N
Outdoor music shells, amphitheaters	Y	N	N	N
Recreational				
Outdoor sports arenas and spectator sports	Y	Y	Y	N
Nature exhibits and zoos	Y	Y	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N
Golf courses, riding stables, and water recreation	Y	Y	Y	Y
Commercial				
Offices, business and professional, general retail	Y	Y	Y	Y
Wholesale; retail building materials, hardware, farm equipment	Y	Y	Y	Y
Industrial and Production				
Manufacturing	Y	Y	Y	Y
Utilities	Y	Y	Y	Y
Agriculture and forestry	Y	Y *(b)*	Y *(c)*	Y *(c)*
Mining and fishing, resource production and extraction	Y	Y	Y	Y

Notes:

CNEL = Community Noise Equivalent Level, in A-weighted decibels.

Y (Yes) = Land use and related structures compatible without restrictions.

C (conditionally compatible) = Land use and related structures are permitted, provided that sound insulation is provided to reduce interior noise levels from exterior sources to CNEL 45 dB or lower and that an avigation easement is granted to the City and County of San Francisco as operator of SFO. See Policy NP-3.

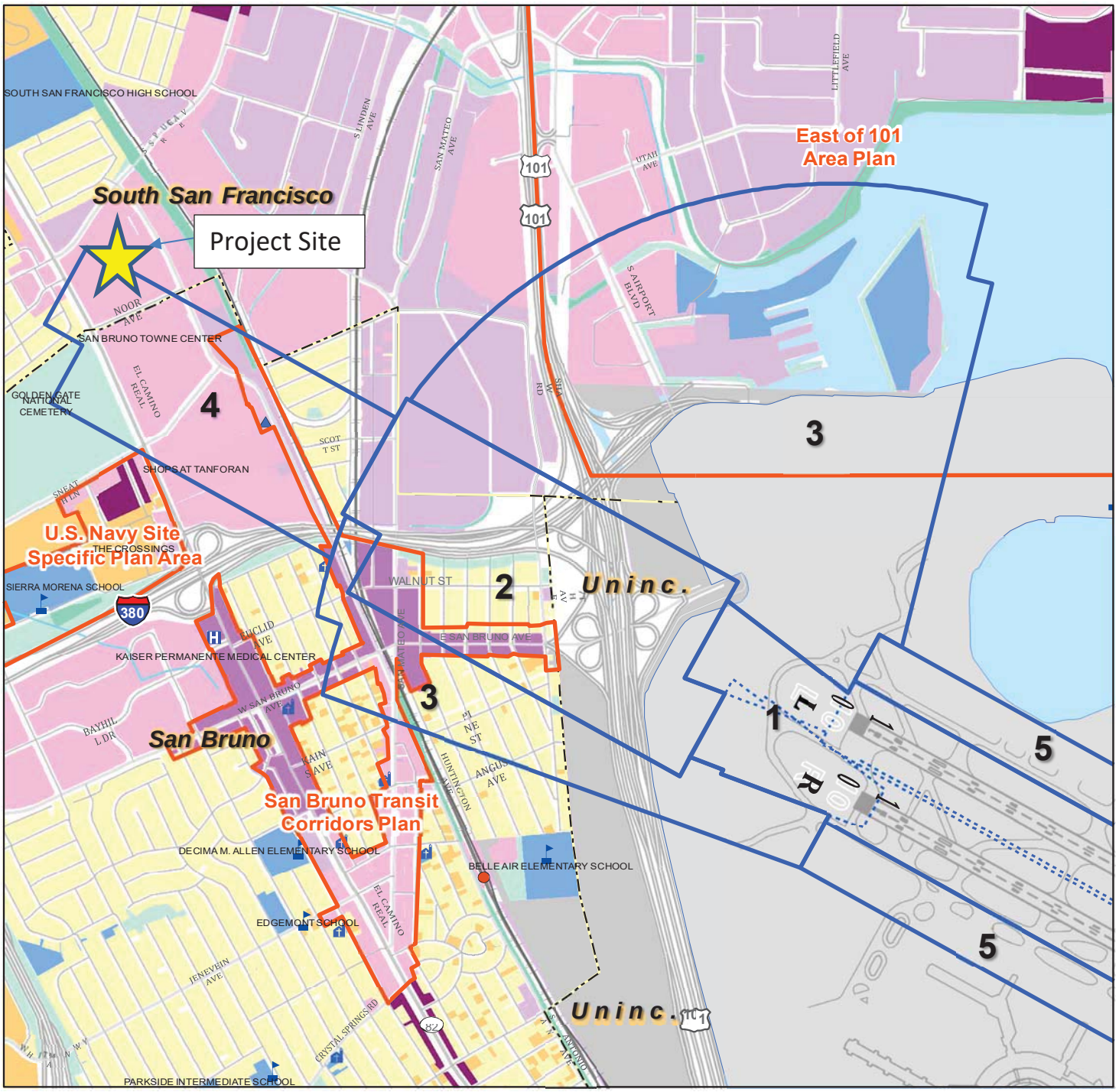
N (No) = Land use and related structures are not compatible..

(a) Use is conditionally compatible only on an existing lot of record zoned only for residential use as of the effective date of the ALUCP. Use must be sound-insulated to achieve an indoor noise level of CNEL 45 dB or less from exterior sources. The property owners shall grant an avigation easement to the City and County of San Francisco prior to issuance of a building permit for the proposed building or structure. If the proposed development is not built, then, upon notice by the local permitting authority, SFO shall record a notice of termination of the avigation easement.

(b) Residential buildings must be sound-insulated to achieve an indoor noise level of CNEL 45 dB or less from exterior sources.

(c) Accessory dwelling units are not compatible.

SOURCES: Jacobs Consultancy Team 2010. Based on State of California General Plan Guidelines for noise elements of general plans; California Code of Regulations, Title 21, Division 2.5, Chapter 6, Section 5006; and 14 CFR Part 150, Appendix A, Table 1.
PREPARED BY; Ricondo & Associates, Inc., June 2012.



LEGEND

Safety Compatibility Zones

- 1 - Runway Protection Zone-Object Free Area
- 2 - Inner Approach/Departure Zone
- 3 - Inner Turning Zone
- 4 - Outer Approach/Departure Zone
- 5 - Sideline Zones
- Internal boundaries of ALP-defined areas
- Specific Plan Area
- Airport Property
- BART Station
- CALTRAIN Station
- School
- Place of Worship
- Hospital
- Municipal Boundary
- Railroad
- Freeway
- Major Road
- Road

Planned Land Use Per General Plans

- Public
- Multi-Family Residential
- Single Family Residential
- Mixed Use
- Transit Oriented Development
- Commercial
- Industrial, Transportation, and Utilities
- Local Park, Golf Course, Cemetery
- Regional Park or Recreation Area
- Open Space

NORTH

0 0.125 0.25 0.5 Miles

Sources:

Local Plans:
- San Bruno General Plan, December 2008
- South San Francisco General Plan, 1998

Exhibit IV-8

SAFETY COMPATIBILITY ZONES IN THE CITIES OF SOUTH SAN FRANCISCO AND SAN BRUNO

Comprehensive Airport Land Use Plan
for the Environs of San Francisco International Airport

