City of Sunnyvale

Notice and Agenda - Final

Planning Commission

Monday, April 8, 2019	**6:00 PM**	**Council Chambers and West Conference Room, City Hall, 456 W. Olive Ave., Sunnyvale, CA 94086**

Special Meeting - Study Session - 6:00 PM | Special Meeting - Public Hearing 7:00 PM

6:00 PM STUDY SESSION

Call to Order in the West Conference Room

Roll Call

Study Session

A 19-0452
Proposed Project: CityLine Block 6
Project Planner: Dave Hogan, 408-730-7440, dhogan@sunnyvale.ca.gov

B 19-0451
Proposed Project: Construct 4 new mini warehouse storage buildings totaling 317,392 s.f. and demolish 7 existing buildings.
Location:1060 Stewart Drive (APN: 205-23-019)
File #: 2017-7912
Project Planner: Shetal Divatia, 408-730-7637, sdivatia@sunnyvale.ca.gov

Public Comment on Study Session Agenda Items

Adjourn Study Session

7:00 PM PLANNING COMMISSION MEETING

CALL TO ORDER

Call to Order in the Council Chambers

SALUTE TO THE FLAG

ROLL CALL

ORAL COMMUNICATIONS

This category provides an opportunity for members of the public to address the commission on items not listed on the agenda and is limited to 15 minutes (may be extended or continued after the public hearings/general business section of the agenda at the discretion of the Chair) with a maximum of up to three minutes per speaker. Please note the Brown Act (Open Meeting Law) does not allow commissioners to take action on an item not listed on the agenda. If you wish to address the commission, please complete a speaker card and give it to the Recording Secretary. Individuals are limited to one appearance during this section.

CONSENT CALENDAR

1.A 19-0407 Approve Planning Commission Meeting Minutes of March 11, 2019

1.B 19-0450 Approve Planning Commission Meeting Minutes of March 25, 2019

1.C 19-0351 **Proposed Project:** Application on a 0.25-acre site:

DESIGN REVIEW: to allow construction of a solid roof over an accessory structure (gazebo) to the rear of an existing one-story single family home, resulting in 4,766 square feet (4,359 square feet existing home unchanged and 407 square feet accessory structure) and 43.4% floor area ratio (FAR).

Location: 1630 Manitoba Dr. (APN: 323-22-044)
File #: 2018-8016
Zoning: R-1 (Low Density Residential)
Applicant / Owner: Kikuchi + Kankel Design Group (applicant) / Kenneth and Donna Okumura (owner)
Environmental Review: A Class 3 Categorical Exemption relieves this project from California Environmental Quality Act (CEQA) provisions. Class 3(e) Categorical Exemption includes construction of accessory structures and installation of small new equipment and facilities in small structures.
Project Planner: Mary Jeyaprakash, (408) 730-7449, mjeyaprakash@sunnyvale.ca.gov

PUBLIC HEARINGS/GENERAL BUSINESS

2 18-1118 **CONTINUED FROM MARCH 25, 2019 Proposed Project:** Related applications on a 34.7-acre site:

REZONE: the site from M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/Medium Density Residential/Planned Development) and M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/High Density Residential/Planned Development) **TO** R-3/PD (Medium Density

Residential/Planned Development) R-4/PD (High Density Residential Planned Development) and P-F (Public Facilities).
SPECIAL DEVELOPMENT PERMIT: Demolish existing industrial/office buildings (formerly AMD campus) and construct 1,051 residential units, including 944 units in three to five-story apartment buildings and 107 units in three-story townhome style buildings. The unit count includes 45 apartment units for very low-income households and 13 below market rate townhome units. Public improvements include the dedication of a 6.5-acre public park, extension of Indian Wells Avenue to the east to connect with the Duane Avenue/Stewart Drive intersection, and associated public improvements. Requested deviations include reduced private useable open space and front setbacks on Indian Wells Avenue and Stewart Drive.
VESTING TENTATIVE MAP: Lot line adjustment between two existing lots and subdivide one lot into six lots, to create a total of seven lots.

Location:1 AMD Place (APNs: 205-22-024, 205-22-025), 975 Stewart Drive (205-22-028)
File #: 2016-8035
Zoning: Industrial Service/Industrial-to-Residential/Medium Density/Planned Development Zoning District (MS/ITR/R-3/PD) and Industrial Service/Industrial-to-Residential High Density Zoning District (MS/ITR/R-4/PD) Zoning District
Applicant / Owner: Irvine Company (applicant /owner)
Environmental Review: Adopt a resolution to make findings required by CEQA, certify the Environmental Impact Report (EIR), and adopt a Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program.
Project Planner: Gerri Caruso/Margaret Netto, (408) 730-7440, mnetto@sunnyvale.ca.gov

3 19-0350

Proposed Project: Application on a 0.38-acre site:
DESIGN REVIEW: to allow construction of a new one-story single-family home resulting in 5,641 square feet (4,701 square feet living area, 760 square feet garage, and 180 square feet covered patio) and 42.9% floor area ratio (FAR). The existing home will be demolished.

Location: 1150 S. Bernardo Ave. (APN: 202-34-030)
File #: 2018-7952
Zoning: R-1 (Low Density Residential)
Applicant / Owner: LHC Design, Inc. (applicant) / Kaili Kan and Qing Fan (owner)
Environmental Review: A Class 3 Categorical Exemption relieves this project from California Environmental Quality Act (CEQA) provisions. Class 3(a) Categorical Exemption includes construction of one

single-family residence in a residential zoning district.
Project Planner: Mary Jeyaprakash, (408) 730-7449, mjeyaprakash@sunnyvale.ca.gov

STANDING ITEM: CONSIDERATION OF POTENTIAL STUDY ISSUES

NON-AGENDA ITEMS AND COMMENTS

-Commissioner Comments

-Staff Comments

ADJOURNMENT

Notice to the Public:

Any agenda related writings or documents distributed to members of the Planning Commission regarding any open session item on this agenda will be made available for public inspection in the Planning Division office located at 456 W. Olive Ave., Sunnyvale CA 94086 during normal business hours, and in the Council Chambers on the evening of the Planning Commission meeting pursuant to Government Code §54957.5.

Agenda information is available by contacting Bonnie Filipovic at (408) 730-7440. Agendas and associated reports are also available at sunnyvaleca.legistar.com or at the Sunnyvale Public Library, 665 W. Olive Ave., 72 hours before the meeting.

Planning a presentation for a Planning Commission meeting?
To help you prepare and deliver your public comments, please review the "Making Public Comments During City Council or Planning Commission Meetings" document available on the City website.

PLEASE TAKE NOTICE that if you file a lawsuit challenging any final decision on any public hearing item listed in this agenda, the issues in the lawsuit may be limited to the issues which were raised at the public hearing or presented in writing to the City at or before the public hearing.

PLEASE TAKE FURTHER NOTICE that Code of Civil Procedure section 1094.6 imposes a 90-day deadline for the filing of any lawsuit challenging final action on an agenda item which is subject to Code of Civil Procedure section 1094.5.

Pursuant to the Americans with Disabilities Act, if you need special assistance in this meeting, please contact the Planning Division at (408) 730-7440. Notification of 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 35.160 (b) (1))

City of Sunnyvale

Agenda Item A

19-0452 **Agenda Date:** 4/8/2019

REPORT TO PLANNING COMMISSION

SUBJECT

Proposed Project: CityLine Block 6
Project Planner: Dave Hogan, 408-730-7440, dhogan@sunnyvale.ca.gov

City of Sunnyvale

Agenda Item B

19-0451 **Agenda Date:** 4/8/2019

REPORT TO PLANNING COMMISSION

SUBJECT

Proposed Project: Construct 4 new mini warehouse storage buildings totaling 317,392 s.f. and demolish 7 existing buildings.
Location:1060 Stewart Drive (APN: 205-23-019)
File #: 2017-7912
Project Planner: Shetal Divatia, 408-730-7637, sdivatia@sunnyvale.ca.gov

City of Sunnyvale

Agenda Item 1.A

19-0407 **Agenda Date:** 4/8/2019

SUBJECT
Approve Planning Commission Meeting Minutes of March 11, 2019

RECOMMENDATION
Approve Planning Commission Meeting Minutes of March 11, 2019 as submitted.

City of Sunnyvale

Meeting Minutes - Draft
Planning Commission

Monday, March 11, 2019 | **6:00 PM** | **Council Chambers and West Conference Room, City Hall, 456 W. Olive Ave., Sunnyvale, CA 94086**

Special Meeting - Study Session - 6:00 PM | Special Meeting - Public Hearing 7:00 PM

6:00 PM STUDY SESSION

Call to Order in the West Conference Room

Roll Call

Study Session

A. 19-0368 Overview of Block 18 CityLine Project (Macy's Building)
Project Planner:
David Hogan, (408) 730-7444, dhogan@sunnyvale.ca.gov

Public Comment on Study Session Agenda Item

Adjourn Study Session

7:00 PM PLANNING COMMISSION MEETING

CALL TO ORDER

Chair Howard called the meeting to order at 7:00 PM in the Council Chambers.

SALUTE TO THE FLAG

Chair Howard led the salute to the flag.

ROLL CALL

Present: 6 - Commissioner Carol Weiss
Chair Daniel Howard
Commissioner Ken Olevson
Vice Chair David Simons
Commissioner Ken Rheaume
Commissioner Sue Harrison

Absent: 1 - Commissioner John Howe

Status of absence; Commissioner Howe's absence is excused.

ORAL COMMUNICATIONS

CONSENT CALENDAR

Commissioner Harrison moved and Commissioner Weiss seconded the motion to approve the Consent Calendar.

The motion carried by the following vote:

Yes: 6 - Commissioner Weiss
Chair Howard
Commissioner Olevson
Vice Chair Simons
Commissioner Rheaume
Commissioner Harrison

No: 0

Absent: 1 - Commissioner Howe

1.A 19-0341 Approve Planning Commission Meeting Minutes of February 11, 2019

1.B 19-0342 Approve Planning Commission Meeting Minutes of February 25, 2019

PUBLIC HEARINGS/GENERAL BUSINESS

2. 18-1055 **Proposed Project:** Related applications on an 8.8-acre site:
SPECIAL DEVELOPMENT PERMIT: To construct 58 single-family homes, including requests to deviate from setback and FAR requirements/standards.
TENTATIVE MAP: To subdivide one parcel into 61 lots including 58 single family lots, a private street, a remainder common lot, and lot for a 2-acre public park.

Location: 1142 Dahlia Court (commonly referred to as the Corn Palace) - bound by Dahlia Drive, Toyon Avenue, Lily Avenue and Lawrence Expressway.
(APN: 213-12-001)
File #: 2017-7451
Zoning: R-1.5/PD
Applicant / Owner: Trumark Homes/Francia Family Living Trust, Gabriel Francia, Trustee (applicant /owner)
Environmental Review: Adopt a resolution to make findings required by CEQA, certify the Environmental Impact Report (EIR), and adopt a Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program
Project Planner: Shétal Divatia, (408) 730-7637, sdivatia@sunnyvale.ca.gov

Senior Planner Shetal Divatia presented the staff report.

Kristen Stoner, representing Ascent Environmental, presented the Environmental Impact Report for the proposed project.

Commissioner Weiss confirmed with Ms. Stoner that the applicant is required to retain a qualified botanist to survey the site.

Commissioner Rheaume asked staff why the floor area ratio (FAR) has been calculated with and without private streets. Assistant Director Andrew Miner answered that the City's practice is to include private streets in FAR calculations but that both calculations are included for informational purposes. Commissioner Rheaume discussed with Assistant Director Miner other projects with a similar density and FAR calculation as the proposed project.

Commissioner Weiss asked staff if decreasing the size of the houses and adding more of them would eliminate the setback deviations. Assistant Director Miner stated that could result in an increase in FAR and that the proposed 60% FAR is like other projects throughout Sunnyvale.

Commissioner Harrison confirmed with Senior Planner Divatia that the proposed project is 90% of the density allowed.

Chair Howard asked staff what the options are for the site’s development given that it should be built to a minimum of 75% density. Assistant Director Miner answered that the two acres dedicated to the proposed park should not be factored in to density calculations and that building to the 75% minimum as if the two acres were

available to the developer would be considered overbuilding given the zoning.

Commissioner Olevson disclosed that he met with the applicant about the proposed project. He asked staff if setback issues would improve if the developer did not dedicate two acres to the City for a park. Assistant Director Miner responded that more houses would be possible but setback issues could still be an issue if the developer chose to build the same product type.

Chair Howard confirmed with Senior Assistant City Attorney Rebecca Moon that the developer is only required to dedicate .725 acres to the City with the City to purchase the remaining acres.

Chair Howard stated that he believes the developer can build to the 75% minimum on the remaining six acres. Assistant Director Miner stated that more houses would most likely be possible if the lots and homes were reduced in size. He added that staff's main concern is housing sizes for the lots which appear to be contrary to the intent of the R-1.5 zoning district.

Chair Howard opened the Public Hearing.

Garrett Hinds, Director of Architecture with Trumark Homes, presented images and information about the proposed project. He introduced Jill Williams, Project Architect, with KTGY Architects.

Michael Rexrand, Sunnyvale resident, stated his concern for his family's safety with the removal of the stop sign at Lily Avenue and White Oak Lane.

Mike Serrone, Sunnyvale resident, stated his wish that the proposed project provided more housing. He also proposed the idea of a community garden as part of the park to complement the proposed project's modern farmhouse architecture.

Richard Mehlinger, Sunnyvale resident, stated his preference for smaller homes at a higher density for the proposed project.

Ray Crump, Sunnyvale resident, stated his support for the proposed project and added that increasing its density is not in the interest of the existing neighborhood.

Michele Healy, representing Santa Clara Unified School District (SCUSD), stated that Trumark Homes has offered SCUSD $150k that it will use to improve its

facilities.

Commissioner Simons suggested to Ms. Healy that SCUSD consider placing the money in a trust to encourage long-term donations.

Carl Blankenship, Sunnyvale resident, stated his concern that the proposed development would shade his solar panels and exacerbate the noise along Lawrence Expressway.

Commissioner Simons asked Mr. Blankenship if he is requesting a sound wall taller than the proposed eight feet and Mr. Blankenship responded that he just wants the Commission to consider noise mitigation in general.

Anita Clemetson, Sunnyvale resident, asked that the proposed eight-foot sound wall include and extend beyond her and Mr. Blankenship's houses and stated that she does not want an increase in the proposed project’s density.

Mr. Hinds presented additional information about the project.

Commissioner Simons confirmed with Mr. Hinds that the proposed height of the sound wall is based on the noise mitigation study and staff's input and that the stretch can be built to look consistent. Commissioner Simons asked Mr. Hinds why some of the houses along the park do not face the park. Mr. Hinds stated that their design makes them feel as if they face the park. Commissioner Simons responded that the neighborhood would be safer if as many houses as possible faced the park.

Commissioner Weiss disclosed that she met with the applicant before the proposed project was heard at a Study Session and she confirmed with Mr. Hinds that the City is free to pursue its vision for the proposed park if it became the land owner.

Commissioner Rheaume disclosed that he met with the applicant, thanked him for addressing the Commission's comments since the Study Session, and stated that a higher density is not appropriate for this proposed project and its established zoning. Commissioner Rheaume confirmed with Mr. Hinds that the design plans accurately reflect the density and asked him why the FARs are not closer to the 60% staff suggests. Mr. Hinds answered that smaller backyards are a tradeoff for the nearby park.

Chair Howard closed the Public Hearing.

Commissioner Harrison confirmed with Assistant Director Miner that 10-foot and 15-foot rear setback deviations are less common deviation requests.

MOTION: Commissioner Harrison moved and Commissioner Rheaume seconded the motion for Alternatives 1 and 5 (Alternative 3 with conditions) - 1) Adopt a Resolution to Certify the Environmental Impact Report including the Errata in Attachment 7; make the Findings required by the California Environmental Quality Act; and adopt the Statement of Overriding Consideration and Mitigation Monitoring Report Program (included in Attachment 3 to the report); and, 3) Make the Findings for the Special Development Permit and Vesting Tentative Map, Deny the requested deviations for reduced setbacks and FAR, and Approve the Special Development Permit and Vesting Tentative Map (included in Attachment 4 to the report), subject to recommended Conditions of Approval in Attachment 5 of the report, which include a condition that the house plans and architecture be modified to eliminate or reduce lot coverage, setback and floor area ratio deviations, and to require that the modified house plans and architecture be approved by Planning Commission, with the following conditions:

1.) Specify that staff work with the developer to re-design the houses to increase the rear setbacks; and
2.) Specify that the sound wall will match the look and height, with a minimum of 8 feet in height, to the sound wall along Lawrence Expressway directly across from the proposed project.

Commissioner Harrison stated that she can make the findings and accept the front and side setback deviations, but she does not support the proposed 10-foot backyards.

Commissioner Simons stated that he will not support the motion because the front entrances to some the houses along the perimeter of the park do not face the park, increasing the potential for safety issues.

Commissioner Olevson stated that he will not to support the motion. He stated that the proposed park is a benefit to the City and that the Commission should therefore allow the setback deviations.

Commissioner Weiss stated that she likes the proposed project's architecture and stormwater management system but believes that it needs more, smaller homes,

affordable for the average person. She stated that she will not support the motion.

Chair Howard stated that he will not support the motion. He stated that the proposed project should meet the 75% minimum zoning density requirement and that the City Council should be the determining body given that the proposed project does not meet that requirement.

The motion carried by the following vote:

Yes: 2 - Commissioner Rheaume
Commissioner Harrison

No: 4 - Commissioner Weiss
Chair Howard
Commissioner Olevson
Vice Chair Simons

Absent: 1 - Commissioner Howe

MOTION: Commissioner Olevson moved and Commissioner Rheaume seconded the motion for Alternatives 1 and 4 - 1) Adopt a Resolution to Certify the Environmental Impact Report including the Errata in Attachment 7; make the Findings required by CEQA, and adopt the Statement of Overriding Consideration and Mitigation Monitoring Report Program in Attachment 3; and, 4) Make the Findings for the Special Development Permit and Vesting Tentative Map and Approve the Special Development Permit and Vesting Tentative Map (included in Attachment 4 to the report) subject to modified Conditions of Approval in Attachment 5, accepting the house plans as proposed and deleting condition PS-1 a) in Attachment 5.

Commissioner Rheaume stated that the requested deviations are acceptable given that the City would gain a public park.

The motion carried by the following vote:

Yes: 2 - Commissioner Olevson
Commissioner Rheaume

No: 4 - Commissioner Weiss
Chair Howard
Vice Chair Simons
Commissioner Harrison

Absent: 1 - Commissioner Howe

Commissioner Simons confirmed with Senior Assistant City Attorney Rebecca Moon that it is possible for the Commission to engage in an Informal Consideration discussion.

MOTION: Commissioner Simons moved and Commissioner Rheaume seconded the motion to begin an Informal Consideration period.

The motion carried by the following vote:

Yes: 6 - Commissioner Weiss
Chair Howard
Commissioner Olevson
Vice Chair Simons
Commissioner Rheaume
Commissioner Harrison

No: 0

Absent: 1 - Commissioner Howe

The Commissioners informally discussed the project, questioned staff, and by general consensus agreed to end the Informal Consideration period.

MOTION: Commissioner Simons moved and Commissioner Harrison seconded the motion for Alternatives 1 and an amended Alternative 3 - 1) Adopt a Resolution to Certify the Environmental Impact Report including the Errata in Attachment 7; make the Findings required by CEQA, and adopt the Statement of Overriding Consideration and Mitigation Monitoring Report Program in Attachment 3; and, an amended 3) Make the Findings for the Special Development Permit with deviations and Vesting Tentative Map, including deviations for reduced setbacks, lot coverage and FAR, and Approve the Special Development Permit and Vesting Tentative Map (included in Attachment 4 to the report), subject to recommended Conditions of

Approval in Attachment 5 of the report, and to require that the modified house plans and architecture be approved by Planning Commission with the following additional conditions:

1. Specify that the houses' rear setbacks be increased to an average of 15 feet;
2. Specify that the sound wall will match the look and height, with a minimum of 8 feet in height, to the sound wall along Lawrence Expressway directly across from the proposed project; and
3. Specify that the houses along the perimeter of the park are oriented so that their front entrances face the park.

Commissioner Simons stated that he would be pleased if the motion passes and the front entrances to the houses along the park are re-designed to face the park. He stated he can make the findings and that he intends to support the motion.

Commissioner Harrison stated that she likes the proposed project's architecture, its public park dedication, and its consideration for the potential homeowners' needs. She added that she appreciates the applicant's flexibility and staff's recommendation which resulted in the compromise to increase the houses' rear setbacks to an average of 15 feet.

Commissioner Olevson stated that he is pleased to support the motion.

Commissioner Rheaume stated that he can make the findings and intends to support the motion. He stated that the proposed project is a nice design and added that the proposed project is the best use of the land for the existing single family home neighborhood.

Assistant Director Miner confirmed with Commissioner Simons that the Commission would like to review and approve the design plan changes as stated in Alternative 3.

Commissioner Weiss stated that she supports Alternative 3 exactly as written in the staff report and that she will not support the motion.

Chair Howard stated that he still believes the proposed project should fulfill the 75% minimum zoning density requirement but is satisfied that the City Council can take action if it feels the policy has not been met. He thanked the Commissioners, the audience, the applicant, and the staff.

The motion carried by the following vote:

Yes: 4 - Commissioner Olevson
Vice Chair Simons
Commissioner Rheaume
Commissioner Harrison

No: 2 - Commissioner Weiss
Chair Howard

Absent: 1 - Commissioner Howe

Assistant Director Miner stated that this action is final unless appealed to or called up for review by the City Council within 15 days.

3. 18-1052 **Proposed Project: APPEAL** by the applicant of a decision by the Zoning Administrator to deny:

USE PERMIT to allow modification to a previously approved Use Permit (2012-7479 - Condition of Approval AT-1 and AT-7) to allow extended hours of operation (11:30 AM - 6:30 PM during school days and 8:30 AM-6:30 PM when students are on break) and outdoor play areas for the after-school educational enrichment facility, which with the proposed extended hours of operation would be considered a daycare use.

Location: 1025 The Dalles (APN:320-11-010)
File #: 2018-7519
Zoning: PF (Public Facility)
Applicant / Owner: Sunny Chinese Learning Center (applicant) / St. Luke Lutheran Church of Sunnyvale (owner)
Environmental Review: Class 1 CEQA Exemption (CEQA Guidelines Section 15301, Existing Facilities)
Project Planner: Shétal Divatia (408) 730-7637, sdivatia@sunnyvale.ca.gov

Senior Planner Shetal Divatia presented the staff report.

Commissioner Harrison confirmed with Senior Planner Divatia that the appellant is requesting to extend its hours and add outdoor play time and that State child care licensing requirements determine the required size of the outdoor play area. Senior Planner Divatia added that the center is a heritage school.

Commissioner Weiss confirmed that St. Luke Lutheran Church was built prior to the houses that currently surround it.

Camas Steinmetz, land use attorney representing the Sunny Chinese Learning Center appellant, presented images and information about the use permit application.

Commissioner Olevson confirmed with Ms. Steinmetz that the center has been in violation of the conditions of their status as an after school educational enrichment facility. He stated that he does not have confidence that the center will adhere to the conditions of the modified use permit is granted. Ms. Steinmetz stated that the center is committed to complying with conditions and has taken steps to ensure compliance.

Commissioner Weiss asked the appellant what state or national cultural or language association the Sunny Chinese Learning Center belongs to. Ms. Steinmetz stated that as a heritage school, Sunny Chinese Learning Center is exempt from obtaining a State child care license but that the City considers the center as daycare use with its use permit modification application. Commissioner Weiss asked the appellant how noise would be monitored. Ms. Steinmetz answered that the center plans to use noise monitoring devices that would prompt the center to bring the children inside if activated and that the noise study anticipates noise between 48 dBa and 50 dBa. Commissioner Weiss confirmed with Ms. Steinmetz that the classrooms are air conditioned and that it is not possible for less than 24 children at a time to have outdoor play.

Commissioner Harrison confirmed with Ms. Steinmetz and Assistant Director Andrew Miner that the center has applied to modify its use permit to daycare use as defined by the City.

Senior Assistant City Attorney Rebecca Moon clarified that a heritage school under State law is exempt from licensure as a child care center but that it could still be considered for child care use under the City's zoning codes.

Chair Howard confirmed with Ms. Steinmetz and Senior Assistant City Attorney Moon that the issue for consideration is the change in land use from an enrichment center to daycare use.

Chris Oliva, Sunnyvale resident, stated his concerns that the center has violated the conditions of its original use permit and requested that the Commissioners deny the use permit modification application.

Commissioner Harrison confirmed with Mr. Oliva that his main concerns are noise and traffic from the center and that he is unsure if it is possible to improve those issues.

Commissioner Simons asked Mr. Oliva if he would prefer a masonry wall separating the neighbors and the center. Mr. Oliva stated that the masonry wall that has been proposed would not be near his property and therefore would not help mitigate the noise he experiences.

Janet O'Rourke, Sunnyvale resident, stated that she is opposed to a masonry wall abutting her property but that she is open to tall, dense landscaping or a wall around the center's property.

Ms. Steinmetz and Lucy Liu, Sunny Chinese Learning Center staff member, presented additional images and information about the use permit application.

Commissioner Harrison asked the appellant what steps the center plans to take to mitigate noise. Ms. Liu stated that she is amenable to increasing the height of the existing wooden fence, allowing 30 minutes of outdoor play for 24 children at a time, and employing the use of noise monitors.

Ms. Liu added that the center is affiliated with the Chinese School Association in the United States. Commissioner Weiss thanked Ms. Liu for the information.

Chair Howard closed the Public Hearing.

Commissioner Rheaume confirmed with Senior Planner Divatia that there is a church-sponsored day care center in operation at the same site and confirmed with Assistant Director Miner that all commercial child care facilities must obtain a City use permit. Commissioner Rheaume asked staff how many businesses can operate at a church. Assistant Director Miner stated that over time the learning center's operations have evolved into daycare use.

Chair Howard confirmed with Senior Planner Divatia that there are 84 children enrolled in the Sunny Chinese Learning Center and approximately 36-48 children enrolled at Amazing Creations Preschool, both located at 1025 The Dalles Avenue. Chair Howard asked staff how one would determine if noise issues were coming from children at the Sunnyvale Chinese Learning Center or Amazing Creations Preschool, and Assistant Director Miner stated that it would be difficult to determine.

Chair Howard asked staff if there is a limit to how many children a daycare center may serve. Assistant Director Miner said that every facility is different and that it requires a discretionary staff decision. He clarified that the center is still allowed to conduct business as a after school learning center, but that staff recommends the center do so under the original approved use permit.

Commissioner Harrison confirmed with Assistant Director Miner that there are no restrictions against more than one child care center at a location but that staff accounts for issues such as noise and general compatibility in its discretionary decisions. Commissioner Harrison asked staff to confirm what conditions the appellant is agreeing to comply with. Senior Planner Divatia stated that the six foot wooden fence is existing.

Assistant Director Miner clarified that staff recommends denial of the appeal.

Commissioner Harrison asked Senior Assistant City Attorney Moon to confirm that the appellant is arguing that the use permit denial does not meet the findings that must be made. Senior Assistant City Attorney Moon stated that she does not agree with the appellant's argument; instead, without a standard, staff has discretion to make a fair decision based on the record and substantial evidence. Assistant Director Miner referenced the general plan policy findings that must be made and added that they require discretion.

Commissioner Harrison confirmed with Senior Planner Divatia that the noise study found that noise coming from the children would not be significant.

Commissioner Rheaume confirmed with Assistant Director Miner that staff's recommendation is to deny the appeal.

Commissioner Weiss asked staff if it is possible to approve the modified use permit with provisions. Assistant Director Miner stated that it may not be the best course of action. Senior Assistant City Attorney Moon stated that the option is not helpful and would require the City to establish a record and begin legal proceedings if the center were not in compliance with conditions and refused to cease operations.

Chair Howard asked staff what the options are if the center is not in compliance with the conditions of the modified use permit if granted. Senior Assistant City Attorney Moon stated that the City would most likely undergo a lengthy code enforcement process with the business owner or pursue a legal proceeding to revoke the permit.

Chair Howard clarified with staff that the Commission can either make or not make the findings based on discretion and that staff's recommendation is to deny the appeal because the center has been in violation of the conditions of the original use permit. Senior Assistant City Attorney Moon stated that the center's code enforcement history is a significant piece of information but that the Commission must also determine if the appellant's proposal is compatible with the neighborhood and meets the City's policies.

MOTION: Commissioner Olevson moved and Commissioner Simons seconded the motion for Alternative 1 - Deny the Appeal and uphold the decision of the Zoning Administrator to deny the Use Permit.

Commissioner Olevson stated that he does not have confidence that the center would comply with the conditions of the modified use permit if granted based on its prior violations of the original use permit conditions. He added that he would need to see years of compliance with the existing use permit before granting the modified use permit.

Commissioner Simons stated that he cannot make the findings and agrees with Commissioner Olevson that the center should first demonstrate compliance. He stated that he is supportive of child care in general and that the best course of action is denial of the appeal based on past code enforcement issues.

Commissioner Rheaume stated that he will support the motion, can make the findings to deny the appeal, and supports Commissioner Olevson and Commissioner Simons' statements. He added that he would require compliance with the existing permit before considering the modified use permit and added that two child care centers in the same location is not in the best interest of the neighborhood.

Commissioner Harrison stated that she will support the motion because she does not have enough information to make the findings and to determine if the facilities are adequate for daycare use and the surrounding neighborhood.

Commissioner Weiss stated that she intends to support the motion. She suggested that the appellant apply again after the center has determined what types of services it will provide and after it has demonstrated compliance with the conditions of its current use permit.

Chair Howard stated that he will oppose the motion but is disappointed that the center violated the conditions of its existing use permit. He also stated that it is important for the children to have outside play time and encouraged the center to work on meeting the current conditions of their use permit and re-applying for the modified use permit after it has demonstrated compliance.

The motion carried by the following vote:

Yes: 5 - Commissioner Weiss
Commissioner Olevson
Vice Chair Simons
Commissioner Rheaume
Commissioner Harrison

No: 1 - Chair Howard

Absent: 1 - Commissioner Howe

Assistant Director Miner stated that this action is final unless appealed to or called up for review by the City Council within 15 days.

4. 19-0217 Moffett Park Specific Plan Update Work Plan and Guiding Principles
Project Planner:
Michelle King, 408-730-7463, mking@sunnyvale.ca.gov

Commissioner Rheaume recused himself because of a financial conflict of interest.

Assistant Director Andrew Miner introduced Principal Planner Michelle King.

Principal Planner King presented the staff report.

Commissioner Simons confirmed with Principal Planner King that the Commission's previous suggestions as part of the General Plan Initiation review will be included in the work plan. He expressed the importance that the staff work in tandem with existing Public Works projects. Principal Planner King stated that some of the members of the Technical Advisory Committee are staff members from Public Works. Commissioner Simons stated his concern for pedestrian access at the Valley Transportation Authority (VTA) light rail stop in the southern region of Moffett Park. Principal Planner King answered that staff will address pedestrian issues and are working with VTA regarding the light rail system. She added that the Technical

Advisory Committee consists of members of relevant City departments and that the City will also work with regional and transportation planners such as Caltrain and VTA.

Commissioner Simons advised staff to work with the VTA Bicycle and Pedestrian Advisory Committee for community and user input. He added that he is the committee's Sunnyvale representative. Commissioner Simons stated that he would also like staff to work with the VTA to review the impacts of the VTA light rail prioritization in Sunnyvale.

Commissioner Olevson stated that he would like staff to study and report the effects of the plan on public safety and water services, particularly if the area becomes more residential. Assistant Director Miner stated that a water supply assessment study is part of the work plan and that staff can provide details about the source of the water and update the Commission on the progression of the plan.

Richard Mehlinger, Sunnyvale resident, stated his support for the plan and encouraged consulting with the Sunnyvale Bicycle and Pedestrian Advisory Commission, adding affordable housing, and connecting the light rail to downtown Sunnyvale.

Chair Howard closed the Public Hearing.

MOTION: Commissioner Simons moved and Commissioner Harrison seconded the motion for Alternative 2 - Approve the Guiding Principles and Work Plan with modifications as follows:

1.) Conduct outreach with the VTA Bicycle and Pedestrian Advisory Committee and the Sunnyvale Bicycle and Pedestrian Advisory Commission. The routes, including the Moffett Park to downtown route, should be reviewed in detail;
2.) Review the impacts of the VTA light rail prioritization;
3.) Work to facilitate the most direct pedestrian route to the Mary Avenue Overcrossing; and
4.) Study and report the effects of the plan on public safety and water services and develop a long-term plan if water restrictions are implemented.

Commissioner Harrison stated that the plan is good, thorough, and relevant to the needs of the area.

Chair Howard re-stated the motion and proposed conditions.

The motion carried by the following vote:

Yes:	5 -	Commissioner Weiss Chair Howard Commissioner Olevson Vice Chair Simons Commissioner Harrison
No:	0	
Absent:	1 -	Commissioner Howe
Abstained:	1 -	Commissioner Rheaume

Assistant Director Miner stated that this item goes to the City Council on April 9, 2019.

STANDING ITEM: CONSIDERATION OF POTENTIAL STUDY ISSUES

NON-AGENDA ITEMS AND COMMENTS

-Commissioner Comments

-Staff Comments

Assistant Director Andrew Miner stated that the City Council Study Session for the Downtown Specific Plan took place on March 5, 2019 and resulted in useful feedback. He added that the Lawrence Station Area Sense of Place Plan Special Meeting was on March 6, 2019 and had good turnout and good feedback.

ADJOURNMENT

Chair Howard adjourned the meeting at 11:19 PM.

City of Sunnyvale

Agenda Item 1.B

19-0450 **Agenda Date:** 4/8/2019

SUBJECT
Approve Planning Commission Meeting Minutes of March 25, 2019

RECOMMENDATION
Approve Planning Commission Meeting Minutes of March 25, 2019 as submitted.

City of Sunnyvale

Meeting Minutes - Draft
Planning Commission

Monday, March 25, 2019 | **6:00 PM** | **Council Chambers and West Conference Room, City Hall, 456 W. Olive Ave., Sunnyvale, CA 94086**

Special Meeting - Study Session - 6:00 PM | Special Meeting - Public Hearing 7 PM

6 P.M. STUDY SESSION

Call to Order in the West Conference Room

Roll Call

Study Session

A 19-0393 Initial Project Review for 100 Altair Way (Minkoff/Kasik)
Project Planner:
David Hogan, (408) 730-7444, dhogan@sunnyvale.ca.gov

B 19-0394 Telecommunications Facilities in Right of Way - Overview of Design Criteria
Project Planner:
Mary Jeyaprakash, 408-730-7449, mjeyaprakash@sunnyvale.ca.gov

Public Comment on Study Session Agenda Items

Adjourn Study Session

7 P.M. PLANNING COMMISSION MEETING

CALL TO ORDER

Chair Howard called the meeting to order at 7:05 PM in the Council Chambers.

SALUTE TO THE FLAG

Chair Howard led the salute to the flag.

ROLL CALL

Present: 6 - Commissioner Carol Weiss
Chair Daniel Howard
Commissioner John Howe
Commissioner Ken Olevson
Commissioner Ken Rheaume
Commissioner Sue Harrison

Absent: 1 - Vice Chair David Simons

Status of absence; Commissioner Simons' absence is excused.

ORAL COMMUNICATIONS

Mary Brunkhorst, member of the Sunnyvale Urban Forest Advocates, presented images and information about the importance of trees and encouraged the Commissioners to consider trees' impact when reviewing proposed development projects.

CONSENT CALENDAR

Assistant Director Andrew Miner stated that the meeting minutes of March 11, 2019 will be available for approval at the next Planning Commission meeting on April 8, 2019.

PUBLIC HEARINGS/GENERAL BUSINESS

2 19-0430 REQUEST FOR CONTINUANCE TO APRIL 8, 2019
Proposed Project: Related applications on a 34.7-acre site:
REZONE: the site from M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/Medium Density Residential/Planned Development) and M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/High Density Residential/Planned Development) **TO** R-3/PD (Medium Density Residential/Planned Development) R-4/PD (High Density Residential Planned Development) and P-F (Public Facilities).
SPECIAL DEVELOPMENT PERMIT: Demolish existing industrial/office buildings (formerly AMD campus) and construct 1,051 residential units, including 944 units in three to five-story apartment buildings and 107 units in three-story townhome style buildings. The unit count includes 45 apartment units for very low-income households and 13 below market rate townhome units. Public improvements include the dedication of a 6.5-acre public park, extension of Indian Wells Avenue to the east to connect with the Duane Avenue/Stewart Drive intersection, and

associated public improvements. Requested deviations include reduced private useable open space and front setbacks on Indian Wells Avenue and Stewart Drive.
VESTING TENTATIVE MAP: Lot line adjustment between two existing lots and subdivide one lot into six lots, to create a total of seven lots.

Location:1 AMD Place (APNs: 205-22-024, 205-22-025), 975 Stewart Drive (205-22-028)
File #: 2016-8035
Zoning: Industrial Service/Industrial-to-Residential/Medium Density/Planned Development Zoning District (MS/ITR/R-3/PD) and Industrial Service/Industrial-to-Residential High Density Zoning District (MS/ITR/R-4/PD) Zoning District
Applicant / Owner: Irvine Company (applicant /owner)
Environmental Review: Adopt a resolution to make findings required by CEQA, certify the Environmental Impact Report (EIR), and adopt a Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program.
Project Planner: Margaret Netto, (408) 730-7440, mnetto@sunnyvale.ca.gov

Assistant Director Andrew Miner stated that staff is requesting a continuance to the next Planning Commission meeting of April 8, 2019 to allow more time for staff to determine the park agreement terms. He thanked members of the public for attending the meeting and encouraged them to speak at this meeting and the next one.

Chair Howard opened the Public Hearing.

Paul Luckcock, Sunnyvale resident, stated his concern with the proposed project's rezoning from medium to high density and the existing traffic congestion in the area. He stated that there is inadequate traffic mitigation for the proposed project and that safety is a concern with the absence of traffic lights and crosswalks next to the park.

Brian Flynn, representing Laborers International Union of North America Local 270, stated that there are issues with the Environmental Impact Report's analyses of air quality, human health risk, indoor air quality, and impact on wildlife.

Elisa Silva, Sunnyvale resident, stated her concern that the correspondence she wrote to staff about the proposed project have not been received. She also stated that construction trucks should use Arques Avenue and that the East Duane speed limit should be reduced to 30 mph.

Assistant Director Miner clarified that staff did not receive any public comments related to the continuance staff report and that her correspondence will be included in the full staff report that will be presented at the April 8, 2019 Planning Commission meeting.

Chair Howard stated the importance of both submitting written correspondence and addressing the Planning Commission at the public hearings and thanked Ms. Silva for her comments.

Chair Howard closed the Public Hearing.

MOTION: Commissioner Howe moved and Commissioner Harrison seconded the motion for Alternative 1 - Open the Public Hearing and continue to the Planning Commission meeting of April 8, 2019.

The motion carried by the following vote:

Yes: 6 - Commissioner Weiss
Chair Howard
Commissioner Howe
Commissioner Olevson
Commissioner Rheaume
Commissioner Harrison

No: 0

Absent: 1 - Vice Chair Simons

Assistant Director Miner stated that this item will be continued to the Planning Commission for consideration at the Monday, April 8, 2019 meeting and that the continuance of the item to that date serves as the notice to the public.

Chair Howard thanked members of the public for attending the meeting.

3 19-0395 Green Building Program Update: Forward a recommendation to the City Council to Adopt a Resolution to Update the Green Building Program for Residential Projects, Nonresidential Projects, and Public Facilities, and Find that the Action is Exempt from CEQA Pursuant to CEQA Guidelines Sections 15308, 15061(b)(3), and 15378(b).

Principal Planner Amber Blizinski stated that she and Chief Building Official Chuck

Clark are available to answer the Commissioners' questions and that Associate Planner Kelly Cha will present the staff report.

Associate Planner Cha presented the staff report.

Commissioner Rheaume thanked staff for a clear, comprehensive report. He stated his concern with an incentive that allows some design reviews to be evaluated at a staff level. Principal Planner Blizinski answered that staff currently process some types of design reviews and that the goal of the incentive is for single family homeowners to increase their green points or go all electric. Commissioner Rheaume confirmed with Principal Planner Blizinski that a staff level review process takes up to two months and a Planning Commission review takes up to three months.

Commissioner Harrison thanked staff for proposing incentives associated with single family home additions. She confirmed with Principal Planner Blizinski that the incentives apply to additions of any size and with Chief Building Official Clark that gas lines would be disconnected at the building as opposed to the street. Commissioner Harrison commented that induction cooktops are different than electric cooktops and cited that induction cooktops make up approximately 30% of the market.

Commissioner Weiss acknowledged Associate Planner Cha for a clear and impressive staff report. She asked staff if they have studied the reliability of the city’s electric grid. Principal Planner Blizinski stated that staff consulted with the Environmental Services Department and Silicon Valley Clean Energy and that they are confident in its reliability. Commissioner Weiss asked staff if accessory dwelling units would no longer be required to be equipped with new gas lines. Chief Building Official Clark stated that the homeowner can choose between gas or electric but that using the existing line is required. He added that the proposed incentive and the forthcoming electrification reach codes might change this requirement. Commissioner Weiss confirmed with Principal Planner Blizinski that the Leadership in Energy and Environmental Design (LEED) and Built It Green programs address the use of sustainable and recyclable construction materials and that the goal is to update the Green Building Program every two to three years. Commissioner Weiss asked staff the definition of a major alteration. Chief Building Official Clark answered that removing 50% or more of a house's exterior walls during a remodel results in a new dwelling, a definition consistent with jurisdictions throughout the Peninsula.

Commissioner Olevson commented that the report was a lot of information to digest and that he is concerned that some homeowners would not be able to make the alterations to their homes for financial reasons. He confirmed with Principal Planner Blizinski that the incentives are only encouraged and not required. He stated that some developers have expressed that full electrification is not possible for some developments. Principal Planner Blizinski stated that it may be difficult for some developers but that staff has concluded that the incentive is reasonable. Commissioner Olevson confirmed with Chief Building Official Clark that it costs approximately $2K maximum to disconnect a gas line at the house. Chief Building Official Clark acknowledged that the State's efforts to reduce carbon footprints with every code cycle may be costlier for homeowners and the building industry.

Commissioner Olevson asked staff to explain the design phase credits process. Principal Planner Blizinski stated that for a building to receive a certificate of occupancy, the LEED Accredited Professional must write a letter to the City certifying that the design plans meet the required standards. Chief Building Official Clark added that the certification takes places after the building has been occupied and the systems have been tested.

Commissioner Howe asked staff how long it takes and how much it costs for a proposed project to move from the application to certification phase. Chief Building Official Clark added that it can add approximately a few more months to a project and cost approximately $3.5K to $5K for a rater to complete the certification process. Commissioner Howe asked staff if proposed projects that have not yet been approved would be subject to the current program. Principal Planner Blizinski answered that proposed projects approved after July 1, 2019 would be subject to the new program if approved by City Council but that staff have shared the proposed program with applicants whose proposed projects are not yet complete. Chief Building Official Clark added that proposed projects are subject to the current codes at the time of their building permit application. Assistant Director Andrew Miner added that approximately 80% to 90% of the current applications not yet complete and substantially complete applications would fall under the current program.

Commissioner Harrison explained that there is a marginal cost to homeowners to upgrade to electric appliances while renovating and that those appliances are significantly more efficient.

Chair Howard confirmed with Commissioner Harrison that most often there is no

difference in cost between gas and induction ranges but that it costs more to use a gas coil.

Chair Howard asked staff if wood fireplaces and stoves are allowed with new construction. Chief Building Official Clark stated that gas fireplaces and stoves are now required for new construction but that wood fired stoves are allowed for commercial use. Chair Howard confirmed with Assistant Director Miner that oil and coal burning does not take place in the city, that wood burning fireplaces have been prohibited in new construction due to air quality concerns, and that gas burning may eventually be prohibited if the City decides to pursue electricity only as a source of power.

Chair Howard opened the Public Hearing.

Zachary Kaufman stated that he prefers that photovoltaic panels are required for new Class A offices.

Scott Shell, architect, stated his recommendation for further incentivizing applicants for the minimum standards by allowing them to just follow the States codes if going electric which would result in the reduction of paperwork and time and cost savings. He added that electric systems are cost competitive.

Chair Howard asked staff to comment on Mr. Shell's recommendation of following just the State codes as an incentive for going electric. Principal Planner Blizinski stated that the option will be discussed further as the reach codes and new building codes are implemented. Senior Assistant City Attorney Rebecca Moon stated that the option would require further study, an ordinance amendment, and more California Environmental Quality Act (CEQA) review.

Chair Howard closed the Public Hearing.

MOTION: Commissioner Harrison moved and Commissioner Howe seconded the motion for Alternative 1 - Forward a recommendation to the City Council to Adopt a Resolution (Attachment 2 to the report) to Update the Green Building Program for Residential Projects, Nonresidential Projects, and Public Facilities and Find that the Action is Exempt from CEQA Pursuant to CEQA Guidelines Sections 15308, 15061(b)(3), and 15378(b).

Commissioner Harrison stated that she agrees that the State codes are easier to

follow but that the City's proposed incentives allows it to become a leader in the sustainability field and gives developers and homeowners significant advantages. She thanked staff for creating incentives associated with housing additions.

Commissioner Howe stated that creating incentives that improve climate change is a good effort to support.

Commissioner Olevson stated that he will not support the motion because he did not have enough time to compare all the program's pros and cons and because he believes some developers like the Jay Paul Company would have difficulty selling property or obtaining tenants if they took advantage of the incentive program.

Chair Howard asked staff if he could make a friendly amendment to require prewiring of electric lines as part of the proposed plan. Chief Building Official Clark stated that the current building codes address that in some instances. Principal Planner Blizinski stated that applicants are welcome to do this but that the City needs to further study the issue to make it a minimum threshold. Chair Howard withdrew his potential friendly amendment.

Chair Howard stated that he is in support of the motion and eventually moving toward electrification. He added that he appreciates Commissioner Olevson's concerns about the incentives' cost but that he thinks that it is more important to combat climate change and that Silicon Valley should lead efforts to achieve a more sustainable economy.

The motion carried by the following vote:

Yes:	5 -	Commissioner Weiss Chair Howard Commissioner Howe Commissioner Rheaume Commissioner Harrison
No:	1 -	Commissioner Olevson
Absent:	1 -	Vice Chair Simons

Assistant Director Miner stated that this recommendation will be forwarded to the City Council for consideration at the Tuesday May 7, 2019 meeting.

Chair Howard asked staff if it is possible to propose a motion that supports an all electric future for Sunnyvale, similar to the supportive motion the Sustainability Commission passed. Assistant Director Miner stated that staff's recommendation is to allow staff to research the all electric approach while it implements the interim incentive approach.

STANDING ITEM: CONSIDERATION OF POTENTIAL STUDY ISSUES

NON-AGENDA ITEMS AND COMMENTS

-Commissioner Comments

-Staff Comments

Assistant Director Andrew Miner stated that the City Council will consider the Climate Action Playbook at a Study Session at 5:30 PM on Tuesday, March 26, 2019. He explained that the Climate Action Plan 2.0 will be developed from the playbook.

ADJOURNMENT

Chief Howard adjourned the meeting at 8:25 PM.

City of Sunnyvale

Agenda Item 1.C

19-0351 **Agenda Date:** 4/8/2019

REPORT TO PLANNING COMMISSION

SUBJECT

Proposed Project: Application on a 0.25-acre site:

DESIGN REVIEW: to allow construction of a solid roof over an accessory structure (gazebo) to the rear of an existing one-story single family home, resulting in 4,766 square feet (4,359 square feet existing home unchanged and 407 square feet accessory structure) and 43.4% floor area ratio (FAR).

Location: 1630 Manitoba Dr. (APN: 323-22-044)
File #: 2018-8016
Zoning: R-1 (Low Density Residential)
Applicant / Owner: Kikuchi + Kankel Design Group (applicant) / Kenneth and Donna Okumura (owner)
Environmental Review: A Class 3 Categorical Exemption relieves this project from California Environmental Quality Act (CEQA) provisions. Class 3(e) Categorical Exemption includes construction of accessory structures and installation of small new equipment and facilities in small structures.
Project Planner: Mary Jeyaprakash, (408) 730-7449, mjeyaprakash@sunnyvale.ca.gov

REPORT IN BRIEF

General Plan: Low Density Residential (RLO)
Existing Site Conditions: One-Story Single-Family Home
Surrounding Land Uses

North: One-Story Single-Family Home
South: One-Story Single-Family Home
East: One-Story Condos (Rhonda Village)
West: One-Story Single-Family Home

Issues: Compliance with Single Family Home Design Techniques and gross floor area exceeds threshold for Planning Commission review
Staff Recommendation: Approve the Design Review with the Conditions of Approval in Attachment 4.

BACKGROUND

Description of Proposed Project

The project site is 0.25 acres in size and is currently developed with a one-story single-family home.

The applicant proposes to construct a solid roof over an already approved patio with an open trellis roof (Planning Application #2018-7792). The attached patio is 407 square feet in size, which includes an already approved outdoor kitchen. The existing single-story home is to remain unchanged.

Replacing the trellis roof (less than 50% solid) with a solid roof increases the floor area and lot coverage of the house. The project would result in a gross floor area of 4,766 square feet and 43.4% floor area ratio (FAR). See Site and Architectural drawings in Attachment 5. The proposed project requires Planning Commission review because the proposed gross floor area exceeds 3,600 square feet. See attachment 6 for Neighborhood Comparison Table.

See Attachment 1 for a map of the vicinity and mailing area for notices and Attachment 2 for the Data Table of the project.

Previous Actions on the Site

The existing 4,359 square foot home was built in 1960. A Design Review permit was approved in 2018 for a front porch and two rear patios with trellis roofing, which is currently under construction. The front porch and patios did not count towards FAR and were, therefore, reviewed through a staff-level permit. There are no other Planning applications or active Neighborhood Preservation complaints on this property.

ENVIRONMENTAL REVIEW

A Class 3 Categorical Exemption relieves this project from California Environmental Quality Act (CEQA) provisions. Class 3(e) Categorical Exemption includes construction of accessory structures and installation of small new equipment and facilities in small structures.

DISCUSSION

Architecture

The solid roof is designed to be architecturally compatible with the existing house, by using composition shingle roofing material and 5:12 roof pitch to match the existing house. The patio would continue to be open on three sides. No modifications are proposed to the existing home.

Development Standards

The proposed project complies with all development requirements, such as lot coverage, setbacks and height. The Project Data Table for the proposed project can be found in Attachment 2.

Neighborhood Impacts

Staff does not expect privacy or noise impacts to result with approval of the project. The proposal does not alter the existing setbacks or height of the house. The overall height of the patio is lower than the height of the house. The patio is located to the rear of the house, and is not visible from the street frontage. The patio is located almost 14 feet from the rear property line and the existing rear fence is approximately 8 feet in height. To further reduce visual impacts to the neighbors to the rear, staff recommends that at least one tree be planted between the patio and the rear fence (see Condition of Approval GC-7 in Attachment 4).

Applicable Design Guidelines: The proposed project is consistent with the adopted Single-Family Home Design Techniques. The recommended Findings can be found in Attachment 3.

FISCAL IMPACT

No fiscal impacts other than normal fees and taxes are expected.

PUBLIC CONTACT

As of the date of staff report preparation, staff has received one comment from the neighbor directly in back of the patio regarding visual impacts (see Attachment 8). Staff clarified with the neighbor that the project currently under consideration is for the solid roof over the patio. Staff also clarified that the proposed roof is consistent with the existing roof pitch and is lower in height than the main house. Subsequent to the letter, staff also met with the neighbor, who then expressed support for staff's recommendation for planting of a tree. The property owner is also agreeable to the recommended condition.

Notice of Public Hearing:

- Published in the *Sun* newspaper
- Posted on the site
- 138 notices mailed to property owners and residents within 300 feet of the project site

Staff Report:

- Posted on the City's website
- Provided at the Reference Section of the City's Public Library

Agenda:

- Posted on the City's website
- Posted on the City's official notice bulletin board

ALTERNATIVES

1. Approve the Design Review with the Conditions of Approval in Attachment 4.
2. Approve the Design Review with modified conditions.
3. Deny the Design Review and provide direction to staff and the applicant where changes should be made.

STAFF RECOMMENDATION

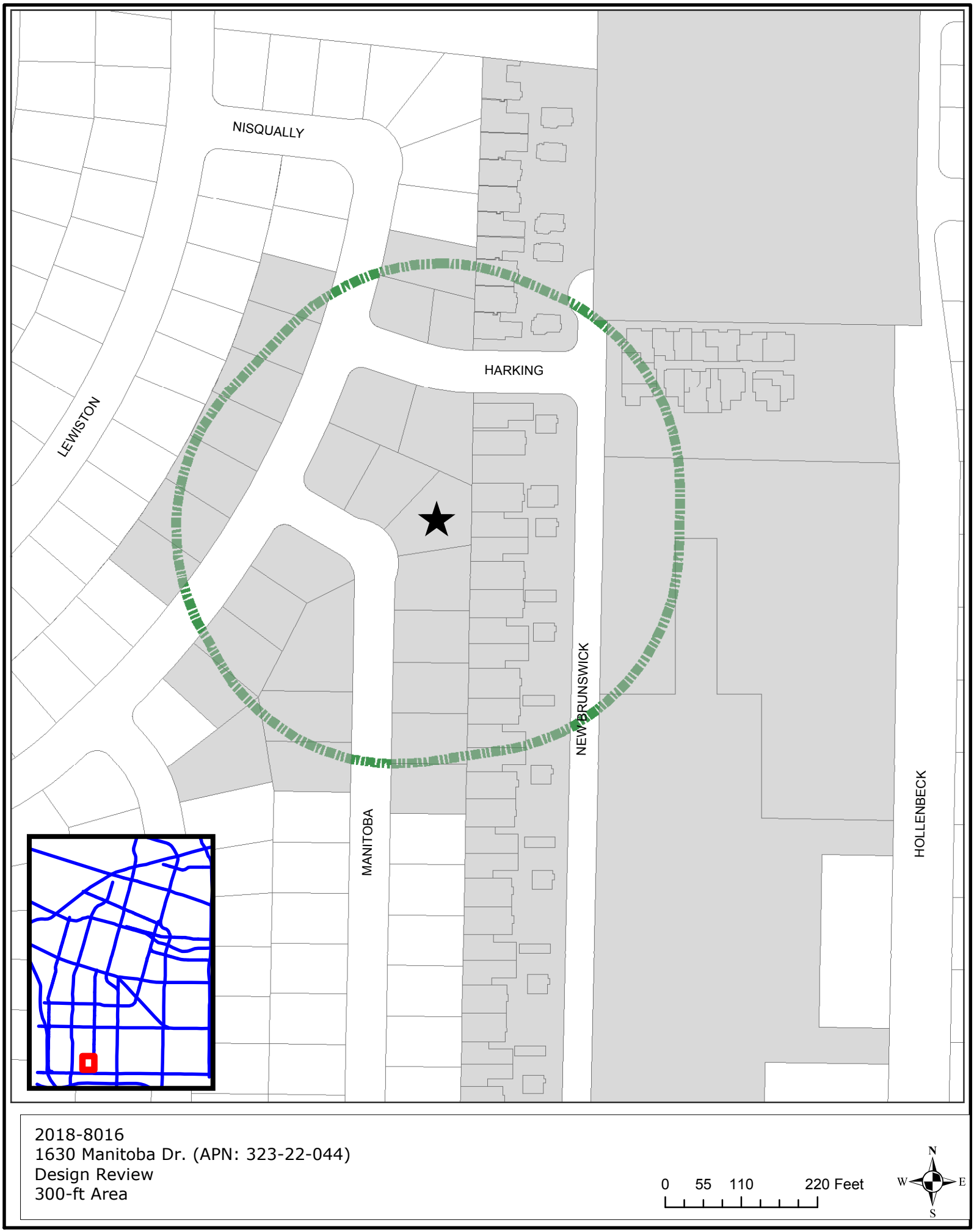
Recommend Alternative 1: Approve the Design Review in accordance with the Findings in Attachment 3 and Conditions of Approval in Attachment 4.

Prepared by: Mary Jeyaprakash, Associate Planner
Approved by: Noren Caliva-Lepe, Acting Principal Planner

ATTACHMENTS

1. Site, Vicinity and Public Notice Mailing Map
2. Project Data Table
3. Recommended Findings
4. Recommended Conditions of Approval
5. Site and Architectural Plans
6. Neighborhood Comparison Table
7. Project Description Letter from Applicant
8. Public Comments and Pictures

ATTACHMENT 1



2018-8016
1630 Manitoba Dr. (APN: 323-22-044)
Design Review
300-ft Area

0 55 110 220 Feet

N
W E
S

PROJECT DATA TABLE

	EXISTING	PROPOSED	REQUIRED/ AS PERMITTED
General Plan	Low Density Residential	Same	--
Zoning District	Low Density Residential (R-1)	Same	--
Lot Size	10,980 s. f.	Same	--
Gross Floor Area	4,359 s. f.	4,766 s. f.	3,600 s. f.[1]
Lot Coverage	4,531 s. f.	4,938 s. f. (44.9%)	45% max.
Floor Area Ratio (FAR%)	39.7%	43.4%	45%[1]
No. of Stories	1	1	2 max.
Setbacks			
Front	24'-6"	Same	20' min.
Side	5'-6"[2]	Same	6' min.
Combined/Total Side	14'-6"[2]	Same	15' min.
Rear	13'-8"	Same	20' min. (10' allowance for 25% encroachment)
Parking			
Total Spaces	4	Same	4 min.
Covered Spaces	2	Same	2 min.

[1] Threshold for Planning Commission Review.
[2] Nonconforming Setbacks

Design Review

The proposed project is desirable in that the project's design and architecture conforms with the policies and principles of the Single Family Home Design Techniques.

Basic Design Principle	Comments
2.2.1 Reinforce prevailing neighborhood home orientation and entry patterns	The proposed solid roof does not alter the home orientation and entry pattern and complies with development standards.
2.2.2 Respect the scale, bulk and character of homes in the adjacent neighborhood.	The patio roofing is designed such that the overall structure will be shorter than the existing one story home. In addition, the patio will not be visible from the street frontage.
2.2.3 Design homes to respect their immediate neighbors	The proposed project maintains existing setbacks. The roof will not create a visual contrast from immediate properties to the rear of the subject site, because the material and design of the roof with match and blend with the existing house. As conditioned, a tree will be planted between the patio and rear fence to further reduce visual impacts to the adjacent neighbors to the rear.
2.2.4 Minimize the visual impacts of parking.	The project does not propose any modifications to the existing two-car driveway and two-car garage.
2.2.5 Respect the predominant materials and character of front yard landscaping.	The proposed roof of the accessory structure is designed to match the existing home, with exterior materials and architectural style.
2.2.6 Use high quality materials and craftsmanship	The proposed roof design includes high quality composition shingles. It is consistent with the Design Techniques.
2.2.7 Preserve mature landscaping	No protected trees will be removed as part of this project.

RECOMMENDED
CONDITIONS OF APPROVAL AND
STANDARD DEVELOPMENT REQUIREMENTS
APRIL 8, 2019

Planning Application **2018-8016**
1630 Manitoba Dr.
Design Review to allow construction of a solid roof over an accessory structure (gazebo) to the rear of an existing one-story single family home, resulting in 4,766 square feet (4,359 square feet existing home unchanged and 407 square feet accessory structure) and 43.4% floor area ratio (FAR).

The following Conditions of Approval [COA] and Standard Development Requirements [SDR] apply to the project referenced above. The COAs are specific conditions applicable to the proposed project. The SDRs are items which are codified or adopted by resolution and have been included for ease of reference, they may not be appealed or changed. The COAs and SDRs are grouped under specific headings that relate to the timing of required compliance. Additional language within a condition may further define the timing of required compliance. Applicable mitigation measures are noted with "Mitigation Measure" and placed in the applicable phase of the project.

In addition to complying with all applicable City, County, State and Federal Statutes, Codes, Ordinances, Resolutions and Regulations, Permittee expressly accepts and agrees to comply with the following Conditions of Approval and Standard Development Requirements of this Permit:

GC: THE FOLLOWING GENERAL CONDITIONS AND STANDARD DEVELOPMENT REQUIREMENTS SHALL APPLY TO THE APPROVED PROJECT.

GC-1. CONFORMANCE WITH APPROVED PLANNING APPLICATION:

All building permit drawings and subsequent construction and operation shall substantially conform with the approved planning application, including: drawings/plans, materials samples, building colors, and other items submitted as part of the approved application. Any proposed amendments to the approved plans or Conditions of Approval are subject to review and approval by the City. The Director of Community Development shall determine whether revisions are considered major or minor. Minor changes are subject to review and approval by the Director of Community Development. Major changes are subject to review at a public hearing. [COA] [PLANNING]

GC-2. ENTITLEMENTS—EXERCISE AND EXPIRATION:

The approved entitlements shall be null and void two years from the date of approval by the final review authority if the approval is not exercised, unless a written request for an extension is received prior to the expiration date and is approved by the Director of Community Development. [SDR] (PLANNING)

GC-3. ENTITLEMENTS—DISCONTINUANCE AND EXPIRATION:

The entitlements shall expire if discontinued for a period of one year or more. [SDR] (PLANNING)

GC-4. INDEMNITY:

The applicant/developer shall defend, indemnify, and hold harmless the City, or any of its boards, commissions, agents, officers, and employees (collectively, "City") from any claim, action, or proceeding against the City to attack, set aside, void, or annul, the approval of the project when such claim, action, or proceeding is brought within the time period provided for in applicable state and/or local statutes. The City shall promptly notify the developer of any such claim, action or proceeding. The City shall have the option of coordinating the defense. Nothing contained in this condition shall prohibit the City from participating in a defense of any claim, action, or proceeding if the City bears its own attorney's fees and costs, and the City defends the action in good faith. [COA] [OFFICE OF THE CITY ATTORNEY]

GC-5. NOTICE OF FEES PROTEST:

As required by California Government Code Section 66020, the project applicant is hereby notified that the 90-day period has begun as of the date of the approval of this application, in which the applicant may protest any fees, dedications, reservations, or other exactions imposed by the city as part of the approval or as a condition of approval of this development. The fees, dedications, reservations, or other exactions are described in the approved plans, conditions of approval, and/or adopted city impact fee schedule. [SDR] [PLANNING / OCA]

GC-6. CONFORMANCE WITH PREVIOUS PLANNING PERMIT:

The subject site shall comply with all conditions of approval and requirements of planning application 2018-7792. [PLANNING] [COA]

GC-7. SCREENING TO MINIMIZE VISUAL IMPACT:

Work with the City to plant an appropriate size and species of tree between the patio and 1611 New Brunswick Dr. to provide adequate screening of the proposed solid roof.

BP: THE FOLLOWING CONDITIONS SHALL BE ADDRESSED ON THE CONSTRUCTION PLANS SUBMITTED FOR ANY DEMOLITION PERMIT, BUILDING PERMIT, GRADING PERMIT, AND/OR ENCROACHMENT PERMIT AND SHALL BE MET PRIOR TO THE ISSUANCE OF SAID PERMIT(S).

BP-1. CONDITIONS OF APPROVAL:

Final plans shall include all Conditions of Approval included as part of the approved application starting on sheet 2 of the plans. [COA] [PLANNING]

BP-2. RESPONSE TO CONDITIONS OF APPROVAL:

A written response indicating how each condition has or will be addressed shall accompany the building permit set of plans. [COA] [PLANNING]

BP-3. BLUEPRINT FOR A CLEAN BAY:

The building permit plans shall include a "Blueprint for a Clean Bay" on one full sized sheet of the plans. [SDR] [PLANNING]

DC: THE FOLLOWING CONDITIONS SHALL BE COMPLIED WITH AT ALL TIMES DURING THE CONSTRUCTION PHASE OF THE PROJECT.

DC-1. BLUEPRINT FOR A CLEAN BAY:

The project shall be in compliance with stormwater best management practices for general construction activity until the project is completed and either final occupancy has been granted. [SDR] [PLANNING]

DC-2. CLIMATE ACTION PLAN – OFF ROAD EQUIPMENT REQUIREMENT:

OR 2.1: Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), or less. Clear signage will be provided at all access points to remind construction workers of idling restrictions.

OR 2.2: Construction equipment must be maintained per manufacturer's specifications.

OR 2.3: Planning and Building staff will work with project applicants to limit GHG emissions from construction equipment by selecting one of

the following measures, at a minimum, as appropriate to the construction project:

a) Substitute electrified or hybrid equipment for diesel- and gasoline-powered equipment where practical.

b) Use alternatively fueled construction equipment on-site, where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.

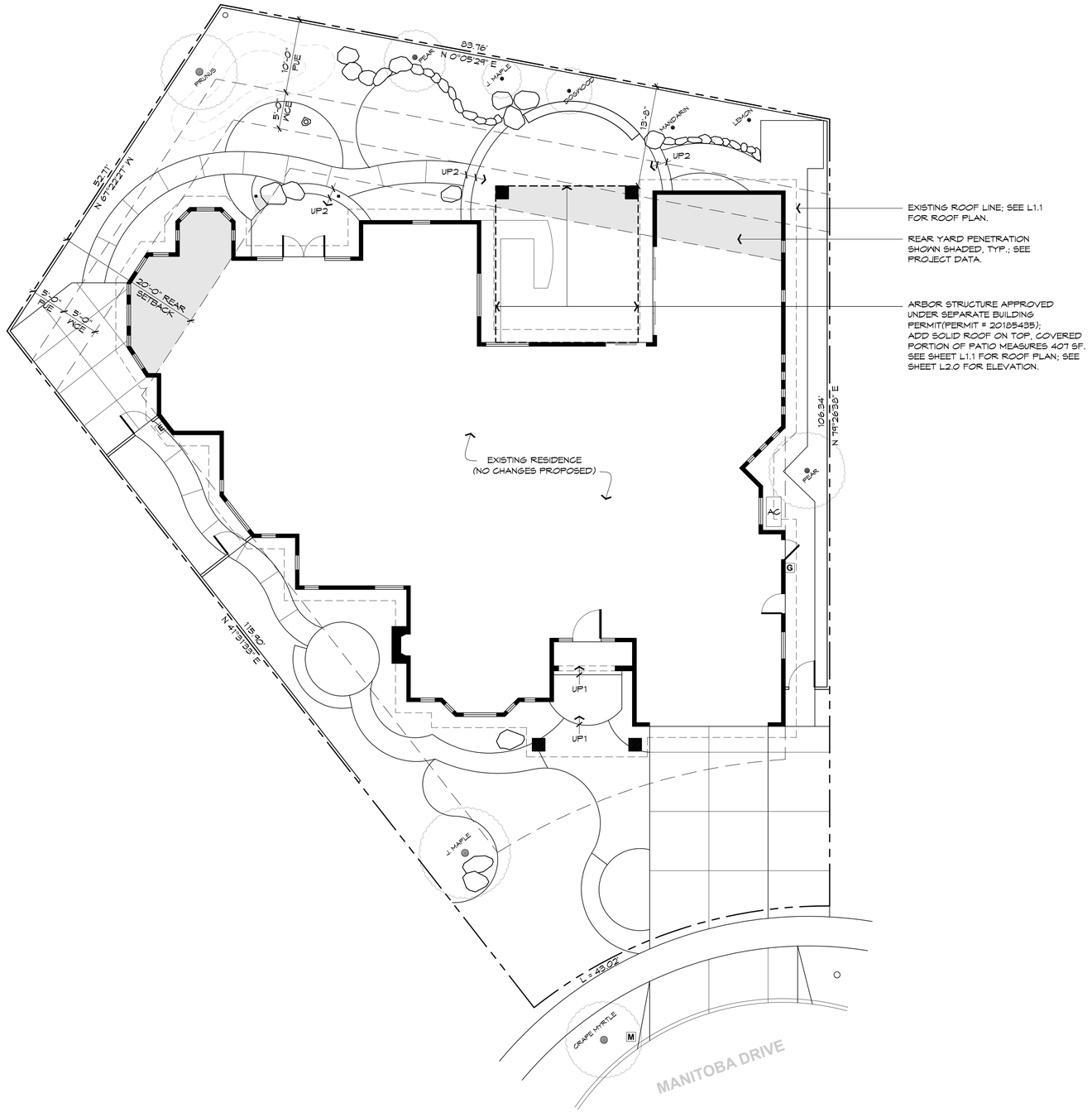
c) Avoid the use of on-site generators by connecting to grid electricity or utilizing solar-powered equipment.

d) Limit heavy-duty equipment idling time to a period of 3 minutes or less, exceeding CARB regulation minimum requirements of 5 minutes. [COA] [PLANNING]

DC-3. DUST CONTROL:

At all times, the Bay Area Air Quality Management District's CEQA Guidelines and "Basic Construction Mitigation Measures Recommended for All Proposed Projects", shall be implemented. [COA] [PLANNING]

RE-USE, REPRODUCTION OR PUBLICATION OF THESE PLANS IS PROHIBITED WITHOUT WRITTEN CONSENT OF KIKUCHI + KANKEL DESIGN GROUP.

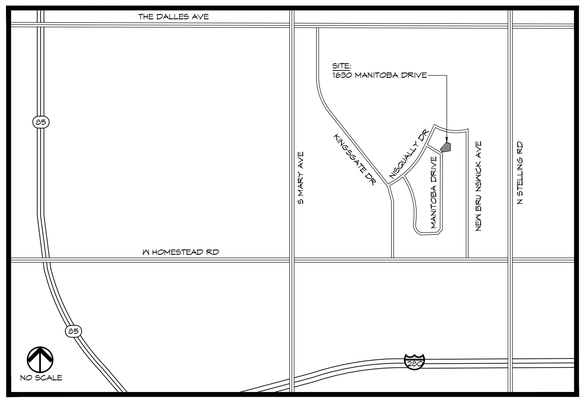


EXISTING ROOF LINE; SEE L1.1 FOR ROOF PLAN.

REAR YARD PENETRATION SHOWN SHADED, TYP.; SEE PROJECT DATA.

ARBOR STRUCTURE APPROVED UNDER SEPARATE BUILDING PERMIT(PERMIT # 20185435); ADD SOLID ROOF ON TOP, COVERED PORTION OF PATIO MEASURES 407 SF. SEE SHEET L1.1 FOR ROOF PLAN; SEE SHEET L2.0 FOR ELEVATION.

VICINITY MAP



PROJECT DIRECTORY

Owners:
KEN & DONNA OKUMURA
1630 MANITOBA DRIVE,
SUNNYVALE, CA 94087
EMAIL: kkokumura@yahoo.com

Landscape Architect:
KIKUCHI + KANKEL DESIGN GROUP
Steven T. Kikuchi
730 MILL STREET
HALF MOON BAY, CA 94019
T: (650) 726-7100

SCOPE OF WORK

- ADD SOLID ROOF OVER REAR YARD ARBOR STRUCTURE PREVIOUSLY APPROVED UNDER SEPARATE BUILDING PERMIT(PERMIT # 20185435).

PROJECT DATA

- ZONING DISTRICT: R1
- FLOOR AREA
  - TOTAL LOT AREA: 10,980 SF
  - EXISTING FLOOR AREA: 4,359 SF
  - FLOOR AREA TO BE ADDED: 407 SF (COVERED PATIO)
  - PROPOSED TOTAL FLOOR AREA: 4,766 SF
  - PROPOSED TOTAL FLOOR AREA RATIO: 43.4%
  - MAXIMUM ALLOWED FLOOR AREA RATIO: 45%
- LOT COVERAGE
  - TOTAL LOT AREA: 10,980 SF
  - EXISTING LOT COVERAGE: 4,531 SF = 41.3%
  - (* EXISTING LOT COVERAGE MATCHES TOTAL LOT COVERAGE APPROVED UNDER SEPARATE BUILDING PERMIT, PERMIT # 20185435.)
  - LOT COVERAGE TO BE ADDED: 407 SF (COVERED PATIO)
  - PROPOSED TOTAL LOT COVERAGE: 4,938 SF = 44.97%
  - MAXIMUM ALLOWED LOT COVERAGE: 4,941 SF = 45%
- REAR YARD PENETRATION (NO CHANGE)
  - TOTAL REAR YARD: 2,568 SF (100%)
  - EXISTING PENETRATION: 423 SF (16.5%)
  - MAXIMUM ALLOWED PENETRATION: 642 SF (25%)

SHEET INDEX

L1.0 - SITE PLAN & PROJECT DATA
L1.1 - ROOF PLAN
L2.0 - REAR YARD ELEVATIONS

Kikuchi + Kankel
Design Group

Landscape Architecture
Environmental Design
Site Planning

730 Mill Street
Half Moon Bay, CA 94019
(650) 726-7100

www.kkdesigngroup.com

REAR YARD COVER STRUCTURE

OKUMURA RESIDENCE

1630 MANITOBA DRIVE
SUNNYVALE, CA

APN: 323-22-044

NOT FOR CONSTRUCTION

Revisions:

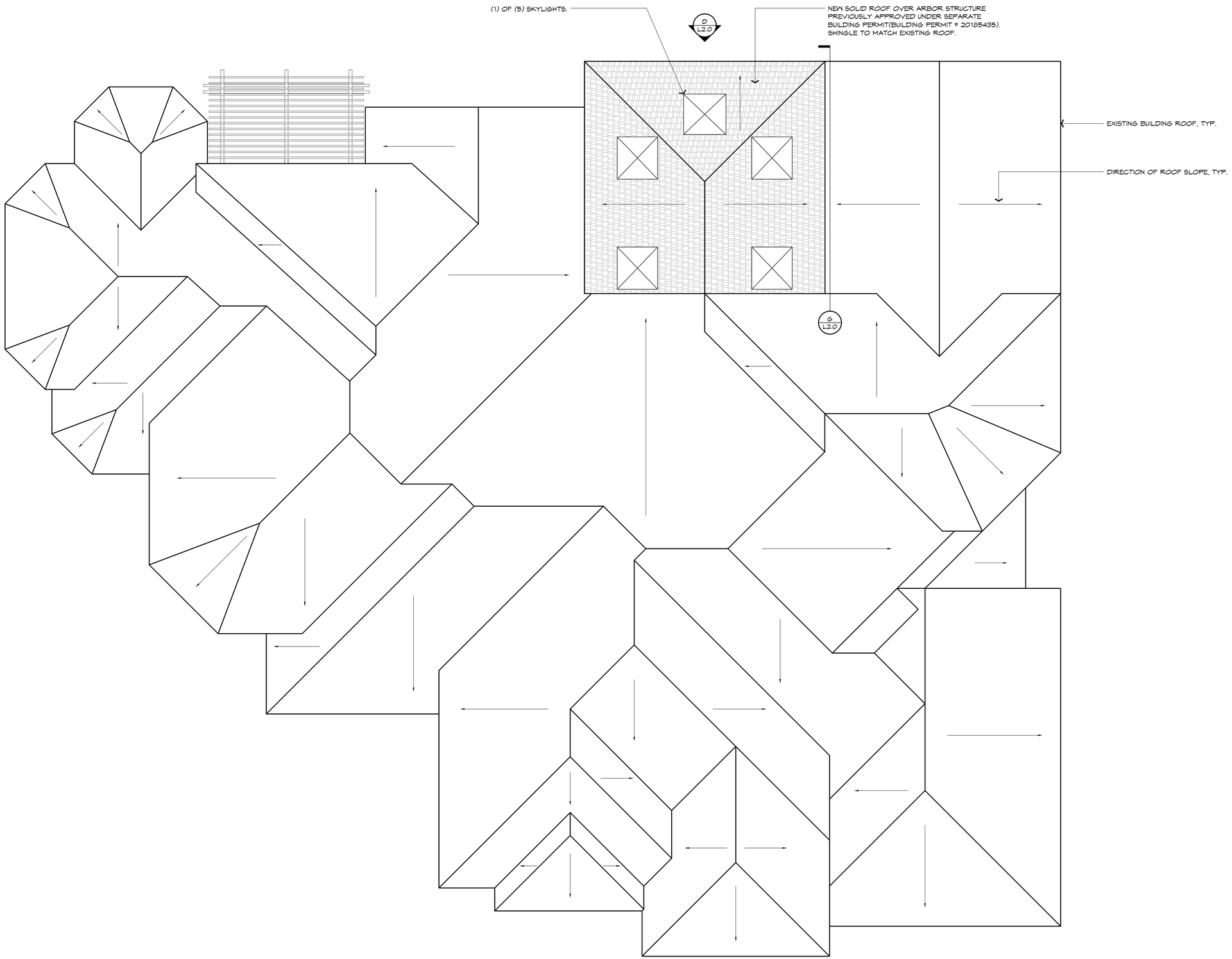
Date: 12/11/2018
PLANNING REVIEW

Scale: 1/8" = 1'-0"

Drawn By: XL

SITE PLAN & PROJECT DATA

Sheet No.
L1.0
Of



RE-USE, REPRODUCTION OR PUBLICATION OF THESE PLANS IS PROHIBITED WITHOUT WRITTEN CONSENT OF KIKUCHI + KANKEL DESIGN GROUP.

Kikuchi + Kankel
Design Group

Landscape Architecture
Environmental Design
Site Planning

730 Mill Street
Half Moon Bay, CA 94019
(650) 726-7100

www.kkdesigngroup.com

REAR YARD COVER STRUCTURE

OKUMURA RESIDENCE

1630 MANITOBA DRIVE
SUNNYVALE, CA

APN: 323-22-044

NOT FOR CONSTRUCTION

Revisions:

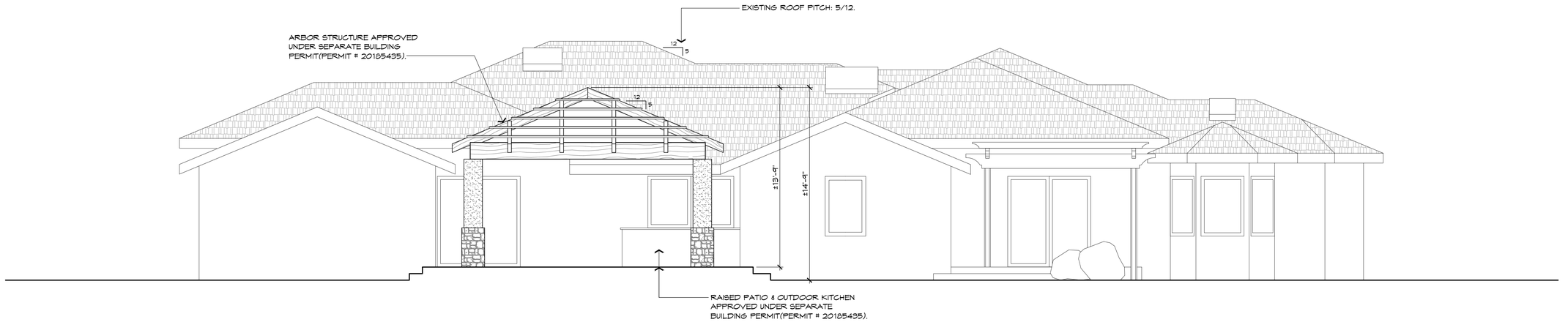
Date: 12/11/2018
PLANNING REVIEW

Scale: 1/4" = 1'-0"

Drawn By: XL

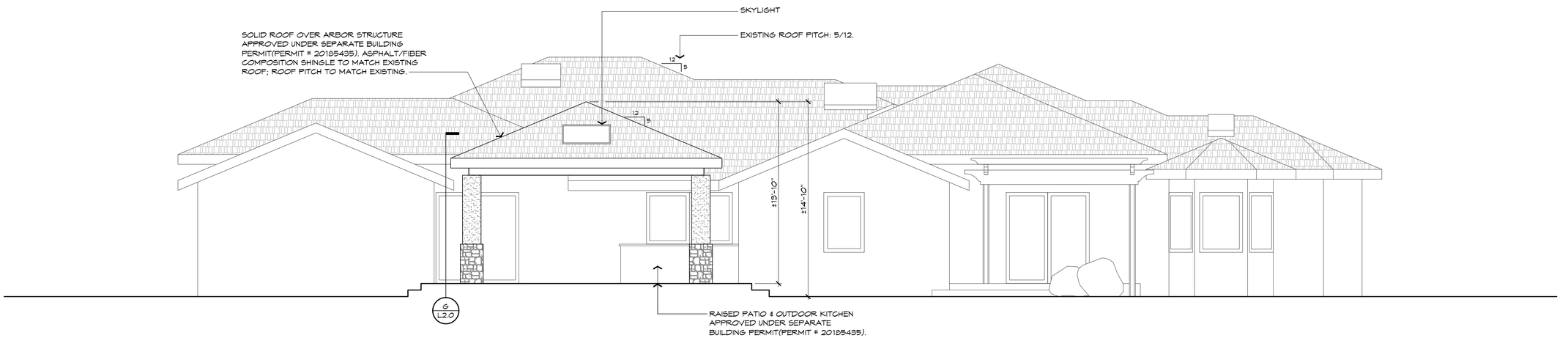
ROOF PLAN

Sheet No.
L1.1
Of



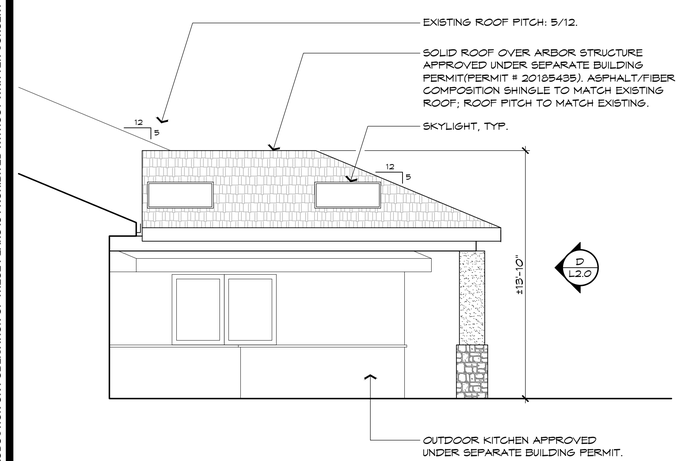
(A) EXISTING EAST ELEVATION

SCALE: 1/4" = 1'-0"



(D) PROPOSED EAST ELEVATION

SCALE: 1/4" = 1'-0"



(G) REAR YARD COVER STRUCTURE SIDE ELEVATION

SCALE: 1/4" = 1'-0"

RE-USE, REPRODUCTION OR PUBLICATION OF THESE PLANS IS PROHIBITED WITHOUT WRITTEN CONSENT OF KIKUCHI + KANKEL DESIGN GROUP.

Kikuchi + Kankel
Design Group

Landscape Architecture
Environmental Design
Site Planning

730 Mill Street
Half Moon Bay, CA 94019
(650) 726-7100

www.kkdesigngroup.com

REAR YARD COVER STRUCTURE

OKUMURA RESIDENCE

**1630 MANITOBA DRIVE
SUNNYVALE, CA**

APN: 323-22-044

NOT FOR CONSTRUCTION

Revisions:

Date: 12/11/2018 PLANNING REVIEW

Scale: AS NOTED

Drawn By: XL

REAR YARD ELEVATIONS

Sheet No.

L2.0

Of

Neighborhood Comparison Table

Address	Year Built	Lot Size (s. f.)	Stories	Gross Floor Area (s. f.)	Floor Area Ratio (FAR)	Notes
1654 Manitoba Dr	1960	7957	1	2600	33%	
1650 Manitoba Dr	1960	7957	1	2126	27%	
1646 Manitoba Dr	1960	7957	1	2204	28%	
1642 Manitoba Dr	1960	8030	1	2024	25%	
1638 Manitoba Dr	1960	8030	1	2430	30%	
1634 Manitoba Dr	***1960***	***9396***	***1***	***3130***	***33%***	
1630 Manitoba Dr	1960	10980	1	4359	40%	Proposed FAR is 43%
1626 Manitoba Dr	***1960***	***8720***	***1***	***2024***	***23%***	
1622 Manitoba Dr	1960	8346	1	2535	30%	
789 Harking Dr	1960	9991	1	2587	26%	
785 Harking Dr	1960	12740	1	3106	24%	
828 Nisqually Dr	***1960***	***9600***	***1***	***2384***	***25%***	
1631 Manitoba Dr	***1960***	***12922***	***1***	***2861***	***22%***	
1635 Manitoba Dr	2008	9198	1	3065	33%	
1643 Manitoba Dr	1960	8541	1	2623	31%	
1647 Manitoba Dr	1960	8030	1	2213	28%	
1655 Manitoba Dr	1960	8030	1	2280	28%	
1659 Manitoba Dr	1960	8030	1	2535	32%	
1663 Manitoba Dr	1960	8030	1	2318	29%	
1667 Manitoba Dr	1960	8030	1	2456	31%	
838 Nisqually Dr	1960	7320	1	2200	30%	
832 Nisqually Dr	1960	7770	2	3236	42%	
803 Nisqually Dr	1960	7776	1	2458	32%	
807 Nisqually Dr	1960	8066	1	2684	33%	
811 Nisqually Dr	1960	8066	1	2537	31%	
815 Nisqually Dr	1960	8066	1	2922	36%	
819 Nisqually Dr	1960	8066	1	2280	28%	
823 Nisqually Dr	1960	8066	1	2588	32%	
827 Nisqually Dr	1960	8066	1	2424	30%	
831 Nisqually Dr	1960	8436	1	1842	22%	
835 Nisqually Dr	1960	8218	1	2380	29%	
839 Nisqually Dr	1960	8066	1	2280	28%	
Average (Existing)		**8452**		**2533**	**30%**	
Average (Proposed)		**8463**		**2539**	**30%**	

Note:

1. The row with grey highlight indicates the proposed project.
2. The rows with bolded and italicized texts indicate the proposed project's immediate neighbors.

Hello Mary,

My name is Ken Okumura. My family and I have been residents of Sunnyvale for 23 years. We are currently in the midst of adding a front porch cover and replacing our existing backyard patios and trellises/arbors on our property. We have approval from the city to do the project and have begun construction. We would now like to add a cover to one of the trellises/arbors in the backyard to protect our patio and its contents from the weather. The recent storms have only heightened our concerns about the weather and would like to avoid future damage that occurred to the structures that we are replacing. We were told that we had to get Planning Commission approval to move forward because our house is larger than 3600 square feet.

The only difference between our approved plan and our current request is a cover to the main trellis/arbor. We are not putting up walls or creating additional living space. I understand that city ordinances are there for a reason, but I believe that adding a cover to an approved structure would not negatively impact the site or its surroundings. As a matter of fact, it will likely improve the structure because visible structural members will be covered with roofing material that will blend in well with our existing roof unlike the structure that it replaces. When we did our remodel back in 1999, we chose to keep it to one story in order to lessen the impact to our neighborhood. Also, our lot is somewhat pie shaped and very narrow in the front and wider in the back. It actually looks smaller than other houses because the width of our lot is only 43 feet at its narrowest point in the front vs. 73 feet of our neighbors. None of that would change by putting a cover in the back.

Thank you for your consideration in this matter.

Best regards,
Ken

From: Mary Jeyaprakash
To: [redacted]
Cc: Teresa Zarrin
Subject: RE: Noticing for 1630 Manitoba
Date: Tuesday, April 02, 2019 11:46:13 AM
Attachments: image001.png
image002.png
image003.png
image004.png
Fences 12-2013.pdf

Hi Julia,

Good Morning. Thanks for the email.

As I mentioned you earlier, there is construction going on at the site, based on what was approved earlier. I did a site visit yesterday evening at around 5 pm and I am confirming that information. They are currently constructing the main roof framing members for the already approved open roof. I also learnt that they are scheduled for a building inspection to check the connection of the framing to the existing house this week.

Per the Assistant Director of the Department, Andrew Miner, this project is placed on the consent calendar. As you know, the Planning commissioners have the right to take it out of the consent calendar, as needed. This item is scheduled after a large item in the agenda, and the large item might easily take at least 30 mins from the start of the hearing. I'll request our admin to send you the agenda, once it is finalized.

Regarding noise from construction, kindly talk to your neighbor and see if there is anything you can settle between both your properties. I have attached the fence brochure with this email, which will give you requirement on fence heights. If you find there is any violation with the Municipal Code with respect to the construction noise, please contact Neighborhood Preservation at 408 730 7447.

I'll am very swamped with multiple due dates today. I'll call you tomorrow morning 9:00 am to discuss this further. Thanks in advance for your understanding and patience.

Thanks,

MARY JEYAPRAKASH
Associate Planner
Community Development Department
City of Sunnyvale
Phone: 408-730-7449

From: Julia Miller [redacted]
Sent: Tuesday, April 02, 2019 9:10 AM
To: Mary Jeyaprakash <MJeyaprakash@sunnyvale.ca.gov>
Cc: Teresa Zarrin <TZarrin@sunnyvale.ca.gov>
Subject: Re: Noticing for 1630 Manitoba

Good Morning Mary,

I see workers are continuing with the p project and have sheet rocked the outside of the building which is also over the sign light of my fence and insider views. I have a major conflict for Monday evening's Planning Commission mtg so could you please let me know where on the agenda this project would appear and what you discovered from the site visit. I think I will ask the commissioners and staff to ask the applicant to add an additional fence portion to block my view of their property and hopefully reduce some noise.
Do you see this as an option? Can we speak?
Thank you,
Julia
408-221-3834

On Mon, Apr 1, 2019 at 11:59 AM Mary Jeyaprakash <MJeyaprakash@sunnyvale.ca.gov> wrote:

> Dear Ms. Miller,
>
> Good afternoon. Our records indicate that we did send a notice to your address. Please find attached the notice we mailed (to 1611 New Brunswick). I am sorry that you didn't receive the notice that we sent.
>
> I am also copying the Planner for the project for which the construction is going on at this time. As I mentioned over the phone, the notice is only for the roof over the gazebo and not for the rest of the addition (approved in 2018 through a different Design Review) to the house, because the rest didn't trigger the threshold for noticing.
>
> Please let me know if you have any other questions.
>
> Thanks,
>
> Sunnyvale
>
> Follow us on:
>
> **MARY JEYAPRAKASH**
> **Associate Planner**
> Community Development Department
>
> Phone: 408-730-7449
> Sunnyvale.ca.gov

From: Julia Miller
To: Mary Jeyaprakash
Subject: View from my living room
Date: Monday, April 01, 2019 4:22:14 PM







Sent from my iPhone - please excuse typos

18-1118 **Agenda Date:** 4/8/2019

REPORT TO PLANNING COMMISSION

SUBJECT

CONTINUED FROM MARCH 25, 2019 Proposed Project: Related applications on a 34.7-acre site:

REZONE: the site from M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/Medium Density Residential/Planned Development) and M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/High Density Residential/Planned Development) **TO** R-3/PD (Medium Density Residential/Planned Development) R-4/PD (High Density Residential Planned Development) and P-F (Public Facilities).

SPECIAL DEVELOPMENT PERMIT: Demolish existing industrial/office buildings (formerly AMD campus) and construct 1,051 residential units, including 944 units in three to five-story apartment buildings and 107 units in three-story townhome style buildings. The unit count includes 45 apartment units for very low-income households and 13 below market rate townhome units. Public improvements include the dedication of a 6.5-acre public park, extension of Indian Wells Avenue to the east to connect with the Duane Avenue/Stewart Drive intersection, and associated public improvements. Requested deviations include reduced private useable open space and front setbacks on Indian Wells Avenue and Stewart Drive.

VESTING TENTATIVE MAP: Lot line adjustment between two existing lots and subdivide one lot into six lots, to create a total of seven lots.

Location:1 AMD Place (APNs: 205-22-024, 205-22-025), 975 Stewart Drive (205-22-028)
File #: 2016-8035
Zoning: Industrial Service/Industrial-to-Residential/Medium Density/Planned Development Zoning District (MS/ITR/R-3/PD) and Industrial Service/Industrial-to-Residential High Density Zoning District (MS/ITR/R-4/PD) Zoning District
Applicant / Owner: Irvine Company (applicant /owner)
Environmental Review: Adopt a resolution to make findings required by CEQA, certify the Environmental Impact Report (EIR), and adopt a Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program.
Project Planner: Gerri Caruso/Margaret Netto, (408) 730-7440, mnetto@sunnyvale.ca.gov

REPORT IN BRIEF

Existing Site Conditions: Three office buildings, a utility building, paved parking lots and roads, and landscaping, including grass lawns and mature landscape trees and two lots.