C/CAG

City/County Association of Governments
of San Mateo County, California

Table IV-2 (1 of 2) Safety Compatibility Criteria

	LAND USE CRITERIA	
ZONE	**INCOMPATIBLE**[1/]	**AVOID**[1/]
Zone 1: Runway Protection Zone and Object Free Area (RPZ-OFA)		
	All new structures[3/] Places of assembly not in structures Hazardous uses[2/] Critical public utilities[2/]	Nonresidential uses except very low intensity uses[4/] in the "controlled activity area."[2/]
Zone 2: Inner Approach/Departure Zone (IADZ)		
	Children's schools[2/] Large child day care centers and noncommercial employer-sponsored centers ancillary to a place of business[2/] Hospitals, nursing homes Hazardous uses[2/] Critical public utilities[2/] Theaters, meeting halls, places of assembly seating more than 300 people Stadiums, arenas	---
Zone 3: Inner Turning Zone (ITZ)		
	Biosafety Level 3 and 4 facilities[2/] Children's schools[2/] Large child day care centers[2/] Hospitals, nursing homes Stadiums, arenas	Hazardous uses other than Biosafety Level 3 and 4 facilities[2/] Critical public utilities[2/]
Zone 4: Outer Approach/Departure Zone (OADZ)		
	Biosafety Level 3 and 4 facilities[2/] Children's schools[2/] Large child day care centers[2/] Hospitals, nursing homes Stadiums, arenas	Hazardous uses other than Biosafety Level 3 and 4 facilities[2/] Critical public utilities[2/]
Zone 5: Sideline Zone (SZ)		
	Children's schools[2/] Large child day care facilities and noncommercial employer-sponsored centers ancillary to a place of business Hospitals, nursing homes Hazardous uses[2/] Critical public utilities[2/] Stadiums, arenas	---

Table IV-2 (2 of 2) Safety Compatibility Criteria

Notes:

1/ *Avoid:* Use is not fully compatible and should not be permitted unless no feasible alternative is available. Where use is allowed, habitable structures shall be provided with at least 50 percent more exits than required by applicable codes. Where the 50-percent factor results in a fraction, the number of additional exits shall be rounded to the next highest whole number.

Incompatible Use is not compatible in the indicated zones and cannot be permitted.

2/ Definitions

- *Biosafety Level 3 and 4 facilities:* Medical and biological research facilities involving the storage and processing of extremely toxic or infectious agents. See Policy SP-3 for additional detail.
- *Children's schools:* Public and private schools serving preschool through grade 12, excluding commercial services.
- *Controlled Activity Area: The lateral edges of the RPZ, outside the Runway Safety Area (RSA) and the extension of the RSA, which extends to the outer edge of the RPZ. See FAA Advisory Circular 150/5300-13, Airport Design, Section 212a.(1)(b).*
- *Critical public utilities:* Facilities that, if disabled by an aircraft accident, could lead to public safety or health emergencies. They include the following: electrical power generation plants, electrical substations, wastewater treatment plants, and public water treatment facilities.
- *Hazardous uses:* Uses involving the manufacture, storage, or processing of flammable, explosive ,or toxic materials that would substantially aggravate the consequences of an aircraft accident. See Policy SP-3 for additional detail.
- *Large child day care centers:* Commercial facilities defined in accordance with Health and Safety Code, Section 1596.70, et seq., and licensed to serve 15 or more children. Family day care homes and noncommercial employer-sponsored facilities ancillary to place of business are allowed.

3/ Structures serving specific aeronautical functions are allowed, in compliance with applicable FAA design standards.

4/ Examples include parking lots and outdoor equipment storage.

SOURCE: Ricondo & Associates, Inc., June 2012.
PREPARED BY: Ricondo & Associates, Inc., June 2012.

ZONE 2 -- INNER APPROACH/DEPARTURE ZONE (IADZ)

In Zone 2, the IADZ, a variety of uses that involve hazardous materials, critical public utilities, theaters, meeting halls, places of assembly seating more than 300 people, stadiums, arenas, and those accommodating potentially vulnerable populations – such as children's schools, child day care facilities, hospitals, and nursing homes – are incompatible.

ZONE 3 -- INNER TURNING ZONE (ITZ)

The compatibility criteria in Zone 3, the ITZ, are somewhat less restrictive than in Zone 2. This is because the area is subject to less accident risk by virtue of the lower density of overflights in this area. In Zone 3, stadiums, arenas, and uses accommodating potentially vulnerable populations are incompatible. Hazardous uses and critical public utilities are not incompatible in Zone 3, but are classified as uses to be avoided. This means that they should not be permitted unless no feasible alternative is available.

ZONE 4 - OUTER APPROACH/DEPARTURE ZONE (OADZ)

The compatibility criteria in Zone 4,the OADZ, are the same as in Zone 3.

ZONE 5 – SIDELINE ZONE (SZ)

The compatibility criteria in Zone 5 are the same as those in Zone 2.

SP-3 HAZARDOUS USES

Hazardous uses, facilities involving the manufacture, processing, or storage of hazardous materials, can pose serious risks to the public in case of aircraft accidents. Hazardous materials of particular concern in this ALUCP, and which are covered by the safety compatibility criteria in Table IV-2, are the following:

A. Aboveground fuel storage — This includes storage tanks with capacities greater than 10,000 gallons of any substance containing at least 5 percent petroleum.[11] Project sponsors must provide evidence of compliance with all applicable regulations prior to the issuance of development permits.

B. Facilities where toxic substances are manufactured, processed or stored — Proposed land use projects involving the manufacture or storage of toxic substances may be allowed if the amounts of the substances do not exceed the threshold planning quantities for hazardous and extremely hazardous substances specified by the EPA.[12]

C. Explosives and fireworks manufacturing and storage — Proposed land use projects involving the manufacture or storage of explosive materials may be allowed in safety zones only in compliance with the applicable regulations of the California Division of Occupational Safety and Health (Section 5252, Table EX-1). Project sponsors must provide evidence of compliance with applicable state regulations prior to the issuance of any development permits.[13]

D. Medical and biological research facilities handling highly toxic or infectious agents — These facilities are classified by "Biosafety Levels."[14] Biosafety Level 1 does not involve hazardous materials and is not subject to the restrictions on hazardous uses in Table IV-2. Definitions of the other three biosafety levels are quoted from *Biosafety in Microbiological and Biomedical Laboratories*, below.[15]

a. Biosafety Level 2 practices, equipment, and facility design and construction are applicable to clinical, diagnostic, teaching, and other laboratories in which work is done with the broad spectrum of indigenous moderate-risk agents that are present in the community

[11] State of California, California Health and Safety Code, Section 25270 (*Aboveground Petroleum Storage Act*).

[12] Title 40 Code of Federal Regulations Part 355, Subpart D, Appendices A & B.

[13] California Code of Regulations, Title 8, Subchapter 7 *General Industry Safety Orders*, Group 18 *Explosives and Pyrotechnics*, Article 114 *Storage of Explosives*.

[14] *Biosafety in Microbiological and Biomedical Laboratories*, 5th Edition, 2009, published by the U.S. Department of Health and Human Services in concert with the Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health, or any successor publication.

[15] *Biosafety in Microbiological and Biomedical Laboratories*, 5th Edition, 2009, published by the U.S. Department of Health and Human Services in concert with the Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health, pp. 25-26.

SURFACE INTERSECTION ANALYSIS INFORMATION - AIRPORT CODE "SFOP"

Coordinate System: **WGS84** | Date: **06/07/22** | Model: **SFO_Composite_2012_11DEC12_R2**

Latitude	Longitude	Site El.(AMSL)	Ht.(AGL)	Overall Ht.(AMSL)	Max Ht. (AMSL)	Exceeds By	Under By	Surface
37° 38' 32.4496"	122° 25' 20.6207"	42	114	156	161.05		5.05	SFO_RW28LR_OEI_Corridor_090305

Total penetrations above surfaces: **0**

Total penetrations below surfaces: **1**

Zone Analysis

X	Y	Range	Safety Zones
6005100.395	2062072.334	70-75 db	4

SURFACE INTERSECTION ANALYSIS INFORMATION - AIRPORT CODE "SFOP"

Coordinate System: **WGS84** | Date: **06/07/22** | Model: **SFO_Composite_2012_11DEC12_R2**

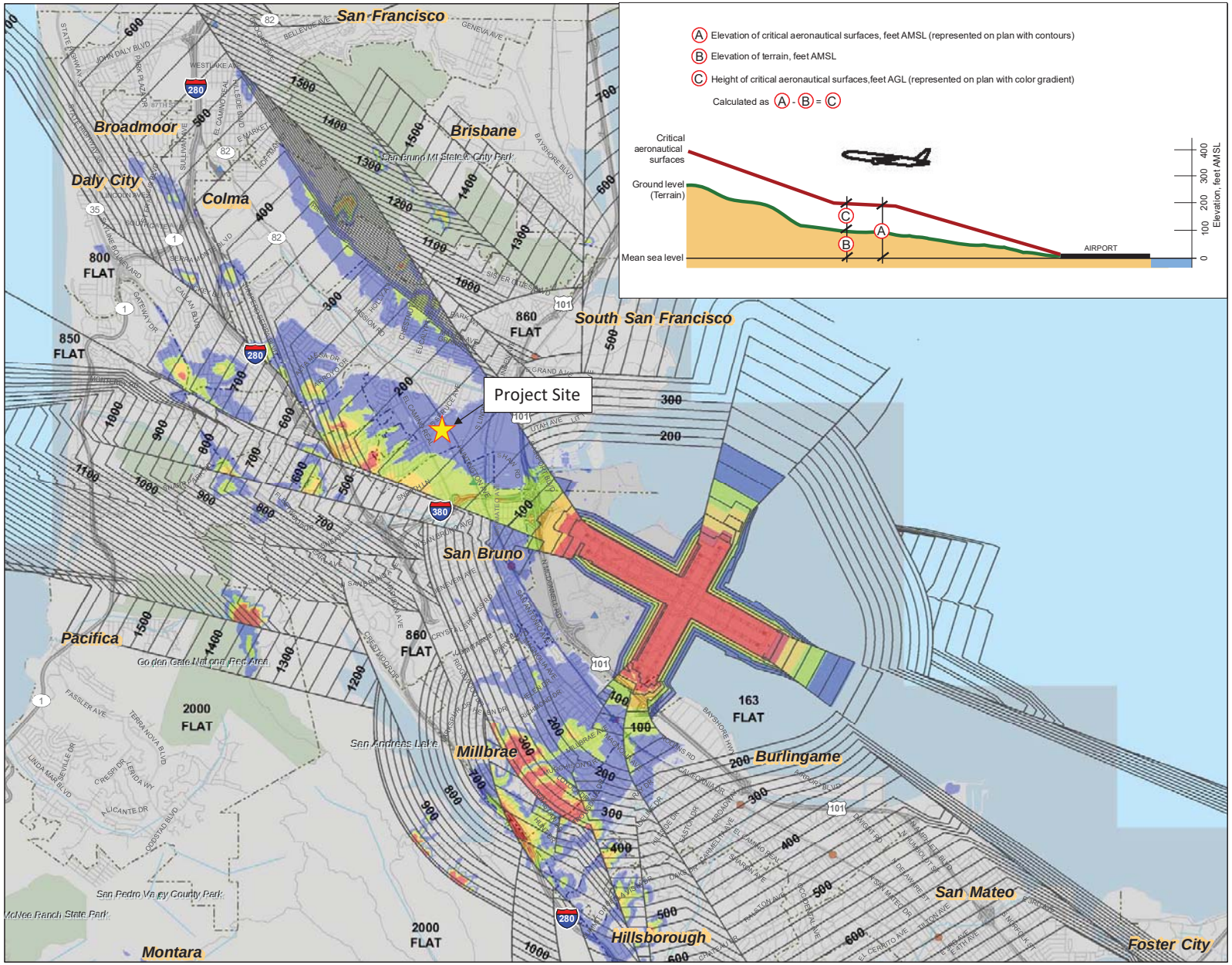
Latitude	Longitude	Site El.(AMSL)	Ht.(AGL)	Overall Ht.(AMSL)	Max Ht. (AMSL)	Exceeds By	Under By	Surface
37° 38' 30.1888"	122° 25' 25.0582"	42	114	156	162.11		6.11	SFO_RW28LR_OEI_Corridor_090309

Total penetrations above surfaces: **0**

Total penetrations below surfaces: **1**

Zone Analysis

X	Y	Range	Safety Zones
6004738.871	2061851.048	70-75 db	4



LEGEND

- A — 100 — Elevation of critical aeronautical surfaces, feet Above Mean Sea Level (AMSL), North American Vertical Datum of 1988 (NAVD88)
- C **Height of Critical Aeronautical Surfaces, Feet Above Ground Level (AGL)**
  - 35 and lower
  - 35- 65
  - 65 - 100
  - 100 - 150
  - 150 and more
- Airport Property
- BART Station
- CALTRAIN Station
- Regional Park or Recreation Area
- Municipal Boundary
- Railroad
- Freeway
- Road

Notes:

1. This map is intended for informational and conceptual planning purposes, generally representing the aeronautical surfaces considered most critical by San Francisco International Airport (SFO) and its constituent airlines. It does not represent actual survey data, nor should it be used as the sole source of information regarding compatibility with airspace clearance requirements in the development of data for an FAA Form 7460-1, Notice of Proposed Construction or Alteration. SFO does not certify its accuracy, information, or title to the properties contained in this plan. SFO does make any warrants of any kind, express or implied, in fact or by law, with respect to boundaries, easements, restrictions, claims, overlaps, or other encumbrances affecting such properties.

2. This map does not replace the FAA's obstruction evaluation / airport airspace analysis (OE/AAA) review process. Proposing construction at elevations and heights that are lower than the critical aeronautical surfaces shown on this map, (a) does not relieve the construction sponsor of the obligation to file an FAA Form 7460-1, and (b) does not ensure that the proposal will be acceptable to the FAA, SFO, air carriers, or other agencies or stakeholders. SFO, San Mateo County, and local authorities having jurisdiction reserve the right to re-assess, review, and seek modifications to projects that may be consistent with this critical aeronautical surfaces map but that through the FAA OE/AAA process are found to have unexpected impacts to the safety or efficiency of operations at SFO.