Surrounding Land Uses

North: Single family homes and medium density townhomes across Duane Avenue
South: Office and service commercial uses across Stewart Drive
East: Office, hotel and service commercial uses across Stewart Drive
West: Medium density residential rental units and medium density ownership townhome residential units

Issues: EIR impacts and mitigations, traffic impacts and improvements, short term construction noise, setbacks, useable open space, tree preservation

Staff Recommendation: Recommend to City Council to Adopt a Resolution to Certify the Environmental Impact Report; make the Findings required by the California Environmental Quality Act; and adopt the Statement of Overriding Consideration and Mitigation Monitoring Report Program; Introduce an Ordinance to rezone portions of 1 AMD Place and 975 Stewart Drive to: R-3/PD, R-4/PD, and PF; Approve the Special Development Permit with specified deviations and Vesting Tentative Map subject to recommended Findings and Conditions of Approval.

BACKGROUND

A project site, vicinity and public noticing map is in Attachment 2.

Description of Proposed Project

The project includes the rezoning of the property and subdivision of the land to include creation of separate lots for development, a lot for a 6.5 acre public park and a right-of-way easement to extend Indian Wells Avenue. The development includes 1,051 housing units with a mix of for-sale and rental units, including affordable rental and below-market ownership units, along with on-site and off-site amenities and improvements. An Environmental Impact Report (EIR) has been prepared due to the project's potentially significant effects on the environment.

The project utilizes the State Density bonus and Green Building incentives as described below.

The project also includes a community benefit and the design and development of the new public park.

Existing Site Conditions

The site is approximately 34.7 acres located at 1 AMD Place and 975 Stewart Drive.
The project site encompasses area on two parcels bound by Stewart Drive on the south, Duane Avenue on the north, and the intersection of Duane Avenue/Stewart Drive on the east. Existing rental apartments and ownership townhomes are to the west of the site. Indian Wells Avenue currently terminates at the west property line of the site.

The project site currently consists of three office buildings, a utility building, paved parking lots and roads, and landscaping, including grass lawns and mature landscape trees. Residential uses are adjacent to the north, east, and west project boundaries. A public storage facility and office uses are located south and southeast of the site. Hotel and office buildings (formerly a private university) are located east of the site.

Previous Actions on the Site

The site is in the East Sunnyvale ITR General Plan Amendment area. In 2007, City Council approved the East Sunnyvale Industrial-to-Residential (ITR) General Plan Amendment and Rezone. The original 2007 study area consisted of 130-acres of industrial/office area. The City Council rezoned approximately 80-acres, which included the project site, to a combined designation that allows transition to residential uses. The current zoning would allow 890 dwelling units before any density bonuses.
The project is subject to the provisions in the East Sunnyvale Sense of Place Plan that was approved in 2015 for an approximately 130-acre area bounded by East Duane Avenue on the north and east, Stewart Drive on the south, and North Wolfe Road, Fair Oaks Park and the Kings Academy School on the west.

Public Review Schedule
Because the project includes a request for a rezoning, it must be approved by City Council. The City Council hearing is scheduled for April 23, 2019.

EXISTING POLICY
General Plan Goals and Policies: Key General Plan goals and policies from the Land Use and Transportation Chapter of the General Plan applicable to the project are found within the project Findings in Attachment 4.

The Land Use and Transportation Element (LUTE), Housing Element, and the Community Character Chapter of the Sunnyvale General Plan provide the City with a comprehensive and long-range general plan for its physical development. The LUTE Update, adopted in April 2017, combines the required land use and circulation elements into a single chapter. The land use and transportation policies strive to preserve community qualities that are favorable to residents and businesses and contribute to the community's identity. Policies also provide guidance on visual quality and the character of new development and provide additional direction for a complete community.

Applicable Design Guidelines: The City has a collection of Design Guidelines that are based on General Plan goals and policies and are intended to enhance the image of the City, preserve the existing character of the community, and achieve a higher overall design quality. The Design Guidelines address: citywide design, building architecture and site design standards, bird-safety, high -density residential design, building design, parking and circulation, landscaping, and service and accessory structures.

East Sunnyvale Sense of Place Plan: The project is located within the East Sunnyvale Area Sense of Place Plan. The purpose of this Plan is to function as a policy document to ensure improvements to the area are implemented in accordance with the Plan. The specific goals of the Sense of Place Plan are to:

- Enhance the quality of life for existing and future residents by encouraging and supporting a vibrant street life through wayfinding signage, seating areas, access nodes, and the addition of destinations and neighborhood-scale amenities.
- Encourage non-vehicular modes of travel by making those options (pedestrian, bicycle, transit) more comfortable through circulation, landscaping, lighting, and streetscape improvements.
- Enhance the neighborhood character and identity by providing entry monuments to define the limits of the neighborhood, providing pedestrian-scale thematic lighting, and beautifying the streetscape through landscaped parkway strips.

The applicant requests a minor deviation to the sidewalk width from 6-feet to 5.5 feet. Staff supports this minor deviation in order to preserve mature street trees. The Sense of Place plan in the area along Stewart Drive called for widened sidewalks, but given the existing road width and bike lane requirements, the only way to extend the width of the sidewalks was to move it further into the site. Given the berms immediately adjacent to the existing sidewalk, with the large ash trees located near or on the top of the berms, widening the sidewalk in this location would have resulted in loss and/or damage to the trees.

City Green Building Program: Green building is a whole systems approach to the design,

construction, and operation of buildings. This approach employs materials and methods that promote natural resource conservation, energy efficiency, and indoor air quality. The City's Green Building Program includes minimum standards based on the type of project and provides for verification of green building measures. Incentives are offered for projects that exceed the minimum green building standards and are offered to encourage project applicants and developers to provide additional green building features. Incentives include, but are not limited to, a density bonus as proposed by this project.

ENVIRONMENTAL REVIEW

The California Environmental Quality Act (CEQA) requires that all state and local government agencies consider the environmental consequences of projects for which they have discretionary authority. An EIR has been prepared in compliance with CEQA provisions and City Guidelines (Attachment 10). The EIR is an informational document that describes the significant environmental effect of the project, identifies possible ways to minimize the significance of the effects and discusses reasonable alternatives to the project to avoid, reduce or minimize environmental impacts. The Mitigation Measures will be incorporated as Exhibit 1 of the Conditions of Approval (Attachment 7).

The purpose of this review is to determine if the analysis in the EIR is adequate. It is not the purpose of the EIR to recommend either approval or denial of the project. The EIR under consideration at this public hearing includes the Draft Environmental Impact Report (DEIR) document and the Final EIR (FEIR) document (which incorporates the DEIR by reference).

As proposed, the project would demolish all the existing industrial buildings on the project site to allow for construction of up to 1,051 residential units. The DEIR analyzed the impacts of up to 1,074 units. The applicant has reduced the proposed project size since the DEIR was prepared. The EIR also examines a 6.5-acre park, and extension of Indian Wells Avenue.

For a summary of Environmental Impacts and a summary of public comments see Attachment 16. The DEIR and Final EIR (FEIR) can be accessed at: <https://sunnyvale.ca.gov/business/projects/amd.htm>. The FEIR is also included as Attachment 11 to this report.

On August 19, 2017, a Notice of Preparation for the EIR was prepared and mailed to neighboring cities, the State, and other public agencies, and surrounding property owners and residents requesting their input on the scoping of the EIR. The Notice of Preparation and letters responding to the Notice of Preparation are found in Appendix A of the DEIR

Milestone	Date
Notice of Preparation	August 19, 2017
EIR Scoping Meeting	August 31, 2017
Notice of Availability (Required 45-day public review period)	November 2, 2018
Planning Commission Public Hearing for Comments on DEIR	November 26, 2018
Final EIR minimum 10-day review	March 15, 2019

Planning Commission Public Hearing (recommendation to the City Council)	March 25, 2019
City Council Public Hearing Date (Certification of the EIR)	April 23, 2019

Areas of potential impact analyzed in the EIR include the following:

- Aesthetics
- Air Quality
- Biological Resources
- Energy
- Greenhouse Gas Emissions and Climate Change
- Hazards and Hazardous Material
- Land Use and Planning
- Noise and Vibration
- Public Services and Utilities
- Recreation
- Traffic and Circulation

Scoping Meeting and Public Review of the Environmental Impact Report

A scoping meeting as authorized under CEQA for public agencies and members of the public were also invited. The scoping meeting is intended to allow the community to provide direction on the issues to be addressed in the EIR. This meeting was held on August 31, 2017 in the City Council Chambers. Twelve members of the public made comments at the scoping meeting. Seven agencies and eight members of the public submitted letters regarding the Notice of Preparation.

The DEIR was issued for public review and comment on November 2, 2018. A Notice of Availability for the DEIR was mailed to appropriate agencies and individuals and groups that had requested notice. A link to the City's web site and the DEIR was included in the notice. Printed copies of the DEIR were placed at the Sunnyvale Library, the One-Stop Permit Center and the Community Center. Notices of availability were mailed to property owners within 2,000 feet of the project area. During the 45-day review period that followed, public agencies and members of the public submitted written comments on the DEIR. The public review period and comment period closed on December 17, 2018. Three letters were received from public agencies and eight letters were received from the public during the review period. Eight member of the public, and three members of the Planning Commissioner commented on the DEIR during the public hearing on November 26, 2018. The comments and responses are found in the Final EIR (Attachment 11)

The EIR identified the following Significant and Unavoidable impacts that cannot be fully mitigated:

- Short-term Construction Noise Levels
- Impacts on Intersection Operating Conditions
- Impacts on Freeway Ramp Queuing

The City Council must adopt a Statement of Overriding Considerations in order to certify the EIR with these Significant and Unavoidable impacts (Attachment 6, EIR Findings and Statement of Overriding Considerations).

Following preparation of the Final EIR, the applicant requested minor edits to clarify three of the mitigation measures identified in the EIR (Attachment 20). These modifications will not result in new significant environmental impacts or substantially increase the severity of the environmental impacts identified in the EIR; therefore, recirculation of the EIR is not required. The Mitigation Monitoring and Reporting Program has been updated to reflect the changes.

In addition, staff received a lengthy comment letter a day before the originally advertised Planning Commission meeting. The letter is included in Attachment 17. The letter included over 600 pages of exhibits which are available at the following link: <https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?t=50437.17&BlobID=26361> A response to the issues raised in the letter is attached as Attachment 18.

The project evaluated in the EIR also includes the 6.5-acre public park that may include amenities such as picnic areas, small gathering places, a small dog park, outdoor fitness areas, play areas, water play elements, art/sculpture or themed gardens, a public restroom, a flex-use field, and on-site parking. However, the EIR notes that the design of the park will be determined under a separate process with input from City staff and the community. CEQA provides that agencies must complete environmental review as early as feasible in the planning process, yet late enough in the process to provide meaning information for environmental assessment. The design and construction of the park will not be approved until appropriate environmental analysis is completed as required by CEQA. The approval of the current project does not commit the City to approving any particular park design or amenities.

DISCUSSION

REZONING

The City Council rezoned the project site in 2007 to facilitate the transition of the AMD campus to residential use. The site was zoned to allow a combination of R-3 medium density and R-4 high density, which would allow 890 housing units. The subject project includes a rezoning request to adjust the R-3 and R-4 zoning lines to create a land use plan that would accommodate low and mid-rise apartment buildings, 107 ownership townhomes, and a 6.5 acre public park. The applicant has requested a State Density Bonus as part of the project, which allows an additional 22.5% housing units in exchange for reserving 6% of the proposed apartment units for very-low income households. Note, the applicant is also utilizing the green building incentive, which allows a density bonus up to 5% on the rental components of the development.

The applicant proposes to rezone the site to create more land for high density residential plus a 6.5 acre park zoned Public Facilities. With dedication of the parkland, the rezoning would allow the same base number of housing units (before any density bonuses) as the existing zoning.

The reorganized site allows the project to achieve high quality public and private open space while retaining or relocating 49% of the existing mature trees. The draft Rezoning Ordinance is in Attachment 5.

SPECIAL DEVELOPMENT PERMIT

The proposed project includes demolition of existing onsite buildings and infrastructure for redevelopment of a master-planned residential community. The planned 1,051 residential units include:

Two styles of Apartments (Total apartments = 944)

- All apartments would be zoned R-4/PD (High Density Residential/Planned Development).
- 57 units in four low-rise, three-story apartments along the south property line along Stewart Drive;
- 887 units in four five-story buildings along Stewart Drive and the extension of Indian Wells Drive;
- 6 percent of the 744-base units (prior to the 22.5% bonus density allowance) to be reserved for very low-income households (45 units);
- 168 of the units are allowed due to the state density bonus of 22.5%;
- 32 of the units are allowed through the City's Green Building density bonus of 5% (of the base) for developing at 110 points (GreenPoint rated);
- The development must comply with the housing mitigation fee requirements, which will be satisfied primarily through the provision of the 45 units affordable to very low income households; and,

Townhomes (107)

- Area zoned R-3/PD (Medium Density Residential/Planned Development).
- 107 three-story, townhome-style dwellings in 22 buildings on the north portion of the site;
- 12.5 percent affordable units (13 units, plus in-lieu fee for 0.375 unit) in accordance with the City's Below Market Rate (BMR) Program; and,

Park

- Dedication of a 6.5 acre public park (in partial satisfaction of the General Plan and Municipal Code park dedication requirements); and
- Park area to be rezoned to PF (Public Facility).

Extension of Indian Wells Avenue

- Indian Wells Avenue is currently incomplete and terminates at the western boundary of the site. The project would include completion of the easterly extension of Indian Wells to the intersection of Duane Avenue and Stewart Drive. This extension will be a City street that would include bike lanes, sidewalk and street design elements identified in the adopted East Sunnyvale Sense of Place Plan.

Site and architectural plans can be viewed on the project web page at <https://sunnyvale.ca.gov/business/projects/amd.htm>.

Architecture, site planning and requested code deviations for each separate proposed housing type are discussed further in this report. Site and architectural plans are found in Attachment 8.

Deviations to Code

The applicant is requesting the following deviations from the SMC:

- Reduce front yard setbacks on portions of Indian Wells Avenue and portions of Stewart Drive;
- Reduce required private useable open space by eliminating or reducing the size of private balconies on the five-story, mid-rise apartments; and,

- Requesting that some units in the townhome development be located farther than 150 feet from a trash facility.

The above deviations are not a part of the applicant's requests for concessions enabled by the Density Bonus Law. The deviations are also separate from applicant's request for a Green Building incentive to allow an additional five feet of height on the townhome portion of the site. Deviations, concessions and incentives are discussed in the next four discussion areas of this report (A-D below).

This section of the report is divided into four main discussion areas:

A. Overall Project
B. Townhomes
C. Midrise Apartments
D. Low-Rise Apartments

A. Overall Project

The Special Development Permit will be considered for the entire project although the individual areas (by housing product type) will be discussed separately in this report. The project has been designed to appear as a master planned community. The buildings in all three areas are distinguished from each other in height, scale and massing and are coordinated with the use of Mediterranean architectural features and color schemes.

Project Data Tables for each project are found in Attachment 3.

Overall Project: Density Bonus

The R-4 component of the site takes advantage of two separate density bonus programs:

1. **The California Density Bonus Law** (Government Code Section 65915, Sunnyvale Municipal Code Section (SMC) 19.28.025) promotes the creation of affordable housing by guaranteeing developers a "menu" of entitlements based on the percentage of affordable units they chose to offer. These entitlements include increased density; incentives, concessions, and waivers or reductions of development standards; and reduced parking. As long as the developer meets the requirements in the statute, cities are obligated to grant the density bonus and have only limited discretion to deny the requested incentives, concessions or waivers. The density bonus applies to the maximum density allowed by city regulations and standards.

2. **Sunnyvale Green Building Program** (SMC Chapter 19.39) allows up to 5% density bonus in exchange for higher levels of green building (110 GreenPoint rated points).

Based on the applicant's proposal to provide 6 percent (45 units) of the 744 base apartment units in the R-4 zone as very low-income units, the City is required by state law to allow up to 168 additional market rate bonus units. The applicant has also requested a density bonus (up to 5%) for meeting the criteria of the City's Green Building Program; this would allow for up to 37 additional bonus, market-rate units by providing 110 points on the Green Point Rated Checklist. Combined, the project would provide 744 base units (includes 45 very-low income units) and 200 density bonus units (168 under State law and 32 for City's Green Building incentives) for a total of 944 R-4 units.

As discussed in more detail later in this report, the applicant is also requesting increased building

heights as a concession through the State Density Bonus program. The applicant has chosen not to request a reduction in parking through the State Density Bonus. The proposed project meets all City parking standards.

Overall Project: City Guidelines and Plans
The following City guidelines were considered in analysis of the site design and architectural design and design of public spaces. The project meets the concepts and goals of these guidelines or has been conditioned to meet them prior to applying for building permits:

- Citywide Design Guidelines
- High Density Residential Design Guidelines
- Bird-safe Design Guidelines
- East Sunnyvale Sense of Place Plan

Overall Project: Master Planned Architectural Statement
The proposed townhomes and apartments are all designed using Mediterranean Revival architectural features, materials and colors. Mediterranean Revival is an eclectic style that incorporates features from Spanish Renaissance, Spanish Colonial, Italian Renaissance, Arabic and Venetian architecture. Structures in this style are typically based on a rectangular floor plan, and feature symmetrical primary façades and may feature tall square towers. Stucco <https://en.wikipedia.org/wiki/Stucco> walls, red tiled <https://en.wikipedia.org/wiki/Tile> roofs, windows in the shape of arches or circles, wood or wrought iron <https://en.wikipedia.org/wiki/Wrought_iron> balconies <https://en.wikipedia.org/wiki/Balcony> with window grilles, and articulated door surrounds are common. Mediterranean Revival ornamentation may be simple or dramatic. The color scheme on all three product types is typical of the Mediterranean style and varies from muted colors in browns, beiges, mauves and terra cottas to softer peach and melon shades.

Overall Project: Tree Preservation
There are 512 trees on the project site that meet the City's definition of "protected tree". Pursuant to SMC Chapter 19.94, a protected tree is a tree of significant size of thirty-eight inches or greater in circumference measured four and one-half feet above ground. The project includes retention and relocation of 49% of those trees. The existing site is notable for the large number of mature ash trees that line the site periphery on Stewart Drive and several large groupings of redwood trees. City staff, including City arborists, walked the property several times with the applicant to ensure retention of the ash trees along Stewart Drive and Duane Avenue. The proposed plan was designed to save as many trees as possible and to maintain a grove of large redwood trees in the proposed park area.

A total of 205 trees are to be protected and remain in place. Most of the trees planned for preservation are located along the Stewart Avenue frontage, and clustered in the proposed park area and along the project's western property line adjacent to existing residential uses. A total of 49 protected trees are proposed to be relocated. Conditions of Approval further ensure that tree protection measures are met for trees that are scheduled to be retained.

The remaining 258 trees are not considered good candidates for replanting based on condition or species or are located where development will occur and will be removed. The project includes approximately 567 new trees of varying species at a minimum of 24-inch box size which meets City policies for replacement.

Overall Project: Area Circulation
The entire site is bound by Stewart Drive on the south and east side and Duane Avenue on the north site. Currently, Indian Wells Avenue terminates on the west side of the project. As proposed, Indian Wells would be extended by granting of an easement for a public street and would create circulation through the site and connect the existing residential developments to the west with the new park and with the intersection of Indian Wells and Duane Avenue.

The townhome project would have one private drive aisle that provides the entire project with access to Indian Wells Avenue. This private drive would not extend through to Duane Avenue.

The four mid-rise apartments would have two private access points: one from Indian Wells Avenue and another at Stewart Drive. There is no access cutting through the site connecting the two internal streets. Solid waste pick-up would also occur on the west side of the mid-rise project and would use a private access easement from Stewart Village.

The low-rise apartments would be accessed by private access easements through the existing Stewart Village apartment complex to the west. Stewart Village was developed by and is owned by the Irvine Company, applicant for the subject development. Additional private access easements across the low-rise site will allow residents of the mid-rise apartments access loading zones.

Overall Project: Sense of Place Improvements
In 2015, the City adopted a Sense of Place Plan for the East Sunnyvale ITR area. The project site is part of the Sense of Place Plan area. The purpose of the Plan is to enhance the quality of life for existing and future residents by encouraging and supporting a vibrant street life through wayfinding, signage, seating areas, access node, and the addition of destinations and neighborhood-scale amenities. The Plan also encourages non-vehicular modes of travel and calls for enhancing neighborhood character and identity with entry monuments, pedestrian scale lighting and landscaped parkways.

The project will adhere to the Sense of Place Plan by installing the designated street lighting design along all street frontages, directional signs, and by creating landscaped parkways along Duane Avenue and the Indian Wells extension.

In order to protect the existing Ash trees along Stewart Drive, the normally required 6-foot wide sidewalk would be reduced to 5.5 feet. The City's arborist has evaluated this requirement and stated that the trees can be protected even when excavating a 5.5 feet wide sidewalk.

To supplement the public sidewalk, and to enhance the open space area around the project, the applicant is creating an on-site, meandering, private walkway that will follow the line of Stewart Drive but be set back behind the Ash trees 30-60 feet. It would be a publicly accessible pedestrian way with 8 feet concrete walkway adjacent to 5 feet decomposed granite walkway and will feature pockets of recreation areas, pedestrian scale lighting, fitness stations and shaded seating areas along the path.

Overall Project: Transportation Demand Management
A TDM Program is required of all new multi-family developments and redevelopments of ten or more residential units. Projects with 100 units or more are required to identify 10 points on the City's Multi-Family Residential Transportation Demand Management (TDM) Program worksheet.

The applicant has earned more than 10 points due to the project location near a major transit stop (5 pts), for being near a shopping center (3 pts) and creating bike lanes (3 pts) and secure bicycle parking (0.5 pts) for a total of 11.5 points. In addition, in response to recommendations made by CalTrans about the DEIR, the applicant has submitted a supplemental, draft TDM plan with additional measures that include on-site bicycle repair (0.5 pts) and an on-site TDM coordinator (0.5 pts) for a total of 12.5 points. The applicant has indicated that other optional measures may be considered such as a Transit Pass Program (10 pts). They also indicate unbundled parking as a potential future TDM measure. The City does not allow unbundled parking on this site.

The Draft TDM Plan in is Attachment 9. The applicant will prepare a final TDM program for review prior to occupancy of the project.

Overall Project: Stormwater Management
The City complies with stormwater management requirements through participation in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). The stormwater management goals are achieved by incorporating Best Management Practices into the project design. Stormwater runoff is typically reduced using 100% Low Impact Development (LID) treatment measures such as rain harvesting and infiltration.

A preliminary stormwater management plan was submitted by the applicant to provide treatment to the entire development site. Because of a Special Project designation, the project is eligible to use mechanical biotreatment as part of the stormwater management plan. The project has met the use and density criteria as a Special Project, and the criteria that the project is located 100% in a planned Priority Development Area as designated by the Association of Bay Area Government's/Metropolitan Transportation Commission's FOCUS regional planning program. A third-party expert will review the final plan prior to submitting for Building permits.

Overall Project: Solar Access
Sunnyvale Municipal Code 19.56.020. (a) states that:

> *No building permit shall be issued for any construction, the effect of which when completed would be to interfere with solar access to the rooftops of the sum of all permitted structures on an adjacent property or to any preexisting active solar collector on an adjacent property. Solar access means the absence of shadows blocking or reducing exposure to the sun to an extent greater than ten percent daily during the hours between nine a.m. to three p.m., Pacific Time, throughout any solar cycle. Nothing contained herein shall require modification to any structure, the shade pattern of which would impair solar access to rooftops or active solar collectors established later in time.*

Applications for new construction above the first level of any structure shall include a solar shading analysis by a qualified professional.

The applicant submitted a solar access study that shows impacts from the entire R-4 portion of the project (mid-rise and low-rise apartments). The study indicates that there are some periods of time when the five-story, mid-rise buildings along Indian Wells Avenue would have a greater than 10% shadow effect on one of the applicant's townhome buildings. A supplemental detailed analysis indicates that this effect only occurs between December 14 and January 13 of each year. The

shadow effect ranges from 472 s.f. to 528 s.f. of roof area. The analysis shows a cumulative shadowing effect of less than ten percent total over the course of the three hundred sixty-five-day solar cycle (30 hours = 8% of 365-day solar cycle). The R-4 portion of the project complies with the City's solar access requirement.

The proposed three-story townhomes are adjacent to similarly tall townhomes on the Fusion site to the west. A solar access study was not required for this specific area.

Overall Project: Bird Safe Guidelines
Because five-story buildings will be located near a 6.5-acre park, the project is required to incorporate design features to meet the City's Bird Safe guidelines. The project complies with the following measures:

- Avoids the use of multi-floor expanse of reflective or transparent glass in the first 60 feet of building design, specifically in the areas facing water or open space;
- Building glass is limited to low reflectivity levels such as 25% or less;
- No glass skyways or freestanding glass walls;
- No uplighting or spot lights on site except at small areas above and below the specified bird foraging altitude, and where lights are cut off by building eaves and under canopy of trees;
- All site lighting uses shielded fixtures;
- Smaller zones are created in internal lighting layouts to discourage wholesale illumination; and,
- Signs will be placed at several locations with the telephone number of an authorized bird conservation organization or museum to aid in species identification and to benefit scientific study.

Overall Project: Perimeter - Front Yard Setback Deviations
The project includes deviation requests for setbacks on Indian Wells Avenue for the mid-rise project and on a portion of Stewart Drive for the low-rise project.

Indian Wells Setbacks
Two parts of the project will front onto Indian Wells Avenue: the front, three-story townhome buildings on the north side of Indian Wells and the five-story Buildings 1 and 2 of the mid-rise project on the south side. The applicant has asked for a deviation to allow a reduced front setback along the south side of Indian Wells Avenue for both mid-rise buildings. An enlarged site plan and other illustrations of the Indian Wells area are included in Attachments 14 and 15.

The combined mid-rise building frontage of Buildings 1 and 2 along Indian Wells Avenue is approximately 790 feet. Approximately 525 feet of this building frontage, and all of Building 2, is across from the park and will have a spacious, open feeling. Staff supports this deviation request.

On the western part of Indian Wells, mid-rise Building 1 and the townhomes face each other for approximately 265 feet and create a narrower street cross section. Due to the curved geometry of the Indian Wells Avenue extension and architectural articulation of the mid-rise buildings, proposed building setbacks vary along the street frontage.

The required front setback for Building 1 of the mid-rise product along Indian Wells is 36.9 ft. The applicant is requesting an average front setback of 28.2 ft. a reduction of 8.7 ft. from the required.

The minimum proposed Building 1 front setback is 23.3 ft. (a 13.6 ft. deviation). Building 1 is set back in a wedge shape and the setback increases to 40 ft. in some areas.

The required front setback for Building 2 of the mid-rise product along Indian Wells is 37.8 ft. because Building 2 is slightly taller. The applicant is providing an average front setback of 40.5 ft. for Building 2, 2.7 ft. beyond the required. The minimum proposed Building 2 front setback is 26.2 ft. an 11.6 ft. deviation from the required. The setback at Building 2 along Indian Wells increases from 50 ft. to 65 ft. where the building is articulated.

The front setback for the townhomes facing Indian Wells varies from 17.0 ft. to 30.9 ft. with an average of approximately 22.7 ft. This is compliant with the required front yard setback of 15 ft. minimum and 20 ft. average.

Not including the interface with the proposed park, the result is a street cross section between the buildings on the north and south of Indian Wells of 112.4 feet where the code would require 118.9 feet. In comparison, the existing townhomes to the west along Indian Wells Avenue (Fusion and Stewart Village) have an 80-foot wide cross section between them.

Given the constraints of the overall planned community to provide a variety of housing options including affordable housing, a 6.5-acre public park and a site plan and open space plan designed to save the mature trees, staff considers the front yard setback deviations along Indian Wells Avenue to be acceptable.

Stewart Drive Setbacks

Along most of Stewart Drive, the project setback varies from 62 ft. 1in. to 103 ft. 5 in. where 36 ft. 10 in. is required; this setback far exceeds the minimum setbacks to make room for the mature perimeter trees and to provide significantly increased front setbacks for the five-story midrise project. Doing so also creates room for the on-site, meandering, pedestrian way.

The front setbacks for the two front low-rise apartment buildings vary from 18 ft. to 25 ft. The City's Zoning Code requires a 25 ft. 6 in. setback. Twenty feet is the standard plus an additional 5.5 feet for the third story. The requested deviation varies from 6 inches to 7.5 feet.

Although the proposed setback is reduced in some areas and is considered a deviation from the Zoning Code, these setbacks are similar to those approved for the adjacent three-story buildings at Stewart Village and provide a consistent streetscape.

Setback Effect with Deviations

To make up for some "pinch points" in front setbacks in some areas of the plan (where buildings are closer to the front property line), the applicant has significantly increased setbacks in other areas of the overall plan, for instance along the Stewart Drive portion of the midrise project. Staff notes that the differences in height between the townhomes and mid-rise buildings also prevent a tunnel effect (where buildings on both sides of the street are closer to the property line). Staff finds that the overall effect of the plan still provides an adequate sense of openness.

The applicant's letter of justification for the project deviations is in Attachment 13.

B. Townhomes

Townhomes: Site Layout
The project includes a townhome development on the north side of Indian Wells Avenue adjacent to the proposed public park on the west side. The plan consists of 22 buildings with 107 three-story dwelling units. The project has one point of access off the Indian Wells Avenue extension. A private secondary drive aisle provides access to the rear of the townhomes and the two-car, covered garages. In between and around the townhome buildings are areas of landscaping and useable open space.

Townhomes: Architecture
The townhome building facades change subtly between four-plexes and five-plexes. An overall stucco finish and concrete S-tile roofing with rosy beiges and muted terra cotta colors establishes the Mediterranean character. Front facades are articulated with two-to-four foot, recessed plane changes. Second floor decks are covered and are faced with either stucco arches or wood-framed posts. Some have tile roof elements. The decks are also ornamented with varying patterns of iron railing.

A mix of window styles is proposed using foam trim to provide a variety of corniced and full framed windows that feature corbels, head trim and sill trim varying between 3-8 inches in depth. Doors are also framed in heavier foam trim or decorative tile and feature recessed panel doors. A variety of finishes will be used on the detailed trim elements. Finishes include textured stucco as well as smooth factory applied plaster over high-density EPS foam. Front facades feature ornamental elements such as decorative vents and lantern-style lighting.

Side and rear elevations continue use of weighty window trim and utilize corbeled belly bands to distinguish the separation of upper stories and at cantilevered floor bays. Garages are accessed from the rear elevation and feature varying patterns of solid panel garage doors. Site and architectural plans are in Attachment 8.

Townhomes: Development Standards
Lot Coverage and Floor Area Ratio
The proposed lot coverage for the townhomes is 34.3% where 40% is the maximum allowed. There is no Floor Area Ratio (FAR) limit in the R-3 Zoning District.

Setbacks
Along Duane Avenue and Indian Wells Avenue the townhome project meets the required setbacks of 15 feet with an average of 20 feet. The setbacks between buildings and along the west property line adjacent to existing residential meets required setbacks for three-story buildings.

Building Height/Stories
The townhome buildings are three stories and have heights up to 40 feet. The height limit for townhomes in the R-3 Zoning District is 35 feet. The applicant is requesting a five-foot increase in building height through the City Green Building program incentive. The townhomes will achieve 110 GreenPoint rated points (vs. 80 minimum points).

Parking
The project consists of 107 three-bedroom townhomes each with a two-car garage. The additional parking requirement for a project with two enclosed garage spaces is 0.5 additional spaces per unit. A total of 54 additional unenclosed (and unassigned) parking spaces is required. The applicant is

providing 57 spaces and will accommodate three accessible parking stalls.

The proposed parking layout for the townhomes does not comply with City standards. The layout provides 16 foot standard stall lengths and 15 foot compact stall lengths with a two-foot overhang across the adjacent 6-foot wide sidewalk where 18 feet and 17 feet would be required without an overhang. The zoning code allows a two-foot overhang over a low growing, groundcover buffer, three -feet in width. As a condition of approval, the applicant will be required to increase the length of the stalls or realign the adjacent walkways to provide additional landscaped buffer for the unenclosed parking spaces.

A condition of approval requires the applicant to submit a parking management plan to indicate how on-site parking will be managed for residents, guests and charging spaces.

Bicycle Parking
The project is required to provide 27 Class I, secured bicycle parking spaces. A two-car garage is considered one secured bicycle parking space. The 107 two-car garages provided onsite exceed the requirement.

Landscaping and Useable Open Space
Zoning District requires 425 s.f. of landscaping per unit and 400 s.f. of space that qualifies as useable open space. Much of the on-site landscaping qualifies as useable open space if it is not located in a front yard (along Indian Wells Avenue) and must be 12 feet in any direction and provide 200 s.f. minimum area. Private balconies must be a minimum of 7 feet in any direction and provide 80 s.f. minimum area to qualify as useable open space. Parking lot areas and the overall site are required to be a minimum of 20% landscaped.

The project is designed with wide tree-lined pedestrian paths, generous paseos between townhome buildings and wider pockets of landscaping near Duane Avenue, along the front entry drive aisle and in pockets of amenity areas.

The project has been designed with approximately 850 s.f. of landscape area per unit and 800 s.f. of useable open space. Both exceed the City’s requirement. The site is approximately 36% landscaped where 20% is required.

Club House
SMC Section 19.38.045 requires that all new multiple-family residential developments that contain one hundred or more housing units, shall provide a community room or club house with a minimum meeting space size of four hundred fifty (450) square feet. A community room or club house means a general-purpose room, or stand alone or attached building, containing bathrooms, kitchen facilities and meeting space within a multiple-family residential development for purposes of holding meetings, parties and other general activities for use by all members of the residential community.

The proposed townhome project includes a 465 s.f. club house located just west of the main entry driveway, between the first row of townhomes and the park. The proposed plan meets the size criteria set by the code; however, the floor plan provided does not show a kitchen facility, which would be in addition to the meeting space. A condition of approval has been added requiring a kitchen to be added.

Parking Lot Shading

Trees shall be planted and maintained throughout parking lots to ensure that at least fifty percent of the parking area will be shaded within fifteen years of tree establishment. Except for truck loading areas, all surfaces that can be driven on, including parking spaces, vehicular drives, drive-through lanes and maneuvering areas are subject to shade calculation. The City does not require parking alleys where rows of two buildings and garages face each other because the buildings are too close and typically provide shading on their own. Shading is calculated by using the diameter of the tree crown at fifteen years or the dimensions of any roofed area within the parking lot.

The applicant has provided a plan that demonstrates that the areas immediately adjacent to parking spaces are shaded 50 percent in 15 years. Much of the private north-south and east-west drive aisles are not shaded. A condition of approval requires that the project increase parking lot shading along the main drive aisle to a minimum of 50 percent.

Townhomes: Trash and Recycling Facilities

The townhome project will utilize shared solid waste enclosures to accommodate trash and recycling. Of the 107 proposed units, 100 units (94%) are within 150 feet of an enclosure as required by code. The remaining 7 units are 163 to 226 feet from the enclosure. This is a requested deviation from the SMC. The applicant states that providing an additional properly sized-enclosure would eliminate parking along the private street and potentially landscaping needed to meet other code requirements. Staff considers this request minor, and reasonable for this site.

Townhomes: Green Building

The applicant has provided a draft GreenPoint Rated Checklist indicating that the project will achieve 110 points where 80 points is the minimum required. The additional points allow a five foot height incentive.

Townhomes: Below Market Rate Housing

At least twelve and one-half percent of the total number of ownership housing units or single-family lots in a project shall be developed as Below Market Rate (BMR) ownership housing. In calculating the number of BMR units required, any fraction of a whole number shall be satisfied by either developing one additional BMR unit or by paying an in-lieu fee. For the proposed 107 units, the BMR requirement is 13.375 units. The applicant may provide 13 BMR units and pay the in-lieu fee for the additional 0.375 unit or provide 14 BMR units. The applicant has indicated they will meet the requirement by providing 13 units and paying the in-lieu fee for the remainder.

C. Midrise Apartments

Midrise Apartments: Site Layout and Circulation

The mid-rise apartments front Indian Wells Avenue extension on the north side and Stewart Drive on the east and south sides. The apartments are distributed between four, five-story buildings on four lots.

Access to the mid-rise apartments is from two driveways - one at Stewart Drive where it meets terminus of Santa Trinita Avenue and one at Indian wells Avenue. The two driveways do not connect. There is no through access from Stewart Drive to Indian Wells Avenue. The two driveways allow access to two motor courts, the internal parking structures, as well as to loading areas and some limited open parking spaces.

The attached site plan best demonstrates how the four, five-story buildings have been designed with long frontages broken up and articulated with large separations between buildings and deep alcoves (Attachment 8). This treatment minimizes the large facades and provides areas for increased landscaping between the face of the buildings and the street.

The areas between buildings allow for generous, landscaped open space including a large central pool and patio area featuring two pools and adjacent access to the community room and communal working room.

Along the Stewart Drive street frontage, the deep setbacks allow the applicant to save most of the significantly sized perimeter trees and provide a publicly accessible pedestrian path with an 8-foot wide concrete walkway adjacent to a 5-foot wide decomposed granite walkway and featuring pockets of recreation areas, fitness stations and shaded seating areas along the path.

Midrise Apartments: Development Standards

Setbacks

Indian Wells: The requirement for the project street frontages is 36.9 feet based on the increased height of the building. Although the project meets much of this required setback, the applicant is requesting a reduced setback for midrise apartment Buildings 1 and 2 along Indian Wells Avenue as discussed above in the Overall Project Section of this report regarding front yard deviations.

Stewart Drive: Buildings 2 and 3 face Stewart Drive along the east side of the project. The combined building frontage is approximately 700 feet. The two buildings are separated by 57 feet. Along this frontage the buildings have significant meandering setbacks and the long facades are articulated with deep alcoves setback from 200 feet - 250 feet. The project exceeds all required setbacks along this portion of Stewart Drive with the minimum setback at 61 feet and the largest setback approximately 250 feet.

Buildings 3 and 4 face Stewart Drive on the south side of the project. The project exceeds all required setbacks along this portion of Stewart Drive. The combined building frontage is 860 feet. The two building are separated by 280 feet. The front yard setbacks vary from 61 feet to 105 feet.

Side yards: The project side yard faces Stewart Village Apartments to the west. The proposed setbacks meet the minimum requirement and is a minimum of 21 feet. This yard also features large building alcoves with setbacks of 110 feet to 130 feet.

Lot Coverage and Floor Area Ratio
The R-4 mid-rise apartments propose a lot coverage of 40% as required by code. Lot coverage was calculated including the lot area of the low-rise apartments adjacent to the west. There is no Floor Area Ratio requirement for this zoning district.

Building Height/Stories
The mid-rise apartments are proposed to be an average of 65 feet with 5 stories and feature corner towers up to 78 feet. The municipal code allows a height of 55 feet and 4 stories in the R-4 zoning district. By increasing the height of the buildings, the applicant was able to increase the number of units to provide the very-low income (VLI) units and still meet the 40 percent lot coverage standard.

Doing so also created more areas for greater setbacks and unique useable open space areas. Also, the variety of heights add visual interest to the project.

Under the State Density Bonus Law the City is required to grant the applicants one concession to development standards based on the provision of 6% VLI units. The applicants have requested the concession for building height. The City must grant a developer's requested concessions unless the City can make written findings that: (1) the requested concession will not result in identifiable and actual cost reductions to provide the requested number of affordable housing units; or (2) the requested concession will have a specific, adverse impact on public health and safety that cannot be feasibly mitigated, or (3) the requested concession would violate state or federal law.

Parking

The mid-rise apartments provide 1,563 parking spaces. The 887 units are all one and two-bedrooms with parking provided in garage structures within the buildings. The unit mix proposed is 423 one-bedroom units, 31 one-bedroom with den units and 433 two-bedroom units.

When multi-family parking is provided in a structure the required parking is 1 parking space per unit. 1 bedroom units require an additional .5 unassigned spaces. The one-bedroom with den and the two-bedroom units require one additional unassigned space.

The applicant has provided the required spaces. Of those 1,563 spaces 12.5 percent (195) will be Electrical Vehicle parking spaces and 27 will be accessible spaces. Leasing office spaces are included in the unassigned spaces. Up to 10 percent of unassigned spaces may be compact spaces.

A condition of approval requires the applicant to submit a parking management plan to indicate how on-site parking will be managed for residents, guests, charging spaces and leasing-office visitors.

Bicycle Parking

The project is required to provide one bicycle parking space for every four dwelling units. The project meets that requirement with 222 proposed spaces. All spaces are required to meet the City's definition of secured bicycle parking.

Landscaped Area and Open Space

Landscaped area and open space for the mid-rise apartments were calculated in combination with the low-rise apartment portion of the project to collectively meet the landscaped area and open space requirements for the R-4 zoned areas. The two products combined provide 485 s.f. of landscaped area per unit where 375 s.f. is required per unit in the R-4 zoning district. Useable open space provided is 428 s.f. per unit where 380 s.f. per unit is required.

The project is required to meet the City's water efficient landscaping requirements, and the applicant has submitted a draft Water Efficient Landscaping Checklist indicating compliance.

Balconies/Private Useable Open Space

In the R-4 zoning district, a minimum of 80 s.f. of useable open space per unit is required to be designed as private useable open space. Private balconies are required to have a minimum dimension of seven feet and be a minimum of 80 s.f. in area. Private decks or porches are required to have a minimum dimension of ten feet and be a minimum of 120 s.f. in area.

The proposed plans indicate that none of the private balconies meet the required minimum dimensions or area standards. Of the 944 units, 854 (90 percent) have balconies. Ninety units have no balconies. Providing reduced and eliminated balconies is considered a deviation from the code standard for private useable open space. The average balcony provided is approximately 5.5 feet in minimum dimension and 60 s.f. There is no alternative *private* useable open space provided.

Apartment units range in size from approximately 890-930 s.f. The applicant indicated that to achieve better marketable units the balconies were reduced in size to enlarge the adjacent bedrooms in both market rate and affordable units.

As an alternative to private balconies, the applicant has provided a large amount of high-quality, on-site open space and amenity areas within the mid-rise project to compensate for the reduced amount of private useable open space. There is also a larger than required communal work space and community room. In addition, there are special open space areas to be provided in the immediate area including the wider setbacks on Stewart Drive where there will be a meandering, landscaped pedestrian path. Although not specifically part of the project site, the residents of the project will also have easy access to the new public park. Staff is supportive of the deviation since the project provides almost double the amount of required useable open space.

Parking Lot Shading

The City requires that trees be planted and maintained throughout the uncovered paved parking areas of a project to ensure that at least 50% of the parking area shall be shaded within 15 years of establishment of the lot. The applicant has provided a site plan for the mid-rise apartments that indicates no paved surface parking areas are provided. Except for paved entry driveways and the motor court areas that do not have parking, all parking is provided within structures. Except for other landscaping and trees to be provided as part of the overall landscape plan, no specific parking lot shading is required.

Midrise Apartments: Architecture

Each of the five-story apartment buildings is built around a parking structure. This style is often referred to as a wrap building. The parking structures are not visible when looking at the buildings exteriors.

All mid-rise buildings continue use of the Mediterranean Revival style. The visible exterior of the buildings will be stucco with some trim areas having plaster coating. As with all the buildings in the development, there will be s-tile roofing. A soft color palette with lighter beiges and melon tones is used on the mid-rise apartments. Color variation is used to emphasize building sections and the varying planes and insets of the architecture.

The architectural treatment for the mid-rise product features two building façade styles - Style I on Buildings 2 and 4 and Style II on Buildings 1 and 3. The key differences are Style I features heavier recessed storefront windows with heavy rectangular trim at the base and the use of smooth troweled plaster. Style II is distinguished by tall arched windows and a brick base and use of ornate decorative panels.

Other features on the mid-rise apartments include varied iron railing patterns, tall square towers that announce the corners of the buildings and that feature finials at the top. Window insets vary from the front to the middle of the wall opening and are enhanced by trim that varies from 3-8 inches in depth.

Balconies are also inset. The roof eave profile is 2.5 feet and features exposed rafters.

Midrise Apartments: Trash and Recycling Facilities
The City requires that recycling and solid waste enclosures be located within one hundred fifty feet from any dwelling unit. For apartments, that include trash rooms and trash chutes.

Of the 887 units in the mid-rise project, a total of 843 units (95 percent) are within 150 feet of a trash room, chute or vestibule. Forty-four units are outside the 150-foot requirement. The remaining 44 units are 165 to 185 feet from the enclosure. This is considered a deviation from the SMC. Staff considers this deviation minor, and reasonable for this site.

Each of the four mid-rise buildings will have two trash rooms with trash chutes located on each residential floor. Within building 2 and 3, a third trash vestibule will be located on each residential floor for the convenience of dwelling units located more than 150 feet from a trash room or chute. Trash collected in the vestibules will be transferred by apartment maintenance staff via the parking garage to the main trash discharge room. This provides an alternative trash disposal option within 150 feet. Residents also have the option to walk a longer distance to a trash chute for direct disposal. A waste management program is intended to provide organized and discrete on-site solid waste management that meets the City's requirement for disposal of solid waste and the requirements of the city's hauler. The applicant continues to work with City staff to refine the solid waste management plan for the mid-rise apartments.

In the past, staff has had a poor experience with trash rooms/vestibules in other multi-family projects. Without direct disposal, residents are often inconsiderate about how the trash is contained or placed in interim trash rooms. These rooms are typically adjacent to or near apartment units and the condition is often left disorganized, unventilated and unsanitary. In other cases property management, does not service the rooms (empty and sanitize) often enough.

Although this applicant has a history of being a very professional property manager (Cherry Orchard Apartments), staff has included additional Conditions of Approval to fine tune the solid waste management plan and to set performance standards. As a condition of approval, the applicant will be required to submit a final solid waste management plan prior to review of building permits.

Midrise Apartments: Green Building
The applicant has provided a draft GreenPoint Rated Checklist indicating that the project will achieve 110 points where 80 points is the minimum required. Doing so would qualify the project for a 5 percent density bonus of up to 37 additional market-rate units; however, as stated earlier in this report, only 32 are requested for this project.

Midrise Apartments: Below Market Rate Housing
The City does not have an inclusionary requirement for below market rate units for multi-family rental projects. To address the need for affordable housing, the City considers market-rate rental housing developments to generate an increased demand for affordable housing which must be mitigated through the imposition of housing impact fees. Such housing impact fees are a necessary part of the City's efforts to meet the regional housing needs of the Bay Area as required by state law. The project will pay a Housing Impact fee in accordance with the City's requirement. Additional information about the fee is discussed below under Impact Fees.

Using the State Density Bonus Law the applicant has voluntarily provided 45 units (6%) of the base units to utilize a state-required density bonus. Calculation of the density bonus was discussed previously.

D. Low-rise Apartments

Low-rise Apartments: Site Layout and On-Site Circulation

The proposed 57 low-rise apartments are located on Stewart Drive between the mid-rise apartments and the existing Stewart Village apartments that are also owned by the applicant. This part of the project consists of four buildings - two facing Stewart Drive and two internal buildings with no street frontage. Site and architectural plans are in Attachment 8.

The proposed plan indicates three, three-story apartment buildings with 18 and 19 dwelling units and one, two-story “carriage house” building consisting mainly of ground floor parking with one larger unit above the parking on the second floor.

There is no direct on-site street access from the low-rise apartment site. The low-rise apartments will have access to Stewart Drive and Indian Wells Avenue by way of private driveways with access easements through the existing Stewart Village apartment complex to the west. Additional private access easements across the low-rise site will allow residents of the mid-rise apartments access to loading zones.

Low-rise Apartments: Architecture

This part of the project continues use of the Mediterranean Revival architecture. The low-rise buildings are designed to bridge the design of the five-story, midrise buildings to the east and the existing Stewart Village buildings to the west. Although these buildings are simpler in form than the adjacent mid-rise buildings, they demonstrate a similar exterior decorative style and color scheme as the newer buildings to the east. Also, like the mid-rise buildings, the three, three-story buildings reach around on the end elevations to form internal courtyards.

The low-rise apartments share common features with the townhomes and mid-rise buildings including stucco exteriors with a warm color scheme of muted beiges and terra cottas and S-shaped roof tiles. Other Mediterranean Revival decorative features include varied designs of metal railings, decorative panels separating floor levels, tall arch features articulating the facades, varied trim coatings including plaster, faux limestone and stucco. Other exterior decorations include small, grilled decorative windows, shutter window treatments, carriage-style lighting fixtures, decorative tile groupings, paneled garage doors and ornate, metal gated doors into the stairwell and corridor areas.

Low-rise Apartments: Development Standards

Lot Coverage and Floor Area Ratio

The R-4 low-rise apartments propose a lot coverage of 40 percent which is the maximum allowed by code. Lot coverage was calculated including the lot area of the mid-rise apartments adjacent to the east. There is no Floor Area Ratio requirement for this zoning district.

Setbacks

The front setbacks for the two front low-rise apartment buildings vary from 18 feet. to 25 feet. The City’s Zoning Code requires a 25-foot setback. Twenty feet is the standard plus an additional five feet for the third story. The project meets the required 25-foot setback for approximately 55 percent of the building frontages.

Although the proposed setback is reduced in some areas and is considered a deviation from the Zoning Code, these setbacks are similar to those approved for the adjacent three-story buildings at Stewart Village and provide a consistent streetscape.

The project meets all other required setbacks including where the site is adjacent to the midrise project and to the existing Stewart Drive apartments.

Building Height/Stories
The proposed low-rise apartments are two-three stories where four stories are allowed in the R-4 zoning district. The maximum height when measured from the top of the adjacent public street curb is 45 feet where up to 55 feet is allowed.

Parking
The applicant has provided the required assigned parking spaces (one covered space per unit) and the required unassigned parking spaces (60) based on the size of the units (number of bedrooms) and type of assigned parking (one-car garages). The plans reflect 62 new assigned garage spaces so that five existing Stewart Village assigned parking spaces can be relocated. Accessible spaces will be provided per the Building Code. Up to 10 percent of unassigned spaces may be compact spaces. Fifteen spaces (12.5 percent) will be pre-wired for Electrical Vehicle parking spaces. The applicant has indicated a total of ten spaces will be operational EV charging spaces. A condition of approval will require that the SMC standard be met.

A condition of approval requires the applicant to submit a parking management plan to indicate how on-site parking will be managed for residents, guests and charging spaces.

Bicycle Parking
The project is required to provide 14 Class I, secured bicycle parking spaces. An enclosed garage assigned to one residential unit meeting the minimum area requirements for a two-car garage is considered one secured bicycle parking space. This project has one-car garages and does not meet that standard. Additional secured bicycle parking is not indicated on the project plans and will be required by Condition of Approval.

Landscaping and Open Space
Landscaping and open space for the low-rise apartments was calculated in combination with the mid-rise apartment portion of the project to collectively meet the landscaping and open space requirements. The two products combined provide 485 s.f. of landscaping per unit where 375 s.f. is required per units in the R-4 zoning district. Useable open space is provided at 428 s.f. per unit where 380 s.f. per unit is required.

The project is required to meet the City’s water efficient landscaping requirements and has submitted a draft Water Efficient Landscaping Checklist indicating compliance.

Balconies/Private Useable Open Space
In the R-4 zoning district, a minimum of 80 s.f. per unit shall be designed as private useable open space. Private balconies are required to have a minimum dimension of seven feet and be a minimum of 80 s.f. in area. Private decks or porches are required to have a minimum dimension of ten feet and be a minimum of 120 s.f. in area.

All the balconies and the ground-floor covered patios in the three-story, low-rise portion on the project meet the code requirement. The carriage house second-floor covered patio exceeds the 80 s.f. requirement (147 s.f. provided) with a minimal useable dimension of only five feet, which is a deviation. Staff is supportive of the deviation since, in addition to the overall large amount of useable open space for the rental component of the development, the low-rise balconies exceed the required 80 s.f. of useable open space per unit by providing 147 s.f. even with the reduced dimension to the balconies.

Parking Lot Shading
Trees shall be planted and maintained throughout the uncovered paved parking areas to ensure that at least 50 percent of the parking area shall be shaded within 15 years of establishment of the lot. The applicant has provided a parking lot shading plan that demonstrates that 51 percent of the paved parking area will be shaded.

Low-rise Apartments: Solar Access
As discussed previously in the overall project section of the report, the applicant submitted a solar access study that shows impacts from the entire R-4 portion of the project (mid-rise and low-rise apartments). The R-4 portion of the project is consistent with the City's solar access requirement

Low-rise Apartments: Trash and Recycling Facilities
This portion of the apartment development will be serviced by two common trash enclosures on the east side of the new buildings and with a newly enlarged enclose on the west side of the buildings that will be shared with some units in Stewart Village. All new units are consistent with the 150-foot radius distance requirement.

Low-rise Apartments: Green Building
The applicant has provided a draft GreenPoint Rated Checklist indicating that the project will achieve 112 points where 80 points is the minimum required. Doing so will qualify the R-4 apartment portion of the project for a 5% density bonus of up to 37 additional market-rate units as previously discussed.

Low-rise Apartments: Below Market Rate Housing
This low-rise portion of the project was combined with the mid-rise portion when determining density and qualifications for a density bonus. The density bonuses that were previously discussed granted under the State Density Bonus Law and the City's Green Building code included this portion of the project.

TENTATIVE MAP
The project includes a Vesting Tentative Map to adjust the lot line between the two existing lots (975 Stewart Drive and 1 AMD Place) and to subdivide the lot at 1 AMD Place into six new lots, creating a total of seven lots.

The vesting tentative map allows the developer to vest an approved subdivision irrespective of subsequent changes that could occur in development regulations in the future. If a Special Development Permit is approved, the Vesting Tentative Map could be approved, provided the required findings for approval of a Tentative Map are made (included in Attachment 4). Conditions of approval for the Vesting Tentative Map are noted in Attachment 7.

In the future, there will be a tract map for the 107-unit townhome development. The vesting tentative map includes a 6.5-acre lot for a public park and an easement for Indian Wells Avenue. If approved, the project will consist of seven lots and a right-of-way easement for the extended street.

PUBLIC PARK

Park dedication is a requirement of SMC Chapter 18.10 (Parks and Open Space Dedication) and the Zoning Code (Title 19 of the SMC) that require 0.009 acres of park dedication per unit. Per the Zoning Code, affordable rental units are exempt from park dedication requirements. The proposed 6.5-acre park does not satisfy the entire park dedication requirement and the applicant will pay an in-lieu fee for the remainder. In addition, the applicant is offering a community benefit for additional park development funding. The community benefit is offered due to consideration of the rezoning to allow the same base number of housing units as would have been allowed without the 6.5-acre park dedication.

Community Benefit and Park Agreement

The applicant has included a $4.0 million contribution toward park design and development in consideration of the rezoning of the site in addition to required park dedication in-lieu fees. The community benefit also an agreement for the developer to take the lead on park design and construction.

Park design will follow the City standards for community involvement with the Parks and Recreation Commission making a recommendation on conceptual design to the City Council (this aspect of the project is not subject to Planning Commission review). After the City Council approves a conceptual design the project moves into the final design phase, followed by construction costs estimates and construction bidding and construction. As noted above in the discussion of CEQA, final approval of the park design and construction will involve appropriate environmental review and community input. Staff is recommending a condition of approval for a Park Agreement to be approved by the City Council which would include the following general terms.

Preamble:

Required Park Dedication:	9.063 acres
Actual Park Dedication:	6.5 acres
Park in Lieu Fee basis	2.563 acres
Park in Lieu fee 2018/19	$130 per sf
Required Park in Lieu fee	$14,513,756.40 (estimated based on current fee)
Community benefit	$4,000,000 towards park improvements

Terms:

- No later than recordation of the first final map, developer will:
  - Record an Offer of Dedication for 6.5 acres for a park
  - Bond for $12 million for construction of the park
  - Pay the additional required Park in Lieu fee (for 2.563 acres) above $8 million at the rate for the time at which payment is made.
- Design and construction of the Park Improvements capped at a maximum of $12 million:
  - $4 million community benefit credit from developer
  - Maximum of $8 million City contribution

- Design fees capped at a maximum of 10% of construction
- City has right to audit.
- Any change orders above 50% of the contingency will be reviewed and discussed

- Design of the Park - :
  - Two to three community outreach meetings led by City staff supported by the developer (including concept options and other supporting information)
  - The City will complete the outreach process including Parks and Recreation Commission and Council concept plan approval in a timely manner
  - Developer will be responsible for designing the park
  - City approval required for park concept and final design and should maximize the amenities based on retaining the overall budget of $12 million
  - If final design cost or bids are greater than $12 million, parties will meet and confer to resolve
- Developer shall pay prevailing wages for the park improvement project
- Park Construction Schedule:

The project consists of six areas:

- 1 area = the lowrise product (walkup apartments)
- 1 area = the townhomes
- 4 areas = each of the four midrise buildings

Park construction shall commence prior to issuing a building permit for a fourth area *(tentatively projected to be the third midrise building)*.

Park construction shall be completed by December 2021. If the City led design approval process is delayed, due to the City, the commencement and completion date for the park will be extended by the same amount of time.

FISCAL IMPACT

In addition to normal fees and taxes the following fees are required of the project:

Park Dedication In-Lieu Fee

All residential projects are required to dedicate park land or pay a park in-lieu. The park land requirement for the project is 9.054 acres. The applicant is providing 6.5 acres for a dedicated public park. A fee will be collected on the remainder of the park dedication requirement of 2.554 acres in the estimated amount of $14,513,756.40 under the City's existing ordinance and current fee schedule. Affordable rental units are exempt from park fees. The applicant will pay the fee in place at the time the final map is recorded, for the ownership units. The rental units are required to pay the fee at the time of building permit issuance, at the rate in place at the time of building permit application, or as determined by the Park Agreement. The fee will be used for park installation and improvements. Including the proposed new 6.5 acre park.

Transportation Impact Fee

The project is required to pay a Transportation Impact Fee (TIF) on the total amount of new development with credit for previous uses. The fee is estimated at $1,128,645 under the City's

existing ordinance and current fee schedule. The applicant will pay the fee in place at the time the building permits are issued.

Sense of Place Fee
The project will be subject to a Sense of Place Fee for neighborhood pedestrian and streetscape improvements. These improvements help mitigate the impact of increased residential development by making the neighborhood safer and friendlier for bicyclists and pedestrians. The Sense of Place fee is calculated based on the estimated costs for the improvements and a pro-rated share of benefit for developments within the East Sunnyvale Sense of Place area. These fees are currently estimated at $2,428 per dwelling unit. Based on this rate, the total fee is estimated at $2,551,828 and will be required to be paid at time of building permit issuance.

Housing Impact Fee
The project is also required to pay a Housing Impact Fee estimated to be $2,583,752. This fee estimate includes a credit for providing 45 VLI units.

The project would also generate increased property tax revenue from the increase in the assessed land value, and new residents would generate new sales tax from retail expenditures in the City. This increase in revenue would offset the cost of new City services needed by these new residents.

Community Benefit
In addition to the required park dedication and additional park-in-lieu fees, the applicant will provide $4,000,000 as a community benefit that will go towards development of the new 6.5-acre public park.

PUBLIC CONTACT

EIR

- Notice of Preparation, August 19, 2017
- EIR Scoping Meeting, August 31, 2017
- Notice of Availability, November 2, 2018
- Planning Commission hearing for DEIR comments, November 26, 2018

Notice of Public Hearing

- Published in the *Sun* newspaper
- Posted on the site
- 2,882 notices mailed to property owners and residents within 2,000 feet of the project site
- Notices were sent to the San Miguel Neighborhood Association and interested parties
- Planning Commission formally continued this item from March 25, 2019 to April 8, 2019.

Staff Report

- Posted on the City's website
- Provided at the Reference Section of the City's Public Library Made available at the City's One Stop Permit Center

Agenda

- Posted on the City's official notice bulletin board
- Posted on the City's website

Outreach Meetings
A general project, open house-style outreach meeting was held by the applicant at Fair Oaks Park on December 7, 2017. Approximately 17 members of the public attended. Site and architectural plans were available. Comments from the public included existing local traffic issues associated with the road diet on Duane Avenue, the potential loss of trees, the need for more park area than proposed, and the long-term noise, dust and traffic impact to the area from so many consecutive construction projects. There was concern over the loss of character of the area and some comments about reducing the size of the project. There were also positive comments about the effort to save trees and providing a public park.

A second outreach meeting was held by the applicant at Fair Oaks Park on May 17, 2018 to provide information about the future public park. Approximately 15 members of the public attended. Conceptual park plans were displayed. Staff was present to answer questions about public participation for the subsequent park planning process that will occur if the project is approved.

Planning Commission Study Sessions
Two study sessions were held with the Planning Commission on November 3, 2017 and June 25, 2018. Site and architectural plans were discussed. The Commission generally liked the direction of the architecture. At the second meeting the Commission discussed a significantly revised site plan and amenity spaces and improvements in the architectural details. Direction was provided by the Commission:

- Roof material is good
- Soffits may look too commercial
- Provide interest in the iron details on the buildings
- Limit pink tones and intensity in the color palette
- Use high quality windows
- Protect the tree coverage of the southern sidewalk
- Consider solar water heating particularly for the pools
- Consider decomposed granite for the trail surface
- Save mature trees
- Use same depth of windows in the low rise and mid-rise apartments
- The need for two pools was questioned
- Greater height for better architecture and open space was a good trade off
- The low-rise apartments were not as well designed architecturally as the mid-rise

Payments to the school districts was also discussed by the Planning Commission. Members of the public also expressed interest in the payments to the schools as well as tree protection. School fees are not under the jurisdiction of the City. There was a request for parking at the new public park

Comments received from the Public
In addition to comments on the DEIR and FEIR, staff received one letter in support of the project and is included as Attachment 19. As noted above under the discussion of the EIR, staff received a lengthy comment letter one day before the originally advertised Planning Commission meeting. The letter and the City's response are included in Attachments 17 and 18.

ALTERNATIVES

Recommend to the City Council to:

ENVIRONMENTAL IMPACT REPORT

1. Adopt a Resolution to Certify the Environmental Impact Report including the modified mitigation measures in Attachment 20; Make the Findings required by the California Environmental Quality Act; and, Adopt the Statement of Overriding Consideration and Mitigation Monitoring Report Program.
2. Do not certify the Environmental Impact Report and direct staff as to where additional environmental analysis is required.

REZONING

3. Introduce an Ordinance to rezone the site from M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/Medium Density Residential/Planned Development) and M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/High Density Residential/Planned Development) to R-3/PD (Medium Density Residential/Planned Development) R-4/PD (High Density Residential Planned Development) and P-F (Public Facilities).
4. Deny the Rezoning and provide direction to staff and applicant on where changes should be made.

SPECIAL DEVELOPMENT PERMIT AND VESTING TENTATIVE MAP

5. Approve the Special Development Permit and Vesting Tentative Map, and Sense of Place Fees subject to Findings in Attachment 4 to this report and recommended Conditions of Approval in Attachment 7 to this report.
6. Approve the Special Development Permit and Vesting Tentative Map subject to Findings in Attachment 4 with modified conditions of approval.
7. Deny the Special Development Permit and Vesting Tentative Map and provide direction to staff and applicant on where changes should be made.

STAFF RECOMMENDATION

Recommend to City Council:
Alternatives 1, 3 and 5: 1) Adopt a Resolution to Certify the Environmental Impact Report including the modified mitigation measures in Attachment 20; Make the Findings required by the California Environmental Quality Act; and, Adopt the Statement of Overriding Consideration and Mitigation Monitoring Report Program; 3) Introduce an Ordinance to rezone the site from M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/Medium Density Residential/Planned Development) and M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/High Density Residential/Planned Development) to R-3/PD (Medium Density Residential/Planned Development) R-4/PD (High Density Residential Planned Development) and P-F (Public Facilities); and 5) Approve the Special Development Permit and Vesting Tentative Map, and Sense of Place Fees subject to Findings in Attachment 4 to the report and recommended Conditions of Approval in Attachment 7 to the report.

Staff recommends that the project be approved as proposed with the recommended Conditions of Approval. Approval would include deviations for reduced front yard setbacks in some areas as well as the acceptance of adequate useable open space that does not include required, private, useable balconies. A concession for building height limits is also allowed by the State Density Bonus Law. A

final solid waste management plan will be required to assure that all units, even those that do not meet the City's distance requirement, are adequately served by appropriately managed solid waste techniques.

Although large, the site has some constraints including large perimeter protected trees, pockets of protected redwood groves and the provision of a 6.5-acre park. The plan also includes extension of Indian Wells Avenue, completing a portion of the circulation plan identified in the East Sunnyvale General Plan Amendment (2007) and install features of the related Sense of Place Plan. The project proposed, includes deviations to protect natural site features and provides a variety of housing types including both rental and ownership. The applicant makes use of density bonuses by creating building to a higher level of green standards and by including 45 VLI dwelling units.

The applicant has worked closely with staff to improve the site layout and architecture, with the result being a high-quality project that provides a sense of place for this portion of the city.

Prepared by: Gerri Caruso, Principal Planner/Margaret Netto, Contract Planner
Reviewed by: Andrew Miner, Assistant Director of Community Development
Reviewed by: Trudi Ryan, Director of Community Development
Reviewed by: John Nagel, City Attorney
Reviewed by: Teri Silva, Assistant City Manager
Approved by: Kent Steffens, City Manager

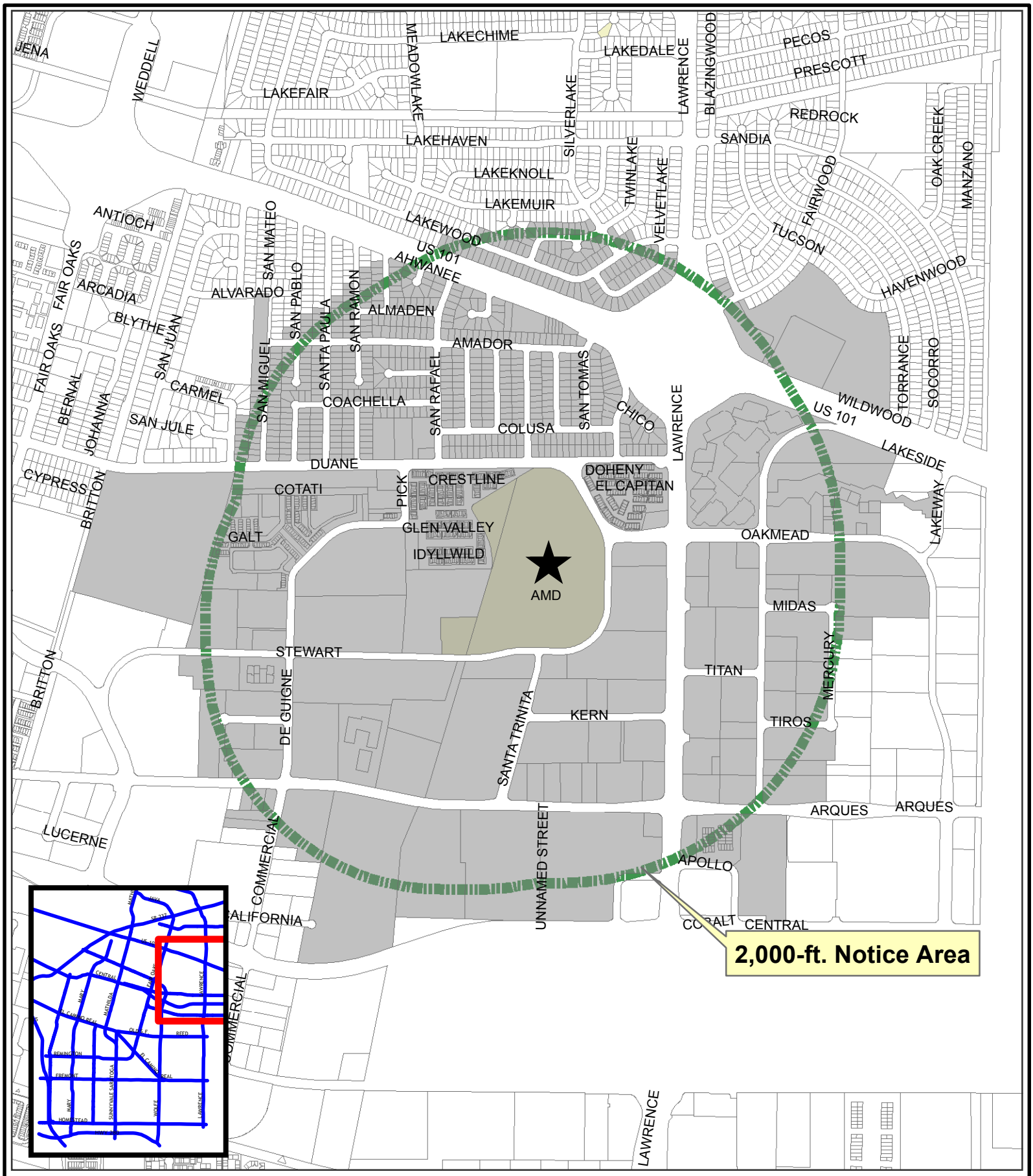
ATTACHMENTS

1. *Reserved for Report to Council*
2. Site, Vicinity and Public Notice Mailing Map
3. Project Data Tables
4. Recommended Findings (SDP, Tentative Map and Lot Line Adjustment)
5. Draft Rezoning Ordinance
6. Draft Resolution to Certify the EIR and EIR Findings and Statements of Overriding Considerations
7. Recommended Conditions of Approval
8. Proposed Site and Architectural Plans and Tentative Map (available at <https://sunnyvale.ca.gov/business/projects/amd.htm>)
9. Draft TDM Plan
10. DEIR (available at <https://sunnyvale.ca.gov/business/projects/amd.htm>)
11. FEIR with Responses to Comments
12. Mitigation Monitoring and Reporting Program
13. Letter from Applicant
14. Indian Wells Setback Deviations and Cross Section
15. Indian Wells Street Rendering
16. Summary of Environmental Impacts
17. Additional EIR Comment Letter (available at <https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?t=50437.17&BlobID=26361>)
18. City's Response to Additional EIR Comment Letter
19. Letter of Support
20. Errata-Minor Edits to MMRP

ATTACHMENT 1

This page intentionally left blank. Reserved for Report to Council.

ATTACHMENT 2



2016-8035
1 AMD Place (APN: 205-22-024, -025, and -028)
Rezone | Special Development Permit | Tentative Map
2000-ft Noticing Area Map

0 500 1,000 2,000 Feet

N W E S

PROJECT DATA - TOWNHOMES

	EXISTING CONDITIONS	PROPOSED PROJECT	REQUIRED/
☐ General Plan Category	High and Med Density	Same	Same
☐ Zoning District	MS/ITR-R3/R4	R-3 Medium Density	Same
☐ Lot Size (sq. ft.)	N/A	263,724 Sq. ft.	
☐ Gross Floor Area (sq. ft.)	N/A	90,450 Sq. ft.	
☐ Lot Coverage (%)	N/A	34.3%	40% max.
☐ Number of Units	N/A	107	max.
☐ Density (units/acre)	N/A	17.7 DU/Acre	24 DU/Acre max.
☐ Meets 75% min?	N/A	107 (*considered met*)	109 min.
☐ Bedrooms / Unit	N/A	3 Bedrooms/ Unit	max.
☐ Unit Sizes (sq. ft.)	N/A	1,807 to 2,064 sq. ft.	N/A
☐ Lockable Storage / Unit (cu. ft.)	N/A	400 s.f. two car garages	300 c.f. min.
☐ Number of Buildings On-Site	N/A	23 Buildings	N/A
☐ Distance Between Buildings	N/A	Varies, 26' min.	26' min.
☐ Building Height (ft.)	N/A	39'-5"	40' max. (110 Green Pts)
☐ No. of Stories	N/A	3 stories	3 stories max.
☐ Front Setbacks (1st Story/2nd Story)	N/A	Duane:15' min./Aver. 20" Indian Wells: 15.4' min./Aver. > 20	Min. 15" – Aver. 20'
☐ Left Side Setbacks(1st Story/2nd Story facing property)	South PL at Park:	Varies, 12' min.	12' min.
☐ Right Side Setbacks(1st Story/2nd Story facing property)	North & West PL:	Varies, 15' min.	15' min.
☐ Rear Setback	There is no rear yard:	N/A	20 min.
☐ Landscaping (total sq. ft.)	N/A	96,125 SF	52,744 s.f. - 20% lot
☐ Landscaping (sq. ft./unit)	N/A	846 SF/DU	425 sf/unit
☐ Useable Open Space (sq. ft./unit)	N/A	807 SF/Unit	400 sf/unit
☐ Parking Lot Area Shading (%)	N/A	50%	50% min. in 15 yrs.
☐ Water Conserving Plants (%)	N/A	70%	70% min.
☐ Total No. of Parking Spaces	N/A	271 Assigned/Unassigned	268 min.
• Standards	N/A	271	252 min.
• Compacts / % of total	N/A	0/0%	19/35% unassigned
• Accessible Spaces	N/A	3	3 min.
• Covered Spaces	N/A	214 Assigned	214 min.
• Aisle Width (ft.)	N/A	26'	26'
☐ Bicycle Parking	N/A	Inside Garages	
★ ☐ Meets Distance to Trash Enclosure?	N/A	No	150' min.

Rev. 8/07 (yellow)

PROJECT DATA – MID-RISE

	EXISTING CONDITIONS	PROPOSED PROJECT	REQUIRED/
☐ General Plan Category	High and Med Density	Same	Same
☐ Zoning District	MS/ITR-R3/R4	R-4 High Density	Same
☐ Lot Size (sq. ft.)	N/A	Incl. Lowrise=900,835	8,000
☐ Gross Floor Area (sq. ft.)	N/A	Incl. Lowrise=358,809	N/A
☐ Lot Coverage (%)	N/A	Incl. Lowrise=40%	40% max.
☐ Number of Units	N/A	887	744 max. w/o bonus
☐ Density (units/acre)	N/A	Incl. Lowrise=45.7 DU/Acre	36 DU/Acre max.
☐ Meets 75% min?	N/A	Yes	588 max.
☐ Bedrooms / Unit	N/A	1 & 2 br/unit	N/A
☐ Unit Sizes (sq. ft.)	N/A	Varies, 890-929 ave.	N/A
☐ Lockable Storage / Unit (cu. ft.)	N/A	200cu/1br & 300/2br	Min 200 CF 1 br/300 CF 2,3
☐ Number of Buildings On-Site	2	4	N/A
☐ Distance Between Buildings	N/A	Varies, 49' min.	32' min.
☐ Building Height (ft.)	N/A	65'	Min. 55', 65' ave. allowed with density
C ☐ No. of Stories	2	5 stories	4 max.
☐ Front Setbacks (1st Story/2nd Story) ★	N/A	At Stewart: Bldg 2: Varies 62'-1" to 103'-5" **At Indian Wells:** **Bldg 1: Varies 23'-3" to 41'-2"** **Bldg 2: Varies 26'-2" to 65'**	At Stewart: Bldg 1: 36'-10" min. Bldg 2: 37'-9" min. **At Indian Wells:** **Bldg 1: 36'-10" min.** **Bldg 2: 37'-9" min.**
☐ Left Side Setbacks(1st Story/2nd Story facing property)	N/A	Adjacent to lowrise Varies, 21' min.	21' min.
☐ Right Side Setbacks(1st Story/2nd Story facing property)	N/A	N/A – there are two fronts/1 west side	21' min.
☐ Rear Setback	N/A	N/A	20 min.
☐ Landscaping (total sq. ft.)	N/A	Incl. Lowrise 457,912	180,000 s.f. - 20% lot
☐ Landscaping (sq. ft./unit)	N/A	Incl. Lowrise 485 sf/unit	375 sf/Unit
★ ☐ Private Useable Open Space (sq. ft./unit)	N/A	Incl. Lowrise 60 sf/unit avg	80 sf/Unit
☐ Useable Open Space (sq. ft./unit)	Incl. Lowrise Useable OS 404,416 sf	Incl. Lowrise 428 sf/unit	380 sf/Unit
☐ Parking Lot Area Shading (%)	N/A	Incl. Lowrise: 51%	50% min. in 15 yrs.
☐ Water Conserving Plants (%)	N/A	Incl. Lowrise: 70%	70% min.
☐ Total No. of Parking Spaces	N/A	1,563	1,563 min.
• Standards	N/A	1,551	1,551 min.
• Compacts / % of total	N/A	12, <1%	Up to 10 %
• Accessible Spaces	N/A	27	Per Building Code
• Covered Spaces	N/A	Majority in garage	N/A
• Aisle Width (ft.)	N/A	24'	24'

PROJECT DATA – LOW-RISE

	EXISTING CONDITIONS	PROPOSED PROJECT	REQUIRED/ PERMITTED
☐ General Plan Category	High and Med Density	Same	Same
☐ Zoning District	MS/ITR-R3/R4	R-4 High Density	Same
☐ Lot Size (sq. ft.)	N/A	Incl. Midrise=900,835	8,000
☐ Gross Floor Area (sq. ft.)	N/A	Incl. Midrise=358,809	N/A
☐ Lot Coverage (%)	N/A	Incl. Midrise=40%	40% max.
☐ Number of Units	N/A	57	83 max.
☐ Density (units/acre)	N/A	Incl. Midrise=45.7 DU/Acre	36 DU/Acre max.
☐ Meets 75% min?	N/A	Yes (w/Midrise)	62 max.
☐ Bedrooms / Unit	N/A	1, 2 and 3 br/unit	max.
☐ Unit Sizes (sq. ft.)	N/A	Varies 584-1363 SF	N/A
☐ Lockable Storage / Unit (cu. ft.)	N/A	Varies, exceed required	Min 200 CF 1 br/300 CF 2,3 br
☐ Number of Buildings On-Site	1	4	N/A
☐ Distance Between Buildings	N/A	Varies, 26' min.	26' min.
☐ Building Height (ft.)	N/A	45'highest roof to curb	55' max.
☐ No. of Stories	2	3 stories	4 stories max.
★ ☐ Front Setbacks (1st Story/2nd Story)	N/A	18' min. – 25'	25' min.
☐ Left Side Setbacks(1st Story/2nd Story facing property)	N/A	15' - 20'	15' min. combined 20 min. both sides
☐ Right Side Setbacks(1st Story/2nd Story facing property)	N/A	62'	15' min. combined 20 min. both sides
☐ Rear Setback	N/A	20"	20' min.
☐ Landscaping (total sq. ft.)	N/A	Incl. Midrise: 457,912	180, 000 s.f. – 20% lot
☐ Landscaping (sq. ft./unit)	N/A	Incl. Midrise: 485 sf/unit	375 sf/Unit
★ ☐ Private Useable Open Space	N/A	Incl. Lowrise 60 sf/unit	80 sf/Unit
☐ Useable Open Space (sq. ft./unit)	N/A	Incl. Midrise 428 sf/unit	380 sf/Unit
☐ Parking Lot Area Shading (%)	N/A	Incl. Midrise: 51%	50% min. in 15 yrs.
☐ Water Conserving Plants (%)	N/A	Incl. Midrise: 70%	70% min.
☐ Total No. of Parking Spaces	N/A	117	117 min.
• Standards	N/A	113	96 min.
• Compacts / % of total	N/A	4/3.4%	21/35% unassigned max.
• Accessible Spaces	N/A	3	3 min.
• Covered Spaces	N/A	57 assigned	57 min.
• Aisle Width (ft.)	N/A	26'	26'
☐ Bicycle Parking	N/A	22	15- 1 per 4 units

★ Star indicates a requested deviation from the Municipal Code through the SDP.

C Indicates a State Density Bonus Concession.

RECOMMENDED FINDINGS

Related General Plan Goals and Policies

Goals and Policies that relate to the project are:

Land Use and Transportation Element

- Policy LT-2.3: Accelerate the planting of large canopy trees to increase tree coverage in Sunnyvale in order to add to the scenic beauty and walkability of the community; provide environmental benefits such as air quality improvements, wildlife habitat, and reduction of heat islands; and enhance the health, safety, and welfare of residents.

  LT-2.3d: Require tree replacement for any project that results in tree removal, or in cases of constrained space, require payment of an in-lieu fee. Fee revenues shall support urban forestry programs.

- Policy LT-4.1: Preserve and enhance an attractive community, with a positive image, a sense of place, landscaping, and a human scale.

- Policy LT-4.2: Encourage nodes of interest and activity, public open spaces, well-planned development, mixed-use projects, signature commercial uses, and buildings and other desirable uses, locations, and physical attractions.

  LT-4.2a: Promote the development of signature buildings and monuments that provide visual landmarks and create a more distinctive and positive impression of Sunnyvale within the greater Bay Area.

  LT-4.2c: Allow for innovative architectural design.

- Policy LT-4.3: Enforce design review guidelines and zoning standards that ensure the mass and scale of new structures are compatible with adjacent structures, and also recognize the City's vision of the future for transition areas such as neighborhood Village Centers and El Camino Real nodes.

  LT-4.3c: Enforce local design guidelines that ensure buildings and monuments respect the character, scale, and context of the surrounding area.

  LT-4.3d: Ensure that new construction and renovation contribute to the quality and overall image of the community.

  LT-4.3e: Use the development review and permitting processes to promote high-quality architecture and site design.

- Policy LT-4.4: Avoid monotony and maintain visual interest in newly developing neighborhoods, and promote appropriate architectural diversity and variety. Encourage appropriate variations in lot sizes, setbacks, orientation of homes, and other site features.

- Policy LT-5.1: Strengthen the image that the community is composed of cohesive residential neighborhoods, each with its own individual character and Village

Center; allow change and reinvestment that reinforces positive neighborhood concepts and standards such as walkability, positive architectural character, site design, and proximity to supporting uses.

- Policy LT-5.2: Preserve and enhance the character of Sunnyvale's residential neighborhoods by promoting land use patterns and transportation opportunities that support a neighborhood concept as a place to live, work, shop, entertain, and enjoy public services, open space, and community near one's home and without significant travel.
- Policy LT-5.3: Require new development, renovation, and redevelopment to be compatible and well-integrated with existing residential neighborhoods.
- Policy LT-6.1: Improve and preserve the character and cohesiveness of existing residential neighborhoods.

  LT-6.1f: Look for opportunities to reclaim unneeded and underperforming paved areas (public and private) that could be converted to neighborhood-enhancing features such as additional tree coverage, gathering areas, pocket parks, or community gardens.

Community Character Chapter

- Policy CC-1.3: Ensure that new development is compatible with the character of special districts and residential neighborhoods.
- Policy CC-1.4: Support measures which enhance the identify of special districts and residential neighborhoods to create more variety in the physical development.
- Policy CC-1 2.1: Maintain and provide attractive landscaping in the public right-of-way to identify the different types of roadways and districts, make motorists more comfortable, and improve the enjoyment of residential neighborhoods.
- Policy CC-3.1: Place a priority on quality architecture and site design which will enhance the image of Sunnyvale and create a vital and attractive environment for businesses, residents, and visitors, and be reasonably balanced with the need for economic development to assure Sunnyvale's economic prosperity.
- Policy CC-3.2: Ensure site design is compatible with the natural and surrounding built environment.

Housing Element

- Policy HE-6.1: Continue efforts to balance the need for additional housing with other community values, including preserving the character of established neighborhoods, high quality design, and promoting a sense of identity in each neighborhood.

Special Development Permit

1. The proposed use attains the objectives and purposes of the General Plan of the City of Sunnyvale. ***Finding Met.***

   The project balances the need for additional housing with other community values, including preserving the character of established neighborhoods, high quality design, and promoting a sense of identity in each neighborhood. The project preserves and enhances a new attractive residential neighborhood by providing a positive image, promoting a sense of place, protecting significant trees and providing generous open space, including a public park. The project features site design that is compatible with the natural and surrounding built environment. The project meets the City's design guidelines and ensures that new buildings and related open spaces contribute to the quality and overall image of the community. The project also provides signature buildings in a master planned residential community and supports a future Village Center to be located across Duane Avenue.

2. The proposed use ensures that the general appearance of proposed structures, or the uses to be made of the property to which the application refers, will not impair either the orderly development of, or the existing uses being made of, adjacent properties. ***Finding Met.***

   The new development helps complete the orderly development of the East Sunnyvale ITR Rezoning area. It is compatible with the character of the surrounding residential neighborhood and follows the City's design guidelines and the adopted Sense of Place Plan. The project includes the extension of a partially constructed public street and enables expansion of neighborhood open space by dedicating a 6.5-acre public park. The project also provides a transition to existing and planned taller buildings to the east along the commercial side of Stewart Drive.

   The applicant applies the California State Density Bonus Law and the City of Sunnyvale Green Building Density Bonus by providing 6 percent or 45 as very low income units. The project applicants are allowed one (1) concession from development standards for projects that include at least six percent very low income units. The applicant has also requested a 5 percent density bonus for meeting the criteria of the Green Building Program; this would allow for up to 37 additional bonus, market-rate units by providing 110 points on the Green Point Rated Checklist. Combined, the project would provide 744 base units (includes 45 very-low income units) and 200 density bonus units (163 under State law and 32 for City's Green Building incentives) for a total of 944 R-4 units.

   The project includes request for deviations to reduce front yard setbacks on portions of Indian Wells Avenue and portions of Stewart Drive; reduce required private useable open space by eliminating or reducing the size of private balconies on the five-story, mid-rise apartments; and, requests that some units in the townhome development be located farther than 150 feet from a trash facility. The building height increase (under the concessions) and building story increase by one story are related, and necessary to provide the requested density and allow for the very low income units.

Given the constraints of the overall planned community to provide a variety of housing options including affordable housing, a 6.5-acre public park and a site plan and open space plan designed to save the mature trees, staff considers the front yard setback deviations along Indian Wells Avenue to be justified.

To achieve better marketable units the balconies were reduced in size to enlarge the adjacent bedrooms in both market rate and affordable units. As an alternative to private balconies, the applicant has provided a large amount of high-quality, on-site open space and amenity areas within the mid-rise project to compensate for the reduced amount of private useable open space. There is also a larger than required communal work space and community room. In addition, there are special open space areas to be provided in the immediate area including the wider setbacks on Stewart Drive where there will be a meandering, landscaped pedestrian path. Although not specifically part of the project site, the residents of the project will also have easy access to the new public park. The request for the deviation is justified since the project provides almost double the amount of required useable open space.

The townhome project will utilize shared solid waste enclosures to accommodate trash and recycling. Of the 107 proposed units, 100 units (94%) are within 150 feet of an enclosure as required by code. The remaining 7 units are 163 to 226 feet from the enclosure. The applicant states that providing an additional properly sized-enclosure would eliminate parking along the private street and potentially landscaping needed to meet other code requirements. Staff considers this deviation minor, and reasonable for this site.

Tentative Map
In order to approve the Tentative Map, the proposed subdivision must be consistent with the General Plan. Staff finds that the Tentative Map is in conformance with the General Plan. However, if any of the following findings can be made, the Tentative Map shall be denied.
1. That the subdivision is not consistent with the General Plan.
2. That the design or improvement of the proposed subdivision is not consistent with

Tentative Map

In order to approve the Tentative Map, the proposed subdivision must be consistent with the general plan. Staff finds that the Tentative Map is in conformance with the General Plan. However, if any of the following findings can be made, the Tentative Map shall be denied.

1. That the subdivision is not consistent with the General Plan.

2. That the design or improvement of the proposed subdivision is not consistent with the General Plan.

3. That the site is not physically suitable for the proposed type of development.

4. That the site is not physically suitable for the proposed density of development.

5. That the design of the subdivision or proposed improvements is likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

6. That the design of the subdivision or type of improvements is likely to cause serious public health problems.

7. That the design of the subdivision or the type of improvements will conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision.

8. That the map fails to meet or perform one or more requirements or conditions imposed by the "Subdivision Map Act" or by the Municipal Code

Rezone

Finding:

The rezone, as proposed, changed or modified is deemed to be in the public interest.
Finding Met.

The rezoning from R-3 to R-4 and PF is consistent with the intent of the East Sunnyvale ITR Rezoning adopted in 2007. The rezoning reorganizes the R-3 and R-4 zoning areas in order to create a land plan that also accommodates a 6.5-acre public park, saves significant trees and provides adequate area to accommodate new ownership and rental housing units, including very low income units.

Sense of Place Fee

1. On November 17, 2015, the City Council made Findings, adopted a Statement of Overriding Considerations and a Mitigation Monitoring and Reporting Program, and certified an Environmental Impact Report for the 915 DeGuigne Residential Project, which included the adoption of the East Sunnyvale Sense of Place Plan (SCH#2014112001). The East Sunnyvale Sense of Place Plan anticipates the conversion of industrial property to residential uses within the East Sunnyvale Plan Area, creating a need for enhanced transit, pedestrian, bicycle and automobile circulation along with streetscape improvements, wayfinding signage, and pedestrian safety improvements.

2. The improvements identified in the Sense of Place Plan will create a more pedestrian and bike-friendly environment in the neighborhood and are therefore essential to reduce vehicle

trips by new residents, thus reducing the impacts of higher density residential development on traffic, greenhouse gas emissions, air quality, and noise.

3. By imposing appropriate Sense of Place fees on new development in the East Sunnyvale Plan Area to fund the identified improvements, the City will ensure that new development contributes its fair share of funding necessary to mitigate the impacts of increased development and support vibrant, attractive neighborhoods for current and future residents.

4. The City has calculated the total cost of the necessary Sense of Place improvements in East Sunnyvale to be a total of $19.35 M, of which some will be installed as part of new development and others will be covered by grants and other outside funding. Based on the estimate to install the remainder of Sense of Place improvements a fee of $2,428 per dwelling units has been established. The components of the Sense of Place Improvements are listed in the East Sunnyvale Sense of Place Plan.

5. The City Council finds that there is a reasonable relationship between the proposed Project and the need for Sense of Place improvements, that the fee of $2,428 per dwelling units is roughly proportional to the impact of the new development, and therefore the fee should be imposed on the proposed Project.

DRAFT 3/14/19 RMW

ORDINANCE NO. ____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE AMENDING THE PRECISE ZONING PLAN, ZONING DISTRICTS MAP, TO REZONE CERTAIN PROPERTY LOCATED AT 1 AMD PLACE (APN NUMBERS 205-22-024 AND 205-22-025) AND 975 STEWART DRIVE (APN 205-22-028) FROM MS INDUSTRIAL-TO-RESIDENTIAL R3 (MS/ITR-R3) AND MS INDUSTRIAL-TO-RESIDENTIAL R4 (MS/ITR-R4) TO MEDIUM DENSITY RESIDENTIAL (R-3), HIGH DENSITY RESIDENTIAL (R-4), AND PUBLIC FACILITIES (PF)

THE CITY COUNCIL OF THE CITY OF SUNNYVALE DOES ORDAIN AS FOLLOWS:

SECTION 1. AMENDMENT OF PRECISE ZONING PLAN. The Precise Zoning Plan, Zoning Districts Map, City of Sunnyvale (Section 19.16.050 of the Sunnyvale Municipal Code) hereby is amended to rezone the property at 1 AMD Place (Assessor Parcel Numbers 205-22-024 and 205-22-025) and 975 Stewart Drive (APN 205-22-028) from Industrial and Service / Industrial-to-Residential Medium Density (MS/ITR-R3) and Industrial and Service / Industrial-to-Residential High Density (MS/ITR-R4) to Medium Density (R-3), High Density (R-4), and Public Facilities (PF). The location of the properties is set forth on the scale drawing attached as Exhibit "A."

SECTION 2. CEQA. The environmental effects of the proposed amendment to the Precise Zoning Plan and Zoning District Map were analyzed in the 1 Advanced Microdevices Place Redevelopment Project Environmental Impact Report (the "EIR"), SCH #2017082043. The City Council reviewed the EIR and found that it reflects the independent judgment of the City Council and its staff, and is an adequate and extensive assessment of the environmental impacts of the proposed amendment. The City Council certified the EIR as having been prepared in compliance with the requirements of the California Environmental Quality Act ("CEQA"), made necessary findings, adopted a statement of overriding considerations related to certain traffic impacts, and adopted a Mitigation Monitoring and Reporting Program (Resolution No. _____). The City Council incorporates by this reference the findings contained in the EIR as to the environmental effects of the proposed amendment, together with the additional findings contained in this Resolution.

SECTION 3. EFFECTIVE DATE. This ordinance shall be in full force and effect thirty (30) days from and after the date of its adoption.

SECTION 4. POSTING AND PUBLICATION. The City Clerk is directed to cause copies of this ordinance to be posted in three (3) prominent places in the City of Sunnyvale and to cause publication once in The Sun, the official newspaper for publication of legal notices of the City of Sunnyvale, of a notice setting forth the date of adoption, the title of this ordinance, and a list of places where copies of this ordinance are posted, within fifteen (15) days after adoption of this ordinance.

Introduced at a regular meeting of the City Council held on _____ 2019, and adopted as an ordinance of the City of Sunnyvale at a regular meeting of the City Council held on _____, 2019, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:
RECUSAL:

ATTEST: APPROVED:

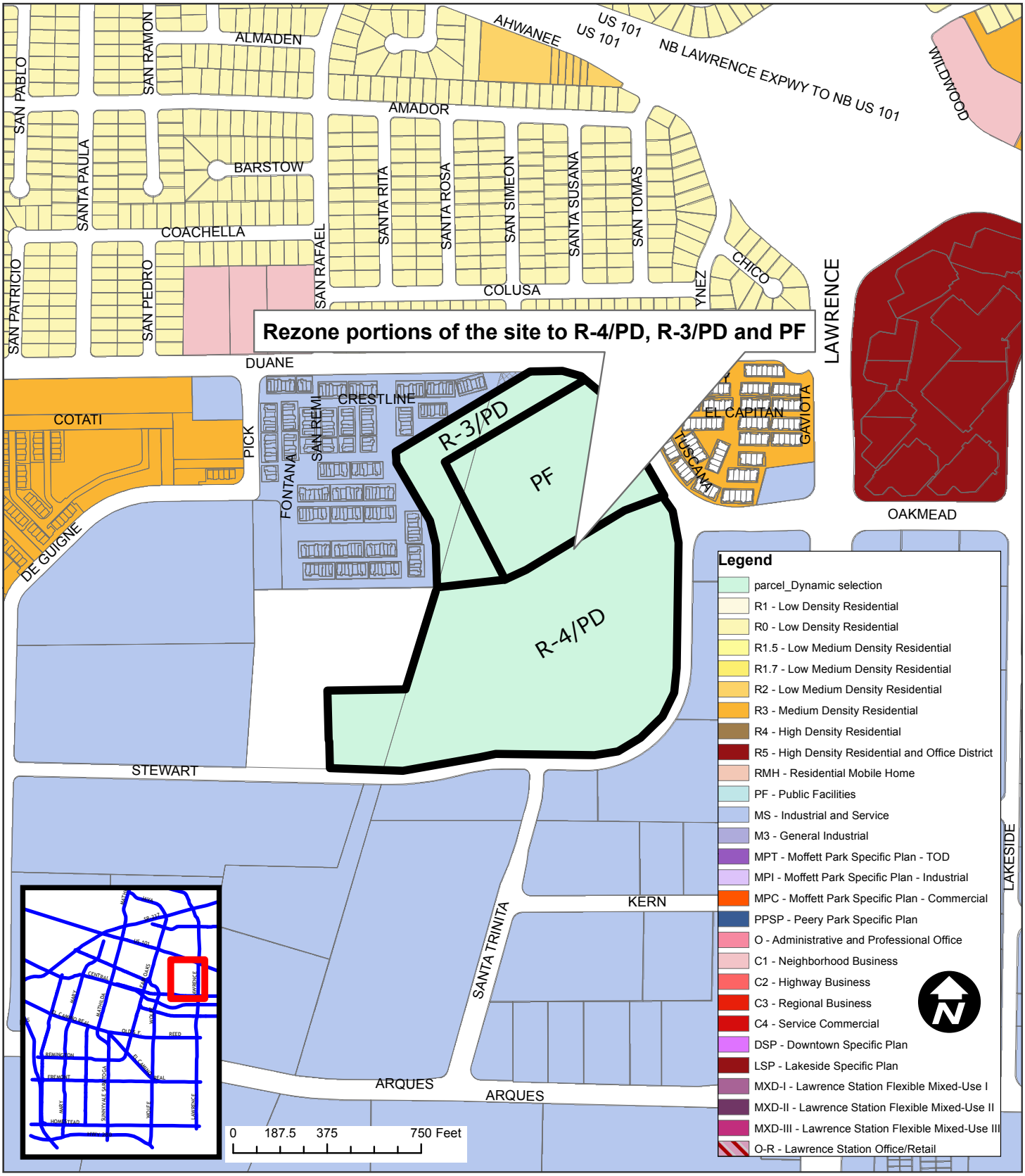
_____ _____
City Clerk Mayor
Date of Attestation: _____

(SEAL)

APPROVED AS TO FORM:

_____
City Attorney

ZONING MAP



#2016-8035: 1 AMD Place (APN: 205-22-024, -025, and -028)
REZONE: the site from M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/Medium Density Residential/Planned Development) and M-S/ITR/R-3/PD (Industrial and Service/Industrial-to-Residential/ High Density Residential/Planned Development) TO R-3/PD (Medium Density Residential/ Planned Development) R-4/PD (High Density Residential Planned Development) and P-F (Public Facilities).

DRAFT 3/14/19 RLM

RESOLUTION NO. ___

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SUNNYVALE CERTIFYING THE ENVIRONMENTAL IMPACT REPORT, MAKING FINDINGS REQUIRED BY THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, ADOPTING THE MITIGATION AND MONITORING REPORTING PROGRAM, AND STATING OVERRIDING CONSIDERATIONS IN THE APPROVAL OF THE 1 AMD PLACE REDEVELOPMENT PROJECT

WHEREAS, the California Environmental Quality Act (Public Resources Code Sections 21000 *et seq*., ("CEQA") and the Guidelines for Implementation of the California Environmental Quality Act (14 California Code of Regulations, Sections 15000 *et seq*.) (the "CEQA Guidelines") requires local agencies to consider environmental consequences of projects for which they have discretionary authority; and

WHEREAS, a Draft Environmental Impact Report ("DEIR") and Final Environmental Impact Report ("FEIR", collectively, the "EIR") has been prepared for and by the City of Sunnyvale for the 1 AMD Place Redevelopment Project ("the Project") pursuant to CEQA and the CEQA Guidelines (State Clearinghouse #2017082043); and

WHEREAS, the EIR addresses the environmental impacts of the Project, which is further described in Sections 5 of Exhibit A attached hereto; and

WHEREAS, in conformance with CEQA, the City has issued notices, held public hearings, and taken other actions as described in Section 3 of Exhibit A attached hereto; and

WHEREAS, the EIR is incorporated by this reference in this Resolution, and consists of those documents referenced in Section 4 of Exhibit A attached hereto; and

WHEREAS, a public hearing was held by the City Council on April 23, 2019, regarding the Project and the EIR, following notice duly and regularly given as required by law, and all interested persons expressing a desire to comment thereon or object thereto were heard, and the EIR was considered; and

WHEREAS, by this Resolution, the City Council of the City of Sunnyvale, as the lead agency under CEQA for preparing the EIR and the entity responsible for approving the Project, desires to comply with the requirements of CEQA and the CEQA Guidelines for consideration, certification, and use of the EIR in connection with the approval of the Project.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Sunnyvale as follows:

1. The City Council hereby finds and certifies that the EIR has been completed in compliance with CEQA and the CEQA Guidelines; that the EIR adequately addresses the environmental issues of the Project; that the EIR was presented to the City Council; that the City Council has reviewed and considered the information contained in the EIR prior to approving the Project; and that the EIR reflects the independent judgment and analysis of the City Council.

2. The City Council hereby identifies the significant effects, adopts the mitigation measures, adopts the monitoring Mitigation Monitoring and Reporting Plan to be implemented for each mitigation measure, makes the findings, and adopts a statement of overriding considerations set forth in detail in the attached Exhibit A, which is incorporated in this Resolution by this reference. The statements, findings and determinations set forth in Exhibit A are based on the above certified EIR and other information available to the City Council, and are made in compliance with Sections 15091, 15092, 15093, and 15096 of the CEQA Guidelines and Sections 21081 and 21081.6 of CEQA.

Adopted by the City Council at a regular meeting held on _____, 2019, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:
RECUSAL:

ATTEST: APPROVED:

_____ _____
City Clerk Mayor
(SEAL)

APPROVED AS TO FORM:

_____
City Attorney

Exhibit A

Findings of Fact and Statement of Overriding Considerations for the 1 Advanced Micro Devices Place Redevelopment Project

Prepared for:

City of Sunnyvale
456 W. Olive Avenue
Sunnyvale, CA 94086

TABLE OF CONTENTS

Section		Page
1	INTRODUCTION	1
2	PROJECT DESCRIPTION	1
	2.1 Project Location and Setting	1
	2.2 Project Summary	2
	2.3 Project Objectives	2
3	PROCEDURAL FINDINGS	2
4	RECORD OF PROCEEDINGS	4
5	FINDINGS REQUIRED UNDER CEQA	5
	5.1 Summary of Findings	6
	5.2 Mitigation Monitoring	32
	5.3 Significant Irreversible Environment Effects	32
	5.4 Growth Inducement	33
6	PROJECT ALTERNATIVES	33
	6.1 Alternatives Considered but Ultimately Rejected	34
	6.2 Alternatives Considered in the EIR	34
7	STATEMENT OF OVERRIDING CONSIDERATIONS	36

ACRONYMS AND ABBREVIATIONS

AMD	Advanced Micro Devices
CEQA	California Environmental Quality Act
DEIR	draft environmental impact report
EIR	environmental impact report
FEIR	final environmental impact report
project	1 AMD Place Redevelopment Project

1 INTRODUCTION

The purpose of these findings is to satisfy the requirements of Sections 15091, 15092, and 15093 of the California Environmental Quality Act (CEQA) Guidelines, associated with approval of the 1 Advanced Micro Devices (AMD) Place Redevelopment Project (project).

The CEQA Statutes (California Public Resources Code [PRC] Sections 21000, et seq.) and Guidelines (California Code of Regulations Sections 15000, et seq.) state that if it has been determined that a project may or will have significant impacts on the environment, then an environmental impact report (EIR) must be prepared. Prior to approval of the project, the EIR must be certified pursuant to CEQA Guidelines Section 15090. When an EIR has been certified that identifies one or more significant environmental impacts, the approving agency must make one or more of the following findings, accompanied by a brief explanation of the rationale, pursuant to CEQA Guidelines Section 15091, for each identified significant impact:

A. Changes or alterations have been required in, or incorporated into, such project which avoid or substantially lessen the significant environmental effect as identified in the final environmental impact report.

B. Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency, or can and should be adopted by such other agency.

C. Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the environmental impact report.

CEQA Guidelines Section 15092 states that after consideration of an EIR, and in conjunction with making the Section 15091 findings identified above, the lead agency may decide whether or how to approve or carry out the project. A project that would result in a significant environmental impact cannot be approved if feasible mitigation measures or feasible alternatives can avoid or substantially lessen the impact.

However, in the absence of feasible mitigation, an agency may approve a project with significant and unavoidable impacts, if there are specific economic, legal, social, technological, or other considerations that outweigh the unavoidable adverse environmental effects. Section 15093 requires the lead agency to document and substantiate any such determination in a “statement of overriding considerations” as a part of the record.

The requirements of Sections 15091, 15092, and 15093 (as summarized above) are all addressed herein. This document summarizes the findings of fact and statement of overriding considerations authorized by those provisions of the CEQA Guidelines and by the PRC for the project.

2 PROJECT DESCRIPTION

The project consists of the demolition of three existing buildings and redevelopment of the site as a master-planned residential community of up to 1,074 residential units that would include medium- and high-density residential land uses and related on-site facilities to serve the development. The project site would also include a 6.5-acre public park and extension of Indian Wells Avenue through the site to connect with the Duane Avenue/Stewart Drive intersection.

Project requested City entitlements include the following:

- Approval of a rezone to adjust the boundaries of the site's Industrial to Residential-Medium (MS/ITRR3) and Industrial to Residential-High (MS/ITRR4) zone districts;
- Approval of a Special Development Permit for site and architectural (i.e. design) review, removal of protected trees, and consideration of deviations from City height standards or other standards as provided for under City Municipal Code Chapter 19.90; and State Density Bonus Law; and
- Approval of a lot line adjustment and a tentative subdivision map.

2.1 PROJECT LOCATION AND SETTING

The project site consists of three parcels of approximately 34.7 acres located at 1 AMD Place (Assessor's Parcel Number [APN] 20522024 and 20522025) and 975 Stewart Drive (APN 20522028) within the eastern portion of the City of Sunnyvale (see DEIR Exhibit 3-1). The site is north of Stewart Drive, south of Duane Avenue (also referred to as East Duane), and west of the Duane Avenue/Stewart Drive intersection (see DEIR Exhibit 3-2). Vehicular access to the project site is provided along Stewart Drive. The project site is approximately 0.25-mile south of U.S. Highway 101 and 0.10 mile west of Lawrence Expressway.

The project site consists of three office buildings, a utility building, paved parking lots and roads, and landscaping, including grass lawns and mature landscape trees. Residential uses are adjacent to the north, east, and west project boundaries. A public storage facility, and office uses are located south and southeast of the site. Hotel and office buildings (formerly a private university) are located east of the site and southeast of the Duane Avenue/Stewart Drive intersection.

2.2 PROJECT BACKGROUND

The project site currently contains two developed industrial sites; a 20,867 square foot office/R&D building is in the southwestern corner of the project site (975 Stewart Drive) and two buildings totaling approximately 205,523 square feet of office/R&D uses located in the remainder of the project site (1 AMD Place). Except for limited occupancy at 975 Stewart Drive, office buildings at the project site are vacant.

On February 2, 2007, City Council approved the East Sunnyvale Industrial-to-Residential (ITR) General Plan Amendment and Rezone. The ITR Project, which included the project site, consisted of conversion of an approximately 130-acre industrial/office area to a combined designation that allows transition to residential uses. The ITR amendment and rezone and subsequent approvals (southwest corner of the project site was approved for 57 residential units that were never constructed) resulted in a potential for the development of approximately 884 residential units and a 3-acre park.

In April 2017, the City Council adopted an update to the City's Land Use and Transportation Element (LUTE) of its General Plan. The City prepared an environmental impact report (EIR) (State Clearinghouse No. 2012032003) for the LUTE that evaluated the environmental impacts associated with development of the City based on the land use and transportation elements established in the LUTE. The LUTE designates land uses at the project site as Medium Density Residential (MDR) and High Density Residential (HDR). The project site is currently zoned Industrial and Service with Industrial to Residential Medium Density (MS/ITRR3) and Industrial and Service with Industrial to Residential High Density (MS/ITRR4).

2.3 PROJECT OBJECTIVES

Taking into consideration the goals of the applicant, the City has identified the following project objectives:

- Transition of the site from office uses to creation of a new public park and mix of residential densities that include affordable housing options to address City housing needs;
- Build a residential community that implements the goals and policies of the General Plan (Land Use and Transportation Element adopted 2017) and the East Sunnyvale Sense-of Place Plan (adopted 2015); and
- Create a residential community that utilizes adopted City policies and development design guidelines to create residential housing densities and building massing that complements the existing residential densities of adjacent land uses in the project area.

3 PROCEDURAL FINDINGS

Based on the nature and scope of the project, the City of Sunnyvale (City) determined, based on substantial evidence, that the project may have a significant effect on the environment and prepared an EIR for the project. The EIR (State Clearinghouse No. 2017082043) was prepared, noticed, published, circulated, reviewed, and completed in full compliance with CEQA (Public Resources Code Sections 2100 et seq.) and the CEQA Guidelines (14 California Code of Regulations Sections 1500 et. seq.), and additional noticing and opportunities for public comment were also provided, as follows:

A. A Notice of Preparation (NOP) was prepared and circulated on August 18, 2017, for a minimum 30-day period of public and agency comment. The NOP was submitted to the State Clearinghouse and Santa Clara County Clerk-Recorder. Each responsible and trustee agency and was circulated for public comments for 30 days.

B. A public scoping meeting to receive comments regarding the issues to be covered in the EIR was held on August 31, 2017 in the City Council Chambers at 456 W. Olive Avenue, Sunnyvale, CA 94086.

C. A Notice of Completion and copies of the draft EIR (DEIR) were distributed to the Office of Planning and Research on November 2, 2018, to those public agencies that have jurisdiction by law with respect to the project, or which exercise authority over resources that may be affected by the project, and to other interested parties and agencies as required by law. The comments of such persons and agencies were sought.

D. A Notice of Availability of the DEIR was mailed on November 2, 2018, to all interested groups, organizations, and individuals who had previously requested notice in writing. The Notice of Availability stated that City had completed the DEIR and that copies were available on the City's website: http://www.sunnyvale.ca.gov. Hard copies of the DEIR were made available at the City's One-Stop Permit Center at 456 W. Olive Avenue, Sunnyvale CA, 94086 and the Sunnyvale Public Library at 665 West Olive Avenue, Sunnyvale, CA 94086.

E. The public comment period on the DEIR began on November 2, 2018, and concluded on December 17, 2018.

F. A public hearing was held on November 26, 2018 before the Planning Commission, to receive input from agencies and the public on the DEIR.

G. Pursuant to Assembly Bill (AB) 52, the City distributed letters dated November 13, 2017 to the California tribes that are culturally and geographically affiliated with the project area. Representatives for the following tribes were notified: Ohlone/Costanoan Bay Miwok, Plains Miwok and Patwin; Amah Mutsun Tribal Band (Galt, Davis); Amah Mutsun Tribal Band Ohlone/Costanoan Northern Valley Yokuts; Amah Mutsun Tribal Band of Mission San Juan Bautista; Indian Canyon Mutsun Band of Costanoan (Hollister); Muwekma Ohlone Indian Tribe of the SF Bay Area;

Ohlone/Costanoan Tribe (Patterson); Ohlone/Costanoan (Seaside, Linden); Ohlone/Costanoan Northern Valley Yokuts and Bay Miwok; Ohlone Indian Tribe Bay Miwok, Plains Miwok and Patwin. No written request to consult was received from any of the tribes within the required 30-day time period. Therefore, the consultation process under PRC Section 21080.3.1(b) was concluded.

H. The City provided written responses to all comments received during and after the comment period referenced above for the DEIR and additional information added by the City was subsequently added to the DEIR to produce the Final EIR (FEIR).

I. The Final EIR was released on March 8, 2019. The FEIR consists of the following items:

- the DEIR released in November 2, 2018;
- Responses to Comments; and
- Revisions to the DEIR.

J. The Project and the EIR came before the Planning Commission on April 8, 2019, at a duly and properly noticed public hearing. On this date, the Planning Commission recommended that the City Council adopt the following findings, Mitigation Monitoring and Reporting Program, and Statement of Overriding Considerations.

K. The Project and the EIR came before the City Council on April 23, 2019, at a duly and properly noticed public hearing. On this date, the City Council adopted the following findings, Mitigation Monitoring and Reporting Program, and Statement of Overriding Considerations.

As required by CEQA Guidelines Section 15088(b), public agencies that commented on the DEIR were provided at least 10 days to review the proposed responses prior to the date for consideration of the FEIR for certification

4 RECORD OF PROCEEDINGS

In accordance with PRC Section 21167.6, subdivision (e), the record of proceedings for the City's decision on the project includes the following documents, which are incorporated by reference and made part of the record supporting these findings:

- The application package, and all attachments and supplemental information thereto.
- City staff reports and all attachments;
- The DEIR and all appendices to the DEIR;
- The FEIR and all appendices to the FEIR;
- All notices required by CEQA and presentation materials related to the project;
- All comments submitted by agencies or members of the public during the comment period on the Notice of Preparation and the DEIR;
- All studies conducted for the project and contained or referenced in the DEIR and the FEIR;
- All documents cited or referenced in the DEIR and the FEIR;
- All public reports and documents related to the project prepared for City and other agencies;

- All documentary and oral evidence received and reviewed at public hearings and all transcripts and minutes of those hearings related to the project, the DEIR, and the FEIR;
- All other documents related to the project;
- The mitigation monitoring and reporting program (MMRP) for the project; and
- Any additional items not included above if otherwise required by law.

The documents constituting the record of proceedings are available for review by responsible agencies and interested members of the public during normal business hours at the City of Sunnyvale offices at 456 W. Olive Avenue, Sunnyvale, CA 94086.

The FEIR is incorporated into these findings in its entirety, unless and only to the extent these findings expressly do not incorporate by reference the FEIR. Without limitation, this incorporation is intended to elaborate on the scope and nature of mitigation measures, the basis for determining the significance of impacts, the comparative analysis of alternatives, and the reasons for approving the project in spite of the potential for associated significant and unavoidable adverse physical environmental impacts.

5 FINDINGS REQUIRED UNDER CEQA

PRC section 21002 provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]" The same statute states that the procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects." Section 21002 of the PRC goes on to state that "in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof."

The mandate and principles in PRC Section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. For each significant environmental effect identified in an EIR for a project, the approving agency must issue a written finding reaching one or more of three permissible conclusions.

The first such finding is that changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the Final EIR (CEQA Guidelines Section 15091[a][1]). For purposes of these finding, the term "avoid" refers to the effectiveness of one or more mitigation measures to reduce an otherwise significant effect to a less-than-significant level. In contrast, the term "substantially lessen" refers to the effectiveness of such measure or measures to substantially reduce the severity of a significant effect, but not to reduce that effect to a less-than-significant level.

The second permissible finding is that such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding, and that such changes have been adopted by such other agency or can and should be adopted by such other agency (CEQA Guidelines Section 15091[a][2]).

The third potential conclusion is that specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the FEIR (CEQA Guidelines Section 15091[a][(3]). "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors (CEQA Guidelines Section 15364).

The concept of "feasibility" also encompasses the question of whether a particular alternative or mitigation measure promotes the underlying goals and objectives of a project. Moreover, "feasibility" under CEQA encompasses "desirability" to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, legal, and technological factors" (City of Del Mar v. City of San Diego (1982) 133 Cal.App.3d 410, 417).

In the process of adopting mitigation measures, the City has made a determination regarding whether the mitigation proposed in the EIR is "feasible." In some cases, modifications may have been made to the mitigation measures proposed in the EIR to update, clarify, streamline, or revise those measures.

With respect to a project for which significant impacts are not avoided or substantially lessened, a lead agency, after adopting proper findings, may nevertheless approve the project if the agency first adopts a statement of overriding considerations setting forth the specific reasons in support of the finding that the project benefits outweigh its unavoidable adverse environmental effects. In the process of considering the EIR for certification, the City has recognized that impact avoidance is not possible in all instances. To the extent that significant adverse environmental impacts will not be reduced to a less-than-significant level with the adopted mitigation, the City has found that specific economic, social, and other considerations support approval of the project. Those findings are reflected herein in Section 5, "Findings Required Under CEQA," and in Section 7, "Statement of Overriding Considerations," below.

5.1 SUMMARY OF FINDINGS

The DEIR identified a number of less-than-significant impacts associated with the project that do not require mitigation. The DEIR also identified a number of significant and potentially significant environmental effects (or impacts) that may be caused in whole or in part by the project. Some of these significant effects can be fully avoided or substantially lessened through the adoption of feasible mitigation measures. Other effects cannot be, and thus may be significant and unavoidable. For reasons set forth in Section 7, "Statement of Overriding Considerations," however, the City has determined that overriding economic, social, and other considerations outweigh the significant, unavoidable effects of the project.

The findings of the City with respect to the project's significant effects and mitigation measures are set forth in the FEIR and these Findings of Fact. The Summary of Findings does not attempt to regurgitate the full analysis of each environmental impact contained in the FEIR. Please refer to the DEIR and the FEIR for more detail.

The following provides a summary description of each potentially significant and significant impact, describes the applicable mitigation measures identified in the FEIR and adopted by the City, and states the findings of the City regarding the significance of each impact after imposition of the adopted mitigation measures. A full explanation of these environmental findings and conclusions can be found in the FEIR and associated record (described herein), both of which are incorporated by reference. The City hereby ratifies, adopts, and incorporates the analysis and explanation in the record into these findings, and ratifies, adopts, and incorporates in these findings the determinations and conclusions of the FEIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these findings.

Some of the measures identified below are within the jurisdiction and control of other agencies. To the extent any of the mitigation measures are within the jurisdiction of other agencies, the City finds those agencies can and should implement those measures within their jurisdiction and control (CEQA Guidelines Section 15091[a][2]).

5.1.1 Findings Regarding Errata and EIR Recirculation

CEQA Guidelines Section 15088.5 requires a lead agency to recirculate an EIR when "significant new information" is added to the EIR after the lead agency gives public notice of the availability of the DEIR but before certification. "Information" may include project changes, changes to the environmental setting, or additional data or other information. The CEQA Guidelines do not consider new information to be significant unless the lead agency changes the EIR in a way that deprives the public of a meaningful opportunity to comment on a substantial adverse environmental effect or a feasible way to mitigate the impact that the agency or project proponent has declined to implement.

CEQA Guidelines Section 15088.5 states "significant new information" requiring recirculation may include:

(1) A new significant environmental impact that had not previously been disclosed in the draft EIR would result from the project or from a new mitigation measure;

(2) A substantial increase in the severity of an environmental impact that had already been identified unless mitigation measures would be adopted to reduce the impact to a level of insignificance;

(3) A feasible project alternative or mitigation measure would considerably lessen the significant environmental impacts of the project, but the proponents will not adopt it; or

(4) The draft EIR was so inadequate and conclusory that meaningful public review and comment were precluded.

Recirculation is not required if new information added to the EIR just clarifies or makes minor modifications to an otherwise adequate EIR.

The City made changes to the DEIR after this document was released, which are described in Chapter 3, "Revisions to the DEIR," of the FEIR. Minor changes were made to the discussion of the air quality analysis thresholds of significance, and mitigation measures 4.2-1a, 4.2-1b, 4.11-1, 4-11.4, 4-11.8, 6-13a, and 6-13b. These changes are described in the FEIR. No impacts identified in the DEIR would be substantially increased because of changes to the project or mitigation measures following recirculation. There are no new feasible alternatives or mitigation measures that are considerably different from those considered in the EIR that the City has declined to adopt.

5.1.2 Findings Regarding Less Than Significant Impacts (No Mitigation Required)

The City agrees with the characterization in the FEIR of all project-specific impacts identified as "less than significant" and finds that those impacts have been described accurately and are either less than significant or have no impact, as described in the FEIR. Section 15091 of the CEQA Guidelines does not require specific findings to address environmental effects that an EIR identifies as having "no impact" or a "less than significant" impact.

The impacts where the project would result in either no impact or a less than significant impact, and which require no mitigation, are identified in the bulleted list below. Please refer to the EIR for more detail.

AESTHETICS

- Impact 4.1-1: Visual Character and Shadow Impacts
- Impact 4.1-2: Light and Glare Impacts

AGRICULTURE AND FORESTRY RESOURCES

- Loss of Agricultural Land or Agricultural Conflict Impacts
- Loss of Forest Land or Conflicts with Timberland Resource Impacts

AIR QUALITY

- Impact 4.2-2: Long-Term, Operational (Regional) Emissions of Criteria Air Pollutants and Precursors
- Impact 4.2-3: Mobile-Source CO Concentrations
- Impact 4.2-4: Exposure of Sensitive Receptors to TACs
- Impact 4.2-5: Exposure of Sensitive Receptors to Odors

BIOLOGICAL RESOURCES

- Impact 4.3-2: Consistency with City of Sunnyvale Tree Preservation Requirements

CULTURAL RESOURCES, TRIBAL RESOURCES, AND PALEONTOLOGICAL RESOURCES

- Historic Resource Impacts
- Archaeological Resource Impacts
- Tribal Cultural Resource Impacts
- Paleontological Resource Impacts

ENERGY

- Impact 4.4-1: Result in Inefficient and Wasteful Consumption of Energy
- Impact 4.4-2: Demand for Energy Services and Facilities

GEOLOGY AND SOILS

- Seismic Hazard Impacts
- Tsunamis Hazard Impacts
- Geologic and Soil Stability Impacts

HAZARDS AND HAZARDOUS MATERIALS

- Impact 4.6-1: Create a Significant Hazard Through Transport, Use, or Disposal of Common Hazardous Materials
- Impact 4.6-3: Impair Emergency Response or Evacuation Plans

HYDROLOGY, DRAINAGE, AND WATER QUALITY

- Drainage and Flooding Impacts

- Construction Water Quality Impacts
- Operational Water Quality Impacts

LAND USE AND PLANNING

- Impact 4.7-1: Physically Divide an Established Community
- Impact 4.7-2: Conflict with Applicable Land Use Plans, Policies, or Regulations Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect

MINERAL RESOURCES

- Impacts to Mineral Resources

NOISE AND VIBRATION

- Impact 4.8-3: Traffic Noise Increases

PUBLIC SERVICES AND UTILITIES

- Impact 4.9-1: Increased Demand for Potable and Irrigation Water
- Impact 4.9-2: Increased Demand for Wastewater Collection, Conveyance, and Treatment
- Impact 4.9-3: Cause Exceedance of Waste Discharge Requirements
- Impact 4.9-4: Generation of Solid Waste that Exceeds the Capacity of the Kirby Canyon Landfill
- Impact 4.9-5: Result in the Need for Expanded School Facilities
- Impact 4.9-6: Increased Demand for Fire Protection, Law Enforcement, and Emergency Medical Services

RECREATION

- Impact 4.10-1 Impacts on Parks and Recreation Facilities

TRAFFIC AND CIRCULATION

- Impact 4.11-2: Impacts on Freeway Segments
- Impact 4.11-3: Impacts on Freeway Ramps
- Impact 4.11-5: Impacts on Bicycle Facilities
- Impact 4.11-7: Impacts on Emergency Services and Access

CUMULATIVE IMPACTS

- Impact 6-1: Substantial Adverse Cumulative Effect Related to Visual Character and Shadow Impacts
- Impact 6-2: Substantial Adverse Cumulative Effect on Light and Glare
- Impact 6-3: Cumulative Effect on Air Quality

- Impact 6-4: Cumulative Effects Related to Disturbance or Loss of White-Tailed Kite, Nesting Raptors and Other Birds
- Impact 6-5: Cumulative Effects Related to Consistency with City of Sunnyvale Tree Preservation Ordinance
- Impact 6-6: Cumulative Effects Related to Energy Use
- Impact 6-7: Create Potential Human Health Hazards From Exposure to Existing On-Site Hazardous Materials
- Impact 6-8: Cumulative Land Use Impacts
- Impact 6-9: Cumulative Construction Noise Impacts
- Impact 6-10: Cumulative Traffic Noise Impacts
- Impact 6-11: Cumulative Increased Demand for Wastewater Collection, Conveyance, and Treatment
- Impact 6-12:Cumulative Impacts on Parks and Recreation Facilities
- Impact 6-14: Cumulative Effect on Transit Operations

5.1.3 Findings Regarding Impacts Mitigated to a Level of Less than Significant

The City hereby finds that feasible mitigation measures have been identified in the EIR and these Findings of Fact that will avoid or substantially lessen the following potentially significant and significant environmental impacts to a less-than-significant level. The potentially significant and significant impacts and the mitigation measures that will reduce them to a less-than-significant level are summarized below. Please refer to the EIR for more detail.

AIR QUALITY

Impact 4.2-1: Short-Term, Construction-Generated Emissions of ROG, NO_x, PM_{10}, and $PM_{2.5}$

Construction-related activities would result in project-generated emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ from site preparation, off-road equipment, material and equipment delivery trips, worker commute trips, building construction, and other miscellaneous activities. Construction activities would result in mass emissions of NO_X that exceed BAAQMD's thresholds of 54 lb/day. Also, because construction may not implement BAAQMD's Best Management Practices for limiting fugitive PM_{10}, and $PM_{2.5}$ dust emissions, it may contribute to a localized exceedance of the NAAQS and CAAQS for these pollutants. This would be a significant impact.

Maximum daily construction emissions for the project are summarized in DEIR Table 4.2-4. The table presents maximum daily emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ for each construction year.

As shown in DEIR Table 4.2-4, the construction-generated emissions of NO_X would exceed the threshold of significance of 54 lb/day in 2019 and 2021 during building construction of the mid-rise apartments and townhomes. This emissions level of NO_X could contribute to an increase in non-attainment days in the SFBAAB for ozone. As summarized in DEIR Table 4.2-2, "Sources and Health Effects of Criteria Air Pollutants," groundborne ozone is a secondary pollutant derived from the oxidation of NO_X and ROG in the presence of sunlight. The SFBAAB is currently in non-attainment for the national and state ozone standards; therefore, project-related construction-generated emissions of NO_X could exacerbate this existing adverse condition.

However, given the high number of factors (e.g., typography, meteorology, emissions sources) that contribute to the formation and dispersion of ozone, it is not scientifically possible to predict the number of days in which ozone concentrations exceed the NAAQS or CAAQS with a high level of accuracy. Current models cannot determine the locations of or the specific concentrations of ozone from NO_X or ROG precursors because of the complex physical factors (e.g., sun, temperature, wind) that contribute to the chemical reactions necessary to convert precursors to ground-level ozone. Nonetheless, because precursor emission levels would exceed BAAQMD's significance thresholds, it is reasonably foreseeable that construction emissions could contribute to an increase in non-attainment days.

Also summarized in DEIR Table 4.2-2, human exposure to ozone may cause acute and chronic health impacts including coughing, pulmonary distress, lung inflammation, shortness of breath, and permanent lung impairment. By evaluating emissions of NO_X against BAAQMD's thresholds of significance, it is foreseeable that the health complications associated with ozone exposure could be exacerbated by project-generated construction emissions.

DEIR Table 4.2-4 also shows that construction-generated emissions of ROG, PM_{10}, and $PM_{2.5}$ would not exceed BAAQMD's applicable thresholds; however, if dust control measures are not implemented, fugitive PM_{10} and $PM_{2.5}$ dust emissions could contribute to localized concentrations of these pollutants that exceed the applicable NAAQS and CAAQS, which could cause localized health impacts to receptors exposed to these pollutants.

Because emissions of NO_X in 2019 would exceed the applicable BAAQMD daily thresholds of significance, project-generated construction emissions could result in an increase in the number of exceedances of the NAAQS and CAAQS for ozone and an increase in the potential for adverse health impacts to occur from ozone exposure. For these reasons, this would be a significant impact.

Mitigation Measure 4.2-1a: Apply Tier-4 Emission Standards to all Diesel-Powered Off-Road Equipment When Available

The applicant shall require the construction contractor to only use off-road construction equipment that meet EPA's Tier 4 emission standards as defined in 40 CFR 1039 and to comply with the appropriate test procedures and provisions as contained in 40 CFR Parts 1065 and 1068, to the extent feasible. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers or if Tier 4 equipment is not available. This measure can also be achieved by using battery- electric off-road equipment as it becomes available. Implementation of this measure shall be required in the contract the project applicant establishes with its construction contractors. The applicant shall demonstrate its plan to fulfill the requirements of this measure in a report or in project improvement plan details submitted to the City prior to the use of any off-road, diesel-powered construction equipment on the site.

Mitigation Measure 4.2-1b: Implement Construction-Related Measures to Reduce Fugitive Dust Emissions

The applicant shall require its construction contractors to implement BAAQMD's Basic Construction Mitigation Measures (BAAQMD 2017b:8-4), including, but not limited to the following. These measures shall be included in project improvement plans.

- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) two times per day.
- Cover all haul trucks transporting soil, sand, or other loose material off-site.
- Remove all visible mud or dirt track-out onto adjacent public roads using wet power vacuum street sweepers at least once per day (dry power sweeping is prohibited).
- Limit all vehicle speeds on unpaved roads to 15 miles per hour.

- Pave all roadways, driveways, and sidewalks as soon as possible, and lay building pads as soon as possible after grading (unless seeding or soil binders are used).
- Minimize idling times by shutting equipment off when not in use or reducing the maximum idling time to five minutes. The project will provide clear signage for construction workers at access points.
- Maintain and properly tune all construction equipment in accordance with manufacturers specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lea Agency regarding dust complaints. The person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Significance after Mitigation

Implementation of Mitigation Measure 4.2-1a would reduce NO_x emissions through use of cleaner construction equipment. DEIR Table 4.2-5 shows the effectiveness of Mitigation Measure 4.2-1a on in reducing the project's estimated construction emissions.

As shown in DEIR Table 4.2-5, implementation of Mitigation Measure 4.2-1a would reduce maximum daily NO_X emissions associated with project construction to less than BAAQMD's significance level of 54 lb/day. Based on the development of the BAAQMD's thresholds of significance (discussed in greater detail in the "Thresholds of Significance"), the level of NO_X emissions after implementation of Mitigation Measure 4.2-1a would not contribute considerably to a cumulative deterioration of air quality within the SFBAAB from ozone formation. As such, mitigated NO_X emissions would not exacerbate the non-attainment designation of the SFBAAB nor result in deleterious health impacts associated with human exposure to ozone.

Further, implementation of BAAQMD's Best Management Practices required by Mitigation Measure 4.2-1b would ensure that construction-related emissions of PM_{10} and $PM_{2.5}$ would not result in a localized exceedance of the NAAQS and CAAQS or associated human health effects for these pollutants. Therefore, implementation of Mitigation Measures 4.2-1a and 4.2-1b would reduce construction impacts to a less-than-significant level. (DEIR pages 4.2-12 through 4.2-14 and FEIR pages 3-2 through 3-5)

Finding on Proposed Mitigation

The City finds that, with implementation of the above mitigation measures, changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen this construction air quality impact identified in the FEIR.

BIOLOGICAL RESOURCES

Impact 4.3-1: Disturbance to or Loss of White-Tailed kite, Nesting Raptors, and Other Birds

Project implementation could result in the disturbance or loss of nesting raptors, special-status birds, and other birds, if present, through removal of trees. This would be a potentially significant impact.

White-tailed kite is fully protected under California Fish and Game Code. The project site contains large, mature landscape trees. These trees may provide suitable nesting habitat for white-tailed kite and other tree-nesting raptors (e.g., red-tailed hawk [*Buteo jamaicensis*], red-shouldered hawk [*Buteo lineatus*]). Other non-special-status birds could nest within trees on the site as well.

Planned tree removal and ground disturbing activities associated with site development could result in the disturbance or direct loss of white-tailed kite, and other nesting raptors and birds if present on the site, potentially resulting in nest abandonment, nest failure, or mortality of chicks or eggs. This would be a potentially significant impact.

Mitigation Measure 4.3-1: Protection Measures for Nesting Raptors and Other Birds

The applicant shall impose the following conditions before, and during, construction:

- To minimize the potential for loss of nesting raptors and other birds, tree removal activities will only occur during the nonbreeding season (September 1-January 31). If all suitable nesting habitat is removed during the nonbreeding season, no further mitigation will be required.

- Before removal of any trees or ground disturbing activities between February 1 and August 31, a qualified biologist will conduct preconstruction surveys for nesting raptors and other birds and will identify active nests within 500 feet of the site. The surveys will be conducted before the beginning of any construction activities between February 1 and August 31.

- Impacts to nesting raptors will be avoided by establishing appropriate buffers around active nest sites identified during preconstruction surveys. Activity will not commence within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer will not likely result in nest abandonment. Typical buffers are 500 feet for raptors, but the size of the buffer may be adjusted if a qualified biologist, in consultation with CDFW, determines that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during construction activities may be required if the activity has potential to adversely affect the nest.

- Trees will not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree.

Significance After Mitigation

Implementation of Mitigation Measure 4.3-1 would reduce impacts on white-tailed kite, nesting raptors, and other birds to a less-than-significant level because preconstruction surveys would be conducted, and active raptor and other bird nests would be protected from construction activities. (DEIR pages 4.3-11 and 4.3-12)

Finding on Proposed Mitigation

The City finds that, with implementation of the above mitigation measures, changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen impacts to white-tailed kite, nesting raptors, and other birds identified in the FEIR.

GREENHOUSE GASES AND CLIMATE CHANGE

Impact 4.5-1: Project-Generated GHG Emissions

Project construction would generate approximately 5,350 $MTCO_2e$. Operation of the project would generate approximately 3,560 $MTCO_2e$/year. Because the project would not be consistent with a local or regional adopted plan for the purpose of sufficiently reducing the emissions of GHGs post-2020, project-related GHG emissions would contribute to climate change. This impact would be significant.

Because the City has not completed and adopted its CAP 2.0 at the time of writing this EIR, the project would not be consistent with a local or regional adopted for the purpose of reducing the emissions of GHGs pursuant to SB 32.

GHG emissions associated with the project would be generated during project construction and by operation of the land uses after they are built. Estimated levels of construction- and operation-related GHGs are presented below.

Construction-Generated Greenhouse Gas Emissions

Project-related construction activities would result in the generation of GHG emissions. Heavy-duty off-road construction equipment, materials transport, and worker commute during construction of the project would result in exhaust emissions of GHGs. Based on modeling conducted with CalEEMod, it is estimated that project-related construction would generate an approximate total of 5,350 $MTCO_2e$ over the construction period (2018–2022).

Operational Greenhouse Gas Emissions

Operation of the project would result in mobile-source GHG emissions associated with vehicle trips to and from the project (i.e., project-generated VMT), the combustion of natural gas for space and water heating, and landscape maintenance activity, the conveyance and treatment of wastewater, and the generation of solid waste. The project is committed to Zero Net Electricity residential buildings, generating adequate electricity on-site through photovoltaic solar panels, that would meet the electricity needs of these uses. The project's GHG emissions related to electricity consumption would be zero. Emissions generated from project operation are reported in DEIR Table 4.5-3.

It should be noted that the project has committed to several design features listed below that may result in the project operation in a more GHG-efficient manner. (DEIR pages 3.0-14 and 3.0-17)

1. Construction
   - Idling restrictions (no longer than 5 minutes) for construction equipment
   - Implement program to incentivize construction workers to carpool, use electric vehicles, or use transit

2. Indoor Environmental Quality
   - Low-E windows
   - High-efficiency A/C with environmentally preferable refrigerants
   - ENERGY STAR bathroom fans on timers or humidistats

3. Transportation
   - EV charging stations, 12.5 percent pre-wired, 190 total spaces
   - On-site bicycle connectivity to parks and Sunnyvale trail system
   - Rideshare pickup/ drop off areas
   - Covered on-site bike storage for all bicycle types and common area for shared bike tool station and air for inflating tires
   - 50 percent shading of all parking lot surface areas

4. Energy
   - Project roofs will be designed as "Cool Roofs" in accordance with Tier 2 of the 2016 California Building Codes (CALGreen) Sections A4.106.5 and A5.106.11.2
   - Future solar ready: garage/parking structures are pre-wired for solar
   - ENERGY STAR appliances
   - LED Light fixtures
   - Pool/spa heater controllers
   - Natural gas connections with townhome yards and project common outdoor activity areas

5. Water Efficiency and Conservation (CALGreen Divisions 4.3 and 5.3)
   - Potable water use maintained below allocation baseline
   - High-efficiency toilets and fixtures, and water sub-metering
   - High efficiency irrigation, smart controllers/satellite data

6. Design and Recycled Materials
   - Permeable paving at hardscape areas
   - Recycled construction materials

- Waste/Recycling repurposing programs
- Preservation and relocation of existing redwoods

The project is also designated as a "Priority Development Area" under the Plan Bay Area 2040. The reductions achieved by implementation of these design features cannot be easily quantified and are not accounted for in the GHG estimates presented in DEIR able 4.5-3.

Project construction would generate an approximately total of 5,350 $MTCO_2e$ and operation of the project would generate approximately 3,560 $MTCO_2e$/year. Because the project would not be consistent with a local or regional adopted for the purpose of reducing the emissions of GHGs, the project's GHG emissions would contribute to climate change. This would be a significant impact.

Mitigation Measure 4.5-1: Implement Project Features to be Consistent with A Future Qualified Climate Action Plan or Implement All Feasible On-Site Greenhouse Gas Reduction Measures and Purchase Carbon Offsets

A. The applicant shall implement project design features sufficient to demonstrate that the project would be consistent with the next version of the City's climate action plan, referred to as CAP 2.0. This option can only be followed if the CAP 2.0 meets the criteria listed in Section 15183.5b(1) of the State CEQA Guidelines prior to any project-related demolition or construction activity. This option can also only be followed if the CAP 2.0 is aligned with the statewide GHG reduction target established by SB 32 of 2016 (i.e., 40 percent below 1990 levels by 2030) and any additional post-2030 statewide reduction targets established by the state legislature at the time. The applicant must follow the City's process for demonstrating that a project is consistent with the CAP 2.0.

   If CAP 2.0 is not adopted at the time of construction of project facilities, the applicant shall implement Parts B and C of this mitigation measure.

B. The applicant shall implement all feasible measures to reduce GHG emissions associated with the project, including but not limited to the construction- and operation-related measures listed below. The applicant may refrain from implementing some of the measures below only if it provides substantial evidence to the City that substantiates why the measure is infeasible for this project. The GHG reductions achieved by the implementation of measures listed in Part B shall be estimated by a qualified third-party selected by the City. All GHG reduction estimates shall be supported by substantial evidence. The effort to quantify the GHG reductions shall be fully funded by the project applicant. Measures should be implemented even if it is reasonable that its implementation would result in a GHG reduction but a reliable quantification of the reduction cannot be substantiated. The applicant shall incorporate onsite design measures into the project and submit verification to the City prior to issuance of building permits. Many of these measures are identical to, or consistent with, the measures listed in Appendix B of the 2017 Scoping Plan (CARB 2017a:B-7 to B-8).

   a. Construction-related GHG Reduction Measures. Implementation of these measures shall be required in the contract the applicant establishes with its construction contractors and identified in the project improvement and site design plans.

      i. The applicant shall require its contractors to enforce idling of on- and off-road diesel equipment for no more than 5 minutes while on site.

      ii. The applicant shall implement waste, disposal, and recycling strategies in accordance with Sections 4.408 and 5.408 of the 2016 California Green Building Standards Code (CALGreen

Code), or in accordance with any update to these requirements in future iterations of the CALGreen Code in place at the time of project construction.

iii. Project construction shall achieve or exceed the enhanced Tier 2 targets for recycling or reusing construction waste of 75 percent for residential land uses as contained in Sections A4.408 and A5.408 of the CALGreen Code.

iv. All diesel-powered, off-road construction equipment shall meet EPA's Tier 4 emissions standards as defined in 40 Code of Federal Regulation (CFR) 1039 and comply with the exhaust emission test procedures and provisions of 40 CFR Parts 1065 and 1068. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. This measure is consistent with Mitigation Measure 4.2-1a in Section 4.2, "Air Quality."

v. The applicant shall implement a program that incentivizes construction workers to carpool, use public transit, or EVs to commute to and from the project site.

b. Operational GHG Reduction Measures

i. The applicant shall achieve as many residential zero net energy (ZNE) buildings as feasible. Prior to the issuance of building permits the project developer or its designee shall submit a Zero Net Energy Confirmation Report (ZNE Report) prepared by a qualified building energy efficiency and design consultant to the city for review and approval. The ZNE Report shall demonstrate that development within the project area subject to application of the California Energy Code has been designed and shall be constructed to achieve ZNE, as defined by CEC in its 2015 Integrated Energy Policy Report, or otherwise achieve an equivalent level of energy efficiency, renewable energy generation, or GHG emissions savings. This measure would differ than the project's commitment zero net electricity because ZNE also concerns on-site consumption of natural gas.

ii. All buildings shall include rooftop solar photovoltaic systems to supply electricity to the buildings. Alternatively, solar photovoltaic systems can be installed on canopies that also shade parking areas. The applicant has committed to pre-wiring for solar for residential garage/parking structures as a design feature.

iii. The applicant shall install rooftop solar water heaters if room is available after installing photovoltaic panels.

iv. Any household appliances included in the original sale of the residential units shall be electric and certified Energy Star-certified (including clothes washers, dish washers, fans, and refrigerators, but not including tankless water heaters).

v. The applicant shall install programmable thermostat timers in all residential dwelling units that allow users to easily control when the HVAC system will heat or cool a certain space, thereby saving energy.

vi. All buildings shall be designed to include cool roofs consistent with requirements established by Tier 2 of the CALGreen Code.

vii. All buildings shall be designed to comply with requirements for water efficiency and conservation as established in the CALGreen Code.

viii. If natural gas service is provided to the project site then the applicant shall install natural gas connections in all residential backyards and within the common outdoor activity areas of multi-family residential land uses. This measure is not required if natural gas connections are not provided to the project site.

ix. Electrical outlets shall be included on every exterior wall of all buildings. These exterior outlets will enable the use of electric-powered landscape maintenance equipment thereby providingan alternative to using fossil fuel-powered generators.

x. Outdoor parking lots for the proposed park shall include trees and/or solar canopies designed to provide a minimum 50 percent shading of parking lot surface areas.

xi. The applicant shall provide a minimum of one single-port electric vehicle charging station ateach new townhome unit that achieves similar or better functionality as a Level 2 charging station (referring to the voltage that the electric vehicle charger uses). The applicant shall also provide Level 2 electric vehicle charging stations at a minimum of 10 percent of parking spaces that serve multi-family residential buildings.

xii. Parking lots serving non-residential buildings shall have at least 12.5 percent of parking spaces (209 total) served by electric vehicle charging stations that achieves similar or better functionality as a Level 2 charging station.

xiii. The applicant shall create safe paths of travel to building and park access points, connecting to existing bicycle and pedestrian facilities.

C. In addition to the measures listed under Part B, the applicant shall offset GHG emissions to zero by funding activities that directly reduce or sequester GHG emissions or by purchasing and retiring carbon credits.

To the degree that a project relies on GHG mitigation measures, the City of Sunnyvale, BAAQMD, and CARB recommend that lead agencies prioritize on-site design features, such as those listed in Part B of this mitigation measure, and direct investments in GHG reductions within the vicinity of the project site to provide potential air quality and economic co-benefits locally. While emissions of GHGs and their contribution to climate change is a global problem, emissions of air pollutants, which have a localized effect, are often emitted from similar activities that generate GHG emissions (i.e., mobile, energy, and area sources). For example, direct investment in a local building retrofit programs could pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project. Other examples of local direct investments include financing installation of regional electric vehicle charging stations, paying for electrification of public school buses, and investing in local urban forests. These investments would not only achieve GHG reductions, but would also directly improve regional and local ambient air quality. However, to adequately mitigate GHG emissions to zero, it is critical that any such investments in actions to reduce GHG emissions meet the criteria of being real, additional, quantifiable, enforceable, validated, and permanent as stated in CEQA Guidelines Section 15126.4(C)(3). Where further project design or regional investments are infeasible or not proven to be effective, it may be appropriate and feasible to mitigate project emissions through purchasing and retiring carbon credits issues by a recognized and reputable accredited carbon registry (e.g., Climate Action Reserve).

The CEQA Guidelines recommend several options for mitigating GHG emissions. State CEQA Guidelines Section 15126.4(C)(3) states that measures to mitigate the significant effects of GHG emissions may include “off-site measures, including offsets that are not otherwise required…” Through the purchase of GHG credits through voluntary participation in an approved registry, GHG emissions may be reduced at the project level. GHG reductions must meet the following criteria:

- Real—represent reductions actually achieved (not based on maximum permit levels),
- Additional/Surplus—not already planned or required by regulation or policy (i.e., not double counted),
- Quantifiable—readily accounted for through process information and other reliable data,
- Enforceable—acquired through legally-binding commitments/agreements,

- Validated—verified through accurate means by a reliable third party, and
- Permanent—will remain as GHG reductions in perpetuity.

In partnership with offset providers, the applicant shall purchase credits to offset 5,350 $MTCO_2e$ of the project's construction-related GHGs prior to the start of construction from a verified program that meets the above criteria. Also, prior to commencing operation, the applicant shall also purchase credits to offset the project's operational emissions of 3,560 $MTCO_2e$/year multiplied by the number of years of operation between commencement of operation and 2050, which is the target year of Executive Order S-3-05. It should be noted, however, that this number is subject to change depending on alterations in the level of on-site mitigation applied to the project depending on the feasibility of individual measures, including those listed in Part B of this mitigation measure. Offset protocols and validation applied to the project could be developed based on existing standards (e.g., Climate Registry Programs) or could be developed independently, provided such protocols satisfy the basic criterion of "additionality" (i.e., the reductions would not happen without the financial support of purchasing carbon offsets).

Prior to issuing building permits for development within the project, the City shall confirm that the project developer or its designee has fully offset the project's remaining (i.e., post implementation of GHG reduction measures pursuant to Part B) GHG emissions by relying upon one of the following compliance options, or a combination thereof:

- demonstrate that the project developer has directly undertaken or funded activities that reduce or sequester GHG emissions that are estimated to result in GHG reduction credits (if such programs are available), and retire such GHG reduction credits in a quantity equal to the project's remaining GHG emissions;

- provide a guarantee that it shall retire carbon credits issued in connection with direct investments (if such programs exist at the time of building permit issuance) in a quantity equal to the project's remaining GHG emissions;

- undertake or fund direct investments (if such programs exist at the time of building permit issuance) and retire the associated carbon credits in a quantity equal to the project's remaining GHG emissions; or

- if it is impracticable to fully offset the project's GHG emissions through direct investments or quantifiable and verifiable programs do not exist, the project developer or its designee may purchase and retire carbon credits that have been issued by a recognized and reputable, accredited carbon registry in a quantity equal to the project's remaining GHG Emissions.

Significance after Mitigation

Implementation of Part A of Mitigation Measure 4.5-1 would ensure that the project is consistent with a plan adopted by the City for the purpose of reducing the emissions of GHGs. Alternatively, implementation of both Parts B and C of Mitigation Measure 4.5-1 would ensure that the project would not result in a net increase in GHG emissions and, thus, not conflict with CARB's 2017 Scoping Plan or any established statewide GHG reduction targets (i.e., SB 32). Thus, the project's contribution to climate change would be reduced to less than significant. (DEIR pages 4.5-7 through 4.5-14)

Finding on Proposed Mitigation

The City finds that, with implementation of the above mitigation measures, changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen greenhouse gas emission impacts identified in the FEIR.

HAZARDS AND HAZARDOUS MATERIALS

Impact 4.6-2: Create Potential Human Hazards From Exposure to Existing On-Site Hazardous Materials

Demolition of on-site structures could result in inadvertent release or improper disposal of debris containing potentially hazardous materials; however, adherence to federal, state, and local regulations developed to address potential impacts related to the handling and disposal of hazardous materials during demolition would be required. Elevated concentrations of PCE and TCE in groundwater were found above residential screening values in two of the 10 on-site soil gas samples collected on-site. In addition, there are documented TCE impacts in groundwater throughout the project site as well as more limited areas of PCE impacts to groundwater, both coming from identified off-site sources. Construction activities that disturb subsurface materials on-site could disturb VOC-impacted soils and groundwater with known contamination. In addition, disturbance of previously unidentified areas of contamination could create an environmental or health hazard for construction workers and/or later residents or occupants. This impact would be potentially significant.

VOC-Impacted Groundwater and Soil Vapor

As part of the Phase I ESA site investigation, a review of risk databases was conducted. There were six National Priority Listings within one-mile and 24 properties listed as a potential environmental concern (including the 1 AMD Place site) within 1/8 of a mile of the project site. Because of documented contamination at three nearby sites, the project site has groundwater contaminated with TCE and PCE. The results of previous Phase II investigations have also concluded that VOC-impacted groundwater has migrated on-site from adjacent, upgradient sources. As a result, on-site soil gas is also impacted with VOC-impacted groundwater. Soil vapor testing for VOCs occurred at the site between April 2016 and February 2017 and concentrations of PCE and TCE exceeding the residential ESLs for soil vapor intrusion of 240 µg/m3 for each analyte were detected. Benzene was detected in one anomalous sample at a concentration of 55 µg/m3 which slightly exceeds the residential ESL for soil vapor of 48 µg/m3.

In February 2018, a Vapor Intrusion Assessment (VIA) was completed for the site that focused on future potential residential exposure to VOCs that may potentially intrude into indoor air from the subsurface. The assessment concluded that all sample-specific residential risk values under a future hypothetical residential land use scenario are below conservative risk management targets for ILCR and HI values (i.e., 1E-06 and 1E+00, respectively). The VIA also considered that the redevelopment plans for the site include three distinct uses in three distinct areas (i.e., apartments, a park, and townhomes. As such, the ILCR and HI values were also calculated on a cumulative sample specific basis for each of the proposed parcels. All cumulative, sample-specific residential risk values under a future residential land use scenario are below appropriately conservative risk management target ILCR and HI values.

The VIA reveals a de minimis risk from potential vapor intrusion because of the presence of PCE and TCE in groundwater. However, it is possible known or previously unidentified areas of VOC-impacted groundwater and soil gas could create an environmental or health hazard for construction workers and/or future residents. Therefore, the impact is considered potentially significant.

Mitigation Measure 4.6-2a: Worker Health and Safety

Each contractor whose employees may be potentially exposed to contaminants known to be present in site soil, soil gas, or groundwater shall develop and implement their own contractor-specific and site-specific health and safety plan (HASP). The HASP shall establish the minimum requirements, policies, and procedures adequate to protect site workers, the public, and the environment from identified site environmental hazards. The HASP shall be prepared in accordance with 29 CFR 1910.120 Occupational Safety and Health Administration (OSHA), Hazardous Waste Operations and Emergency Response (HAZWOPER), and California Code of Regulations (CCR), Title 8, Section 5192.

The HASP shall address all activities related to subsurface investigation activities and soil, groundwater and storm water management during development activities at the project site. Specifically, the HASP shall address the following:

- subsurface investigation (i.e., direct-push soil gas screening), as necessary;
- excavation, stockpiling and grading of clean soil cover material across the project site; and
- groundwater and storm water management, as necessary.

Consistent with the project's finalized Site Management Plan, a template HASP shall be provided to each contractor. The template HASP establishes guidelines and general requirements that shall be adopted by contractors for all workers to follow and attempts to identify all potential hazards at the project site. As described in Section 4.7 of the project's current Site Management Plan (Roux 2018: 18), each contractor shall be provided procedures to follow in the event previously unidentified environmental issues, such as suspected contamination or an unknown tank are encountered during site development activities. The template HASP serves as a general template for all contractors performing intrusive work which may expose workers to impacted soil vapor or groundwater at the project site following development activities.

Each contractor who will be encountering groundwater or potentially affected soil or structures (described in Sections 4.6 and 4.7 of the project's current Site Management Plan) shall be required to prepare their own HASP that shall comply with 29 CFR 1910.120 OSHA HAZWOPER and the contractor's own health and safety SOPs. Contractors are responsible for communicating the hazards associated with work at the project site and providing the minimum health and safety requirements as outlined in the contractor HASP. Each contractor's HASP shall include an independent evaluation of the project site hazards and mitigative actions before the commencement of field activities at the project site.

Mitigation Measure 4.6-2b: Vapor Intrusion Mitigation

Consistent with the final Site Management Plan, project improvement plans will identify the location and design of the Vapor Intrusion Mitigation Systems (VIM System) under all residential structures at the project site. Consistent with the SFRWQCB October 2014 Interim Framework for Assessment of Vapor Intrusion at TCE-Contaminated Sites in the San Francisco Bay Area (SFRWQCB 2014), the VIM System shall include the following components (unless otherwise identified in the final Site Management Plan):

- Vapor Barrier: The vapor barrier system shall consist of a spray-applied geomembrane (e.g., Liquid Boot®, EPRO System III, or equivalent) covered with a cushion geotextile. The vapor barrier shall have a minimum thickness of 60 mils (1 mil = 10-3 inch) and will be installed below the building slab and above the passive mitigation system. The purpose of the cushion geotextile is to protect the spray-applied geomembrane before and following concrete slab installation activities.

- Passive Vapor Mitigation System: The vapor venting system shall consist of 4-inch solid and perforated Schedule 40 polyvinyl chloride (PVC) piping to passively vent soil gas from beneath the building slab to 4-inch riser pipes. Each of the riser pipes shall be connected to a PVC vent cap that will passively vent soil gas to the atmosphere. The passive mitigation system shall be installed directly below the vapor barrier system. The 4-inch diameter PVC piping network shall be embedded within a 4-inch thick layer of rock.

- In-situ, Permanent Soil Vapor Barrier: The in-situ soil vapor barrier shall consist of a 2-foot thick layer of soil mixed with cement. This impermeable layer shall be above the water table from 5 to 7 feet below ground surface (bgs). The in-situ barrier shall be located under townhouse buildings that are located above soil vapor samples collected during subsurface investigations that reported the highest concentrations of PCE and TCE.

Mitigation Measure 4.6-2c: Stormwater Pollution Prevention

To minimize contamination of stormwater during construction, including VOC-impacted contamination, construction activities that involve excavation shall be managed in accordance with the Construction Site Storm Water Pollution Prevention Plan (SWPPP) and the final Site Management Plan. The Construction

SWPPP shall be prepared and implemented by the project General Contractor. If stormwater encounters contaminated material in excavations, it cannot be discharged to the storm drain without proper sampling and characterization. Groundwater and potentially impacted storm water in excavations shall be sampled within the excavations. If the water must be pumped out before characterization, then it shall be placed in a holding tank pending the results of laboratory analyses.

Mitigation Measure 4.6-2d: Construction Dewatering Management

Before site occupancy for residential purposes, a Deed Restriction shall be placed on parcels to prohibit extraction and use of site groundwater. However, dewatering excavations may be required during construction for subsurface improvements, such as utility lines. The depth to groundwater at the project site varies from 7 feet bgs to 12 feet bgs. Groundwater at the project site should be assumed to have impacts from PCE, TCE and associated VOCs. As a condition of approval, groundwater cannot be reused on-site or discharged to the storm drain or sanitary sewer without adequate characterization, possible treatment, and permitting as described below:

- Discharge to the sanitary sewer system shall require adequate analytical data and obtaining a sanitary discharge permit from the City of Sunnyvale;
- Discharge to the storm drain system shall require adequate analytical data and coverage under and compliance with a NPDES Permit from the SFRWQCB;
- Reuse on-site (e.g. for dust control purposes) shall require obtaining adequate analytical data and meeting discharge requirements agreed to by the RWQCB; and
- Off-site recycling shall require adequate analytical data and obtaining approval from an off-site water recycling facility.

The primary chemicals of concern at the project site are VOCs; thus, groundwater and potentially impacted stormwater shall be sampled and analyzed for VOCs, by EPA Method 8260, before off-site discharge, conveyance or on-site reuse.

Significance after Mitigation

With implementation of the above mitigation measures, as identified in the project's Site Management Plan, and adherence to existing hazardous materials regulations that protect public health, the potential for soil and groundwater contamination would be reduced to a less-than-significant level. Implementation of these mitigation measures would also be consistent with General Plan Safety and Noise Element policies SN-1.1 and SN-1.5 regarding the consideration of hazards. (DEIR pages 4.6-14 through 4.6-18)

Finding on Proposed Mitigation

The City finds that, with implementation of the above mitigation measures, changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen hazard and contamination impacts identified in the FEIR.

NOISE AND VIBRATION

Impact 4.8-2: Exposure to Construction Vibration

Site preparation and grading activities would likely require the use of construction equipment that would generate ground vibration. Based on the anticipated distance to nearby sensitive land uses, construction activity could result in ground vibration levels which could cause annoyance to nearby sensitive receptors. Therefore, this impact would be potentially significant.

Construction activity can generate varying degrees of ground vibrations, depending on the specific construction phases and types of equipment used during these construction phases. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. At the lowest levels, ground vibrations form construction activity can result in a low rumbling and be imperceptible. At moderate and high levels, construction vibration can cause sleep disturbance in places where people normally sleep or annoyance in buildings that are primarily used for daytime functions and sleeping. Ground vibration form construction activity also has the ability to cause architectural damage to buildings at certain distance and activities which generate certain levels of PPV.

As described above, the proposed project would result in construction activity and would require the use of various types of onsite heavy-duty construction equipment. Based on the anticipated types of construction equipment used in the project, DEIR Table 4.8-12 shows the maximum levels of ground vibration that would be generated during construction of the project. As shown in DEIR Table 4.8-12, the maximum ground vibration level generated by an impact pile driver is 1.518 in/sec PPV and 112 Vdb at 25 feet. The location of the closest multi-family residential units on the project site in which an impact pile driver would potentially be used during project construction is 160 feet west of the closest off-site buildings. Based on the criteria used for this analysis (i.e., an exceedance of Caltrans's recommended level of 0.2 inch/second PPV with respect to the prevention of structural damage for normal buildings or the FTA maximum acceptable level of 80 VdB with respect to human response for residential uses), The use of an impact pile driver at a distance of 160 feet from these buildings would result in 0.094 inch/second PPV. Other buildings surrounding the project site are located approximately 190 feet from locations on the project site that would use an impact pile driver with the closest off-site buildings being 160 feet. As a result, the threshold level of 0.2 inch/second PPV with respect to the prevention of structural damage for normal buildings would not be exceeded for any of the locations during construction that may use an impact pile driver.

Based on the attenuation rate for construction-related ground vibration levels, use of an impact pile driver would exceed the FTA maximum acceptable level of 80 VdB if used within 293 feet of a noise sensitive receptor. The use of an impact pile driver during project construction could potentially occur within 160 feet of the nearest closest off-site multi-family units and at lodging located 170 feet to the east of the project site. At this distance, use of an impact pile driver would result in construction-related ground vibration levels of 87.8 VdB and would exceed the FTA maximum acceptable level of 80 VdB with respect to human response for residential uses. As a result, potential use of an impact pile driver during project construction could result in human disturbance to adjacent sensitive receptors. Therefore, project construction activity could result in the exposure of an adjacent sensitive receptor to excessive vibration levels. This impact would be potentially significant.

Mitigation Measure 4.8-2: Construction Vibration Reduction Measures

- To prevent disturbance to sensitive land uses, minimum setback requirements for different types of ground vibration producing activities (e.g., pile driving) shall be established based on the proposed pile-driving activities and locations, once determined. Established setback requirements (i.e., 293 feet) can be breached only if a project-specific, site-specific, technically adequate ground vibration study indicates that the buildings would not be exposed to ground vibration levels in excess of 80 VdB, and ground vibration measurements performed during the construction activity confirm that the buildings are not being exposed to levels in excess of 80 VdB.

- All vibration-inducing activity within the distance parameters described above shall be monitored and documented for ground vibration noise and vibration noise levels at the nearest sensitive land use and associated recorded data submitted to the City of Sunnyvale so as not to exceed the recommended FTA and Caltrans levels.

- Alternatives to traditional pile driving (e.g., sonic pile driving, jetting, cast-in-place or auger cast piles, non-displacement piles, pile cushioning, torque or hydraulic piles) shall be considered and implemented where feasible to reduce vibration levels.

- Limit pile-driving activities to the daytime hours between 7:00 a.m. and 6:00 p.m. Monday through Friday and between 8:00 a.m. and 5:00 p.m. Saturday.
- Operate all vibration inducing impact equipment as far away from vibration-sensitive sites as reasonably possible from nearby structures.
- Phase pile-driving and high-impact activities so as not to occur simultaneously with other construction activities, to the extent feasible. The total vibration level produced could be significantly less when each vibration source is operated at separate times.
- Noise and vibration reducing pile-driving techniques shall be employed during construction and monitored to ensure no damage to nearby structures occurs (i.e., vibrations above peak particle velocity (PPVs) of 0.25 inches per second at nearby structures does not occur). These measures can also be used to reduce VdB levels. These techniques shall include:
  - Installing intake and exhaust mufflers on pile-driving equipment;
  - Vibrating piles into place when feasible, and installing shrouds around the pile- driving hammer where feasible;
  - Implementing "quiet" pile-driving technology (such as pre-drilling of piles and the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;
  - Using cushion blocks to dampen impact noise, if feasible based on soil conditions. Cushion blocks are blocks of material that are used with impact hammer pile drivers. They consist of blocks of material placed atop a piling during installation to minimize noise generated when driving the pile. Materials typically used for cushion blocks include wood, nylon and micarta (a composite material); and
  - At least 48 hours prior to pile-driving activities, notifying building owners and occupants within 600 feet of the project area of the dates, hours, and expected duration of such activities.

Significance after Mitigation

Implementation of Mitigation Measure 4.8-2 would reduce potential vibration impacts by requiring construction vibration standards, minimum setbacks to sensitive land uses, impact monitoring during pile driving activity, use of alternative equipment when appropriate, and restrictions on hours of use to avoid annoyance to sensitive receptors. Through Mitigation Measure 4.8-2, potential impacts on sensitive land uses from the use of impact pile drivers would be avoided and this impact would be reduced to less than significant. (DEIR pages 4.8-17 through 4.8-19)

Finding on Proposed Mitigation

The City finds that, with implementation of the above mitigation measures, changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen construction vibration impacts identified in the FEIR.

TRAFFIC AND CIRCULATION

Impact 4.11-6: Impacts on Transit Facilities

Project implementation would result in an increase in vehicle trips generated from the project site. Under Existing Plus Project conditions, transit vehicles operating along transit routes in the project area are expected to use the shared right-of-way with other motorists. Project-generated increases in traffic volumes along these roadways would result in a slight delay in transit operations, However, these delays would not

adversely affect transit operations. The project site currently includes a shuttle stop as part of the Duane Avenue Caltrain shuttle service. Project implementation would disrupt service to this shuttle stop and would affect riders who currently use this shuttle stop location. This impact would be potentially significant.

The Duane Avenue Caltrain shuttle currently makes a stop within the existing 1 AMD Place properties. Project implementation would disrupt this transit stop as part of the Caltrain shuttle service, which would have to be relocated. Therefore, project implementation could affect operations of the Duane Avenue Caltrain shuttle service. This impact would be potentially significant.

Mitigation Measures 4.11-6: Relocate Duane Avenue Caltrain Shuttle Stop at Project Site

The applicant shall work with the City of Sunnyvale and Caltrain to research and identify a new location for the current Duane Avenue Caltrain shuttle stop, which currently is located on the project site. The newly identified shuttle stop location should adequately serve existing riders who use the current shuttle stop by being relocated to an equally convenient location that includes the same amenities as the current shuttle stop. The shuttle stop shall be relocated prior to the issuance of building permits.

Significance after Mitigation

Project implementation would require the relocation of one shuttle stop as part of the Duane Avenue Caltrain shuttle service. Implementation of Mitigation Measure 4.11-6 includes the relocation of the shuttle stop to a new location that provides an equal level of convenience and access to riders who currently use the existing stop on the project site. Implementation of Mitigation Measure 4.11-6 would ensure that transit services as part of the Duane Avenue Caltrain shuttle service are preserved to the satisfaction of the City of Sunnyvale and Caltrain prior to disruption of service. Therefore, this impact would be less than significant with mitigation. (DEIR pages 4.11-42 and 4.11-43)

Finding on Proposed Mitigation

The City finds that, with implementation of the above mitigation, changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen transit impacts identified in the FEIR.

Impact 4.11-8: Construction-related impacts on traffic

Project construction may require restricting or redirecting pedestrian, bicycle, and vehicular movements at locations around the site to accommodate construction, staging, and modifications to existing infrastructure. Such restrictions could include lane closures, lane narrowing, and detours. For these reasons, construction traffic impacts would be potentially significant.

Construction may lead to disruptions to the transportation network near the site, including the possibility of temporary lane closures, street closures, sidewalk closures, and bikeway closures. Heavy vehicles would access the site and may need to be staged for construction. Construction staging for materials and equipment would occur on the project site. A construction management plan would be required by the City of Sunnyvale, and the City of Sunnyvale would determine the construction truck routes. The duration of construction, number of trucks, truck routing, number of employees, extent of truck idling, number and duration of lane closures, and details regarding a variety of other construction-related activities are not fully known at this time. Construction would be localized and temporary; however, these activities could result in degraded roadway operating conditions. Therefore, this impact would be potentially significant.

Mitigation Measure 4.11-8: Prepare and Implement Temporary Traffic Control Plan

Before building permits are issued and construction begins, the construction contractor shall prepare a temporary traffic control (TTC) plan to the satisfaction of the City of Sunnyvale Division of Transportation and Traffic and subject to review by all affected agencies.

The City of Sunnyvale suggests that the latest edition of the CA MUTCD, Part 6: Temporary Traffic Control, be referred to for guidance on preparing a TTC plan. The TTC plan shall include all information required on the City of Sunnyvale TTC Checklist and shall conform to the City's TTC Guidelines. At a minimum, the plan shall:

- provide a vicinity map that shows all the streets in the work zone properly labeled, along with the posted speed limits and a north arrow;
- identify the path of construction vehicles traveling to the site;
- describe the estimated highest number of vehicle trips generated during project construction activities;
- identify the existing roadway lane and bike lane configurations and sidewalks, including dimensions, where applicable;
- describe the proposed work zone;
- describe anticipated detours and/or lane closures (for pedestrians, bicyclists, and vehicles);
- describe no-parking zones and other parking restrictions;
- describe appropriate tapers and lengths, signs, and spacing;
- identify appropriate channelization devices and spacing;
- describe the buffers;
- identify work hours and work days;
- provide the dimensions of the elements and requirements listed above in accordance with CA MUTCD Part 6 and the City of Sunnyvale's Standard Operating Procedure (SOP) for bike lane closures;
- identify the proposed speed limit changes if applicable;
- describe the bus stops and signalized and nonsignalized intersections that will affected by the work;
- show the plan to address pedestrian, bicycle, and Americans with Disabilities Act requirements throughout the work zone in accordance with CA MUTCD Part 6 and the City of Sunnyvale's SOP for bike lane closures;
- provide details on trucks, including the number and size of trucks involved with construction per day, expected arrival and departure times, and truck circulation patterns;
- identify all the staging areas on the project site and duration of each stage of construction for the project and any related improvements; and
- ensure that the contractor has obtained and read the City of Sunnyvale's TTC Guidelines and City of Sunnyvale's SOP for bike lane closures.

Significance after Mitigation

The implementation of Mitigation Measure 4.11-8 would require the construction contractor to prepare and implement a TTC that is consistent with CA MUTCD, Part 6: Temporary Traffic Control and City of Sunnyvale TTC guidelines and that meets with the approval of the City of Sunnyvale Division of Transportation and Traffic. Thus, Mitigation Measure 4.11-8 would reduce the temporary impact to the degree feasible.

Additionally, construction traffic impacts would be localized and temporary. For these reasons, construction traffic impacts of the project would be less than significant with mitigation. (DEIR pages 4.11-44 and 4.11-45 and FEIR pages 3-6 and 3-7)

Finding on Proposed Mitigation

The City finds that, with implementation of the above mitigation measures, changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen construction impacts identified in the FEIR.

5.1.4 Findings Regarding Environmental Impacts not Fully Mitigated to a Level of Less than Significant

The following significant and potentially significant environmental impacts of the project are unavoidable and cannot be mitigated in a manner that would substantially lessen the environmental impact.

NOISE AND VIBRATION

Impact 4.8-1: Short-term construction noise levels

Project construction activities would involve the use of heavy-duty construction equipment. Construction noise impacts would occur over a four-year period for off-site sensitive receptors with the highest levels of noise being generated in Phase 1 of construction. Construction activities would be conducted in accordance with City of Sunnyvale Municipal Code Section 16.08.030, which exempts construction activity from the City's noise standards during daytime hours. However, construction activities may still result in a substantial increase in ambient noise levels, especially to off-site residences during Phase 1 of construction. This impact would be significant.

Project implementation would involve construction activity to occur over a four-year period in four phases between 2018 and 2022. Construction noise levels in the vicinity of the project site would fluctuate depending on the particular type, number, and duration of usage for the varying equipment. The effects of construction noise largely depend on the type of construction activities occurring on any given day, noise levels generated by those activities, distances to noise-sensitive receptors, and the existing ambient noise environment in the receptor's vicinity. Construction generally occurs in several discrete stages with varying equipment type, quantity, and intensity. These variations in the operational characteristics of the equipment change the effect they have on the noise environment of the project site and on the surrounding community for the duration of the construction process.

Based on these assumptions, construction noise activity modeling results show that typical construction noise levels could be as high as 89.6 L_{eq} dB and 93.3 L_{max} dB at 60 feet and 85.1 L_{eq} dB and 88.9 L_{max} dB at 100 feet away. Construction activity that could include an impact pile driver could reach 91 L_{eq} dB and 94 L_{max} at 60 feet and 86.6 L_{eq} dB and 89.5 L_{max} dB at 100 feet. Construction activity which generates these levels of noise would only occur during Phase 1 of project construction. Other, subsequent phases would also require the use of heavy-duty construction equipment; however, it is anticipated that subsequent phases would be less intense and not generate as much noise compared to Phase 1. However, as discussed in the Regulatory Settings section, the City of Sunnyvale Municipal Code Section 16.08.030. "Hours of construction—Time and noise limitations" states that construction activity is permitted between the hours of 7:00 a.m. and 6:00 p.m. on weekdays and between 8:00 a.m. and 5:00 p.m. on Saturday. As discussed in the Project Description, activities under each project construction phase would occur between 7:00 a.m. and 6:00 p.m., on Monday through Friday, and 8:00 a.m. to 5:00 p.m. Saturdays and no work would occur on Sundays or holidays. Therefore, construction activity would remain exempt from the City's Exterior Noise Compatibility Standards

shown in DEIR Table 4.8-3 and noise levels during project construction would not disturb residential sensitive receptors during evening hours and would not cause sleep disturbance during nighttime hours.

The nearest noise-sensitive receptors that could be adversely affected by construction noise are west of the project site and the potential extent of construction noise impact is shown in DEIR Table 4.8-11. These values represent a conservative assessment because the modeling assumes that five of the highest noise-generating pieces of equipment operate simultaneously near each other in close proximity to the boundaries of the project site. The closest receptors are approximately 60 feet to east of the project site.

According to Municipal Code Chapter 16.08, the legal hours of construction are between 7:00 a.m. and 6:00 p.m. Monday through Friday and between 8:00 a.m. and 5:00 p.m. on Saturdays. During these hours, nearby residents may experience exterior noise levels of up to 92.7 dB, depending on the relative location of construction equipment to the residences. At these levels, on-site residents would experience periodic disruption of their day-to-day activities, depending on on-site construction activities. Construction activities are anticipated to result in a substantial temporary increase in noise levels that would exceed the significance threshold of 60 L_{eq} during daytime hours at any point on adjacent residentially zoned property. Therefore, construction-related noise impacts are considered significant.

Mitigation Measure 4.8-1: Implement Construction-Noise Reduction Measures

To minimize noise levels during construction activities, the construction contractors shall comply with the following measures during all construction work that will be identified in project improvement plans:

- All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.

- Noise-reducing enclosures and techniques shall be used around stationary noise-generating equipment (e.g., concrete mixers, generators, compressors).

- Where available and feasible, construction equipment with back-up alarms shall be equipped with either audible self-adjusting backup alarms or alarms that only sound when an object is detected. Self-adjusting backup alarms shall automatically adjust to 5 dB over the surrounding background levels. All non-self-adjusting backup alarms shall be set to the lowest setting required to be audible above the surrounding noise levels.

- Designate a disturbance coordinator and post that person's telephone number conspicuously around the construction site and provide to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem.

- Install temporary noise curtains as close as feasible to noise-generating activity and that blocks the direct line of sight between the noise source and the nearest noise-sensitive receptor(s). Temporary noise curtains shall consist of durable, flexible composite material featuring a noise barrier layer bounded to sound-absorptive material on one side. The noise barrier layer shall consist of rugged, impervious, material with a surface weight of at least one pound per square foot.

Significance after Mitigation

Implementation of Mitigation Measure 4.8-1 would reduce construction noise for the entire construction area during all phases of construction. Mitigation Measure 4.8-1 would reduce construction noise levels at surrounding sensitive receptors by ensuring proper equipment use; locating noise-generating equipment away from sensitive land uses; requiring a temporary solid barrier around the construct activity and staging area; and requiring the use of enclosures, shields, and noise curtains (noise curtains typically can reduce noise by up to 10 dB [EPA 1971]). Implementation of this mitigation would be consistent with General Plan Policy SN-8.9 that requires consideration of noise-minimizing techniques which block the path of noise and

insulate people from noise. However, even with the implementation of Mitigation Measure 4.8-1, construction noise levels are likely still exceed 60 L_{eq} at the nearest sensitive receptors during daytime hours. this impact would remain significant and unavoidable. (DEIR pages 4.8-14 through 4.8-17)

Finding on Proposed Mitigation

The City finds that, with implementation of the above mitigation measure, changes or alterations have been required in, or incorporated into, the project that would lessen the significant construction noise impact identified in the FEIR. Even with implementation of Mitigation Measure 4.8-1 above, the impact would remain significant and unavoidable because construction noise levels are likely still exceed 60 L_{eq} at the nearest sensitive receptors during daytime hours. Therefore, City finds that specific economic, legal, social, technological, or other considerations make this mitigation infeasible to fully reduce the impact to a less-than-significant level.

TRAFFIC AND CIRCULATION

Impact 4.11-1: Impacts on Intersection Operating Conditions

Under Existing Plus Project conditions, all intersections would function at acceptable levels during the a.m. and p.m. peak hours; therefore, the thresholds of significance for intersection operating conditions would not be exceeded. However, with the addition of project-generated traffic to the roadway network under Background Plus Project conditions the critical delay would increase by more than 4 seconds and the critical V/C by more than 0.01 at the intersection of Lawrence Expressway/Duane Avenue-Oakmead Parkway. Thus, this impact would be significant.

As shown in DEIR Table 4.11-12, the following intersection would operate unacceptably under Background Plus Project conditions, exceeding the thresholds of significance for intersection operating conditions:

- #27 –Lawrence Expressway/Duane Avenue-Oakmead Parkway (a.m. peak)—This intersection operates at an unacceptable LOS (F) with a delay of 86.5 seconds under Background conditions without the project. Project-generated traffic would increase the critical delay by more than 4 seconds and the critical V/C by more than 0.01.

Although the intersection operated at an unacceptable LOS (F) with a delay of 86.5 seconds without the project, the project increases the critical delay by more than 4 seconds and the critical V/C by more than 0.01 exceeding thresholds. Therefore, this impact would be significant.

Mitigation Measure 4.11-1: Make Improvements to Intersection at Lawrence Expressway/Duane Avenue-Oakmead Parkway

Santa Clara County has jurisdiction over the Lawrence Expressway/Duane Avenue-Oakmead intersection. A third left lane will be added to the eastbound approach at the intersection of Lawrence Expressway/Duane Avenue-Oakmead Parkway including one through lane, and one right-turn lane. Signage and pavement striping shall be provided to indicate that the inner first left-turn lane shall be designated for northbound Lawrence Expressway traffic, the middle left-turn lane shall be designated for northbound U.S. 101 traffic, and the outer left-turn lane shall be designated for southbound U.S. 101 traffic. This improvement shall be accomplished by re-striping the Lawrence Expressway/Duane Avenue-Oakmead Parkway intersection to add a third left turn lane, but not undertaking any other physical improvements to the intersection. Additional improvements shown on the Lawrence Expressway/E Duane Avenue to US-101 Concept Plan provided by the County of Santa Clara Roads and Airports Department on December 17, 2018, such as modifications to the corners of the intersection, restriping of crosswalks, the northbound lane alignments, the relocation of pedestrian crossing at the U.S. 101 southbound on-ramp, and the extension of the barrier curb, are shown as a concept plan only. These improvements have not been adopted yet and hence, the project is not responsible for these additional improvements.

Additionally, the signal operation and timing at the intersection at Lawrence Expressway/Duane Avenue-Oakmead Parkway shall be adjusted to accommodate the third lane. The project applicant and City of Sunnyvale shall coordinate and agree with the County on the timing and implementation of the improvements prior to issuance of building permits.

Significance after Mitigation

This intersection is under the jurisdiction of Santa Clara County; therefore, Santa Clara County concurrence and approval are required for the implementation of this mitigation measure. The project applicant and City of Sunnyvale shall coordinate with Santa Clara County on implementation of the improvements identified in Mitigation Measure 4.11-1. However, because the final approval of the proposed intersection improvements is outside the jurisdiction and control of the City of Sunnyvale, there is no guarantee that this mitigation measure would be implemented. Therefore, this impact would be significant and unavoidable. (DEIR pages 4.11-32 through 4.11-37 and FEIR page 3-6)

Finding on Proposed Mitigation

The City finds that, with implementation of the above mitigation measure, changes or alterations have been required in, or incorporated into, the project that would lessen the impact at the Lawrence Expressway/ Duane Avenue-Oakmead Parkway intersection identified in the FEIR. Even with implementation of Mitigation Measure 4.11-1 above, the impact would remain significant and unavoidable because intersection improvements are outside the jurisdiction and control of the City of Sunnyvale, and there is no guarantee that this mitigation measure would be implemented. Therefore, City finds that specific economic, legal, social, technological, or other considerations make this mitigation infeasible to fully reduce the impact to a less-than-significant level.

Impact 4.11-4: Impacts on Freeway Ramp Queuing

Traffic generated by the project would result in the of lengthening queues under Existing Plus Project conditions along project study area freeway ramps such that significance thresholds for queuing would be exceeded. Thus, this impact would be significant.

DEIR Table 4.11-15 summarizes the anticipated maximum queue during the a.m. and p.m. peak period under Existing Plus Project conditions. The Existing Plus Project on-ramp queue for each on-ramp was calculated using the number of project trips added to each on-ramp in the peak hour. The project would add vehicle trips to the following on-ramps with ramp metering:

- northbound U.S. 101 Lawrence Expressway loop on-ramp (a.m. peak); and
- southbound U.S. 101 Lawrence Expressway diagonal on-ramp (p.m. peak).

At the southbound U.S. 101 Lawrence Expressway diagonal on-ramp during the p.m. peak, the project would add 25 vehicles under Existing Plus Project conditions. The southbound U.S. 101 Lawrence Expressway diagonal on-ramp during the p.m. peak metering rate observed at this on-ramp was 12 seconds per vehicle per lane, which is much more frequent than when a project vehicle would arrive. Since the metering rate or departure rate (one vehicle every 12 seconds) is much more frequent than the arrival rate (one vehicle every 144 seconds), the queue should not build up (most of the time, either no vehicle or one vehicle was observed in the queue for at least one of the two mixed-flow lanes). Therefore, the project would likely add one vehicle to an empty on-ramp or to a one-vehicle queue, resulting in no on-ramp queuing deficiencies anticipated at this location.

At the northbound U.S. 101 Lawrence Expressway loop on-ramp during the a.m. peak, the project would add 21 vehicles under Existing Plus Project conditions. Since the existing queue never fully dissipated during the peak hour at this location, the 21 project vehicles would add to the maximum queue. The maximum existing queue already exceeds the ramp storage; therefore, the project would exacerbate this condition, and this impact would be significant.

Mitigation Measure 4.11-4: Increase Metering Rate at U.S. 101 Lawrence Expressway Diagonal On-Ramp

The metering rates shall be increased to one vehicle every 4 seconds to ensure that the maximum queue does not exceed the ramp storage. Prior to the issuance of a building permit, the applicant shall request that the City and Caltrans implement this metering rate change.

Significance after Mitigation

The project applicant and the City of Sunnyvale shall coordinate with Caltrans and VTA on implementation of the improvement identified in Mitigation Measure 4.11-4. However, because the final approval of the proposed modification to ramp metering is outside the jurisdiction and control of the City of Sunnyvale, there is no guarantee that this mitigation measure would be implemented. Therefore, this impact would be significant and unavoidable.

Finding on Proposed Mitigation

The City finds that, with implementation of the above mitigation measure, changes or alterations have been required in, or incorporated into, the project that would lessen the impact at the U.S. 101 Lawrence Expressway Diagonal On-Ramp identified in the FEIR. Even with implementation of Mitigation Measure 4.11-4 above, the impact would remain significant and unavoidable because intersection improvements is outside the jurisdiction and control of the City of Sunnyvale, there is no guarantee that this mitigation measure would be implemented. Therefore, City finds that specific economic, legal, social, technological, or other considerations make this mitigation infeasible to fully reduce the impact to a less-than-significant level.

5.1.5 Findings Related to Cumulative Impacts

The following cumulatively significant and potentially significant environmental impacts of the project are unavoidable and cannot be mitigated in a manner that would substantially lessen the environmental impact. The City finds that the project's environmental, economic, social, and other benefits outweigh and override the significant adverse cumulative impacts related to change in the environment. The City hereby elects to approve the project due to overriding considerations as set forth below in Section 7, "Statement of Overriding Considerations."

Please refer to Chapter 6, "Cumulative Impacts," of the EIR for a comprehensive discussion of cumulative impacts.

TRAFFIC AND CIRCULATION

Impact 6-13: Cumulative Effect on Traffic

Cumulative Plus Project conditions were analyzed at the study intersections and the results of the analysis are presented in DEIR Table 6-4.

Under Cumulative Plus Project conditions, project-generated traffic would result in operations being degraded to unacceptable levels at the following intersections:

- #3 – Fair Oaks Avenue / Northbound US 101 Ramps (p.m. peak): Intersection operated unacceptably without the project, and project-generated traffic would result in increased critical movement delay of more than four seconds and an increase in critical V/C of more than 0.01.
- #6 – Fair Oaks Avenue / Duane Avenue (a.m. and p.m. peak): Intersection operated unacceptably without project, and project-generated traffic would result in increased critical movement delay of more than four seconds and an increase in critical V/C of more than 0.01.

- #7 – Fair Oaks Avenue / Wolfe Road (a.m. and p.m. peak): Intersection operated unacceptably without project, and project-generated traffic would result in increased critical movement delay of more than four seconds and an increase in critical V/C of more than 0.01.

- #14 – Duane Avenue / Duane Court (a.m. peak): Satisfies CA MUTCD Traffic Signal Warrant #3 – Peak Hour Volume Warrant.

- #26 – Lawrence Expressway / US 101 Southbound Ramps – Oakmead Parkway (p.m. peak): Intersection operated unacceptably without project, and project-generated traffic would result in increased critical movement delay of more than four seconds and an increase in critical V/C of more than 0.01.

- #27 – Lawrence Expressway / Duane Avenue–Oakmead Parkway (a.m. and p.m. peak): Intersection operated unacceptably without project, and project-generated traffic would result in increased critical movement delay of more than four seconds and an increase in critical V/C of more than 0.01

Therefore, the project's impact would be cumulatively considerable and significant.

The project is consistent with the land use development assumptions that were used in the Land Use and Transportation Element (LUTE) Update that was adopted in 2017. The cumulative traffic impacts under full buildout of the City under the LUTE Update was evaluated in the LUTE Update EIR (State Clearinghouse No. 2012032003). This included cumulative significant traffic impacts to state highway facilities. This project would not result in any new cumulative traffic impacts to state highway facilities that were not already addressed in the LUTE Update EIR. Thus, no further cumulative traffic impact analysis of state highways is provided in this EIR.

Mitigation Measure 6-13a: Signal Construction at Intersection of Duane Avenue and Duane Court

The intersection of Duane Avenue and Duane Court satisfies the peak hour signal warrant under Cumulative and Cumulative Plus Project conditions but does not meet warrants in any preceding analysis scenario, including Existing conditions. Thus, the project shall pay a fair share towards construction of the signal.

Mitigation Measure 6-13b: Contribution to the City's Intelligent Transportation System Strategies and Projects and Lawrence Expressway ITS/Signal System Countywide Project

Under Cumulative Plus Project conditions, the following intersections where impacts occur include constraints to the right-of-way that would require acquisition of private property to construct any physical improvements:

- #3 – Fair Oaks Avenue / Northbound US 101 Ramps
- #6 – Fair Oaks Avenue / Duane Avenue
- #7 – Fair Oaks Avenue / Wolfe Road
- #26 – Lawrence Expressway / US 101 Southbound Ramps – Oakmead Parkway

Therefore, physical improvements to these intersections that would mitigate the operational impacts under Cumulative Plus Project conditions are not feasible. LOS impacts at these study intersections could be improved through implementation of the City's Intelligent Transportation System (ITS) strategies and projects and the Lawrence Expressway ITS/Signal System Countywide project. Therefore, the project shall pay a fair share towards the ITS projects through the City's TIF and participation in the Lawrence Expressway ITS/Signal System Countywide project.

Significance after Mitigation

Implementation of Mitigation Measures 6-13a, 6-13b, and mitigation identified for project impacts identified above would serve to reduce the cumulative impacts at the intersections through fair-share contribution towards the installation of a traffic signal at the intersection of Duane Avenue and Duane Court, the City's ITS projects where right-of-way constraints are limiting the ability to construct roadway improvements, and the proposed improvements at the intersection of Lawrence Expressway and Duane Avenue-Oakmead Parkway

identified in Mitigation Measure 4.11-1. However, the timing and implementation of these improvements are not known, the intersection of Lawrence Expressway and Duane Avenue-Oakmead Parkway is under the jurisdiction of Santa Clara County, and it cannot be assured that implementation of the mitigation measures would reduce impacts at all of these intersections to less-than-significant levels. Additionally, there are no current ITS projects identified that would mitigate impacts at the intersections where ITS projects are identified as mitigation. Therefore, this impact be cumulatively considerable and significant and unavoidable. (DEIR pages 6-17 through 6-22 and FEIR page 3-8)

Finding on Cumulative Impact

The City finds that, with implementation of the above mitigation measures, changes or alterations have been required in, or incorporated into, the project that would lessen the cumulative traffic impacts identified in the FEIR. However, the timing and implementation of these improvements are not known, the intersection of Lawrence Expressway and Duane Avenue-Oakmead Parkway is under the jurisdiction of Santa Clara County, and it cannot be assured that implementation of the mitigation measures would reduce impacts at all of these intersections to less-than-significant levels. Additionally, there are no current ITS projects identified that would mitigate impacts at the intersections where ITS projects are identified as mitigation., the impact would remain significant and unavoidable because intersection improvements is outside the jurisdiction and control of the City of Sunnyvale, there is no guarantee that this mitigation measure would be implemented. Therefore, City finds that specific economic, legal, social, technological, or other considerations make this mitigation infeasible to fully reduce the impact to a less-than-significant level.