Sources: San Francisco International Airport, Jacobs Consultancy, and Planning Technology Inc., 2009

NORTH

0 0.25 0.5 1 Miles

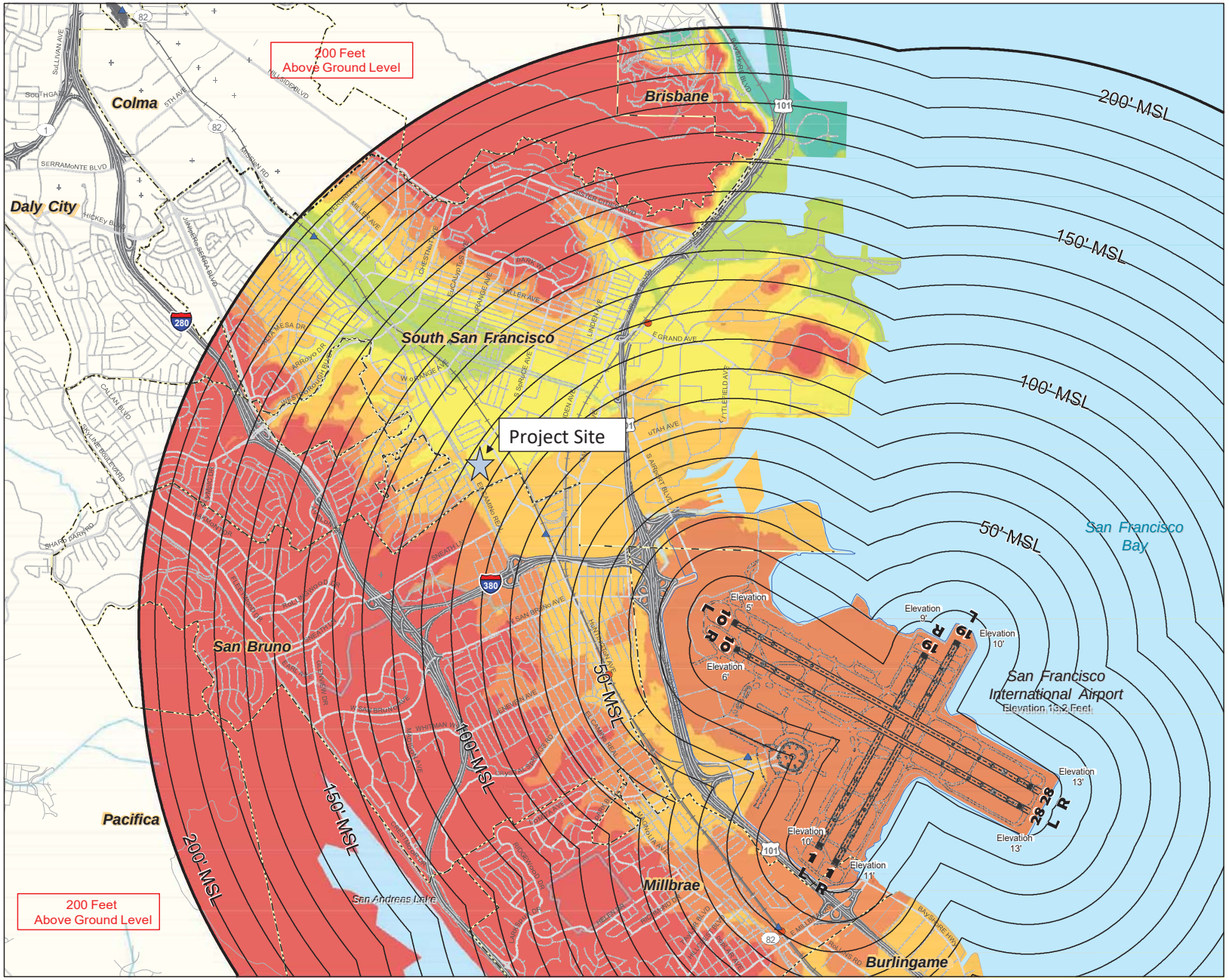
Exhibit IV-17

CRITICAL AERONAUTICAL SURFACES -- NORTHWEST SIDE

Comprehensive Airport Land Use Plan
for the Environs of San Francisco International Airport

C/CAG

City/County Association of Governments
of San Mateo County, California



FAA NOTIFICATION REQUIREMENTS

A structure proponent must file FAA Form 7460-1, Notice of proposed Construction or Alteration, for any proposed construction or alteration that meets any of the following Notification Criteria described in 14 CFR part 77.9:

§77.9(a) - A height more than 200 feet above ground level (AGL) at its site;

§77.9(b) - Within 20,000 feet of a runway more than 3,200 feet in length, and exceeding a 100:1 slope imaginary surface (i.e., a surface rising 1 foot vertically for every 100 feet horizontally) from the nearest point of the nearest runway. The 100:1 surface is shown as follows:

- 20,000 Feet Limit From Nearest Runway
- 100 Elevation Above Mean Sea Level

Heights of 100:1 Surface Above Ground (AGL)

- Terrain penetrations of Airspace Surface
- Less than 30
- 30-65
- 65-100
- 100-150
- 150-200
- 200 and more

§77.9(c) - Roadways, railroads, and waterways are evaluated based on heights above surface providing for vehicles; by specified amounts or by the height of the highest mobile object normally traversing the transportation corridor;

§77.9(d) - Any construction or alteration on any public-use or military airport (or heliport).

Structure proponents or their representatives may file via traditional paper forms via uS mail, or online at the FAA's oE/AAA website, http://oeaaa.faa.gov

LEGEND

- BART Station
- CALTRAIN Station
- Municipal Boundary
- Railroad
- Freeway
- Road

Note:

per 14 CFR part 77, developers proposing structures taller than the indicated elevations must file Form 7460-1 with the FAA at least 30 days before the proposed construction. However, due to local requirements for a favorable FAA determination as a contingency for project approval, it is advisable to file the Form 7460-1 as soon as possible because the FAA can take several months to undertake aeronautical reviews.

Source:

Ricondo & Associates, Inc. and Jacobs Consultancy, based on 14 CFR part 77, Subpart B, Section 77.9.

NoRTH

0 0.15 0.3 0.6 Miles

Exhibit IV-11

FAA NOTIFICATION FORM 7460-1
FILING REQUIREMENTS -- NORTH SIDE
Comprehensive Airport Land use plan
for the Environs of San Francisco International Airport

C/CAG
City/County Association of Governments
of San Mateo County, California

San Francisco International Airport

June 14, 2022

TRANSMITTED VIA E-MAIL
kkalkin@smc.gov

Susy Kalkin
ALUC Staff
City/County Association of Governments of San Mateo County
555 County Center, 5th Floor
Redwood City, California 94063

Subject: ***Application for Land Use Consistency Determination for the El Camino Mixed Use Project – 180 El Camino Real, South San Francisco***

Dear Ms. Kalkin:

Thank you for notifying San Francisco International Airport (SFO or the Airport) of the Application for Land Use Consistency Determination filed with the Airport Land Use Commission (ALUC) by Steelwave Development for its proposed El Camino Mixed Use Project – 180 El Camino Real (Project) within the City of South San Francisco (City). We appreciate this opportunity to coordinate with ALUC in considering and evaluating potential land use compatibility issues for the Project.