5.2 MITIGATION MONITORING

A MMRP was prepared for the project and approved by the City (see Public Resources Code, Section 21081.6, subd. [a)[1]; CEQA Guidelines Section 15097). The City will use the MMRP to track compliance with project mitigation measures. The MMRP will remain available for public review during the compliance period.

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENT EFFECTS

The State CEQA Guidelines (Section 15126) require a discussion of the significant irreversible environmental changes which would be involved in a project should it be implemented. The irreversible and irretrievable commitment of resources is the permanent loss of resources for future or alternative purposes. Irreversible and irretrievable resources are those that cannot be recovered or recycled or those that are consumed or reduced to unrecoverable forms.

The project would result in the irreversible and irretrievable commitment of energy and material resources during construction and operation, including the following:

- construction materials, including such resources as soil, rocks, wood, concrete, glass, roof shingles, and steel;
- land area committed to new project facilities;
- water supply for project operation; and
- energy expended in the form of electricity, gasoline, diesel fuel, and oil for equipment and transportation vehicles that would be needed for project construction and operation.

The City finds that the project's use of these nonrenewable resources is expected to account for a minimal portion of the region's resources and would not affect the availability of these resources for other needs within the region. Construction activities would not result in inefficient use of energy or natural resources.

Long-term project operation would not result in substantial long-term consumption of energy and natural resources. (DEIR page 6-28)

5.4 GROWTH INDUCEMENT

Implementation of the project would foster short-term and long-term economic growth within the City as a result of new construction and increased residential units. Construction would likely occur over a four-year timeframe (completion by 2022). As described in DEIR Section 1.4.6, "Population and Housing," a large number of local workers commute in from other areas within the county. Therefore, it would be reasonable to expect that construction workers for the project would not relocate to the City for a temporary job. During operation, it is anticipated that approximately 2,895 new residents would occupy the on-site residences. This development and population has been assumed and planned for under the General Plan LUTE. (DEIR page 6-27)

DIRECT GROWTH-INDUCING IMPACTS ASSOCIATED WITH REMOVAL OF BARRIERS TO POPULATION GROWTH

The project consists of an infill site that is surrounded on all sides with urban development. Implementation of the project would not remove barriers to population growth because the project is consistent with existing land use designations and planned growth described in the City's General Plan LUTE Update. The project would eliminate an obstacle to growth through the extension and provision of utilities and services for residential uses on a site that was previously used for office uses, including extension of water service and pipelines, wastewater collection systems, storm drainage pipelines, and roadways.

As described in DEIR Section 4.9, "Public Services," the project was accounted for within the EIR for the City's LUTE Update. Project implementation would not require new water or wastewater treatment infrastructure or new or expanded water or wastewater entitlements to serve development under the LUTE Update, or result in wastewater that would exceed treatment requirements of the Regional Water Quality Control Board, beyond that which was analyzed in the LUTE Update EIR for City buildout. The City finds that the project would directly connect to existing utility infrastructure (water, wastewater, natural gas, and electricity) and would not facilitate additional development through expansion of regional facilities (e.g., water treatment plants, wastewater treatment plants, electrical substations) beyond that which was planned for within the LUTE Update for City buildout. (DEIR page 6-27)

OTHER EMPLOYMENT GROWTH AND OTHER ECONOMIC-RELATED GROWTH IMPACTS

Vacancy rates are an indicator of housing supply and demand. Low vacancy rates influence greater upward price pressures and higher vacancy rates indicate downward price pressures. A five to six percent vacancy rate is generally considered healthy. Approximately 4.5 percent of City of Sunnyvale housing units were vacant as of January 1, 2018 estimates. Thus, the City is currently considered to have a high demand for housing

The project is a residential development adjacent to existing residential developments. The project would include a rezone to adjust the boundaries of the MS/ITRR3 and MS/ITRR4 zones to match the project land uses and rezone the proposed public park site to PF. The project is consistent with the site's existing land use designations. Homebuyers associated with the project are anticipated to originate from areas within the City or adjacent City of Santa Clara, because there is substantial demand for housing in the City and County (i.e., vacancy rates are considered low). Job growth projections and perceived demands are based on assumptions related to increased population growth. Thus, because the project would increase housing and population levels within the City, similar to that anticipated in the General Plan LUTE, the City finds that the project would not facilitate the need for new employment, as well as goods and services (e.g., restaurants, grocery, gas stations). Facilitation of new employment, goods, and services would result in increased

economic growth within the City and would be considered an indirect growth-inducing effect. Potential secondary effects of growth could include environmental consequences, such as conversion of open space to developed uses, increased demand on community and public services and infrastructure, increased traffic and noise, degradation of air and water quality, or degradation or loss of plant and wildlife habitat. The environmental impacts of growth have been addressed in the LUTE EIR. (DEIR page 6-27 and 6- 28)

6 PROJECT ALTERNATIVES

Where a lead agency has determined that, even after the adoption of all feasible mitigation measures, a project as proposed will still cause one or more significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remains any project alternatives that are both environmentally superior and feasible within the meaning of CEQA.

As noted under the heading "Findings Required under CEQA," an alternative may be "infeasible" if it fails to achieve the lead agency's underlying goals and objectives with respect to the project. Thus, "feasibility' under CEQA encompasses 'desirability' to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors" of a project *(*City of Del Mar v. City of San Diego [1982] 133 Cal.App.3d 401, 417).

6.1 ALTERNATIVES CONSIDERED BUT ULTIMATELY REJECTED

6.1.1 Off Site Alternative

The possibility of an off-site location was considered as an alternative to the project; however, key objectives of the project is to build a residential community with a public park that implements the goals and policies of the General Plan Land Use and Transportation Element and the East Sunnyvale Industrial-to-Residential Project. The project site is the only available site in the East Sunnyvale Industrial-to-Residential Project area of adequate size to accommodate up to 1,074 residential dwelling units and a 6.5-acre public park. For these reasons, the Off-Site Alternative was dismissed from detailed evaluation. (DEIR page 5-4)

6.1.2 Park Only Alternative

Comments received on the notice of preparation included a suggestion that the City consider an alternative that would convert the entire 34.7-acre site into a public park. This alternative would not attain any of the project objectives for the development of an infill residential community that implements the goals and policies of the General Plan Land Use and Transportation Element and the East Sunnyvale Industrial-to-Residential Project. The City does not own the site and does not have plans to acquire the entire site. For these reasons, the Park Only Alternative was dismissed from detailed evaluation. (DEIR page 5-4)

6.2 ALTERNATIVES CONSIDERED IN THE EIR

The following alternatives to the project are evaluated in detail, in the EIR as described below:

- Alternative 1: No Project - No Development
- Alternative 2: No Project – Residential Development Consistent with East Sunnyvale Industrial-to-Residential Project
- Alternative 3: Reduced Development

6.2.1 Alternative 1: No Project Alternative – No Development

CEQA requires consideration of the No Project Alternative, which addresses the impacts associated with not moving forward with the project. The purpose of analyzing the No Project Alternative is to allow decision-makers to compare the impacts of the project versus no project. CEQA indicates that in certain instances, the no project alternative means 'no build' wherein the existing environmental setting is maintained. The project site currently contains two developed industrial sites; a 20,867 square foot office/research and development building is in the southwestern corner of the project site (975 Stewart Drive) and two buildings totaling approximately 205,523 square feet of office/research and development uses located in the remainder of the project site (1 AMD Place). These buildings are currently vacant but could be re-used for office uses in the future.

The No Project Alternative would not meet any of the project objectives. However, it would result in reduction of impacts in all resource areas when compared to the project. (DEIR pages 5-5 through 5-6 and Table 5-1)

6.2.2 Alternative 2: No Project – Residential Development Consistent with East Sunnyvale Industrial-to-Residential Project Alternative

Alternative 2 would consist of a similar residential development with fewer units at the project site and consistent with the existing zoning and subarea development assumptions under the East Sunnyvale Industrial-to-Residential (ITR) Project and its EIR analysis. Under Alternative 2, apartments would front along Duane Avenue (also referred to as East Duane Avenue) and Stewart Drive, while townhomes would be located in the western portion of the site (DEIR Exhibit 5-1). Consistent with the ITR project and its EIR analysis, this alternative would consist of 884 residential units and a 3-acre public park at the project site. Alternative 2 would not make use of the State Density Bonus Law for inclusion of affordable units. Like the proposed project, Alternative 2 would include the extension of Indian Wells Avenue through the site.

Alternative 2 would result in a reduction of impacts in the following resource areas. However, the impact conclusions would not change from those identified for the project.

- Energy: Alternative 2's energy impacts would be less than the project.
- Greenhouse Gas Emissions and Climate Change: Alternative 2's reduced development potential would result in less greenhouse gas emissions as compared to the project.
- Public Services and Utilities: Alternative 2 would result in reduced public service and utility impacts as compared to the project.
- Traffic and Circulation: Alternative 2's reduced development potential result in less traffic volume as compared to the project. (DEIR pages 5-6 through 5-9)

6.2.3 Alternative 3: Reduced Development Alternative

Alternative 3 would reduce the overall density of site development consistent with R-3 zoning (24.2 dwelling units per acre) and would be developed as townhomes. This would result in 646 dwelling units (1,744 new residents). Like the project, this alternative would include the 6.5-acre public park and the extension of Indian Wells Avenue through the site (DEIR Exhibit 5-2). This alternative is intended to address traffic operational impacts of the project by reducing traffic generated at the site.

Alternative 3 would result in a reduction of impacts in the following resource areas. However, the impact conclusions would not change from those identified for the project.

- Energy: Alternative 3's energy impacts would be less than the project.
- Greenhouse Gas Emissions and Climate Change: Alternative 3's reduced development potential would result in less greenhouse gas emissions as compared to the project.
- Public Services and Utilities: Alternative 3 would result in reduced public service and utility impacts as compared to the project.
- Traffic and Circulation: Alternative 3's reduced development potential result in less traffic volume as compared to the project. (DEIR pages 5-10 through 5-13)

6.2.4 Findings Regarding Alternatives

Alternative 1 would not meet any of the project objectives. Although the analysis completed through the CEQA process revealed that the No Project-No Development Alternative is the environmentally superior alternative because all the significant impacts of the project would be avoided, the City finds that it is infeasible because it would not meet any of the project's objectives.

Alternative 2 and 3 could generally meet the project objectives, although potentially not to the same degree as the project. Either Alternative 2 or 3 would result in fewer residential units overall to address the City's housing needs. Alternative 2 would result in approximately 884 dwelling units, and Alternative 3 would result in approximately 646 dwelling units. Alternatives 2 and 3 would not provide the same mix of residential densities, nor would they include very low income affordable housing options. Alternatives 2 and 3 would also not avoid any significant environmental impacts of the project. In Alternative 2 the public park would also be reduced to less than half than the currently proposed park. Therefore, the City finds that Alternative 2 and 3 are infeasible because they would not optimize the land use potential of the site or completely implement the goals and policies of the General Plan and East Sunnyvale plan.

7 STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to Section 21081 of the California Public Resources Code and Section 15093 of the CEQA Guidelines, the City adopts and makes the following statement of overriding considerations regarding the remaining significant unavoidable impacts of the project, as discussed above, and the anticipated economic, social, and other benefits of the project.

Based on the record of proceedings, the City finds and determines that (1) the majority of the significant impacts of the project will be reduced to less-than-significant levels by implementation of the mitigation measures recommended in these findings; (2) the City's approval of the project as proposed will result in certain significant adverse environmental effects that cannot be avoided or reduced to a less-than-significant level even with the incorporation of all feasible mitigation measures into the project; and (3) there are no other feasible mitigation measures or feasible project alternatives that will further mitigate, avoid, or reduce to a less-than significant level the remaining significant environmental effects.

In light of the environmental, social, economic, and other considerations identified in the findings for the project, the objectives of the project, and the considerations set forth below related to this project, the City chooses to approve the project because, in its view, the economic, social, technological, and other benefits resulting from the project substantially outweigh the project's significant and unavoidable adverse environmental effects.

The following statements identify the reasons why, in the City's judgment and based on substantial evidence, the benefits of the project outweigh the significant and unavoidable effects. The substantial evidence supporting the enumerated benefits of the project can be found in the preceding findings, which are herein incorporated by reference; in the project itself; and in the record of proceedings as defined above. Each of the overriding considerations set forth below constitutes a separate and independent ground for finding that the benefits of the project outweigh its significant adverse environmental effects and is an overriding consideration warranting approval.

The City finds that the project, as conditionally approved, will have the following economic, social, technological, and environmental benefits, which constitute overriding considerations:

- The proposed Project incorporates all feasible mitigation measures to reduce potential environmental impacts to the greatest extent feasible. No feasible mitigation measures or alternatives have been identified that would mitigate the significant and unavoidable adverse effects of the Project other than leaving the site vacant and undeveloped, which is infeasible and would not meet any of the Project objectives.

- Redevelopment of the site to create a master-planned residential community with up to 1,074 residential units and a 6.5-acre public park implements the goals and policies of the City of Sunnyvale's General Plan (Land Use and Transportation Element adopted 2017) and the East Sunnyvale Sense-of Place Plan (adopted 2015).

- Vacant industrial sites contribute to neighborhood blight and can endanger public safety. Redevelopment of this site will benefit the surrounding neighborhood by replacing empty industrial buildings with an attractive residential community and public park.

- The City's Housing Element identifies vacant, under-utilized properties such as the project site as suitable locations for residential development. In addition, by giving the site an Industrial-to-Residential (ITR) zoning designation in 2007, the City Council planned for the site to eventually transition from an industrial campus to a residential development.

- The City and the surrounding Silicon Valley region are currently experiencing a severe housing shortage. The project will create much-needed housing, including 45 very-low-income rental apartments and 13 below-market townhomes. The Project would increase the variety of housing options in the City of Sunnyvale, including both rental and for-sale residences of various sizes.

- The proposed Project concentrates growth in existing urbanized areas as infill development and thereby results in fewer impacts from the construction of new infrastructure. The provision of infill housing is needed by the City and is anticipated under the Land Use and Transportation Element.

- The Project will add housing along transportation corridors and near transit nodes. The Project will promote greater use of Caltrain by placing new housing within two miles of the Lawrence Caltrain Station, thereby reducing local and regional Vehicles Miles Traveled (VMT), which translates into air quality and greenhouse gas emissions benefits and increases in resources and energy efficiency, as recognized by California Department of Transportation (Caltrans), Santa Clara Valley Transportation Authority, Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG).

- The Project is consistent with key regional planning documents and regulations including Plan Bay Area, which is the Bay Area's Regional Transportation Plan (RTP)/Sustainable Community Strategy (SCS), the City-endorsed VTA Community Design and Transportation (CDT) Program Cores, Corridors and Station Areas Framework, which shows VTA and local jurisdiction priorities for supporting concentrated development in the County, and Senate Bill 375, the Sustainable Communities and Climate Protection Act.

- The creation of the 6.5-acre park will preserve open space and increase recreational opportunities for Sunnyvale residents. The park will encourage walking and biking and will reduce the need for nearby residents to drive elsewhere to enjoy open space and recreation.

- Future development would create short-term construction jobs that would provide income to local residents.

The above statements of overriding considerations are consistent with, and substantially advance, the following goals and policies of the City's General Plan:

- Policy LT-1.7 Emphasize efforts to reduce regional vehicle miles traveled by supporting active modes of transportation including walking, biking, and public transit.

- Policy LT-3.6 Promote modes of travel and actions that provide safe access to city streets and reduce single-occupant vehicle trip lengths locally and regionally.

- Policy LT-4.1: Preserve and enhance an attractive community, with a positive image, a sense of place, landscaping, and a human scale.

- Policy LT-4.2: Encourage nodes of interest and activity, public open spaces, well-planned development, mixed-use projects, signature commercial uses, and buildings and other desirable uses, locations, and physical attractions.

- Policy LT-5.2: Preserve and enhance the character of Sunnyvale's residential neighborhoods by promoting land use patterns and transportation opportunities that support a neighborhood concept as a place to live, work, shop, entertain, and enjoy public services, open space, and community near one's home and without significant travel.

- Policy CC-3.1 Place a priority on quality architecture and site design which will enhance the image of Sunnyvale and create a vital and attractive environment for businesses, residents, and visitors, and be reasonability balanced with the need for economic development to assure Sunnyvale's economic prosperity.

- Policy CC-3.2 Ensure site design is compatible with the natural and surrounding built environment.

- Policy HE-1.1 Encourage diversity in the type, size, price and tenure of residential development in Sunnyvale, including single-family homes, townhomes, apartments, mixed-use housing, transit-oriented development and live-work housing.

- Policy HE-4.2 Continue to direct new residential development into specific plan areas, near transit, and close to employment and activity centers.

- Policy HE-4.3 Require new development to build to at least 75 percent of the maximum zoning density, unless an exception is granted by the City Council.

Based on the detailed findings made above, the City Council hereby finds that economic and social considerations outweigh the remaining environmental effects of approval and implementation of the Project, and the Planning Commission hereby concludes that the Project should be approved.

RECOMMENDED CONDITIONS OF APPROVAL AND STANDARD DEVELOPMENT REQUIREMENTS APRIL 8, 2019

Planning Application 2016-8035
1 AMD Place and 975 Stewart Drive
Rezoning, Special Development Permit, EIR Mitigation and Tentative Map
107 R-3 medium density Townhomes and 877 R-4 high-density Apartments

The following Conditions of Approval [COA] and Standard Development Requirements [SDR] apply to the project referenced above. The COAs are specific conditions applicable to the proposed project. The SDRs are items which are codified or adopted by resolution and have been included for ease of reference, they may not be appealed or changed. The COAs and SDRs are grouped under specific headings that relate to the timing of required compliance. Additional language within a condition may further define the timing of required compliance. Applicable mitigation measures are noted with "Mitigation Measure" and placed in the applicable phase of the project.

In addition to complying with all applicable City, County, State and Federal Statutes, Codes, Ordinances, Resolutions and Regulations, Permittee expressly accepts and agrees to comply with the following Conditions of Approval and Standard Development Requirements of this Permit:

GC: THE FOLLOWING GENERAL CONDITIONS AND STANDARD DEVELOPMENT REQUIREMENTS SHALL APPLY TO THE APPROVED PROJECT.

GC-1. CONFORMANCE WITH APPROVED PLANNING APPLICATION:
All building permit drawings and subsequent construction and operation shall substantially conform with the approved planning application, including: drawings/plans, materials samples, building colors, and other items submitted as part of the approved application. Any proposed amendments to the approved plans or Conditions of Approval are subject to review and approval by the City. The Director of Community Development shall determine whether revisions are considered major or minor. Minor changes are subject to review and approval by the Director of Community Development. Major changes are subject to review at a public hearing. [COA] [PLANNING]

GC-2. ENTITLEMENTS—EXERCISE AND EXPIRATION:
The approved entitlements shall be null and void two years from the date of approval by the final review authority if the approval is not exercised, unless a written request for an extension is received prior to

the expiration date and is approved by the Director of Community Development. [SDR] (PLANNING)

GC-3. INDEMNITY:
The applicant/developer shall defend, indemnify, and hold harmless the City, or any of its boards, commissions, agents, officers, and employees (collectively, "City") from any claim, action, or proceeding against the City to attack, set aside, void, or annul, the approval of the project when such claim, action, or proceeding is brought within the time period provided for in applicable state and/or local statutes. The City shall promptly notify the developer of any such claim, action or proceeding. The City shall have the option of coordinating the defense. Nothing contained in this condition shall prohibit the City from participating in a defense of any claim, action, or proceeding if the City bears its own attorney's fees and costs, and the City defends the action in good faith. [COA] [OFFICE OF THE CITY ATTORNEY]

GC-4. NOTICE OF FEES PROTEST:
As required by California Government Code Section 66020, the project applicant is hereby notified that the 90-day period has begun as of the date of the approval of this application, in which the applicant may protest any fees, dedications, reservations, or other exactions imposed by the city as part of the approval or as a condition of approval of this development. The fees, dedications, reservations, or other exactions are described in the approved plans, conditions of approval, and/or adopted city impact fee schedule. [SDR] [PLANNING / OCA]

GC-5. ON-SITE AMENITIES:
Swimming pools, pool equipment structures, play equipment and other accessory utility buildings, except as otherwise subject to Planning Commission review, may be allowed by the Director of Community Development subject to approval of design, location and colors. [COA] [PLANNING]

GC-6. BMR OWNERSHIP HOUSING COMPLIANCE:
This project is subject to the City's Below Market Rate (BMR) Housing requirements as set forth in Sunnyvale Municipal Code Chapter 19.67 and the BMR Program Guidelines, both as may be amended. Developer shall enter into a BMR Developer Agreement in a form provided by the City, to be recorded against the property before issuance of building permits or recordation of a final map, whichever occurs first. When dwelling units in the project are made available for sale, the project shall provide 12.5% of the total units in the project for sale as BMR homeownership units. For the subject project, that equals **13** Below Market Rate dwelling units for sale and payment of a fractional in-lieu

DRAFT

fee of 0.378 units in compliance with the BMR requirements set forth in SMC 19.67 and the BMR Program Guidelines.

GC-7. BELOW MARKET RATE PROGRAM/CONDO CONVERSION:
Any future conversion of this apartment project into 8 or more condominium units for sale to individual home buyers will require compliance with SMC 19.67, Below Market Rate Ownership Housing, including the requirement to enter into a BMR Developer Agreement to provide BMR units, as well as compliance with SMC 19.70, regarding condominium conversion. [SDR] [PLANNING]

GC-8. AFFORDABLE RENTAL HOUSING DEVELOPER AGREEMENT:
The Developer/Owner shall sign and submit to the City for recording a "Density Bonus Developer and Regulatory Agreement and Declaration of Restrictive Covenants" in a form provided by the City to secure the affordability restrictions applicable to the project. This agreement must be recorded before issuance of a building permit or recordation of a final map, whichever occurs first. [COA] [HOUSING]

GC-9. RECREATION FACILITIES:
The new recreation facilities (pool and clubhouse) shall be installed in connection with the second phase of the mid-rise apartments and included on the building permit plans for the second phase. [COA] [PLANNING]

GC-10. SIGNS:
All existing/new signs shall be brought into conformance with Title 19 of the Sunnyvale Municipal Code. [PLANNING] [COA]

GC-11. TEMPORARY TRAILERS:
The temporary trailer(s) shall be subject to following requirements:

a) Trailer(s) shall be placed on the premises not sooner than 15 days following the date of City approval and shall be removed no later than 30 days after Building final occupancy approval.
b) Trailer entrance(s) shall not be oriented towards adjacent residential uses.
c) Area lighting shall be provided in the vicinity of the trailer(s).

Any variation from the location of the trailer(s), as represented by the submitted plan, is subject to review and approval by the Director of Community Development. [COA] [PLANNING]

GC-12. STORMWATER MANAGEMENT PLAN:

DRAFT

Project is subject to Provision C3, of the Municipal Regional Stormwater Permit Order No. R2-2009-0074, as determined by a completed "Stormwater Management Plan Data Form", and therefore must submit a Stormwater Management Plan as per SMC 12.60.140 prior to issuance of the building permit. [SDR] [PLANNING]

GC-13. FINAL MAP RECORDATION:
This project is subject to, and contingent upon the approval of a vesting tentative map and recordation of a final map. The submittal, approval and recordation of the final map shall be in accordance with the provisions of the California Subdivision Map Act and Sunnyvale Municipal Code Title 18 Subdivision requirements. All existing and proposed property lines, easements, dedications shown on the vesting tentative map are subject to City's technical review and approval during the final map process prior to any grading or building permit (with the exception of site demolition and rough grading). Sheets C1.0 through C5.0 of the Vesting Tentative Map package dated 1/29/19 are subject to change during plan check process. [COA] [PUBLIC WORKS]

GC-14. MULTIPLE MAPS:
If multiple maps are filed, all public improvement plans shall be approved prior to first map recordation. All public improvements shall be completed in accordance with a phased public off-site improvement plan, and submitted as referenced in GC-16d, unless otherwise approved by the Department of Public Works. [COA] [PUBLIC WORKS]

GC-15. ENVIRONMENTAL MITIGATION MEASURES:
The project shall comply with all mitigation measures required in the Draft Environmental Impact Report (DEIR). The Mitigation Monitoring and Reporting Program (MMRP) has been included in the Conditions of Approval as Exhibit 1. The applicant shall be responsible for addressing all required mitigations for each phase of the project. [COA] [PLANNING/PUBLIC WORKS] MITIGATION MEASURE

GC-16. PUBLIC IMPROVEMENTS:

a) The developer is required to install, per Sunnyvale Municipal Code Sections 18.08, all public improvements, which may include but not be limited to, curb & gutter, sidewalks, driveway approaches, curb ramps, street pavements, utility extensions and connections, meters/vaults, trees and landscaping, traffic signal/signage, striping, street lights, etc.

b) All public improvements shall be designed and constructed in accordance with current City design standards, standard details

DRAFT

and specifications, and Americans with Disabilities Act (ADA) requirements where applicable, unless otherwise approved by the Department of Public Works.

c) The developer is required to complete the installation of all public improvements and other improvements deemed necessary by the Public Works Department, prior to occupancy of the first building, or to the satisfaction of the Department of Public Works

d) If the developer desires to phase the off-site improvement construction without completing the entire project frontage improvements associated with the first building occupancy, a construction phasing plan for the off-site improvements shall be submitted for review and approval by the Department of Public Works prior to first building permit issuance. The complete length (or portion) of Indian Wells Avenue shall be constructed and accepted by the City prior to the building occupancy of the townhomes or mid-rise apartments fronting Indian Wells Avenue. [COA] [PUBLIC WORKS]

GC-17. OFF-SITE IMPROVEMENT PLANS:
Submit off-site improvement plans separate from the Building on-site improvement plans as the off-site improvement plans are approved through a Public Works Encroachment Permit process. Sheets C1.0 through C5.0 of the Vesting Tentative Map package dated 1/29/19 are subject to change during the plan check process. [SDR] [PUBLIC WORKS]

GC-18. OFF-SITE CONSTRUCTION PHASING PLAN:
The developer shall prepare a detailed off-site construction phasing plan for the subject property and include the construction of all or portion of Indian Wells Avenue. The plan shall be subject to review and approval by the Department of Public Works prior to issuance of the first building permit issuance. The plan shall have both exhibits and narratives that include, but not limited to, construction truck route, public vehicle access, pedestrian access, construction staging, limits of work and timeline for each of the phases. [COA] [PUBLIC WORKS]

GC-19. STORM DRAIN RELOCATION PLANS:
Submit improvement plans for the on-site public storm drain main relocation separate from the off-site improvement plans and the Building on-site improvement plans as the storm drain relocation plans are approved through a Public Works Encroachment Permit process. The storm drain relocation shall be completed and accepted by the City prior to approval of the townhomes on Lot 2 final map or City acceptance of the park. The storm drain relocation shown Sheet C5.0

dated 1/29/19 are subject to change during the plan check process. [SDR] [PUBLIC WORKS]

GC-20. ENCROACHMENT PERMIT:
Prior to any work in the public right-of-way, obtain an encroachment permit with insurance requirements for all public improvements including a traffic control plan per the latest California Manual on Uniform Traffic Control Devices (MUTCD) standards to be reviewed and approved by the Department of Public Works. [COA] [PUBLIC WORKS]

GC-21. STORMWATER TREATMENT FACILITIES ALONG INDIAN WELLS:
The developer shall be responsible for treatment and maintenance of stormwater and stormwater treatment facilities located in the public right-of-way along Indian Wells Avenue. [COA] [PUBLIC WORKS/ENVIRONMENTAL SERVICES]

GC-22. RECORD SHARED ACCESS EASEMENTS:

a) Record a shared access easement between 975 Stewart Drive (low-rise project) and 1 AMD (midrise project) for shared interim parking areas during construction, and for permanent cross access to loading areas and to the solid waste processing area on 1 AMD. [COA] [PLANNING]

b) Record a shared access easement with 975 Stewart (low-rise project) and the adjacent Stewart Village apartment complex for access to Stewart Drive and Indian Wells Avenue. [COA] [PLANNING]

c) Record a shared access easement between Stewart Village and 1 AMD (midrise project) for shared permanent cross access to loading areas and to the solid waste processing area on 1 AMD. [COA] [PLANNING]

d) Record a shared access easement between 975 Stewart Drive (low-rise project) and Stewart Village for use of solid waste collection facilities. [COA] [PLANNING]

GC-23. SHARED ACCESS TO AMENITIES:
Apartments At 975 Stewart Drive (low-rise product) shall be allowed use of amenities (pools, community rooms, etc.) at a minimum of one of the adjacent complexes – Stewart Village or the midrise product. [COA] [PLANNING]

GC-24. ASSIGN AN MMRP PROJECT MANAGER

DRAFT

Assign an MMRP project manager to coordinate and report on commencement, completion and documentation of all required environmental mitigation monitoring with the City. [COA] [PLANNING]

GC-25. PARK AGREEMENT
The developer shall execute a Park Agreement, as approved by City Council, prior to building permit issuance. [COA] [PLANNING]

PS: THE FOLLOWING CONDITIONS SHALL BE MET PRIOR TO OF BUILDING PERMIT, AND/OR GRADING PERMIT.

PS-1. REQUIRED REVISIONS TO PROJECT PLANS:
The plans shall be revised to address comments from the Administrative Hearing Officer, Planning Commission or City Council including the following:

a) Street light design shall be installed in accordance with the adopted sense of place plan unless an alternate based on a design approved by the director of public works.

b) Increase parking area shading along the north/south and east/west drive aisle of the townhome project to meet the city's parking lot shading requirement.

c) Increase parking area shading along in the motor court entrances in the midrise project to meet the city's parking lot shading requirement

d) Provide a community room or club house with a minimum meeting space size of four hundred fifty square feet at the townhome project. "Community room or club house" means a general purpose room, or stand alone or attached building, containing bathrooms kitchen facilities and meeting space within a multiple-family residential development for purposes of holding meetings, parties and other general activities for use by all members of the residential community.

e) Provide a band of decorative pavement a minimum of 15 feet wide at the entrance to the midrise and townhome projects. Final pavement color and material shall be approved by the Director of Community Development prior to submittal of a Building Permit for the first building.

DRAFT

f) Townhome garages shall be a minimum of 400 s.f in area with a minimum parking dimension of 17 feet wide by 18 feet in depth.

g) Townhomes shall provide separate individual storage as required by code if the two car garages are not designed with 400 s.f. of area.

h) Non-structured parking spaces shall be designed in accordance with Municipal Code Section 19.46.120. Provide low growing groundcover, or a 6' concrete walkway (2' overhang plus a 4' path of travel), adjacent to parking spaces that do not meet the minimum length of 18 feet in length for a standard space. Low-growing groundcover shall not be counted toward minimum compact space depth. Parking spaces cannot overhang directly over a sidewalk. [COA] [PLANNING]

i) Twelve and one-half percent of the total number of parking spaces provided for all types of parking facilities shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

j) The project is required to provide 1 bicycle parking space for every 4 units. The low-rise project shall provide 15 secured Class I bicycle parking spaces. The midrise project is required to provide 222 secured Class I bicycle parking spaces. The townhome project is required to provide 27 secured Class I bicycle parking spaces. Two-car garages in the townhome project qualify as 1 secured bicycle space.

PS-2. PARKING STRUCTURE DESIGN:

A parking structure parking and circulation plan shall be submitted for review and approval prior to submittal for Building Permits. The structure shall adhere to the measures in the Parking Structure Design Guidelines including the following:

a) Vehicle circulation within a parking structure should be continuous and uninterrupted at all levels.
b) Dead-end parking aisles are not allowed unless all parking is designated as Reserved Parking. Where dead end aisles are unavoidable (e.g., for guest parking within a sloped ramp garage) provisions should be made for dedicated No Parking areas at the end of the aisle for easy turn around.
c) Maximum vehicle grade should be 12 percent with minimum 10-12-foot long transitions at the top and bottom of the ramp.

DRAFT

d) Parking stalls adjacent to a solid wall should be a minimum of 9.5 feet in width.

PS-3. EXTERIOR MATERIALS REVIEW:
Final exterior building materials and color scheme are subject to review and approval by the Planning Commission/Director of Community Development prior to submittal of a building permit. [COA] [PLANNING

PS-4. SCREENING OF APPURTENANCES:
All Public and Private equipment, piping and appurtenances visible between the face of any building and the street shall be screened from view from the public right-of-way. [COA] [PLANNING]

PS-5. PARKING AND CIRCULATION PLAN:
Submit a revised parking and circulation plan subject to review and approval by the Director of Community Development prior to submittal of a building permit. [COA] [PLANNING]

PS-6. SANITARY SEWER ANALYSIS:
Prior to first off-site plan check submittal, submit a focused sanitary sewer analysis, to be reviewed and approved by the City, identifying the overall project impact to the City's existing sanitary sewer main(s). This includes, but is not limited to, the following:

a) A detailed estimate of water consumption in gallons per day or estimate of sanitary sewer discharge in gallons per day; and
b) Any incremental impact that will result from the new project in comparison to the existing sewer capacity of the immediate downstream mainline as needed, and allocation of wastewater discharge from the project site to each of the proposed laterals. Any deficiencies in the existing system in the immediate vicinity of the project will need to be addressed and resolved at the expense of the developer as part of the off-site improvement plans. Sewer flow monitoring data may be required as needed. Any mitigation improvements needed shall be incorporated in the first plan check submittal. [COA] [PUBLIC WORKS]

PS-7. SOLID WASTE MANAGEMENT PLAN
A final Solid Waste Management Plan shall be submitted and approved prior to submittal of building permits for each building. the plan shall include details of the following, and approval of each detail is required prior to approval of a building permit:

a) The location of each solid waste collection point, interim storage rooms, vestibules, chute locations, compactor locations;

DRAFT

b) Drawings with a detailed layout of each solid waste collection point with illustrations of how bins can be conveniently accessed by staff and residents to assure easy use and collection and to discourage disorder, ineffectiveness, unsanitary conditions and failure to use supplied bins;
c) A detailed written operational program with a maintenance schedule for collection, and methods of cleaning and disinfecting for each point of collection;
d) A transport schedule to staging and compacting areas and demonstrating use of City-approved transport trailers.
e) Changes to the approved solid waste management plan are subject to review and approval of the Director of Community Development through review as a Miscellaneous Plan Application.

PS-8. LOCKABLE STORAGE:

a) Submit a final plan for individual lockable storage in accordance with Municipal Code section 19.38.040
b) A minimum of one individual lockable storage unit shall be provided for each dwelling unit for the midrise and low-rise projects which shall be separate, lockable, weatherproof, and provided to tenants without an additional cost.
c) Size. The minimum interior size of the storage space shall be as follows:

(1) Two hundred cubic feet for studio and one bedroom units.

(2) Three hundred cubic feet for all other units.

d) Dimensions. The storage space shall be at least eight feet in one direction and no less than three feet in any other direction. The maximum height shall not exceed ten feet.
e) Location. The storage space may be accessible from inside or outside the dwelling unit such as a patio, deck, balcony, interior or exterior hallway, interior room or separate structure. If storage space is attached to a bedroom it must be in addition to a bedroom closet. Required storage space shall not be located in an attic. A two-car garage meeting the minimum area and dimensions shall satisfy the lockable storage requirement.

DRAFT

f) Changes to the final individual lockable plan may be considered by the Director of Community Development the review of a Miscellaneous Plan Application.

BP: THE FOLLOWING CONDITIONS SHALL BE ADDRESSED ON THE CONSTRUCTION PLANS SUBMITTED FOR ANY DEMOLITION PERMIT, BUILDING PERMIT, GRADING PERMIT, AND/OR ENCROACHMENT PERMIT AND SHALL BE MET PRIOR TO THE ISSUANCE OF SAID PERMIT(S).

BP-1. CONDITIONS OF APPROVAL:

a) Final plans shall include all Conditions of Approval and Mitigation Measures as part of the approved application starting on sheet 2 of the plans. [COA] [PLANNING]

BP-2. RESPONSE TO CONDITIONS OF APPROVAL:

a) A written response indicating how each Condition and Mitigation Measure has or will be addressed shall accompany the building permit set of plans. [COA] [PLANNING]

BP-3. NOTICE OF CONDITIONS OF APPROVAL:

a) A Notice of Conditions of Approval shall be filed in the official records of the County of Santa Clara and provide proof of such recordation to the City prior to issuance of any City permit, allowed use of the property, or Final Map, as applicable. The Notice of Conditions of Approval shall be prepared by the Planning Division and shall include a description of the subject property, the Planning Application number, attached conditions of approval and any accompanying subdivision or parcel map, including book and page and recorded document number, if any, and be signed and notarized by each property owner of record.

b) For purposes of determining the record owner of the property, the applicant shall provide the City with evidence in the form of a report from a title insurance company indicating that the record owner(s) are the person(s) who have signed the Notice of Conditions of Approval. [COA] [PLANNING]

BP-4. BLUEPRINT FOR A CLEAN BAY:

a) The building permit plans shall include a "Blueprint for a Clean Bay" on one full sized sheet of the plans. [SDR] [PLANNING]

DRAFT

BP-5. RECYCLING AND SOLID WASTE ENCLOSURE:

a) The building permit plans shall include details for the installation of recycling and solid waste enclosures. The required solid waste and recycling enclosure shall:

b) Match the design, materials and color of the main building.

c) Be of masonry construction. [COA] [PLANNING]

BP-6. RECYCLING AND SOLID WASTE CONTAINER:

a) All recycling and solid waste containers shall be metal or State Fire Marshall listed non-metallic. The building permit plans shall provide details illustrating compliance with this condition. [COA] [PLANNING]

BP-7. SOLID WASTE DISPOSAL PLAN:

a) A detailed recycling and solid waste disposal plan shall be submitted for review and approval by the Director of Community Development prior to issuance of building permit for each product – townhomes, mid-rise apartments and low-rise apartments. [COA] [PLANNING]

BP-8. ROOF EQUIPMENT:

a) Roof vents, pipes and flues shall be combined and/or collected together on slopes of roof or behind parapets out of public view as per Title 19 of the Sunnyvale Municipal Code and shall be painted to match the roof. [COA] [PLANNING]

BP-9. FEES AND BONDS:

The following fees and bonds shall be paid in full prior to issuance of building permit, or for park fees, at the time of recordation of the final map reviewed with this permit.

a) TRANSPORTATION IMPACT FEE - Pay Traffic Impact fee for the net new trips resulting from the proposed project, estimated at $1,128,645, prior to issuance of a Building Permit. (SMC 3.50). [SDR] [PLANNING]

b) HOUSING MITIGATION FEE - Pay Rental Impact Fee fee estimated at $2,583,752, prior to issuance of a Building Permit. (SMC 19.22). [SDR] [PLANNING]

c) PARK IN-LIEU - Pay Park In-lieu fees estimated at $14,513,756.40, prior to approval of the Final Map reviewed with this permit. (SMC 18.10). [SDR] [PLANNING]

BP-10. SENSE OF PLACE FEE:

Prior to issuance of a building permit, provide a cash contribution towards sense of place improvements at the dollar amount, per unit,

DRAFT

established in the fee resolution. This fee is currently estimated at $2,428.00 per dwelling unit. Based on this rate, the total fee $2,551,828.00 would be required. Credit may be given for off-site improvements included in the East Sunnyvale Sense of Place Plan, subject to the approval of the Director of Community Development. [PLANNING] [COA]

BP-11. MECHANICAL EQUIPMENT (EXTERIOR):
Detailed plans showing the locations of individual exterior mechanical equipment/air conditioning units shall be submitted and subject to review and approval by the Director of Community Development prior to issuance of building permits. Proposed locations shall have minimal visual and minimal noise impacts to neighbors and ensure adequate usable open space. Air conditioning for the apartment units shall not be located on the building elevations. Individual exterior mechanical equipment/air conditioning units for the townhouses shall be screened with architecture or landscaping features and shall not be located in usable open space areas. [PLANNING] [COA]

BP-12. BMR DEVELOPMENT AGREEMENT:

a) Before issuance of building permits for the project, the developer shall enter into a Development Agreement with the City to establish the method by which the development will comply with the applicable BMR requirements. The form of the Developer Agreement will be provided by the City, with tables regarding unit characteristics and timing of completion to be completed by the Developer, and is subject to the approval of the Community Development Director or his/her designee, consistent with the SMC. The completed Developer Agreement must be executed by both parties and recorded against the property, and will run with the land.

b) In the event that any Below Market Rate dwelling unit(s) or any portion thereof in the development is destroyed by fire or other cause, all insurance proceeds therefrom shall be used to rebuild such units, which will remain subject to the terms of the Developer Agreement and the BMR requirements. Grantee hereby covenants to cause the City of Sunnyvale to be named an additional insured party to all fire and casualty insurance policies pertaining to said assisted units. [SDR] [HOUSING/BMR Program Guidelines]

BP-13. LANDSCAPE PLAN:
Landscape and irrigation plans shall be prepared by a certified professional, and shall comply with Sunnyvale Municipal Code Chapter 19.37 requirements. Landscape and irrigation plans are subject to review and approval by the Director of Community Development through the submittal of a Miscellaneous Plan Permit (MPP). The landscape plan shall include the following elements:

DRAFT

a) All trees removed are subject to the City's tree replacement standards.

b) All areas not required for parking, driveways or structures shall be landscaped.

c) Provide trees at minimum 30 feet intervals along side and rear property lines, except where mature trees are located immediately adjoining on neighboring property.

d) Ten percent (10%) shall be 24-inch box size or larger and no tree shall be less than 15-gallon size.

e) Any "protected trees", (as defined in SMC 19.94) approved for removal, shall be replaced with a specimen trees in accordance with the City's adopted tree replacement policy.

f) Ground cover shall be planted so as to ensure full coverage eighteen months after installation.

g) Decorative paving as required by the Director of Community Development to distinguish entry driveways, building entries, pedestrian paths and common areas. [COA] [PLANNING]

h) Provide a fifteen-foot deep band of decorative paving for the width of the private drive(s) immediately behind the public sidewalk. [COA] [PLANNING]

BP-14. LANDSCAPE MAINTENANCE PLAN:
Prepare a landscape maintenance plan subject to review and approval by the Director of Community Development prior to issuance of building permit. [COA] [PLANNING]

BP-15. TREE PROTECTION PLAN:
Prior to issuance of a Demolition Permit, a Grading Permit or a Building Permit, whichever occurs first, obtain approval of a tree protection plan from the Director of Community Development. Two copies are required to be submitted for review. The tree protection plan shall include measures noted in Title 19 of the Sunnyvale Municipal Code and at a minimum:

a) An inventory shall be taken of all existing trees on the plan including the valuation of all 'protected trees' by a certified arborist, using the latest version of the "Guide for Plant Appraisal" published by the International Society of Arboriculture (ISA).

b) All existing (non-orchard) trees on the plans, showing size and varieties, and clearly specify which are to be retained.

c) Provide fencing around the drip line of the trees that are to be saved and ensure that no construction debris or equipment is stored within the fenced area during the course of demolition and construction.

DRAFT

d) The tree protection plan shall be installed prior to issuance of any Building or Grading Permits, subject to the on-site inspection and approval by the City Arborist and shall be maintained in place during the duration of construction and shall be added to any subsequent building permit plans.

e) All trees removed are subject to the City's tree replacement standards. [COA] [PLANNING/CITY ARBORIST]

BP-16. STORMWATER MANAGEMENT PLAN:
Submit two copies of a Stormwater Management Plan subject to review and approval by Director of Community Development and third party certification, pursuant to SMC 12.60, prior to issuance of building permit. [COA] [PLANNING/PUBLIC WORKS]

BP-17. STORM WATER MANAGEMENT PLAN THIRD PARTY CERTIFICATION:
Third party certification of the Storm Water Management Plan is required per the following guidance: City of Sunnyvale – Storm Water Quality BMP Applicant Guidance Manual for New and Redevelopment Projects - Addendum: Section 3.1.2 Certification of Design Criteria Third-Party Certification of Storm Water Management Plan Requirements. The third party certification shall be provided prior to building permit issuance. [SDR] [PLANNING/PUBLIC WORKS]

BP-18. BEST MANAGEMENT PRACTICES - STORMWATER:
The project shall comply with the following source control measures as outlined in the BMP Guidance Manual and SMC 12.60.220. Best management practices shall be identified on the building permit set of plans and shall be subject to review and approval by the Director of Public Works:

a) Storm drain stenciling. The stencil is available from the City's Environmental Division Public Outreach Program, which may be reached by calling (408) 730-7738.

b) Landscaping that minimizes irrigation and runoff, promotes surface infiltration where possible, minimizes the use of pesticides and fertilizers, and incorporates appropriate sustainable landscaping practices and programs such as Bay-Friendly Landscaping.

c) Appropriate covers, drains, and storage precautions for outdoor material storage areas, loading docks, repair/maintenance bays, and fueling areas.

d) Covered trash, food waste, and compactor enclosures.

e) Plumbing of the following discharges to the sanitary sewer, subject to the local sanitary sewer agency's authority and standards:

DRAFT

i) Discharges from indoor floor mat/equipment/hood filter wash racks or covered outdoor wash racks for restaurants.

ii) Dumpster drips from covered trash and food compactor enclosures.

iii) Discharges from outdoor covered wash areas for vehicles, equipment, and accessories.

iv) Swimming pool water, spa/hot tub, water feature and fountain discharges if discharge to onsite vegetated areas is not a feasible option.

v) Fire sprinkler test water, if discharge to onsite vegetated areas is not a feasible option. [SDR] [PLANNING]

BP-19. CITY STREET TREES:
The landscape plan shall including street trees and shall be submitted for review and approval by the City Arborist prior to issuance of building permit. [COA] [ENGINEERING/CITY ARBORIST]

BP-20. CITY STREET TREES (SUBDIVISION):
At the expense of the subdivider, City staff shall install required street trees of a species determined by the Public Works Department. Obtain approval of a detailed landscape and irrigation plan from the Director of Community Development (SMC 19.37) prior to issuance of a Building Permit. [SDR] [PLANNING/PUBLIC WORKS]

BP-21. EXTERIOR LIGHTING PLAN:
Prior to issuance of a Building Permit submit an on-site exterior lighting plan, including fixture and pole designs, for review and approval by the Director of Community Development. Driveway and parking area lights shall include the following:

a) LED fixtures (or illumination with an equivalent energy savings).

b) Pole heights to be uniform and compatible with the area, including the adjacent residential areas. Light standards shall not exceed 12 feet in height on the periphery of the project near residential uses.

c) Provide photocells for on/off control of all security and area lights.

d) All exterior security lights shall be equipped with vandal resistant covers.

e) Wall packs shall not extend above the roof of the building.

f) Lights shall have shields to prevent glare onto adjacent residential properties.

g) Adhere to Bird Safe Guidelines for lighting. [COA] [PLANNING]

DRAFT

Explanatory note: The applicant met with planning staff to discuss lighting on September 10th 2018 and were granted permission to use lights taller than 8 feet and LED fixtures.

BP-22. PHOTOMETRIC PLAN:
Prior to issuance of a Building Permit submit a contour photometric plan for approval by the Director of Community Development. The plan shall meet the specifications noted in the Standard Development Requirements. [COA] [PLANNING]

BP-23. LIGHTING SPACING:
Installation of lights at a minimum of 50 feet intervals along all private streets. [COA] [PLANNING]

BP-24. PARKING MANAGEMENT PLAN (RESIDENTIAL MULTI-FAMILY):
A separate Parking Management Plan for each project (low-rise, midrise and townhomes) is subject to review and approval by the Director of Community Development prior to issuance of a building permit. The Parking Management Plan shall include the following:

a) A clear definition of "guest" as proposed by the property manager/homeowner's association and subject to review and approval by the Director of Community Development.

b) The property manager/homeowner's association may specify that 25% to 75% of unassigned spaces be reserved for guest use.

c) Clearly indicate that the property manager/homeowner's association shall not rent unassigned spaces, except that a nominal fee may be charged for parking management.

d) Tenants shall use their assigned parking spaces prior to using unassigned parking spaces.

e) Prohibit tenants from parking RV's, trailers, or boats in assigned spaces.

f) Notify potential residents that number of parking spaces provided for each unit on-site as per the approved plans. [PLANNING] [COA]

g) Unbundled parking for rental units is not allowed.

h) Indicate how parking for leasing office areas is managed.

BP-25. COMPACT SPACES:
Specify compact parking spaces on the Building Permit plans. All such areas shall be clearly marked prior to occupancy, in accordance with Title 19 of the Sunnyvale Municipal Code. [SDR] [PLANNING]

BP-26. BICYCLE SPACES:

DRAFT

Provide bicycle parking spaces per Citywide Design Guidelines and as approved by the Director of Community Development. Clearly indicate the location and the number of bicycle parking spaces on the Building Permit plans. The project is required to provide 1 bicycle parking space for every 4 units. The low-rise project shall provide 15 secured Class I bicycle parking spaces. The midrise project is required to provide 222 secured Class I bicycle parking spaces. The townhome project is required to provide 27 secured Class I bicycle parking spaces. Two-car garages in the townhome project qualify as 1 secured bicycle space. [COA] [PLANNING]

BP-27. NOISE REDUCTION:
Final construction drawings shall incorporate all noise mitigation measures as set forth under "Mitigation Measures" in the approved environmental document and all plans shall be wetstamped and signed by the consultant. [COA] [PLANNING]

BP-28. GREEN BUILDING:
The plans submitted for building permits shall demonstrate the project achieves a minimum of 110 points on the Green Point Rated checklist, or the minimum points required effective at the time of building permit submittal. The project plans shall be accompanied with a letter from the project's Green Point Rater/LEED AP verifying the project is designed to achieve the required points. [COA] [PLANNING] [BUILDING]

BP-29. CONSTRUCTION MANAGEMENT PLAN:
The project applicant shall implement a Construction Management Plan (CMP) to minimize impacts of construction on surrounding residential uses to the extent possible. The CMP shall be subject to review and approval by the Director of Community Development prior to issuance of a demolition permit, grading permit, or building permit. The CMP shall identify measures to minimize the impacts of construction including the following:

a) Measures to control noise by limiting construction hours to those allowed by the SMC, avoiding sensitive early morning and evening hours, notifying residents prior to major construction activities, and appropriately scheduling use of noise-generating equipment.

b) Use 'quiet' models of air compressors and other stationary noise sources where such technology exists.

c) Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.

DRAFT

d) Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from residences or other noise-sensitive land uses.

e) Locate staging areas and construction material areas as far away as possible from residences or noise-sensitive land uses.

f) Route all construction traffic to and from the project site via designated truck routes where possible. Prohibit construction-related heavy truck traffic in residential areas where feasible. Obtain approval of proposed construction vehicle truck routes from the Department of Public Works.

g) Manage construction parking so that neighbors are not impacted by construction vehicles. When the site permits, all construction parking shall be on-site and not on the public streets.

h) Prohibit unnecessary idling of internal combustion engine-driven equipment and vehicles.

i) Notify all adjacent business, residents, and noise-sensitive land uses of the construction schedule in writing. Notify nearby residences of significant upcoming construction activities at appropriate stages in the project using mailing or door hangers.

j) Designate a "disturbance coordinator" who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint and will require that reasonable measures warranted to correct the problem be implemented. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule. [COA] [PLANNING]

BP-30. FINAL MAP:
This This project is subject to, and contingent upon recordation of a final map. The submittal, approval and recordation of the final map(s) shall be in accordance with the provisions of the California Subdivision Map Act and Sunnyvale Municipal Code Title 18 Subdivision requirements. Final map(s) shall be recorded prior to any grading or building permit issuance (with the exception of site demolition and rough grading). [COA] [PUBLIC WORKS]

BP-31. STORMWATER MANAGEMENT PLAN:
Submit two copies of a Stormwater Management Plan subject to review and approval by Director of Community Development, pursuant to SMC 12.60, prior to issuance of building permit. The Stormwater Management Plan shall include as updated Stormwater Management Data Form. [COA] [PLANNING/ENVIRONMENTAL SERVICES]

BP-32. STORMWATER MANAGEMENT PLAN THIRD-PARTY CERTIFICATION:

DRAFT

Third-party certification of the Stormwater Management Plan is required per the following guidance: City of Sunnyvale – Stormwater Quality BMP Applicant Guidance Manual for New and Redevelopment Projects – Addendum: Section 3.1.2 Certification of Design Criteria Third-Party Certification of Stormwater Management Plan Requirements. The third-party certification shall be provided prior to building permit issuance. [SDR] [PLANNING/ENVIRONMENTAL SERVICES]

BP-33. DEMOLITION/CONSTRUCTION/RECYCLING WASTE REPORT FORM: To mitigate the impacts of large projects on local waste disposal and recycling levels, demolition waste weights/volumes, construction weights/volumes, and recycling weights/volumes are to be reported to the City using *www.sunnyvale.wastetracking.com* hosted by Green Halo. as part of the project's construction specifications, the developer shall track the type, quantity, and disposition of materials generated, and submit these records through the website both periodically and at project completion. [COA] [ENVIRONMENTAL SERVICES]

BP-34. SOLID WASTE DISPOSAL AND RECYCLING DESIGN PLAN:
A detailed solid waste disposal and recycling design plan shall be submitted for review and approval by the Director of Community Development prior to issuance of building permit. The solid waste disposal plan and building permit plans shall demonstrate compliance with current City requirements and guidelines for residential/multi-family projects. [COA] [PLANNING/ENVIRONMENTAL SERVICES]

BP-35. SOLID WASTE AND RECYCLING ENCLOSURE:
The building permit plans shall include details for the installation of recycling and solid waste enclosures that are consistent with SMC 19.38.030. The solid waste disposal and recycling facilities within the enclosure area or within buildings shall be designed with adequate size, space and clearance based upon City's latest guidelines. The required enclosures shall:

a) Match the design, materials and color of the main building;
b) Be of masonry construction;
c) Be screened from view;
d) All gates, lids and doors shall be closed at all times;
e) Shall not conflict with delivery/receiving areas;
f) Shall be consistent with the approved Solid Waste and Recycling Management Plan;
g) Solid waste and recycling diversion systems shall be incorporated into the facilities and tenant improvements. [COA] [PLANNING/ENVIRONMENTAL SERVICES]

DRAFT

BP-36. BUILDING PERMIT ISSUANCE:
Portion of the existing 10' public utility, storm drain and sanitary sewer easement along the western project limit shall be vacated, and new 30" storm drain main relocation completed and accepted by the City prior to approval of the townhomes on Lot 2 final map or City acceptance of the park. [COA] [BUILDING/PUBLIC WORKS]

BP-37. UNDERGROUND UTILITIES:
All utilities shall be undergrounded per Sunnyvale Municipal Code Chapter 19.38.095. [COA] [PLANNING/PUBLIC WORKS]

BP-38. On-site Private water meter(s):
The developer shall install individual private water meters for each residence, and for each ancillary building on-site. [COA] [BUILDING]

BP-39. CONSTRUCTION MATERIAL AND STAGING:
All construction related materials, equipment, and construction workers parking need to be managed on-site and not located in the public right-of-ways or public easements. [COA] [PUBLIC WORKS]

EP: THE FOLLOWING CONDITIONS SHALL BE ADDRESSED AS PART OF AN ENCROACHMENT PERMIT APPLICATION.

EP-1 EAST SUNNYVALE AREA SENSE OF PLACE PLAN:
This project is in the East Sunnyvale Area Sense of Place Plan area, therefore, the developer shall comply with any applicable design requirements as identified in the East Sunnyvale Sense of Place Plan or as amended and approved by the City. [COA] [PUBLIC WORKS]

EP-2 BENCHMARKS:
The improvement plans shall be prepared by using City's latest benchmarks (NAVD88) available on City's website https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?BlobID=23803 Plans based on NGVD29 will not be accepted. [COA] [PUBLIC WORKS]

EP-3 COMPLETE OFF-SITE IMPROVEMENT PLAN SET:
A complete plan check set applicable to the project, which may include street improvement plans, streetscape plans, streetlight plans, photometric analysis, signing/striping plans, erosion control plans, traffic signal plans and traffic control plans shall be submitted as part of the first off-site improvement plans, including on-site and off-site engineering cost estimate and the initial Engineering and Inspection plan review fee. Joint trench plans may be submitted at a later date.

No partial sets are allowed unless otherwise approved by the Department of Public Works. Sheets C1.0 through C5.0 of the Vesting Tentative Map package dated 1/29/19 are subject to change during plan check process. See Improvement Plan Checklist and Improvement Plan Submittal Checklist at the following 2 links:
https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?BlobID=24002
https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?BlobID=23625 [coa] [PUBLIC WORKS]

EP-4 UPGRADE OF EXISTING PUBLIC IMPROVEMENTS:
As part of the off-site improvement plan review and approval, any existing public improvements to be re-used by the project, which are not in accordance with current City standards and are not specifically identified in the herein project conditions (such as backflow preventers, sign posts, etc.), shall be upgraded to current City standards and as required by the Department of Public Works. [COA] [PUBLIC WORKS]

EP-5 STREETSCAPE IMPROVEMENTS:

a) Along the Duane Avenue project frontage, remove existing concrete gutter, curb and sidewalk and install new 2' concrete gutter, curb, and 6' attached sidewalk (measured from the back of curb) per current City standards, unless otherwise directed by the Director of Public Works.

b) Along the Stewart Drive project frontage, remove existing concrete gutter, curb and sidewalk and install new 2' concrete gutter, curb and 5.5' attached sidewalk (measured from the back of curb) per City standards, unless otherwise directed by the Director of Public Works.

c) Prior to design and installation of 5.5' sidewalk, conduct hand troweling, under supervision of a certified arborist, at back of existing sidewalk on Stewart Drive to identify potential risks to existing, mature, perimeter trees.

d) Along Stewart Drive Lot 7 project frontage, remove existing concrete gutter, curb and sidewalk and install new 2' concrete gutter, curb and 4' landscape strip (measured from the back of curb) and 6' detached sidewalk per City standards, unless otherwise directed by the Director of Public Works.

e) Along the new Indian Wells project frontage, excluding the park frontage, install 2' concrete gutter, curb, 4' wide parkstrip

(measured from the back of curb) and 6' detached sidewalk per City standards, unless otherwise directed by the Director of Public Works.

f) Along the park frontage along the new Indian Wells, install 2' concrete gutter, curb and 10' attached sidewalk (measured from the back of curb) with 4'x5' tree wells per City standards, unless otherwise directed by the Director of Public Works.

g) Indian Wells Avenue shall accommodate two-11' travel lanes, two-6' bike lanes, and two-3' striped buffer in addition to a traffic roundabout at the intersection of Indian Wells and the project entrances. Provide a 14' wide bike/pedestrian path/sidewalk for bikes exiting/entering the sidewalk at the roundabout, or as directed by the Director of Public Works.

h) In addition, the developer shall coordinate design improvements with an upcoming City project to install new crosswalks and bike box along Duane Avenue and Stewart Drive. [COA] [PUBLIC WORKS]

EP-6 STREET PAVEMENT:

a) Along the recently paved Duane Avenue, 2" mill and fill the asphalt concrete pavement from gutter to median/street centerline unless otherwise directed by the Director of Public Works with alternatives. Limits of the 2" mill and fill will be determined during the plan check process or field verification of trench cuts. Apply Type II slurry seal from gutter to gutter along the Stewart Drive project frontage, unless otherwise directed by the Director of Public Works.

b) Install new pavement section per Geotechnical Report recommendations along the entire width of Indian Wells. City will provide the traffic index (TI) for Indian Wells Avenue. [COA] [PUBLIC WORKS]

EP-7 STREET INTERSECTIONS:

Install street intersections with curb returns on the project's side of the street at Duane Avenue/Indian Wells Avenue, Stewart Drive/Santa Trinita, and both sides of Indian Wells Avenue/project entrance. [COA] [PUBLIC WORKS]

EP-8 STEWART DRIVE WIDENING:

The developer shall widen Stewart Drive, along the project frontage just south of Indian Wells Avenue, to accommodate a 480' long lane merge, 180' taper and install a 6' bike lane to connect to the existing south bound bike lane. Green bike lane shall be installed at conflict points

DRAFT

per City standards. Street dedication, in the form of an easement, will be required. [COA] [PUBLIC WORKS]

EP-9 DRIVEWAY APPROACHES:
Install a new driveway approach for the park entrance along Indian Wells Avenue approximately 155' from the Duane Avenue/Stewart Drive intersection to comply with Americans with Disabilities Act (ADA) requirements and City standard details and specifications. All unused driveway approaches shall be replaced with new curbs, gutters, and sidewalks per current City standards. [SDR] [PUBLIC WORKS]

EP-10 CURB RAMP:
Remove the existing curb ramps and replace with new directional curb ramps at all four corners of Duane Avenue/Stewart Drive and all four corners of Stewart Drive/Santa Trinita Avenue. Install new directional curb ramps at the intersection of Indian Wells Avenue and the project entrances in accordance to the latest City standard details, specifications and Americans with Disabilities Act (ADA) requirements. Additional re-grading of asphalt may be required to ensure there are no localized low points and positive surface runoff occurs along the flow line. Traffic signal modifications, pole and storm drain inlet relocations may be required. [COA] [PUBLIC WORKS]

EP-11 DECORATIVE PAVEMENT:
Any and all proposed decorative pavement and vertical curb pertaining to on-site development shall not be located within the City right-of-way. [COA] [PUBLIC WORKS]

EP-12 POTHOLING OF EXISTING DRY UTILITIES:
Concurrent with the initial submittal of off-site improvement plans, obtain an encroachment permit for potholing purposes to locate existing dry utilities. Use pothole information to identify possible conflict between the proposed location of City trees and existing utilities, proposed joint trench, and proposed connection of gravity utilities. Potholing is to take place in a timely manner so that this does not hold up the review of the improvement plans. [COA] [PUBLIC WORKS]

EP-13 UTILITY CONNECTION:
This project requires connection to all City utilities or private utilities operating under a City or State franchise which provide adequate levels of service. Required park utilities shall be installed and stubbed out to the property line during installation of utilities along Indian Wells and private streets. [COA] [PUBLIC WORKS]

EP-14 UTILITY CONNECTION TO THE MAIN:

DRAFT

All sanitary sewer laterals connecting to the existing main line shall be at a new sanitary sewer manhole. All storm drain laterals connecting to the main shall be at a new storm drain manhole, except where a pipe to pipe connection is permitted if the mainline is 36" or larger, or a junction structure is permitted where the point of connection is within close vicinity of an existing down-stream manhole. Pursuant to City design standards, any new and retrofitted manholes require Sewpercoat, Mainstay or Sancon calcium aluminate cementitious mortar coating of the interior. [SDR] [PUBLIC WORKS]

EP-15 STORM DRAIN RELOCATION:

a) This project requires the relocation and acceptance of an existing 30" public storm drain main along the western edge of the project prior to the approval of townhomes on Lot 2 final map or City acceptance of the park. A 15' public storm drain easement shall be recorded on the first final map when crossing private property.

b) Submit improvement plans for the on-site public storm drain main relocation separate from the off-site improvement plans and the Building on-site improvement plans as the storm drain relocation plans are approved through a Public Works Encroachment Permit process. The storm drain relocation shown Sheet C5.0 dated 1/29/19 are subject to change during the plan check process. [COA] [PUBLIC WORKS]

EP-16 MODIFICATIONS TO EXISTING PUBLIC UTILITIES:
Developer is required to pay for all changes or modifications to existing City utilities, streets and other public utilities within or adjacent to the project site, including but not limited to utility facilities/conduits/vaults relocation due to grade change in the sidewalk area, caused by the development. [COA] [PUBLIC WORKS]

EP-17 EXISTING UTILITY ABANDONMENT/RELOCATION:
Developer is responsible for research on all existing utility lines to ensure that there are no conflicts with the project. All existing utility lines (public or private) and/or their appurtenances not serving the project and/or have conflicts with the project, shall be capped, abandoned, removed, relocated and/or disposed of to the satisfaction of the City. Existing public facilities within the street right-of-way shall be abandoned per City's Abandonment Notes and procedures, including abandonment by other utility owners. [COA] [PUBLIC WORKS]

EP-18 RE-USE OF EXISTING CITY UTILITY SERVICE LINES:
The re-use of existing City water service lines is not allowed. Re-use of existing City sanitary sewer and storm drain service lines and

DRAFT

appurtenances is subject to City's review and approval. Developer's contractor shall expose the existing facilities during construction for City's evaluation or provide video footage of the existing pipe condition. Developer's contractor shall replace any deficient facilities as deemed necessary by the Department of Public Works. Sheets C1.0 through C5.0 of the Vesting Tentative Map package dated 1/29/19 are subject to change during plan check process. [COA] [PUBLIC WORKS]

EP-19 UTILITY METER/VAULT:
No existing or new utility meters or vaults shall be located within the new driveway approach. All existing or new utility vaults serving the project site shall be located on-site and not within the public utility easement, if any. [COA] [PUBLIC WORKS]

EP-20 DRY UTILITIES:
Submit dry utility plans and/or joint trench plans (PG&E, telephone, cable TV, fiber optic, etc.) to the Public Works Department for review and approval prior to the issuance of any permits for utility work within any public right-of-way or public utility easements. Separate encroachment permits shall be required for various dry utility construction. [SDR] [PUBLIC WORKS]

EP-21 WET UTILITIES:
All wet utilities (water, sanitary sewer, storm drain) on private property shall be privately owned and maintained. The fire and domestic water systems shall be privately owned and maintained beyond the meter. [COA] [PUBLIC WORKS]

EP-22 DUAL CONNECTION WATER SERVICE SYSTEM:
Provide two service points of connections for the domestic water, with two separate radio-read domestic master water meters and two separate reduced pressure backflow preventer (RPBP) in accordance with current City standards for the mid and low-rise apartments, and townhomes. Install a cut-in-tee gate valve between the two service hot taps. Backflows shall be the size as the water meters and must adhere to City's Cross-Connection Program. Backflow inspection permit and tags are required for all backflow devices. [COA] [PUBLIC WORKS/ENVIRONMENTAL SERVICES]

EP-23 IRRIGATION SERVICE LINE AND BACKFLOW PREVENTORS:
a) Install a separate irrigation water service line (separate from the domestic/fire water service line) with a water meter and backflow prevention device. Install and cap at the property line the irrigation water service line for the park.

DRAFT

b) All landscape and irrigation systems, located in the public park strip areas shall be connected to the water system metered to the property owner. Install new reduced pressure backflow prevention devices on the discharge side of irrigation line on private property. Install backflow preventer enclosure where applicable. Backflows shall be the same size as the water meters and must adhere to City's Cross-Connection Program. Backflow inspection permit and tags are required for all backflow devices. [COA] [PUBLIC WORKS]

EP-24 PUBLIC FIRE HYDRANTS:
Remove and replace the existing fire hydrant barrel(s) along the entire project frontage with current City standard Clow-Rich 865. New fire hydrant locations shall be per current City standard detail 2B and 2B-2. Public fire hydrant shall be maintained free and clear of all trees, vines, shrubs, bushes, ivy, etc. for a minimum of three feet. [COA] [PUBLIC WORKS/PUBLIC SAFETY-FIRE PROTECTION]

EP-25 SANITARY SEWER AND STORM DRAIN TRIBUTARY PATTERN:
This project is required to follow the existing sanitary sewer and storm drain tributary pattern. Any deviations would require additional analysis and subject to approval by the Public Works Department as part of the off-site improvement plan review process. This project shall not cause any negative impact on the drainage pattern for adjacent properties. [COA] [PUBLIC WORKS]

EP-26 SANITARY SEWER AND STORM DRAIN MANHOLES:
Install new sanitary sewer and storm drain manholes at the street right-of-way lines for all existing and proposed sanitary sewer laterals to be used for the project. [SDR] [PUBLIC WORKS]

EP-27 SANITARY SEWER VIDEO:
The contractor shall make a video copy of the interior of the new sanitary sewer lateral installed prior to it is put into service. [COA] [PUBLIC WORKS]

EP-28 STORM DRAIN DESIGN:
Provide storm drain hydrology and hydraulic calculations based upon a 10-year storm event to justify the size of the storm drain lateral flowing full. The new storm drain lateral shall be 12" and the main line shall be minimum 15" diameter in the public right-of-way.

EP-29 CATCH BASIN TRASH CAPTURE DEVICES AND BADGE/STENCILING:
Pursuant to SMC 12.60.130, install full trash capture devices on the project site, prior to connecting to the City's storm drain collection

DRAFT

system. The developer shall be responsible for perpetual maintenance of those trash capture devices. All storm drain inlet facilities located in the public right-of-way shall be stenciled and/or have a badge that read "NO DUMPING". Stencils/badges may be supplied by the Environmental Services Department if needed. [COA] [PLANNING/ENVIRONMENTAL SERVICES/PUBLIC WORKS]

EP-30 TRAFFIC SIGNAL MODIFICATIONS:
The developer shall update the existing traffic signal equipment at all four corners of Stewart Drive/Santa Trinita Avenue intersection and all four corners of Duane Avenue/Indian Wells Avenue intersection including but not limited to conduits, video detection, signal poles, pull boxes, conductors, internally illuminated street name signs, etc. per latest Caltrans Standards and City's Traffic Signal and Street Lighting Specifications. Install new accessible pedestrian signal (APS) push buttons at all corners. Install 3" traffic signal interconnect conduit from the western project limits along Duane to the Stewart Drive/Santa Trinita intersection. Install fiber optic cable from Duane Avenue/Indian Wells Avenue to Stewart Drive/Santa Trinita controller cabinet. [COA] [PUBLIC WORKS]

EP-31 PHOTOMETRIC ANALYSIS:

a) The developer is required to provide a photometric analysis based upon LED fixtures for Duane Avenue, Stewart Drive and Indian Wells Avenue as to determine that the street lighting meets current City's Roadway Lighting Design Criteria. Roadway, sidewalk and crosswalk illuminance calculations shall be calculated separately from each other.
b) The roadway and sidewalk illuminance values required to be met for Duane Avenue and Stewart Drive are:
   i.) Minimum Maintained Average Illuminance ≥ 1.1 fc
   ii.) Uniformity Ratio (Avg/Min) ≤ 4.0
   iii.) Max/Min ratio ≤ 20
c) The roadway and sidewalk illuminance values require to be met for Indian Wells Avenue are:
   i.) Minimum Maintained Average Illuminance ≥ 0.7 fc
   ii.) Uniformity Ratio (Avg/Min) ≤ 4.0
   iii.) Max/Min ratio ≤ 20
d) Marked crosswalks at street intersection should have a desired minimum average illuminance value ≥ 2.2 fc. However, if this is not achievable the developer shall install at least one safety light on each side of the crosswalk.
e) Illuminance values for marked midblock crosswalks are as follows:
   i.) Minimum Maintained Average Illuminance ≥ 0.5 fc
   ii.) Uniformity Ratio (Avg/Min) ≤ 4.0
   iii.) Minimum vertical illuminance at 5' above pavement ≥ 0.2 fc

DRAFT

f) The limits of the photometric analysis shall be the entire project frontage and include all existing streetlights on both sides of Duane Avenue and Stewart Drive along and adjacent to the project frontage, with streetlights being LED fixtures.
g) The developer shall upgrade all existing streetlight fixtures along the Duane Avenue and Stewart Drive project frontage to LED fixtures. All LED fixtures shall be of the same make and model (current approved manufacturers is Philips or approved equal that meet the current City of Sunnyvale LED roadway lighting specifications).
h) If the photometric analysis shows the need to relocate or install new streetlights, the developer shall also replace all existing streetlight conduits, wires and pull boxes with new ones along Duane Avenue and Stewart Drive frontages per City's current standards.
i) The light lost factor (LLF) to be used is 0.95. The LED fixture should have an efficiency of at least 90 lumens/watt and should have the International Dark-Sky Association (IDA) fixture seal of approval (FSA) and be on their IDA-Approved™ Products list. Along with the photometric analysis the developer shall provide cut sheets for proposed fixtures, ies files used to perform analysis, test results from certified dependent lab, and electronic copy of the photometric analysis in AGi32 format. All LED fixtures shall have a 10-year warranty.
j) Submit separate streetlight plans concurrently with the off-site improvement plan review to include installation of new conduits, existing and/or new locations of power source connection and new service pedestal, conductors, pull boxes, voltage drop and load calculations, and any other streetlight equipment as required to be installed by the Developer per latest City standard details and specifications and National Electric Code. Streetlight fixture pole types along Duane Avenue, Stewart Drive and Indian Wells Avenue shall be in accordance with the East Sunnyvale Area Sense of Place Plan requirements, unless otherwise directed by the Director of Public Works.
k) Developer shall comply with City streetlight design guidelines and plan check submittal requirements as provided by the City upon request.
l) Obtain PG&E's approval for new service pedestal, if required, prior to Encroachment Permit issuance. [COA] [PUBLIC WORKS]

EP-32 FAIR OAKS AVENUE/DUANE AVENUE:
Prior to the first encroachment permit issuance, the developer shall pay a fair share cost for the design and extension of the westbound Duane Avenue right turn lane. The estimated fair share cost for design, re-striping, signage and community outreach is Fifteen Thousand and No/100 dollars ($15,000.00). [COA] [PUBLIC WORKS]

DRAFT

EP-33 DE GUIGNE DRIVE/SANTA REAL AVENUE:
The developer shall install a marked crosswalk and enhanced safety system (e.g. in-roadway lights or rectangular rapid flash beacon or as directed by the Director of Public Works) on the east leg of the intersection to provide better pedestrian visibility to motorist. Install new pedestrian crossing warning signs, per the latest California Manual on Uniform Traffic Control Devices, and relocate existing 'No Parking to Here' signs on the west side of Santa Real Drive as needed. [COA] [PUBLIC WORKS]

EP-34 SIGNING AND STRIPING PLANS:
Submit a signing and striping plan in accordance with the latest edition of the CA MUTCD to City for review and approval by the Public Works Department. Restripe the existing Indian Wells Avenue and Santa Real Avenue by continuing the 6' bike lane, 3' striped buffer land and 11' travel lanes to De Guigne Drive. On-street parking shall be removed. Pavement striping/marking shall be in thermoplastic. Establish a stop control at each of the project's driveway/intersection exit onto Indian Wells Avenue and Stewart Drive. [COA] [PUBLIC WORKS]

EP-35 TRAFFIC CONTROL PLAN:
Submit a traffic control plan and temporary traffic control (TTC) checklist with the off-site improvement plans for review and approval. Per the TTC, the traffic control plan shall include a summary of the traffic control types, dates, times and blocks affected. All construction related materials, equipment, and construction workers parking need to be stored on-site and the public streets need to be kept free and clear of construction debris. [COA] [PUBLIC WORKS]

EP-36 DAMAGE TO EXISTING PUBLIC IMPROVEMENTS:
Developer shall be responsible to rectify any damage to the existing public improvements fronting and adjacent to the project site as a result of project construction, to City's satisfaction by the Public Works Department. All existing traffic detector loops and conduits shall be protected in place during construction. Any damaged detector loops shall be replaced within 7 days at the expense of the developer. [COA] [PUBLIC WORKS]

EP-37 CITY STREET TREES:
The developer shall install required street trees in proposed tree wells within the public right-of-way along the project frontage as follows: Indian Wells Avenue: Lophosemon confertus – Brisbane Box; Stewart Drive: Platanus x acerifolia 'Columbia' – London Plane Tree. Street trees and frontage landscaping shall be included in the detailed landscape and irrigation plan subject to review and approval by the Department

DRAFT

of Public Works prior to issuance of encroachment permit. New street trees shall be 24-inch box size or 15-gallon size spaced approximately 35' apart. No street trees are to be planted within 10' of a sanitary sewer lateral. Sheet Sheets C1.0 through C5.0 of the Vesting Tentative Map package dated 1/29/19 are subject to change during plan check process. [SDR] [PUBLIC WORKS]

EP-38 PROTECTION OF EXISTING TREES:
No utility trench shall be allowed within 15' radius of an existing mature tree. Boring, air spade or other excavation method as approved by the City Arborist shall be considered to protect existing mature tree. Consult with the City Arborist prior to adjusting locations of utility lines. [SDR] [PUBLIC WORKS]

EP-39 ROOT BARRIER:
Install a continuous root barrier along new sidewalk adjacent to City trees per City standard details and specifications. [SDR] [PUBLIC WORKS]

EP-40 SANTA CLARA VALLEY TRANSPORTATION AUTHORITY (VTA) COORDINATION:
Developer shall notify VTA of the proposed plans to determine if any VTA improvements are necessary or if any VTA lines will be impacted during construction. Developer shall work with VTA directly on these improvements. VTA contact is Robert Daniels, Service & Operations Planning (408) 321-5780.

EP-41 MAINTENANCE AGREEMENT:
Prior to encroachment permit issuance, developer shall execute a Maintenance Agreement for perpetual maintenance of the storm drainage treatment facilities and landscaping in the roundabout located within the Indian Wells Avenue public right-of-way. The subject Maintenance Agreement shall be recorded prior to first building occupancy. [COA] [PUBLIC WORKS/ENVIRONMENTAL SERVICES]

EP-42 RECORD DRAWINGS:
Stamped and signed hard copy record drawings of the off-site improvements (including off-site street, sewer, water, storm drain and landscaping plans) shall be submitted to the City prior to encroachment permit sign-off. In addition, streetlight record drawings shall be in AutoCAD format. Developer shall pay the record drawing fee. [COA] [PUBLIC WORKS]

TM: THE FOLLOWING CONDITIONS SHALL BE MET PRIOR TO THE APPROVAL OF THE FINAL MAP OR PARCEL MAP.

DRAFT

TM-1. CONDITIONS, COVENANTS AND RESTRICTIONS (CC&RS) (DRAFT REVIEW):

Any proposed deeds, covenants, restrictions and by-laws relating to the subdivision are subject to review and approval by the Director of Community Development and the City Attorney. Four (4) sets of the CC&Rs including all information required below shall be submitted to the Engineering Division of the Public Works Department for routing. In addition to requirements as may be specified elsewhere, the CC&R's shall include the following provisions:

a) Membership in and support of an association controlling and maintaining all common facilities shall be mandatory for all property owners within the development.

b) The owners association shall obtain approval from the Director of Community Development prior to any modification of the CC&R's pertaining to or specifying the City.

c) The developer shall maintain all private utilities and landscaping for a period of three (3) years following installation of such improvements or until the improvements are transferred to a owners association, following sale of at least 75% of the units, whichever comes first.

d) The Standard Development Requirements and Conditions of Approval included as part of the approved Planning Application, Permit # **2016-8035**, and associated map shall be incorporated into the CC&Rs as an exhibit or attachment. The included map shall clearly indicate all public/private easements as disclosure for property owners. The CC&Rs shall include a list of all attachments and/or exhibits.

e) The CC&Rs shall contain language for Best Management Practices "Agreement to Maintain" pursuant to Sunnyvale Municipal Code 12.60.200.

f) The CC&Rs shall contain the following provisions:

   i) The owners association shall maintain parkstrip landscaping in perpetuity along the public street fronting the project site.

   ii) Property owners are prohibited from modifying drainage facilities and/or flow patterns unless reviewed and approval granted from the Public Works Department.

g.) The CC&Rs shall contain the following language:

   i) "Right to Remedy Failure to Maintain Common Area. In the event that there is a failure to maintain the Common Area so that owners, lessees, and their guests suffer, or will suffer, substantial diminution in the enjoyment, use, or property value of their Project, thereby impairing the health, safety and

DRAFT

welfare of the residents in the Project, the City, by and through its duly authorized officers and employees, will have the right to enter upon the subject Property, and to commence and complete such work as is necessary to maintain said Common Area. The City will enter and repair only if, after giving the Association and Owners written notice of the failure to maintain the Common Area, they do not commence correction of such conditions in no more than thirty (30) days from the giving of the notice and proceed diligently to completion. All expenses incurred by the City shall be paid within thirty (30) days of written demand. Upon a failure to pay within said thirty (30) days, the City will have the right to impose a lien for the proportionate share of such costs against each lot in the Project.

iii) It is understood that by the provisions hereof, the City is not required to take any affirmative action, and any action undertaken by the City will be that which, in its sole discretion, it deems reasonable to protect the public health, safety and general welfare, and to enforce it and the regulations and ordinances and other laws.

iv) It is understood that action or inaction by the City, under the provisions hereof, will not constitute a waiver or relinquishment of any of its rights to seek redress for the violation of any of the provisions of these restrictions or any of the rules, regulations and ordinances of the City, or of other laws by way of a suit in law or equity in a court of competent jurisdiction or by other action.

v) It is further understood that the remedies available to the City by the provision of this section or by reason of any other provisions of law will be cumulative and not exclusive of the maintenance of any other remedy. In this connection, it is understood and agreed that the failure to maintain the Common Area will be deemed to be a public nuisance and the City will have the right to abate said condition, assess the costs thereof, and cause the collection of said assessments to be made on the tax roll in the manner provided by appropriate provisions of the Sunnyvale Municipal Code or any other applicable law.

vi) No Waiver. No failure of the City of Sunnyvale to enforce any of the covenants or restrictions contained herein will in any event render them ineffective.

vii) Hold Harmless. Declarant, Owners, and each successor in interest of Declarant and said Owners, hereby agree to save, defend and hold the City of Sunnyvale harmless from any and all liability for inverse condemnation which may result from, or

DRAFT

be based upon, City's approval of the Development of the subject Property." [COA] [PUBLIC WORKS/PLANNING/CITY ATTORNEY]

TM-2. HOA CREATION:
The developer/Owner shall create a Homeowner's Association that comports with the state law requirements for Common Interest Developments. Covenants, conditions and restrictions (CC&Rs) relating to the development are subject to review for consistency with the Conditions of Approval by the City Attorney and Director of Community Development prior to approval of the Final Map. The Conditions of Approval shall be attached as an exhibit to the CC&Rs created for this subdivision. [COA] [PLANNING]

TM-3. HOA TRANSFER:
At the time the homeowners association is transferred from the developer to the individual property owners (typically at election of board members or officers), the developer shall schedule a meeting between the board members or officers, the City of Sunnyvale and the developer to review the Conditions of Approval of the development and other applicable City requirements. [COA] [PLANNING]

TM-4. NEW STREET NAMING:
The name of the public street shall be Indian Wells Avenue. [COA] [PLANNING]

TM-5. COMMON LOT:
The common lot shall be assigned a private street name in accordance with the official Street Name System, as selected by the Community Development Department. [COA] [PLANNING]

TM-6. LOT LINE ADJUSTMENT:
A lot line adjustment for Lot 7 shall be completed and recorded with Santa Clara County prior to the final map approval. [COA] [PUBLIC WORKS]

TM-7. FINAL MAP COMPLIANCE WITH VESTING TENTATIVE MAP:
The final map shall be substantially the same as the vesting tentative map. Any alteration of the vesting tentative map after the vesting tentative map is approved is subject to additional approval by the City and may require a public hearing. Sheets C1.0 through C5.0 of the Vesting Tentative Map package dated 1/29/19 are subject to change during plan check process. [COA] [PLANNING/PUBLIC WORKS]

DRAFT

TM-8. TITLE 18 AND SUBDIVISION MAP ACT:
The submittal, approval and recordation of the final map shall be in accordance with the provision of the California Subdivision Map Act and Sunnyvale Municipal Code Title 18 Subdivision requirements. [COA] [PUBLIC WORKS]

TM-9. PUBLIC/PRIVATE STREETS:
All streets, both public and private, shall be shown on the final parcel Map. Street names shall be approved by the Director of Community Development. Private streets shall be designated as "Terrace". [COA] [PUBLIC WORKS]

TM-10. EASEMENT DEDICATION:

a) This project requires a 26'-wide minimum emergency vehicle ingress and egress easement and 15' public storm drain easement dedications on and over the private roadways.

b) In addition, street easement dedications are required along Indian Wells Avenue and the widened portion of Stewart Drive, just south of Duane Avenue. [COA] [PUBLIC SAFETY/PUBLIC WORKS]

TM-11. RESERVATION/ABANDONMENT OF EASEMENTS:
Reservation of new and/or abandonment of existing public/private utility easement(s), ingress/egress easement(s), reciprocal parking easement(s), cross-lot drainage easement(s), sanitary sewer easement necessary for the project shall be delineated on the map or recorded concurrently with the map with a separate instrument. Quitclaim deed is required for abandonment of private easements prior to map recordation. All easements shall be kept open and free from buildings and structures of any kind except those appurtenances associated with the defined easements. [COA] [PUBLIC WORKS]

TM-12. PUBLIC PARK:
The developer shall dedicate to the City a 6.5-acre public park located at the corner of Duane Avenue and Indian Wells Avenue with recordation of an "Offer of Dedication" concurrently with the first final map. Dedicated park shall follow the City's Standards for Acceptance of Land for Park Purposes and Park Agreement. The public frontage improvements shall conform to the requirements noted above and the park improvements will be reviewed and approved by the City, unless otherwise approved by the Director of Public Works. The park parking lot shall provide 33-parking stalls. Park improvements and project access to the park are subject to City's review and approval during the plan check process. [COA] [PUBLIC WORKS]

DRAFT

TM-13. UTILITY COMPANY APPROVAL:
Obtain map approval letters from the utility companies in regards to any existing or new easements associated with their facilities. [COA] [PUBLIC WORKS]

TM-14. COST ESTIMATE:
Provide an itemized engineer's estimate for all off-site public improvements and on-site private improvements for the entire project with breakdowns corresponding to each construction phases (in accordance with City approved phasing plan). [COA] [PUBLIC WORKS]

TM-15. SUBDIVISION IMPROVEMENT AGREEMENT AND IMPROVEMENT SECURITIES:
The developer shall execute a subdivision improvement agreement and provide improvement securities and/or cash deposit(s) for all proposed public improvements prior to map recordation or any permit issuance, whichever occurs first. Provide an itemized engineer's estimate for all improvements for the entire project for determination of security amount. [COA] [PUBLIC WORKS]

TM-16. PUBLIC WORKS DEVELOPMENT FEES:
The developer shall pay all applicable Public Works development fees associated with the project, including but not limited to, utility frontage and/or connection fees and off-site improvement plan check and inspection fees, prior to map recordation or any permit issuance, whichever occurs first. The exact fee amount shall be determined based upon the fee rate at the time of fee payment. [COA] [PUBLIC WORKS]

TM-17. COVENANTS, CONDITIONS AND RESTRICTIONS (CC&RS):
Any proposed deeds, covenants, conditions, restrictions and by-laws relating to the subdivision are subject to review and approval by the City. The CC&R's shall include the following provisions:

a) All public/private easements pertaining to the project shall be identified and/or defined and made aware to the homeowners in the CC&R's.
b) The Homeowners Association shall maintain parkstrip landscaping in perpetuity along the public street fronting the project site.
c) The developer shall maintain all private utilities and landscaping for a period of three years following installation of such improvements or until the improvements are transferred to a Homeowners Association, following sale of at least 75% of the units, whichever comes first. (Subdivision Improvement Agreement)

DRAFT

d) Homeowners are prohibited from modifying drainage facilities and/or flow patterns of their lots without first obtaining permission from the City.
e) There shall be provisions of post construction Best Management Practices in the CC&R's in regards to the stormwater management. [COA] [PUBLIC WORKS/PLANNING/CITY ATTORNEY]

PF: THE FOLLOWING CONDITIONS SHALL BE ADDRESSED ON THE CONSTRUCTION PLANS AND/OR SHALL BE MET PRIOR TO RELEASE OF UTILITIES OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

PF-1. LANDSCAPING AND IRRIGATION:
All landscaping and irrigation as contained in the approved building permit plan shall be installed prior to occupancy. [COA] [PLANNING]

PF-2. COMPACT SPACES:
All such areas shall be clearly marked prior to occupancy, as indicated on the approved building permit plans. [COA] [PLANNING]

PF-3. PARKING LOT STRIPING:
All parking lot striping, carpool and compact spaces shall be striped as per the approved plans and Public Works standards. [COA] (PLANNING/ENGINEERING)

PF-4. CONDITIONS, COVENANTS AND RESTRICTIONS (CC&RS) (RECORDATION):
The Developer/Owner shall submit a copy of the recorded CC&Rs and a letter from the Developer/Owner either indicating that the recorded CC&Rs are in conformance with the approved draft CC&Rs or summary of changes shall be provided to the Director of Community Development prior to release if utilities or certificate of occupancy. [COA] [PUBLIC WORKS/PLANNING/CITY ATTORNEY]

PF-5. HOA ESTABLISHMENT:
The developer shall submit to the Planning Division the names, addresses and telephone numbers of the officers of the homeowners association, architectural review committee or similar committee, at the time the organization is granted autonomy. Until such information is supplied, the developer shall remain a Responsible Person for purposes of maintaining all common property. The chairperson, secretary or principal officer of any committee or association shall notify the City of any change in officers and provide the names, addresses and telephone numbers of the new officers within thirty (30) days after the change becomes effective. [COA] [PLANNING]

DRAFT

PF-6. IRRIGATION METERS:
For commercial and industrial projects, to ensure appropriate sewer billing (water used for irrigation may not be billed for sewer), the developer may provide separate (irrigation and other) intake meters. Such meters could be installed prior to occupancy of the building. [COA] [PLANNING]

PF-7. BMR COMPLETION 60-DAY ADVANCE NOTICE:
The Developer/Owner must provide a written "Notice of Intent to Sell" to the Affordable Housing Manager for each BMR unit(s) to be provided in the development at least sixty (60) days (but no more than ninety (90) days) prior to the request for a certificate of occupancy or receipt of a DRE report for the unit, whichever is later. Upon receipt of this Notice, the Housing Division will inform the developer of the current maximum BMR sales price applicable to the unit, based on number of bedrooms, as published in the BMR Program Guidelines and updated annually. The developer must also request and pass a site inspection by the Affordable Housing Manager to verify that the BMR units have been completed in compliance with the BMR Development Agreement. [COA] [HOUSING]

PF-8. AFFORDABLE RENTAL UNITS DEVELOPER AGREEMENT:
Housing staff shall verify that the Developer has complied with GC-15 (Affordable Rental Housing Developer Agreement) and that the required affordable rental units have been marketed and made available for rent upon project completion in compliance with the recorded Developer Agreement. [COA] [HOUSING]

PF-9. STORMWATER TREATMENT FACILITIES ALONG INDIAN WELLS:
The developer shall be responsible for treatment and maintenance of stormwater and stormwater treatment facilities in the public right-of-way along Indian Wells Avenue. [COA] [PUBLIC WORKS/ENVIRONMENTAL SERVICES]

PF-10. NEW PUBLIC EASEMENTS LOCATED ON-SITE:
Any new easements required for public use purpose shall be either shown on the first recorded final map or on a separate recorded Easement Deed deemed necessary by the Department of Public Works prior to any building occupancy. [COA] [PUBLIC WORKS]

PF-11. PARKING LOT STRIPING:
All parking lot striping, guest spaces, and compact spaces shall be striped as per the approved building permit plans and Public Works standards prior to occupancy. [COA] [PLANNING/PUBLIC WORKS]

DRAFT

PF-12. COMPLETION OF PUBLIC IMPROVEMENTS:
Developer shall complete all required public improvements as required and in accordance with City approved plans, prior to any building occupancy. [COA] [PUBLIC WORKS]

DC: THE FOLLOWING CONDITIONS SHALL BE COMPLIED WITH AT ALL TIMES DURING THE CONSTRUCTION PHASE OF THE PROJECT.

DC-1. BLUEPRINT FOR A CLEAN BAY:
The project shall be in compliance with stormwater best management practices for general construction activity until the project is completed and either final occupancy has been granted. [SDR] [PLANNING]

DC-2. TREE PROTECTION:
All tree protection shall be maintained, as indicated in the tree protection plan, until construction has been completed and the installation of landscaping has begun. [COA] [PLANNING]

DC-3. CLIMATE ACTION PLAN – OFF ROAD EQUIPMENT REQUIREMENT:
OR 2.1: Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), or less. Clear signage will be provided at all access points to remind construction workers of idling restrictions.

OR 2.2: Construction equipment must be maintained per manufacturer's specifications.

OR 2.3: Planning and Building staff will work with project applicants to limit GHG emissions from construction equipment by selecting one of the following measures, at a minimum, as appropriate to the construction project:

a) Substitute electrified or hybrid equipment for diesel- and gasoline-powered equipment where practical.

b) Use alternatively fueled construction equipment on-site, where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.

c) Avoid the use of on-site generators by connecting to grid electricity or utilizing solar-powered equipment.

DRAFT

d) Limit heavy-duty equipment idling time to a period of 3 minutes or less, exceeding CARB regulation minimum requirements of 5 minutes. [COA] [PLANNING]

DC-4. DUST CONTROL:

At all times, the Bay Area Air Quality Management District's CEQA Guidelines and "Basic Construction Mitigation Measures Recommended for All Proposed Projects", shall be implemented. [COA] [PLANNING]

DC-5. PILE DRIVING:

Construction shall not include deep pile foundations or pile driving or extremely high noise-generating activities or significant vibration. The applicant has stated that auger cast piles or drilled piers may be implemented instead per geotechnical recommendation. Pile driving noise-reducing techniques and muffling devices such as augered geo piers shall be used. If driven piles are required, EIR Mitigation 4.8-2 includes maximum vibration exposure and distance requirements minimizing ground vibration. [COA] [PLANNING]

DC-6. HISTORIC AND CULTURAL RESOURCES:

The project could potentially impact an unknown historic, cultural resource during the grading and construction phases of the project. The applicant shall comply with the following:

a) Prior to ground disturbance, a qualified archaeologist shall conduct further archival and field study to identify archaeological resources, including a good faith effort to identify archaeological deposits that may show no indications on the surface.
b) If archaeological resources or remains, including Native American resources, are encountered during construction, work shall be temporarily halted in the vicinity of the discovered materials/remains and workers shall not alter the materials/remains and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel shall not collect any of the resources found.
c) Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe

DRAFT

foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

d) Any identified cultural resources shall be recorded on DPR 523 historic resource recordation forms. [COA] [PLANNING]

AT: THE FOLLOWING CONDITIONS SHALL BE COMPLIED WITH AT ALL TIMES THAT THE USE PERMITTED BY THIS PLANNING APPLICATION OCCUPIES THE PREMISES.

AT-1. RECYCLING AND SOLID WASTE:
All exterior recycling and solid waste shall be confined to approved receptacles and enclosures. [COA] [PLANNING]

AT-2. SOLID WASTE RECYCLING MANAGEMENT:
Waste and recycling services for residential uses shall be maintained under a master account held by the applicant, owner or landlord. The account holder will be responsible for ensuring adequate services and that all locations, private sidewalks and streets are kept free of litter and stains. Requirements shall be specified in the approved documents and be submitted for approval by the City. [COA] [ENVIRONMENTAL SERVICES]

AT-3. LOUDSPEAKERS PROHIBITED:
Out-of-door loudspeakers shall be prohibited at all times. [COA] [PLANNING]

AT-4. EXTERIOR EQUIPMENT:
All unenclosed materials, equipment and/or supplies of any kind shall be maintained within approved enclosure area. Any stacked or stored items shall not exceed the height of the enclosure. Individual air conditioning units shall be screened with architecture or landscaping features. [COA] [PLANNING]

AT-5. LANDSCAPE MAINTENANCE:
All landscaping shall be installed in accordance with the approved landscape plan and shall thereafter be maintained in a neat, clean, and healthful condition. Trees shall be allowed to grow to the full genetic height and habit (trees shall not be topped). Trees shall be maintained using standard arboriculture practices. [COA] [PLANNING]

DRAFT

AT-6. PARKING MANAGEMENT:
On-Site parking management shall conform with the approved parking management plan. [COA] [PLANNING]

AT-7. PARKING LOT MAINTENANCE:
The parking lot shall be maintained in accordance with the approved plans and as follows:

a) Clearly mark all employee, customer, and compact spaces. This shall be specified on the Building Permit plans and completed prior to occupancy.
b) Maintain all parking lot striping and marking.
c) Assure that adequate lighting is available in parking lots to keep them safe and desirable for the use.
d) Require signs to direct vehicles to additional parking spaces on-site, as needed.
e) Clearly mark all compact spaces as per approved plans. [COA] [PLANNING]

AT-8. OFF-STREET PARKING:
Off-street parking for both residents and guests shall be maintained at all times in accordance with approved plans. [COA] [PLANNING]

AT-9. PARKING LOT MAINTENANCE:
The parking lot shall be maintained as follows:

a) Garage and carport spaces shall be maintained at all times so as to allow for parking of vehicles.
b) Clearly mark all assigned, guest, and compact spaces. This shall be specified on the Building Permit plans and completed prior to occupancy.
c) Maintain all parking lot striping and marking.
d) Maintain parking lot lighting and exterior lighting to ensure that the parking lot is maintained in a safe and desirable manner for residents and/or patrons. [COA] [PLANNING]

AT-10. RECREATIONAL VEHICLE STORAGE PROHIBITED:
Unenclosed storage of any vehicle intended for recreation purposes, including land conveyances, vessels and aircraft, but excluding attached camper bodies and motor homes not exceeding 18 feet in length, shall be prohibited on the premises. [COA] [PLANNING]

DRAFT

AT-11. HOA REVIEW AND APPROVAL:
In common interest developments, any future applications to the City for physical modifications on commonly owned property shall require consent of the board of directors of the homeowners association, architectural review committee or similar committee; applications for physical modifications on privately owned property shall require the individual property owner's signature. Individual property owners submitting an application for physical modifications on private property shall comply with any approval processes outlined as such in the conditions, covenants & restrictions (CC&Rs) of their respective development. [COA] [PLANNING]

AT-12. HOA RESPONSIBILITIES:
The chairperson, secretary or principal officer of any committee or association shall notify the Planning Division and the Neighborhood and Community Resources Division of any change in officers and provide the names, addresses and telephone numbers of the new officers within thirty (30) days after the change becomes effective. [COA] [PLANNING DIVISION/NEIGHBORHOOD AND COMMUNITY RESOURCES DIVISION]

AT-13. BMP MAINTENANCE:
The project applicant, owner, landlord, or HOA, must properly maintain any structural or treatment control best management practices to be implemented in the project, as described in the approved Stormwater Management Plan and indicated on the approved building permit plans. [SDR] [PLANNING]

AT-14. BMP RIGHT OF ENTRY:
The project applicant, owner, landlord, or HOA, shall provide access to the extent allowable by law for representatives of city, the local vector control district, and the Regional Water Quality Control Board, strictly for the purposes of verification of proper operation and maintenance for the storm water treatment best management practices contained in the approved Storm Water Management Plan.[SDR] [PLANNING]

DRAFT

Link to project page for site and architectural plans:

https://sunnyvale.ca.gov/business/projects/amd.htm

MEMORANDUM

Date: January 14, 2019

To: Carlene Matchniff, Irvine Company

From: Robert Eckols and Sara Sadeghi

Subject: Transportation Demand Management (TDM) Framework for the 1 Advanced Micro Devices (AMD) Place Redevelopment Project, Sunnyvale, California

---

This memorandum provides a Transportation Demand Management (TDM) framework for the residential redevelopment located at 1 Advanced Micro Devices Place and 975 Stewart Drive within the eastern portion of Sunnyvale, California. The approximately 34.7 acres project site encompasses two parcels north of Stewart Drive, south of Duane Avenue, and west of the Duane Avenue/Stewart Drive intersection. This memorandum describes the design features and programs that the Irvine Company will consider as they develop the TDM program. These programs are consistent with the City of Sunnyvale standards and, in many cases, are programs that The Irvine Company has used at other residential projects.

Project Description and TDM Requirements

The proposed project will remove approximately 700,000 square feet of Research & Development office space and construct 1,074 residential dwelling units (apartments and townhouses) and a 6.5-acre park. The intent of the project is to provide new housing opportunities to accommodate the city's existing and future housing demand.

The City of Sunnyvale requires all new developments with 10 or more residential units to develop a TDM program in accordance with the City of Sunnyvale's *Multi-Family Residential TDM Program* standards. Per this program, obtaining a minimum of 10 points is required for multi-family residential developments with 100 or more of residential units to satisfy the City's TDM Program. City of Sunnyvale's List of TDM strategies for multi-family residential developments with number of points for each strategy is in **Attachment A**.

The primary purpose of any TDM plan is to reduce the amount of vehicle traffic and parking generated by a development by creating measures, strategies, incentives, and programs to shift residents from driving alone to other travel modes including transit, carpooling/ridesharing, cycling, and walking. TDM strategies can include informational resources, physical site enhancements, and other programs and incentives that allow residents to use other modes of travel other than driving alone.

TDM Measures and Strategies

Table 1 presents a list of TDM measures and strategies that will form the framework for the development of a TDM Plan for the project site. There are both required and optional measures will meet the City's requirements for the proposed project including meeting the 10-point requirement per the City's *Multi-Family Residential TDM Program*. The Irvine Company will prepare a TDM Plan documenting these program elements and submit the plan to the City of Sunnyvale for review prior to occupancy of the project.

TABLE 1: TDM FRAMEWORK MEASURES

TDM Measure	Description	Required as part of TDM Plan	Optional Measures that will be Considered
Measures Incorporated into the Building and Site Design			
Pedestrian connections	Provide convenient pedestrian connections between the building entrances and sidewalks on the surrounding roadways.	✓	
Passenger loading zone	Provide adequate passenger loading zone in an accessible location for drop-off and pick-up of carpool, vanpool, and TNC passengers.	✓	
Bicycle parking (short + long term)	Provide bicycle parking facilities to support bicycling as a mode. Long term bicycle parking can be provided in an enclosed locked limited access area and short bicycle parking such as secure bicycle racks in the vicinity of the building entrances.	✓	
Exercise facilities	Provide on-site amenities that would otherwise require separate vehicle trips for the residents.	✓	
Programmatic Measures			
Transportation coordinator	The rental management office will designated a person to serve as the site's Transportation Coordinator. They will be responsible compiling new resident packets, distribution transportation information to residents, and managing TDM incentive programs.	✓	
New residents alternative travel modes informative packet	New resident packets including information about available alternative modes of transportation and nearby transit, bike and pedestrian facilities will be provided upon move-in.	✓	
Organized walk or bike groups	Promotes pedestrian and bicycle travel, raises an individual's comfort level with these modes of transportation, and improves the health of residents	✓	
Transportation information boards and website	The development will have a location at which residents can obtain the information on alternative transportation services.		✓
Transit pass program	Implement a transit pass program similar to the transit pass programs outlined in the City's TDM standards.		✓
On site bicycle repair facility	Providing self-repair tune-up bicycle facility on site.	✓	
Free use of bicycles on site	Bicycles will be available for free use to all residents and will be stored in secure bicycle parking spaces on site. Property management will be responsible for maintenance of the bicycles.		✓
Unbundled Parking	Unbundled parking, which separates the sale or lease of a vehicular parking space from the sale or lease of living units, will be provided for all units.		✓
Car share program	Provide members with access to a fleet of shared vehicles, making it easier for households to live without a car or a second vehicle. Developments can promote car sharing by providing spaces in their parking facilities, by providing free or subsidized memberships to tenants, and by promoting the service to residents.		✓

Source: Fehr & Peers, January 2019

Attachment A

City of Sunnyvale
Multi-Family Residential Transportation Demand Management (TDM) Program

Multi-family Residential TDM Program

All multi-family development projects consisting of 10 or more residential units shall participate in the Multi-family Residential TDM Program.

TDM Points Required

Number of Residential Units	Minimum Number of Points Required
100 or more residential units	10 points from the menu of TDM strategies
Between 10 and 99 residential units	Proportionate Percentage of 10 points (rounded to the nearest half or whole number) from the menu of TDM strategies Ex: 94 units/10 points = 9.4 rounded to 9.5 points 62 units/10 points = 6.2 rounded to 6 points

Menu of TDM Strategies

Transportation Demand Management Strategies		Points Obtained*
Proximity to Transit	Less than .5 miles to a major transit route (15-min headway)	1
	Less than .5 miles to a major transit stop (2 routes @ 15-min headway)	5
	Less than .5 miles to Caltrain/Light Rail Station	8
Affordable Housing	20% Affordable Housing Project	1
	40% Affordable Housing Project	2
	60% Affordable Housing Project	3
	80% Affordable Housing Project	4
	100% Affordable Housing Project	5

Proximity to Commercial Uses	Less than .5 miles from: 1. A shopping center consisting of at least three tenant spaces, or 2. Three separate retail/restaurant/service/recreational uses	1
	Less than .25 miles from: 1. A shopping center consisting of at least three tenant spaces, or 2. Three separate retail/restaurant/service/recreational uses	3
Access Improvements	Close Gaps: Bicycle, Pedestrian, and/or transit access improvements (e.g. bike lanes)	3
Bicycle Facilities	Provide an on-site bicycle repair station and secured bicycle parking	0.5
Wayfinding Station	On-site kiosk or information center with multi-modal wayfinding information and transit information	0.5
TDM Coordination	On-site TDM Coordinator (can be property manager) offering: multi-modal and wayfinding information, rideshare matching, walking/biking group coordination	0.5
TDM Communication	Distribution of transit, wayfinding and other TDM informational materials to new residents as they move in and annually to all residents	0.5
Transit Pass Programs	Provide VTA EcoPass (or a comparable program) membership to all residents for the first ten years following project completion	5
	Provide Caltrain Go Pass (or a comparable program) membership to all residents for the first ten years following project completion	10
	Offer discounted transit passes (VTA or Caltrain) to residents for the first ten years following project completion	2
Bicycle Share Program	Providing private or public bicycle share memberships to on-site residents	0.5
Proximity to Bicycle Share	Site is less than .5 miles from a bicycle share hub with bicycles available to on-site residents	0.5
Car Share Program	Providing private or public car share memberships to on-site residents	0.5
Proximity to Car Share	Less than .5 miles from a car share hub with cars available to on-site residents	0.5

* If a TDM category has multiple options, only one option/point value can be used.

Definitions of TDM Terms Used in the TDM Menu

Affordable Housing Project – a development project consisting of below market rate housing units.

Multi-Family Residential – for the purpose of this program, multi-family residential includes all medium, high and very high density residential developments, including the residential component of a mixed-use project.

Multi-modal Information – may consist of information on transit schedules, transit and bike maps, important service change information, real time transit information, biking or walking group organization, rideshare matching, etc.

Shopping Center – a group of retail, restaurant, commercial service or recreational uses that are planned, constructed and managed as a total entity.

Secured Bicycle Parking - means lockable facilities such as individual lockers or enclosed, locked, limited-access areas for parking of bicycles. Secured bicycle parking may also be known as Class 1 bicycle parking. For residential uses, an enclosed garage assigned to one residential unit meeting the minimum area requirements for a two-car garage is considered one secured bicycle parking space.

Wayfinding Information - provide signage for clear directions and walk/bike time to key destinations such as major transit stops, downtown, shops, and major employers.

Note: Additional information and explanation on the TDM strategies described in this program can be found in the *Sunnyvale Multi-Family Residential TDM Toolkit*.

Link to Draft Environmental Impact Report:

https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?t=65924.58&BlobID=25933

FINAL ENVIRONMENTAL IMPACT REPORT

1 Advanced Micro Devices Place Redevelopment Project



SCH No. 2017082043

PREPARED FOR:

Sunnyvale

City of Sunnyvale
Community Development
Department/Planning Division
456 W. Olive Avenue
Sunnyvale, CA 94086

Gerri Caruso,
Principal Planner

February 2019

Final Environmental Impact Report
for the

1 Advanced Micro Devices Place Redevelopment Project

State Clearinghouse No. 2017082043

PREPARED FOR

City of Sunnyvale
Community Development
Department/Planning Division
456 W. Olive Avenue
Sunnyvale, CA 94086

Gerri Caruso,
Principal Planner

PREPARED BY

Ascent Environmental, Inc.
455 Capitol Mall, Suite 300
Sacramento, CA 95814

Pat Angell,
Project Manager

February 2019

TABLE OF CONTENTS

Section Page

LIST OF ABBREVIATIONS iii

1 INTRODUCTION 1-1
1.1 Purpose and Intended Uses of this FEIR 1-1
1.2 Project Location 1-2
1.3 Project Objectives 1-2
1.4 Summary Description of the Project 1-3
1.5 CEQA Public Review Process 1-3
1.6 Organization of the FEIR 1-3

2 RESPONSES TO COMMENTS 2-1
2.1 List of Commenters on the DEIR 2-1
2.2 Comments and Responses 2-2
2.3 Agencies 2-7
2.4 Local Agencies 2-15
2.5 Organizations 2-21
2.6 Individuals 2-30
2.7 November 26, 2018 Sunnyvale Planning Commission Meeting 2-43

3 REVISIONS TO THE DEIR 3-1

4 REFERENCES 5-1

5 LIST OF PREPARERS 6-1

Appendices

Appendix A 1 AMD Place Transportation Impact Analysis

Tables

Table 2-1 List of Commenters 2-1

LIST OF ABBREVIATIONS

AMD	1 Advanced Micro Devices
APN	Assessor's Parcel Number
CEQA	California Environmental Quality Act
City	City of Sunnyvale
DEIR	Draft Environmental Impact Report
ENGEO	ENGEO International
FEIR	Final EIR
ITE	Institute of Transportation Engineers'
ITR	Industrial-to-Residential
SFRWQCB	San Francisco Bay Regional Water Quality Control Board
SMP	site management plan
TDM	transportation demand management
TIF	Traffic Impact Fee
VMT	vehicle miles traveled

1 INTRODUCTION

This document has been prepared by City of Sunnyvale (City), as lead agency, in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (CCR Section 15132). This document contains comments received on the draft environmental impact report (DEIR) for the 1 Advanced Micro Devices (AMD) Place Redevelopment Project (project), responses to those comments, and revisions to the DEIR. Together this document, "Responses to Comments Document for the Final Environmental Impact Report-City of Sunnyvale – 1 Advanced Micro Devices Place Redevelopment Project," and the DEIR constitute the Final EIR (FEIR) for the project.

1.1 PURPOSE AND INTENDED USES OF THIS FEIR

CEQA requires a lead agency that has prepared a DEIR to consult with and obtain comments from responsible and trustee agencies that have jurisdiction by law with respect to the project, and to provide the general public with an opportunity to comment on the DEIR. The FEIR is the mechanism for responding to these comments. This document has been prepared to respond to comments received on the DEIR, which are reproduced in this document; and to present corrections, revisions, and other clarifications and amplifications to the DEIR, including minor project modifications, made in response to these comments and as a result of the applicant's ongoing planning and design efforts. Together this document, "Responses to Comments Document," and the DEIR constitute the Final EIR for the project. The FEIR will be used to support the City's decision regarding whether to approve the project.

This FEIR will also be used by CEQA responsible and trustee agencies to ensure that they have met their requirements under CEQA before deciding whether to approve or permit project elements over which they have jurisdiction. It may also be used by other state, regional, and local agencies that may have an interest in resources that could be affected by the project or that have jurisdiction over portions of the project.

Public agencies with known permits, other approvals, or jurisdiction by law over resources on the site included, but may not be limited to, the agencies listed below:

1.1.1 Lead Agency

The City of Sunnyvale is the lead agency for this project. Project requested City entitlements include the following:

- Approval of a rezone to adjust the boundaries of the site's Industrial to Residential-Medium (MS/ITRR3) and Industrial to Residential-High (MS/ITRR4) zone districts;
- Approval of a Special Development Permit for site and architectural (i.e. design) review, removal of protected trees, and consideration of deviations from City height standards or other standards as provided for under City Municipal Code Chapter 19.90; and State Density Bonus Law; and
- Approval of a lot line adjustment and a tentative subdivision map.

The following actions would be taken after entitlement approval:

- Park improvement plan approval;

- Issuance of demolition permits for removal of existing buildings and parking lots and building permits for construction of the new project; and
- Offsite improvement plan, subdivision agreement and final map approvals.

1.1.2 State Responsible Agencies

Project construction activities would include implementation of a proposed site management plan (SMP) in coordination with the San Francisco Bay Regional Water Quality Control Board for the cleanup of existing on-site groundwater and soil contamination.

The project would also be required to comply with the State Water Resources Control Board National Pollutant Discharge Elimination System Stormwater General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities.

1.2 PROJECT LOCATION

The project site consists of three parcels of approximately 34.7 acres located at 1 AMD Place (Assessor's Parcel Number [APN] 20522024 and 20522025) and 975 Stewart Drive (APN 20522028) within the eastern portion of the City of Sunnyvale (see DEIR Exhibit 3-1). The site is north of Stewart Drive, south of Duane Avenue (also referred to as East Duane), and west of the Duane Avenue/Stewart Drive intersection (see DEIR Exhibit 3-2). Vehicular access to the project site is provided along Stewart Drive. The project site is approximately 0.25 mile south of U.S. Highway 101 and 0.10 mile west of Lawrence Expressway.

The project site consists of three office buildings, a utility building, paved parking lots and roads, and landscaping, including grass lawns and mature landscape trees. Residential uses are adjacent to the north, east, and west project boundaries. A public storage facility, and office uses are located south and southeast of the site. Hotel and office buildings (formerly a private university) are located east of the site and southeast of the Duane Avenue/Stewart Drive intersection (see DEIR Exhibit 3-2).

1.3 PROJECT OBJECTIVES

CEQA requires that an EIR include a statement of objectives for the project, and that the objectives include the underlying purpose of the project. These objectives help the lead agency determine the alternatives to evaluate in the EIR (see CEQA Guidelines Section 15124[a]). Taking into consideration the goals of the applicant, the City has identified the following project objectives for the purposes of this EIR:

- Transition of the site from office uses to creation of a new public park and mix of residential densities that include affordable housing options to address City housing needs;
- Build a residential community that implements the goals and policies of the General Plan (Land Use and Transportation Element adopted 2017) and the East Sunnyvale Sense-of Place Plan (adopted 2015); and
- Create a residential community that utilizes adopted City policies and development design guidelines to create residential housing densities and building massing that complements the existing residential densities of adjacent land uses in the project area.

1.4 SUMMARY DESCRIPTION OF THE PROJECT

The project consists of the demolition of three existing buildings and redevelopment of the site as a master-planned residential community of up to 1,074 residential units that would include medium- and high-density residential land uses and related on-site facilities to serve the development. The project site would also include a 6.5-acre public park and extension of Indian Wells Avenue through the site to connect with the Duane Avenue/Stewart Drive intersection (see DEIR Exhibit 3-3).

While the project would not require a General Plan Amendment, it does include a rezone to adjust the boundaries of the MS/ITRR3 and MS/ITRR4 zones to match the proposed land use plan and rezone the proposed public park site to Public Facility (PF) (see DEIR Exhibit 3-4). The base allowable residential density of the site remains as it was adopted in the East Sunnyvale Industrial-to-Residential General Plan Amendment and Planned Development Rezonings (adopted 2007). Any additional density would result from application of California State Housing Density Bonus Law (see also Sunnyvale Municipal Code Section 19.18.025) and the City of Sunnyvale's Green Building Program (Sunnyvale Municipal Code Section 19.39) as described below.

1.5 CEQA PUBLIC REVIEW PROCESS

On November 2, 2018, the DEIR was released for a 45-day public review and comment period. The DEIR was submitted to the State Clearinghouse for distribution to reviewing agencies; posted on the City's website (http://www.sunnyvale.ca.gov); and a hard copy of the DEIR is available at the City's One-Stop Permit Center at 456 W. Olive Avenue, Sunnyvale CA, 94086 and the Sunnyvale Public Library at 665 West Olive Avenue, Sunnyvale, CA 94086.

A public hearing was held on November 26, 2018, to receive input from agencies and the public on the DEIR.

As a result of these notification efforts, comments were received from agencies, organizations, and individuals on the content of the DEIR. Chapter 2, "Responses to Comments," identifies these commenting parties, their respective comments, and responses to these comments. None of the comments received, or the responses provided, constitute "significant new information" by CEQA standards (State CEQA Guidelines CCR Section 15088.5).

1.6 ORGANIZATION OF THE FEIR

This document is organized as follows:

Chapter 1, "Introduction," describes the purpose of the FEIR, summarizes the project, provides an overview of the CEQA public review process, and describes the content of the FEIR.

Chapter 2, "Responses to Comments," contains a list of all parties who submitted comments on the DEIR during the public review period, copies of the comment letters received, a copy of the transcript from the October 26th public hearing, and responses to the comments.

Chapter 3, "Revisions to the DEIR," presents revisions to the DEIR text made in response to comments, or to amplify, clarify or make minor modifications or corrections. Changes in the text are signified by ~~strikeouts~~ where text is removed and by <u>underline</u> where text is added.

Chapter 4, "References," identifies the documents used as sources for the analysis.

Chapter 5, "List of Preparers," identifies the lead agency contacts as well as the preparers of this FEIR.

This page intentionally left blank.

2 RESPONSES TO COMMENTS

This chapter contains comment letters received during the public review period for the Draft Environmental Impact Report (DEIR), which concluded on December 17, 2018, including comments received during the November 26, 2018 Sunnyvale Planning Commission public meeting. In conformance with Section 15088(a) of the State CEQA Guidelines, written responses were prepared addressing comments on environmental issues received from reviewers of the DEIR.

2.1 LIST OF COMMENTERS ON THE DEIR

Table 2-1 presents the list of commenters, including the numerical designation for each comment letter received, the author of the comment letter, and the date of the comment letter.

Table 2-1 List of Commenters

Letter No.	Commenter	Date
	STATE AGENCIES (S)	
S1	State of California Native American Heritage Commission Gayle Totton, Associate Governmental Project Analyst	November 29, 2018
S2	California Department of Transportation (Caltrans) Patricia Maurice, District Branch Chief	December 11, 2018
	LOCAL AGENCIES (L)	
L1	County of Santa Clara Roads and Airports Department Ellen Talbo, County Transportation Planner	December 17, 2018
	ORGANIZATIONS (O)	
O3	Santa Clara County Residents for Responsible Development Josue Garcia, Director	November 26, 2018
O2	Public Safety Officers Association Frank Bellucci, President	December 13, 2018
O3	Laborers International Union of North America, Local Union 270 Michael Lozeau	December 19, 2018
	INDIVIDUALS (I)	
I1	Robert Pimienta	November 6, 2018
I2	Li Zhuoji	November 17, 2018
I3	Mario and Elisa Silva	November 27, 2018
I4	Glen Chambers	December 17, 2018
I5	Jennifer Hellerich	November 30, 2018
	PUBLIC HEARING-SUNNYVALE PLANNING COMMISSION (PC)	
PC-1	Josue Garcia, Santa Clara County Residents for Responsible Development	November 26, 2018
PC-2	Raju Dahal	November 26, 2018
PC-3	Sergio Figueroa	November 26, 2018
PC-4	Hector Gomez	November 26, 2018
PC-5	Glen Chambers	November 26, 2018

Table 2-1 List of Commenters

Letter No.	Commenter	Date
PC-6	Jonathan Fishpow	November 26, 2018
PC-7	Zachary Kaufman	November 26, 2018
PC-8	Stephanie Ray	November 26, 2018
PC-9	Commissioner Rheaume	November 26, 2018
PC-10	Commissioner Weiss	November 26, 2018
PC-11	Commissioner Weiss	November 26, 2018
PC-12	Vice Chair Simons	November 26, 2018

2.2 COMMENTS AND RESPONSES

The verbal and written individual comments received on the DEIR and the responses to those comments are provided below. The comment letters and verbal comments made at the public hearing are reproduced in their entirety and are followed by the response(s). Where a commenter has provided multiple comments, each comment is indicated by a line bracket and an identifying number in the margin of the comment letter.

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471

Edmund G. Brown Jr., Governo

Letter S1

November 29, 2018

Gerri Caruso
City of Sunnyvale
456 W. Olive Avenue
Sunnyvale, CA 94086

Re: SCH# 2017082043, 1 AMD Place Redevelopment Project, City of Sunnyvale; Santa Clara County, California

Dear Ms. Caruso:

The Native American Heritage Commission (NAHC) has reviewed the Draft Environmental Impact Report (DEIR) prepared for the project referenced above. The review included the Executive Summary; the Introduction and Project Description; and the Environmental Impacts and Mitigation Measures prepared by Ascent Environmental for the City of Sunnyvale. We have the following concerns:

1. While consultation requirements under AB-52 have technically been met, the NAHC recommends that consultation outreach to the tribes on the NAHC list is consistent with Best Practices. We also recommend documenting SB-18 consultation for projects with General Plan Amendments. Please refer to: http://nahc.ca.gov/wp-content/uploads/2015/04/AB52TribalConsultationRequirementsAndBestPractices_Revised_3_9_16.pdf — S1-1
2. Mitigation for inadvertent finds of Archaeological Resources, Cultural Resources, Tribal Cultural Resources, or Human Remains is missing or incomplete. With the amount of projected excavation, standard conditions and/or mitigation measures should be included in the document. Please refer to Health and Safety Code § 7050.5 and Public Resources Code § 5097.98 for the process for inadvertent finds of human remains. Sample mitigation measures for Tribal Cultural Resources can be found in the CEQA guidelines at http://opr.ca.gov/docs/Revised_AB_52_Technical_Advisory_March_2017.pdf — S1-2

The NAHC recommends lead agencies consult with all California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. — S1-3

A brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments is also attached.

Please contact me at gayle.totton@nahc.ca.gov or call (916) 373-3714 if you have any questions.

Sincerely,

Gayle Totton

Gayle Totton, B.S., M.A., Ph.D
Associate Governmental Project Analyst

Attachment

cc: State Clearinghouse

RECEIVED
DEC 04 2018
PLANNING DIVISION

ADDITIONAL INFORMATION:
The California Environmental Quality Act (CEQA)[1], specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.[2] If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared.[3] In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended in 2014 by Assembly Bill 52. (AB 52).[4] **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** AB 52 created a separate category for "tribal cultural resources"[5], that now includes "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.[6] Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.[7] Your project may also be subject to **Senate Bill 18 (SB 18)** (Burton, Chapter 905, Statutes of 2004), Government Code 65352.3, if it also involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space. **Both SB 18 and AB 52 have tribal consultation requirements.** Additionally, if your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966[8] may also apply.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

Agencies should be aware that AB 52 does not preclude agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52. For that reason, we urge you to continue to request Native American Tribal Consultation Lists and Sacred Lands File searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/. Additional information regarding AB 52 can be found online at http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf, entitled "Tribal Consultation Under AB 52: Requirements and Best Practices".

Pertinent Statutory Information:

Under AB 52:
AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:
Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice.
A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.[9] and **prior to the release of a negative declaration, mitigated negative declaration or environmental impact report**. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18).[10]
The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.
b. Recommended mitigation measures.
c. Significant effects.[11]

1. The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.

If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. [12]
With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process **shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10.** Any information submitted by a California Native

[1] Pub. Resources Code § 21000 et seq.
[2] Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b); CEQA Guidelines Section 15064.5 (b)
[3] Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1); CEQA Guidelines § 15064 (a)(1)
[4] Government Code 65352.3
[5] Pub. Resources Code § 21074
[6] Pub. Resources Code § 21084.2
[7] Pub. Resources Code § 21084.3 (a)
[8] 154 U.S.C. 300101, 36 C.F.R. § 800 et seq.
[9] Pub. Resources Code § 21080.3.1, subds. (d) and (e)
[10] Pub. Resources Code § 21080.3.1 (b)
[11] Pub. Resources Code § 21080.3.2 (a)
[12] Pub. Resources Code § 21080.3.2 (a)

American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.[13]

If a project may have a significant impact on a tribal cultural resource, **the lead agency's environmental document shall discuss** both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.[14]

Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.[15]

Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 **shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program**, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable.[16]

If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, **the lead agency shall consider feasible mitigation** pursuant to Public Resources Code section 21084.3 (b).[17]

An environmental impact report **may not be certified**, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days.[18]

This process should be documented in the Tribal Cultural Resources section of your environmental document.

Under SB 18:

Government Code § 65352.3 (a) (1) requires consultation with Native Americans on general plan proposals for the purposes of "preserving or mitigating impacts to places, features, and objects described § 5097.9 and § 5091.993 of the Public Resources Code that are located within the city or county's jurisdiction. Government Code § 65560 (a), (b), and (c) provides for consultation with Native American tribes on the open-space element of a county or city general plan for the purposes of protecting places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

- SB 18 applies to **local governments** and requires them to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf
- Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.**[19]
- There is no Statutory Time Limit on Tribal Consultation under the law.
- Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research,[20] the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction.[21]
- Conclusion Tribal Consultation: Consultation should be concluded at the point in which:
    - The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or

---

[13] Pub. Resources Code § 21082.3 (c)(1)
[14] Pub. Resources Code § 21082.3 (b)
[15] Pub. Resources Code § 21080.3.2 (b)
[16] Pub. Resources Code § 21082.3 (a)
[17] Pub. Resources Code § 21082.3 (e)
[18] Pub. Resources Code § 21082.3 (d)
[19] (Gov. Code § 65352.3 (a)(2)).
[20] pursuant to Gov. Code section 65040.2,
[21] (Gov. Code § 65352.3 (b)).

- Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation.[22]

NAHC Recommendations for Cultural Resources Assessments:

- Contact the NAHC for:
  - A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - A Native American Tribal Contact List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
    - The request form can be found at http://nahc.ca.gov/resources/forms/.
- Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
  - If part or the entire APE has been previously surveyed for cultural resources.
  - If any known cultural resources have been already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

Examples of Mitigation Measures That May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- Avoidance and preservation of the resources in place, including, but not limited to:
  - Planning and construction to avoid the resources and protect the cultural and natural context.
  - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - Protecting the cultural character and integrity of the resource.
  - Protecting the traditional use of the resource.
  - Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed.[23]
- Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.[24]

The lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

- Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources.[25] In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

[22] (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).
[23] (Civ. Code § 815.3 (c)).
[24] (Pub. Resources Code § 5097.991).
[25] per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)).

2.3 AGENCIES

Letter S1	State of California Native American Heritage Commission (NAHC) Gayle Totton, Associate Governmental Project Analyst November 29, 2018

S1-1 The comment states that the City has met the consultation requirements under AB 52 but recommends consultation outreach be conducted consistent with NAHC. The letter also recommends documenting consultation under SB 18.

DEIR pages 1-3 and 1-4 describes the requirements of AB 52 consultation as well as written request for consultation that was sent by the City on November 17, 2017 to the following tribes: Ohlone/Costanoan Bay Miwok, Plains Miwok and Patwin; Amah Mutsun Tribal Band (Galt, Davis); Amah Mutsun Tribal Band Ohlone/Costanoan Northern Valley Yokuts; Amah Mutsun Tribal Band of Mission San Juan Bautista; Indian Canyon Mutsun Band of Costanoan (Hollister); Muwekma Ohlone Indian Tribe of the SF Bay Area; Ohlone/Costanoan Tribe (Patterson); Ohlone/Costanoan (Seaside, Linden); Ohlone/Costanoan Northern Valley Yokuts and Bay Miwok; Ohlone Indian Tribe Bay Miwok, Plains Miwok and Patwin. To date the City has not receive any response to consult. No further action is required to comply with AB 52.

SB 18 does not apply as the project does not involve an amendment to the City's General Plan.

S1-2 The comment states that the EIR does not provide any mitigation for inadvertent finds of archeological, cultural, or tribal cultural resources.

As described on DEIR pages 1-2 and 1-3, the project site has low potential for undiscovered cultural resources given its developed condition. Consistent with General Plan Policy LT-1,10f, the City is required to condition the project to halt all ground-disturbing activities when unusual amounts of shell or bone, isolated artifacts, or other similar features are discovered, and retain an archaeologist to determine the significance of the discovery. The policy requires also that mitigation of discovered significant cultural resources shall be consistent with Public Resources Code Section 21083.2 to ensure protection of the resource. No further mitigation in the EIR is required.

S1-3 The comment states that NAHC recommends that the City consult with California Native American tribes that are traditionally and culturally affiliated with the project area.

As described in Response to Comment S1-1, the City has requested consultation with tribes associated with the project area. To date the City has not receive any response to consult.

Letter S2

DEPARTMENT OF TRANSPORTATION
DISTRICT 4
OFFICE OF TRANSIT AND COMMUNITY PLANNING
P.O. BOX 23660, MS-10D
OAKLAND, CA 94623-0660
PHONE (510) 286-5528
FAX (510) 286-5559
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life

December 17, 2018

SCH# 2017082043
GTS # 04-SCL-2017-00499
GTS I.D. 6107
SCL – 101 – 43.27

Gerri Caruso
Community Development
City of Sunnyvale
456 W. Olive Avenue
Sunnyvale, CA 94086

1 AMD Place Residential Project – Draft Environmental Impact Report

Dear Gerri Caruso:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. In tandem with the Metropolitan Transportation Commission's (MTC) Sustainable Communities Strategy (SCS), Caltrans' mission signals a modernization of our approach to evaluate and mitigate impacts to the State Transportation Network (STN). Caltrans' Strategic Management Plan 2015-2020 aims to reduce Vehicle Miles Traveled (VMT) by tripling bicycle and do;ubling both pedestrian and transit travel by 2020. Our comments are based on the Draft Environmental Impact Report (DEIR).

Project Understanding

The proposed project is located approximately 0.20 miles from the US 101/Lawrence Expressway interchange and in the East Sunnyvale Priority Development Area. The proposed project will include 1,074 multi-family residential units (130 townhomes and 944 apartments) and a 6.5-acre park. The residential units will replace the existing 319,000 square foot office R&D building (1 AMD Place), as well as the 20,000 square foot office building (975 Stewart Drive). A total of 2,097 parking spaces are proposed with the residential development.

Vehicle Trip Reduction

Given the project's intensification of use and proposed parking, the project should include a robust Transportation Demand Management (TDM) Program to reduce VMT and greenhouse gas emissions. Such measures are critical to facilitate efficient transportation access to and from the project site and reduce transportation impacts associated with the project. The measures listed below will promote smart mobility and reduce regional VMT.

S2-1

- Lower parking ratios;
- Unbundled parking;
- Project design to encourage walking, bicycling and convenient transit access;
- Subsidize transit passes on an ongoing basis;
- Shuttle service to the Sunnyvale Station;
- Secured bicycle storage facilities located conveniently near entrances to minimize determent of bicycle use due to weather conditions;
- Fix-it bicycle repair station(s);
- Transportation and commute information kiosk;
- Bicycle route mapping resources and bicycle parking incentives;
- Participation/Formation in/of a Transportation Management Association (TMA) in partnership with other developments in the area; and
- Aggressive trip reduction targets with annual Lead Agency monitoring and enforcement.

S2-1 cont.

Transportation Demand Management programs should be documented with annual monitoring reports by an onsite TDM coordinator to demonstrate effectiveness. If the project does not achieve the VMT reduction goals, the reports should also include next steps to take to achieve those targets. Also, reducing parking supply can encourage active forms of transportation, reduce regional VMT, and lessen future transportation impacts on nearby State facilities. These smart growth approaches are consistent with the MTC's Regional Transportation Plan/SCS goals and would meet Caltrans Strategic Management Plan sustainability goals.

Lead Agency

As the Lead Agency, the City of Sunnyvale is responsible for all project mitigation, including any needed improvements to the STN. The project's fair share contribution, financing, scheduling, implementation responsibilities and lead agency monitoring should be fully discussed for all proposed mitigation measures.

S2-2

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Jannette Ramirez at (510) 286-5535 or jannette.ramirez@dot.ca.gov.

Sincerely,

PATRICIA MAURICE
District Branch Chief
Local Development - Intergovernmental Review

c: State Clearinghouse

Letter S2	California Department of Transportation (Caltrans) Patricia Maurice, District Branch Chief December 17, 2018

S2-1 The comment recommends that a robust transportation demand management (TDM) program be included to reduce vehicle miles traveled (VMT) and greenhouse gases. The comment provides recommended measures for the TDM.

The project applicant is in the process of developing the project's TDM consistent with the requirements of City of Sunnyvale Municipal Code Chapter 10.60, Transportation Demand Management. The City will forward these TDM measure recommendations to the applicant.

The project's VMT would be 11.2 miles per resident under existing conditions and 10.8 miles per resident under 2035 conditions. The project's VMT would be below the VMT per capita set forth the City's current Climate Action Plan (11.62 miles) (DEIR page 4.11-28). As identified on DEIR page 3-14, the project would include the following transportation enhancement features that would assist in reducing VMT and greenhouse gases:

- Electric vehicle charging stations, 12.5 percent pre-wired, 190 total spaces;
- On-site bicycle connectivity to parks and Sunnyvale trail system;
- Rideshare pickup/ drop off areas;
- Covered on-site bike storage for all bicycle types and common area for shared bike tool station and air for inflating tires; and
- 50 percent shading of all parking lot surface areas.

S2-2 The comment states that the City is responsible for all project mitigation, including any improvements to the state transportation network. The comment also identifies that the project's fair share contribution (i.e., funding, scheduling, and implementation) should be identified in all proposed mitigation measures.

The DEIR recommends implementation of mitigation measures 4.11-1 (Lawrence Expressway/Duane Avenue – Oakmead Parkway improvements), 4.11-4 (modification of metering rate for meters on US 101 Lawrence Expressway Diagonal On-Ramp), 4.11-6 (relocation of Caltrain shuttle stop), 4.11-8 (traffic control plan for construction activities), 6-13a (signalization of Duane Avenue/Duane Court intersection), and 6.13b (funding of City's Intelligent Transportation System Strategies and Projects). Each of these mitigation measures identifies whether the improvement is within the City's jurisdiction, timing for mitigation measures (e.g., before issuance of building permits), required improvement or performance standard to address the impact, and identifies the method of the project's participation in the improvement. Further details of timing and implementation of the mitigation measures will be provided in the project's mitigation monitoring and reporting program that would be adopted if the project is approved. It should be noted that meter facilities on US 101 are under the jurisdiction of Caltrans and the City cannot ensure that Mitigation Measure 4.11-4 would be implemented or its timing.

The following clarification on timing for Mitigation Measure 4.11-4 is provided below.

The following text changes are made to Mitigation Measure 4.11-4 on DEIR page 2-24 and DEIR page 4.11-41. These changes do not alter the conclusions of the DEIR.

Mitigation Measure 4.11-4: Increase Metering Rate at U.S. 101 Lawrence Expressway Diagonal On-Ramp

The metering rates shall be increased to one vehicle every 4 seconds to ensure that the maximum queue does not exceed the ramp storage. The applicant and City will coordinate and agree with Caltrans on the timing and implementation of this improvement prior to the issuance of building permits.

County of Santa Clara
Roads and Airports Department

101 Skyport Drive
San Jose, California 95110-1302
1-408-573-2400

Letter
L1

SENT ELECTRONICALY

December 17, 2018

Gerri Caruso,
Principal Planner
City of Sunnyvale, Department of Community Development, Planning Division
456 West Olive Avenue
Sunnyvale, CA 94088-3707

SUBJECT: NOA-DEIR for Proposed 1 AMD Place Redevelopment Project (1 AMD Place and 975 Stewart Drive)

Dear Mr. Caruso:

The County of Santa Clara Roads and Airports Department appreciates the opportunity to review the Notice of Availability – Draft Environmental Impact Report for Proposed 1 AMD Place Redevelopment Project (1 AMD Place and 975 Stewart Drive). We are submitting the following comments and its attached concept plan:

1. Due to the close-proximity of the project location to Lawrence Expressway and Lawrence Expressway/US 101 Ramps, the trip distribution should be higher towards the Lawrence Expressway/Duane intersection. The preferred route would be for vehicles to take Lawrence Expressway to US-101 or CA-237. Prior to issuance of the Final EIR, the County requests that the City to re-evaluate the current percentages shown in the trip distribution and review it accordingly with County Traffic Engineering staff as we believe it to be inaccurate. L1-1

2. The improvement of Mitigation Measure 6-13a to add an additional EBL lane at Lawrence Expressway & Duane requires additional realignment and restriping of Lawrence Expressway lanes. County staff has previously met with the City in the past to discuss a restriping concept but prior to the issuance of the Final EIR, the County requests reviewing the attached concept plan to confirm the final striping of Lawrence Expressway. L1-2

3. Regarding the fair share contribution for Mitigation Measure 6-13b, the County believes it should not only be limited to ITS projects and be eligible to contribute towards other projects L1-3

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Ken Yeager, S. Joseph Simitian
County Executive: Jeffrey V. Smith

7-007

as we do not consider signal timing optimization as a solely valid mitigation measure. County intersections with queuing deficiencies should seek additional mitigation measures not limited to ITS upgrades and signal timing optimization. The County requests the Final EIR to further define what Countywide Intelligent Transportation System upgrade project consists of. L1-3 cont.

4. The County suggests that the TCP includes these additional requirements:
   a. TCP to show path of construction vehicles from freeway to site. If Lawrence Expressway is used, time should be limited to 9AM-3PM.
   b. TCP to estimate highest number of vehicle trips generated from project-related activities (including construction and construction workers)
   c. TCP to identify all staging areas and duration of each stage of construction on the project site and in the vicinity.

   L1-4

5. The Draft Environmental Impact Report states that TDM is required by City of Sunnyvale. The County would like to know if the project has taken any credit for TDM? Also will TDM be submitted and included in the Final EIR? L1-5

6. The County asks that Traffix reports for County maintained intersections include the following additional requirements:
   a. Traffix reports to show date and time of counts
   b. Traffix reports requires signal timing values that match date of count. Please Contact the County for signal timing information.

   L1-6

If you have any questions or concerns about these comments, please contact me at (408) 573-2482 or ellen.talbo@rda.sccgov.org. To further discuss these comments in detail with our Traffic Engineering staff, please contact Ananth Prasad, County Traffic Engineer, at (408) 494-1342 or Ananth.prasad@rda.sccgov.org.

Sincerely,

Ellen Talbo, AICP
County Transportation Planner

cc: Ananth Prasad, *County Traffic Engineer*

Lawrence Expressway/E Duane Ave to US-101 Concept Plan



2.4 LOCAL AGENCIES

Letter L1	County of Santa Clara Roads and Airports Department Ellen Talbo, County Transportation Planner December 17, 2018

L1-1 The comment recommends that the City re-evaluate the traffic impact analysis assumptions for trip distribution based on the expectation that project resident's preferred travel route would be Lawrence Expressway to US 101 or State Route 237.

As identified in the traffic impact analysis in Appendix E of the DEIR, project trip distribution was based on existing traffic count information and the general orientation of population sources to the site. The existing office trips and the proposed project trips were assigned to the network separately, based on the assumed trip distribution. It should be noted that some existing traffic was redistributed to account for the Indian Wells Avenue extension (Appendix E: 36). The commenter provides no countering data or technical analysis that suggests the trip distribution assumptions are incorrect. No modifications to the traffic impact analysis trip distribution is recommended.

L1-2 The comment provides input on the proposed design of mitigation measure for the modification of the Lawrence Expressway/Duane Avenue – Oakmead Parkway. The County suggests a striping plan for Lawrence Expressway (attached to comment letter). The comment also appears to be referring Mitigation Measure 4.11-1 and not Mitigation Measure 6-13a as noted in the comment.

The following text changes are made to Mitigation Measure 4.11-1 on DEIR page 2-23 and DEIR page 4.11-37. These changes do not alter the conclusions of the DEIR.

Mitigation Measure 4.11-1: Make Improvements to Intersection at Lawrence Expressway/Duane Avenue-Oakmead Parkway

Santa Clara County has jurisdiction over the Lawrence Expressway/Duane Avenue-Oakmead intersection. A third left lane will be added to the eastbound approach at the intersection of Lawrence Expressway/Duane Avenue-Oakmead Parkway including one through lane, and one right-turn lane. Signage and pavement striping shall be provided to indicate that the inner first left-turn lane shall be designated for northbound Lawrence Expressway traffic, the middle left-turn lane shall be designated for northbound U.S. 101 traffic, and the outer left-turn lane shall be designated for southbound U.S. 101 traffic. Additional improvements shown on the Lawrence Expressway/E Duane Avenue to US-101 Concept Plan provided by the County of Santa Clara Roads and Airports Department on December 17, 2018, such as modifications to the corners of the intersection, restriping of crosswalks, the northbound lane alignments, the relocation of pedestrian crossing at the U.S. 101 southbound on-ramp, and the extension of the barrier curb, are shown as a concept plan only. These improvements have not been adopted yet and hence, the project is not responsible for these additional improvements.

Additionally, the signal operation and timing at the intersection at Lawrence Expressway/Duane Avenue-Oakmead Parkway shall be adjusted to accommodate the third lane. The project applicant and City of Sunnyvale shall coordinate and agree with the County on the timing and implementation of the improvements prior to issuance of building permits.

These intersection modifications would be within the existing roadway pavement and would not result in any significant environmental impacts. Implementation of Mitigation Measure 4.11-8 (Temporary Traffic Control Plan) would address temporary construction traffic impacts of this improvement.

L1-3 The comment recommends that the fair share contribution under Mitigation Measure 6-13b be eligible for other projects and not limited to the City's Intelligent Transportation System strategies and projects.

Fair share contributions are limited to adopted projects that have identified improvements at affected intersections. Based on the Lawrence Expressway 2040 Study Plan, the relevant improvement project for the affected intersections would be the Lawrence Expressway ITS/Signal System Countywide project. Text changes to Mitigation Measure 6-13b are made below the reflect the Lawrence Expressway ITS/Signal System Countywide project.

The following text changes are made to Mitigation Measure 6-13b on DEIR page 2-27 and DEIR page 6-22. These changes do not alter the conclusions of the DEIR.

Mitigation Measure 6-13b: Contribution to the City's Intelligent Transportation System Strategies and Projects and Lawrence Expressway ITS/Signal System Countywide Project

Under Cumulative Plus Project conditions, the following intersections where impacts occur include constraints to the right-of-way that would require acquisition of private property to construct any physical improvements:

- #3 – Fair Oaks Avenue / Northbound US 101 Ramps
- #6 – Fair Oaks Avenue / Duane Avenue
- #7 – Fair Oaks Avenue / Wolfe Road
- #26 – Lawrence Expressway / US 101 Southbound Ramps – Oakmead Parkway

Therefore, physical improvements to these intersections that would mitigate the operational impacts under Cumulative Plus Project conditions are not feasible. LOS impacts at these study intersections could be improved through implementation of the City's Intelligent Transportation System (ITS) strategies and projects and the Lawrence Expressway ITS/Signal System Countywide project. Therefore, the project shall pay a fair share towards the ITS projects through the City's TIF and participation in the Lawrence Expressway ITS/Signal System Countywide project.

L1-4 The comment recommends additional measures for Mitigation Measure 4.11-8 (Temporary Traffic Control Plan).

The following text changes are made to Mitigation Measure 4.11-8 on DEIR page 2-25 and 4.11-44. These changes do not alter the conclusions of the DEIR.

Mitigation Measure 4.11-8: Prepare and Implement Temporary Traffic Control Plan

Before building permits are issued and construction begins, the construction contractor shall prepare a temporary traffic control (TTC) plan to the satisfaction of the City of Sunnyvale Division of Transportation and Traffic and subject to review by all affected agencies.

The City of Sunnyvale suggests that the latest edition of the CA MUTCD, Part 6: Temporary Traffic Control, be referred to for guidance on preparing a TTC plan. The TTC

plan shall include all information required on the City of Sunnyvale TTC Checklist and shall conform to the TTC Guidelines of the City of Sunnyvale. At a minimum, the plan shall:

- provide a vicinity map that shows all the streets in the work zone properly labeled, along with the posted speed limits and a north arrow;
- identify the path of construction vehicles traveling to the site. If Lawrence Expressway is used, the time of use shall be limited to 9:00 a.m. to 3:00 p.m.;
- describe the estimated highest number of vehicle trips generated during project construction activities;
- identify the existing roadway lane and bike lane configurations and sidewalks, including dimensions, where applicable;
- describe the proposed work zone;
- describe anticipated detours and/or lane closures (for pedestrians, bicyclists, and vehicles);
- describe no-parking zones and other parking restrictions;
- describe appropriate tapers and lengths, signs, and spacing;
- identify appropriate channelization devices and spacing;
- describe the buffers;
- identify work hours and work days;
- provide the dimensions of the elements and requirements listed above in accordance with CA MUTCD Part 6 and the City of Sunnyvale's Standard Operating Procedure (SOP) for bike lane closures;
- identify the proposed speed limit changes if applicable;
- describe the bus stops and signalized and nonsignalized intersections that will affected by the work;
- show the plan to address pedestrian, bicycle, and Americans with Disabilities Act requirements throughout the work zone in accordance with CA MUTCD Part 6 and the City of Sunnyvale's SOP for bike lane closures;
- ~~indicate whether phasing or staging is requested and, if so, the duration of each;~~
- provide details on trucks, including the number and size of trucks involved with construction per day, expected arrival and departure times, and truck circulation patterns;
- identify all the staging areas on the project site and duration of each stage of construction for the project and any related improvements; and
- ensure that the contractor has obtained and read the City of Sunnyvale's TTC Guidelines and City of Sunnyvale's SOP for bike lane closures.

L1-5 The comment asks whether the traffic impact analysis took any credit for trip reductions for implementation of a TDM and whether the TDM will be included in the Final EIR.

The traffic analysis did not assume any credit for a TDM program. As described in Response to Comment S2-1, the project is required to prepare a TDM plan consistent with the requirements of City of Sunnyvale Municipal Code Chapter 10.60, Transportation Demand Management. The TDM is under preparation by the applicant, will be submitted to the City, but will not be included in the Final EIR because a traffic reduction credit was not assumed in the traffic impact analysis and the TDM was not required as mitigation.

L1-6 The comment requested that Traffix reports for County maintained intersections include additional information regarding date and time of traffic counts and signal timing values.

Traffix reports has been updated to include the date and time of counts. In addition, analysis for intersections 23 through 29 were updated to reflect signal timing value. This information is provided in Appendix A of this document. These updates did not alter the conclusions of the DEIR traffic analysis.

From: Josue Garcia
To: Gerri Caruso
Subject: Re: AMD Project
Date: Monday, November 26, 2018 11:39:26 AM

Letter 01

Thank you, Gerri,
Can you please add my comments below to the record?

My name is Josué García, I am the Director for the Santa Clara County Residents for Responsible Development, an organization that represents members in the community who believe development should ensure we have a livable wage to provide for our families, local hiring, housing we can afford, opportunities for our young people, and healthy neighborhoods.
I am writing to express support of the AMD Project (Irvine Co.) (Agenda Item 2 of the November 26, 2018, Planning Commission meeting). The developer has met the city entitlement process requirement, as well as the requirements to meet and work with members of our community. The project will have a much need park with a community-oriented design that community residents will be able to enjoy with their children, have a picnic or just walk the dogs. The project is also bringing transportation benefits such as traffic-calming measures, near Caltrain (less than 2 miles), and because of its central location, is good for short commutes and great for bike commutes. The project will have much needed affordable housing units for our low-income residents.

In addition, the developer is willing to provide much-needed community benefits such as hire local people, pay area standard construction wages, and provide apprenticeship opportunities for high school graduates and other members of our community that are looking for good paying jobs in the local region. Finding a developer that is willing to support that local community with good-paying jobs is uncommon in the industry. Please consider this when you make your decision on this important item.

We urge you to support the AMD project.

01-1

Please contact me if you have any questions or need additional information,

Thank you,

Josué García
Director
Santa Clara County Residents for Responsible Development
6150 Cottle Road, San Jose, CA 95123
c. 408-687-6883 josue@sccmeps.org

Josué García
Director
Santa Clara County Residents for Responsible Development
6150 Cottle Road, San Jose, CA 95123
c. 408-687-6883 josue@sccmeps.org

From: Gerri Caruso <GCaruso@sunnyvale.ca.gov>
Date: Monday, November 26, 2018 at 10:51 AM
To: Josue Garcia <josue@sccmeps.org>
Subject: RE: AMD Project

Hi Josue,

There will be no decisions made about the EIR tonight. Tonight's agenda item is procedural only to take comments on the draft EIR. The comments from the public tonight, and written responses to them, will be included in the Final EIR when the project hearings occur in early 2019. Certification of the EIR won't be considered until the City Council hearing next year.

If you can't come tonight to make comments you still have time to submit written comments.

Gerri

From: Josue Garcia [mailto:josue@sccmeps.org]
Sent: Monday, November 26, 2018 10:31 AM
To: Gerri Caruso <GCaruso@sunnyvale.ca.gov>
Subject: AMD Project

Hi Gerri,
Is staff recommending approval of the EIR for the AMD project?

Thanks,

Josué García
Director
Santa Clara County Residents for Responsible Development
6150 Cottle Road, San Jose, CA 95123
c. 408-687-6883 josue@sccmeps.org

2.5 ORGANIZATIONS

Letter 01	Santa Clara County Residents for Responsible Development Josue Garcia, Director November 26, 2018

O1-1 The comment expresses support for the project and identifies benefits of the project.

This comment is noted.

Letter
02

December 13, 2018

Gerri Caruso
Principal Planner
City of Sunnyvale, Planning Division
456 W. Olive Ave.
Sunnyvale CA 94086

Delivered via e-mail: gcaruso@sunnyvale.ca.gov

Re: Draft Environmental Impact Report (DEIR) for 1 Advanced Micro Devices Place Redevelopment Project

Dear Ms. Caruso

The Sunnyvale PSOA represents the frontline public safety officers and dispatchers who provide police, fire, emergency medical service and 9-1-1 dispatching services. We write to express our concerns regarding the Draft Environmental Impact Report (DEIR) for the 1 Advanced Micro Devices Place Redevelopment Project (AMD).

Failure to Analyze Emergency Response Times During Peak Traffic Hours

The DEIR fails to consider recent data provided to and accepted by the City of Sunnyvale as it relates to response times and response time capacity specifically for fire and EMS service. The DEIR provides no analysis of response times during peak traffic hours (commute times) which is of particular concern of the PSOA.

In its study of response times and risk assessment, *Comprehensive Community Risk Assessment, Standards Of Cover Study, And Station Location And Deployment Study*, Citygate Associates, LLC provided the City with detailed analysis of the impact of peak traffic hours on response times for EMS and fire response. Citygate found that the process by which the Department of Public Safety measures response time is inaccurate: 02-1

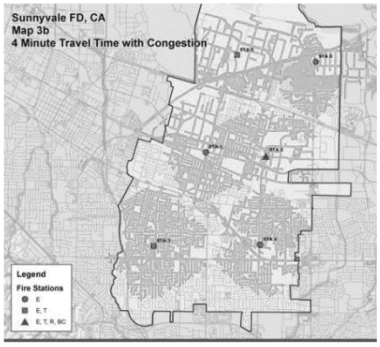
> **Citygate's team members personally observed the current rush-hour traffic congestion in the City. This allowed us to realize that the legacy approach to predict fire apparatus travel times over a street network is insufficient. That approach does not use enough actual fire unit travel time occurrences at peak commute hours to be**

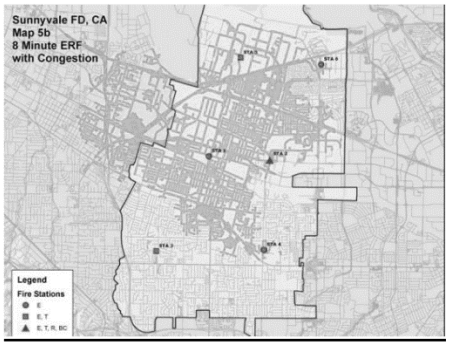
statistically significant enough to slow down the GIS travel time model during morning and evening commute hours.[1]

The DEIR appears to not factor at all the impact on EMS and fire response during commute times. However, Citygate found a negative impact on a significant amount of public streets in Sunnyvale during commute hours:

> As a starting point, 91% of the City's public streets are within a 4-minute travel time of a fire station, which is excellent. **Their travel coverage at commute hours is negatively impacted by 30 percent. The multi-unit coverage at commute hours is impacted by 48 percent, as units must travel across large sections of the City (emphasis added).**[2]

Citygate provided the City of Sunnyvale with coverage maps detailing where traffic congestion impacts the 4-minute travel time response (EMS calls) and 8-minute travel time response (first alarm fire) times. There is significant delay across the city and in the "first due" area near the AMD project site.





O2-1 cont.

Adding a substantial number of additional residents to the area will continue to deteriorate emergency response times. Citygate sums up the human impacts to delayed response times:

> In a heart attack that stops the heart, a trauma that causes severe blood loss, or in a respiratory emergency, the brain can only live 8-10 minutes without oxygen. In a building fire, a small incipient fire can grow to involve the entire room and in an 8- to 10-minute time frame. If fire service response is to achieve positive outcomes in severe emergency medical situations and in incipient fire situations, **all** responding crews must arrive, assess the situation, and deploy effective measures before brain death occurs or a fire leaves the room of origin (emphasis in original).[3]

[1] *Comprehensive Community Risk Assessment, Standards Of Cover Study, And Station Location And Deployment Study,* Citygate Associates, LLC, Volume II, pg. 71.

[2] Ibid.

[3] *Comprehensive Community Risk Assessment, Standards Of Cover Study, And Station Location And Deployment Study,* Citygate Associates, LLC, Volume II, pgs. 11-12.

We believe that failure to analyze the impact of response times during commute hours is a flaw under the California Environmental Quality Act (CEQA). 02-1 cont.

DEIR Provides Inaccurate Response Time Data

The DEIR cites data provided by the Department of Public Safety (DPS) as it relates to response times. Unfortunately, those response time metrics are inaccurate in measuring the actual response time performance of DPS. The DEIR references an EMS response time of 6 minutes 3 seconds; a fire emergency of 6 minutes 50 seconds (Page 4.9-20). Citygate, however, found that the actual Call to Arrival response time citywide is 7:30 (Pg. 86). Further, DPS has used "average" response times which fails to factor in outlier responses. As Citygate states, "Average response times as a measurement tool for fire departments is simply not sufficient" (pg. 11). 02-2

Failure to calculate the total time from 9-1-1 call to on-scene arrival is a deficiency in analyzing true impacts to services.

Specific Impacts to Fire Station 2

In its report, Citygate notes specific impacts to who the City staffs Fire Station 2, which is the first due area for the AMD project. Citygate found that because the City, due to budget cuts, staffs the Rescue 42 unit with only one person the following occurs: 02-3

- Rescue 42 cannot respond Code 3 (lights siren) to emergency calls for safety reasons.[4]
- A one-person crew for Rescue 42 delays the implementation of specialty tools that are desperately needed at the scene to affect a rescue.
- There's a 20% reduction in efficiency of work at Station #2;
- Requiring all three ladder trucks in the City to respond to a hazardous materials incident when Station #2 ladder truck training is occurring, leave no ladder trucks available for any other calls in the city, including fires;
- Creates situations where only one hazardous-materials trained person is on duty in the entire city;
- Requires an additional Station #2 apparatus to respond to air contamination monitoring calls (carbon monoxide, natural gas events, etc.);
- Impacts ability to train new hazardous materials and ladder truck trainees at Station #2.

The DEIR fails to account for any of these limitations in its analysis.

DEIR Uses Budgeted versus Actual Staffing Levels

When looking at the ability of DPS to respond to police, fire and EMS calls, the DEIR relies on "budgeted" positions as opposed to actual sworn staffing strength. While the number of actual sworn employees can fluctuate over the course of a year, simply looking at the budgeted 02-4

[4] Citygate Associates, LLC, Volume II, pg. 98.

number is misleading and not reflective of actual trends that have occurred over the last ten years.

The DEIR states that the DPS has 201 sworn personnel. However, the DPS has not been at that staffing strength since 2008. Rather, DPS is currently down 18 positions on its roster and has not come near the 201 cited consistently over the last several years. The DEIR should be updated to reflect the actual staffing levels of DPS.

02-4 cont.

Finally, the PSOA is concerned that the City of Sunnyvale is taking a project-by-project approach to its analysis of development project impacts. There are several major projects either recently approved or in various forms of the planning phases that have not been looked at collectively. We believe that this project follows the same pattern.

02-5

We appreciate your attention to our concerns.

Sincerely,

F. Bellucci, Jr.

Frank Bellucci
President

Letter 02	**Public Safety Officers Association** Frank Bellucci, President December 13, 2018

02-1 The comment expresses concerns regarding the DEIR's disclosure of response times during commute times for emergency medical and fire services and provides a summary of information from the *Comprehensive Community Risk Assessment, Standards Of Cover Study, And Station Location and Deployment Study*.

The DEIR asked in Impact 4.9-6 whether the project would "result in substantial adverse physical impacts associated with the provision of new or physically altered governmental services and/or facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives." The DEIR explained that development of the project site would increase demand for fire protection and emergency medical services. However, the applicant would be required to pay applicable City development fees to fund the project's fair share of existing facilities and the project would generate increased tax revenues, which could be used to fund additional personnel and existing facilities. Thus, the projected increase in demand was determined to be less than significant.

Per City of Hayward v. Board of Trustees of the California State University (2015) 242 Cal.App.4th 833, CEQA does not require mitigation for service call demands or response time because this is not considered an impact on the physical environment. So long as services can be maintained at an adequate level with an increase in personnel and expansion of facilities that would not adversely affect the environment, there is no impact under CEQA. Id. at 847. Because the DEIR's analysis of service levels and potential impacts of the project on public services is consistent with the court's mandate in City of Hayward, the analysis is adequate and nothing further is required

The commenter states that the Department of Public Safety's process for measuring response time is inaccurate based on the 2018 report by Citygate Associates, LLC. The commenter quotes from the report, which indicates that the "legacy approach" to predict fire apparatus travel time does not include a statistically significant number of actual fire unit travel time occurrences at peak commute hours. Citygate utilized an alternative model that incorporates real-time traffic data from internet-based traffic map applications. As noted above, the DEIR adequately discloses the impact of the project on demand for fire protection and emergency medical services. However, emergency response times are not considered an impact on the physical environment that requires mitigation under CEQA.

02-2 The comment states that the information provided by the City inaccurately measures actual response times.

This comment is noted. The commenter is referred to Response to Comment 02-1. Data collected by provided by the City regarding response times is considered substantial evidence under State CEQA Guidelines Section 15384.

02-3 The comment identifies specific concerns regarding the operation of Fire Station 2 (closest to the project) that were not considered in the DEIR. These concerns include current staffing size, operation, and equipment.

This comment is noted. The commenter is referred to Response to Comment 02-1. Concerns regarding the operation and staffing of City public safety staff are not considered an impact on the physical environment that requires mitigation under CEQA.

O2-4 The comment states that information cited in the DEIR is inaccurate as it uses budgeted staffing and not actual trends.

This comment is noted. The commenter is referred to Response to Comment O2-1. Concerns regarding the operation and staffing of City public safety staff are not considered an impact on the physical environment that requires mitigation under CEQA.

O2-5 The comment identifies concerns regarding the City's approach to addressing the analysis of development project impacts for each individual project and not collectively.

This comment is noted. The commenter is referred to Response to Comment O2-1. Impacts to the physical environment associated with build-out of the City was collectively evaluated in the City of Sunnyvale Land Use and Transportation Element Update EIR that was certified in 2017.

Letter
03

LOZEAU DRURY LLP

T 510.836.4200
F 510.836.4205

410 12th Street, Suite 250
Oakland, Ca 94607

www.lozeaudrury.com
michael@lozeaudrury.com

Via Email and U.S. Mail

December 19, 2018

Gerri Caruso, Principal Planner
Community Development Department
City of Sunnyvale
456 W. Olive Avenue
Sunnyvale, CA 94086
GCaruso@sunnyvale.ca.gov

Re: Comment on 1 Advanced Micro Devices Place Redevelopment Project aka SCH2017082043, 2016-8035, and File no.18-0582 Draft Environmental Impact Report and CEQA and Land Use Notice Request

Dear Mr. Caruso:

I am writing on behalf of the Laborers International Union of North America, Local Union 270 and its members living in the City of Sunnyvale ("LiUNA"), regarding the 1 Advanced Micro Devices Place Redevelopment Project aka SCH2017082043, 2016-8035, and File no.18-0582, including all actions related or referring to the demolition of three existing buildings and redevelopment of the site as a master-planned residential community of up to 1,074 residential units that would include medium- and high-density residential land uses and related on-site facilities to serve the development located at 1 AMD Place and 975 Stewart Drive within the eastern portion of the City of Sunnyvale, on APNs: 20522024, 20522025 and 20522028 ("Project").

After reviewing the DEIR, we conclude that the DEIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. Commenters request that the City of Sunnyvale Community Development Department, and your staffs address these shortcomings in a revised draft environmental impact report ("RDEIR") and recirculate the RDEIR pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000, et seq., prior to considering approvals for the Project. We reserve the right to supplement these comments during review of the Final EIR for the Project and at public hearings concerning the Project. *Galante Vineyards v. Monterey Peninsula Water Management Dist.*, 60 Cal. App. 4th 1109, 1121 (1997).

03-1

We also hereby request that the City send by electronic mail, if possible or U.S. Mail to our firm at the address below notice of any and all actions or hearings related to the Project including, but not limited to the following:

- Notice of any public hearing in connection with the Project as required by California Planning and Zoning Law pursuant to Government Code Section 65091.
- Any and all notices prepared for the Project pursuant to the California Environmental Quality Act ("CEQA"), including, but not limited to:
    - Notices of any public hearing held pursuant to CEQA.
    - Notice of the availability of any Final EIR prepared pursuant to CEQA.

03-2

- Notices of approval and/or determination to carry out the Project.
- Notices of approval or certification of any EIR.
- Any notices of determination.

Please send notice by electronic mail, if possible or U.S. Mail to:

Michael Lozeau
Hannah Hughes
Lozeau Drury LLP
410 12th Street, Suite 250
Oakland, CA 94607
510 836-4200
michael@lozeaudrury.com, hannah@lozeaudrury.com, komal@lozeaudrury.com

03-2 cont.

Please call if you have any questions. Thank you for your attention to this matter.

Sincerely,

Michael Lozeau

Letter 03	Laborers International Union of North America, Local Union 270 Michael Lozeau December 19, 2018

03-1 The comment states that the DEIR fails as an informational document and fails to impose all feasible mitigation measures. The comment further states that the DEIR should be revised and recirculated pursuant to CEQA.

While the commenter asserts that the DEIR is inadequate, the comment letter provides no details or technical analysis to substantiate this claim. The DEIR has been prepared in compliance with CEQA and the 2018 CEQA Guidelines. Its impact analysis and conclusions are supported by technical studies (e.g., water supply assessment, traffic impact analysis, hazards material reports) and computer modeling of air quality, greenhouse gases, and noise effects of the project. No further response can be provided.

03-2 The comment requests that the City provide any public noticing of all actions and hearings related to the project.

The City will include the commenter in all future project noticing.

From: Roberto Pimienta
To: Gerri Caruso
Subject: AMD Place Redevelopment Project
Date: Tuesday, November 6, 2018 8:34:10 PM

Letter I1

Hi Gerri,

My name is Roberto; I'm a resident who lives near the AMD Redevelopment Project. In the letter, it writes that the "project would include required landscaping, parking, stormwater management facilities and open space areas" (front page of the letter).

May you specify --- what is meant by required parking? How does the city determine what is required parking? Is there a strategy to ensure that parking does not become an issue and that there will be street parking available to current residents in the neighborhood? I hope that the project won't impact the ability of current residents to access street parking.

I1-1

I appreciate your time. Thank you for reading this.

-Roberto Pimienta

2.6 INDIVIDUALS

Letter I1	Robert Pimienta November 6, 2018

I1-1 The comment requests clarification about the parking proposed for the project.

DEIR Chapter 3, "Project Description," identifies the project's proposed parking for each of the residential components of the project that would be required to meet Sunnyvale Municipal Code parking requirements. The proposed mid-rise apartment buildings would obtain parking from an on-site parking garage (approximately 1,650 parking spaces). The low-rise apartment site would have approximately 127 on-site parking spaces consisting of private garages, covered parking, and uncovered parking. Approximately 320 parking spaces would be provided for the townhome site. Each townhome unit would have a private, attached two-car garages.

From: ohime lee
To: Gerri Caruso
Subject: reject to the new project at AMD Place
Date: Saturday, November 17, 2018 3:43:21 PM

Letter I2

Hi, governer,

I received Notice of Availabitiy letter, which proposed 1 AMD Place Redevelopment Project. I write this email to reject it. It will make our place more crowded, which when I bought this house that I like it not very crowded.
It will also provide more units, but the house market is just that much. It provides more, then existed house value will go down. I2-1

Thanks
Li Zhuoji

Letter I2	Li Zhuoji November 17, 2018

I2-1 The comment identifies that the commenter is opposed to the project due to increases in population and property value impacts.

This comment is noted. Pursuant to CEQA, the DEIR evaluates impacts on the physical environment that may be caused by the project. Pursuant to State CEQA Guidelines Section 15131(a) economic or social effects of a project are not treated as significant effects on the environment.

TO: Gerri Caruso, Principal Planner, City of Sunnyvale SENT VIA EMAIL ON 12/10/18
Gcaruso@sunnyvale.ca.gov

Letter I3

RE: Proposed 1 AMD Place Redevelopment Project
Environmental Impact Report Draft
November 27, 2018

Dear Ms. Caruso:

My husband and I attended the Planning Commission Public Hearing on November 26, 2018. After reviewing the EIR draft report, we have comments in addition to our letter submitted to you on 9/11/17.

1. City of Sunnyvale Construction Management Plan

We noted in Sec. 4.11-44 and 3.6 of the EIR draft that it is the City's responsibility to determine traffic routes. The City should require all construction vehicles for the entire duration of demolition through construction completion to enter and exit on Santa Trinita. This leads directly to Arques Ave. which is a City designated truck route leading to Lawrence Expressway.

This will greatly alleviate the noise and traffic already existing at the Duane/Stewart/AMD Place intersection. We have had to endure caravans of demolition trucks hauling off debris from the Vale project for more than a year now. Then came the cement mixers and all the other construction trade trucks, which still operate today. The trucks roll in at 5:30 am and continue throughout the day. They are loud, smelly and disruptive. Duane Ave. has become a mostly residential street reduced to 2 lanes at the Duane Ct. curve. It would make sense to keep Duane Ave. residential traffic only and reduce the speed limit to 30 mph.

I3-1

The City should also require this for the upcoming construction for the Marriot Hotel at 1080 Stewart and the mini-storage building at 1060 Stewart. Imagine what a mess the streets will be with all these projects next to each other going on over the next 4 to 5 years.

Sec. 3.6 states:

> Construction workers would typically access the site via the two entrances at Stewart Drive. A construction management plan will be required by the City. The City would determine the construction truck routes. The overall site development is anticipated to export approximately 15,000 cubic yards of soil and the import of approximately 13,800 cubic yards of new concrete and 13,400 cubic yards of new asphalt.
>
> Construction staging for materials and equipment would occur on the project site.

Sec. 4.11-44 states:

> Construction may lead to disruptions to the transportation network near the site, including the possibility of temporary lane closures, street closures, sidewalk closures, and bikeway closures. Heavy vehicles would access the site and may need to be staged for construction. Construction staging for materials and equipment would occur on the project site. A construction management plan would be required by the City of Sunnyvale, and the City of Sunnyvale would determine the construction truck routes. The duration of construction, number of trucks, truck routing, number of employees, extent of truck idling, number and duration of lane closures, and details regarding a variety of other construction-related activities are not fully known at this time. Construction would be localized and temporary; however, these activities could result in degraded roadway operating conditions. Therefore, this impact would be **potentially significant**.

I3-1 cont.

2. Project Trip Generation

The EIR draft stated in Sec. 4.11-28 that the project will create **4,327** new daily vehicle trips. Sec. 4.2-16 states the additional daily trips generated by the project is **6,670**. Which is the correct number? In either case, it is a lot of added traffic.

There is no mention of the ever increasing use of delivery trucks for Amazon, USPS, UPS, home food delivery services, Uber, Lyft, etc. A total of 1074 new residents will likely be using these delivery services which now operate 24/7. Plus more garbage and recycling trucks and Google/Apple buses will be added.

When the project is finished, there will be more moving vans due to the transient nature of apartment dwelling. With 944 new apartments and 130 new town homes, there can only be a significant increase in traffic, noise and pollution.

Sec. 4.11-28 states:

> The 1,074 residential units (maximum development potential) to be included on the project site would generate new vehicles trips. Trips generated by the project were based on the fitted curve for ITE Land Use 220 (Apartment), 230 (Residential Condominium/Townhouse), and the average rate for ITE Land Use 411 (City Park). Table 4.11-10 presents the trip generation for the project. The project would generate approximately 402 net new trips in the a.m. peak hour and 395 net new trips in the p.m. peak hour. The project would result in a total of 4,327 new daily trips. Table 4.11-10 provides a summary of the trip generation characteristics of the project. Further details on the projects trip generation calculations are provided in Appendix E.

Sec. 4.2-16 states:

> The additional 6,670 daily trips generated by the project are not anticipated to result in any affected intersection experiencing a traffic volume greater than 44,000 vehicles per hour or 24,000 vehicles per hour. Additionally, as explained in Chapter 3.0, "Project Description," the project site would be consistent with the City's Land Use and Transportation Element (LUTE) of its General Plan and is designated as a Planned Development Area (PDA) in *Plan Bay Area 2040*. As such, the project would meet the aforementioned criteria recommended by BAAQMD. Therefore, project operation would not violate a standard or contribute substantially to an existing or projected air quality violation or expose sensitive receptors to substantial CO concentrations. This impact would be **less than significant**.

I3-2

3. Density

The City should consider reducing the 5-story building heights to 3-story buildings in keeping with the existing Stewart Village apartment homes. Reducing the number of units helps control the explosion of traffic and helps preserve the residential character and disappearing skyline in Sunnyvale. The request from the developer for an exception to the City standard of 55 ft. to increase to 65 ft. should be denied. I3-3

4. Street Improvements

It is not clear from the EIR report how the City will better control traffic converging at the Duane/Stewart/AMD intersection. While the EIR is not meant to address existing conditions, it should be noted there are already significant problems on these streets. Examples include:

- Speeding over the 35 mph limit
- Commercial big rig trucks use E. Duane instead of Arques
- Street car racing and wheelies at intersections
- Very loud, souped up, modified cars and motorcycles day and night
- Extremely loud cars and music blasting from patrons exiting the La Ronda Bar on E. Duane usually starting around 1:30 am on any given night. They stop at the Duane/Stewart light and blast away until the lights change. Then they race out to Lawrence Expressway I3-4

Will there be new traffic control lights? Will the lights have new timing so traffic does not back up? How do you slow down vehicles racing through this intersection? How can this big intersection be made safer for pedestrians? Will the streets be repaved after all the heavy use?

It would be nice to actually have the neighborhood become more residential, enjoyable and peaceful for all. The question is how will Sunnyvale retain a high quality of life?

Conclusion

We remain confident the City and the Irvine Company will help the current neighborhood residents and the future residents with the foregoing issues and concerns. Solutions can actually be attained with good planning and cooperation amongst all involved in this project.

Thank you.

Mario and Elisa Silva
1079 E. Duane Ave.
Sunnyvale, CA 94085

Letter I3	Mario and Elisa Silva November 27, 2018

I3-1 The comment requests that project construction traffic access the site using Santa Trinita Avenue.

This comment is noted. Mitigation Measure 4.11-8 (temporary construction control plan) has been modified to require the travel route for all construction vehicles as well as limit the use of Lawrence Expressway to the hours of 9:00 a.m. to 3:00 p.m. (see Response to Comment L1-4). The City may consider further construction traffic routes as suggested by this comment through the implementation of Mitigation Measure 4.11-8.

I3-2 The comment requests clarification on what the correct daily trip generation is (4,327 versus 6,670). The comment also expresses concerns regarding traffic generated by delivery trucks, garage trucks, buses, and moving vans and the potential impacts to traffic, noise, and air pollution.

The 6,670 daily trips is referencing the trips the proposed land uses would generate. Because there are existing offices on the site, a trip credit was taken to account for the trips that would be removed once the existing land uses were demolished resulting in a net new 4,327 daily trips for the traffic impact analysis in DEIR Section 4.11, "Traffic and Circulation." The air quality impact analysis uses the 6,670 daily trips for purposes of air quality modeling for project air pollutant generation. Trip generation for the project is based on data from the Institute of Transportation Engineers' (ITE's) publication *Trip Generation*, ninth edition. This publication is a standard reference used by jurisdictions throughout the country to estimate trip generation potential of projects, which periodically releases new editions to include recent collected data. Trip rates in this resource includes all types of trips associated with a certain land use. For residential land uses this would include both resident trips and non-resident trips such as delivery trucks and solid waste pick-up. Therefore, the trip generation estimates are inclusive of the types of trips that would be experienced in a new development (e.g., moving vans, deliveries, public transit, etc.). This trip generation data was also used in the air quality and noise modeling and impact analysis. Transit and bus traffic in the project area already occurs and provides the benefit of potentially reducing individual vehicle use.

I3-3 The comment recommends that the project design should be modified to reduce the proposed mid-rise apartment heights from five stories to three stories to be consistent with the existing residential character of the area and reduce traffic.

The DEIR evaluated potential aesthetic impacts to the visual character of the project area under Impact 4.1-1 on DEIR pages 4.1-11 and 4.1-12. The DEIR identified that proposed heights of the mid-rise apartments (65 feet) would be taller than some of the existing residential and nonresidential buildings in the vicinity that range from 32 to 40 feet in height. However, this variation in height and scale is not substantial to appear out of character with the existing urban and multi-family visual character of the project area as viewed along Stewart Drive and Duane Avenue. The mid-rise apartment building design includes setbacks from Stewart Drive, preservation of the existing mature trees along the site's perimeter, and the architectural design variation that softens the appearance of these buildings consistent with the City's General Plan Land Use and Transportation Element and Community Character Chapter policies. The DEIR concluded that the project would not substantially degrade the existing visual character or quality of the site and its surroundings and this impact would be less than significant.

DEIR Chapter 5, "Alternatives," evaluates two alternatives (Alternative 2 and 3) that would reduce the project's overall height and density (DEIR pages 5-7 through 5-13). These alternatives would reduce traffic volumes compared to the project. However, these alternatives would provide fewer housing opportunities and affordable housing opportunities compared to the project.

I3-4 The comment states that it is unclear how the City will better control existing traffic conditions at the Duane Avenue/Stewart Drive/AMD intersection. Existing traffic concerns for this intersection and associated roadways include speeding, traffic queuing, truck traffic, traffic noise, music from vehicles, and pedestrian safety.

This comment is noted. Pursuant to CEQA, the DEIR evaluates the project's impact on existing transportation facilities and conditions. DEIR tables 4.11-11, 4.11-12, and 6-3 identify that the project would not result in any significant impacts to the function of the Duane Avenue/Stewart Drive/AMD intersection under existing, background, and cumulative traffic conditions. The project would improve this three-way intersection to a four-way intersection associated with the extension of Indian Well Avenue through the site and would be a key component of the overall site plan circulation. The project would provide new pedestrian facilities that include pedestrian access through the site. In addition, a roundabout would be installed on Indian Wells Avenue within the project site to control speeds. Bicycle facilities would be added to Indian Wells Avenue connecting to other facilities on Duane Avenue. The new signal would also be ADA compliant creating safe movements for pedestrians, bicycles, and vehicles.

DEIR impacts 4.8-3 and 6-10 identify that the project would not create new significant traffic noise impacts under existing and cumulative conditions.

From: Glen
To: Gerri Caruso
Subject: EIR response for 1AMD Place Site #2016-8035
Date: Monday, December 17, 2018 4:08:46 PM

Letter I4

I wish to strongly object to the proposal to use the current AMD place "driveway" for access to this new residential development. The EIR seems to say that the impact to the current Duane, Steward, AMD Place interchange can not be completely mitigated. Since it can not be mitigated if it is used, it makes sense to abandon that current exit from the property and use the existing South exit which has a light at Steward and Santa Trinity. Any additional traffic could exit on Stewart at the existing driveway and bus stop lane about 300' South of the Duane Steward interchange and East out Indian Wells. By doing this you correct an error made over 50 years ago when the access to the commercial property was placed such that a 3 way interchange was developed with inadequate queuing space for car in modern times. I4-1

The idea that an over congested poorly designed and managed 3 way interchange with inadequate queuing space between its self and Lawrence Ex could be used for traffic from the proposed new project and new thru traffic from a new connection to roads on the East side of the property is irresponsible. The existing light at this interchange is so outdated that if a pedestrian ask to cross AMD Place the light will shut down all traffic on east bound Duane and most other traffic except traffic from North Steward to West Duane. The cross walks on the East and West sides are tied together just like a 2 way light not what is need for a 3 way light I4-2

The traffic on Duane already makes it very difficult to exit the San Miguel neighborhood which does not have any lights on Duane Avenue for access from the north side of the roadway. Now that Duane is a one lane road all traffic is stacked in a continuous single file line with fewer gap than when there was parallel traffic. Adding even more residential units enhances this problem. When offices are replaced with housing such as this project, the mix in the AM of residences going out to work and worker going into their offices is lost. With the new 100% residential along Duane Avenue now all the traffic is going out in the AM and back in the PM. Roughly since the traffic along Duane is going from a balance of outgoing and incoming to all one direction. We need twice the roadway. If the new residential traffic is directed out to the South and West which are still mixed commercial and residential the traffic balance is better preserved. I4-3

Please correct the horrible 3 way interchange at Duane, Stewart, and 1AMD Place or return it to a 2 way interchange. Now that the property is being redeveloped we should not reuse the terrible traffic design from over 50 years ago. Use this opportunity to make Sunnyvale a better place and actually mitigate this problem. I4-4

Glen Chambers
Sunnyvale CA

Letter I4	Glen Chambers December 17, 2018

I4-1 The comment identifies objections to the project design of extending Indian Wells Avenue through the site along the alignment of the existing AMD Place main driveway and states that the project's impact to this intersection cannot be mitigated. The comment recommends that the project obtain roadway access from Stewart Drive/Santa Trinita Avenue intersection and other existing driveways along Stewart Drive.

DEIR tables 4.11-11, 4.11-12, and 6-3 identify that the project would not result in any significant impacts to the function of the Duane Avenue/Stewart Drive/AMD intersection under existing, background, and cumulative traffic conditions. The project would improve this three-way intersection to a four-way intersection associated with the extension of Indian Well Avenue through the site and would be a key component of the overall site plan circulation. As shown in DEIR Exhibit 3-3, a portion of the project would obtain access from Stewart Drive.

I4-2 The comment states that the existing poor operation and design of the Duane Avenue/Stewart Drive/AMD intersection and its proximity to Lawrence Expressway make it an irresponsible access point for the project.

This comment is noted. The reader is referred to Response to Comment I4-1 regarding project impacts to this intersection as well as project access to Stewart Drive.

I4-3 The comment identifies existing traffic issues associated with Duane Avenue and recommends that project traffic should be directed west and south.

This comment is noted. Pursuant to CEQA, the DEIR evaluates the project's impact on existing transportation facilities and conditions. DEIR Impact 6-13 identifies significant cumulative plus project traffic impacts on the operation of intersections along Duane Avenue in the project area (Fair Oaks Avenue/Duane Avenue intersection and the Duane Avenue/Duane Court intersection). DEIR Mitigation Measure 6-13a (signalization of the Duane Avenue/Duane Court intersection) would mitigate impacts to the Duane Avenue/Duane Court intersection to less than significant. DEIR Mitigation Measure 6-13b (contribution to the City's Intelligent Transportation System strategies and projects) would assist in reducing overall project traffic impacts but would not mitigate impacts to the Fair Oaks Avenue/Duane Avenue intersection as there are no current ITS projects identified for this intersection. The reader is referred to Response to Comment I4-1 regarding project access to Stewart Drive.

I4-4 The comment requests that the Duane Avenue/Stewart Drive/AMD intersection be corrected with this project.

This comment is noted. The reader is referred to Response to Comment I4-1 regarding project impacts and improvements to this intersection.

Gerri Carusoor
Principal Planner
Planning Division

Letter
I5

My husband and I have lived in the neighborhood for over 10 years and we used to love how quiet the area was and how kind the neighbors are. Recently, Duane was taken from 4 lanes to 2 lanes which has caused quite a back of traffic. Now there is a new townhomes development of 500 units on Duane which is causing more of a backup. Now you want to add an additional 1,000 units at the old AMD complex? I5-1

I am very concerned that our neighborhood is going from single family quiet homes to townhomes and apartments complexes and unnecessary traffic. I feel this is a huge burden to our neighborhood and the long time residence are going to suffer because of the new proposed constructions of the AMD complex I5-2

To come home in the evening we take 101 south to the Fair Oaks exit. Usually we would turn on Ahwanee Ave to get to our house but in the evenings we can't make that turn. This requires us to turn on Duane. Duane is backed up because of the school traffic and the lack of lanes. Sometimes we can't turn on Duane due to traffic and must take Stuart Ave to get home. This is already a frustration situation for us, what about the others who live in the same neighborhood and you want to add to it? We understand that the land can and will be developed. All we ask is to add to the neighborhood, add single family homes, promote a quiet neighborhood and lighten traffic in our area. I5-3

Thank you for your time and I hope you consider the current residence needs and wishes.

Jennifer Hellerich

RECEIVED
NOV 30 2018
PLANNING DIVISION

Letter I5	Jennifer Hellerich December 30, 2018

I5-1 The comment identifies that Duane Avenue was recently modified from four lanes to two lanes that is causing traffic to back-up in addition to new development in the area. The comment states concerns about the additional traffic from the project.

The DEIR identifies that this lane modification is in place and is not a component of the project. The traffic analysis includes the two-lane character of Duane Avenue in its impact analysis. DEIR Impact 6-13 identifies significant cumulative plus project traffic impacts on the operation of intersections along Duane Avenue in the project area (Fair Oaks Avenue/Duane Avenue intersection and the Duane Avenue/Duane Court intersection). DEIR Mitigation Measure 6-13a (signalization of the Duane Avenue/Duane Court intersection) would mitigate impacts to the Duane Avenue/Duane Court intersection to less than significant. DEIR Mitigation Measure 6-13b (contribution to the City's Intelligent Transportation System strategies and projects) would assist in reducing overall project traffic impacts but would not mitigate impacts to the Fair Oaks Avenue/Duane Avenue intersection as are no current ITS projects identified for this intersection.

I5-2 The comment states concerns regarding conversion of the area to townhomes and apartments and the associated traffic impacts.

This comment is noted. Development of townhomes and apartments in the area is based on the City's 2007 approval of the East Sunnyvale Industrial-to-Residential (ITR) General Plan Amendment and Rezone. The ITR Project, which included the project site, consisted of conversion of an approximately 130-acre industrial/office area to a combined designation that allows transition to residential uses. DEIR Section 4.11, "Traffic and Circulation," and Section 5.1, "Cumulative Impacts," provides an analysis of the project's expected traffic impacts. The reader is also referred to Response to Comment I5-1 regarding project area traffic impacts along Duane Avenue.

I5-3 The comment identifies existing traffic issues on Duane Avenue and requests that the project be modified into a single-family residential development project.

This comment is noted. The reader is also referred to Response to Comment I5-1 regarding project area traffic impacts along Duane Avenue. Modification of the project to provide single-family residential development would conflict with the project objectives of mix of residential densities that include affordable housing options to address City housing needs consistent with the General Plan (Land Use and Transportation Element adopted 2017) and the East Sunnyvale Sense-of Place Plan (adopted 2015).

Letter PC

Chair Howard called the meeting to order at 7:01 PM in the Council Chambers.

Chair Howard led the salute to the flag.

Roll Call (all present)

Consent Calendar

Commissioner Harrison moved and Commissioner Weiss seconded the motion to approve the revised Planning Commission Meeting Minutes of October 22, 2018. The motion carried by the following vote:

All Yes; Howe Abstained

Commissioner Howe moved and Vice Chair Simons seconded the motion to approve the Planning Commission Meeting Minutes of November 12, 2018. The motion carried by the following vote:

All Yes; Olevson and Harrison Abstained

Item 2

Principal Planner Gerri Caruso presented the staff report.

Pat Angell, representing Ascent Environmental Inc., presented images and information about the proposed project.

Chair Howard opened the Public Hearing.

Josué García, representing the Santa Clara County Residents for Responsible Development, spoke in support of the proposed project and commented on the traffic mitigation measures, affordable housing and public park. PC-1

Raju Dahal, Sunnyvale resident, spoke in support of the proposed project and commented on the benefits of the proposed public park and the addition of affordable housing. PC-2

Sergio Figueroa, Sunnyvale resident, spoke in support of the proposed project and commented that it will provide local jobs and school funding. PC-3

Hector Gomez spoke in support of the proposed project and commented on the benefits of the proposed public park and affordable housing for people employed in the City. PC-4

Glen Chambers, Sunnyvale resident, discussed his concerns with future site access for the proposed project in relation to shifting traffic patterns and existing intersection signal issues at Duane Avenue and Stewart Drive. PC-5

Jonathan Fishpow, Sunnyvale resident, spoke in support of the proposed project and commented on the need for housing in the City. PC-6

Zachary Kaufman commented on information not included in DEIR sections 3.5 and 4.9 and stated an opinion that the value of residential square footage from 2000 is of little to no value since it is adjusted for inflation. PC-7

Stephanie Ray spoke in support of the proposed project and commented on the need for housing in the northern part of the City. Ms. Ray advocated for the development of a bike lane from the proposed project to the Caltrain station. PC-8

Chair Howard closed the Public Hearing.