The 11.21-acre Project site is located approximately 1.1 miles northwest of Airport property, bounded by El Camino Real to the west, South Spruce Avenue to the north, and Huntington Avenue to the east. The Project includes demolition of existing on-site buildings and construction of a life sciences campus. Two Site Plans are being considered for the Project. The Project's Preferred Site Plan would include three, six-story research and development (R&D) buildings, a seven-story parking structure, and a seven-story multi-family residential building. The Project's Alternative Site Plan would replace the multi-family residential building with a six-story R&D building, add two additional levels to the parking structure, and reduce the other R&D buildings to five stories each. Based on the ALUCP Height Compliance Study drawings provided by the developer that reflect revised elevations, the maximum elevations of the R&D buildings in the Preferred Site Plan, including all permanent rooftop protrusions (e.g., cooling towers, exhaust fans, and elevator overruns), range from 159 feet, 10 inches (Building 2) to 160 feet, 1 inch (Buildings 1 and 3) (expressed above the North American Vertical Datum of 1988 [NAD88]).[1] The parking structure and residential building are roughly 40 feet lower in elevation. In the Project's Alternative Site Plan, the same R&D buildings would be one story lower and the R&D building replacing the residential building would be roughly 14 feet lower than the original three R&D buildings included in the Preferred Site Plan.

[1] Updated the ALUCP Height Compliance Study drawings provided by SteelWave, dated June 8, 2022. This letter assumes that the nonconforming elevations submitted to the Federal Aviation Administration's (FAA) Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) on May 26, 2022 (specifically, airspace cases 2022-AWP-10485-OE through -10487-OE) have been superseded by the updated drawings and that the new elevations will be submitted to OE/AAA.

Noise Compatibility

As shown in the application, the Project site is located inside Airport Influence Area B as defined by the Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport (ALUCP or SFO ALUCP), and most of the Project site is within the 70 decibel (dB) Community Noise Equivalent Level (CNEL) contour with only a small corner of the proposed residential building being within the 65 dB CNEL. The SFO ALUCP noise contours are meant to minimize the exposure of residents and occupants of future noise-sensitive development to excessive noise. According to the ALUCP, commercial land uses, including office, business, and professional, and general retail uses, in addition to industrial and production uses, are considered compatible uses within the 65 - 75 dB CNEL areas. Under the Preferred Site Plan, most of the proposed multi-family residential building would be within the 70 dB CNEL contour. According to the ALUCP, this is an incompatible land use and would only be conditionally compatible on an existing lot of record zoned only for residential use as of the ALUCP's effective date. We understand that when the current SFO ALUCP was adopted in November 2012, the lot was zoned for commercial use; therefore, the proposed multi-family residential building would not comply with the SFO ALUCP Noise Compatibility Policies, creating an airport land use compatibility issue with respect to noise. Under the Alternative Site Plan, because the proposed development would include an R&D building in lieu of a residential building, it appears that the Alternative Site Plan would be consistent with the Noise Compatibility Policies.

Along with the Application for Land Use Consistency Determination, the City provided an environmental noise analysis prepared by Salter.[2] In the Salter report, noise at the Project site is evaluated based on noise contours presented in the 2019 SFO Part 150 Noise Contour Map and also modeled based on 2021 Quarter 3 data. The Salter report also presents monitoring data from nearby noise monitors for 2019, 2020, and 2021. Based on this additional information, the City concludes that the Project is not incompatible with the ALUCP noise contours provided that the residential building is constructed to ensure that interior noise is less than 45 dB. The Airport disagrees with this assessment. Noise compatibility for a development project must be evaluated based on the SFO ALUCP as required by state law.[3] Noise contours based on more recent data, such as used in the Salter report, do not fully reflect the future forecast for SFO operations and may underestimate noise impacts to development projects. As a prime example, the Q3 2021 noise contours cited in the noise analysis reflect an unprecedented and temporary decline in air traffic as the result of the COVID-19 pandemic, which is not a reliable source of data for future forecasts.

Additionally, the Salter report's statement in Section 1.1 that "[p]er the South San Francisco Noise Element, the ALUC uses the 'latest quarterly noise contour report' to determine the compatibility of land use plans'" is misleading as that statement simply provides a narrative description of the ALUC's process, which was superseded by the process detailed in the current (2012) SFO ALUCP. The South San Francisco Noise Element[4] outlines other procedures that guide these compatibility determinations. For example, it states that "[a]ll location land use plans within the designated noise impact area (NEM 65 dB CNEL contour) must receive explicit ALUC approval." Finally, South San Francisco Noise Element Policy 9-1-10 explicitly states that "Airport Land Use Commission infill criteria" should exclude "new residential or noise sensitive development in 80 dB+ CNEL areas impacted by SFO operations." Taken

---

[2] Attachment 2 of the Application for Land Use Consistency Determination for 180 El Camino Real Residences. ALUC Environmental Noise Analysis. 28 February 2022. Prepared by Salter.
[3] California Public Utilities Code, Section 21674(d).
[4] South San Francisco General Plan, Chapter 9: Noise, page 9-4.

together, the Noise Element's policies regarding Airport noise clearly defer to the current ALUC procedures.

Safety Compatibility

The southwest portion of the Project is within Safety Compatibility Zone 4 (Outer Approach/Departure Zone). The ALUCP defines safety compatibility zones to protect public health and safety by minimizing the public's exposure to the risk associated with potential aircraft accidents. In this zone, Biosafety Level 3 and 4 facilities, children's schools, large child day care centers, hospitals, nursing homes, stadiums, and arenas are considered incompatible and should not be permitted. Additionally, hazardous uses (other than Biosafety Level 3 and 4 facilities) and critical public utilities should be avoided unless no feasible alternative is available.

The Preferred Site Plan and the Alternative Site Plan include three proposed R&D buildings slated for Biosafety Levels 1 and 2 that are fully or partially within Safety Compatibility Zone 4. Biosafety Level 2 research is considered a hazardous use. Therefore, placement of such land use within Safety Compatibility Zone 4 should be avoided unless no feasible alternative is available. The City concluded that use of Biosafety Level 2 facilities is safe and should be considered non-hazardous given that Biosafety Level 2 facilities involve agents "that are already present in the community" and that "[w]ith good microbiological techniques, these agents can be used safely."[5] Additionally, the City justifies this finding by attaching a letter from Dr. Kinkead Reiling, owner of a local bioscience laboratory rental company, who states that risk levels of Biosafety Level 2 facilities are low, and generally on-par with those of Biosafety Level 1 facilities.[6] Furthermore, the City finds that there is no feasible alternative for the Project. The letter supports this by stating that typical Bay Area laboratory users need the high-quality laboratory space that Biosafety Level 2 allows and that in order to make the Project commercially feasible Biosafety Level 2 is needed. Therefore, given the justification, the R&D buildings for the Project appear to be consistent with the SFO ALUCP Safety Compatibility policies.