Commissioner Rheaume asked staff how the traffic light issue, as mentioned during public comments, will be addressed. Mr. Angell advised that the DEIR contains a traffic analysis section for the intersection operations and impacts. PC-9

Commissioner Weiss asked staff why only 6% of the units will be reserved for very low-income households. Principal Planner Caruso advised that the number is not an environmental impact, that it is only included as a description of what the applicant is proposing and that 12.5% of the townhomes for ownership will be affordable units. PC-10

Commissioner Weiss asked about the methodology for collecting plot samples to identify hazardous materials. Mr. Angell provided information about the technical studies and noted that a cleanup program is underway with the San Francisco Bay Region Regional Water Quality Control Board. PC-11

Vice Chair Simons stated an opinion that the DEIR alternatives related to traffic impacts are not adequate. Vice Chair Simons commented on the traffic impacts associated with egress/ingress at the intersections of East Duane Avenue and San Rafael or San Simeon. Vice Chair Simons recommended the addition of a passive control traffic circle to potentially mitigate these traffic impacts. PC-12

2.7 NOVEMBER 26, 2018 SUNNYVALE PLANNING COMMISSION MEETING

Comment PC-1	**Josue Garcia, Santa Clara County Residents for Responsible Development** November 26, 2018

Comment The commenter expresses support for the project and identifies benefits of the project.

This comment is noted.

Comment PC-2	**Raju Dahal** November 26, 2018

Comment The commenter expresses support for the project and identifies benefits of the project.

This comment is noted.

Comment PC-3	**Sergio Figueroa** November 26, 2018

Comment The commenter expresses support for the project and identifies benefits of the project.

This comment is noted.

Comment PC-4	**Hector Gomez** November 26, 2018

Comment The commenter expresses support for the project and identifies benefits of the project.

This comment is noted.

Comment PC-5	**Glen Chambers** November 26, 2018

Comment The commenter identifies objections to the project design of extending Indian Wells Avenue through the site along the alignment of the existing AMD Place main driveway. The commenter recommends that the project obtain roadway access from Stewart Drive.

DEIR tables 4.11-11, 4.11-12, and 6-3 identify that the project would not result in any significant impacts to the function of the Duane Avenue/Stewart Drive/AMD intersection under existing, background, and cumulative traffic conditions. The project would improve this three-way intersection to a four-way intersection associated with the extension of Indian Well Avenue through the site and would be a key component of the overall site plan circulation. As shown in DEIR Exhibit 3-3, a portion of the project would obtain access from Stewart Drive.

Comment PC-6	**Jonathan Fishpow** November 26, 2018

Comment The commenter expresses support for the project and identifies benefits of the project.

This comment is noted.

Comment PC-7	**Zachary Kaufman** November 26, 2018

Comment The commenter states that DEIR Section 3.5 and 4.9 do not provide the square footage of the residences proposed to determine school facility mitigation fees. The commenter also offered the opinion that the value of square footage from 2000 is of little value.

The 1 AMD Place Redevelopment School Boundary Exhibit (EPTDESIGN 2018) estimates that the project could generate approximately 1,124,400 square feet of residential space. DEIR page 4.9-25 identifies that California Government Code Sections 65995 (h) and 65996 (b) require full and complete school facilities mitigation. Section 65995(h) states that the payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code is deemed to be full and complete mitigation of the impacts for the planning, use, development, or the provision of adequate school facilities. In addition to the payment of these fees, the project applicant has voluntarily agreed to contribute equivalent to 50 percent of the required school impact fees. The funding would be unrestricted for use on items for the District's that may be needed such as classroom space, equipment, computers, and other technology to assist in teaching. Therefore, the project's public school facility impacts would be less than significant.

Comment PC-8	**Stephanie Ray** **November 26, 2018**

Comment The commenter expresses support for the project and identifies benefits of the project.

This comment is noted.

Comment PC-9	**Commissioner Rheaume** November 26, 2018

Comment The commenter askes how traffic light issues identified during the public comments will be addressed.

The DEIR traffic impact analysis evaluated 34 intersections under existing, background, and cumulative conditions (see DEIR tables 4.11-11, 4.11-12, and 6-3). The reader is referred to Response to Comment PC-5 regarding impacts to the Duane Avenue/Stewart Drive/AMD intersection operational concerns expressed at the Planning Commission public meeting.

Comment PC-10	**Commissioner Weiss** November 26, 2018

Comment The commenter asked why only 6 percent of the units were reserved for very low-income households.

The proposed low-income units would be provided within the proposed apartment units. The project is also proposing that 12.5 percent of the townhomes for ownership would be affordable units.

Comment PC-11	**Commissioner Weiss** November 26, 2018

Comment The commenter asks about the methodology used for collecting lot samples to identify hazardous materials.

As described in DEIR Section 4.6, "Hazards and Hazardous Materials," the project site currently has an open file with the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) related to cleanup oversight and site assessment activities (Geotracker ID# T10000009363; SFRWQCB Case #43S1205). Evaluation of on-site soil and groundwater contamination of the project site was conducted in Phase I/Phase II ESA and June 2017 Supplemental Phase II ESA Reports for the 1 AMD Place portion of the project site. ENGEO International (ENGEO) conducted Phase I and Phase II ESAs for the 975 Stewart Drive portion of the project site. Evaluation of underground contamination for the 1 AMD Place portion of the site consisted 20 soil borings, 1 sub-slab soil gas probe, and 22 temporary soil gas probes based on SFRWQCB direction and the consultant's recommended coverage of the site.

Comment PC-12	**Vice Chair Simons** November 26, 2018

Comment The commenter states that the DEIR alternatives analysis related to traffic impacts is not adequate. The commenter notes traffic impacts on Duane Avenue and its intersections with San Rafael Street, San Simeon Street, and Duane Court and recommends that the mitigation for the Duane Avenue/Duane Court be the addition of a roundabout/passive traffic control.

It is unclear what alternatives the commenter recommends to be evaluated to address traffic impacts. DEIR Chapter 5, "Alternatives," evaluates two alternatives (Alternative 2 and 3) that would reduce the project's overall density and result in reduced traffic volumes as compared to the project (DEIR pages 5-7 through 5-13); therefore, meeting CEQA's requirements to consider alternatives that reduce or avoid the project's significant effect (CEQA Guidelines Section 15126.6). The DEIR traffic impact analysis only identifies significant cumulative plus project traffic impacts on Duane Avenue in the project area for the intersections of Fair Oaks Avenue/Duane Avenue and Duane Avenue/Duane Court. DEIR Mitigation Measure 6-13a (signalization of the Duane Avenue/Duane Court intersection) would mitigate impacts to the Duane Avenue/Duane Court intersection to less than significant. Along Duane Avenue, there is an existing signal at DeGuigne Drive, and a new signal is proposed at Duane Court under the cumulative conditions. The two signalized intersections would create gaps in the flow on

Duane Avenue for entry from San Rafael Street and San Simeon Street. These streets also have access to a center turn lane when making an eastbound left turn.

DEIR Mitigation Measure 6-13b (contribution to the City's Intelligent Transportation System strategies and projects) would assist in reducing overall project traffic impacts but would not mitigate impacts to the Fair Oaks Avenue/Duane Avenue intersection because there are no current ITS projects identified for this intersection.

City transportation staff currently envisions Duane Avenue/Duane Court intersection improvements to consist of a traffic signal. The project is required to fund its fair share of the improvement as well as payment of the City's Traffic Impact Fee (TIF).

3 REVISIONS TO THE DEIR

This chapter presents specific text changes made to the DEIR since its publication and public review in response to comments and to address the California Supreme Court decision in Sierra Club v. County of Fresno (226 Cal.App.4th 704) regarding air quality impacts and public health. The changes are presented in the order in which they appear in the original DEIR and are identified by the DEIR page number. Text deletions are shown in ~~strikethrough~~, and text additions are shown in underline.

The information contained within this chapter clarifies and expands on information in the DEIR and does not constitute "significant new information" requiring recirculation. (See Public Resources Code Section 21092.1; CEQA Guidelines Section 15088.5.)

Revisions to Section 4.2, Air Quality

The following text changes are made to the top of DEIR page 4.2-3:

> **Sierra Club v. County of Fresno**
> In December 2018, the California Supreme Court issued its decision in Sierra Club v. County of Fresno (226 Cal.App.4th 704). The case reviewed the long-term, regional air quality analysis contained in the EIR for the proposed Friant Ranch development. The project is located in unincorporated Fresno County within the San Joaquin Valley Air Basin, an air basin currently in non-attainment for multiple NAAQS and CAAQS, including ozone and PM. The Court ruled that the air quality analysis failed to adequately disclose the nature and magnitude of long-term air quality impacts from emissions of criteria pollutants and precursors "in sufficient detail to enable those who did not participate in its preparation to understand and consider meaningfully the issues the proposed project raises." The Court noted that the air quality analysis did not provide a discussion of the foreseeable adverse effects of project-generated emissions on Fresno County's likelihood of exceeding the NAAQS and CAAQS for criteria air pollutants nor did it explain a connection between the project's emissions and deleterious health impacts. Moreover, as noted by the Court, the EIR did not explain why it was not "scientifically possible" to determine such a connection. The Court concluded that "because the EIR as written makes it impossible for the public to translate the bare numbers provided into adverse health impacts or to understand why such translation is not possible at this time," the EIR's discussion of air quality impacts was inadequate.

The following text changes are made to the Thresholds of Significance discussion starting on DEIR page 4.2-11:

THRESHOLDS OF SIGNIFICANCE

BAAQMD adopted thresholds of significance in 2010, but these thresholds were subject to a series of lawsuits, including whether the development of the thresholds was itself a project that should be subject to CEQA evaluation, and whether the thresholds could be used to determine if existing environmental hazards could result in significant impacts to projects exposed to these hazards. None of the lawsuits addressed the merits of the thresholds themselves. As stated on its website, www.baaqmd.gov, ~~the~~ BAAQMD "is no longer recommending that the Thresholds be used as a generally applicable measure of a project's significant air quality impacts…lead agencies may rely on the Air District's updated CEQA Guidelines (updated May 2012 [and later in 2017]) for assistance in calculation air pollution emissions, obtaining information regarding the health impacts of air pollutants, and identifying potential mitigation measures…" (BAAQMD 2014). Although these thresholds remain unadopted, they provide the most current evidence upon which to base significance conclusions related to air quality and are used herein as the basis for determining whether a project's individual emissions would produce a significant impact to air quality within the SFBAAB~~s~~.

In its June 2010 *Thresholds of Significance Justification Report* (Report), BAAQMD provides evidence to support the development and applicability of its thresholds of significance for project-generated emissions of criteria pollutants and precursors, which may be used at the discretion of a lead agency overseeing the environmental review of projects located within the SFBAAB. As stated in the Report, the "formulation of a standard of significance requires the lead agency to make a policy judgment about where the line should be drawn to distinguish adverse impacts it considers significant from those that are not deemed significant. This judgment must; however, be based on scientific information and other factual data to the extent possible" (BAAQMD 2010:D-5). Notably, CEQA-related air quality thresholds of significance are tied to achieving or maintaining attainment designation with the NAAQS and CAAQS, which are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health.

In consideration of new and more stringent NAAQS and CAAQS adopted since 2000, BAAQMD identified numerical thresholds for construction and operational emissions of criteria pollutants and precursors that would determine whether a project's discrete emissions would result in a cumulative, regional contribution (i.e., significant) to the baseline non-attainment status of the SFBAAB (BAAQMD 2010:D-46). In developing operational thresholds of significance for individual project emissions, BAAQMD also analyzed emissions values against the federal BAAQMD Offset Requirements to ozone precursors, which, when applied, would prevent further deterioration of ambient air quality within the SFBAAB. Operational emissions thresholds for PM_{10} and $PM_{2.5}$ were adapted from the federal New Source Review Significant Emissions Rate annual limits (BAAQMD 2010:D-47). Using these parameters, BAAQMD has developed quantitative thresholds of significance for project-level CEQA evaluation that may be used to determine the extent to which a project's emissions of criteria pollutants and precursors would contribute to the regional degradation of ambient air quality within the SFBAAB.

Additionally, through its Community Air Risk Evaluation program, BAAQMD identified high-risk exposure areas within the SFBAAB. Using federal and State guidance pertaining to TACs/HAPs in addition to the findings of several scientific studies, BAAQMD developed cancer risk and non-cancer health hazard thresholds for TAC and $PM_{2.5}$ exposure. Unlike criteria air pollutants, there is no known safe concentration levels of TACs. Moreover, TAC emissions contribute to the deterioration of localized air quality and due to the dispersion characteristics of TACs, emissions do not cause regional-scale air quality impacts. The BAAQMD thresholds are designed to ensure that a source of TACs or $PM_{2.5}$ does not contribute to a localized, cumulatively significant impact to existing or new receptors (BAAQMD 2010:D-34).

As such, f~~F~~or the purpose of this project, the following thresholds of significance are used to determine if project-generated emissions would produce a significant localized and/or regional ~~an~~ air quality impact such that human health would be adversely affected ~~would be significant~~. The project would result in a significant impact to air quality if it would (BAAQMD 2017b:2-2 to 2-3):

The following text changes are made in the discussion under Impact 4.2-1 starting on DEIR page 4.2-12:

Multiple activities during project construction would result in emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ including demolition, site preparation, grading, utilities installation, the use of off-road equipment, material delivery by haul trucks, and worker commute trips, building construction, asphalt paving, application of architectural coatings, and other miscellaneous activities. Ozone precursors emissions of ROG and NO_X would be associated primarily with exhaust from construction equipment, haul truck trips, and worker trips. ROG would also be emitted during asphalt paving and the application of architectural coatings. Fugitive dust emissions would be associated primarily with site preparation and vary as a function of soil silt content, soil moisture, wind speed, and area of disturbance. Other particulate matter emissions would result from combustion of fuels and from tire and brake wear.

Project construction is anticipated to occur between 2018 and 2022 over the course of five overlapping phases. Phase 1 would span from 2018 to 2020 and would include the demolition of the existing facilities on the project site; Phase 2 would occur from 2019 to 2021 and would involve the construction of three of the low-rise apartment buildings, 22 three-story townhome buildings, site improvements, landscaping, and the backbone infrastructure and roadway improvements for the whole site; Phase 3 would occur between 2019 and 2021 and would involve construction of two of the mid-rise apartment buildings, site improvements, landscaping, and site amenities; Phase 4 would span from 2021 to 2022 and would entail the construction of two of the mid-rise apartment buildings, site improvements, and site amenities; and Phase 5 would occur from 2021 to 2022 and would include construction of the community park.

Maximum daily construction emissions for the project are summarized in Table 4.2-4. The table presents maximum daily emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ for each construction year. Refer to Appendix B for a detailed summary of the modeling assumptions, inputs, and outputs.

Table 4.2-4 Summary of Unmitigated Maximum Daily Construction-Generated Emissions of Criteria Air Pollutants and Precursors by Construction Year

Year[1]	ROG (lb/day)	NO_X (lb/day)	PM_{10} Exhaust (lb/day)	$PM_{2.5}$ Exhaust (lb/day)
2018	1	11	2	1
2019	10	101	43	25
2020	6	45	6	3
2021	18	88	26	15
2022	14	25	5	2
Threshold of Significance	54	54	82	54

Notes: lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; ROG = reactive organic gases.

1. Construction would occur over five phases, which would be expected to overlap. As such, maximum daily emission levels are summarized by year.

See Appendix B for detailed input parameters and modeling results.

Source: Modeling conducted by Ascent Environmental in 2018

As shown in Table 4.2-4, the construction-generated emissions of NO_X would exceed the threshold of significance of 54 lb/day in 2019 and 2021 during building construction of the mid-rise apartments and townhomes. This emissions level of NO_X could contribute to an increase in non-attainment days in the SFBAAB for ozone. As summarized in Table 4.2-2, "Sources and Health Effects of Criteria Air Pollutants," groundborne ozone is a secondary pollutant derived from the oxidation of NO_X and ROG in the presence of sunlight. The SFBAAB is currently in non-attainment for the national and state ozone standards; therefore, project-related construction-generated emissions of NO_X could exacerbate this existing adverse condition.

However, given the high number of factors (e.g., typography, meteorology, emissions sources) that contribute to the formation and dispersion of ozone, it is not scientifically possible to predict the number of days in which ozone concentrations exceed the NAAQS or CAAQS with a high level of accuracy. Current models cannot determine the locations of or the specific concentrations of ozone from NO_X or ROG precursors because of the complex physical factors (e.g., sun, temperature, wind) that contribute to the chemical reactions necessary to convert precursors to ground-level ozone. Nonetheless, because precursor emission levels would exceed BAAQMD's significance thresholds, it is reasonably foreseeable that construction emissions could contribute to an increase in non-attainment days.

Also summarized in Table 4.2-2, human exposure to ozone may cause acute and chronic health impacts including coughing, pulmonary distress, lung inflammation, shortness of breath, and permanent lung impairment. By evaluating emissions of NO_X against BAAQMD's thresholds of significance, it is foreseeable that the health complications associated with ozone exposure could be exacerbated by project-generated construction emissions.

Table 4.2-4 also shows that construction-generated emissions of ROG, PM_{10}, and $PM_{2.5}$ would not exceed BAAQMD's applicable thresholds; however, if dust control measures are not implemented, fugitive PM_{10} and $PM_{2.5}$ dust emissions could contribute to localized concentrations of these pollutants that exceed the applicable NAAQS and CAAQS, which could cause localized health impacts to receptors exposed to these pollutants.

Because emissions of NO_X in 2019 would exceed the applicable BAAQMD daily thresholds of significance, project-generated construction emissions could result in an increase in the number of exceedances of the NAAQS and CAAQS for ozone and an increase in the potential for adverse health impacts to occur from ozone exposure. For these reasons, this would be a **significant** impact.

Mitigation Measure 4.2-1a: Apply Tier-4 Emission Standards to all Diesel-Powered Off-Road Equipment

The applicant shall require the construction contractor to only use off-road construction equipment that meet EPA's Tier 4 emission standards as defined in 40 CFR 1039 and to comply with the appropriate test procedures and provisions as contained in 40 CFR Parts 1065 and 1068. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Implementation of this measure shall be required in the contract the project applicant establishes with its construction contractors. The applicant shall demonstrate its plan to fulfill the requirements of this measure in a report or in project improvement plan details submitted to the City prior to the use of any off-road, diesel-powered construction equipment on the site.

Mitigation Measure 4.2-1b: Implement Construction-Related Measures to Reduce Fugitive Dust Emissions

The applicant shall require its construction contractors to implement BAAQMD's Basic Construction Mitigation Measures (BAAQMD 2017b:8-4), including, but not limited to the following. These measures shall be included in project improvement plans.

- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) two times per day.
- Cover all haul trucks transporting soil, sand, or other loose material off-site.
- Remove all visible mud or dirt track-out onto adjacent public roads using wet power vacuum street sweepers at least once per day (dry power sweeping is prohibited).
- Limit all vehicle speeds on unpaved roads to 15 miles per hour.
- Pave all roadways, driveways, and sidewalks as soon as possible, and lay building pads as soon as possible after grading (unless seeding or soil binders are used).
- Minimize idling times by shutting equipment off when not in use or reducing the maximum idling time to five minutes. The project will provide clear signage for construction workers at access points.

- Maintain and properly tune all construction equipment in accordance with manufacturers specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- Post a publicly visible sign with the telephone number and person to contact at the Lea Agency regarding dust complaints. The person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Significance after Mitigation

Implementation of Mitigation Measure 4.2-1a would reduce NO_x emissions through use of cleaner construction equipment. Table 4.2-5 shows the effectiveness of Mitigation Measure 4.2-1a on in reducing ~~on~~ the project's estimated construction emissions.

Table 4.2-5 Daily Construction-Generated Emissions of NO_X

Year[1]	Construction Phase[2]	Maximum Daily NO_X Emissions (lb/day)		
		Unmitigated	Mitigated	Percent Reduction
2018	Phase 1	11	11	0%
2019	Phase 2 and 3	101	13	87%
2020	Phase 2 and 3	45	11	76%
2021	Phase 2, 3, 4, and 5	88	11	87%
2022	Phase 2, 3, 4, and 5	25	12	52%
Thresholds of Significance		54	54	n/a

Notes: lb/day = pounds per day; NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter; $PM_{2.5}$ = fine particulate matter; ROG = reactive organic gases.

1. Indicates the calendar year in which the maximum daily emissions would occur and does not imply duration of construction activity.

2. In which maximum daily emissions are occurring.

Source: Modeling conducted by Ascent Environmental in 2018

As shown in Table 4.2-5, implementation of Mitigation Measure 4.2-1a would reduce maximum daily NO_X emissions associated with project construction to less than BAAQMD's significance level of 54 lb/day. Based on the development of the BAAQMD's thresholds of significance (discussed in greater detail in the "Thresholds of Significance"), the level of NO_X emissions after implementation of Mitigation Measure 4.2-1a would not contribute considerably to a cumulative deterioration of air quality within the SFBAAB from ozone formation. As such, mitigated NO_X emissions would not exacerbate the non-attainment designation of the SFBAAB nor result in deleterious health impacts associated with human exposure to ozone.

Further, implementation of BAAQMD's Best Management Practices required by Mitigation Measure 4.2-1b would ensure that construction-related emissions of PM_{10} and $PM_{2.5}$ would not result in a localized exceedance of the NAAQS and CAAQS or associated human health effects for these pollutants. Therefore, implementation of Mitigation Measures 4.2-1a and 4.2-1b would reduce construction impacts to a **less-than-significant** level.

The following text changes are made in the discussion under Table 4.2-6 on DEIR page 4.2-15:

As shown in Table 4.2-6, operation of the project would not result in long-term operational emissions of ROG, NO_X, PM_{10}, or $PM_{2.5}$ that exceed the mass emission thresholds recommended by BAAQMD. Thus, long-term operational emissions of criteria air pollutants and precursors would not violate or substantially contribute to an existing or projected air quality violation or expose sensitive receptors

to substantial pollutant concentrations such that adverse health impacts would occur. As discussed in the "Thresholds of Significance" section, BAAQMD developed these thresholds in consideration of achieving attainment for the NAAQS and CAAQS, which represent concentration limits of criteria air pollutants needed to adequately protect human health. Therefore, the project's contribution to operational criteria pollutants and precursors would not contribute to the exceedance of the NAAQS or CAAQS in the SFBAAB nor result in greater acute or chronic health impacts compared to existing conditions. Moreover, because the project would be consistent with the current land use designation and zoning, it would also be consistent with regional air quality planning that incorporated this zoning. For these reasons, operational impacts to ambient air quality would be **less than significant**.

Revisions to Section 4.1, Traffic and Circulation

The following text changes are made to Mitigation Measure 4.11-1 on DEIR page 4.11-37:

Mitigation Measure 4.11-1: Make Improvements to Intersection at Lawrence Expressway/Duane Avenue-Oakmead Parkway

Santa Clara County has jurisdiction over the Lawrence Expressway/Duane Avenue-Oakmead intersection. A third left lane will be added to the eastbound approach at the intersection of Lawrence Expressway/Duane Avenue-Oakmead Parkway including one through lane, and one right-turn lane. Signage and pavement striping shall be provided to indicate that the inner first left-turn lane shall be designated for northbound Lawrence Expressway traffic, the middle left-turn lane shall be designated for northbound U.S. 101 traffic, and the outer left-turn lane shall be designated for southbound U.S. 101 traffic. Additional improvements shown on the Lawrence Expressway/E Duane Avenue to US-101 Concept Plan provided by the County of Santa Clara Roads and Airports Department on December 17, 2018, such as modifications to the corners of the intersection, restriping of crosswalks, the northbound lane alignments, the relocation of pedestrian crossing at the U.S. 101 southbound on-ramp, and the extension of the barrier curb, are shown as a concept plan only. These improvements have not been adopted yet and hence, the project is not responsible for these additional improvements.

Additionally, the signal operation and timing at the intersection at Lawrence Expressway/Duane Avenue-Oakmead Parkway shall be adjusted to accommodate the third lane. The project applicant and City of Sunnyvale shall coordinate and agree with the County on the timing and implementation of the improvements prior to issuance of building permits.

The following text changes are made to Mitigation Measure 4.11-4 on DEIR page 4.11-41. These changes do not alter the conclusions of the DEIR.

Mitigation Measure 4.11-4: Increase Metering Rate at U.S. 101 Lawrence Expressway Diagonal On-Ramp

The metering rates shall be increased to one vehicle every 4 seconds to ensure that the maximum queue does not exceed the ramp storage. The applicant and City will coordinate and agree with Caltrans on the timing and implementation of this improvement prior to the issuance of building permits.

The following text changes are made to Mitigation Measure 4.11-8 on DEIR page 4.11-44:

Mitigation Measure 4.11-8: Prepare and Implement Temporary Traffic Control Plan

Before building permits are issued and construction begins, the construction contractor shall prepare a temporary traffic control (TTC) plan to the satisfaction of the City of Sunnyvale Division of Transportation and Traffic and subject to review by all affected agencies.

The City of Sunnyvale suggests that the latest edition of the CA MUTCD, Part 6: Temporary Traffic Control, be referred to for guidance on preparing a TTC plan. The TTC plan shall include all information

required on the City of Sunnyvale TTC Checklist and shall conform to the TTC Guidelines of the City of Sunnyvale. At a minimum, the plan shall:

- provide a vicinity map that shows all the streets in the work zone properly labeled, along with the posted speed limits and a north arrow;
- identify the path of construction vehicles traveling to the site. If Lawrence Expressway is used, the time of use shall be limited to 9:00 a.m. to 3:00 p.m.;
- describe the estimated highest number of vehicle trips generated during project construction activities;
- identify the existing roadway lane and bike lane configurations and sidewalks, including dimensions, where applicable;
- describe the proposed work zone;
- describe anticipated detours and/or lane closures (for pedestrians, bicyclists, and vehicles);
- describe no-parking zones and other parking restrictions;
- describe appropriate tapers and lengths, signs, and spacing;
- identify appropriate channelization devices and spacing;
- describe the buffers;
- identify work hours and work days;
- provide the dimensions of the elements and requirements listed above in accordance with CA MUTCD Part 6 and the City of Sunnyvale's Standard Operating Procedure (SOP) for bike lane closures;
- identify the proposed speed limit changes if applicable;
- describe the bus stops and signalized and nonsignalized intersections that will affected by the work;
- show the plan to address pedestrian, bicycle, and Americans with Disabilities Act requirements throughout the work zone in accordance with CA MUTCD Part 6 and the City of Sunnyvale's SOP for bike lane closures;
- ~~indicate whether phasing or staging is requested and, if so, the duration of each;~~
- provide details on trucks, including the number and size of trucks involved with construction per day, expected arrival and departure times, and truck circulation patterns;
- identify all the staging areas on the project site and duration of each stage of construction for the project and any related improvements; and
- ensure that the contractor has obtained and read the City of Sunnyvale's TTC Guidelines and City of Sunnyvale's SOP for bike lane closures.

Revisions to Section 6.1, Cumulative Impacts

The following text changes are made to Mitigation Measure 6-13a and b on DEIR page 6-21 and 6-22:

Mitigation Measure 6-13a: Signal Construction at Intersection of Duane Avenue and Duane Court

The intersection of Duane Avenue and Duane Court satisfies the peak hour signal warrant under Cumulative and Cumulative Plus Project conditions but does not meet warrants in any preceding analysis scenario, including Existing conditions. Thus, the project shall pay a fair share towards construction of the signal ~~through the City's TIF at the time of building permit issuance~~.

Mitigation Measure 6-13b: Contribution to the City's Intelligent Transportation System Strategies and Projects and Lawrence Expressway ITS/Signal System Countywide Project

Under Cumulative Plus Project conditions, the following intersections where impacts occur include constraints to the right-of-way that would require acquisition of private property to construct any physical improvements:

- #3 – Fair Oaks Avenue / Northbound US 101 Ramps
- #6 – Fair Oaks Avenue / Duane Avenue
- #7 – Fair Oaks Avenue / Wolfe Road
- #26 – Lawrence Expressway / US 101 Southbound Ramps – Oakmead Parkway

Therefore, physical improvements to these intersections that would mitigate the operational impacts under Cumulative Plus Project conditions are not feasible. LOS impacts at these study intersections could be improved through implementation of the City's Intelligent Transportation System (ITS) strategies and projects and the Lawrence Expressway ITS/Signal System Countywide project. Therefore, the project shall pay a fair share towards the ITS projects through the City's TIF and participation in the Lawrence Expressway ITS/Signal System Countywide project.

4 REFERENCES

EPTDESIGN 2018. (August). 1 AMD Place Redevelopment School Boundary Exhibit. Prepared for ICAD.

This page intentionally left blank

5 LIST OF PREPARERS

ASCENT ENVIRONMENTAL, INC.

Amanda Olekszulin ..... Principal
Patrick Angell ..... Project Manager
Kristen Stoner ..... Assistant Project Manager

This page intentionally left blank.

1 AMD PLACE REDEVELOPMENT PROJECT MITIGATION MONITORING AND REPORTING PROGRAM

CEQA and the State CEQA Guidelines (PRC Section 21081.6 and State CEQA Guidelines Sections 15091[d] and 15097) require public agencies "to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval to mitigate or avoid significant effects on the environment." A Mitigation Monitoring and Reporting Program (MMRP) is required for the project because the EIR identifies potential significant adverse impacts related to the project implementation, and mitigation measure have been identified to reduce those impacts. Adoption of the MMRP would occur along with approval of the project.

PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed in a satisfactory manner before and during project construction and operation. The MMRP may be modified by the City during project implementation, as necessary, in response to changing conditions or other refinements; however, modifications to a mitigation measure that could reduce its effectiveness in reducing impacts may not occur without CEQA compliance.

The attached table has been prepared to assist the responsible parties in implementing the mitigation measures. The table identifies the impact, individual mitigation measures, monitoring responsibility, mitigation timing, and provides space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence found in the EIR. Mitigation measures that are referenced more than once in the Draft EIR are not duplicated in the MMRP table.

ROLES AND RESPONSIBILITIES

Unless otherwise specified herein, the City is responsible for taking all actions necessary to implement the mitigation measures under its jurisdiction according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. The City, at its discretion, may delegate implementation responsibility or portions thereof to a licensed contractor or other designated agent. Section 21081.6 of the Public Resources Code, requires the lead agency to identify the "custodian of documents and other material" which constitutes the "record of proceedings" upon which the action on the project was based. The Sunnyvale City Manager, or designee, is the custodian of such documents for the 1 AMD Place Redevelopment Project.

Inquiries should be directed to:

City of Sunnyvale, Community Development Department/Planning Division
456 W. Olive Avenue
Sunnyvale, CA 94086
Phone: (408) 730-7440

The EIR has been posted on the City's website: http://www.sunnyvale.ca.gov. Hard copies of the EIR are available for review at the City's One-Stop Permit Center at 456 W. Olive Avenue, Sunnyvale CA, 94086 and the Sunnyvale Public Library at 665 West Olive Avenue, Sunnyvale, CA 94086.

The City is responsible for overall administration of the MRRP and for verifying that City staff members and/or the construction contractor has completed the necessary actions for each measure. The City may designate a project manager to oversee implementation of the MMRP. Duties of the project manager include the following:

- ensure routine inspections of the construction site are conducted by appropriate City staff; check plans, reports, and other documents required by the MMRP; and conduct report activities;
- serve as a liaison between the City and the contractor or project applicant regarding mitigation monitoring issues;
- complete forms and maintain reports and other records and documents generated for the MMRP; and
- coordinate and ensure that corrective actions or enforcement measures are taken, if necessary.

The responsible party for implementation of each item will identify the staff members responsible for coordinating with the City on the MMRP.

MITIGATION MONITORING AND REPORTING PROGRAM TABLE

The categories identified in the attached MMRP table are described below.

- Mitigation Measure – This column provides the verbatim text of the adopted mitigation measure
- Monitoring Responsibility – This column identifies the party responsible for enforcing compliance with the requirements of the mitigation measure.
- Timing – This column identifies the time frame in which the mitigation will be implemented.
- Verification – This column is to be dated and signed by the person (either project manager or his/her designee) responsible for verifying compliance with the requirements of the mitigation measure.

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
Air Quality			
Mitigation Measure 4.2-1a: Apply Tier-4 Emission Standards to all Diesel-Powered Off-Road Equipment When Available The applicant shall require its construction contractor to only use off-road construction equipment that meet EPA's Tier 4 emission standards as defined in 40 CFR 1039 and to comply with the appropriate test procedures and provisions as contained in 40 CFR Parts 1065 and 1068, to the extent feasible. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers or if Tier 4 equipment is not available. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Implementation of this measure shall be required in the contract the project applicant establishes with its construction contractors. The applicant shall demonstrate its plan to fulfill the requirements of this measure in a report or in project improvement plan details submitted to the City prior to the use of any off-road, diesel-powered construction equipment on the site.	City of Sunnyvale	Prior to and during construction activities.	
Mitigation Measure 4.2-1b: Implement Construction-Related Measures to Reduce Fugitive Dust Emissions. The applicant shall require its construction contractors to implement BAAQMD's Basic Construction Mitigation Measures (BAAQMD 2017b:8-4), including, but not limited to the following. These measures shall be included in project improvement plans ◢ Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) two times per day. ◢ Cover all haul trucks transporting soil, sand, or other loose material off-site. ◢ Remove all visible mud or dirt track-out onto adjacent public roads using wet power vacuum street sweepers at least once per day (dry power sweeping is prohibited). ◢ Limit all vehicle speeds on unpaved roads to 15 miles per hour. ◢ Pave all roadways, driveways, and sidewalks as soon as possible, and lay building pads as soon as possible after grading (unless seeding or soil binders are used). ◢ Minimize idling times by shutting equipment off when not in use or reducing the maximum idling time to five minutes. The project will provide clear signage for construction workers at access points. ◢ Maintain and properly tune all construction equipment in accordance with manufacturers specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. ◢ Post a publicly visible sign with the telephone number and person to contact at the Lea Agency regarding dust complaints. The person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.	City of Sunnyvale	Included in project improvement plans and implemented during construction activities.	
Biological Resources			
Mitigation Measure 4.3-1: Protection Measures for Nesting Raptors and Other Birds The applicant shall impose the following conditions before, and during, construction:	City of Sunnyvale, in consultation with CDFW	During construction that occurs between	

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
◢ To minimize the potential for loss of nesting raptors and other birds, tree removal activities will only occur during the nonbreeding season (September 1-January 31). If all suitable nesting habitat is removed during the nonbreeding season, no further mitigation will be required. ◢ Before removal of any trees or ground disturbing activities between February 1 and August 31, a qualified biologist will conduct preconstruction surveys for nesting raptors and other birds and will identify active nests within 500 feet of the site. The surveys will be conducted before the beginning of any construction activities between February 1 and August 31. ◢ Impacts to nesting raptors will be avoided by establishing appropriate buffers around active nest sites identified during preconstruction surveys. Activity will not commence within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer will not likely result in nest abandonment. Typical buffers are 500 feet for raptors, but the size of the buffer may be adjusted if a qualified biologist, in consultation with CDFW, determines that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during construction activities may be required if the activity has potential to adversely affect the nest. ◢ Trees will not be removed during the breeding season for nesting raptors unless a survey by a qualified biologist verifies that there is not an active nest in the tree.		September 1 and January 31 remove trees when no active nests are present. 7-14 days prior to ground disturbing or vegetation removal activities that occur between February 1 and August 31 conduct pre-construction surveys. During construction install appropriate buffers if occupied nests are present. If no occupied nests, no further mitigation needed.	
Greenhouse Gas Emissions and Climate Change			
Mitigation Measure 4.5-1: Implement Project Features to be Consistent with A Future Qualified Climate Action Plan or Implement All Feasible On-Site Greenhouse Gas Reduction Measures and Purchase Carbon Offsets A. The applicant shall implement project design features sufficient to demonstrate that the project would be consistent with the next version of the City's climate action plan, referred to as CAP 2.0. This option can only be followed if the CAP 2.0 meets the criteria listed in Section 15183.5b(1) of the State CEQA Guidelines prior to any project-related demolition or construction activity. This option can also only be followed if the CAP 2.0 is aligned with the statewide GHG reduction target established by SB 32 of 2016 (i.e., 40 percent below 1990 levels by 2030) and any additional post-2030 statewide reduction targets established by the state legislature at the time. The applicant must follow the City's process for demonstrating that a project is consistent with the CAP 2.0. If CAP 2.0 is not adopted at the time of construction of project facilities, the applicant shall implement Parts B and C of this mitigation measure. B. The applicant shall implement all feasible measures to reduce GHG emissions associated with the project, including but not limited to the construction- and operation-related measures listed below. The applicant may refrain from implementing some of the measures below only if it provides substantial evidence to the City that substantiates why the measure is infeasible for this project. The GHG reductions achieved by the implementation of measures listed in Part B shall be estimated by a qualified third-party selected by the City. All GHG reduction estimates shall be supported by substantial evidence. The effort to quantify the GHG reductions shall be fully funded by the project applicant. Measures should be implemented even if it is reasonable that its implementation would result in a GHG	City of Sunnyvale	Prior to construction activities	

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
reduction but a reliable quantification of the reduction cannot be substantiated. The applicant shall incorporate onsite design measures into the project and submit verification to the City prior to issuance of building permits. Many of these measures are identical to, or consistent with, the measures listed in Appendix B of the 2017 Scoping Plan (CARB 2017a:B-7 to B-8). a. Construction-related GHG Reduction Measures. Implementation of these measures shall be required in the contract the applicant establishes with its construction contractors and identified in the project improvement and site design plans. i. The applicant shall require its contractors to enforce idling of on- and off-road diesel equipment for no more than 5 minutes while on site. ii. The applicant shall implement waste, disposal, and recycling strategies in accordance with Sections 4.408 and 5.408 of the 2016 California Green Building Standards Code (CALGreen Code), or in accordance with any update to these requirements in future iterations of the CALGreen Code in place at the time of project construction. iii. Project construction shall achieve or exceed the enhanced Tier 2 targets for recycling or reusing construction waste of 75 percent for residential land uses as contained in Sections A4.408 and A5.408 of the CALGreen Code. iv. All diesel-powered, off-road construction equipment shall meet EPA's Tier 4 emissions standards as defined in 40 Code of Federal Regulation (CFR) 1039 and comply with the exhaust emission test procedures and provisions of 40 CFR Parts 1065 and 1068. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. This measure is consistent with Mitigation Measure 4.2-1a in Section 4.2, "Air Quality." v. The applicant shall implement a program that incentivizes construction workers to carpool, use public transit, or EVs to commute to and from the project site.			
b. Operational GHG Reduction Measures i. The applicant shall achieve as many residential zero net energy (ZNE) buildings as feasible. Prior to the issuance of building permits the project developer or its designee shall submit a Zero Net Energy Confirmation Report (ZNE Report) prepared by a qualified building energy efficiency and design consultant to the city for review and approval. The ZNE Report shall demonstrate that development within the project area subject to application of the California Energy Code has been designed and shall be constructed to achieve ZNE, as defined by CEC in its 2015 Integrated Energy Policy Report, or otherwise achieve an equivalent level of energy efficiency, renewable energy generation, or GHG emissions savings. This measure would differ than the project's commitment zero net electricity because ZNE also concerns on-site consumption of natural gas. ii. All buildings shall include rooftop solar photovoltaic systems to supply electricity to the buildings. Alternatively, solar photovoltaic systems can be installed on canopies that also shade parking areas. The	City of Sunnyvale	Verified during building permit plan check.	

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
applicant has committed to pre-wiring for solar for residential garage/parking structures as a design feature.			
iii. The applicant shall install rooftop solar water heaters if room is available after installing photovoltaic panels.			
iv. Any household appliances included in the original sale of the residential units shall be electric and certified Energy Star-certified (including clothes washers, dish washers, fans, and refrigerators, but not including tankless water heaters).			
v. The applicant shall install programmable thermostat timers in all residential dwelling units that allow users to easily control when the HVAC system will heat or cool a certain space, thereby saving energy.			
vi. All buildings shall be designed to include cool roofs consistent with requirements established by Tier 2 of the CALGreen Code.			
vii. All buildings shall be designed to comply with requirements for water efficiency and conservation as established in the CALGreen Code.			
viii. If natural gas service is provided to the project site then the applicant shall install natural gas connections in all residential backyards and within the common outdoor activity areas of multi-family residential land uses. This measure is not required if natural gas connections are not provided to the project site.			
ix. Electrical outlets shall be included on every exterior wall of all buildings. These exterior outlets will enable the use of electric-powered landscape maintenance equipment thereby providing an alternative to using fossil fuel-powered generators.			
x. Outdoor parking lots for the proposed park shall include trees and/or solar canopies designed to provide a minimum 50 percent shading of parking lot surface areas.			
xi. The applicant shall provide a minimum of one single-port electric vehicle charging station at each new townhome unit that achieves similar or better functionality as a Level 2 charging station (referring to the voltage that the electric vehicle charger uses). The applicant shall also provide Level 2 electric vehicle charging stations at a minimum of 10 percent of parking spaces that serve multi-family residential buildings.			
xii. Parking lots serving non-residential buildings shall have at least 12.5 percent of parking spaces (209 total) served by electric vehicle charging stations that achieves similar or better functionality as a Level 2 charging station.			
xiii. The applicant shall create safe paths of travel to building and park access points, connecting to existing bicycle and pedestrian facilities.			
C. In addition to the measures listed under Part B, the applicant shall offset GHG emissions to zero by funding activities that directly reduce or sequester GHG emissions or by purchasing and retiring carbon credits.			

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
To the degree that a project relies on GHG mitigation measures, the City of Sunnyvale, BAAQMD, and CARB recommend that lead agencies prioritize on-site design features, such as those listed in Part B of this mitigation measure, and direct investments in GHG reductions within the vicinity of the project site to provide potential air quality and economic co-benefits locally. While emissions of GHGs and their contribution to climate change is a global problem, emissions of air pollutants, which have a localized effect, are often emitted from similar activities that generate GHG emissions (i.e., mobile, energy, and area sources). For example, direct investment in a local building retrofit programs could pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project. Other examples of local direct investments include financing installation of regional electric vehicle charging stations, paying for electrification of public school buses, and investing in local urban forests. These investments would not only achieve GHG reductions, but would also directly improve regional and local ambient air quality. However, to adequately mitigate GHG emissions to zero, it is critical that any such investments in actions to reduce GHG emissions meet the criteria of being real, additional, quantifiable, enforceable, validated, and permanent as stated in CEQA Guidelines Section 15126.4(C)(3). Where further project design or regional investments are infeasible or not proven to be effective, it may be appropriate and feasible to mitigate project emissions through purchasing and retiring carbon credits issues by a recognized and reputable accredited carbon registry (e.g., Climate Action Reserve). The CEQA Guidelines recommend several options for mitigating GHG emissions. State CEQA Guidelines Section 15126.4(C)(3) states that measures to mitigate the significant effects of GHG emissions may include "off-site measures, including offsets that are not otherwise required…" Through the purchase of GHG credits through voluntary participation in an approved registry, GHG emissions may be reduced at the project level. GHG reductions must meet the following criteria: ◢ Real—represent reductions actually achieved (not based on maximum permit levels), ◢ Additional/Surplus—not already planned or required by regulation or policy (i.e., not double counted), ◢ Quantifiable—readily accounted for through process information and other reliable data, ◢ Enforceable—acquired through legally-binding commitments/agreements, ◢ Validated—verified through accurate means by a reliable third party, and ◢ Permanent—will remain as GHG reductions in perpetuity. In partnership with offset providers, the applicant shall purchase credits to offset 5,350 $MTCO_2e$ of the project's construction-related GHGs prior to the start of construction from a verified program that meets the above criteria. Also, prior to commencing operation, the applicant shall also purchase credits to offset the project's operational emissions of 3,560 $MTCO_2e$ /year multiplied by the number of years of operation between commencement of operation and 2050, which is the target year of Executive Order S-3-05. It should be noted, however, that this number is subject to change depending on alterations in the level of on-site mitigation applied to the project depending on the feasibility of individual measures, including those listed in Part B of this mitigation measure. Offset protocols and validation applied to the project could be developed based on existing standards (e.g., Climate Registry Programs) or could be developed independently, provided such protocols satisfy the basic criterion of "additionality" (i.e., the reductions would not happen without the financial support of purchasing carbon offsets).			

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
Prior to issuing building permits for development within the project, the City shall confirm that the project developer or its designee has fully offset the project's remaining (i.e., post implementation of GHG reduction measures pursuant to Part B) GHG emissions by relying upon one of the following compliance options, or a combination thereof: ◢ demonstrate that the project developer has directly undertaken or funded activities that reduce or sequester GHG emissions that are estimated to result in GHG reduction credits (if such programs are available), and retire such GHG reduction credits in a quantity equal to the project's remaining GHG emissions; ◢ provide a guarantee that it shall retire carbon credits issued in connection with direct investments (if such programs exist at the time of building permit issuance) in a quantity equal to the project's remaining GHG emissions; ◢ undertake or fund direct investments (if such programs exist at the time of building permit issuance) and retire the associated carbon credits in a quantity equal to the project's remaining GHG emissions; or ◢ if it is impracticable to fully offset the project's GHG emissions through direct investments or quantifiable and verifiable programs do not exist, the project developer or its designee may purchase and retire carbon credits that have been issued by a recognized and reputable, accredited carbon registry in a quantity equal to the project's remaining GHG Emissions.	City of Sunnyvale	Verified during building permit plan check.	
Hazards and Hazardous Materials			
Mitigation Measure 4.6-2a: Worker Health and Safety Each contractor whose employees may be potentially exposed to contaminants known to be present in site soil, soil gas, or groundwater shall develop and implement their own contractor-specific and site-specific health and safety plan (HASP). The HASP shall establish the minimum requirements, policies, and procedures adequate to protect site workers, the public, and the environment from identified site environmental hazards. The HASP shall be prepared in accordance with 29 CFR 1910.120 Occupational Safety and Health Administration (OSHA), Hazardous Waste Operations and Emergency Response (HAZWOPER), and California Code of Regulations (CCR), Title 8, Section 5192. The HASP shall address all activities related to subsurface investigation activities and soil, groundwater and storm water management during development activities at the project site. Specifically, the HASP shall address the following: ◢ subsurface investigation (i.e., direct-push soil gas screening), as necessary; ◢ excavation, stockpiling and grading of clean soil cover material across the project site; and ◢ groundwater and storm water management, as necessary. Consistent with the project's finalized Site Management Plan, a template HASP shall be provided to each contractor. The template HASP establishes guidelines and general requirements that shall be adopted by contractors for all workers to follow and attempts to identify all potential hazards at the project site. As described in Section 4.7 of the project's current Site Management Plan (Roux 2018: 18), each contractor shall be provided procedures to follow in the event previously unidentified environmental issues, such as suspected contamination or an unknown tank are encountered during site development activities. The template HASP serves as a general template for all contractors performing intrusive work which may expose workers to impacted soil vapor or groundwater at the project site following development activities.	City of Sunnyvale	HASP shall be developed before the commencement of construction activities.	

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
Each contractor who will be encountering groundwater or potentially affected soil or structures (described in Sections 4.6 and 4.7 of the project's current Site Management Plan) shall be required to prepare their own HASP that shall comply with 29 CFR 1910.120 OSHA HAZWOPER and the contractor's own health and safety SOPs. Contractors are responsible for communicating the hazards associated with work at the project site and providing the minimum health and safety requirements as outlined in the contractor HASP. Each contractor's HASP shall include an independent evaluation of the project site hazards and mitigative actions before the commencement of field activities at the project site.			
Mitigation Measure 4.6-2b: Vapor Intrusion Mitigation Consistent with the final Site Management Plan, project improvement plans will identify the location and design of the Vapor Intrusion Mitigation Systems (VIM System) under all residential structures at the project site. Consistent with the SFRWQCB October 2014 Interim Framework for Assessment of Vapor Intrusion at TCE-Contaminated Sites in the San Francisco Bay Area (SFRWQCB 2014), the VIM System shall include the following components (unless otherwise identified in the final Site Management Plan): ◢ Vapor Barrier: The vapor barrier system shall consist of a spray-applied geomembrane (e.g., Liquid Boot®, EPRO System III, or equivalent) covered with a cushion geotextile. The vapor barrier shall have a minimum thickness of 60 mils (1 mil = 10-3 inch) and will be installed below the building slab and above the passive mitigation system. The purpose of the cushion geotextile is to protect the spray-applied geomembrane before and following concrete slab installation activities. ◢ Passive Vapor Mitigation System: The vapor venting system shall consist of 4-inch solid and perforated Schedule 40 polyvinyl chloride (PVC) piping to passively vent soil gas from beneath the building slab to 4-inch riser pipes. Each of the riser pipes shall be connected to a PVC vent cap that will passively vent soil gas to the atmosphere. The passive mitigation system shall be installed directly below the vapor barrier system. The 4-inch diameter PVC piping network shall be embedded within a 4-inch thick layer of rock. ◢ In-situ, Permanent Soil Vapor Barrier: The in-situ soil vapor barrier shall consist of a 2-foot thick layer of soil mixed with cement. This impermeable layer shall be above the water table from 5 to 7 feet below ground surface (bgs). The in-situ barrier shall be located under townhouse buildings that are located above soil vapor samples collected during subsurface investigations that reported the highest concentrations of PCE and TCE.	City of Sunnyvale in coordination with the SFRWQCB	Development of design for the VIM Systems shall be completed before the start of grading activities. Installation of VIM Systems shall occur during building construction.	
Mitigation Measure 4.6-2c: Stormwater Pollution Prevention To minimize contamination of stormwater during construction, including VOC-impacted contamination, construction activities that involve excavation shall be managed in accordance with the Construction Site Storm Water Pollution Prevention Plan (SWPPP) and the final Site Management Plan. The Construction SWPPP shall be prepared and implemented by the project General Contractor. If stormwater encounters contaminated material in excavations, it cannot be discharged to the storm drain without proper sampling and characterization. Groundwater and potentially impacted storm water in excavations shall be sampled within the excavations. If the water must be pumped out before characterization, then it shall be placed in a holding tank pending the results of laboratory analyses.	City of Sunnyvale	During construction activities.	

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
Mitigation Measure 4.6-2d: Construction Dewatering Management Before site occupancy for residential purposes, a Deed Restriction shall be placed on parcels to prohibit extraction and use of site groundwater. However, dewatering excavations may be required during construction for subsurface improvements, such as utility lines. The depth to groundwater at the project site varies from 7 feet bgs to 12 feet bgs. Groundwater at the project site should be assumed to have impacts from PCE, TCE and associated VOCs. As a condition of approval, groundwater cannot be reused on-site or discharged to the storm drain or sanitary sewer without adequate characterization, possible treatment, and permitting as described below: ◢ Discharge to the sanitary sewer system shall require adequate analytical data and obtaining a sanitary discharge permit from the City of Sunnyvale; ◢ Discharge to the storm drain system shall require adequate analytical data and coverage under and compliance with a NPDES Permit from the SFRWQCB; ◢ Reuse on-site (e.g. for dust control purposes) shall require obtaining adequate analytical data and meeting discharge requirements agreed to by the SFRWQCB; and ◢ Off-site recycling shall require adequate analytical data and obtaining approval from an off-site water recycling facility. The primary chemicals of concern at the project site are VOCs; thus, groundwater and potentially impacted stormwater shall be sampled and analyzed for VOCs, by EPA Method 8260, before off-site discharge, conveyance or on-site reuse.	City of Sunnyvale in coordination with the SFRWQCB	During construction activities and before site occupancy.	
Noise and Vibration			
Mitigation Measure 4.8-1: Implement Construction-Noise Reduction Measures To minimize noise levels during construction activities, the construction contractors shall comply with the following measures during all construction work that will be identified in project improvement plans: ◢ All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation. ◢ Noise-reducing enclosures and techniques shall be used around stationary noise-generating equipment (e.g., concrete mixers, generators, compressors). ◢ Where available and feasible, construction equipment with back-up alarms shall be equipped with either audible self-adjusting backup alarms or alarms that only sound when an object is detected. Self-adjusting backup alarms shall automatically adjust to 5 dB over the surrounding background levels. All non-self-adjusting backup alarms shall be set to the lowest setting required to be audible above the surrounding noise levels. ◢ Designate a disturbance coordinator and post that person's telephone number conspicuously around the construction site and provide to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem.	City of Sunnyvale	Included in project improvement plans and implemented during construction activities.	

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
◢ Install temporary noise curtains as close as feasible to noise-generating activity and that blocks the direct line of sight between the noise source and the nearest noise-sensitive receptor(s). Temporary noise curtains shall consist of durable, flexible composite material featuring a noise barrier layer bounded to sound-absorptive material on one side. The noise barrier layer shall consist of rugged, impervious, material with a surface weight of at least one pound per square foot.			
Mitigation Measure 4.8-2: Construction Vibration Reduction Measures ◢ To prevent disturbance to sensitive land uses, minimum setback requirements for different types of ground vibration producing activities (e.g., pile driving) shall be established based on the proposed pile-driving activities and locations, once determined. Established setback requirements (i.e., 293 feet) can be breached only if a project-specific, site-specific, technically adequate ground vibration study indicates that the buildings would not be exposed to ground vibration levels in excess of 80 VdB, and ground vibration measurements performed during the construction activity confirm that the buildings are not being exposed to levels in excess of 80 VdB. ◢ All vibration-inducing activity within the distance parameters described above shall be monitored and documented for ground vibration noise and vibration noise levels at the nearest sensitive land use and associated recorded data submitted to the City of Sunnyvale so as not to exceed the recommended FTA and Caltrans levels. ◢ Alternatives to traditional pile driving (e.g., sonic pile driving, jetting, cast-in-place or auger cast piles, non-displacement piles, pile cushioning, torque or hydraulic piles) shall be considered and implemented where feasible to reduce vibration levels. ◢ Limit pile-driving activities to the daytime hours between 7:00 a.m. and 6:00 p.m. Monday through Friday and between 8:00 a.m. and 5:00 p.m. Saturday. ◢ Operate all vibration inducing impact equipment as far away from vibration-sensitive sites as reasonably possible from nearby structures. ◢ Phase pile-driving and high-impact activities so as not to occur simultaneously with other construction activities, to the extent feasible. The total vibration level produced could be significantly less when each vibration source is operated at separate times. ◢ Noise and vibration reducing pile-driving techniques shall be employed during construction and monitored to ensure no damage to nearby structures occurs (i.e., vibrations above peak particle velocity (PPVs) of 0.25 inches per second at nearby structures does not occur). These measures can also be used to reduce VdB levels. These techniques shall include: ◤ Installing intake and exhaust mufflers on pile-driving equipment; ◤ Vibrating piles into place when feasible, and installing shrouds around the pile- driving hammer where feasible; ◤ Implementing “quiet” pile-driving technology (such as pre-drilling of piles and the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;	City of Sunnyvale	Included in project improvement plans and implemented during construction activities	

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
◤ Using cushion blocks to dampen impact noise, if feasible based on soil conditions. Cushion blocks are blocks of material that are used with impact hammer pile drivers. They consist of blocks of material placed atop a piling during installation to minimize noise generated when driving the pile. Materials typically used for cushion blocks include wood, nylon and micarta (a composite material); and ◤ At least 48 hours prior to pile-driving activities, notifying building owners and occupants within 600 feet of the project area of the dates, hours, and expected duration of such activities.			
Traffic and Circulation			
Mitigation Measure 4.11-1: Make Improvements to Intersection at Lawrence Expressway/Duane Avenue-Oakmead Parkway Santa Clara County has jurisdiction over the Lawrence Expressway/Duane Avenue-Oakmead intersection. A third left lane will be added to the eastbound approach at the intersection of Lawrence Expressway/Duane Avenue-Oakmead Parkway including one through lane, and one right-turn lane. Signage and pavement striping shall be provided to indicate that the inner first left-turn lane shall be designated for northbound Lawrence Expressway traffic, the middle left-turn lane shall be designated for northbound U.S. 101 traffic, and the outer left-turn lane shall be designated for southbound U.S. 101 traffic. This improvement shall be accomplished by re-striping the Lawrence Expressway/Duane Avenue-Oakmead Parkway intersection to add a third left turn lane, but not undertaking any other physical improvements to the intersection. Additional improvements shown on the Lawrence Expressway/E Duane Avenue to US-101 Concept Plan provided by the County of Santa Clara Roads and Airports Department on December 17, 2018, such as modifications to the corners of the intersection, restriping of crosswalks, the northbound lane alignments, the relocation of pedestrian crossing at the U.S. 101 southbound on-ramp, and the extension of the barrier curb, are shown as a concept plan only. These improvements have not been adopted yet and hence, the project is not responsible for these additional improvements. Additionally, the signal operation and timing at the intersection at Lawrence Expressway/Duane Avenue-Oakmead Parkway shall be adjusted to accommodate the third lane. The project applicant and City of Sunnyvale shall coordinate and agree with the County on the timing and implementation of the improvements prior to issuance of building permits.	City of Sunnyvale and Santa Clara County	Prior to the issuance of building permits.	
Mitigation Measure 4.11-4: Increase Metering Rate at U.S. 101 Lawrence Expressway Diagonal On-Ramp The metering rates shall be increased to one vehicle every 4 seconds to ensure that the maximum queue does not exceed the ramp storage. Prior to the issuance of a building permit, the applicant shall request that the City and Caltrans implement this metering rate change.	City of Sunnyvale and Caltrans	Prior to the issuance of building permits.	
Mitigation Measures 4.11-6: Relocate Duane Avenue Caltrain Shuttle Stop at Project Site The applicant shall work with the City of Sunnyvale and Caltrain to research and identify a new location for the current Duane Avenue Caltrain shuttle stop, which currently is located on the project site. The newly identified shuttle stop location should adequately serve existing riders who use the current shuttle stop by being relocated to an equally convenient	City of Sunnyvale and Caltrain	Prior to the issuance of building permits.	

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
location that includes the same amenities as the current shuttle stop. The shuttle stop shall be relocated prior to the issuance of building permits.			
Mitigation Measure 4.11-8: Prepare and Implement Temporary Traffic Control Plan Before building permits are issued and construction begins, the construction contractor shall prepare a temporary traffic control (TTC) plan to the satisfaction of the City of Sunnyvale Division of Transportation and Traffic and subject to review by all affected agencies. The City of Sunnyvale suggests that the latest edition of the CA MUTCD, Part 6: Temporary Traffic Control, be referred to for guidance on preparing a TTC plan. The TTC plan shall include all information required on the City of Sunnyvale TTC Checklist and shall conform to the TTC Guidelines of the City of Sunnyvale. At a minimum, the plan shall: ◢ provide a vicinity map that shows all the streets in the work zone properly labeled, along with the posted speed limits and a north arrow; ◢ identify the path of construction vehicles traveling to the site.; ◢ describe the estimated highest number of vehicle trips generated during project construction activities; ◢ identify the existing roadway lane and bike lane configurations and sidewalks, including dimensions, where applicable; ◢ describe the proposed work zone; ◢ describe anticipated detours and/or lane closures (for pedestrians, bicyclists, and vehicles); ◢ describe no-parking zones and other parking restrictions; ◢ describe appropriate tapers and lengths, signs, and spacing; ◢ identify appropriate channelization devices and spacing; ◢ describe the buffers; ◢ identify work hours and work days; ◢ provide the dimensions of the elements and requirements listed above in accordance with CA MUTCD Part 6 and the City of Sunnyvale's Standard Operating Procedure (SOP) for bike lane closures; ◢ identify the proposed speed limit changes if applicable; ◢ describe the bus stops and signalized and nonsignalized intersections that will affected by the work; ◢ show the plan to address pedestrian, bicycle, and Americans with Disabilities Act requirements throughout the work zone in accordance with CA MUTCD Part 6 and the City of Sunnyvale's SOP for bike lane closures; ◢ provide details on trucks, including the number and size of trucks involved with construction per day, expected arrival and departure times, and truck circulation patterns; ◢ identify all the staging areas on the project site and duration of each stage of construction for the project and any related improvements; and	City of Sunnyvale	Prior to construction activities	

MITIGATION MONITORING AND REPORTING PROGRAM – 1 AMD PLACE REDEVELOPMENT PROJECT

Mitigation Measure	Monitoring Responsibility	Timing	Verification
◢ ensure that the contractor has obtained and read the City of Sunnyvale's TTC Guidelines and City of Sunnyvale's SOP for bike lane closures.			
Cumulative			
Mitigation Measure 6-13a: Signal Construction at Intersection of Duane Avenue and Duane Court The intersection of Duane Avenue and Duane Court satisfies the peak hour signal warrant under Cumulative and Cumulative Plus Project conditions but does not meet warrants in any preceding analysis scenario, including Existing conditions. Thus, the project shall pay a fair share towards construction of the signal	City of Sunnyvale	Payment of City TIF fees at building permit issuance.	
Mitigation Measure 6-13b: Contribution to the City's Intelligent Transportation System Strategies and Projects and Lawrence Expressway ITS/Signal System Countywide Project Under Cumulative Plus Project conditions, the following intersections where impacts occur include constraints to the right-of-way that would require acquisition of private property to construct any physical improvements: ◢ #3 – Fair Oaks Avenue / Northbound US 101 Ramps ◢ #6 – Fair Oaks Avenue / Duane Avenue ◢ #7 – Fair Oaks Avenue / Wolfe Road ◢ #26 – Lawrence Expressway / US 101 Southbound Ramps – Oakmead Parkway Therefore, physical improvements to these intersections that would mitigate the operational impacts under Cumulative Plus Project conditions are not feasible. LOS impacts at these study intersections could be improved through implementation of the City's Intelligent Transportation System (ITS) strategies and projects and the Lawrence Expressway ITS/Signal System Countywide project. Therefore, the project shall pay a fair share towards the ITS projects through the City's TIF and participation in the Lawrence Expressway ITS/Signal System Countywide project.	City of Sunnyvale And County of Santa Clara	Payment of City TIF fees and participation in the Lawrence Expressway ITS/Signal System Countywide project at building permit issuance.	

This page intentionally left blank.

IRVINE COMPANY
Since 1864

February 12, 2019

Andrew Miner
Assistant Director, Community Development
City of Sunnyvale
456 W Olive Ave
Sunnyvale, CA 94086

Subject: Justification letter – Planning Deviation request
1 AMD Place Redevelopment

Dear Mr. Miner:

The purpose of this letter is to provide justification for proposed deviations from the City of Sunnyvale's Municipal Code as shown in Irvine Company's 1 AMD Place Redevelopment planning package, dated October 3rd 2018. Continued dialogue with City staff has resulted in superior planning and design solutions for the 34.75 acre, 1,074 unit project, limited to a total of four deviations and one state density bonus law concession. We appreciate the collaboration between Irvine Company and the Planning Department in reaching an understanding, and as a result, have established the below list of deviations for the project and one concession under the State Density Bonus Law:

State Density Bonus Law Concession:

The Irvine Company is allowed one concession from development standards for a project that includes at least 5% very low income units [Government Code Section 65915 (d)(2)(A)]. The project is providing 6% very low income units and is requesting the following concession:

1. Sunnyvale Municipal Code height limits for R-3 & R-4 zoning are 35 feet and 55 feet, respectively. The project will have buildings up to 45 feet in the R-3 area and 65 feet in the R-4 area.

Requested Deviations:

Deviations from development standards such as height, setbacks, balcony sizes or lot coverage requirements in the Sunnyvale Municipal Code (SMC) may be considered by the decision-making bodies with the Site Development Permit application. Due to the fact that the project was designed to provide generous setbacks, preserve existing trees, provide a 6.5 acre public park and provide extensive EVA access, we are requesting in exchange, the following deviations deemed necessary to maintain the public benefits and make the project feasible:

1. The right of way setback provided on Stewart Drive for the low-rise product type is 18 feet where 25.5 feet is required due to the third story increased setback requirements [SMC 19.34.050.]. The setback deviation is for 160 feet of street frontage along Stewart Drive.

    - This proposed front yard setback matches the current setback condition at the neighboring project, Stewart Village Apartment Homes. This deviation provides a desired architectural and planning consistency between the buildings at Stewart Village and at the proposed new low-rise project.

2. The majority of balcony sizes do not meet the Sunnyvale planning code requirement of 7 feet in any direction or 80 sf minimum [SMC 19.37.100(c)(1)]. Of the 944 total units, 854 units (roughly 90%) have balconies.

    - Irvine Company proposed the balcony/private open space deviation because the project has many public benefits including: 1) significantly exceeding the required setbacks along Stewart Drive allowing for a useable, walkable landscaped trail/EVA area; and 2) exceeds the required 380 sf of usable open space per unit and provides 413 sf of usable open space per unit, even with the reduced size balconies. In addition to the usable open space provided within the boundaries of the apartment project, the apartment residents will have access to an adjacent 6.5 acre public park dedicated by Irvine Company.

3. The front yard setback provided on the Indian Wells extension for the mid-rise product type is 28.2 feet where 36.9 feet is required due to the third story plus increase setback requirements [SMC 19.34.050.].

    - Irvine Company worked with city staff to optimize building setbacks around all site edges, ensuring that ample space is provided for Stewart Drive tree preservation and required emergency vehicle access lanes, while still maintaining a gracious, human-scaled street scene along the Indian Wells extension. As a consequence of satisfying these competing objectives, a solution is to allow a deviation from the mid-rise building setback requirements along Indian Wells resulting in a superior site plan, and could be further justified based on the following:

        - Of the approximately 790 feet of mid-rise building frontage along the Indian Wells extension, 525 feet or 66% is immediately across from the 6.5 acre public park. In this case, the overall street section width, considering both sides of the street, will have a spacious, open feel, and the effect of a reduced setback in this area is negligible.

        - The remaining 265 feet of mid-rise street frontage, or 33%, is located along the west end of the Indian Wells extension, across from the proposed three story Townhome buildings. Irvine Company worked through solutions with staff to maximize Townhome setbacks along this length to ensure as large an overall street section width, considering both sides of Indian Wells, as geometrically possible. The result of this planning effort is an overall average Indian Wells Townhome setback of 22.7 feet (2.7 feet greater than the 20 foot requirement); and a 112.4 foot street section width, compared to the required 118.9 foot street section width in this area (a deviation of 6.5 feet). In consideration of the above, and in comparison to the 80 foot street section width provided between the immediately adjacent three-story Fusion Townhomes and two-story Stewart Village Apartment Homes, the perceptual effect of the midrise building setback deviation has been effectively mitigated. Based on the above parameters, staff is aware that allowing this deviation from the mid-rise building front yard setback along the Indian Wells extension provides an ideal site planning solution as a whole for this project.

4. Recycling and solid waste enclosures must be located within 150 feet of any dwelling unit [SMC 19.38.030(e)(1)(k)].

    - Mid-rise: Each of the four mid-rise buildings will have 2 trash rooms with trash chutes located on each residential floor. Within buildings 2 & 3, a third trash vestibule will be located on each residential floor for the convenience of dwelling units located more than 150 feet from the trash rooms / chutes. Trash collected in the trash vestibules will be transferred via the parking garage to the main Trash Discharge Rooms on the ground floor by apartment maintenance staff. This solution provides an alternative trash disposal room within the 150 foot distance which would be serviced by maintenance staff. The residents also have the option to walk a longer distance to the trash chute for direct disposal. Of the 887 units shown on the mid-rise site plan, a total of 843 units (roughly 95%) are within 150 feet of a trash chute or trash vestibule. If the project were to comply with this code section, the mid-rise apartments would need to service trash and stage trash collection along public streets. Irvine Company has planned for an inventive waste management program to ensure all trash related activities are organized and discretely performed on private property.

    - Townhome: Of the 107 total units, 100 units (roughly 94%) are within 150 feet of a properly sized trash enclosure. Therefore, 7 units are out of compliance. If the project were to comply with this code section, the site plan would need to locate an additional trash enclosure which would eliminate on street parking and landscape area needed to meet code requirements.

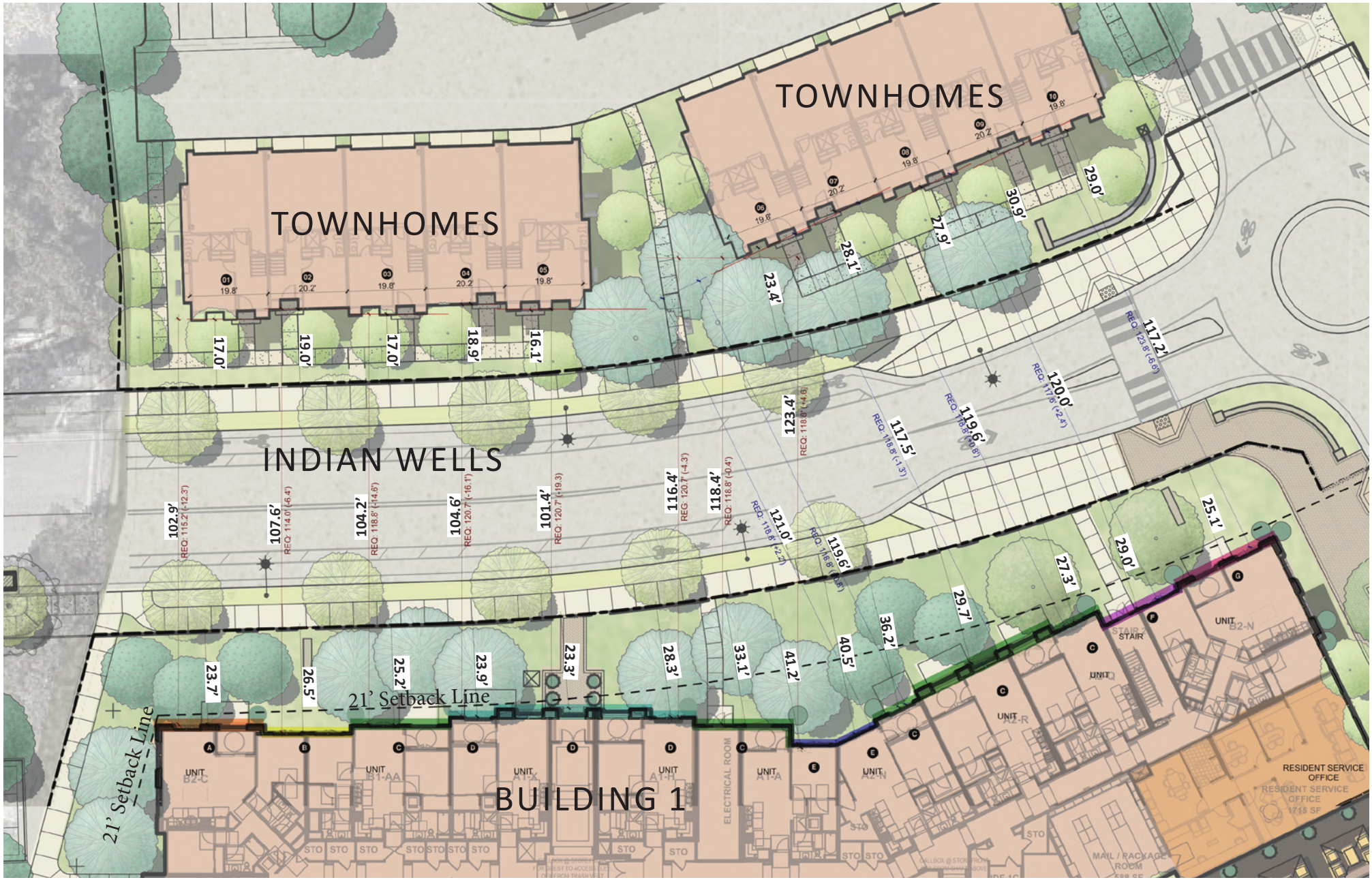
In summary, we propose these four deviations to balance the goals of the project as a whole and to allow us to move forward with a successful build out. The evolution of the site plan over the last two years has been an interactive process with City staff and Irvine representatives resulting in a much better overall design. We look forward to continuing to work together to bring this world class community to the City of Sunnyvale.

Sincerely,

Carlene Matchniff
Vice President, Government Relations

cc: Trudi Ryan, Planning Director
Gerri Caruso, Principal Planner

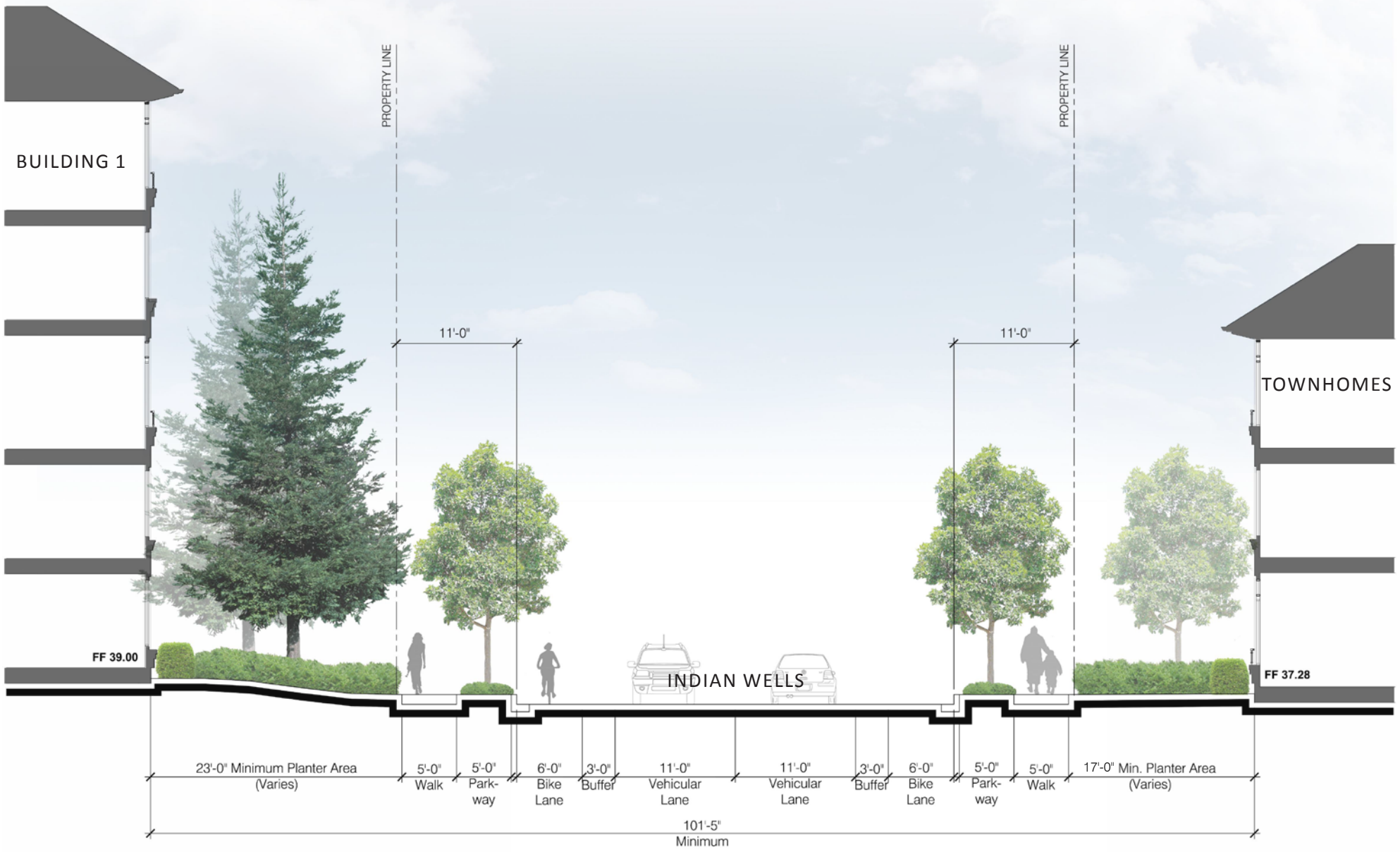
ATTACHMENT 14



PROPOSED DEVIATION		
AVERAGE DISTANCE BETWEEN BUILDINGS		
REQUIRED	PROVIDED	DELTA
118.9’	112.4’	-6.5’

INDIAN WELLS SETBACK DEVIATION PLAN

ATTACHMENT 14



PROPOSED DEVIATION		
AVERAGE DISTANCE BETWEEN BUILDINGS		
REQUIRED	PROVIDED	DELTA
118.9’	112.4’	-6.5’

INDIAN WELLS STREET SECTION

THE FRONT SETBACK FOR THE TOWNHOMES FACING INDIAN WELLS VARIES FROM 17.0 FT. TO 30.9 FT. WITH AN AVERAGE OF APPROXIMATELY 22.7 FT. THIS IS COMPLIANT WITH THE REQUIRED FRONT YARD SETBACK OF 15 FT. MINIMUM AND 20 FT. AVERAGE.

ATTACHMENT 15



2016-8035
1 AMD Place Redevelopment Project

Summary of Environmental Impacts

Overview of Impacts

There are different levels of impacts identified in an EIR, including the following:

- Significant unavoidable
- Significant the can be mitigated
- Less than significant
- No impact

If an impact is shown to be significant and unavoidable, then in order to approve the project, the decision-making body certifying the EIR, in this case the City Council, must adopt a Statement of Overriding Considerations, which is a statement that the ultimate benefits of the project outweigh the environmental impacts.

Significant Impacts Identified in the EIR

The EIR determined that the project would or could potentially cause significant impacts in these areas:

- Air Quality
- Biological Resources
- Greenhouse Gas Emissions and Climate Change
- Create Potential Human Hazards from Exposure to Existing On-Site Hazardous Materials
- Noise
  - Short-term Construction Noise Levels
  - Exposure to Construction Vibration
- Traffic and Transportation
  - Impacts on Intersection Operating Conditions
  - Impacts on Freeway Ramp Queuing
  - Impact on Transit Facilities
  - Construction-related Impacts on Traffic

Mitigatable Impacts

Most significant impacts of the proposed project would be reduced to a less than significant level with the implementation of mitigation measures identified in the EIR and the Mitigation Monitoring and Reporting Program (MMRP – Attachment 12 to Report).

Following preparation of the Final EIR, the applicant requested minor edits to clarify three of the mitigation measures identified in the EIR (Attachment 20 to Report, Errata-Minor Edits to MMRP). These modifications will not result in new significant environmental impacts or substantially increase the severity of the environmental impacts identified in the EIR; therefore, recirculation of the EIR is not required. The Mitigation Monitoring and Reporting Program has been updated to reflect the changes. Mitigation measures will be incorporated into each phase of the project and will be monitored by staff throughout the construction of the project.

Significant and Unavoidable Impacts
A significant unavoidable impact is an impact that cannot be mitigated to a less than significant level if the project is implemented as it is proposed. There are three impacts identified in the EIR as significant and unavoidable:

- Short-term Construction Noise Levels
- Impacts on Intersection Operating Conditions
- Impacts on Freeway Ramp Queuing

Short-term Construction Noise
Project construction activities would involve the use of heavy-duty construction equipment. Construction noise impacts would occur over a four-year period for off-site sensitive receptors with the highest level of noise being generated in Phase 1 of construction. Mitigation measures include noise reducing enclosures around stationary noise-generating equipment, requiring properly maintained construction equipment with noise-reduction mufflers and engine shrouds, self-adjusting back-up alarms on construction equipment, designation of a disturbance coordinator and temporary noise curtains. Even with these mitigation measures, construction noise levels are still likely to exceed standards at the nearest sensitive receptor during daytime hours. The impact would remain significant and unavoidable.

Impacts on Intersection Operating Conditions
In the Background-Plus-Project traffic study scenario critical delays at the Lawrence Expressway/Duane Avenue-Oakmead Parkway intersection would experience a significant impact. A third left lane will be added to the eastbound approach. Appropriate signage and pavement striping will be provided and signal operation and timing will be adjusted to accommodate the third lane. Santa Clara County has jurisdiction over this intersection. County concurrence and approval are required for implementation of this mitigation measure. The applicant and the City of Sunnyvale will coordinate with Santa Clara County; however, because final approval is outside the jurisdiction and control of the City of Sunnyvale, there is no guarantee that the mitigation measure would be implemented. Therefore, the impact is identified as significant and unavoidable.

Impact on Freeway Ramp Queuing
Traffic generated by the project would result in the lengthening of queues under the Existing-Plus-Project conditions at the U.S. 101/Lawrence Expressway diagonal on-ramp (ramp to southbound U.S. 101 from northbound Lawrence Expressway). Metering rates could be increased to ensure that the maximum queue does not exceed ramp storage. The project applicant and the City of Sunnyvale will coordinate with Caltrans and VTA on implementation of this mitigation measure. However, because the final approval of the proposed ramp metering modification is outside the jurisdiction and control of the City of Sunnyvale, there is no guarantee that this mitigation will be implemented. Therefore, this impact is identified as significant and unavoidable.

Cumulative Impacts

The EIR also includes analysis of cumulative impacts. As defined by CEQA, cumulative impacts refer to two or more individual effects, which when combined, are considerable or which compound or increase other environmental impacts.

The EIR identifies significant and unavoidable cumulative effects on traffic. Mitigation measures include the following:

- Signal construction at the intersection of Duane Avenue and Duane Court
- Contribution to the City's Intelligent Transportation System

Intersection of Duane Avenue and Duane Court
The intersection of Duane Avenue and Duane Court satisfies the peak hour signal warrant under the Cumulative-Plus-Project scenario but does not meet warrants in any other EIR scenario analysis, including Existing Conditions. The project will be required to pay a fair share towards construction of a signal at this location.

Contribution to the City's Intelligent Transportation System
Under the Cumulative-Plus-Project traffic study scenario, the following intersections would experience impacts:

- Fair Oaks Avenue/Northbound U.S. 101 Ramps
- Fair Oaks Avenue/Duane Avenue
- Fair Oaks Avenue/Wolfe Road
- Lawrence Expressway/U.S. 101 Southbound Ramps
- Lawrence Expressway/Duane Avenue-Oakmead Parkway

To mitigate the impacts, road widening would require acquisition of private property to construct physical improvements and is considered infeasible. Impacts to these intersections could improve though the implementation of the City's Intelligent Transportation System (ITS) strategies and projects. The project will pay its fair share towards the ITS projects through the City's TIF. These impacts are identified as cumulatively considerable and significant and unavoidable.

Statement of Overriding Considerations
The City Council's approval of the 1 AMD Place development plan would result in environmental impacts that cannot be substantially lessened or avoided. While mitigation measures would reduce these impacts, they would remain significant and unavoidable.

Section 15093 of the CEQA Guidelines requires the decision-making agency to balance the economic, legal, social, technological, or other benefits of the proposed project against its significant and unavoidable environmental impacts. Adoption of the project requires that the City Council must state in writing the reasons in support of its action based on the FEIR and the information in the record. The Statement of Overriding Considerations is supported by substantial evidence in the record. The Statement of

Overriding Considerations and CEQA Findings to be adopted are in Attachment 6 to the Report.

The Statement of Overriding Considerations includes a list of factors and policies that support the public benefits of the project. These include:

- the objectives of the Sunnyvale General Plan and East Sunnyvale Sense-of-Place Plan;
- the City's critical housing shortage and need for affordable housing;
- the public benefits of redeveloping a vacant industrial site;
- the fact that the site has a general plan land use designation of residential and is already zoned residential;
- the importance of residential infill development near Caltrain stations (the route to the proposed project to Lawrence Station is about 1.5 miles, considered an easy biking distance); and,
- the creation of the 6.5-acre public park that will preserve open space and reduce the need for nearby residents to drive elsewhere for recreation.

EIR Mitigation Monitoring

A Mitigation Monitoring and Reporting Program (MMRP) is required by CEQA to ensure implementation of all mitigation measures. A monitoring program identifies the mitigation measure, who is responsible for implementation, the monitoring schedule and who is responsible to do the monitoring for each measure. All the monitoring responsibilities for the project will be handled by the City through its Community Development, Public Works, and Public Safety Departments. The MMRP is incorporated as an attachment to the Recommended Conditions of Approval after the project is adopted.

EIR Alternatives

CEQA also requires the consideration of Project Alternatives to reduce the impacts of the project. The CEQA Guidelines specify that an EIR identify alternatives that "would feasibly attain the most basic objectives of the project but would avoid or substantially lessen many of the significant environmental effects of the project." Section 5 of the DEIR provides further analysis of the alternatives. The DEIR considers the following three alternatives.

1. **CEQA Alternative 1: No Project – No Development:** The site currently contains two developed industrial sites; a 20,867-square foot office/research and development building is in the southwest corner of the project site (975 Stewart Drive) and two buildings totaling approximately 205,523 square feet of office/research and development uses located in the remainder of the project site (1 AMD Place). These buildings are currently vacant but could be re-used for office in the future. This alternative would reduce the impacts of the proposed development in all resource areas, but it would not meet any of the project objectives.

2. **CEQA Alternative 2: No Project – Residential Development Consistent with East Sunnyvale Industrial-to-Residential Project:** Alternative 2 would consist of a similar development with fewer units at the project site and would be consistent with the existing zoning and subarea development assumptions under the East Sunnyvale Industrial-to-Residential General Plan Amendment and its EIR Analysis (2007). This alternative would consist of 884 residential units and a 3-acre public park. Alternative 2 would not make use of the State Density Bonus Law for inclusion of affordable units. Like the proposed project, Alternative 2 would include the extension of Indian Wells Avenue through the site. This alternative would reduce impacts on energy, greenhouse gas emissions, public services and utilities, and traffic and circulation; however, the impacts to traffic and construction noise would still be significant and unavoidable.

3. **CEQA Alternative 3: Reduced Development:** Alternative 3 would reduce the overall density of the site development consistent with R-3 zoning (approx. 24 dwelling units per acre) and would be developed as townhomes. This would result in 646 dwelling units. This alternative would include a 6.5-acre public park and the extension of Indian Wells Avenue through the site. This alternative would reduce impacts on energy, greenhouse gas emissions, public services and utilities, and traffic and circulation; however, the impacts to traffic and construction noise would still be significant and unavoidable.

Each of the above noted alternatives are described in more detail in the DEIR.

Project Adoption Process if an EIR Alternative is Selected

If Council selects any of the alternatives, all have reduced impacts and no further environmental review is required.

Environmentally Superior Alternative

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative other than the “no project” alternative. Based on the analysis, the environmentally superior alternative is CEQA Alternative 3. With Alternative 3, impacts to energy, greenhouse gas emissions, public services and utilities, recreation and traffic will be reduced, when compared to the project. Because Alternative 3 would result in reduced environmental impacts than the proposed project, it would be considered environmentally superior. This alternative would also meet most of the project’s objectives. Although not environmental impacts, this project would, however, provide fewer housing opportunities and affordable housing opportunities compared to the project.

Significant New Information

Testimony is sometimes received during the public review process relating to “significant new information.” For an EIR, new information is considered “significant” when the following would apply:

- A substantial environmental impact resulting from the project is identified;

- A substantial increase in the severity of an environmental impact is identified;
- A new feasible project alternative or mitigation measure is identified which the project proponent refuses to adopt; and
- The DEIR is so fundamentally and basically inadequate and conclusory in nature that the public comment of the draft was, in effect, meaningless.

As of the end of the comment period on the DEIR, no significant new information has been received from the public or other public agencies.

Comments on the DEIR

Staff received 11 written comments regarding the DEIR including three from public agencies and eight comments from the public and other associations. These comments with responses are included in the FEIR.

Two public agencies (Caltrans and Santa Clara County) submitted comments regarding the Traffic Impact Analysis (TIA). Clarifications have been provided in the FEIR that address questions and comments about the TIA scope, data, and mitigation required for the project.

Additional concerns were raised by the Sunnyvale Public Safety Officers Association about impacts to emergency response times. The FEIR addresses the comments and determines that, although some concerns were raised, there were no new CEQA impacts identified.

A letter was received from the State of California Native American Heritage Commission with recommendations for best practices to meet consultation requirements under SB52 and for documenting and mitigating inadvertent finds cultural resources. These measures are included in the recommended Conditions of Approval.

Written comments from the public include concerns with local traffic, problems with proposed access to the project to and from local streets, existing significant traffic conditions on local streets near the project and problems with the trip generation assumptions in the TIA. Other comments submitted included anticipated impacts of construction traffic and about the overcrowding of the neighborhood and the related impacts to housing prices. These comments are also addressed in the FEIR.

Oral comments on the DEIR were received at the Planning Commission hearing on November 26, 2018. Eight members of the public and three Planning Commissioners commented on the DEIR. These oral comments are addressed in the FEIR.

In addition, staff received a lengthy comment letter a day before the originally advertised Planning Commission meeting. The letter is included as Attachment 17 to the Report. The letter included over 600 pages of exhibits which are available at the following link: https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?t=50437.17&BlobID=26361.

Determination of Adequacy

The "rule of reason standard" is applied to judicial review of EIR contents. This standard requires that an EIR show that an agency has made an objective, good-faith attempt at full disclosure. The scope of judicial review does not extend to correctness of an EIR's conclusion, but only the EIR's sufficiency as an informative document for decision-makers and the public. Legal adequacy is characterized by:

- All required contents must be included;
- Objective, good-faith effort at full disclosure;
- Absolute perfection is not required;
- Exhaustive treatment of issues is not required;
- Minor technical defects are not necessarily fatal; and
- Disagreement among experts is acceptable.

Environmental Review Recommendation

Staff believes that the proposed FEIR, consisting of the DEIR (incorporated by reference), comments received on the DEIR, response to those comments, and a list of persons and public agencies commenting on the DEIR, meets the requirements of CEQA both in content and format. The DEIR and FEIR documents and technical appendices can be viewed online at https://sunnyvale.ca.gov/business/projects/amd.htm.

A draft resolution certifying the EIR is in Attachment 6 to the Report.

Should it be determined that the EIR is not adequate, the Planning Commission and/or City Council may state those areas of discussion where the document is deficient and recommend that additional analysis be prepared prior to certification. Any changes to the mitigation measures in the EIR may affect the accompanying determination of significance. The deletion or alteration of a mitigation measure may result in a determination of a significant unavoidable impact where a less than significant impact was determined as originally mitigated. If a mitigation measure is changed that creates a significant unavoidable impact, a Statement of Overriding Considerations will be required and a new hearing must be conducted.

No project related actions shall be taken until the FEIR is certified. As noted earlier, certification of the EIR does not approve or deny any element of the project or related development proposals.

Environmental Public Contact

All public notification procedures for the EIR were followed, as required by CEQA. The Notice of Preparation (NOP) of the EIR and comments received are in Appendix A of the DEIR.

The EIR was distributed to the State Clearinghouse on November 2, 2018 for a required 45-day public review period. A Notice of Availability of the EIR was also sent to and other required and adjacent agencies and property owners within 2000 feet of the project area on November 2, 2018. The Notice of Availability included a link to the City's

web site and the DEIR. A public hearing on the DEIR was held with the Planning Commission on November 26, 2018. Comments on the DEIR and responses are in the FEIR (Attachment 11 to the Report).

Link to public comment on Final Environmental Impact Report:

https://sunnyvale.ca.gov/civicax/filebank/blobdload.aspx?t=50437.17&BlobID=26361

Memo

455 Capitol Mall, Suite 300
Sacramento, CA 95814
916.444.7301

Date: April 1, 2019

To: Andy Miner and Margaret Netto, City of Sunnyvale

From: Pat Angell, Ascent Environmental
Julia Wilson, Ascent Environmental
Allison Fuller, Ascent Environmental

Subject: Response to the Laborers International Union of North America's Public Comment Regarding the AMD 1 Redevelopment Project

OVERVIEW AND INTRODUCTION

This memorandum documents Ascent Environmental's (Ascent's) response to correspondence submitted 13 weeks after the close of the public comment period on the Draft EIR pertaining to the proposed AMD 1 Redevelopment Project (project) located in the City of Sunnyvale (city). The correspondence was submitted on March 24, 2019 by the Laborers International Union of North America (referred to below as comment letter or commenter). No detailed comments on the Draft EIR were submitted by this organization during the comment period. The correspondence critiques the analyses of the following resource areas contained in the Draft EIR: air quality, biological resources, and noise. While this correspondence references the Final EIR, its comments are focused on the technical analysis provided in the Draft EIR.

This memorandum responds to these comments. Note, modeling was revised in response to this comment, which modified the values of estimates of both air pollutants and greenhouse gas (GHG) construction and operational emissions; however, no significant new information that would identify new significant impact or a substantial increase in severity of an identified impact would occur that would require recirculation of the EIR pursuant to State CEQA Guidelines Section 15088.5.