Critical Aeronautical Surfaces Compatibility

As depicted on Exhibit IV-17 of the SFO ALUCP (see Attachment), the critical aeronautical surfaces above the Project are at an elevation of between approximately 159 and 168 feet above mean sea level (AMSL) as defined from the origin of NAVD88. The estimated maximum elevations of the highest buildings of the Project's Preferred Site Plan (ranging from 159 feet 10 inches to 160 feet one inch NAVD88), including permanent rooftop protrusions, would be below the critical aeronautical surfaces and thus would appear to be consistent with the SFO ALUCP's Airspace Compatibility Policies, subject to the issuance of a Determination of No Hazard from the FAA (see below) for any proposed structures and determinations from the ALUC.

Note that the height of a completed structure is measured to its highest point, which includes all parapets, elevator overruns, and other mechanical uses, none of which can extend beyond the roughly 160-foot to 164-foot height limit that applies to the Project. The permanent rooftop protrusions atop Buildings 1, 2,

---

[5] C/CAG Application for Land Use Consistency Determination – Supplemental Information, page 5, citing to Biosafety in the Laboratory: Prudent Practices for the Handling and Disposal of Infectious Materials, available at: https://www.ncbi.nlm.nih.gov/books/NBK218631/

[6] C/CAG Application for Land Use Consistency Determination – Supplemental Information, page 5, citing to Letter from Dr. Kinkead Reiling, Bonneville Labs to Tom Williams and Darcy Smith of City of Millbrae.

and 3 shown in the June 8, 2022 ALUCP Height Compliance Study drawings would be between one and two feet below the lowest critical airspace surface. The proposed design leaves little margin for error for surveying and construction, as the maximum elevations must not be exceeded. The Alternative Site Plan buildings are considerably lower than those proposed in the Preferred Site Plan and also appear to be consistent with the ALUCP Airspace Compatibility Policies.

This compatibility determination does not negate the requirement for the Project sponsor to undergo FAA review as described in 14 Code of Federal Regulations Part 77 for both (1) the permanent structures and (2) any temporary cranes or other equipment taller than the permanent buildings that would be required for construction. Original Project elevations that reflected taller structures were submitted to FAA OE/AAA on May 18, 2022. We expect that the updated elevations provided in the ALUCP Height Compliance Study drawings dated on June 8, 2022 will be submitted to OE/AAA and will supersede the values submitted to the FAA on May 18, 2022 and to the ALUC as part of the May 27, 2022 Application for Land Use Consistency Determination.

Due to the proximity of the Project to the Airport, Airspace Protection Policies (AP1 through AP4) from the SFO ALUCP are enclosed as reminders of incompatible site characteristics that pose threats to safe aircraft operations – especially as it pertains to wildlife attractants, particularly large flocks of birds – and building materials/features that reflect and create bright lights/glare.

* * *

The Airport appreciates your consideration of these comments. If I can be of assistance, please do not hesitate to contact me at (650) 821-6678 or at nupur.sinha@flysfo.com.

Sincerely,

DocuSigned by:
Nupur Sinha
7D552AE6A4CE495...

Nupur Sinha
Director of Planning and Environmental Affairs
San Francisco International Airport

Attachment

cc: Sean Charpentier, C/CAG
Audrey Park, SFO

and associated with human disease of varying severity.

b. Biosafety Level 3 practices, safety equipment, and facility design and construction are applicable to clinical, diagnostic, teaching, research, or production facilities in which work is done with indigenous or exotic agents with a potential for respiratory transmission, and which may cause serious and potentially lethal infection.

c. Biosafety Level 4 practices, safety equipment, and facility design and construction are applicable for work with dangerous and exotic agents that pose a high individual risk of life-threatening disease, which may be transmitted via the aerosol route and for which there is no available vaccine or therapy.

4.5 Airspace Protection

The compatibility of proposed land uses with respect to airspace protection shall be evaluated in accordance with the policies set forth in this section. These policies are established with a twofold purpose:

1. To protect the public health, safety, and welfare by minimizing the public's exposure to potential safety hazards that could be created through the construction of tall structures.

2. To protect the public interest in providing for the orderly development of SFO by ensuring that new development in the Airport environs avoids compromising the airspace in the Airport vicinity. This avoids the degradation in the safety, utility, efficiency, and air service capability of the Airport that could be caused by the attendant need to raise visibility minimums, increase minimum rates of climb, or cancel, restrict, or redesign flight procedures.

4.5.1 FEDERAL REGULATIONS REGARDING TALL STRUCTURES

14 Code of Federal Regulations (CFR) Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace*, governs the FAA's review of proposed construction exceeding certain height limits, defines airspace obstruction criteria, and provides for FAA aeronautical studies of proposed construction. **Appendix F** describes the FAA airspace review process and the extent of FAA authority related to airspace protection.

4.5.2 PART 77, SUBPART B, NOTIFICATION PROCESS

Federal regulations require any person proposing to build a new structure or alter an existing structure with a height that would exceed the elevations described in CFR Part 77, Subpart B, Section 77.9, to prepare an FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, and submit the notice to the FAA. The regulations apply to buildings and other structures or portions of structures, such as mechanical equipment, flag poles, and other projections that may exceed the aforementioned elevations.

Exhibit IV-10 depicts the approximate elevations at which the 14 CFR Part 77 notification requirements would be triggered; see **Exhibit IV-11** for a close-up view of the northern half and **Exhibit IV-12** for a close-up view of the southern half of the area. These exhibits are provided for informational purposes only. Official determinations of the areas and elevations within which the federal notification requirements apply are subject to the authority of the FAA. The FAA is empowered to require the filing of notices for proposed construction based on considerations other than height. For example, in some areas of complex airspace and high air traffic volumes, the FAA may be concerned about the potential for new construction of any height to interfere with electronic navigation aids. In these areas, the FAA will want to review all proposed construction projects.

The FAA has developed an on-line tool for project sponsors to use in determining whether they are required to file a Notice of Proposed Construction or Alteration. Sponsors of proposed projects are urged to refer to this website to determine whether they are required to file Form 7460-1 with the FAA:

https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm

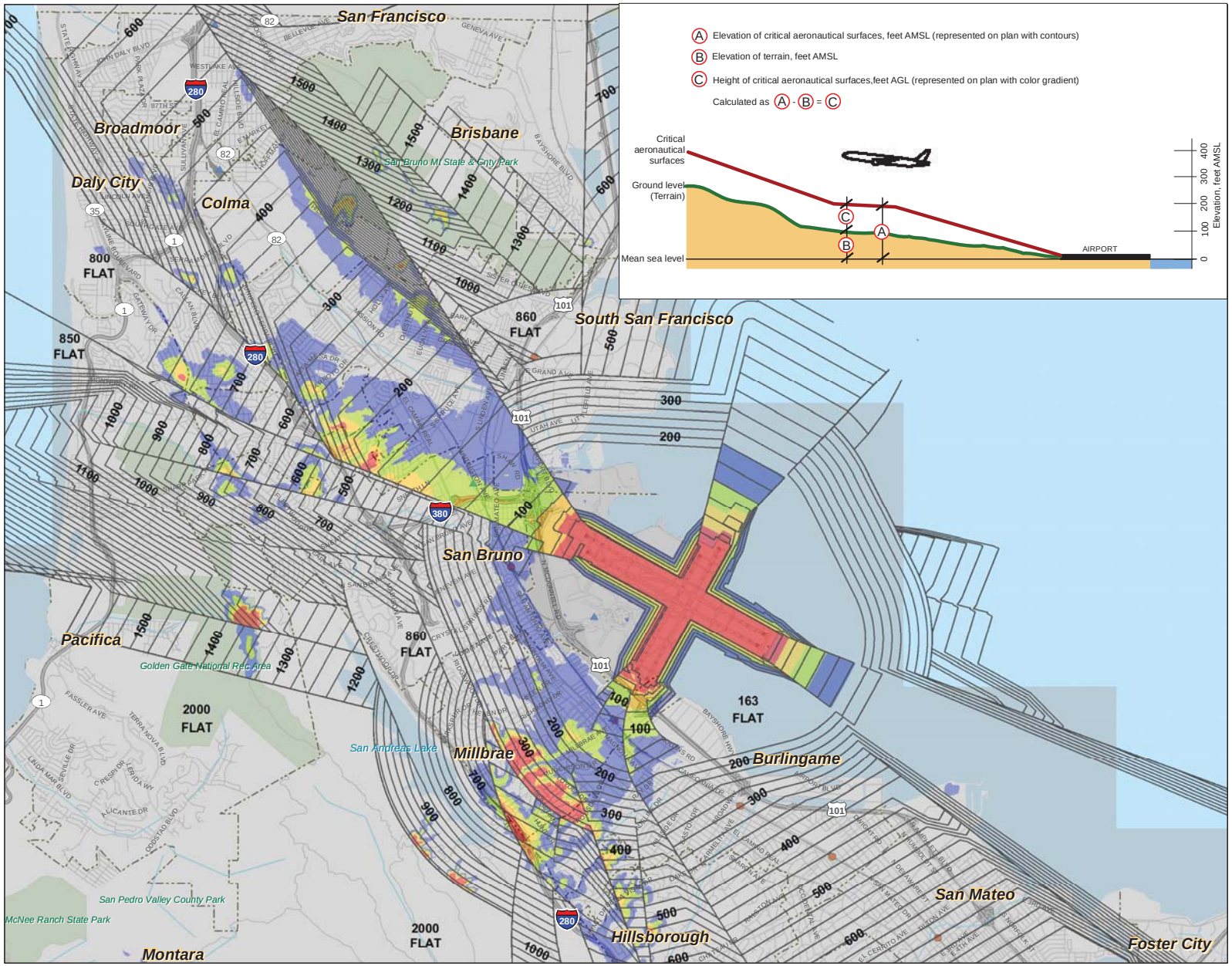
4.5.3 AIRSPACE MAPPING

Part 77, Subpart C, establishes obstruction standards for the airspace around airports including approach zones, conical zones, transitional zones, and horizontal zones known as "imaginary surfaces." **Exhibit IV-13** depicts the Part 77 Civil Airport Imaginary Surfaces at SFO. The imaginary surfaces rise from the primary surface, which is at ground level immediately around the runways. The surfaces rise gradually along the approach slopes associated with each runway end and somewhat more steeply off the sides of the runways. The FAA considers any objects penetrating these surfaces, whether buildings, trees or vehicles travelling on roads and railroads, as obstructions to air navigation. Obstructions may occur without compromising safe air navigation, but they must be marked, lighted, and noted on aeronautical publications to ensure that pilots can see and avoid them.

Close-up views of the north and south sides of the Part 77 surfaces are provided in **Exhibit IV-14** and **Exhibit IV-15**, respectively. Additionally, **Exhibit IV-16** provides an illustration of the outer approach and transitional surfaces located on the southeast side of the Part 77 surfaces.

Together with its tenant airlines, SFO has undertaken a mapping effort to illustrate the critical aeronautical surfaces that protect the airspace required for multiple types of flight procedures such as those typically factored into FAA aeronautical studies, as shown on **Exhibit IV-17** and **Exhibit IV-18**. These aeronautical surfaces include those established in accordance with FAA Order 8260.3B, *U.S. Standard for Terminal Instrument Procedures (TERPS)*, and a surface representing the airspace required for One-Engine Inoperative (OEI) departures from Runway 28L (to the west through the San Bruno Gap).[16] The exhibits depict the lowest elevations from the combination of the OEI procedure surface and all TERPS surfaces. The surfaces are defined with Required Obstacle Clearance (ROC) criteria to ensure safe separation of aircraft using the procedures from the underlying obstacles. Any proposed structures penetrating these surfaces are likely to receive Determinations of Hazard (DOH) from the FAA through the 7460-1 aeronautical study process. These surfaces indicate the maximum height at which structures can be considered compatible with Airport operations.

[16] See Appendix F, Section F.3.2 for a discussion of one-engine inoperative procedures.



Ⓐ Elevation of critical aeronautical surfaces, feet AMSL (represented on plan with contours)

Ⓑ Elevation of terrain, feet AMSL

Ⓒ Height of critical aeronautical surfaces,feet AGL (represented on plan with color gradient)

Calculated as Ⓐ - Ⓑ = Ⓒ

LEGEND

Ⓐ 100 — Elevation of critical aeronautical surfaces, feet Above Mean Sea Level (AMSL), North American Vertical Datum of 1988 (NAVD88)

Ⓒ **Height of Critical Aeronautical Surfaces, Feet Above Ground Level (AGL)**

- 35 and lower
- 35- 65
- 65 - 100
- 100 - 150
- 150 and more
- Airport Property
- BART Station
- CALTRAIN Station
- Regional Park or Recreation Area
- Municipal Boundary
- Railroad
- Freeway
- Road

Notes:

1. This map is intended for informational and conceptual planning purposes, generally representing the aeronautical surfaces considered most critical by San Francisco International Airport (SFO) and its constituent airlines. It does not represent actual survey data, nor should it be used as the sole source of information regarding compatibility with airspace clearance requirements in the development of data for an FAA Form 7460-1, Notice of Proposed Construction or Alteration. SFO does not certify its accuracy, information, or title to the properties contained in this plan. SFO does make any warrants of any kind, express or implied, in fact or by law, with respect to boundaries, easements, restrictions, claims, overlaps, or other encumbrances affecting such properties.

2. This map does not replace the FAA's obstruction evaluation / airport airspace analysis (OE/AAA) review process. Proposing construction at elevations and heights that are lower than the critical aeronautical surfaces shown on this map, (a) does not relieve the construction sponsor of the obligation to file an FAA Form 7460-1, and (b) does not ensure that the proposal will be acceptable to the FAA, SFO, air carriers, or other agencies or stakeholders. SFO, San Mateo County, and local authorities having jurisdiction reserve the right to re-assess, review, and seek modifications to projects that may be consistent with this critical aeronautical surfaces map but that through the FAA OE/AAA process are found to have unexpected impacts to the safety or efficiency of operations at SFO.