As further discussed below, the comment letter includes input from consultants that have technical experience in the areas of air quality and biological resources that argue the EIR impact analysis fails to address significant issues. The Draft and Final EIR were prepared by technical experts at Ascent that have between 5 to over 25 years of experience in the areas of air quality, biological resources, noise, and CEQA compliance. Disagreement amongst experts is not a sufficient reason to require an EIR to be updated and recirculated pursuant to State CEQA Guidelines Section 15151. Under established CEQA precedent, the lead agency may properly accept the determinations and conclusions reached by the experts that prepared the EIR, even though other conclusions could also be reached (see *Eureka Citizens v. City of* Eureka, (2007) 147 Cal. App. 4th 357, 371-372 (accepting findings on noise impacts despite experts' disagreement over methodology); *Ctr. for Biological Diversity v. Dep't of Fish & Wildlife*, (2014) 224 Cal. App. 4th 1105, 1179-80 (2014) *reversed on other grounds*, 62 Cal. 4th 204 (2015) (one scientist's disagreement with a conservation

plan is "not pertinent to the issue of whether the environmental impact report's conclusions are supported by substantial evidence"). Since the function of review of the EIR is limited to determining whether the EIR is supported by substantial evidence, it is not an "abuse of discretion" for a public agency "to give more weight to one set of 'experts' than to another." (see *Greenebaum v. City of Los Angeles* (1984) 153 Cal. App. 3d 391, 412). Thus, the City is properly allowed to reject the opinions and beliefs of commenter's experts and instead rely on its experts' and their expert opinions and analysis regarding the Project and its environmental impacts.

1.1 AIR QUALITY/CLIMATE CHANGE

CRITERIA POLLUTANT, PRECURSOR, AND GHG EMISSIONS

The comment letter references the California Supreme Court's decision in *Sierra Club v. County of Fresno* (herein referred to as the Friant Ranch decision). The Court evaluated the adequacy air quality analysis contained in the EIR prepared for the Friant Community Plan Update and Friant Ranch Specific Plan. For a number of reasons, the Court confirmed the 5th District Court of Appeal's holding that the regional analysis of criteria air pollution was inadequate under CEQA and asserted that air quality analyses should frame significant impacts in terms of effects to human health.

To demonstrate consistency with the Court's direction in the Friant Ranch decision, the Final EIR provides an updated discussion associated with project air quality impacts to human health (Final EIR pages 3-1 through 3-6). To achieve consistency, the methodology and impact analysis discussions were expanded to include a narrative regarding the development of the Bay Area Air Quality Management District's (BAAQMD's) CEQA thresholds of significance (which were applied to the project) and their applicability to reduce ambient air quality impacts and related public health impacts within the San Francisco Bay Area Air Basin (SFBAAB). The Draft EIR found that unmitigated construction-related emissions would exceed BAAQMD's thresholds and concluded a potentially significant impact. In the significance determination, the EIR related these exceedances to the potential for adverse human health impacts to occur; however, following the application of Mitigation Measures 4.2-1a and 4.2-1b, construction emissions would be successfully reduced to levels below the applied thresholds of significance. Project operational emissions would not exceed BAAQMD thresholds and would not create an impact to public health. By making these edits to the EIR in the Final EIR, the city demonstrated consistency with the Friant Ranch decision.

The comment letter to which this memorandum responds to also asserts that the modeling performed for the Draft EIR underestimates emissions of criteria pollutants and precursors. For example, the comment refers to underreporting of emissions associated with enclosed parking structures which would serve project residents. The comment also refers to the use of "Townhouse" as a CalEEMod land use subtype. However, this land use choice adequately represents the energy consumption associated with the project as 130 multi-family housing units would be provided within 22 townhouse buildings repurposed to support a higher number of individuals as compared to each townhouse supporting one family unit. CalEEMod defaults assumed 63 people occupying these buildings and this number has been adjusted to support 370 persons.

The comment letter also states that the air quality modeling did not address emissions associated with the project garage. Transportation emissions were modeled in CalEEMod using traffic data provided by the traffic consultant, which accounted for vehicle trips accessing project garages. These mobile emissions were addressed in the modeling and were reported in Draft EIR Table 4.2-6.

In response to this comment, Ascent has prepared additional modeling of construction emissions following the application of Mitigation Measure 4.2-1a and 4.2-1b. Mitigation Measure 4.2-1a requires that the project applicant apply Tier-4 emissions standards to all diesel-powered off-road equipment if feasible. However, the language of Mitigation Measure 4.2-1a provides for flexibility based on the feasibility of using Final Tier 4 engines. Due to market constraints, the project applicant may use Tier 3 engines in cases where use of Final Tier 4 is infeasible.

Table 1 below summarizes the anticipated construction emissions from project buildout including additional inputs recommended by the commenter. Based on comment's concern that emissions were underreported, the model has been adjusted to provide a more conservative estimate to demonstrate a scenario where Tier 4 equipment could not be used for every piece of construction equipment. The model applied a suite of Tier 3 and Final Tier 4 standards to a variety of equipment. As shown in Table 1, the project would not exceed BAAQMD thresholds. The revised modeling also represents an increase in parking area. The Draft EIR air quality construction modeling did factor the overall site development related to grading and paving activities. Emissions associated with hauling of 15,000 cubic yards of excavated soil and importation of new concrete (13,800 cubic yards) and new asphalt (13,400 cubic yards) were factored and were included in the updated modeling. This is noted in the attached model outputs.

As show below, these levels of criteria pollutant and precursors would still be below BAAQMD's construction emissions threshold. Nonetheless, although emissions of air pollutants would be less than significant, the difference in the model contained in the attachment of this memorandum estimate that metric tons of carbon dioxide equivalent per year (MTCO2e/year) would be higher than the model contained in Appendix B of the Draft EIR. Nonetheless, the application of Mitigation Measure 4.5-1 would still apply and climate change impacts.

Table 1 Mitigated Construction Emissions by Construction Year (2018-2022)

Year[1]	ROG (lb/day)	NO_X (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)	CO_2e (MT/year)
2018	1	36	25	5	46
2019	4	51	38	20	1,708
2020	3	33	6	1	1,593
2021	25	53	24	11	2,112
2022	16	25	6	2	1,010
BAAQMD Threshold	54	54	82	54	Zero Net Increase[2]

Notes: ROG=reactive organic gases, NO_X=oxides of nitrogen, PM_{10}=respirable particulate matter, $PM_{2.5}$=fine particulate matter, lb/day=pounds per day, CO_2e=carbon dioxide equivalent, MT/year=metric tons per year, BAAQMD=Bay Area Air Quality Management District.

[1] Construction would occur over five phases, which would be expected to overlap. As such, maximum daily emissions levels are summarized by year.

[2] BAAQMD does not formally recommend a zero-net increase threshold for climate change analyses; however, the city and Ascent Staff have applied the threshold to the project to best show consistency with the 2017 California Climate Change Scoping Plan.

Source: Modeling conducted by Ascent Environmental in 2019.

Under the revised model prepared in response to this comment, mitigated construction emissions would generate a total of 6,469 $MTCO_2e$, which represents a 1,119 $MTCO_2e$ increase from what was previously estimated in the Draft EIR. However, Mitigation Measure 4.5-1, which requires the project applicant to achieve a zero-net increase in GHG emissions through a combination of applying of all feasible on-site mitigation measures and purchasing carbon offsets, would still apply to the project.

Table 2 below summarizes the estimated emissions of criteria pollutants, precursors, and GHGs associated with operation of the project.

Table 2 Mitigated Operational Emissions by Sector for the Year 2022[1]

Year[1]	ROG (lb/day)	NO_X (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)	CO_2e (MT/year)
Vehicle Trips (Mobile Sources)	7	23	17	5	2,887
Natural Gas Combustion (On-Site)	<1	1	<1	<1	305
Solid Waste Disposal[2]	0	0	0	0	224
Water Consumption and Wastewater Treatment[2]	0	0	0	0	113
Electricity Consumption (On-Site)[3]	<1	<1	<1	<1	26
Landscape Maintenance	32	1	<1	<1	12
Total	39	25	18	6	3,567
BAAQMD Threshold	54	54	82	54	Zero Net Increase[4]

Notes: ROG=reactive organic gases, NO_X=oxides of nitrogen, PM_{10}=respirable particulate matter, $PM_{2.5}$=fine particulate matter, lb/day=pounds per day, CO_2e=carbon dioxide equivalent, MT/year=metric tons per year, BAAQMD=Bay Area Air Quality Management District.

[1] Emissions estimates account for energy and water efficiency project design features as well as reduced mobile-source emissions associated with improved density and affordable housing units.

[2] Solid waste disposal, water consumption, and wastewater treatment activities are sectors that only apply to GHG emissions.

[3] Residents of the project site would be enrolled in Silicon Valley Clean Energy, which provides 100 percent renewable energy to its customers using Pacific Gas & Electric infrastructure. Currently, 98 percent of all Sunnyvale residents are enrolled. A 98 percent reduction in GHG emissions associated with electricity was therefore assumed to be representative of the community.

[4] BAAQMD does not formally recommend a zero-net increase threshold for climate change analyses; however, the city and Ascent Staff have applied the threshold to the project to best show consistency with the 2017 California Climate Change Scoping Plan.

Source: Modeling conducted by Ascent Environmental in 2019.

As shown above, operation of the project under the revised model would not generate emissions of criteria pollutants or precursors in exceedance of BAAQMD's mass emission thresholds. This is the similar conclusion drawn in the Draft EIR and no mitigation was required or recommended. In Draft EIR Section 4.5, "Greenhouse Gas Emissions and Climate Change," operational emissions were estimated to be 3,560 $MTCO_2e$/year, which would be a potentially significant impact and Mitigation Measure 4.5-1 was developed to reduce emissions to a less-than-significant level. The similarity of these emissions levels despite remodeling indicates that the operation of an enclosed parking structure generates very little emissions. The minor increase would be due to a slight increase in energy consumption related to lighting and operation of garage doors and kiosks. It also shows that the number of persons within a land use subcategory has very little impact on CalEEMod outputs.

Table 2 shows an anticipated operational GHG emissions value of 3,567 $MTCO_2e$/year, a 7 $MTCO_2e$/year increase from the number contained in the Draft EIR. Nevertheless, this incremental rise in operational emissions would be mitigated to less-than-significant levels through the application of Mitigation Measure 4.5-1. Impact determinations would not change as a result of new modeling.

TOXIC AIR CONTAMINANTS

Health Risk Assessment

The commenter asserts that the Draft EIR does not quantify the cumulative exposure of sensitive receptors near the project site to toxic air contaminants (TACs). The comment letter includes a third-party analysis conducted by the environmental consulting firm SWAPE concludes a hazard index in exceedance of BAAQMD's 1.0 or greater hazard index threshold of significance for individual projects. This is counter to the technical analysis provided in the Draft EIR as well as the AMD Potential Residential Development in Sunnyvale, CA – Preliminary Screening for Toxic Air Contaminants (Illingworth and Rodkin, 2016). The Illingworth and Rodkin that indicated that combined sources of TACs (cumulative exposure and thus an overestimate) would not exceed a hazard index in exceedance of 1.0 (i.e., <0.9). Moreover, BAAQMD has an adopted cumulative TAC threshold of a hazard index of 10.0. The findings of this analysis indicate a cumulative exposure of <0.9, which is below this threshold. Thus, project-related and cumulative TAC exposure would be less than significant, as concluded in the Draft EIR.

As the Draft EIR explains, the nearest sensitive receptors to the project site are residential neighborhoods to the north, east, and west of the project site, located adjacent to the site. The TAC of greatest concern is diesel PM, which would be emitted during project construction. The Draft EIR explains that diesel PM is highly dispersive and concentrations decline quickly from the source (e.g., 500 feet from a freeway the concentration of diesel PM decreases by 70 percent) (Draft EIR page 4.2-17). Moreover, as explained in the Draft EIR, construction would be expected to occur over 5 years (i.e., 2018-2022), which is 25 years less than the recommended 30-year exposure period used by the California Air Pollution Control Officer Association (CAPCOA) as an exposure threshold that warrants conducting a health risk assessment (HRA). Additionally, the Draft EIR estimates emissions of PM_{10}, which diesel PM is a surrogate of, to be below BAAQMD's recommended threshold of significant for construction emissions Draft EIR Table 4.2-4).

Further, the project consists of residential land use types and does not introduce any substantial sources of TACs beyond a minor amount of diesel PM from diesel-powered service trucks that would occasionally be used at the project (e.g., moving vehicles). As noted in the Draft EIR, the project would add an additional 6,670 daily trips; however, these trips would primarily be gasoline- or electricity-powered automobiles which would not emit diesel PM.

The commenter states that its expert, SWAPE, prepared a level 2 Health Risk Screening Assessment (HRSA), applying the U.S. Environmental Protection Agency's AERSCREEN model, as recommended by OEHHA and CAPCOA, and calculated that construction and operation of the project will result in cancer risks of 23.5 in one million, 22.3 in one million, and 50.7 in one million. However, SWAPE based its HRSA calculations on its own "updated air modeling," not the modeling conducted in the Draft EIR. SWAPE has limited knowledge of the specifics of the project or its assumed emissions, nor of any of the assumptions used in Draft EIR (development and project detail assumptions were provided in the Draft EIR in Chapter 3, "Project Description," and modeling assumptions were provided on Draft EIR pages 4.2-10 and 4.2-11 and Appendix B). For this reason, any calculations completed by SWAPE regarding health risk are not accurate and not supported by substantial evidence.

Last, the commenter alleges that the EIR should have analyzed cumulative health risk. As explained above, substantial evidence supports the City's determination that there is no health risk impact from either project construction or operation, thus there is no significant contribution to any cumulative health impact. SWAPE cites other "stationary sources" within 1,000 feet of the nearest residential receptor, but none of these sources have high emission profiles that support SWAPE's analysis.

Indoor Air Quality

The commenter appends its document with a separate comment from a Certified Industrial Hygienist who states that the project's air quality analysis is flawed because there is no discussion of indoor air quality. The commenter asserts that residents of buildings are exposed to high levels of off-gassed formaldehyde from the decomposition of composite wood products used to construct buildings, which would be the case for residents occupying the project site. The commenter also states that residents of the project site would be exposed to adverse levels of $PM_{2.5}$ from ambient concentrations of $PM_{2.5}$ within the project site.

The commenter alleges that its expert, Mr. Offermann has determined that the Project's indoor emissions of formaldehyde constitute a significant CEQA impact. Mr. Offermann claims that, assuming this project will be built using typical materials and construction methods used in California, future residents will experience a cancer risk from formaldehyde of approximately 125 per million. Mr. Offermann sites his own 2009 study—the California New Home Study (2009 study), and a 2018 study—Indoor Air Quality in new California Homes with Mechanical Ventilation by Chan et al—and appears to rely on both of these studies to derive his 125 in one million value.

Mr. Offermann calculates a 180 in one million figure based on the 2009 study. He then lowers this by 30 percent based on the second study to derive a 125 in one million figure. However, there are many distinguishing factors between these studies and the project.

First, the project would comply with mandatory and applicable regulatory requirements, many of which were not in place when the homes in the 2009 and 2018 studies were built. These applicable requirements include the following:

- The Composite Wood Products Regulation is a California Air Resources Board (CARB) regulation that reduces public exposure to formaldehyde through the establishment of strict emission performance standards on particleboard, medium density fiberboard and hardwood plywood (collectively known as composite wood products). The regulation, adopted in 2007, established two phases of emissions standards: an initial Phase I, and later, a more stringent Phase 2 that requires all finished goods, such as flooring, destined for sale or use in California to be made using complying composite wood products. As of January 2014 only Phase 2 products are legal for sale in California. Moreover, the ASHRAE 62.2 ventilation and air filtration requirements in the state's Title 24 Building Code improves indoor air quality, and these standards are scheduled to become more stringent with the adoption of the 2019 Title 24 Building Code that the project would be required to comply (Codes and Standards Enhancement Initiative 2018).
- On December 12, 2016, EPA published in the Federal Register a final rule to reduce exposure to formaldehyde emissions from certain wood products produced domestically or imported into the United States. EPA worked with CARB to help ensure the final national rule was consistent with California's requirements for similar composite wood products.

While the second study cited by Mr. Offermann was published in 2018, it assessed homes built in 2011, before the newest CARB formaldehyde standards (Phase 2 standards) were put into place (2014). Thus, these studies do not provide evidence that the project, which will be built in phases out to 2020, will have significant impacts from formaldehyde emissions.

In addition, the 2018 study cited by Mr. Offermann, required participants to keep their windows closed for the duration of the study and rely on mechanical ventilation. In reality, residents would open their windows for hours at a time during spring, summer, and fall. This ventilation would greatly reduce formaldehyde concentrations in indoor air and thus the studies do not accurately capture real-world scenarios. In addition, the studies assume a continuous 24-hour exposure and 100 percent absorption by the respiratory system, further unrealistic assumption unsupported by

substantial evidence. For these reasons, the project can be distinguished from the homes studied in the 2009 and 2018 studies.

Second, Mr. Offermann's claim that the project would result in significant impacts is based on pure speculation and assumption, regarding project construction and materials, regarding health risk modeling of formaldehyde, regarding how much ventilation there will be in project homes, and regarding application of a significance threshold that is not formaldehyde specific. CEQA does not require speculation. CEQA Guidelines Section 15145; *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal. 3d 376 (where future development is unspecified and uncertain, no purpose can be served by requiring an EIR to engage in sheer speculation as to future environmental consequences).

The commenter also states that residents of the project site would incur health effects associated with exposure to dangerous levels of $PM_{2.5}$, for which Santa Clara County and the SFBAAB are in nonattainment for the California ambient air quality standards (CAAQS) and national ambient air quality standards (NAAQS). However, as determined by the California Supreme Court in the *California Building Industry Association v. BAAQMD*, CEQA reviews the impacts of a project on the environment rather than the effects of the environment on the residents or users of a project. The Court held that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the *project's* impact on the environment – and not the *environment's* impact on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions."

As directed by the Court, a project would only need to evaluate the environments impact on a project if the project itself would exacerbate an existing adverse condition. The commenter asserts that due to the nonattainment designation of Santa Clara County and the SFBAAB, the Draft EIR should have evaluated the health impacts of $PM_{2.5}$ to residents of the project site. As identified in Draft EIR Table 4.2-4 and 4.2-6 in the Draft EIR and above, emissions of criteria air pollutants and precursors following mitigation would be below BAAQMD's recommended thresholds of significance. BAAQMD provides substantial evidence for the use of their thresholds in their CEQA Justification Report. Because project emissions would not exceed these thresholds, the existing nonattainment designation within the project site would not be exacerbated. No further analysis is required regarding the effects of the environment to residents of the project site.

1.2 BIOLOGICAL RESOURCES

SPECIAL-STATUS BIRD SPECIES

The commenter identifies that the project and surrounding area as providing suitable habitat to support populations of special-status bird species but provides no project site specific evidence (field review, habitat mapping, or species observations) to support this statement. Draft EIR pages 4.3-1 and 4.3-2 and Exhibits 3-1 and 3-2 document that the project site and the surrounding area consists of urban developed conditions that provide no natural habitat that would support the presence of these species in the manner commenter suggests. The project site only includes small landscaped areas that are actively maintained and thus do not provide quality foraging or stopover habitat.

The commenter states that the EIR biological resources impact analysis omitted 36 special-status bird species that should have been included. Many of the species listed by the commenter are considered "Birds of Conservation Concern" (a U.S. Fish and Wildlife Service designation) or "Watch List" species (a California Department of Fish and Wildlife designation). These designations are typically not considered "special-status" under CEQA. Additionally, the commenter listed several species with designated protection under California Fish and Game Code Section 3503.5. The EIR analysis includes measures for protection of all bird nests covered under this section, including preconstruction nesting bird surveys and establishment of protective buffers around active nests (see Mitigation Measure 4.3-1 on Draft EIR page 4.3-11). The additional special-status species listed by the commenter are not known to nest within the vicinity of the project site and are unlikely to occur on the project site due to a lack of suitable natural habitat (e.g., annual grasslands, salt marsh habitat, riparian habitat). Thus, no significant or cumulative impacts to biological resources are expected to occur as a result of the project.

BIRD STRIKES

As noted above, the commenter overstates the extent of suitable habitat and supporting populations for special-status species. The mid-rise apartment portion of the project would of similar building heights of other development in the City (e.g., Downtown Specific Plan area) as well as development in the cities of Santa Clara and San Jose. The project area is also impacted through the operation of airports (Moffett Federal Airfield and the San Jose Airport). The commenter fails to acknowledge these existing conditions that already impact the presence of bird species. Thus, construction of the mid-rise apartments would not create a new bird strike to the existing environmental conditions that would result in significant new hazards to birds.

The City of Sunnyvale adopted Bird Safe Building Design Guidelines in 2014 to address bird deaths caused by collisions with windows; particularly windows on tall buildings. The commenter states that the mid-rise apartment portion of the project does not comply with these Design Guidelines based on review of the architectural renderings provided in the Draft EIR (Exhibits 3-5). The final architectural design and lighting plans of the project has not been completed and would be required to comply with these standards (see Draft EIR pages 3-17 and 4.1-16).

As shown in Exhibit 3-5, the mid-rise apartment building design would not consist of expansive glass areas as the window area would be broken up into individual window areas and further contrast between the windows through the architectural features/design of the building. Retained large trees would be adjacent to the mid-rise apartment buildings along its frontage with Stewart Drive but this area does not contain any large space areas. As identified on Draft EIR page 4.1-16, outdoor lighting would be installed in conformance with the City Municipal Code, applicable safety and illumination requirements, and California Title 24 requirements. Lighting would be installed at major intersections and mid-block pedestrian crossings, as appropriate for public safety, and along vertical curves where lighting is needed for public safety. Limited safety and security lighting and indirect shielded lighting would also be provided along jogging trail corridors consistent with City standards.

These guidelines, which apply to all new buildings in the City, include measures such as avoiding the use of reflective or transparent glass in the first 60 feet of the buildings, avoiding the use of glass adjacent to landscaped areas, prohibition of glass skyways or freestanding glass walls, and avoiding the use of night-time indoor lighting, among others. Implementation of these measures is expected to reduce the likelihood of birds strikes. Additionally, project plans are not expected to introduce features significantly taller or of different character than the buildings surrounding the project.

IMPACTS FROM RESIDENT CATS

The commenter suggests that the project would result in the introduction of hundreds of house cats that would result in significant bird deaths and water quality issues associated with the introduction of fecal pathogens, which would adversely impact wildlife. It is acknowledged that future project residents may have pets that could include a house cat. It is estimated that there are 95.6 million house cats in the U.S. in 2018 (Statista 2019). However, it would be speculative to estimate the number of project residents that may decide to have a house cat as a pet, whether the future residents would allow their house cats to be outdoors, or the method of feces disposal. The current trend for cat owners is to retain their pet indoors. U.S. cat experts (e.g., Cat Fanciers Association, humane organizations) agree that keeping cats indoors protects them from disease and all manner of dangers and have promoted this position with new owners (PetPlace 2019). Risks of outdoor life include exposure to infectious diseases, such as feline leukemia, feline immunodeficiency virus, feline infectious peritonitis, and rabies; injury or death occurring on busy roads; and attacks by predators. It should also be noted that the project area and City is urban that already contains an existing outdoor cat and feral cat population. The city addresses pets and animals discovered outdoors through its Animal Control Unit. Thus, the project would not introduce an outdoor cat population that does not already exist in the city.

As identified in Chapter 1, "Introduction," the project would connect with existing drainage infrastructure located within E. Duane Avenue and Stewart Drive and would include bioretention swales to treat and attenuate stormwater flows consistent with City requirements. The use of bioretention swales has been identified by the Minnesota Pollution Control Agency as an effective measure in addressing pathogens (Wiki. 2019). There would be no impact related to water quality.

1.3 NOISE

MAINTENANCE OF INTERIOR NOISE

The comment letter exhibit A (Indoor Environmental Engineering) states that more outdoor noise measurement on the project site are required to address the traffic noise impact and develop mitigation measures that would meet interior noise of 45 dBA or less. Ascent Environmental considers the number of outdoor noise measurements adequate to characterize existing conditions. The Draft EIR also conducts traffic noise modeling and analysis that identified no significant project or cumulative traffic noise impacts (see Draft EIR pages 4.8-19, 4.8-19, and 6-8). The commenter provides no analysis or modeling that counters these conclusions. No recirculation is required in response to this comment.

REFERENCES

Codes and Standards Enhancement Initiative. 2018 (February). Residential Indoor Air Quality – Final Report. Measure Number 2019-RES-IAQ-F. Available: http://title24stakeholders.com/wp-content/uploads/2018/02/2019-T24-CASE-Report_Res-IAQ_Final_February-2018.pdf. Accessed March 2019.

Illingworth and Rodkin. 2016 (April). AMD Potential Residential Development in Sunnyvale, CA – Preliminary Screening for Toxic Air Contaminants. Prepared for Irvine Company. Petaluma, CA.

Statista. 2019. Estimate of Number of Cats in US. Accessed March 29, 2019. Available at: https://www.statista.com/statistics/198102/cats-in-the-united-states-since-2000/

PetPlace 2019. The Great Debate: Indoor Cats versus Outdoor Cats. Accessed March 29, 2019. Available at: https://www.petplace.com/article/cats/pet-health/the-great-debate-indoor-cats-versus-outdoor-cats/

Wiki 2019. Minnesota Stormwater Manual. Accessed March 29, 2019. Available at: https://stormwater.pca.state.mn.us/index.php?title=Bacteria_in_stormwater

Summary Of Mitigated Construction Emissions

	2018					2019					2020					2021					2022				
Phase	**ROG lb/day**	**NOx lb/day**	**PM10 lb/day**	**PM2.5 lb/day**	**MTCO2e**	**ROG lb/day**	**NOx lb/day**	**PM10 lb/day**	**PM2.5 lb/day**	**MTCO2e**	**ROG lb/day**	**NOx lb/day**	**PM10 lb/day**	**PM2.5 lb/day**	**MTCO2e**	**ROG lb/day**	**NOx lb/day**	**PM10 lb/day**	**PM2.5 lb/day**	**MTCO2e**	**ROG lb/day**	**NOx lb/day**	**PM10 lb/day**	**PM2.5 lb/day**	**MTCO2e**
Phase 1	**1**	**36**	**25**	**4**	**46**																				
Phase 2						1	28	19	10	509	**1**	11	1	0	319	11	6	1	0	160					
Phase 3						3	23	19	10	1,199	2	22	5	1	1,274	11	21	5	1	540					
Phase 4&5																3	26	18	10	1412	16	25	6	2	1010
Total	**1**	**36**	**25**	**4**	**46**	**4**	**51**	**38**	**20**	**1708**	**3**	**33**	**6**	**1**	**1593**	**25**	**53**	**24**	**11**	**2112**	**16**	**25**	**6**	**2**	**1010**

Total CO2

6469

7010 1660

6469 1119

541

Construction Phase 2 ROG Adjustments

Paving	# of Days (CalEEMod default)	% of year	Adjusted # of Days
Site Prep	10	3%	30
Grading	30	8%	60
Building Const.	300	79%	550
Paving	20	5%	60
Arch Coating	20	5%	60
	380		760

Start Date	End Date
1/1/2019	11/25/2021

Total Working Days

758

Adjusted Arch Coating Days

	based on 2/3 building days plus paving and arch
483	coating
5280	
10.93167702	ROG lb/day

Construction Phase 3 ROG Adjustments

Phase	# of Days (CalEEMod default)	% of year	Adjusted # of Days
Site Prep	10	3%	30
Grading	30	8%	60
Building Const.	300	79%	650
Paving	20	5%	60
Arch Coating	20	5%	60
	380		860

Start Date: 1/1/2019

End Date: 9/29/2021

Total Working Days: 717

Adjusted Arch Coating Days: 549

based on 2/3 building days plus paving and arch coating

5820

10.6010929 ROG lb/day

Construction Phase 4&5 ROG Adjustments

Phase	# of Days (CalEEMod default)	% of year	Adjusted # of Days
Site Prep	10	2%	15
Grading	35	8%	45
Building Cons	370	81%	450
Paving	20	4%	30
Arch Coating	20	4%	30
	455		570

Start Date	End Date
1/1/2021	9/23/2022

Total Working Days
451

Adjusted Arch Coating Days
357

based on 2/3 building days plus paving and arch coating

5790
16.2184874 ROG lb/day

Sunnyvale AMD 1 Phase 1 Construction

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - This model runs for construction emissions only.

Land Use - This phase accounts for demolition only.

Construction Phase - Phase 1 would occur between late 2018 to 2020. Demolition would occur during this phase.

Demolition - Demolition of a 226,390 sf building.

Grading -

Construction Off-road Equipment Mitigation - Assumes a suite of Final Tier 3 and 4 diesel engines consistent with mitigation measure 4.2-1a

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0105	0.2161	0.0733			3.7900e-003	0.1243		3.6200e-003	0.0230			45.7481	2.9300e-003	0.0000	45.8212
Maximum	**0.0105**	**0.2161**	**0.0733**			**3.7900e-003**	**0.1243**		**3.6200e-003**	**0.0230**			**45.7481**	**2.9300e-003**	**0.0000**	**45.8212**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	6.1700e-003	0.1870	0.0741			1.8100e-003	0.1224		1.7800e-003	0.0212			45.7480	2.9300e-003	0.0000	45.8212
Maximum	**6.1700e-003**	**0.1870**	**0.0741**			**1.8100e-003**	**0.1224**		**1.7800e-003**	**0.0212**			**45.7480**	**2.9300e-003**	**0.0000**	**45.8212**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**40.96**	**13.46**	**-1.11**	**0.00**	**0.00**	**52.24**	**1.59**	**0.00**	**50.83**	**8.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0144	2.2000e-004	0.0160			1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003			0.1705	2.5000e-004	1.0000e-005	0.1789
Energy	1.6000e-004	1.3400e-003	5.7000e-004			1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004			3.9047	1.4000e-004	5.0000e-005	3.9231
Mobile	2.5700e-003	0.0107	0.0300			9.0000e-005	8.2100e-003		9.0000e-005	2.2600e-003			8.5412	3.1000e-004	0.0000	8.5490
Waste						0.0000	0.0000		0.0000	0.0000			0.2558	0.0151	0.0000	0.6337
Water						0.0000	0.0000		0.0000	0.0000			0.1651	2.1300e-003	5.0000e-005	0.2336
Total	**0.0172**	**0.0123**	**0.0466**			**1.4800e-003**	**9.6000e-003**		**1.4800e-003**	**3.6500e-003**			**13.0371**	**0.0180**	**1.1000e-004**	**13.5183**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0144	2.2000e-004	0.0160			1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003			0.1705	2.5000e-004	1.0000e-005	0.1789
Energy	1.6000e-004	1.3400e-003	5.7000e-004			1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004			3.9047	1.4000e-004	5.0000e-005	3.9231
Mobile	2.5700e-003	0.0107	0.0300			9.0000e-005	8.2100e-003		9.0000e-005	2.2600e-003			8.5412	3.1000e-004	0.0000	8.5490
Waste						0.0000	0.0000		0.0000	0.0000			0.2558	0.0151	0.0000	0.6337
Water						0.0000	0.0000		0.0000	0.0000			0.1651	2.1300e-003	5.0000e-005	0.2336
Total	**0.0172**	**0.0123**	**0.0466**			**1.4800e-003**	**9.6000e-003**		**1.4800e-003**	**3.6500e-003**			**13.0371**	**0.0180**	**1.1000e-004**	**13.5183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/1/2018	11/14/2018	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	1,030.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.1114		0.0000	0.0169			0.0000	0.0000	0.0000	0.0000
Off-Road	5.3200e-003	0.0472	0.0389			3.1100e-003	3.1100e-003		2.9700e-003	2.9700e-003			5.3041	1.0200e-003	0.0000	5.3297
Total	**5.3200e-003**	**0.0472**	**0.0389**			**3.1100e-003**	**0.1145**		**2.9700e-003**	**0.0198**			**5.3041**	**1.0200e-003**	**0.0000**	**5.3297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9300e-003	0.1688	0.0328			6.7000e-004	9.4000e-003		6.5000e-004	3.0500e-003			40.0822	1.8900e-003	0.0000	40.1295
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.5000e-004	1.5800e-003			0.0000	4.0000e-004		0.0000	1.1000e-004			0.3618	1.0000e-005	0.0000	0.3621
Total	**5.1300e-003**	**0.1690**	**0.0344**			**6.7000e-004**	**9.8000e-003**		**6.5000e-004**	**3.1600e-003**			**40.4440**	**1.9000e-003**	**0.0000**	**40.4915**

3.2 Demolition - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.1114		0.0000	0.0169			0.0000	0.0000	0.0000	0.0000
Off-Road	1.0400e-003	0.0181	0.0397			1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003			5.3041	1.0200e-003	0.0000	5.3296
Total	**1.0400e-003**	**0.0181**	**0.0397**			**1.1300e-003**	**0.1126**		**1.1300e-003**	**0.0180**			**5.3041**	**1.0200e-003**	**0.0000**	**5.3296**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.9300e-003	0.1688	0.0328			6.7000e-004	9.4000e-003		6.5000e-004	3.0500e-003			40.0822	1.8900e-003	0.0000	40.1295
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.5000e-004	1.5800e-003			0.0000	4.0000e-004		0.0000	1.1000e-004			0.3618	1.0000e-005	0.0000	0.3621
Total	**5.1300e-003**	**0.1690**	**0.0344**			**6.7000e-004**	**9.8000e-003**		**6.5000e-004**	**3.1600e-003**			**40.4440**	**1.9000e-003**	**0.0000**	**40.4915**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.5700e-003	0.0107	0.0300			9.0000e-005	8.2100e-003		9.0000e-005	2.2600e-003			8.5412	3.1000e-004	0.0000	8.5490
Unmitigated	2.5700e-003	0.0107	0.0300			9.0000e-005	8.2100e-003		9.0000e-005	2.2600e-003			8.5412	3.1000e-004	0.0000	8.5490

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	9.52	9.91	8.62	21,819	21,819
Total	9.52	9.91	8.62	21,819	21,819

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			2.3536	1.1000e-004	2.0000e-005	2.3629
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			2.3536	1.1000e-004	2.0000e-005	2.3629
NaturalGas Mitigated	1.6000e-004	1.3400e-003	5.7000e-004			1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004			1.5510	3.0000e-005	3.0000e-005	1.5602
NaturalGas Unmitigated	1.6000e-004	1.3400e-003	5.7000e-004			1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004			1.5510	3.0000e-005	3.0000e-005	1.5602

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	29065.1	1.6000e-004	1.3400e-003	5.7000e-004			1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004			1.5510	3.0000e-005	3.0000e-005	1.5602
Total		**1.6000e-004**	**1.3400e-003**	**5.7000e-004**			**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**			**1.5510**	**3.0000e-005**	**3.0000e-005**	**1.5602**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	29065.1	1.6000e-004	1.3400e-003	5.7000e-004			1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004			1.5510	3.0000e-005	3.0000e-005	1.5602
Total		**1.6000e-004**	**1.3400e-003**	**5.7000e-004**			**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**			**1.5510**	**3.0000e-005**	**3.0000e-005**	**1.5602**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	8090.57	2.3536	1.1000e-004	2.0000e-005	2.3629
Total		**2.3536**	**1.1000e-004**	**2.0000e-005**	**2.3629**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	8090.57	2.3536	1.1000e-004	2.0000e-005	2.3629
Total		**2.3536**	**1.1000e-004**	**2.0000e-005**	**2.3629**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0144	2.2000e-004	0.0160			1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003			0.1705	2.5000e-004	1.0000e-005	0.1789
Unmitigated	0.0144	2.2000e-004	0.0160			1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003			0.1705	2.5000e-004	1.0000e-005	0.1789

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.2700e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	7.0300e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	5.8900e-003	1.3000e-004	8.5700e-003			1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003			0.1583	2.4000e-004	1.0000e-005	0.1665
Landscaping	2.3000e-004	9.0000e-005	7.4500e-003			4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0121	1.0000e-005	0.0000	0.0124
Total	**0.0144**	**2.2000e-004**	**0.0160**			**1.2800e-003**	**1.2800e-003**		**1.2800e-003**	**1.2800e-003**			**0.1705**	**2.5000e-004**	**1.0000e-005**	**0.1789**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.2700e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	7.0300e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	5.8900e-003	1.3000e-004	8.5700e-003			1.2400e-003	1.2400e-003		1.2400e-003	1.2400e-003			0.1583	2.4000e-004	1.0000e-005	0.1665
Landscaping	2.3000e-004	9.0000e-005	7.4500e-003			4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005			0.0121	1.0000e-005	0.0000	0.0124
Total	**0.0144**	**2.2000e-004**	**0.0160**			**1.2800e-003**	**1.2800e-003**		**1.2800e-003**	**1.2800e-003**			**0.1705**	**2.5000e-004**	**1.0000e-005**	**0.1789**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.1651	2.1300e-003	5.0000e-005	0.2336
Unmitigated	0.1651	2.1300e-003	5.0000e-005	0.2336

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.065154 / 0.0410754	0.1651	2.1300e-003	5.0000e-005	0.2336
Total		**0.1651**	**2.1300e-003**	**5.0000e-005**	**0.2336**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.065154 / 0.0410754	0.1651	2.1300e-003	5.0000e-005	0.2336
Total		**0.1651**	**2.1300e-003**	**5.0000e-005**	**0.2336**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.2558	0.0151	0.0000	0.6337
Unmitigated	0.2558	0.0151	0.0000	0.6337

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1.26	0.2558	0.0151	0.0000	0.6337
Total		**0.2558**	**0.0151**	**0.0000**	**0.6337**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	1.26	0.2558	0.0151	0.0000	0.6337
Total		**0.2558**	**0.0151**	**0.0000**	**0.6337**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sunnyvale AMD 1 Phase 1 Construction

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1.00	Dwelling Unit	0.32	1,800.00	3

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - This model runs for construction emissions only.

Land Use - This phase accounts for demolition only.

Construction Phase - Phase 1 would occur between late 2018 to 2020. Demolition would occur during this phase.

Demolition - Demolition of a 226,390 sf building.

Grading -

Construction Off-road Equipment Mitigation - Assumes a suite of Final Tier 3 and 4 diesel engines consistent with mitigation measure 4.2-1a

Sunnyvale AMD 1 Phase 1 Construction - Santa Clara County, Summer

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	2.0807	42.5165	14.4651			0.7571	24.9238		0.7228	4.6120			10,152.5074	0.6357	0.0000	10,168.4000
Maximum	**2.0807**	**42.5165**	**14.4651**			**0.7571**	**24.9238**		**0.7228**	**4.6120**			**10,152.5074**	**0.6357**	**0.0000**	**10,168.4000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.2246	36.6966	14.6269			0.3614	24.5281		0.3555	4.2447			10,152.5074	0.6357	0.0000	10,168.4000
Maximum	**1.2246**	**36.6966**	**14.6269**			**0.3614**	**24.5281**		**0.3555**	**4.2447**			**10,152.5074**	**0.6357**	**0.0000**	**10,168.4000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**41.14**	**13.69**	**-1.12**	**0.00**	**0.00**	**52.27**	**1.59**	**0.00**	**50.81**	**7.96**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0843	0.0209	1.4231			0.1900	0.1900		0.1900	0.1900			26.7034	0.0253	1.4400e-003	27.7654
Energy	8.6000e-004	7.3400e-003	3.1200e-003			5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004			9.3683	1.8000e-004	1.7000e-004	9.4240
Mobile	0.0170	0.0595	0.1812			5.4000e-004	0.0490		5.1000e-004	0.0134			57.5866	2.0000e-003		57.6365
Total	**1.1021**	**0.0877**	**1.6074**			**0.1911**	**0.2395**		**0.1911**	**0.2040**			**93.6582**	**0.0275**	**1.6100e-003**	**94.8259**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0843	0.0209	1.4231			0.1900	0.1900		0.1900	0.1900			26.7034	0.0253	1.4400e-003	27.7654
Energy	8.6000e-004	7.3400e-003	3.1200e-003			5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004			9.3683	1.8000e-004	1.7000e-004	9.4240
Mobile	0.0170	0.0595	0.1812			5.4000e-004	0.0490		5.1000e-004	0.0134			57.5866	2.0000e-003		57.6365
Total	**1.1021**	**0.0877**	**1.6074**			**0.1911**	**0.2395**		**0.1911**	**0.2040**			**93.6582**	**0.0275**	**1.6100e-003**	**94.8259**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	11/1/2018	11/14/2018	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	1,030.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	22.2848		0.0000	3.3741			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762			0.6228	0.6228		0.5943	0.5943			1,169.3502	0.2254		1,174.9857
Total	**1.0643**	**9.4295**	**7.7762**			**0.6228**	**22.9075**		**0.5943**	**3.9684**			**1,169.3502**	**0.2254**		**1,174.9857**

3.2 Demolition - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9743	33.0593	6.3448			0.1338	1.9336		0.1280	0.6213			8,897.4160	0.4077		8,907.6094
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0421	0.0276	0.3440			5.3000e-004	0.0827		4.9000e-004	0.0223			85.7412	2.5500e-003		85.8050
Total	**1.0164**	**33.0869**	**6.6888**			**0.1344**	**2.0163**		**0.1285**	**0.6436**			**8,983.1572**	**0.4103**		**8,993.4144**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	22.2848		0.0000	3.3741			0.0000			0.0000
Off-Road	0.2083	3.6097	7.9381			0.2270	0.2270		0.2270	0.2270			1,169.3502	0.2254		1,174.9857
Total	**0.2083**	**3.6097**	**7.9381**			**0.2270**	**22.5118**		**0.2270**	**3.6011**			**1,169.3502**	**0.2254**		**1,174.9857**

3.2 Demolition - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9743	33.0593	6.3448			0.1338	1.9336		0.1280	0.6213			8,897.4160	0.4077		8,907.6094
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0421	0.0276	0.3440			5.3000e-004	0.0827		4.9000e-004	0.0223			85.7412	2.5500e-003		85.8050
Total	**1.0164**	**33.0869**	**6.6888**			**0.1344**	**2.0163**		**0.1285**	**0.6436**			**8,983.1572**	**0.4103**		**8,993.4144**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0170	0.0595	0.1812			5.4000e-004	0.0490		5.1000e-004	0.0134			57.5866	2.0000e-003		57.6365
Unmitigated	0.0170	0.0595	0.1812			5.4000e-004	0.0490		5.1000e-004	0.0134			57.5866	2.0000e-003		57.6365

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	9.52	9.91	8.62	21,819	21,819
Total	9.52	9.91	8.62	21,819	21,819

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.604810	0.038204	0.185149	0.108513	0.015498	0.004981	0.012268	0.020156	0.002083	0.001571	0.005363	0.000620	0.000785

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.6000e-004	7.3400e-003	3.1200e-003			5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004			9.3683	1.8000e-004	1.7000e-004	9.4240
NaturalGas Unmitigated	8.6000e-004	7.3400e-003	3.1200e-003			5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004			9.3683	1.8000e-004	1.7000e-004	9.4240

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	79.6304	8.6000e-004	7.3400e-003	3.1200e-003			5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004			9.3683	1.8000e-004	1.7000e-004	9.4240
Total		**8.6000e-004**	**7.3400e-003**	**3.1200e-003**			**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**			**9.3683**	**1.8000e-004**	**1.7000e-004**	**9.4240**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	0.0796304	8.6000e-004	7.3400e-003	3.1200e-003			5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004			9.3683	1.8000e-004	1.7000e-004	9.4240
Total		**8.6000e-004**	**7.3400e-003**	**3.1200e-003**			**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**			**9.3683**	**1.8000e-004**	**1.7000e-004**	**9.4240**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0843	0.0209	1.4231			0.1900	0.1900		0.1900	0.1900			26.7034	0.0253	1.4400e-003	27.7654
Unmitigated	1.0843	0.0209	1.4231			0.1900	0.1900		0.1900	0.1900			26.7034	0.0253	1.4400e-003	27.7654

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.9400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0385					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.0363	0.0200	1.3403			0.1895	0.1895		0.1895	0.1895			26.5548	0.0252	1.4400e-003	27.6133
Landscaping	2.5200e-003	9.6000e-004	0.0828			4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004			0.1486	1.4000e-004		0.1522
Total	**1.0843**	**0.0209**	**1.4231**			**0.1900**	**0.1900**		**0.1900**	**0.1900**			**26.7034**	**0.0253**	**1.4400e-003**	**27.7654**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.9400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0385					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.0363	0.0200	1.3403			0.1895	0.1895		0.1895	0.1895			26.5548	0.0252	1.4400e-003	27.6133
Landscaping	2.5200e-003	9.6000e-004	0.0828			4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004			0.1486	1.4000e-004		0.1522
Total	**1.0843**	**0.0209**	**1.4231**			**0.1900**	**0.1900**		**0.1900**	**0.1900**			**26.7034**	**0.0253**	**1.4400e-003**	**27.7654**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sunnyvale AMD 1 Phase 2 Construction Emissions

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	447.00	Space	4.02	178,800.00	0
Apartments Low Rise	57.00	Dwelling Unit	2.41	104,979.00	163
Condo/Townhouse	22.00	Dwelling Unit	6.05	263,538.00	63

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - This model runs for construction emissions only.

Land Use - Phase would involed construction of three low-rise apartment buildings (57 units) on 2.31 acres, 22 townhomes on 6.05 acres, and 447 total enclosed parking spaces.

Construction Phase - Demolition would occur during Phase 1. Phase 2 construction to occur over 2 years (2019-2021). Construction would occur 6 days a week.

Off-road Equipment - Assumes CalEEMod defaults.

Grading - Import of approximately 13,800 cubic yards of material for this phase

Construction Off-road Equipment Mitigation - Use of a suite of Tier 3 and 4 engines for all construction equipment consistent with guidance from Mitigation Measure 4.2-1a

Sunnyvale AMD 1 Phase 2 Construction Emissions - Santa Clara County, Annual

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblGrading	MaterialImported	0.00	6,900.00
tblGrading	MaterialImported	0.00	6,900.00
tblLandUse	LandUseSquareFeet	57,000.00	104,979.00
tblLandUse	LandUseSquareFeet	22,000.00	263,538.00
tblLandUse	LotAcreage	3.56	2.41
tblLandUse	LotAcreage	1.38	6.05
tblTripsAndVMT	HaulingTripNumber	863.00	862.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3449	3.3989	2.4516			0.1558	0.4972		0.1456	0.2819			507.1980	0.0868	0.0000	509.3688
2020	2.8371	1.8145	1.6558			0.0883	0.1816		0.0829	0.1082			317.7830	0.0507	0.0000	319.0508
Maximum	**2.8371**	**3.3989**	**2.4516**			**0.1558**	**0.4972**		**0.1456**	**0.2819**			**507.1980**	**0.0868**	**0.0000**	**509.3688**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1136	1.3208	2.4971			0.0333	0.3747		0.0331	0.1694			507.1977	0.0868	0.0000	509.3685
2020	2.7082	0.8150	1.7535			0.0239	0.1173		0.0238	0.0491			317.7828	0.0507	0.0000	319.0505
Maximum	**2.7082**	**1.3208**	**2.4971**			**0.0333**	**0.3747**		**0.0331**	**0.1694**			**507.1977**	**0.0868**	**0.0000**	**509.3685**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**11.32**	**59.03**	**-3.49**	**0.00**	**0.00**	**76.55**	**27.52**	**0.00**	**75.08**	**43.98**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Sunnyvale AMD 1 Phase 2 Construction Emissions - Santa Clara County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-26-2019	6-25-2019	1.7598	0.5526
2	6-26-2019	9-25-2019	0.9586	0.4233
3	9-26-2019	12-25-2019	0.9537	0.4241
4	12-26-2019	3-25-2020	0.8709	0.4061
5	3-26-2020	6-25-2020	0.8700	0.4047
6	6-26-2020	9-25-2020	2.9774	2.7420
		Highest	2.9774	2.7420

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.9143	0.0110	0.8423			0.0391	0.0391		0.0391	0.0391			6.0471	6.7300e-003	2.4000e-004	6.2858
Energy	5.3600e-003	0.0458	0.0195			3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003			452.3306	0.0191	4.7100e-003	454.2103
Mobile	0.1161	0.4918	1.3484			3.9600e-003	0.4337		3.7000e-003	0.1187			426.7130	0.0144	0.0000	427.0735
Waste						0.0000	0.0000		0.0000	0.0000			7.3767	0.4360	0.0000	18.2754
Water						0.0000	0.0000		0.0000	0.0000			13.0392	0.1682	4.0700e-003	18.4571
Total	**2.0358**	**0.5485**	**2.2102**			**0.0468**	**0.4765**		**0.0465**	**0.1616**			**905.5066**	**0.6444**	**9.0200e-003**	**924.3021**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.9143	0.0110	0.8423			0.0391	0.0391		0.0391	0.0391			6.0471	6.7300e-003	2.4000e-004	6.2858
Energy	5.3600e-003	0.0458	0.0195			3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003			452.3306	0.0191	4.7100e-003	454.2103
Mobile	0.1161	0.4918	1.3484			3.9600e-003	0.4337		3.7000e-003	0.1187			426.7130	0.0144	0.0000	427.0735
Waste						0.0000	0.0000		0.0000	0.0000			7.3767	0.4360	0.0000	18.2754
Water						0.0000	0.0000		0.0000	0.0000			13.0392	0.1682	4.0700e-003	18.4571
Total	**2.0358**	**0.5485**	**2.2102**			**0.0468**	**0.4765**		**0.0465**	**0.1616**			**905.5066**	**0.6444**	**9.0200e-003**	**924.3021**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Sunnyvale AMD 1 Phase 2 Construction Emissions - Santa Clara County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/26/2019	4/8/2019	5	10	
2	Grading	Grading	4/9/2019	5/20/2019	5	30	
3	Building Construction	Building Construction	5/21/2019	7/13/2020	5	300	
4	Paving	Paving	7/14/2020	8/10/2020	5	20	
5	Architectural Coating	Architectural Coating	8/11/2020	9/7/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 4.02

Residential Indoor: 746,247; Residential Outdoor: 248,749; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,728 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale AMD 1 Phase 2 Construction Emissions - Santa Clara County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	862.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	682.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	132.00	38.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.0907		0.0000	0.0497			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0217	0.2279	0.1103			0.0120	0.0120		0.0110	0.0110			17.0843	5.4100e-003	0.0000	17.2195
Total	**0.0217**	**0.2279**	**0.1103**			**0.0120**	**0.1027**		**0.0110**	**0.0607**			**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9200e-003	0.1342	0.0265			5.2000e-004	7.8200e-003		4.9000e-004	2.5000e-003			33.2148	1.5600e-003	0.0000	33.2537
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.5100e-003			0.0000	7.2000e-004		0.0000	1.9000e-004			0.6319	2.0000e-005	0.0000	0.6323
Total	**4.2500e-003**	**0.1344**	**0.0290**			**5.2000e-004**	**8.5400e-003**		**4.9000e-004**	**2.6900e-003**			**33.8467**	**1.5800e-003**	**0.0000**	**33.8860**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.0907		0.0000	0.0497			0.0000	0.0000	0.0000	0.0000
Off-Road	2.3300e-003	0.0101	0.1043			3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004			17.0843	5.4100e-003	0.0000	17.2195
Total	**2.3300e-003**	**0.0101**	**0.1043**			**3.1000e-004**	**0.0910**		**3.1000e-004**	**0.0500**			**17.0843**	**5.4100e-003**	**0.0000**	**17.2195**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9200e-003	0.1342	0.0265			5.2000e-004	7.8200e-003		4.9000e-004	2.5000e-003			33.2148	1.5600e-003	0.0000	33.2537
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.4000e-004	2.5100e-003			0.0000	7.2000e-004		0.0000	1.9000e-004			0.6319	2.0000e-005	0.0000	0.6323
Total	**4.2500e-003**	**0.1344**	**0.0290**			**5.2000e-004**	**8.5400e-003**		**4.9000e-004**	**2.6900e-003**			**33.8467**	**1.5800e-003**	**0.0000**	**33.8860**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.1301		0.0000	0.0540			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0711	0.8178	0.5007			0.0357	0.0357		0.0329	0.0329			83.5520	0.0264	0.0000	84.2129
Total	**0.0711**	**0.8178**	**0.5007**			**0.0357**	**0.1658**		**0.0329**	**0.0868**			**83.5520**	**0.0264**	**0.0000**	**84.2129**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1000e-003	0.1062	0.0210			4.1000e-004	6.1900e-003		3.9000e-004	1.9800e-003			26.2790	1.2300e-003	0.0000	26.3098
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	8.1000e-004	8.3800e-003			2.0000e-005	2.4000e-003		1.0000e-005	6.5000e-004			2.1063	6.0000e-005	0.0000	2.1077
Total	**4.1900e-003**	**0.1070**	**0.0294**			**4.3000e-004**	**8.5900e-003**		**4.0000e-004**	**2.6300e-003**			**28.3852**	**1.2900e-003**	**0.0000**	**28.4175**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.1301		0.0000	0.0540			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.1149	0.4950			4.8300e-003	4.8300e-003		4.8300e-003	4.8300e-003			83.5519	0.0264	0.0000	84.2128
Total	**0.0133**	**0.1149**	**0.4950**			**4.8300e-003**	**0.1349**		**4.8300e-003**	**0.0588**			**83.5519**	**0.0264**	**0.0000**	**84.2128**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1000e-003	0.1062	0.0210			4.1000e-004	6.1900e-003		3.9000e-004	1.9800e-003			26.2790	1.2300e-003	0.0000	26.3098
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.0900e-003	8.1000e-004	8.3800e-003			2.0000e-005	2.4000e-003		1.0000e-005	6.5000e-004			2.1063	6.0000e-005	0.0000	2.1077
Total	**4.1900e-003**	**0.1070**	**0.0294**			**4.3000e-004**	**8.5900e-003**		**4.0000e-004**	**2.6300e-003**			**28.3852**	**1.2900e-003**	**0.0000**	**28.4175**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1901	1.6968	1.3817			0.1038	0.1038		0.0976	0.0976			189.2589	0.0461	0.0000	190.4115
Total	**0.1901**	**1.6968**	**1.3817**			**0.1038**	**0.1038**		**0.0976**	**0.0976**			**189.2589**	**0.0461**	**0.0000**	**190.4115**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0150	0.3863	0.1037			2.7800e-003	0.0229		2.6600e-003	8.4700e-003			80.4676	3.9900e-003	0.0000	80.5673
Worker	0.0386	0.0287	0.2969			5.6000e-004	0.0848		5.1000e-004	0.0229			74.6034	2.0300e-003	0.0000	74.6542
Total	**0.0536**	**0.4150**	**0.4005**			**3.3400e-003**	**0.1077**		**3.1700e-003**	**0.0314**			**155.0709**	**6.0200e-003**	**0.0000**	**155.2215**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0359	0.5394	1.4388			0.0239	0.0239		0.0239	0.0239			189.2587	0.0461	0.0000	190.4113
Total	**0.0359**	**0.5394**	**1.4388**			**0.0239**	**0.0239**		**0.0239**	**0.0239**			**189.2587**	**0.0461**	**0.0000**	**190.4113**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0150	0.3863	0.1037			2.7800e-003	0.0229		2.6600e-003	8.4700e-003			80.4676	3.9900e-003	0.0000	80.5673
Worker	0.0386	0.0287	0.2969			5.6000e-004	0.0848		5.1000e-004	0.0229			74.6034	2.0300e-003	0.0000	74.6542
Total	**0.0536**	**0.4150**	**0.4005**			**3.3400e-003**	**0.1077**		**3.1700e-003**	**0.0314**			**155.0709**	**6.0200e-003**	**0.0000**	**155.2215**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1473	1.3334	1.1710			0.0776	0.0776		0.0730	0.0730			160.9689	0.0393	0.0000	161.9507
Total	**0.1473**	**1.3334**	**1.1710**			**0.0776**	**0.0776**		**0.0730**	**0.0730**			**160.9689**	**0.0393**	**0.0000**	**161.9507**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0105	0.3007	0.0801			1.4900e-003	0.0189		1.4200e-003	6.4500e-003			69.0470	3.1700e-003	0.0000	69.1262
Worker	0.0305	0.0219	0.2296			4.7000e-004	0.0732		4.3000e-004	0.0198			62.3969	1.5300e-003	0.0000	62.4352
Total	**0.0409**	**0.3226**	**0.3097**			**1.9600e-003**	**0.0921**		**1.8500e-003**	**0.0262**			**131.4440**	**4.7000e-003**	**0.0000**	**131.5614**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0310	0.4657	1.2422			0.0206	0.0206		0.0206	0.0206			160.9688	0.0393	0.0000	161.9505
Total	**0.0310**	**0.4657**	**1.2422**			**0.0206**	**0.0206**		**0.0206**	**0.0206**			**160.9688**	**0.0393**	**0.0000**	**161.9505**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0105	0.3007	0.0801			1.4900e-003	0.0189		1.4200e-003	6.4500e-003			69.0470	3.1700e-003	0.0000	69.1262
Worker	0.0305	0.0219	0.2296			4.7000e-004	0.0732		4.3000e-004	0.0198			62.3969	1.5300e-003	0.0000	62.4352
Total	**0.0409**	**0.3226**	**0.3097**			**1.9600e-003**	**0.0921**		**1.8500e-003**	**0.0262**			**131.4440**	**4.7000e-003**	**0.0000**	**131.5614**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1407	0.1465			7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003			20.0282	6.4800e-003	0.0000	20.1902
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0136**	**0.1407**	**0.1465**			**7.5300e-003**	**7.5300e-003**		**6.9300e-003**	**6.9300e-003**			**20.0282**	**6.4800e-003**	**0.0000**	**20.1902**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.7500e-003			1.0000e-005	1.2000e-003		1.0000e-005	3.2000e-004			1.0202	3.0000e-005	0.0000	1.0209
Total	**5.0000e-004**	**3.6000e-004**	**3.7500e-003**			**1.0000e-005**	**1.2000e-003**		**1.0000e-005**	**3.2000e-004**			**1.0202**	**3.0000e-005**	**0.0000**	**1.0209**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8000e-003	0.0122	0.1730			3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004			20.0282	6.4800e-003	0.0000	20.1901
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**2.8000e-003**	**0.0122**	**0.1730**			**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**			**20.0282**	**6.4800e-003**	**0.0000**	**20.1901**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	3.6000e-004	3.7500e-003			1.0000e-005	1.2000e-003		1.0000e-005	3.2000e-004			1.0202	3.0000e-005	0.0000	1.0209
Total	**5.0000e-004**	**3.6000e-004**	**3.7500e-003**			**1.0000e-005**	**1.2000e-003**		**1.0000e-005**	**3.2000e-004**			**1.0202**	**3.0000e-005**	**0.0000**	**1.0209**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6314					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183			1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003			2.5533	2.0000e-004	0.0000	2.5582
Total	**2.6339**	**0.0168**	**0.0183**			**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**			**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	6.2000e-004	6.5100e-003			1.0000e-005	2.0800e-003		1.0000e-005	5.6000e-004			1.7684	4.0000e-005	0.0000	1.7695
Total	**8.6000e-004**	**6.2000e-004**	**6.5100e-003**			**1.0000e-005**	**2.0800e-003**		**1.0000e-005**	**5.6000e-004**			**1.7684**	**4.0000e-005**	**0.0000**	**1.7695**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6314					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	5.9000e-004	0.0136	0.0183			9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004			2.5533	2.0000e-004	0.0000	2.5582
Total	**2.6320**	**0.0136**	**0.0183**			**9.5000e-004**	**9.5000e-004**		**9.5000e-004**	**9.5000e-004**			**2.5533**	**2.0000e-004**	**0.0000**	**2.5582**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.6000e-004	6.2000e-004	6.5100e-003			1.0000e-005	2.0800e-003		1.0000e-005	5.6000e-004			1.7684	4.0000e-005	0.0000	1.7695
Total	**8.6000e-004**	**6.2000e-004**	**6.5100e-003**			**1.0000e-005**	**2.0800e-003**		**1.0000e-005**	**5.6000e-004**			**1.7684**	**4.0000e-005**	**0.0000**	**1.7695**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1161	0.4918	1.3484			3.9600e-003	0.4337		3.7000e-003	0.1187			426.7130	0.0144	0.0000	427.0735
Unmitigated	0.1161	0.4918	1.3484			3.9600e-003	0.4337		3.7000e-003	0.1187			426.7130	0.0144	0.0000	427.0735

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	375.63	408.12	345.99	868,498	868,498
Condo/Townhouse	127.82	124.74	106.48	287,157	287,157
Enclosed Parking Structure	0.00	0.00	0.00		
Total	503.45	532.86	452.47	1,155,655	1,155,655

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Condo/Townhouse	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Enclosed Parking Structure	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			399.3275	0.0181	3.7400e-003	400.8922
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			399.3275	0.0181	3.7400e-003	400.8922
NaturalGas Mitigated	5.3600e-003	0.0458	0.0195			3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003			53.0031	1.0200e-003	9.7000e-004	53.3181
NaturalGas Unmitigated	5.3600e-003	0.0458	0.0195			3.7000e-003	3.7000e-003		3.7000e-003	3.7000e-003			53.0031	1.0200e-003	9.7000e-004	53.3181

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	581334	3.1300e-003	0.0268	0.0114			2.1700e-003	2.1700e-003		2.1700e-003	2.1700e-003			31.0222	5.9000e-004	5.7000e-004	31.2066
Condo/Townhouse	411906	2.2200e-003	0.0190	8.0800e-003			1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003			21.9809	4.2000e-004	4.0000e-004	22.1115
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**5.3500e-003**	**0.0458**	**0.0195**			**3.7000e-003**	**3.7000e-003**		**3.7000e-003**	**3.7000e-003**			**53.0031**	**1.0100e-003**	**9.7000e-004**	**53.3181**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	581334	3.1300e-003	0.0268	0.0114			2.1700e-003	2.1700e-003		2.1700e-003	2.1700e-003			31.0222	5.9000e-004	5.7000e-004	31.2066
Condo/Townhouse	411906	2.2200e-003	0.0190	8.0800e-003			1.5300e-003	1.5300e-003		1.5300e-003	1.5300e-003			21.9809	4.2000e-004	4.0000e-004	22.1115
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**5.3500e-003**	**0.0458**	**0.0195**			**3.7000e-003**	**3.7000e-003**		**3.7000e-003**	**3.7000e-003**			**53.0031**	**1.0100e-003**	**9.7000e-004**	**53.3181**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	247882	72.1116	3.2600e-003	6.7000e-004	72.3942
Condo/Townhouse	110999	32.2910	1.4600e-003	3.0000e-004	32.4175
Enclosed Parking Structure	1.0138e+006	294.9249	0.0133	2.7600e-003	296.0805
Total		**399.3275**	**0.0181**	**3.7300e-003**	**400.8922**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	247882	72.1116	3.2600e-003	6.7000e-004	72.3942
Condo/Townhouse	110999	32.2910	1.4600e-003	3.0000e-004	32.4175
Enclosed Parking Structure	1.0138e+006	294.9249	0.0133	2.7600e-003	296.0805
Total		**399.3275**	**0.0181**	**3.7300e-003**	**400.8922**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9143	0.0110	0.8423			0.0391	0.0391		0.0391	0.0391			6.0471	6.7300e-003	2.4000e-004	6.2858
Unmitigated	1.9143	0.0110	0.8423			0.0391	0.0391		0.0391	0.0391			6.0471	6.7300e-003	2.4000e-004	6.2858

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2631					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4508					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	0.1823	4.1900e-003	0.2510			0.0359	0.0359		0.0359	0.0359			5.0809	5.7900e-003	2.4000e-004	5.2960
Landscaping	0.0181	6.8100e-003	0.5913			3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003			0.9662	9.5000e-004	0.0000	0.9898
Total	**1.9143**	**0.0110**	**0.8423**			**0.0391**	**0.0391**		**0.0391**	**0.0391**			**6.0471**	**6.7400e-003**	**2.4000e-004**	**6.2858**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2631					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4508					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	0.1823	4.1900e-003	0.2510			0.0359	0.0359		0.0359	0.0359			5.0809	5.7900e-003	2.4000e-004	5.2960
Landscaping	0.0181	6.8100e-003	0.5913			3.2600e-003	3.2600e-003		3.2600e-003	3.2600e-003			0.9662	9.5000e-004	0.0000	0.9898
Total	**1.9143**	**0.0110**	**0.8423**			**0.0391**	**0.0391**		**0.0391**	**0.0391**			**6.0471**	**6.7400e-003**	**2.4000e-004**	**6.2858**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.0392	0.1682	4.0700e-003	18.4571
Unmitigated	13.0392	0.1682	4.0700e-003	18.4571

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	3.71378 / 2.3413	9.4080	0.1214	2.9300e-003	13.3171
Condo/Townhouse	1.43339 / 0.903658	3.6312	0.0469	1.1300e-003	5.1399
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.0392**	**0.1682**	**4.0600e-003**	**18.4571**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	3.71378 / 2.3413	9.4080	0.1214	2.9300e-003	13.3171
Condo/Townhouse	1.43339 / 0.903658	3.6312	0.0469	1.1300e-003	5.1399
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**13.0392**	**0.1682**	**4.0600e-003**	**18.4571**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.3767	0.4360	0.0000	18.2754
Unmitigated	7.3767	0.4360	0.0000	18.2754

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	26.22	5.3224	0.3146	0.0000	13.1861
Condo/Townhouse	10.12	2.0543	0.1214	0.0000	5.0894
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**7.3767**	**0.4360**	**0.0000**	**18.2754**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	26.22	5.3224	0.3146	0.0000	13.1861
Condo/Townhouse	10.12	2.0543	0.1214	0.0000	5.0894
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**7.3767**	**0.4360**	**0.0000**	**18.2754**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sunnyvale AMD 1 Phase 2 Construction Emissions

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	447.00	Space	4.02	178,800.00	0
Apartments Low Rise	57.00	Dwelling Unit	2.41	104,979.00	163
Condo/Townhouse	22.00	Dwelling Unit	6.05	263,538.00	63

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - This model runs for construction emissions only.

Land Use - Phase would involed construction of three low-rise apartment buildings (57 units) on 2.31 acres, 22 townhomes on 6.05 acres, and 447 total enclosed parking spaces.

Construction Phase - Demolition would occur during Phase 1. Phase 2 construction to occur over 2 years (2019-2021). Construction would occur 6 days a week.

Off-road Equipment - Assumes CalEEMod defaults.

Grading - Import of approximately 13,800 cubic yards of material for this phase

Construction Off-road Equipment Mitigation - Use of a suite of Tier 3 and 4 engines for all construction equipment consistent with guidance from Mitigation Measure 4.2-1a

Sunnyvale AMD 1 Phase 2 Construction Emissions - Santa Clara County, Summer

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblGrading	MaterialImported	0.00	6,900.00
tblGrading	MaterialImported	0.00	6,900.00
tblLandUse	LandUseSquareFeet	57,000.00	104,979.00
tblLandUse	LandUseSquareFeet	22,000.00	263,538.00
tblLandUse	LotAcreage	3.56	2.41
tblLandUse	LotAcreage	1.38	6.05
tblTripsAndVMT	HaulingTripNumber	863.00	862.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	5.1777	71.9023	35.3406			2.4935	22.2920		2.2978	12.6923			11,290.1402	2.0357	0.0000	11,328.4283
2020	263.4760	23.7411	21.5612			1.1451	2.4867		1.0769	1.4386			4,723.9273	0.7170	0.0000	4,741.3636
Maximum	**263.4760**	**71.9023**	**35.3406**			**2.4935**	**22.2920**		**2.2978**	**12.6923**			**11,290.1402**	**2.0357**	**0.0000**	**11,328.4283**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.3083	28.3471	34.9630			0.3498	19.9637		0.3485	10.5553			11,290.1402	2.0357	0.0000	11,328.4283
2020	263.2932	11.2551	22.5865			0.3248	1.6665		0.3234	0.6851			4,723.9273	0.7170	0.0000	4,741.3636
Maximum	**263.2932**	**28.3471**	**34.9630**			**0.3498**	**19.9637**		**0.3485**	**10.5553**			**11,290.1402**	**2.0357**	**0.0000**	**11,328.4283**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**1.51**	**58.59**	**-1.14**	**0.00**	**0.00**	**81.46**	**12.71**	**0.00**	**80.09**	**20.46**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	42.0824	0.7939	49.4954			6.1301	6.1301		6.1301	6.1301			965.8950	0.9165	0.0467	1,002.7375
Energy	0.0294	0.2508	0.1067			0.0203	0.0203		0.0203	0.0203			320.1420	6.1400e-003	5.8700e-003	322.0445
Mobile	0.7847	2.8028	8.3377			0.0233	2.6416		0.0217	0.7206			2,935.0539	0.0947		2,937.4216
Total	**42.8964**	**3.8475**	**57.9399**			**6.1736**	**8.7920**		**6.1721**	**6.8710**			**4,221.0909**	**1.0174**	**0.0526**	**4,262.2035**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	42.0824	0.7939	49.4954			6.1301	6.1301		6.1301	6.1301			965.8950	0.9165	0.0467	1,002.7375
Energy	0.0294	0.2508	0.1067			0.0203	0.0203		0.0203	0.0203			320.1420	6.1400e-003	5.8700e-003	322.0445
Mobile	0.7847	2.8028	8.3377			0.0233	2.6416		0.0217	0.7206			2,935.0539	0.0947		2,937.4216
Total	**42.8964**	**3.8475**	**57.9399**			**6.1736**	**8.7920**		**6.1721**	**6.8710**			**4,221.0909**	**1.0174**	**0.0526**	**4,262.2035**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/26/2019	4/8/2019	5	10	
2	Grading	Grading	4/9/2019	5/20/2019	5	30	
3	Building Construction	Building Construction	5/21/2019	7/13/2020	5	300	
4	Paving	Paving	7/14/2020	8/10/2020	5	20	
5	Architectural Coating	Architectural Coating	8/11/2020	9/7/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 4.02

Residential Indoor: 746,247; Residential Outdoor: 248,749; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 10,728 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale AMD 1 Phase 2 Construction Emissions - Santa Clara County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	862.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	682.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	132.00	38.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	26.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	18.1443		0.0000	9.9425			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630			2.3904	2.3904		2.1991	2.1991			3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**			**2.3904**	**20.5347**		**2.1991**	**12.1416**			**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7742	26.2861	5.1262			0.1022	1.6085		0.0978	0.5106			7,373.9313	0.3358		7,382.3264
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0685	0.0435	0.5508			9.4000e-004	0.1488		8.7000e-004	0.0401			149.7561	4.0500e-003		149.8574
Total	**0.8427**	**26.3296**	**5.6769**			**0.1031**	**1.7573**		**0.0986**	**0.5507**			**7,523.6873**	**0.3399**		**7,532.1838**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	18.1443		0.0000	9.9425			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690			0.0621	0.0621		0.0621	0.0621			3,766.4529	1.1917		3,796.2445
Total	**0.4656**	**2.0175**	**20.8690**			**0.0621**	**18.2064**		**0.0621**	**10.0046**			**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.7742	26.2861	5.1262			0.1022	1.6085		0.0978	0.5106			7,373.9313	0.3358		7,382.3264
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0685	0.0435	0.5508			9.4000e-004	0.1488		8.7000e-004	0.0401			149.7561	4.0500e-003		149.8574
Total	**0.8427**	**26.3296**	**5.6769**			**0.1031**	**1.7573**		**0.0986**	**0.5507**			**7,523.6873**	**0.3399**		**7,532.1838**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	8.6733		0.0000	3.5965			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768			2.3827	2.3827		2.1920	2.1920			6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**			**2.3827**	**11.0560**		**2.1920**	**5.7885**			**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2042	6.9324	1.3519			0.0269	0.4242		0.0258	0.1347			1,944.7104	0.0886		1,946.9244
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0761	0.0484	0.6120			1.0500e-003	0.1653		9.6000e-004	0.0445			166.3956	4.5000e-003		166.5083
Total	**0.2802**	**6.9807**	**1.9639**			**0.0280**	**0.5896**		**0.0267**	**0.1792**			**2,111.1060**	**0.0931**		**2,113.4327**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	8.6733		0.0000	3.5965			0.0000			0.0000
Off-Road	0.8886	7.6628	32.9991			0.3218	0.3218		0.3218	0.3218			6,140.0195	1.9426		6,188.5854
Total	**0.8886**	**7.6628**	**32.9991**			**0.3218**	**8.9951**		**0.3218**	**3.9183**			**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2042	6.9324	1.3519			0.0269	0.4242		0.0258	0.1347			1,944.7104	0.0886		1,946.9244
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0761	0.0484	0.6120			1.0500e-003	0.1653		9.6000e-004	0.0445			166.3956	4.5000e-003		166.5083
Total	**0.2802**	**6.9807**	**1.9639**			**0.0280**	**0.5896**		**0.0267**	**0.1792**			**2,111.1060**	**0.0931**		**2,113.4327**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638			1.2899	1.2899		1.2127	1.2127			2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**			**1.2899**	**1.2899**		**1.2127**	**1.2127**			**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.1831	4.7314	1.2123			0.0343	0.2915		0.0328	0.1068			1,113.5412	0.0528		1,114.8623
Worker	0.5020	0.3191	4.0389			6.9100e-003	1.0913		6.3700e-003	0.2940			1,098.2111	0.0297		1,098.9544
Total	**0.6850**	**5.0505**	**5.2512**			**0.0412**	**1.3828**		**0.0392**	**0.4008**			**2,211.7524**	**0.0826**		**2,213.8167**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4464	6.7001	17.8738			0.2968	0.2968		0.2968	0.2968			2,591.5802	0.6313		2,607.3635
Total	**0.4464**	**6.7001**	**17.8738**			**0.2968**	**0.2968**		**0.2968**	**0.2968**			**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.1831	4.7314	1.2123			0.0343	0.2915		0.0328	0.1068			1,113.5412	0.0528		1,114.8623
Worker	0.5020	0.3191	4.0389			6.9100e-003	1.0913		6.3700e-003	0.2940			1,098.2111	0.0297		1,098.9544
Total	**0.6850**	**5.0505**	**5.2512**			**0.0412**	**1.3828**		**0.0392**	**0.4008**			**2,211.7524**	**0.0826**		**2,213.8167**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485			1.1171	1.1171		1.0503	1.0503			2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**			**1.1171**	**1.1171**		**1.0503**	**1.0503**			**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.1476	4.2733	1.0823			0.0213	0.2786		0.0204	0.0944			1,106.9358	0.0486		1,108.1498
Worker	0.4588	0.2817	3.6304			6.7600e-003	1.0911		6.2300e-003	0.2939			1,063.9284	0.0260		1,064.5794
Total	**0.6065**	**4.5550**	**4.7127**			**0.0281**	**1.3697**		**0.0266**	**0.3883**			**2,170.8642**	**0.0746**		**2,172.7291**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4464	6.7001	17.8738			0.2968	0.2968		0.2968	0.2968			2,553.0631	0.6229		2,568.6345
Total	**0.4464**	**6.7001**	**17.8738**			**0.2968**	**0.2968**		**0.2968**	**0.2968**			**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.1476	4.2733	1.0823			0.0213	0.2786		0.0204	0.0944			1,106.9358	0.0486		1,108.1498
Worker	0.4588	0.2817	3.6304			6.7600e-003	1.0911		6.2300e-003	0.2939			1,063.9284	0.0260		1,064.5794
Total	**0.6065**	**4.5550**	**4.7127**			**0.0281**	**1.3697**		**0.0266**	**0.3883**			**2,170.8642**	**0.0746**		**2,172.7291**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521			0.7528	0.7528		0.6926	0.6926			2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3566**	**14.0656**	**14.6521**			**0.7528**	**0.7528**		**0.6926**	**0.6926**			**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0521	0.0320	0.4126			7.7000e-004	0.1240		7.1000e-004	0.0334			120.9010	2.9600e-003		120.9749
Total	**0.0521**	**0.0320**	**0.4126**			**7.7000e-004**	**0.1240**		**7.1000e-004**	**0.0334**			**120.9010**	**2.9600e-003**		**120.9749**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957			0.0374	0.0374		0.0374	0.0374			2,207.7334	0.7140		2,225.5841
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**			**0.0374**	**0.0374**		**0.0374**	**0.0374**			**2,207.7334**	**0.7140**		**2,225.5841**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0521	0.0320	0.4126			7.7000e-004	0.1240		7.1000e-004	0.0334			120.9010	2.9600e-003		120.9749
Total	**0.0521**	**0.0320**	**0.4126**			**7.7000e-004**	**0.1240**		**7.1000e-004**	**0.0334**			**120.9010**	**2.9600e-003**		**120.9749**

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	263.1434					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314			0.1109	0.1109		0.1109	0.1109			281.4481	0.0218		281.9928
Total	**263.3856**	**1.6838**	**1.8314**			**0.1109**	**0.1109**		**0.1109**	**0.1109**			**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0904	0.0555	0.7151			1.3300e-003	0.2149		1.2300e-003	0.0579			209.5617	5.1300e-003		209.6899
Total	**0.0904**	**0.0555**	**0.7151**			**1.3300e-003**	**0.2149**		**1.2300e-003**	**0.0579**			**209.5617**	**5.1300e-003**		**209.6899**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	263.1434					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324			0.0951	0.0951		0.0951	0.0951			281.4481	0.0218		281.9928
Total	**263.2029**	**1.3570**	**1.8324**			**0.0951**	**0.0951**		**0.0951**	**0.0951**			**281.4481**	**0.0218**		**281.9928**

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0904	0.0555	0.7151			1.3300e-003	0.2149		1.2300e-003	0.0579			209.5617	5.1300e-003		209.6899
Total	**0.0904**	**0.0555**	**0.7151**			**1.3300e-003**	**0.2149**		**1.2300e-003**	**0.0579**			**209.5617**	**5.1300e-003**		**209.6899**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7847	2.8028	8.3377			0.0233	2.6416		0.0217	0.7206			2,935.0539	0.0947		2,937.4216
Unmitigated	0.7847	2.8028	8.3377			0.0233	2.6416		0.0217	0.7206			2,935.0539	0.0947		2,937.4216

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	375.63	408.12	345.99	868,498	868,498
Condo/Townhouse	127.82	124.74	106.48	287,157	287,157
Enclosed Parking Structure	0.00	0.00	0.00		
Total	503.45	532.86	452.47	1,155,655	1,155,655

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Condo/Townhouse	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Condo/Townhouse	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Enclosed Parking Structure	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0294	0.2508	0.1067			0.0203	0.0203		0.0203	0.0203			320.1420	6.1400e-003	5.8700e-003	322.0445
NaturalGas Unmitigated	0.0294	0.2508	0.1067			0.0203	0.0203		0.0203	0.0203			320.1420	6.1400e-003	5.8700e-003	322.0445

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1592.7	0.0172	0.1468	0.0625			0.0119	0.0119		0.0119	0.0119			187.3761	3.5900e-003	3.4400e-003	188.4896
Condo/Townhouse	1128.51	0.0122	0.1040	0.0443			8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003			132.7659	2.5400e-003	2.4300e-003	133.5549
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0294**	**0.2508**	**0.1067**			**0.0203**	**0.0203**		**0.0203**	**0.0203**			**320.1420**	**6.1300e-003**	**5.8700e-003**	**322.0445**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.5927	0.0172	0.1468	0.0625			0.0119	0.0119		0.0119	0.0119			187.3761	3.5900e-003	3.4400e-003	188.4896
Condo/Townhouse	1.12851	0.0122	0.1040	0.0443			8.4100e-003	8.4100e-003		8.4100e-003	8.4100e-003			132.7659	2.5400e-003	2.4300e-003	133.5549
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0294**	**0.2508**	**0.1067**			**0.0203**	**0.0203**		**0.0203**	**0.0203**			**320.1420**	**6.1300e-003**	**5.8700e-003**	**322.0445**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	42.0824	0.7939	49.4954			6.1301	6.1301		6.1301	6.1301			965.8950	0.9165	0.0467	1,002.7375
Unmitigated	42.0824	0.7939	49.4954			6.1301	6.1301		6.1301	6.1301			965.8950	0.9165	0.0467	1,002.7375

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4419					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.9496					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	32.4896	0.7183	42.9251			6.0939	6.0939		6.0939	6.0939			954.0616	0.9050	0.0467	990.6145
Landscaping	0.2013	0.0757	6.5703			0.0362	0.0362		0.0362	0.0362			11.8335	0.0116		12.1230
Total	**42.0823**	**0.7939**	**49.4954**			**6.1301**	**6.1301**		**6.1301**	**6.1301**			**965.8950**	**0.9165**	**0.0467**	**1,002.7375**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.4419					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.9496					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	32.4896	0.7183	42.9251			6.0939	6.0939		6.0939	6.0939			954.0616	0.9050	0.0467	990.6145
Landscaping	0.2013	0.0757	6.5703			0.0362	0.0362		0.0362	0.0362			11.8335	0.0116		12.1230
Total	**42.0823**	**0.7939**	**49.4954**			**6.1301**	**6.1301**		**6.1301**	**6.1301**			**965.8950**	**0.9165**	**0.0467**	**1,002.7375**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sunnyvale AMD 1 Phase 3 Construction Emissions

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	825.00	Space	7.42	330,000.00	0
Apartments Mid Rise	444.00	Dwelling Unit	9.19	400,316.00	1270

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - This model runs for construction emissions only.

Land Use - Phase 3 would include construction of two mid-rise apartment buildings (444 units) on 9.19 acres and 825 parking spaces (half of 1,650)

Construction Phase - Demolition would occur in Phase 1. Construction to occur over 2 years (2019-2021) 6 days a week

Off-road Equipment - Assumes CalEEMod Defaults.

Off-road Equipment - Assumes CalEEMod Defaults

Grading - Assumes import of 13,40 cubic yards of material

Construction Off-road Equipment Mitigation - Use of a suite of Tier 3 and 4 engines for all construction equipment consistent with guidance from Mitigation Measure 4.2-1a

Sunnyvale AMD 1 Phase 3 Construction Emissions - Santa Clara County, Annual

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	300.00	650.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	150.00	75.00
tblGrading	MaterialImported	0.00	13,400.00
tblLandUse	LandUseSquareFeet	444,000.00	400,316.00
tblLandUse	LotAcreage	11.68	9.19

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.7209	6.4524	5.1232			0.2650	1.2550		0.2471	0.6340			1,195.3632	0.1601	0.0000	1,199.3659
2020	0.6351	5.0072	4.9304			0.1881	0.8637		0.1769	0.3591			1,271.3704	0.1199	0.0000	1,274.3682
2021	3.1469	2.0725	2.2537			0.0801	0.3487		0.0750	0.1474			538.8522	0.0624	0.0000	540.4116
Maximum	**3.1469**	**6.4524**	**5.1232**			**0.2650**	**1.2550**		**0.2471**	**0.6340**			**1,271.3704**	**0.1601**	**0.0000**	**1,274.3682**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3436	3.1768	5.1893			0.0833	1.0732		0.0826	0.4695			1,195.3627	0.1601	0.0000	1,199.3653
2020	0.3827	3.4738	5.0914			0.0910	0.7666		0.0903	0.2724			1,271.3700	0.1199	0.0000	1,274.3677
2021	3.0344	1.2636	2.4067			0.0349	0.3035		0.0347	0.1071			538.8520	0.0624	0.0000	540.4114
Maximum	**3.0344**	**3.4738**	**5.1893**			**0.0910**	**1.0732**		**0.0903**	**0.4695**			**1,271.3700**	**0.1601**	**0.0000**	**1,274.3677**

Sunnyvale AMD 1 Phase 3 Construction Emissions - Santa Clara County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**16.48**	**41.52**	**-3.09**	**0.00**	**0.00**	**60.77**	**13.13**	**0.00**	**58.41**	**25.56**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**3-26-2019**	**6-25-2019**	1.7358	0.8942
2	**6-26-2019**	**9-25-2019**	1.5566	1.0240
3	**9-26-2019**	**12-25-2019**	1.5603	1.0334
4	**12-26-2019**	**3-25-2020**	1.4222	0.9730
5	**3-26-2020**	**6-25-2020**	1.4105	0.9620
6	**6-26-2020**	**9-25-2020**	1.4093	0.9608
7	**9-26-2020**	**12-25-2020**	1.4113	0.9677
8	**12-26-2020**	**3-25-2021**	1.2731	0.9054
9	**3-26-2021**	**6-25-2021**	0.9358	0.5033
10	**6-26-2021**	**9-25-2021**	2.9434	2.7928
11	**9-26-2021**	**9-30-2021**	0.1688	0.1682
		Highest	2.9434	2.7928

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9983	0.0617	4.7186			0.2199	0.2199		0.2199	0.2199			33.9561	0.0378	1.3300e-003	35.2958
Energy	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			1,282.2606	0.0527	0.0138	1,287.6992
Mobile	0.6693	2.8363	7.7770			0.0228	2.5015		0.0213	0.6848			2,461.1733	0.0832	0.0000	2,463.2525
Waste						0.0000	0.0000		0.0000	0.0000			41.4589	2.4502	0.0000	102.7126
Water						0.0000	0.0000		0.0000	0.0000			73.2837	0.9455	0.0229	103.7334
Total	**3.6883**	**3.0747**	**12.5707**			**0.2571**	**2.7357**		**0.2556**	**0.9190**			**3,892.1325**	**3.5693**	**0.0380**	**3,992.6935**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9983	0.0617	4.7186			0.2199	0.2199		0.2199	0.2199			33.9561	0.0378	1.3300e-003	35.2958
Energy	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			1,282.2606	0.0527	0.0138	1,287.6992
Mobile	0.6693	2.8363	7.7770			0.0228	2.5015		0.0213	0.6848			2,461.1733	0.0832	0.0000	2,463.2525
Waste						0.0000	0.0000		0.0000	0.0000			41.4589	2.4502	0.0000	102.7126
Water						0.0000	0.0000		0.0000	0.0000			73.2837	0.9455	0.0229	103.7334
Total	**3.6883**	**3.0747**	**12.5707**			**0.2571**	**2.7357**		**0.2556**	**0.9190**			**3,892.1325**	**3.5693**	**0.0380**	**3,992.6935**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Sunnyvale AMD 1 Phase 3 Construction Emissions - Santa Clara County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	2/4/2019	6	30	
2	Grading	Grading	2/5/2019	4/15/2019	6	60	
3	Building Construction	Building Construction	4/16/2019	5/12/2021	6	650	
4	Paving	Paving	5/13/2021	7/21/2021	6	60	
5	Architectural Coating	Architectural Coating	7/22/2021	9/29/2021	6	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 7.42

Residential Indoor: 810,640; Residential Outdoor: 270,213; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 19,800 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale AMD 1 Phase 3 Construction Emissions - Santa Clara County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	1,325.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	458.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	92.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.2716		0.0000	0.1491			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0650	0.6836	0.3310			0.0359	0.0359		0.0330	0.0330			51.2530	0.0162	0.0000	51.6584
Total	**0.0650**	**0.6836**	**0.3310**			**0.0359**	**0.3075**		**0.0330**	**0.1820**			**51.2530**	**0.0162**	**0.0000**	**51.6584**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0200e-003	0.2063	0.0407			7.9000e-004	0.0120		7.6000e-004	3.8400e-003			51.0552	2.3900e-003	0.0000	51.1150
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	7.3000e-004	7.5400e-003			1.0000e-005	2.1600e-003		1.0000e-005	5.8000e-004			1.8956	5.0000e-005	0.0000	1.8969
Total	**7.0000e-003**	**0.2070**	**0.0483**			**8.0000e-004**	**0.0142**		**7.7000e-004**	**4.4200e-003**			**52.9508**	**2.4400e-003**	**0.0000**	**53.0120**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.2716		0.0000	0.1491			0.0000	0.0000	0.0000	0.0000
Off-Road	6.9800e-003	0.0303	0.3130			9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004			51.2530	0.0162	0.0000	51.6584
Total	**6.9800e-003**	**0.0303**	**0.3130**			**9.3000e-004**	**0.2725**		**9.3000e-004**	**0.1500**			**51.2530**	**0.0162**	**0.0000**	**51.6584**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0200e-003	0.2063	0.0407			7.9000e-004	0.0120		7.6000e-004	3.8400e-003			51.0552	2.3900e-003	0.0000	51.1150
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	9.8000e-004	7.3000e-004	7.5400e-003			1.0000e-005	2.1600e-003		1.0000e-005	5.8000e-004			1.8956	5.0000e-005	0.0000	1.8969
Total	**7.0000e-003**	**0.2070**	**0.0483**			**8.0000e-004**	**0.0142**		**7.7000e-004**	**4.4200e-003**			**52.9508**	**2.4400e-003**	**0.0000**	**53.0120**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.2204		0.0000	0.1036			0.0000	0.0000	0.0000	0.0000
Off-Road	0.1422	1.6356	1.0013			0.0715	0.0715		0.0658	0.0658			167.1040	0.0529	0.0000	168.4257
Total	**0.1422**	**1.6356**	**1.0013**			**0.0715**	**0.2919**		**0.0658**	**0.1694**			**167.1040**	**0.0529**	**0.0000**	**168.4257**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.1800e-003	1.6200e-003	0.0168			3.0000e-005	4.7900e-003		3.0000e-005	1.2900e-003			4.2125	1.1000e-004	0.0000	4.2154
Total	**2.1800e-003**	**1.6200e-003**	**0.0168**			**3.0000e-005**	**4.7900e-003**		**3.0000e-005**	**1.2900e-003**			**4.2125**	**1.1000e-004**	**0.0000**	**4.2154**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.2204		0.0000	0.1036			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0291	0.3135	1.0062			0.0129	0.0129		0.0129	0.0129			167.1038	0.0529	0.0000	168.4255
Total	**0.0291**	**0.3135**	**1.0062**			**0.0129**	**0.2333**		**0.0129**	**0.1165**			**167.1038**	**0.0529**	**0.0000**	**168.4255**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.1800e-003	1.6200e-003	0.0168			3.0000e-005	4.7900e-003		3.0000e-005	1.2900e-003			4.2125	1.1000e-004	0.0000	4.2154
Total	**2.1800e-003**	**1.6200e-003**	**0.0168**			**3.0000e-005**	**4.7900e-003**		**3.0000e-005**	**1.2900e-003**			**4.2125**	**1.1000e-004**	**0.0000**	**4.2154**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2633	2.3503	1.9138			0.1438	0.1438		0.1352	0.1352			262.1412	0.0639	0.0000	263.7377
Total	**0.2633**	**2.3503**	**1.9138**			**0.1438**	**0.1438**		**0.1352**	**0.1352**			**262.1412**	**0.0639**	**0.0000**	**263.7377**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0558	1.4362	0.3855			0.0103	0.0851		9.8700e-003	0.0315			299.1688	0.0148	0.0000	299.5399
Worker	0.1855	0.1381	1.4266			2.6700e-003	0.4077		2.4600e-003	0.1102			358.5329	9.7600e-003	0.0000	358.7769
Total	**0.2412**	**1.5743**	**1.8121**			**0.0130**	**0.4928**		**0.0123**	**0.1417**			**657.7017**	**0.0246**	**0.0000**	**658.3168**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0571	1.0502	1.9929			0.0556	0.0556		0.0556	0.0556			262.1409	0.0639	0.0000	263.7374
Total	**0.0571**	**1.0502**	**1.9929**			**0.0556**	**0.0556**		**0.0556**	**0.0556**			**262.1409**	**0.0639**	**0.0000**	**263.7374**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0558	1.4362	0.3855			0.0103	0.0851		9.8700e-003	0.0315			299.1688	0.0148	0.0000	299.5399
Worker	0.1855	0.1381	1.4266			2.6700e-003	0.4077		2.4600e-003	0.1102			358.5329	9.7600e-003	0.0000	358.7769
Total	**0.2412**	**1.5743**	**1.8121**			**0.0130**	**0.4928**		**0.0123**	**0.1417**			**657.7017**	**0.0246**	**0.0000**	**658.3168**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3328	3.0122	2.6452			0.1754	0.1754		0.1649	0.1649			363.6277	0.0887	0.0000	365.8455
Total	**0.3328**	**3.0122**	**2.6452**			**0.1754**	**0.1754**		**0.1649**	**0.1649**			**363.6277**	**0.0887**	**0.0000**	**365.8455**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0635	1.8234	0.4856			9.0300e-003	0.1144		8.6400e-003	0.0391			418.6745	0.0192	0.0000	419.1545
Worker	0.2389	0.1716	1.7995			3.6800e-003	0.5740		3.3900e-003	0.1551			489.0683	0.0120	0.0000	489.3682
Total	**0.3023**	**1.9950**	**2.2852**			**0.0127**	**0.6884**		**0.0120**	**0.1942**			**907.7428**	**0.0312**	**0.0000**	**908.5227**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0804	1.4788	2.8062			0.0783	0.0783		0.0783	0.0783			363.6272	0.0887	0.0000	365.8451
Total	**0.0804**	**1.4788**	**2.8062**			**0.0783**	**0.0783**		**0.0783**	**0.0783**			**363.6272**	**0.0887**	**0.0000**	**365.8451**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0635	1.8234	0.4856			9.0300e-003	0.1144		8.6400e-003	0.0391			418.6745	0.0192	0.0000	419.1545
Worker	0.2389	0.1716	1.7995			3.6800e-003	0.5740		3.3900e-003	0.1551			489.0683	0.0120	0.0000	489.3682
Total	**0.3023**	**1.9950**	**2.2852**			**0.0127**	**0.6884**		**0.0120**	**0.1942**			**907.7428**	**0.0312**	**0.0000**	**908.5227**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1074	0.9849	0.9365			0.0542	0.0542		0.0509	0.0509			130.8751	0.0316	0.0000	131.6644
Total	**0.1074**	**0.9849**	**0.9365**			**0.0542**	**0.0542**		**0.0509**	**0.0509**			**130.8751**	**0.0316**	**0.0000**	**131.6644**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0188	0.5922	0.1576			1.3100e-003	0.0392		1.2600e-003	0.0122			149.2786	6.5100e-003	0.0000	149.4413
Worker	0.0797	0.0552	0.5920			1.2900e-003	0.2065		1.1900e-003	0.0558			169.8933	3.8600e-003	0.0000	169.9899
Total	**0.0985**	**0.6474**	**0.7496**			**2.6000e-003**	**0.2458**		**2.4500e-003**	**0.0680**			**319.1720**	**0.0104**	**0.0000**	**319.4312**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0289	0.5322	1.0099			0.0282	0.0282		0.0282	0.0282			130.8749	0.0316	0.0000	131.6643
Total	**0.0289**	**0.5322**	**1.0099**			**0.0282**	**0.0282**		**0.0282**	**0.0282**			**130.8749**	**0.0316**	**0.0000**	**131.6643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0188	0.5922	0.1576			1.3100e-003	0.0392		1.2600e-003	0.0122			149.2786	6.5100e-003	0.0000	149.4413
Worker	0.0797	0.0552	0.5920			1.2900e-003	0.2065		1.1900e-003	0.0558			169.8933	3.8600e-003	0.0000	169.9899
Total	**0.0985**	**0.6474**	**0.7496**			**2.6000e-003**	**0.2458**		**2.4500e-003**	**0.0680**			**319.1720**	**0.0104**	**0.0000**	**319.4312**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0377	0.3876	0.4396			0.0203	0.0203		0.0187	0.0187			60.0704	0.0194	0.0000	60.5561
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0377**	**0.3876**	**0.4396**			**0.0203**	**0.0203**		**0.0187**	**0.0187**			**60.0704**	**0.0194**	**0.0000**	**60.5561**

3.5 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.3900e-003	9.6000e-004	0.0103			2.0000e-005	3.5900e-003		2.0000e-005	9.7000e-004			2.9544	7.0000e-005	0.0000	2.9561
Total	**1.3900e-003**	**9.6000e-004**	**0.0103**			**2.0000e-005**	**3.5900e-003**		**2.0000e-005**	**9.7000e-004**			**2.9544**	**7.0000e-005**	**0.0000**	**2.9561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.4100e-003	0.0365	0.5189			1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003			60.0704	0.0194	0.0000	60.5561
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**8.4100e-003**	**0.0365**	**0.5189**			**1.1200e-003**	**1.1200e-003**		**1.1200e-003**	**1.1200e-003**			**60.0704**	**0.0194**	**0.0000**	**60.5561**

3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.3900e-003	9.6000e-004	0.0103			2.0000e-005	3.5900e-003		2.0000e-005	9.7000e-004			2.9544	7.0000e-005	0.0000	2.9561
Total	**1.3900e-003**	**9.6000e-004**	**0.0103**			**2.0000e-005**	**3.5900e-003**		**2.0000e-005**	**9.7000e-004**			**2.9544**	**7.0000e-005**	**0.0000**	**2.9561**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.8868					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	6.5700e-003	0.0458	0.0545			2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003			7.6598	5.3000e-004	0.0000	7.6729
Total	**2.8934**	**0.0458**	**0.0545**			**2.8200e-003**	**2.8200e-003**		**2.8200e-003**	**2.8200e-003**			**7.6598**	**5.3000e-004**	**0.0000**	**7.6729**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-003	5.8900e-003	0.0631			1.4000e-004	0.0220		1.3000e-004	5.9500e-003			18.1206	4.1000e-004	0.0000	18.1309
Total	**8.5000e-003**	**5.8900e-003**	**0.0631**			**1.4000e-004**	**0.0220**		**1.3000e-004**	**5.9500e-003**			**18.1206**	**4.1000e-004**	**0.0000**	**18.1309**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.8868					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	1.7800e-003	0.0407	0.0550			2.8500e-003	2.8500e-003		2.8500e-003	2.8500e-003			7.6598	5.3000e-004	0.0000	7.6729
Total	**2.8886**	**0.0407**	**0.0550**			**2.8500e-003**	**2.8500e-003**		**2.8500e-003**	**2.8500e-003**			**7.6598**	**5.3000e-004**	**0.0000**	**7.6729**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	8.5000e-003	5.8900e-003	0.0631			1.4000e-004	0.0220		1.3000e-004	5.9500e-003			18.1206	4.1000e-004	0.0000	18.1309
Total	**8.5000e-003**	**5.8900e-003**	**0.0631**			**1.4000e-004**	**0.0220**		**1.3000e-004**	**5.9500e-003**			**18.1206**	**4.1000e-004**	**0.0000**	**18.1309**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6693	2.8363	7.7770			0.0228	2.5015		0.0213	0.6848			2,461.1733	0.0832	0.0000	2,463.2525
Unmitigated	0.6693	2.8363	7.7770			0.0228	2.5015		0.0213	0.6848			2,461.1733	0.0832	0.0000	2,463.2525

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,952.60	2,837.16	2601.84	6,665,527	6,665,527
Enclosed Parking Structure	0.00	0.00	0.00		
Total	2,952.60	2,837.16	2,601.84	6,665,527	6,665,527

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Enclosed Parking Structure	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			1,077.5615	0.0487	0.0101	1,081.7837
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			1,077.5615	0.0487	0.0101	1,081.7837
NaturalGas Mitigated	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			204.6991	3.9200e-003	3.7500e-003	205.9155
NaturalGas Unmitigated	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			204.6991	3.9200e-003	3.7500e-003	205.9155

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.83592e+006	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			204.6991	3.9200e-003	3.7500e-003	205.9155
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0207**	**0.1768**	**0.0752**			**0.0143**	**0.0143**		**0.0143**	**0.0143**			**204.6991**	**3.9200e-003**	**3.7500e-003**	**205.9155**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.83592e+006	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			204.6991	3.9200e-003	3.7500e-003	205.9155
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0207**	**0.1768**	**0.0752**			**0.0143**	**0.0143**		**0.0143**	**0.0143**			**204.6991**	**3.9200e-003**	**3.7500e-003**	**205.9155**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.83299e+006	533.2371	0.0241	4.9900e-003	535.3264
Enclosed Parking Structure	1.8711e+006	544.3244	0.0246	5.0900e-003	546.4573
Total		**1,077.5615**	**0.0487**	**0.0101**	**1,081.7837**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.83299e+006	533.2371	0.0241	4.9900e-003	535.3264
Enclosed Parking Structure	1.8711e+006	544.3244	0.0246	5.0900e-003	546.4573
Total		**1,077.5615**	**0.0487**	**0.0101**	**1,081.7837**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.9983	0.0617	4.7186			0.2199	0.2199		0.2199	0.2199			33.9561	0.0378	1.3300e-003	35.2958
Unmitigated	2.9983	0.0617	4.7186			0.2199	0.2199		0.2199	0.2199			33.9561	0.0378	1.3300e-003	35.2958

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2887					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5848					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	1.0245	0.0236	1.4107			0.2017	0.2017		0.2017	0.2017			28.5561	0.0325	1.3300e-003	29.7650
Landscaping	0.1004	0.0381	3.3079			0.0183	0.0183		0.0183	0.0183			5.3999	5.2300e-003	0.0000	5.5308
Total	**2.9983**	**0.0617**	**4.7186**			**0.2199**	**0.2199**		**0.2199**	**0.2199**			**33.9561**	**0.0378**	**1.3300e-003**	**35.2958**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2887					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5848					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	1.0245	0.0236	1.4107			0.2017	0.2017		0.2017	0.2017			28.5561	0.0325	1.3300e-003	29.7650
Landscaping	0.1004	0.0381	3.3079			0.0183	0.0183		0.0183	0.0183			5.3999	5.2300e-003	0.0000	5.5308
Total	**2.9983**	**0.0617**	**4.7186**			**0.2199**	**0.2199**		**0.2199**	**0.2199**			**33.9561**	**0.0378**	**1.3300e-003**	**35.2958**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	73.2837	0.9455	0.0229	103.7334
Unmitigated	73.2837	0.9455	0.0229	103.7334

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	28.9284 / 18.2375	73.2837	0.9455	0.0229	103.7334
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**73.2837**	**0.9455**	**0.0229**	**103.7334**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	28.9284 / 18.2375	73.2837	0.9455	0.0229	103.7334
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**73.2837**	**0.9455**	**0.0229**	**103.7334**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	41.4589	2.4502	0.0000	102.7126
Unmitigated	41.4589	2.4502	0.0000	102.7126

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	204.24	41.4589	2.4502	0.0000	102.7126
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**41.4589**	**2.4502**	**0.0000**	**102.7126**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	204.24	41.4589	2.4502	0.0000	102.7126
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**41.4589**	**2.4502**	**0.0000**	**102.7126**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sunnyvale AMD 1 Phase 3 Construction Emissions

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	825.00	Space	7.42	330,000.00	0
Apartments Mid Rise	444.00	Dwelling Unit	9.19	400,316.00	1270

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - This model runs for construction emissions only.