Sources: San Francisco International Airport, Jacobs Consultancy, and Planning Technology Inc., 2009

NORTH

0 0.25 0.5 1 Miles

Exhibit IV-17

CRITICAL AERONAUTICAL SURFACES -- NORTHWEST SIDE

Comprehensive Airport Land Use Plan
for the Environs of San Francisco International Airport

C/CAG

City/County Association of Governments
of San Mateo County, California

Exhibit IV-19, which is provided for information purposes only, depicts a profile view of the lowest critical airspace surfaces along the extended centerline of Runway 10L-28R – the TERPS Obstacle Departure Procedure (ODP) surface, representing standard all-engines departures, and the approximate OEI surface developed by SFO through independent study in consultation with the airlines serving SFO. The exhibit also shows the terrain elevation beneath the airspace surfaces and various aircraft approach and departure profiles, based on varying operating assumptions. The exhibit illustrates a fundamental principle related to the design of airspace protection surfaces. The surfaces are always designed below the actual aircraft flight profile which they are designed to protect, thus providing a margin of safety. Note that the ODP climb profile is above the ODP airspace surface, and the OEI climb profile is above the OEI airspace surface.

4.5.4 AIRSPACE PROTECTION POLICIES

The following airspace protection policies (AP) shall apply to the ALUCP.

AP-1 COMPLIANCE WITH 14 CFR PART 77, SUBPART B, NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

AP-1.1 Local Government Responsibility to Notify Project Sponsors

Local governments should notify sponsors of proposed projects at the earliest opportunity to file Form 7460-1, *Notice of Proposed Construction or Alteration*, with the FAA for any proposed project that would exceed the FAA notification heights, as shown approximately on Exhibit IV-10. Under Federal law, it is the responsibility of the project sponsor to comply with all notification and other requirements described in 14 CFR Part 77. This requirement applies independent of this ALUCP.

AP-1.2 FAA Aeronautical Study Findings Required Before Processing Development Application

The sponsor of a proposed project that would exceed the FAA notification heights, as shown approximately on Exhibit IV-10, shall present to the local government permitting agency with his or her application for a development permit, a copy of the findings of the FAA's aeronautical study, or evidence demonstrating that he or she is exempt from having to file an FAA Form 7460-1. It is the responsibility of the local agency to consider the FAA determination study findings as part of its review and decision on the proposed project.

AP-2 COMPLIANCE WITH FINDINGS OF FAA AERONAUTICAL STUDIES

Project sponsors shall be required to comply with the findings of FAA aeronautical studies with respect to any recommended alterations in the building design and height and any recommended marking and lighting of their structures for their proposed projects to be deemed consistent with this ALUCP.

AP-3 MAXIMUM COMPATIBLE BUILDING HEIGHT

In order to be deemed consistent with the ALUCP, the maximum height of a new building must be the lower of (1) the height shown on the SFO critical aeronautical surfaces map (Exhibits IV-17 and IV-18), or (2) the maximum height determined not to be a "hazard to air navigation" by the FAA in an aeronautical study prepared pursuant to the filing of Form 7460-1.

For the vast majority of parcels, the height limits established in local zoning ordinances are lower than the critical airspace surfaces. In those cases, the zoning district height regulations will control. Compliance with the zoning district height and the SFO critical aeronautical surfaces map, however, does not relieve the construction sponsor of the obligation to file a FAA Form 7460-1 *Notice of Proposed Construction or Alteration*, if required, and to comply with the determinations resulting from the FAA's aeronautical study.

For a project to be consistent with this ALUCP, no local agency development permits shall be issued for any proposed structure that would penetrate the aeronautical surfaces shown on Exhibits IV-17 and IV-18 or the construction of which **has not** received a Determination of No Hazard from the FAA, or which would cause the FAA to increase the minimum visibility requirements for any instrument approach or departure procedure at the Airport.

AP-4 OTHER FLIGHT HAZARDS ARE INCOMPATIBLE

Proposed land uses with characteristics that may cause visual, electronic, or wildlife hazards, particularly bird strike hazards, to aircraft taking off or landing at the Airport or in flight are incompatible in Area B of the Airport Influence Area. They may be permitted only if the uses are consistent with FAA rules and regulations. Proof of consistency with FAA rules and regulations and with any performance standards cited below must be provided to the Airport Land Use Commission (C/CAG Board) by the sponsor of the proposed land use action.

Specific characteristics that may create hazards to aircraft in flight and which are incompatible include:

(a) Sources of glare, such as highly reflective buildings or building features, or bright lights, including search lights or laser displays, which would interfere with the vision of pilots making approaches to the Airport.

(b) Distracting lights that that could be mistaken by pilots on approach to the Airport for airport identification lighting, runway edge lighting, runway end identification lighting, or runway approach lighting.

(c) Sources of dust, smoke, or water vapor that may impair the vision of pilots making approaches to the Airport.

(d) Sources of electrical interference with aircraft or air traffic control communications or navigation equipment, including radar.

(e) Land uses that, as a regular byproduct of their operations, produce thermal plumes with the potential to rise high enough and at sufficient velocities to interfere with the control of aircraft in

flight. Upward velocities of 4.3 meters (14.1 feet) per second at altitudes above 200 feet above the ground shall be considered as potentially interfering with the control of aircraft in flight.[17]

(f) Any use that creates an increased attraction for wildlife, particularly large flocks of birds, that is inconsistent with FAA rules and regulations, including, but not limited to, FAA Order 5200.5A, *Waste Disposal Sites On or Near Airports*, FAA Advisory Circular 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports*, and any successor or replacement orders or advisory circulars. Exceptions to this policy are acceptable for wetlands or other environmental mitigation projects required by ordinance, statute, court order, or Record of Decision issued by a federal agency under the National Environmental Policy Act.

4.5.5 iALP AIRSPACE TOOL

In consultation with C/CAG, SFO developed the iALP Airspace Tool, a web-based, interactive tool to evaluate the relationship of proposed buildings with the Airport's critical airspace surfaces. The iALP Airspace Tool is designed to assist planners, developers, and other interested persons with the implementation of the airspace protection policies of the SFO ALUCP. The tool helps users determine: (1) the maximum allowable building height at a given site, and/or (2) whether a building penetrates a critical airspace surface, and by how much, given the proposed building height.

A more detailed description of the iALP Airspace Tool and a tutorial explaining how to use it is presented in **Appendix J**. Use of this tool, however, does not relieve a project sponsor of the duty to comply with all federal regulations, including the obligation to file Form 7460-1, Notice of Proposed Construction or Alteration, with the FAA.

[17] This is a threshold established by the California Energy Commission in its review of power plant licensing applications. See *Blythe Solar Power Project: Supplemental Staff Assessment, Part 2*,. CEC-700-2010-004-REV1-SUP-PT2, July 2010. California Energy Commission. Docket Number 09-AFC-6, p. 25. This criterion is based on guidance established by the Australian Government Civil Aviation Authority (Advisory Circular AC 139-05(0), June 2004). The FAA's Airport Obstructions Standards Committee (AOSC) is studying this matter but has not yet issued specific guidance.