Land Use - Phase 3 would include construction of two mid-rise apartment buildings (444 units) on 9.19 acres and 825 parking spaces (half of 1,650)

Construction Phase - Demolition would occur in Phase 1. Construction to occur over 2 years (2019-2021) 6 days a week

Off-road Equipment - Assumes CalEEMod Defaults.

Off-road Equipment - Assumes CalEEMod Defaults

Grading - Assumes import of 13,40 cubic yards of material

Construction Off-road Equipment Mitigation - Use of a suite of Tier 3 and 4 engines for all construction equipment consistent with guidance from Mitigation Measure 4.2-1a

Sunnyvale AMD 1 Phase 3 Construction Emissions - Santa Clara County, Summer

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstructionPhase	NumDays	10.00	30.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	300.00	650.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblGrading	AcresOfGrading	150.00	75.00
tblGrading	MaterialImported	0.00	13,400.00
tblLandUse	LandUseSquareFeet	444,000.00	400,316.00
tblLandUse	LotAcreage	11.68	9.19

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	4.8150	59.0846	34.4316			2.4437	21.4696		2.2501	12.4376			9,391.0191	1.9471	0.0000	9,412.9274
2020	4.1081	31.6340	32.3500			1.1977	5.6506		1.1266	2.3234			9,215.8209	0.8436	0.0000	9,236.9095
2021	96.7424	28.6752	30.7301			1.0044	5.4574		0.9443	2.1410			9,060.5702	0.8197	0.0000	9,081.0617
Maximum	**96.7424**	**59.0846**	**34.4316**			**2.4437**	**21.4696**		**2.2501**	**12.4376**			**9,391.0191**	**1.9471**	**0.0000**	**9,412.9274**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.7452	23.2262	35.1416			0.6145	19.1413		0.6086	10.3005			9,391.0191	1.9471	0.0000	9,412.9274
2020	2.5004	21.8669	33.3753			0.5791	5.0320		0.5748	1.7715			9,215.8209	0.8436	0.0000	9,236.9095
2021	96.5829	20.6620	32.0287			0.5443	4.9973		0.5415	1.7382			9,060.5702	0.8197	0.0000	9,081.0617
Maximum	**96.5829**	**23.2262**	**35.1416**			**0.6145**	**19.1413**		**0.6086**	**10.3005**			**9,391.0191**	**1.9471**	**0.0000**	**9,412.9274**

Sunnyvale AMD 1 Phase 3 Construction Emissions - Santa Clara County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.63**	**44.93**	**-3.11**	**0.00**	**0.00**	**62.59**	**10.46**	**0.00**	**60.08**	**18.29**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	193.9804	4.4605	278.0044			34.4519	34.4519		34.4519	34.4519			5,428.2053	5.1502	0.2627	5,635.2449
Energy	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424
Mobile	4.3231	15.4413	45.9341			0.1281	14.5532		0.1197	3.9701			16,169.7951	0.5218		16,182.8394
Total	**198.4168**	**20.8703**	**324.3506**			**34.6583**	**49.0834**		**34.6499**	**38.5003**			**22,834.3955**	**5.6956**	**0.2854**	**23,061.8267**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	193.9804	4.4605	278.0044			34.4519	34.4519		34.4519	34.4519			5,428.2053	5.1502	0.2627	5,635.2449
Energy	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424
Mobile	4.3231	15.4413	45.9341			0.1281	14.5532		0.1197	3.9701			16,169.7951	0.5218		16,182.8394
Total	**198.4168**	**20.8703**	**324.3506**			**34.6583**	**49.0834**		**34.6499**	**38.5003**			**22,834.3955**	**5.6956**	**0.2854**	**23,061.8267**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2019	2/4/2019	6	30	
2	Grading	Grading	2/5/2019	4/15/2019	6	60	
3	Building Construction	Building Construction	4/16/2019	5/12/2021	6	650	
4	Paving	Paving	5/13/2021	7/21/2021	6	60	
5	Architectural Coating	Architectural Coating	7/22/2021	9/29/2021	6	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 7.42

Residential Indoor: 810,640; Residential Outdoor: 270,213; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 19,800 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale AMD 1 Phase 3 Construction Emissions - Santa Clara County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	1,325.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	458.00	102.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	92.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	18.1062		0.0000	9.9367			0.0000			0.0000
Off-Road	4.3350	45.5727	22.0630			2.3904	2.3904		2.1991	2.1991			3,766.4529	1.1917		3,796.2445
Total	**4.3350**	**45.5727**	**22.0630**			**2.3904**	**20.4966**		**2.1991**	**12.1359**			**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3967	13.4683	2.6265			0.0524	0.8242		0.0501	0.2616			3,778.2130	0.1721		3,782.5145
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0685	0.0435	0.5508			9.4000e-004	0.1488		8.7000e-004	0.0401			149.7561	4.0500e-003		149.8574
Total	**0.4652**	**13.5118**	**3.1773**			**0.0533**	**0.9730**		**0.0510**	**0.3017**			**3,927.9691**	**0.1761**		**3,932.3719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	18.1062		0.0000	9.9367			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690			0.0621	0.0621		0.0621	0.0621			3,766.4529	1.1917		3,796.2445
Total	**0.4656**	**2.0175**	**20.8690**			**0.0621**	**18.1683**		**0.0621**	**9.9988**			**3,766.4529**	**1.1917**		**3,796.2445**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3967	13.4683	2.6265			0.0524	0.8242		0.0501	0.2616			3,778.2130	0.1721		3,782.5145
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0685	0.0435	0.5508			9.4000e-004	0.1488		8.7000e-004	0.0401			149.7561	4.0500e-003		149.8574
Total	**0.4652**	**13.5118**	**3.1773**			**0.0533**	**0.9730**		**0.0510**	**0.3017**			**3,927.9691**	**0.1761**		**3,932.3719**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	7.3477		0.0000	3.4534			0.0000			0.0000
Off-Road	4.7389	54.5202	33.3768			2.3827	2.3827		2.1920	2.1920			6,140.0195	1.9426		6,188.5854
Total	**4.7389**	**54.5202**	**33.3768**			**2.3827**	**9.7304**		**2.1920**	**5.6454**			**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0761	0.0484	0.6120			1.0500e-003	0.1653		9.6000e-004	0.0445			166.3956	4.5000e-003		166.5083
Total	**0.0761**	**0.0484**	**0.6120**			**1.0500e-003**	**0.1653**		**9.6000e-004**	**0.0445**			**166.3956**	**4.5000e-003**		**166.5083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	7.3477		0.0000	3.4534			0.0000			0.0000
Off-Road	0.9698	10.4484	33.5400			0.4300	0.4300		0.4300	0.4300			6,140.0195	1.9426		6,188.5854
Total	**0.9698**	**10.4484**	**33.5400**			**0.4300**	**7.7777**		**0.4300**	**3.8833**			**6,140.0195**	**1.9426**		**6,188.5854**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0761	0.0484	0.6120			1.0500e-003	0.1653		9.6000e-004	0.0445			166.3956	4.5000e-003		166.5083
Total	**0.0761**	**0.0484**	**0.6120**			**1.0500e-003**	**0.1653**		**9.6000e-004**	**0.0445**			**166.3956**	**4.5000e-003**		**166.5083**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638			1.2899	1.2899		1.2127	1.2127			2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**			**1.2899**	**1.2899**		**1.2127**	**1.2127**			**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.4914	12.7001	3.2541			0.0920	0.7825		0.0880	0.2868			2,988.9791	0.1418		2,992.5250
Worker	1.7417	1.1071	14.0137			0.0240	3.7864		0.0221	1.0201			3,810.4598	0.1032		3,813.0389
Total	**2.2330**	**13.8073**	**17.2679**			**0.1160**	**4.5688**		**0.1101**	**1.3068**			**6,799.4390**	**0.2450**		**6,805.5639**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5121	9.4189	17.8738			0.4985	0.4985		0.4985	0.4985			2,591.5802	0.6313		2,607.3635
Total	**0.5121**	**9.4189**	**17.8738**			**0.4985**	**0.4985**		**0.4985**	**0.4985**			**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.4914	12.7001	3.2541			0.0920	0.7825		0.0880	0.2868			2,988.9791	0.1418		2,992.5250
Worker	1.7417	1.1071	14.0137			0.0240	3.7864		0.0221	1.0201			3,810.4598	0.1032		3,813.0389
Total	**2.2330**	**13.8073**	**17.2679**			**0.1160**	**4.5688**		**0.1101**	**1.3068**			**6,799.4390**	**0.2450**		**6,805.5639**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485			1.1171	1.1171		1.0503	1.0503			2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**			**1.1171**	**1.1171**		**1.0503**	**1.0503**			**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.3963	11.4704	2.9050			0.0571	0.7477		0.0547	0.2535			2,971.2486	0.1304		2,974.5073
Worker	1.5920	0.9776	12.5965			0.0235	3.7858		0.0216	1.0196			3,691.5093	0.0903		3,693.7678
Total	**1.9882**	**12.4480**	**15.5015**			**0.0806**	**4.5335**		**0.0763**	**1.2730**			**6,662.7579**	**0.2207**		**6,668.2751**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5121	9.4189	17.8738			0.4985	0.4985		0.4985	0.4985			2,553.0631	0.6229		2,568.6345
Total	**0.5121**	**9.4189**	**17.8738**			**0.4985**	**0.4985**		**0.4985**	**0.4985**			**2,553.0631**	**0.6229**		**2,568.6345**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.3963	11.4704	2.9050			0.0571	0.7477		0.0547	0.2535			2,971.2486	0.1304		2,974.5073
Worker	1.5920	0.9776	12.5965			0.0235	3.7858		0.0216	1.0196			3,691.5093	0.0903		3,693.7678
Total	**1.9882**	**12.4480**	**15.5015**			**0.0806**	**4.5335**		**0.0763**	**1.2730**			**6,662.7579**	**0.2207**		**6,668.2751**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752			0.9586	0.9586		0.9013	0.9013			2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**			**0.9586**	**0.9586**		**0.9013**	**0.9013**			**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.3252	10.3692	2.6134			0.0229	0.7135		0.0219	0.2207			2,943.9165	0.1227		2,946.9837
Worker	1.4749	0.8738	11.5416			0.0229	3.7852		0.0211	1.0190			3,563.2898	0.0810		3,565.3138
Total	**1.8001**	**11.2431**	**14.1549**			**0.0458**	**4.4987**		**0.0430**	**1.2397**			**6,507.2063**	**0.2037**		**6,512.2974**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5121	9.4189	17.8738			0.4985	0.4985		0.4985	0.4985			2,553.3639	0.6160		2,568.7643
Total	**0.5121**	**9.4189**	**17.8738**			**0.4985**	**0.4985**		**0.4985**	**0.4985**			**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.3252	10.3692	2.6134			0.0229	0.7135		0.0219	0.2207			2,943.9165	0.1227		2,946.9837
Worker	1.4749	0.8738	11.5416			0.0229	3.7852		0.0211	1.0190			3,563.2898	0.0810		3,565.3138
Total	**1.8001**	**11.2431**	**14.1549**			**0.0458**	**4.4987**		**0.0430**	**1.2397**			**6,507.2063**	**0.2037**		**6,512.2974**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532			0.6777	0.6777		0.6235	0.6235			2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2556**	**12.9191**	**14.6532**			**0.6777**	**0.6777**		**0.6235**	**0.6235**			**2,207.2109**	**0.7139**		**2,225.0573**

3.5 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0483	0.0286	0.3780			7.5000e-004	0.1240		6.9000e-004	0.0334			116.7016	2.6500e-003		116.7679
Total	**0.0483**	**0.0286**	**0.3780**			**7.5000e-004**	**0.1240**		**6.9000e-004**	**0.0334**			**116.7016**	**2.6500e-003**		**116.7679**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957			0.0374	0.0374		0.0374	0.0374			2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**			**0.0374**	**0.0374**		**0.0374**	**0.0374**			**2,207.2109**	**0.7139**		**2,225.0573**

3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0483	0.0286	0.3780			7.5000e-004	0.1240		6.9000e-004	0.0334			116.7016	2.6500e-003		116.7679
Total	**0.0483**	**0.0286**	**0.3780**			**7.5000e-004**	**0.1240**		**6.9000e-004**	**0.0334**			**116.7016**	**2.6500e-003**		**116.7679**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	96.2272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176			0.0941	0.0941		0.0941	0.0941			281.4481	0.0193		281.9309
Total	**96.4461**	**1.5268**	**1.8176**			**0.0941**	**0.0941**		**0.0941**	**0.0941**			**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.2963	0.1755	2.3184			4.5900e-003	0.7604		4.2300e-003	0.2047			715.7700	0.0163		716.1766
Total	**0.2963**	**0.1755**	**2.3184**			**4.5900e-003**	**0.7604**		**4.2300e-003**	**0.2047**			**715.7700**	**0.0163**		**716.1766**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	96.2272					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324			0.0951	0.0951		0.0951	0.0951			281.4481	0.0193		281.9309
Total	**96.2866**	**1.3570**	**1.8324**			**0.0951**	**0.0951**		**0.0951**	**0.0951**			**281.4481**	**0.0193**		**281.9309**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.2963	0.1755	2.3184			4.5900e-003	0.7604		4.2300e-003	0.2047			715.7700	0.0163		716.1766
Total	**0.2963**	**0.1755**	**2.3184**			**4.5900e-003**	**0.7604**		**4.2300e-003**	**0.2047**			**715.7700**	**0.0163**		**716.1766**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.3231	15.4413	45.9341			0.1281	14.5532		0.1197	3.9701			16,169.7951	0.5218		16,182.8394
Unmitigated	4.3231	15.4413	45.9341			0.1281	14.5532		0.1197	3.9701			16,169.7951	0.5218		16,182.8394

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,952.60	2,837.16	2601.84	6,665,527	6,665,527
Enclosed Parking Structure	0.00	0.00	0.00		
Total	2,952.60	2,837.16	2,601.84	6,665,527	6,665,527

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Enclosed Parking Structure	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424
NaturalGas Unmitigated	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	10509.4	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.1133**	**0.9685**	**0.4121**			**0.0783**	**0.0783**		**0.0783**	**0.0783**			**1,236.3951**	**0.0237**	**0.0227**	**1,243.7424**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	10.5094	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.1133**	**0.9685**	**0.4121**			**0.0783**	**0.0783**		**0.0783**	**0.0783**			**1,236.3951**	**0.0237**	**0.0227**	**1,243.7424**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	193.9804	4.4605	278.0044			34.4519	34.4519		34.4519	34.4519			5,428.2053	5.1502	0.2627	5,635.2449
Unmitigated	193.9804	4.4605	278.0044			34.4519	34.4519		34.4519	34.4519			5,428.2053	5.1502	0.2627	5,635.2449

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5818					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.6837					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	182.5995	4.0368	241.2500			34.2490	34.2490		34.2490	34.2490			5,362.0675	5.0860	0.2627	5,567.5043
Landscaping	1.1154	0.4237	36.7544			0.2029	0.2029		0.2029	0.2029			66.1378	0.0641		67.7405
Total	**193.9804**	**4.4605**	**278.0044**			**34.4519**	**34.4519**		**34.4519**	**34.4519**			**5,428.2053**	**5.1502**	**0.2627**	**5,635.2449**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5818					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.6837					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	182.5995	4.0368	241.2500			34.2490	34.2490		34.2490	34.2490			5,362.0675	5.0860	0.2627	5,567.5043
Landscaping	1.1154	0.4237	36.7544			0.2029	0.2029		0.2029	0.2029			66.1378	0.0641		67.7405
Total	**193.9804**	**4.4605**	**278.0044**			**34.4519**	**34.4519**		**34.4519**	**34.4519**			**5,428.2053**	**5.1502**	**0.2627**	**5,635.2449**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sunnyvale AMD 1 Phase 4 and 5 Construction Emissions

Santa Clara County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	6.50	Acre	6.50	283,140.00	0
Apartments Mid Rise	444.00	Dwelling Unit	9.19	400,316.00	1270
Enclosed Parking Structure	825.00	Space	7.42	330,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - This model runs for construction emissions only.

Land Use - Phase 4 and 5 would include construction of two mid-rise apartment buildings (443 units) on 9.19 acres, 825 parking spaces (half of 1,650), and the 6.5-acre community park

Construction Phase - Demolition would occur in Phase 1. Construction to occur between 2021-2022, 6 days a week.

Off-road Equipment - Assumes CalEEMod Defaults.

Construction Off-road Equipment Mitigation - Desel-powered off-road equipment to use a suite of Tier 3 and Final Tier 4 Engines as required by Mitigation Mesure 4.2-1a.

Sunnyvale AMD 1 Phase 4 and 5 Construction Emissions - Santa Clara County, Annual

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	NumDays	370.00	450.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	1/14/2021	1/18/2021
tblConstructionPhase	PhaseEndDate	3/4/2021	3/11/2021
tblConstructionPhase	PhaseEndDate	8/4/2022	8/18/2022
tblConstructionPhase	PhaseEndDate	9/1/2022	9/22/2022
tblConstructionPhase	PhaseEndDate	9/29/2022	10/27/2022
tblConstructionPhase	PhaseStartDate	1/15/2021	1/19/2021
tblConstructionPhase	PhaseStartDate	3/5/2021	3/12/2021
tblConstructionPhase	PhaseStartDate	8/5/2022	8/19/2022
tblConstructionPhase	PhaseStartDate	9/2/2022	9/23/2022
tblGrading	AcresOfGrading	112.50	87.50
tblLandUse	LandUseSquareFeet	444,000.00	400,316.00
tblLandUse	LotAcreage	11.68	9.19

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.6517	5.6337	5.1454			0.1892	1.2133		0.1767	0.5215			1,408.7204	0.1506	0.0000	1,412.4849
2022	3.2879	3.2547	3.4693			0.0952	0.6573		0.0894	0.2412			1,008.0469	0.0882	0.0000	1,010.2527
Maximum	**3.2879**	**5.6337**	**5.1454**			**0.1892**	**1.2133**		**0.1767**	**0.5215**			**1,408.7204**	**0.1506**	**0.0000**	**1,412.4849**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3778	3.5225	5.3674			0.0811	1.1052		0.0807	0.4254			1,408.7199	0.1506	0.0000	1,412.4844
2022	3.1557	2.4949	3.6590			0.0569	0.6190		0.0565	0.2082			1,008.0466	0.0882	0.0000	1,010.2524
Maximum	**3.1557**	**3.5225**	**5.3674**			**0.0811**	**1.1052**		**0.0807**	**0.4254**			**1,408.7199**	**0.1506**	**0.0000**	**1,412.4844**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**10.31**	**32.30**	**-4.78**	**0.00**	**0.00**	**51.48**	**7.83**	**0.00**	**48.46**	**16.91**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Sunnyvale AMD 1 Phase 4 and 5 Construction Emissions - Santa Clara County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	1.8018	0.5250
2	4-1-2021	6-30-2021	1.4746	1.1079
3	7-1-2021	9-30-2021	1.4908	1.1201
4	10-1-2021	12-31-2021	1.5116	1.1409
5	1-1-2022	3-31-2022	1.3573	1.0722
6	4-1-2022	6-30-2022	1.3538	1.0656
7	7-1-2022	9-30-2022	1.5807	1.2638
		Highest	1.8018	1.2638

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0010	0.0617	4.7186			0.2199	0.2199		0.2199	0.2199			33.9562	0.0378	1.3300e-003	35.2959
Energy	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			1,282.2606	0.0527	0.0138	1,287.6992
Mobile	0.6796	2.8791	7.8926			0.0232	2.5379		0.0216	0.6948			2,497.2018	0.0844	0.0000	2,499.3119
Waste						0.0000	0.0000		0.0000	0.0000			41.5726	2.4569	0.0000	102.9942
Water						0.0000	0.0000		0.0000	0.0000			81.1692	0.9459	0.0229	111.6498
Total	**3.7012**	**3.1176**	**12.6864**			**0.2574**	**2.7721**		**0.2559**	**0.9290**			**3,936.1602**	**3.5776**	**0.0381**	**4,036.9511**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0010	0.0617	4.7186			0.2199	0.2199		0.2199	0.2199			33.9562	0.0378	1.3300e-003	35.2959
Energy	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			1,282.2606	0.0527	0.0138	1,287.6992
Mobile	0.6796	2.8791	7.8926			0.0232	2.5379		0.0216	0.6948			2,497.2018	0.0844	0.0000	2,499.3119
Waste						0.0000	0.0000		0.0000	0.0000			41.5726	2.4569	0.0000	102.9942
Water						0.0000	0.0000		0.0000	0.0000			81.1692	0.9459	0.0229	111.6498
Total	**3.7012**	**3.1176**	**12.6864**			**0.2574**	**2.7721**		**0.2559**	**0.9290**			**3,936.1602**	**3.5776**	**0.0381**	**4,036.9511**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Sunnyvale AMD 1 Phase 4 and 5 Construction Emissions - Santa Clara County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	1/18/2021	6	15	
2	Grading	Grading	1/19/2021	3/11/2021	6	45	
3	Building Construction	Building Construction	3/12/2021	8/18/2022	6	450	
4	Paving	Paving	8/19/2022	9/22/2022	6	30	
5	Architectural Coating	Architectural Coating	9/23/2022	10/27/2022	6	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 7.42

Residential Indoor: 810,640; Residential Outdoor: 270,213; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 19,800 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale AMD 1 Phase 4 and 5 Construction Emissions - Santa Clara County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	577.00	148.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	115.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.1355		0.0000	0.0745			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0292	0.3037	0.1587			0.0153	0.0153		0.0141	0.0141			25.0768	8.1100e-003	0.0000	25.2796
Total	**0.0292**	**0.3037**	**0.1587**			**0.0153**	**0.1508**		**0.0141**	**0.0886**			**25.0768**	**8.1100e-003**	**0.0000**	**25.2796**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.9000e-004	3.0900e-003			1.0000e-005	1.0800e-003		1.0000e-005	2.9000e-004			0.8863	2.0000e-005	0.0000	0.8868
Total	**4.2000e-004**	**2.9000e-004**	**3.0900e-003**			**1.0000e-005**	**1.0800e-003**		**1.0000e-005**	**2.9000e-004**			**0.8863**	**2.0000e-005**	**0.0000**	**0.8868**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.1355		0.0000	0.0745			0.0000	0.0000	0.0000	0.0000
Off-Road	3.4900e-003	0.0151	0.1565			4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004			25.0768	8.1100e-003	0.0000	25.2795
Total	**3.4900e-003**	**0.0151**	**0.1565**			**4.7000e-004**	**0.1360**		**4.7000e-004**	**0.0750**			**25.0768**	**8.1100e-003**	**0.0000**	**25.2795**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.9000e-004	3.0900e-003			1.0000e-005	1.0800e-003		1.0000e-005	2.9000e-004			0.8863	2.0000e-005	0.0000	0.8868
Total	**4.2000e-004**	**2.9000e-004**	**3.0900e-003**			**1.0000e-005**	**1.0800e-003**		**1.0000e-005**	**2.9000e-004**			**0.8863**	**2.0000e-005**	**0.0000**	**0.8868**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.1819		0.0000	0.0795			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0943	1.0440	0.6948			0.0447	0.0447		0.0411	0.0411			122.6137	0.0397	0.0000	123.6051
Total	**0.0943**	**1.0440**	**0.6948**			**0.0447**	**0.2266**		**0.0411**	**0.1206**			**122.6137**	**0.0397**	**0.0000**	**123.6051**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.3900e-003	9.6000e-004	0.0103			2.0000e-005	3.5900e-003		2.0000e-005	9.7000e-004			2.9544	7.0000e-005	0.0000	2.9561
Total	**1.3900e-003**	**9.6000e-004**	**0.0103**			**2.0000e-005**	**3.5900e-003**		**2.0000e-005**	**9.7000e-004**			**2.9544**	**7.0000e-005**	**0.0000**	**2.9561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust						0.0000	0.1819		0.0000	0.0795			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0218	0.2351	0.7547			9.6700e-003	9.6700e-003		9.6700e-003	9.6700e-003			122.6136	0.0397	0.0000	123.6050
Total	**0.0218**	**0.2351**	**0.7547**			**9.6700e-003**	**0.1916**		**9.6700e-003**	**0.0892**			**122.6136**	**0.0397**	**0.0000**	**123.6050**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.3900e-003	9.6000e-004	0.0103			2.0000e-005	3.5900e-003		2.0000e-005	9.7000e-004			2.9544	7.0000e-005	0.0000	2.9561
Total	**1.3900e-003**	**9.6000e-004**	**0.0103**			**2.0000e-005**	**3.5900e-003**		**2.0000e-005**	**9.7000e-004**			**2.9544**	**7.0000e-005**	**0.0000**	**2.9561**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2405	2.2052	2.0968			0.1213	0.1213		0.1140	0.1140			293.0212	0.0707	0.0000	294.7885
Total	**0.2405**	**2.2052**	**2.0968**			**0.1213**	**0.1213**		**0.1140**	**0.1140**			**293.0212**	**0.0707**	**0.0000**	**294.7885**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0611	1.9239	0.5121			4.2700e-003	0.1274		4.0800e-003	0.0397			484.9548	0.0211	0.0000	485.4832
Worker	0.2249	0.1557	1.6697			3.6400e-003	0.5825		3.3500e-003	0.1573			479.2132	0.0109	0.0000	479.4856
Total	**0.2859**	**2.0796**	**2.1818**			**7.9100e-003**	**0.7100**		**7.4300e-003**	**0.1970**			**964.1680**	**0.0320**	**0.0000**	**964.9688**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0648	1.1915	2.2610			0.0631	0.0631		0.0631	0.0631			293.0208	0.0707	0.0000	294.7881
Total	**0.0648**	**1.1915**	**2.2610**			**0.0631**	**0.0631**		**0.0631**	**0.0631**			**293.0208**	**0.0707**	**0.0000**	**294.7881**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0611	1.9239	0.5121			4.2700e-003	0.1274		4.0800e-003	0.0397			484.9548	0.0211	0.0000	485.4832
Worker	0.2249	0.1557	1.6697			3.6400e-003	0.5825		3.3500e-003	0.1573			479.2132	0.0109	0.0000	479.4856
Total	**0.2859**	**2.0796**	**2.1818**			**7.9100e-003**	**0.7100**		**7.4300e-003**	**0.1970**			**964.1680**	**0.0320**	**0.0000**	**964.9688**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1681	1.5381	1.6118			0.0797	0.0797		0.0750	0.0750			228.2494	0.0547	0.0000	229.6164
Total	**0.1681**	**1.5381**	**1.6118**			**0.0797**	**0.0797**		**0.0750**	**0.0750**			**228.2494**	**0.0547**	**0.0000**	**229.6164**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0444	1.4161	0.3756			2.8900e-003	0.0988		2.7600e-003	0.0305			374.0004	0.0157	0.0000	374.3933
Worker	0.1634	0.1088	1.1950			2.7700e-003	0.4535		2.5500e-003	0.1224			359.5883	7.6100e-003	0.0000	359.7786
Total	**0.2078**	**1.5248**	**1.5706**			**5.6600e-003**	**0.5523**		**5.3100e-003**	**0.1529**			**733.5888**	**0.0233**	**0.0000**	**734.1719**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0505	0.9278	1.7606			0.0491	0.0491		0.0491	0.0491			228.2491	0.0547	0.0000	229.6161
Total	**0.0505**	**0.9278**	**1.7606**			**0.0491**	**0.0491**		**0.0491**	**0.0491**			**228.2491**	**0.0547**	**0.0000**	**229.6161**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0444	1.4161	0.3756			2.8900e-003	0.0988		2.7600e-003	0.0305			374.0004	0.0157	0.0000	374.3933
Worker	0.1634	0.1088	1.1950			2.7700e-003	0.4535		2.5500e-003	0.1224			359.5883	7.6100e-003	0.0000	359.7786
Total	**0.2078**	**1.5248**	**1.5706**			**5.6600e-003**	**0.5523**		**5.3100e-003**	**0.1529**			**733.5888**	**0.0233**	**0.0000**	**734.1719**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0165	0.1669	0.2187			8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003			30.0413	9.7200e-003	0.0000	30.2842
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0165**	**0.1669**	**0.2187**			**8.5200e-003**	**8.5200e-003**		**7.8400e-003**	**7.8400e-003**			**30.0413**	**9.7200e-003**	**0.0000**	**30.2842**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	4.3000e-004	4.7300e-003			1.0000e-005	1.8000e-003		1.0000e-005	4.8000e-004			1.4236	3.0000e-005	0.0000	1.4243
Total	**6.5000e-004**	**4.3000e-004**	**4.7300e-003**			**1.0000e-005**	**1.8000e-003**		**1.0000e-005**	**4.8000e-004**			**1.4236**	**3.0000e-005**	**0.0000**	**1.4243**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2100e-003	0.0182	0.2594			5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004			30.0413	9.7200e-003	0.0000	30.2842
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**4.2100e-003**	**0.0182**	**0.2594**			**5.6000e-004**	**5.6000e-004**		**5.6000e-004**	**5.6000e-004**			**30.0413**	**9.7200e-003**	**0.0000**	**30.2842**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	4.3000e-004	4.7300e-003			1.0000e-005	1.8000e-003		1.0000e-005	4.8000e-004			1.4236	3.0000e-005	0.0000	1.4243
Total	**6.5000e-004**	**4.3000e-004**	**4.7300e-003**			**1.0000e-005**	**1.8000e-003**		**1.0000e-005**	**4.8000e-004**			**1.4236**	**3.0000e-005**	**0.0000**	**1.4243**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.8868					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	3.0700e-003	0.0211	0.0272			1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003			3.8299	2.5000e-004	0.0000	3.8361
Total	**2.8899**	**0.0211**	**0.0272**			**1.2300e-003**	**1.2300e-003**		**1.2300e-003**	**1.2300e-003**			**3.8299**	**2.5000e-004**	**0.0000**	**3.8361**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	4.9600e-003	3.3000e-003	0.0363			8.0000e-005	0.0138		8.0000e-005	3.7200e-003			10.9140	2.3000e-004	0.0000	10.9197
Total	**4.9600e-003**	**3.3000e-003**	**0.0363**			**8.0000e-005**	**0.0138**		**8.0000e-005**	**3.7200e-003**			**10.9140**	**2.3000e-004**	**0.0000**	**10.9197**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.8868					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	8.9000e-004	0.0204	0.0275			1.4300e-003	1.4300e-003		1.4300e-003	1.4300e-003			3.8299	2.5000e-004	0.0000	3.8361
Total	**2.8877**	**0.0204**	**0.0275**			**1.4300e-003**	**1.4300e-003**		**1.4300e-003**	**1.4300e-003**			**3.8299**	**2.5000e-004**	**0.0000**	**3.8361**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	4.9600e-003	3.3000e-003	0.0363			8.0000e-005	0.0138		8.0000e-005	3.7200e-003			10.9140	2.3000e-004	0.0000	10.9197
Total	**4.9600e-003**	**3.3000e-003**	**0.0363**			**8.0000e-005**	**0.0138**		**8.0000e-005**	**3.7200e-003**			**10.9140**	**2.3000e-004**	**0.0000**	**10.9197**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.6796	2.8791	7.8926			0.0232	2.5379		0.0216	0.6948			2,497.2018	0.0844	0.0000	2,499.3119
Unmitigated	0.6796	2.8791	7.8926			0.0232	2.5379		0.0216	0.6948			2,497.2018	0.0844	0.0000	2,499.3119

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,952.60	2,837.16	2601.84	6,665,527	6,665,527
City Park	12.29	147.88	108.81	97,017	97,017
Enclosed Parking Structure	0.00	0.00	0.00		
Total	2,964.89	2,985.04	2,710.65	6,762,544	6,762,544

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
City Park	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Enclosed Parking Structure	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			1,077.5615	0.0487	0.0101	1,081.7837
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			1,077.5615	0.0487	0.0101	1,081.7837
NaturalGas Mitigated	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			204.6991	3.9200e-003	3.7500e-003	205.9155
NaturalGas Unmitigated	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			204.6991	3.9200e-003	3.7500e-003	205.9155

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.83592e+006	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			204.6991	3.9200e-003	3.7500e-003	205.9155
City Park	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0207**	**0.1768**	**0.0752**			**0.0143**	**0.0143**		**0.0143**	**0.0143**			**204.6991**	**3.9200e-003**	**3.7500e-003**	**205.9155**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	3.83592e+006	0.0207	0.1768	0.0752			0.0143	0.0143		0.0143	0.0143			204.6991	3.9200e-003	3.7500e-003	205.9155
City Park	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0207**	**0.1768**	**0.0752**			**0.0143**	**0.0143**		**0.0143**	**0.0143**			**204.6991**	**3.9200e-003**	**3.7500e-003**	**205.9155**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.83299e+006	533.2371	0.0241	4.9900e-003	535.3264
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	1.8711e+006	544.3244	0.0246	5.0900e-003	546.4573
Total		**1,077.5615**	**0.0487**	**0.0101**	**1,081.7837**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.83299e+006	533.2371	0.0241	4.9900e-003	535.3264
City Park	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	1.8711e+006	544.3244	0.0246	5.0900e-003	546.4573
Total		**1,077.5615**	**0.0487**	**0.0101**	**1,081.7837**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0010	0.0617	4.7186			0.2199	0.2199		0.2199	0.2199			33.9562	0.0378	1.3300e-003	35.2959
Unmitigated	3.0010	0.0617	4.7186			0.2199	0.2199		0.2199	0.2199			33.9562	0.0378	1.3300e-003	35.2959

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2887					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5874					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	1.0245	0.0236	1.4107			0.2017	0.2017		0.2017	0.2017			28.5561	0.0325	1.3300e-003	29.7650
Landscaping	0.1004	0.0381	3.3080			0.0183	0.0183		0.0183	0.0183			5.4001	5.2300e-003	0.0000	5.5309
Total	**3.0010**	**0.0617**	**4.7186**			**0.2199**	**0.2199**		**0.2199**	**0.2199**			**33.9562**	**0.0378**	**1.3300e-003**	**35.2959**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2887					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5874					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Hearth	1.0245	0.0236	1.4107			0.2017	0.2017		0.2017	0.2017			28.5561	0.0325	1.3300e-003	29.7650
Landscaping	0.1004	0.0381	3.3080			0.0183	0.0183		0.0183	0.0183			5.4001	5.2300e-003	0.0000	5.5309
Total	**3.0010**	**0.0617**	**4.7186**			**0.2199**	**0.2199**		**0.2199**	**0.2199**			**33.9562**	**0.0378**	**1.3300e-003**	**35.2959**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	81.1692	0.9459	0.0229	111.6498
Unmitigated	81.1692	0.9459	0.0229	111.6498

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	28.9284 / 18.2375	73.2837	0.9455	0.0229	103.7334
City Park	0 / 7.74463	7.8855	3.6000e-004	7.0000e-005	7.9164
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**81.1692**	**0.9459**	**0.0229**	**111.6498**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	28.9284 / 18.2375	73.2837	0.9455	0.0229	103.7334
City Park	0 / 7.74463	7.8855	3.6000e-004	7.0000e-005	7.9164
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**81.1692**	**0.9459**	**0.0229**	**111.6498**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	41.5726	2.4569	0.0000	102.9942
Unmitigated	41.5726	2.4569	0.0000	102.9942

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	204.24	41.4589	2.4502	0.0000	102.7126
City Park	0.56	0.1137	6.7200e-003	0.0000	0.2816
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**41.5725**	**2.4569**	**0.0000**	**102.9942**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	204.24	41.4589	2.4502	0.0000	102.7126
City Park	0.56	0.1137	6.7200e-003	0.0000	0.2816
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Total		**41.5725**	**2.4569**	**0.0000**	**102.9942**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Sunnyvale AMD 1 Phase 4 and 5 Construction Emissions

Santa Clara County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	6.50	Acre	6.50	283,140.00	0
Apartments Mid Rise	444.00	Dwelling Unit	9.19	400,316.00	1270
Enclosed Parking Structure	825.00	Space	7.42	330,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - This model runs for construction emissions only.

Land Use - Phase 4 and 5 would include construction of two mid-rise apartment buildings (443 units) on 9.19 acres, 825 parking spaces (half of 1,650), and the 6.5-acre community park

Construction Phase - Demolition would occur in Phase 1. Construction to occur between 2021-2022, 6 days a week.

Off-road Equipment - Assumes CalEEMod Defaults.

Construction Off-road Equipment Mitigation - Desel-powered off-road equipment to use a suite of Tier 3 and Final Tier 4 Engines as required by Mitigation Mesure 4.2-1a.

Sunnyvale AMD 1 Phase 4 and 5 Construction Emissions - Santa Clara County, Summer

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstructionPhase	NumDays	10.00	15.00
tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	NumDays	370.00	450.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDays	20.00	30.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	1/14/2021	1/18/2021
tblConstructionPhase	PhaseEndDate	3/4/2021	3/11/2021
tblConstructionPhase	PhaseEndDate	8/4/2022	8/18/2022
tblConstructionPhase	PhaseEndDate	9/1/2022	9/22/2022
tblConstructionPhase	PhaseEndDate	9/29/2022	10/27/2022
tblConstructionPhase	PhaseStartDate	1/15/2021	1/19/2021
tblConstructionPhase	PhaseStartDate	3/5/2021	3/12/2021
tblConstructionPhase	PhaseStartDate	8/5/2022	8/19/2022
tblConstructionPhase	PhaseStartDate	9/2/2022	9/23/2022
tblGrading	AcresOfGrading	112.50	87.50
tblLandUse	LandUseSquareFeet	444,000.00	400,316.00
tblLandUse	LotAcreage	11.68	9.19

2.0 Emissions Summary

Sunnyvale AMD 1 Phase 4 and 5 Construction Emissions - Santa Clara County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2556	46.4380	34.9075			2.0454	20.2595		1.8817	11.8516			11,314.0518	1.9463	0.0000	11,336.4524
2022	193.0040	30.8360	33.3333			0.8661	6.6081		0.8147	2.3605			11,111.2170	0.8736	0.0000	11,133.0567
Maximum	**193.0040**	**46.4380**	**34.9075**			**2.0454**	**20.2595**		**1.8817**	**11.8516**			**11,314.0518**	**1.9463**	**0.0000**	**11,336.4524**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.8421	25.5653	36.2061			0.5606	18.2771		0.5568	10.0328			11,314.0518	1.9463	0.0000	11,336.4524
2022	192.8589	24.6393	34.8437			0.5556	6.2976		0.5521	2.0978			11,111.2170	0.8736	0.0000	11,133.0567
Maximum	**192.8589**	**25.5653**	**36.2061**			**0.5606**	**18.2771**		**0.5568**	**10.0328**			**11,314.0518**	**1.9463**	**0.0000**	**11,336.4524**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.79**	**35.03**	**-4.12**	**0.00**	**0.00**	**61.66**	**8.53**	**0.00**	**58.88**	**14.65**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	193.9950	4.4605	278.0050			34.4519	34.4519		34.4519	34.4519			5,428.2067	5.1502	0.2627	5,635.2464
Energy	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424
Mobile	4.5346	16.1841	48.0960			0.1341	15.2270		0.1253	4.1539			16,922.5620	0.5464		16,936.2222
Total	**198.6430**	**21.6130**	**326.5132**			**34.6643**	**49.7572**		**34.6555**	**38.6841**			**23,587.1638**	**5.7203**	**0.2854**	**23,815.2109**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	193.9950	4.4605	278.0050			34.4519	34.4519		34.4519	34.4519			5,428.2067	5.1502	0.2627	5,635.2464
Energy	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424
Mobile	4.5346	16.1841	48.0960			0.1341	15.2270		0.1253	4.1539			16,922.5620	0.5464		16,936.2222
Total	**198.6430**	**21.6130**	**326.5132**			**34.6643**	**49.7572**		**34.6555**	**38.6841**			**23,587.1638**	**5.7203**	**0.2854**	**23,815.2109**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2021	1/18/2021	6	15	
2	Grading	Grading	1/19/2021	3/11/2021	6	45	
3	Building Construction	Building Construction	3/12/2021	8/18/2022	6	450	
4	Paving	Paving	8/19/2022	9/22/2022	6	30	
5	Architectural Coating	Architectural Coating	9/23/2022	10/27/2022	6	30	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 87.5

Acres of Paving: 7.42

Residential Indoor: 810,640; Residential Outdoor: 270,213; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 19,800 (Architectural Coating – sqft)

OffRoad Equipment

Sunnyvale AMD 1 Phase 4 and 5 Construction Emissions - Santa Clara County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	577.00	148.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	115.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	18.0663		0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543			2.0445	2.0445		1.8809	1.8809			3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**			**2.0445**	**20.1107**		**1.8809**	**11.8116**			**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0580	0.0343	0.4536			9.0000e-004	0.1488		8.3000e-004	0.0401			140.0420	3.1800e-003		140.1215
Total	**0.0580**	**0.0343**	**0.4536**			**9.0000e-004**	**0.1488**		**8.3000e-004**	**0.0401**			**140.0420**	**3.1800e-003**		**140.1215**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	18.0663		0.0000	9.9307			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690			0.0621	0.0621		0.0621	0.0621			3,685.6569	1.1920		3,715.4573
Total	**0.4656**	**2.0175**	**20.8690**			**0.0621**	**18.1283**		**0.0621**	**9.9928**			**3,685.6569**	**1.1920**		**3,715.4573**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0580	0.0343	0.4536			9.0000e-004	0.1488		8.3000e-004	0.0401			140.0420	3.1800e-003		140.1215
Total	**0.0580**	**0.0343**	**0.4536**			**9.0000e-004**	**0.1488**		**8.3000e-004**	**0.0401**			**140.0420**	**3.1800e-003**		**140.1215**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	8.0842		0.0000	3.5329			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785			1.9853	1.9853		1.8265	1.8265			6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**			**1.9853**	**10.0695**		**1.8265**	**5.3594**			**6,007.0434**	**1.9428**		**6,055.6134**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0644	0.0382	0.5040			1.0000e-003	0.1653		9.2000e-004	0.0445			155.6022	3.5400e-003		155.6906
Total	**0.0644**	**0.0382**	**0.5040**			**1.0000e-003**	**0.1653**		**9.2000e-004**	**0.0445**			**155.6022**	**3.5400e-003**		**155.6906**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust						0.0000	8.0842		0.0000	3.5329			0.0000			0.0000
Off-Road	0.9698	10.4484	33.5400			0.4300	0.4300		0.4300	0.4300			6,007.0434	1.9428		6,055.6134
Total	**0.9698**	**10.4484**	**33.5400**			**0.4300**	**8.5141**		**0.4300**	**3.9629**			**6,007.0434**	**1.9428**		**6,055.6134**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0644	0.0382	0.5040			1.0000e-003	0.1653		9.2000e-004	0.0445			155.6022	3.5400e-003		155.6906
Total	**0.0644**	**0.0382**	**0.5040**			**1.0000e-003**	**0.1653**		**9.2000e-004**	**0.0445**			**155.6022**	**3.5400e-003**		**155.6906**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752			0.9586	0.9586		0.9013	0.9013			2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**			**0.9586**	**0.9586**		**0.9013**	**0.9013**			**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.4719	15.0455	3.7919			0.0333	1.0353		0.0318	0.3203			4,271.5651	0.1780		4,276.0155
Worker	1.8581	1.1009	14.5404			0.0288	4.7687		0.0265	1.2838			4,489.1228	0.1020		4,491.6726
Total	**2.3299**	**16.1464**	**18.3323**			**0.0621**	**5.8040**		**0.0583**	**1.6041**			**8,760.6879**	**0.2800**		**8,767.6881**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5121	9.4189	17.8738			0.4985	0.4985		0.4985	0.4985			2,553.3639	0.6160		2,568.7643
Total	**0.5121**	**9.4189**	**17.8738**			**0.4985**	**0.4985**		**0.4985**	**0.4985**			**2,553.3639**	**0.6160**		**2,568.7643**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.4719	15.0455	3.7919			0.0333	1.0353		0.0318	0.3203			4,271.5651	0.1780		4,276.0155
Worker	1.8581	1.1009	14.5404			0.0288	4.7687		0.0265	1.2838			4,489.1228	0.1020		4,491.6726
Total	**2.3299**	**16.1464**	**18.3323**			**0.0621**	**5.8040**		**0.0583**	**1.6041**			**8,760.6879**	**0.2800**		**8,767.6881**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634			0.8090	0.8090		0.7612	0.7612			2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**			**0.8090**	**0.8090**		**0.7612**	**0.7612**			**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.4402	14.2325	3.5712			0.0289	1.0310		0.0276	0.3161			4,230.9945	0.1700		4,235.2456
Worker	1.7314	0.9879	13.3987			0.0282	4.7681		0.0259	1.2832			4,325.8889	0.0916		4,328.1789
Total	**2.1716**	**15.2204**	**16.9699**			**0.0571**	**5.7991**		**0.0536**	**1.5993**			**8,556.8834**	**0.2616**		**8,563.4245**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5121	9.4189	17.8738			0.4985	0.4985		0.4985	0.4985			2,554.3336	0.6120		2,569.6322
Total	**0.5121**	**9.4189**	**17.8738**			**0.4985**	**0.4985**		**0.4985**	**0.4985**			**2,554.3336**	**0.6120**		**2,569.6322**

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.4402	14.2325	3.5712			0.0289	1.0310		0.0276	0.3161			4,230.9945	0.1700		4,235.2456
Worker	1.7314	0.9879	13.3987			0.0282	4.7681		0.0259	1.2832			4,325.8889	0.0916		4,328.1789
Total	**2.1716**	**15.2204**	**16.9699**			**0.0571**	**5.7991**		**0.0536**	**1.5993**			**8,556.8834**	**0.2616**		**8,563.4245**

3.5 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805			0.5679	0.5679		0.5225	0.5225			2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**			**0.5679**	**0.5679**		**0.5225**	**0.5225**			**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0450	0.0257	0.3483			7.3000e-004	0.1240		6.7000e-004	0.0334			112.4581	2.3800e-003		112.5177
Total	**0.0450**	**0.0257**	**0.3483**			**7.3000e-004**	**0.1240**		**6.7000e-004**	**0.0334**			**112.4581**	**2.3800e-003**		**112.5177**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957			0.0374	0.0374		0.0374	0.0374			2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2805**	**1.2154**	**17.2957**			**0.0374**	**0.0374**		**0.0374**	**0.0374**			**2,207.6603**	**0.7140**		**2,225.5104**

3.5 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0450	0.0257	0.3483			7.3000e-004	0.1240		6.7000e-004	0.0334			112.4581	2.3800e-003		112.5177
Total	**0.0450**	**0.0257**	**0.3483**			**7.3000e-004**	**0.1240**		**6.7000e-004**	**0.0334**			**112.4581**	**2.3800e-003**		**112.5177**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	192.4544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136			0.0817	0.0817		0.0817	0.0817			281.4481	0.0183		281.9062
Total	**192.6589**	**1.4085**	**1.8136**			**0.0817**	**0.0817**		**0.0817**	**0.0817**			**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.3451	0.1969	2.6705			5.6100e-003	0.9503		5.1700e-003	0.2558			862.1789	0.0183		862.6353
Total	**0.3451**	**0.1969**	**2.6705**			**5.6100e-003**	**0.9503**		**5.1700e-003**	**0.2558**			**862.1789**	**0.0183**		**862.6353**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	192.4544					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0594	1.3570	1.8324			0.0951	0.0951		0.0951	0.0951			281.4481	0.0183		281.9062
Total	**192.5138**	**1.3570**	**1.8324**			**0.0951**	**0.0951**		**0.0951**	**0.0951**			**281.4481**	**0.0183**		**281.9062**

3.6 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.3451	0.1969	2.6705			5.6100e-003	0.9503		5.1700e-003	0.2558			862.1789	0.0183		862.6353
Total	**0.3451**	**0.1969**	**2.6705**			**5.6100e-003**	**0.9503**		**5.1700e-003**	**0.2558**			**862.1789**	**0.0183**		**862.6353**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.5346	16.1841	48.0960			0.1341	15.2270		0.1253	4.1539			16,922.5620	0.5464		16,936.2222
Unmitigated	4.5346	16.1841	48.0960			0.1341	15.2270		0.1253	4.1539			16,922.5620	0.5464		16,936.2222

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,952.60	2,837.16	2601.84	6,665,527	6,665,527
City Park	12.29	147.88	108.81	97,017	97,017
Enclosed Parking Structure	0.00	0.00	0.00		
Total	2,964.89	2,985.04	2,710.65	6,762,544	6,762,544

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
City Park	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740
Enclosed Parking Structure	0.610498	0.036775	0.183084	0.106123	0.014413	0.005007	0.012610	0.021118	0.002144	0.001548	0.005312	0.000627	0.000740

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424
NaturalGas Unmitigated	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	10509.4	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424
City Park	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.1133**	**0.9685**	**0.4121**			**0.0783**	**0.0783**		**0.0783**	**0.0783**			**1,236.3951**	**0.0237**	**0.0227**	**1,243.7424**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	10.5094	0.1133	0.9685	0.4121			0.0783	0.0783		0.0783	0.0783			1,236.3951	0.0237	0.0227	1,243.7424
City Park	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Enclosed Parking Structure	0	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.1133**	**0.9685**	**0.4121**			**0.0783**	**0.0783**		**0.0783**	**0.0783**			**1,236.3951**	**0.0237**	**0.0227**	**1,243.7424**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	193.9950	4.4605	278.0050			34.4519	34.4519		34.4519	34.4519			5,428.2067	5.1502	0.2627	5,635.2464
Unmitigated	193.9950	4.4605	278.0050			34.4519	34.4519		34.4519	34.4519			5,428.2067	5.1502	0.2627	5,635.2464

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5818					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.6982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	182.5995	4.0368	241.2500			34.2490	34.2490		34.2490	34.2490			5,362.0675	5.0860	0.2627	5,567.5043
Landscaping	1.1155	0.4237	36.7550			0.2029	0.2029		0.2029	0.2029			66.1392	0.0641		67.7420
Total	**193.9950**	**4.4605**	**278.0050**			**34.4519**	**34.4519**		**34.4519**	**34.4519**			**5,428.2067**	**5.1502**	**0.2627**	**5,635.2464**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.5818					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	8.6982					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	182.5995	4.0368	241.2500			34.2490	34.2490		34.2490	34.2490			5,362.0675	5.0860	0.2627	5,567.5043
Landscaping	1.1155	0.4237	36.7550			0.2029	0.2029		0.2029	0.2029			66.1392	0.0641		67.7420
Total	**193.9950**	**4.4605**	**278.0050**			**34.4519**	**34.4519**		**34.4519**	**34.4519**			**5,428.2067**	**5.1502**	**0.2627**	**5,635.2464**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

ATTACHMENT 19

Santa Clara County Residents for Responsible Development

President
Steve Flores
UA Local 393

Director
Josué García

Treasurer
Dominic Torreano
SMW Local 104

Trustees
Dan Rodriguez
IBEW Local 332

Stan Smith
Fire Sprinkler Fitters
Local 483

Rick Werner
SMW Local 104

Board of Directors
Eric Haynes
SMW Local 104

Jeff Salvotti
SMW Local 104

Vince Sugrue
SMW Local 104

Will Smith
IBEW Local 332

Pete Seaberg
IBEW Local 332

Jean Cohen
UA Local 393

Al Gonzalez
UA Local 393

Juan Gutierrez
UA Local 393

Wayd LaPearle
UA Local 393

Dylan Boldt
Fire Sprinkler Fitters
Local 483

March 21, 2019

Trudi Ryan
Planning Director
City of Sunnyvale
VIA EMAIL

Re: 1 AMD Final EIR (Working Hours).

Dear Planning Commissioners,

The Santa Clara County Residents for Responsible Development (SCCRRD), is an organization that represents members in the community who believe development and all construction projects should ensure we have a livable wage to provide for our families, local hiring, housing we can afford, opportunities for our young people, and healthy neighborhoods. The SCCRRD represent over 7,000 workers in construction.

We support the 1 AMD Project proposed by The Irvine Company. We are concerned, however, that an infeasible mitigation measure was added in the Final EIR that would prohibit construction vehicles from using the Lawrence Expressway before 9am and after 3pm. Our workers begin their job at 7am, and depart at 4pm so we can spend time with our families. We do not want to extend our commute times by having to weave through city streets instead of using the Lawrence Expressway along with other workers. Because we start our jobs so much earlier than most workers, we do not add to the peak morning traffic congestion that occurs between 8-9am because we are already on the job. We also end our day earlier than the peak afternoon congestion that occurs between 5-7.

It is unfair, and infeasible, to change the hours of members or to prohibit us from using the Lawrence Expressway to get to and from this project. You need housing, and we build the housing you need. We ask that this unreasonable new mitigation requirement that would prohibit us from using the Lawrence Expressway to get to and from the project be deleted, and that the project be approved.

Thank you for your time and consideration.

Sincerely,

Josué García
Director

ERRATA – MINOR EDITS TO MITIGATION MEASRUES

The following are minor edits to mitigation measures and does not constitute "significant new information" requiring recirculation. (See Public Resources Code Section 21092.1; State CEQA Guidelines Section 15088.5.)

Mitigation Measure 4.2-1a: Apply Tier-4 Emission Standards to all Diesel-Powered Off-Road Equipment When Available

The applicant shall require its construction contractor to only use off-road construction equipment that meet EPA's Tier 4 emission standards as defined in 40 CFR 1039 and to comply with the appropriate test procedures and provisions as contained in 40 CFR Parts 1065 and 1068, to the extent feasible. Tier 3 models can be used if a Tier 4 version of the equipment type is not yet produced by manufacturers or if Tier 4 equipment is not available. This measure can also be achieved by using battery-electric off-road equipment as it becomes available. Implementation of this measure shall be required in the contract the project applicant establishes with its construction contractors. The applicant shall demonstrate its plan to fulfill the requirements of this measure in a report or in project improvement plan details submitted to the City prior to the use of any off-road, diesel-powered construction equipment on the site.

Mitigation Measure 4.11-1: Make Improvements to Intersection at Lawrence Expressway/Duane Avenue-Oakmead Parkway

Santa Clara County has jurisdiction over the Lawrence Expressway/Duane Avenue-Oakmead intersection. A third left lane will be added to the eastbound approach at the intersection of Lawrence Expressway/Duane Avenue-Oakmead Parkway including one through lane, and one right-turn lane. Signage and pavement striping shall be provided to indicate that the inner first left-turn lane shall be designated for northbound Lawrence Expressway traffic, the middle left-turn lane shall be designated for northbound U.S. 101 traffic, and the outer left-turn lane shall be designated for southbound U.S. 101 traffic. This improvement shall be accomplished by re-striping the Lawrence Expressway/Duane Avenue-Oakmead Parkway intersection to add a third left turn lane, but not undertaking any other physical improvements to the intersection. Additional improvements shown on the Lawrence Expressway/E Duane Avenue to US-101 Concept Plan provided by the County of Santa Clara Roads and Airports Department on December 17, 2018, such as modifications to the corners of the intersection, restriping of crosswalks, the northbound lane alignments, the relocation of pedestrian crossing at the U.S. 101 southbound on-ramp, and the extension of the barrier curb, are shown as a concept plan only. These improvements have not been adopted yet and hence, the project is not responsible for these additional improvements.

Additionally, the signal operation and timing at the intersection at Lawrence Expressway/Duane Avenue-Oakmead Parkway shall be adjusted to accommodate the third lane. The project applicant and City of Sunnyvale shall coordinate and agree with the County on the timing and implementation of the improvements prior to issuance of building permits.

Mitigation Measure 4.11-4: Increase Metering Rate at U.S. 101 Lawrence Expressway Diagonal On-Ramp

The metering rates shall be increased to one vehicle every 4 seconds to ensure that the maximum queue does not exceed the ramp storage. Prior to the issuance of a building permit, the applicant shall request that the City and Caltrans implement this metering rate change. ~~The applicant and City will coordinate and agree with Caltrans on the timing and implementation of this improvement prior to the issuance of building permits.~~

Mitigation Measure 4.11-8: Prepare and Implement Temporary Traffic Control Plan
Before building permits are issued and construction begins, the construction contractor shall prepare a temporary traffic control (TTC) plan to the satisfaction of the City of Sunnyvale Division of Transportation and Traffic and subject to review by all affected agencies.

The City of Sunnyvale suggests that the latest edition of the CA MUTCD, Part 6: Temporary Traffic Control, be referred to for guidance on preparing a TTC plan. The TTC plan shall include all information required on the City of Sunnyvale TTC Checklist and shall conform to the TTC Guidelines of the City of Sunnyvale. At a minimum, the plan shall:

- provide a vicinity map that shows all the streets in the work zone properly labeled, along with the posted speed limits and a north arrow;
- identify the path of construction vehicles traveling to the site. ~~If Lawrence Expressway is used, the time of use shall be limited to 9:00 a.m. to 3:00 p.m.~~;
- describe the estimated highest number of vehicle trips generated during project construction activities;
- identify the existing roadway lane and bike lane configurations and sidewalks, including dimensions, where applicable;
- describe the proposed work zone;
- describe anticipated detours and/or lane closures (for pedestrians, bicyclists, and vehicles);
- describe no-parking zones and other parking restrictions;
- describe appropriate tapers and lengths, signs, and spacing;
- identify appropriate channelization devices and spacing;
- describe the buffers;
- identify work hours and work days;
- provide the dimensions of the elements and requirements listed above in accordance with CA MUTCD Part 6 and the City of Sunnyvale's Standard Operating Procedure (SOP) for bike lane closures;
- identify the proposed speed limit changes if applicable;
- describe the bus stops and signalized and nonsignalized intersections that will affected by the work;
- show the plan to address pedestrian, bicycle, and Americans with Disabilities Act requirements throughout the work zone in accordance with CA MUTCD Part 6 and the City of Sunnyvale's SOP for bike lane closures;
- provide details on trucks, including the number and size of trucks involved with construction per day, expected arrival and departure times, and truck circulation patterns;
- identify all the staging areas on the project site and duration of each stage of construction for the project and any related improvements; and
- ensure that the contractor has obtained and read the City of Sunnyvale's TTC Guidelines and City of Sunnyvale's SOP for bike lane closures.

City of Sunnyvale

Agenda Item 3

19-0350 **Agenda Date:** 4/8/2019

REPORT TO PLANNING COMMISSION

SUBJECT

Proposed Project: Application on a 0.38-acre site:

DESIGN REVIEW: to allow construction of a new one-story single-family home resulting in 5,641 square feet (4,701 square feet living area, 760 square feet garage, and 180 square feet covered patio) and 42.9% floor area ratio (FAR). The existing home will be demolished.

Location: 1150 S. Bernardo Ave. (APN: 202-34-030)
File #: 2018-7952
Zoning: R-1 (Low Density Residential)
Applicant / Owner: LHC Design, Inc. (applicant) / Kaili Kan and Qing Fan (owner)
Environmental Review: A Class 3 Categorical Exemption relieves this project from California Environmental Quality Act (CEQA) provisions. Class 3(a) Categorical Exemption includes construction of one single-family residence in a residential zoning district.
Project Planner: Mary Jeyaprakash, (408) 730-7449, mjeyaprakash@sunnyvale.ca.gov

REPORT IN BRIEF

General Plan: Low Density Residential (RLO)
Existing Site Conditions: One-Story Single-Family Home
Surrounding Land Uses

North: Church and Preschool (Community First School)
South: One-Story Single-Family Home
East: Church and Preschool (Community First School)
West: Two-Story Single-Family Home

Issues: Neighborhood Compatibility, Compliance with Single Family Home Design Techniques
Staff Recommendation: Approve the Design Review with the Conditions of Approval in Attachment 4.

BACKGROUND

Description of Proposed Project

The project site is 0.38 acres in size and is currently developed with a one-story single-family home.

The applicant requests to demolish the existing house and construct a new one-story single-family home resulting in 5,641 square feet and 42.9% floor area ratio (FAR). The proposed project requires Planning Commission review because the proposed floor area exceeds 3,600 square feet.

See Attachment 1 for a map of the vicinity and mailing area for notices and Attachment 2 for the Project Data Table of the proposed project.

Previous Actions on the Site
A Tree Removal Permit was issued to remove a storm damaged tree at the front of the house in 2006. There are no other previous Planning applications or active Neighborhood Preservation complaints on this property.

EXISTING POLICY
Applicable Design Guidelines: The City's Design Guidelines provide recommendations for site layout, architecture, and design. These guidelines are referenced in the discussion and analysis below.

ENVIRONMENTAL REVIEW
A Class 3 Categorical Exemption relieves this project from California Environmental Quality Act (CEQA) provisions. Class 3(a) Categorical Exemption includes construction of one single-family residence in a residential zoning district.

DISCUSSION

Present Site Conditions
The existing site is developed with a one-story single family home on a 16,800-gross square foot lot. The property starts at the street center-line of S. Bernardo Avenue. The first 25 feet of the property is a street easement for S. Bernardo Avenue, followed by a 10-foot wide sidewalk and landscaping easement. Lot coverage and FAR are based on net lot area (exclusive of right-of-way easements). The net lot area for the subject property is approximately 13,125 square feet, while the typical R-1 zoned lot is approximately 8,000 square feet in size.

Development Standards
The proposed project complies with the applicable development standards as set forth in the Sunnyvale Municipal Code (SMC), such as setbacks, lot coverage, parking and height. The Project Data Table for the proposed project can be found in Attachment 2.

Architecture and Site Layout: The neighborhood consists of primarily Ranch-style single-family homes. The proposed architectural design is considered to be Prairie-style, with sand-toned stucco walls, strong horizontal lines, overhanging hipped roof, wide-open floor plan composition shingle roofing, and trim detailing on the gable ends. The design includes stacked stone veneer wainscoting around the base of the front elevation. The roof mass is minimized with a combination of hipped and gable ends, and dormer windows that add visual interest and match other dormer windows found in the neighborhood.

Floor Area and Floor Area Ratio: The proposed home is 5,641 square feet in size and 42.9% FAR, with 4,701 square feet of living area and a three-car garage that is 760 square feet in size. The homes in the neighborhood range in size from 2,174 square feet to 3,200 square feet in size, with an average of 2,647 square feet. The average lot size in the neighborhood is 8,194 square feet in size. Properties that are zoned R-1 are typically approximately 8,000 square feet in size.

The subject property is unique in that it is more than 60% larger than typical lots found in the neighborhood and within the R-1 zone. FAR is a measurement of bulk and mass, relative to the size of a lot. In staff's opinion, the proposed house size is appropriate to the lot as the FAR is under 45%

and is similar to other FARs found in the neighborhood. there are other homes in the neighborhood with similar FARs. The architectural style, increased setbacks, well-articulated building façade and a combination of high quality materials help in minimizing the visual impact of the large home. The one-story height also helps to reduce the bulk from the streetscape, and allows for neighborhood compatibility.

Building Height: The project site is surrounded by a one-story home (14'-9" average height) and two story homes (19'-6" average height) on the south and west sides of the property respectively. A church and school are located to the north and east sides of the property. The proposed house will be 20'-6" in height, with a plate height to be 10-feet and 4:12 roof slope. To further minimize the perceived mass and bulk of the home, staff recommends that the plate height be reduced to 9 feet. See Attachment 4 - GC-2 for the Recommended Conditions of Approval.

Landscaping: The proposed project does not include changing the existing landscaping. Hence the applicant is not required to submit a landscaping plan. The applicant is proposing to remove an 8-inch and a 9-inch tree in the backyard that are not protected and replace them with different trees elsewhere within the site.

Applicable Design Guidelines: The proposed project will be consistent with the adopted Single-Family Home Design Techniques with reduced plate height. The recommended Findings can be found in Attachment 3.

Neighborhood Impacts

Staff does not expect privacy or noise impacts to result with approval of the project. The subject property is larger than other homes in the neighborhood and the proposed home is proportionate to the large lot with FAR under 45%. Staff's recommendation to reduce the plate height will bring the scale of the project similar to other one-story homes in the neighborhood. The bulk, massing, and setbacks are respective to the surrounding neighborhood and the proposed architectural elements are consistent with other nearby homes.

FISCAL IMPACT

No fiscal impacts other than normal fees and taxes are expected.

PUBLIC CONTACT

Notice of Public Hearing:

- Published in the *Sun* newspaper
- Posted on the site
- 41 notices mailed to property owners and residents within 300 feet of the project site

Staff Report:

- Posted on the City's website
- Provided at the Reference Section of the City's Public Library

Agenda:

- Posted on the City's website
- Posted on the City's official notice bulletin board

Public Contact: As of the date of staff report preparation, staff has received no comments from the public.

ALTERNATIVES

1. Approve the Design Review with the Conditions of Approval in Attachment 4.
2. Approve the Design Review with modified conditions.
3. Deny the Design Review and provide direction to staff and the applicant where changes should be made.

STAFF RECOMMENDATION

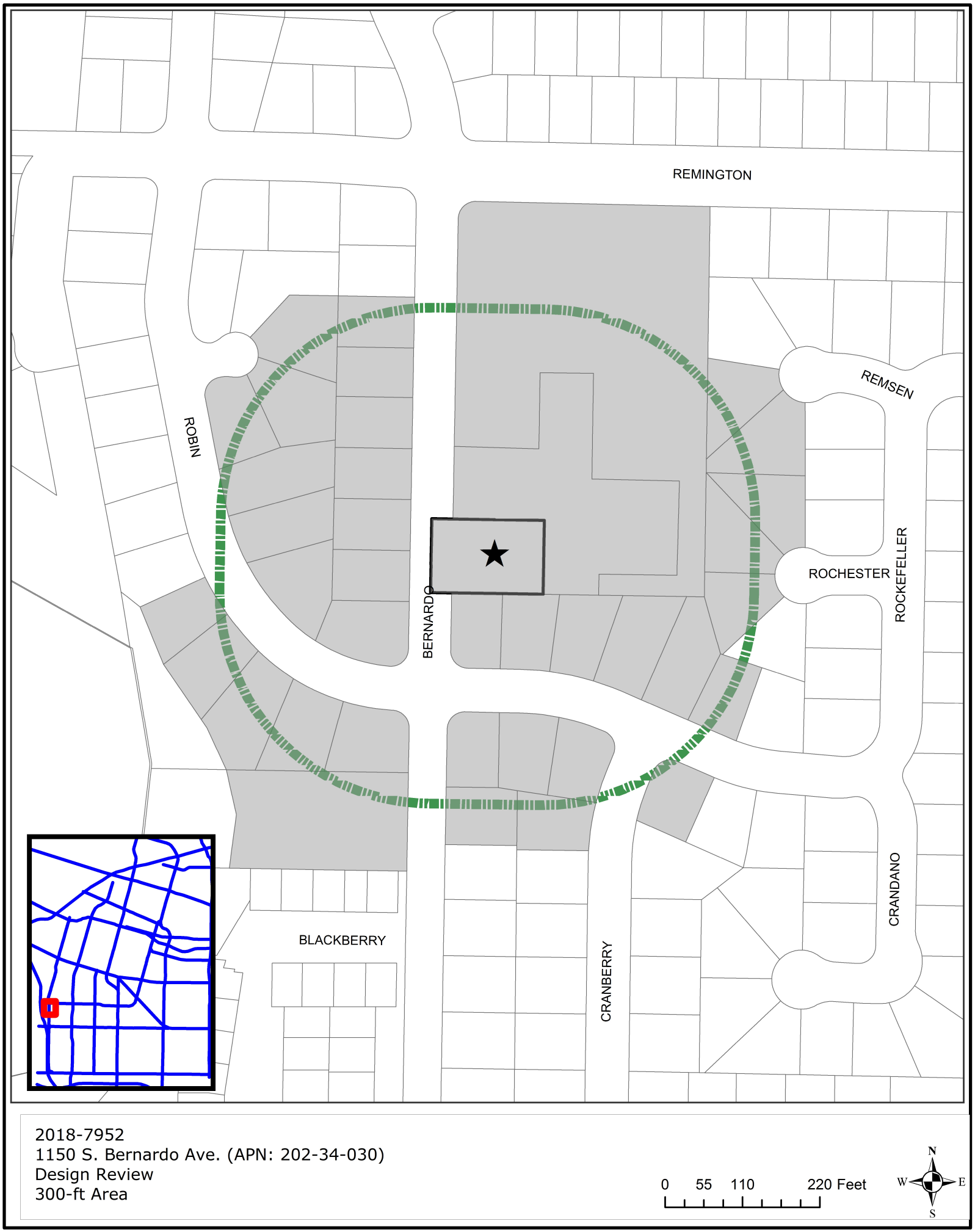
Recommend Alternative 1: Approve the Design Review in accordance with the Findings in Attachment 3 and Conditions of Approval in Attachment 4.

Prepared by: Mary Jeyaprakash, Associate Planner
Approved by: Noren Caliva-Lepe, Acting Principal Planner

ATTACHMENTS

1. Site, Vicinity and Public Notice Mailing Map
2. Project Data Table
3. Recommended Findings
4. Recommended Conditions of Approval
5. Proposed Site and Architectural Plans
6. Neighborhood Comparison Table

ATTACHMENT 1



2018-7952
1150 S. Bernardo Ave. (APN: 202-34-030)
Design Review
300-ft Area

0 55 110 220 Feet

N
W E
S

PROJECT DATA TABLE

	EXISTING	PROPOSED	REQUIRED/ AS PERMITTED
General Plan	Low Density Residential	Same	--
Zoning District	Low Density Residential (R-1)	Same	--
Lot Size	16,800 s. f. (Gross) 13,125 s. f. (Net[1])	Same	--
Gross Floor Area	2,841 s. f.	5,641 s. f.	3,600 s. f.[2]
Net Lot Coverage	2,865 s. f.	5,719 s. f. (43.5%)	45% max.
Net Floor Area Ratio (FAR%)	21.6%	42.9%	45%[2]
No. of Units	1	1	1 max.
Building Height	14'-1"	20'-6"	30' max.
No. of Stories	1	1	2 max.
Setbacks			
Front	25'	24'-6"	20' min.
Side	8'	10'-6"	6' min.
Combined/Total Side	20'-3"	21'	21' min.
Rear	46'-6"	20'	20' min.
Parking			
Total Spaces	4	6	4 min.
Covered Spaces	2	3	2 min.

[1] Not including street, landscape and sidewalk easements.
[2] Threshold for Planning Commission review.

RECOMMENDED FINDINGS

Design Review

The proposed project is desirable in that the project's design and architecture conforms with the policies and principles of the Single Family Home Design Techniques.

Basic Design Principle	Comments
2.2.1 Reinforce prevailing neighborhood home orientation and entry patterns	The proposed entry porch is well designed as it helps in defining the front entry and is consistent with the architectural style of the house and immediate neighborhood. ***Finding Met***
2.2.2 Respect the scale, bulk and character of homes in the adjacent neighborhood.	While the proposed home will be larger than other homes in the neighborhood, the home is proportional to the large lot and results in less than 45% floor area ratio. As conditioned with the reduced plate height, the scale of the project will be similar to other one story homes found in the neighborhood. The proposed one story home exceeds the minimum front, side and rear setbacks and has a well-articulated building facade with high quality materials that help in minimizing the potential visual impact. ***Finding Met***
2.2.3 Design homes to respect their immediate neighbors	The proposed home complies with the requirements related to bulk, massing, and setbacks and is respectful of the surrounding neighborhood. Proposed architectural elements are consistent with other nearby homes. ***Finding Met***
2.2.4 Minimize the visual impacts of parking.	The proposal with a three-car garage exceeds the minimum requirement for parking. The garage elevation is split, with a two-car garage door and a recessed one-car garage door, which reduces the visual mass of parking. The entry porch is projected forward from the living and the dining room and aligned with the garage to maintain the visual prominence of the porch. ***Finding Met***
2.2.5 Respect the predominant materials and character of front yard landscaping.	The project proposes to keep a portion of the existing landscaping in the front yard

	and rebuild the existing driveway at the same location. ***Finding Met***
2.2.6 Use high quality materials and craftsmanship	The applicant proposes to utilize high-quality material that will complement the architectural style found within the neighborhood and will enhance the existing streetscape. ***Finding Met***
2.2.7 Preserve mature landscaping	The proposed addition does not remove any mature trees. ***Finding Met***

RECOMMENDED
CONDITIONS OF APPROVAL AND
STANDARD DEVELOPMENT REQUIREMENTS
APRIL 8, 2019

Planning Application **2018-7952**
1150 S Bernardo Ave
Design Review to allow construction of a new one-story single-family home resulting in 5,641 square feet (4,701 square feet living area, 760 square feet garage, and 180 square feet covered patio) and 42.9% floor area ratio (FAR). The existing home will be demolished.

The following Conditions of Approval [COA] and Standard Development Requirements [SDR] apply to the project referenced above. The COAs are specific conditions applicable to the proposed project. The SDRs are items which are codified or adopted by resolution and have been included for ease of reference, they may not be appealed or changed. The COAs and SDRs are grouped under specific headings that relate to the timing of required compliance. Additional language within a condition may further define the timing of required compliance. Applicable mitigation measures are noted with "Mitigation Measure" and placed in the applicable phase of the project.

In addition to complying with all applicable City, County, State and Federal Statutes, Codes, Ordinances, Resolutions and Regulations, Permittee expressly accepts and agrees to comply with the following Conditions of Approval and Standard Development Requirements of this Permit:

GC: THE FOLLOWING GENERAL CONDITIONS AND STANDARD DEVELOPMENT REQUIREMENTS SHALL APPLY TO THE APPROVED PROJECT.

GC-1. CONFORMANCE WITH APPROVED PLANNING APPLICATION:
All building permit drawings and subsequent construction and operation shall substantially conform with the approved planning application, including: drawings/plans, materials samples, building colors, and other items submitted as part of the approved application. Any proposed amendments to the approved plans or Conditions of Approval are subject to review and approval by the City. The Director of Community Development shall determine whether revisions are considered major or minor. Minor changes are subject to review and approval by the Director of Community Development. Major changes are subject to review at a public hearing. [COA] [PLANNING]

GC-2. PLATE HEIGHT:

Reduce the plate height (vertical height of the wall measured from the finished floor level, to the point it touches the roof rafters or trusses) throughout the house from 10 feet to 9 feet. [COA] (PLANNING)

GC-3. ENTITLEMENTS—EXERCISE AND EXPIRATION:

The approved entitlements shall be null and void two years from the date of approval by the final review authority if the approval is not exercised, unless a written request for an extension is received prior to the expiration date and is approved by the Director of Community Development. [SDR] (PLANNING)

GC-4. ENTITLEMENTS—DISCONTINUANCE AND EXPIRATION:

The entitlements shall expire if discontinued for a period of one year or more. [SDR] (PLANNING)

GC-5. INDEMNITY:

The applicant/developer shall defend, indemnify, and hold harmless the City, or any of its boards, commissions, agents, officers, and employees (collectively, "City") from any claim, action, or proceeding against the City to attack, set aside, void, or annul, the approval of the project when such claim, action, or proceeding is brought within the time period provided for in applicable state and/or local statutes. The City shall promptly notify the developer of any such claim, action or proceeding. The City shall have the option of coordinating the defense. Nothing contained in this condition shall prohibit the City from participating in a defense of any claim, action, or proceeding if the City bears its own attorney's fees and costs, and the City defends the action in good faith. [COA] [OFFICE OF THE CITY ATTORNEY]

GC-6. NOTICE OF FEES PROTEST:

As required by California Government Code Section 66020, the project applicant is hereby notified that the 90-day period has begun as of the date of the approval of this application, in which the applicant may protest any fees, dedications, reservations, or other exactions imposed by the city as part of the approval or as a condition of approval of this development. The fees, dedications, reservations, or other exactions are described in the approved plans, conditions of approval, and/or adopted city impact fee schedule. [SDR] [PLANNING / OCA]

GC-7. ON-SITE AMENITIES:

Swimming pools, pool equipment structures, play equipment and other accessory utility buildings, except as otherwise subject to Planning Commission review, may be allowed by the Director of Community Development subject to approval of design, location and colors. [COA] [PLANNING]

GC-8. PUBLIC IMPROVEMENTS:

The developer is required to install, per Sunnyvale Municipal Code Sections 18.08, all public improvements, which may include but not be limited to driveway approaches, street pavements, utility connections, meters, etc.

All public improvements shall be designed and constructed in accordance with current City design standards, standard details and specifications, and Americans with Disabilities Act (ADA) requirements where applicable, unless otherwise approved by the Department of Public Works.

The developer is required to complete the installation of all public improvements and other improvements deemed necessary by the Public Works Department, prior to occupancy of the first building, or to the satisfaction of the Department of Public Works. [COA] [PUBLIC WORKS]

GC-9. STREET DEDICATION EASEMENT:

A 10' Street Dedication Easement along the entire project frontage shall be submitted to the City for review and approval. Prior to building occupancy recordation of the 10' Street Dedication Easement is required. [COA] [PUBLIC WORKS]

GC-10. ENCROACHMENT PERMIT:

Prior to any work in the public right-of-way, obtain an encroachment permit with insurance requirements for all public improvements including a traffic control plan per the latest California Manual on Uniform Traffic Control Devices (MUTCD) standards to be reviewed and approved by the Department of Public Works. [COA] [PUBLIC WORKS]

BP: THE FOLLOWING CONDITIONS SHALL BE ADDRESSED ON THE CONSTRUCTION PLANS SUBMITTED FOR ANY DEMOLITION PERMIT, BUILDING PERMIT, GRADING PERMIT, AND/OR ENCROACHMENT PERMIT AND SHALL BE MET PRIOR TO THE ISSUANCE OF SAID PERMIT(S).

BP-1. CONDITIONS OF APPROVAL:

Final plans shall include all Conditions of Approval included as part of the approved application starting on sheet 2 of the plans. [COA] [PLANNING]

BP-2. RESPONSE TO CONDITIONS OF APPROVAL:

A written response indicating how each condition has or will be addressed shall accompany the building permit set of plans. [COA] [PLANNING]

BP-3. NOTICE OF CONDITIONS OF APPROVAL:

A Notice of Conditions of Approval shall be filed in the official records of the County of Santa Clara and provide proof of such recordation to the City prior to issuance of any City permit, allowed use of the property, or Final Map, as applicable. The Notice of Conditions of Approval shall be prepared by the Planning Division and shall include a description of the subject property, the Planning Application number, attached conditions of approval and any accompanying subdivision or parcel map, including book and page and recorded document number, if any, and be signed and notarized by each property owner of record.

For purposes of determining the record owner of the property, the applicant shall provide the City with evidence in the form of a report from a title insurance company indicating that the record owner(s) are the person(s) who have signed the Notice of Conditions of Approval. [COA] [PLANNING]

BP-4. BLUEPRINT FOR A CLEAN BAY:

The building permit plans shall include a "Blueprint for a Clean Bay" on one full sized sheet of the plans. [SDR] [PLANNING]

BP-5. TREE PROTECTION PLAN:

Prior to issuance of a Demolition Permit, a Grading Permit or a Building Permit, whichever occurs first, obtain approval of a tree protection plan from the Director of Community Development. Two copies are required to be submitted for review. The tree protection plan shall include measures noted in Title 19 of the Sunnyvale Municipal Code and at a minimum:

a) An inventory shall be taken of all existing trees on the plan including the valuation of all 'protected trees' by a certified arborist, using the latest version of the "Guide for Plant Appraisal" published by the International Society of Arboriculture (ISA).

b) All existing (non-orchard) trees on the plans, showing size and varieties, and clearly specify which are to be retained.

c) Provide fencing around the drip line of the trees that are to be saved and ensure that no construction debris or equipment is stored within the fenced area during demolition and construction.

d) The tree protection plan shall be installed prior to issuance of any Building or Grading Permits, subject to the on-site inspection and approval by the City Arborist and shall be maintained in place during the duration of construction and shall be added to any subsequent building permit plans. [COA] [PLANNING/CITY ARBORIST]

BP-6. BEST MANAGEMENT PRACTICES - STORMWATER:

The project shall comply with the following source control measures as outlined in the BMP Guidance Manual and SMC 12.60.220. Best management practices shall be identified on the building permit set of plans and shall be subject to review and approval by the Director of Public Works:

a) Storm drain stenciling. The stencil is available from the City's Environmental Division Public Outreach Program, which may be reached by calling (408) 730-7738.

b) Landscaping that minimizes irrigation and runoff, promotes surface infiltration where possible, minimizes the use of pesticides and fertilizers, and incorporates appropriate sustainable landscaping practices and programs such as Bay-Friendly Landscaping.

c) Appropriate covers, drains, and storage precautions for outdoor material storage areas, loading docks, repair/maintenance bays, and fueling areas.

d) Covered trash, food waste, and compactor enclosures.

e) Plumbing of the following discharges to the sanitary sewer, subject to the local sanitary sewer agency's authority and standards:

   i) Discharges from indoor floor mat/equipment/hood filter wash racks or covered outdoor wash racks for restaurants.

   ii) Dumpster drips from covered trash and food compactor enclosures.

   iii) Discharges from outdoor covered wash areas for vehicles, equipment, and accessories.

   iv) Swimming pool water, spa/hot tub, water feature and fountain discharges if discharge to onsite vegetated areas is not a feasible option.

   v) Fire sprinkler test water, if discharge to onsite vegetated areas is not a feasible option. [SDR] [PLANNING]

BP-7. BLUEPRINT FOR A CLEAN BAY:

The building permit plans shall include a "Blueprint for a Clean Bay" on one full sized sheet of the plans. [SDR] [PLANNING]

BP-8. CONSTRUCTION MATERIAL AND STAGING:

All construction related materials, equipment, and construction workers parking need to be managed on-site and not located in the public right-of-way or public easements. [COA] [PUBLIC WORKS]

DC: THE FOLLOWING CONDITIONS SHALL BE COMPLIED WITH AT ALL TIMES DURING THE CONSTRUCTION PHASE OF THE PROJECT.

DC-1. BLUEPRINT FOR A CLEAN BAY:

The project shall be in compliance with stormwater best management practices for general construction activity until the project is completed and either final occupancy has been granted. [SDR] [PLANNING]

DC-2. TREE PROTECTION:

All tree protection shall be maintained, as indicated in the tree protection plan, until construction has been completed and the installation of landscaping has begun. [COA] [PLANNING]

DC-3. CLIMATE ACTION PLAN – OFF ROAD EQUIPMENT REQUIREMENT:

OR 2.1: Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), or less. Clear signage will be provided at all access points to remind construction workers of idling restrictions.

OR 2.2: Construction equipment must be maintained per manufacturer's specifications.

OR 2.3: Planning and Building staff will work with project applicants to limit GHG emissions from construction equipment by selecting one of the following measures, at a minimum, as appropriate to the construction project:

a) Substitute electrified or hybrid equipment for diesel- and gasoline-powered equipment where practical.

b) Use alternatively fueled construction equipment on-site, where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.

c) Avoid the use of on-site generators by connecting to grid electricity or utilizing solar-powered equipment.

d) Limit heavy-duty equipment idling time to a period of 3 minutes or less, exceeding CARB regulation minimum requirements of 5 minutes. [COA] [PLANNING]

DC-4. DUST CONTROL:

At all times, the Bay Area Air Quality Management District's CEQA Guidelines and "Basic Construction Mitigation Measures Recommended for All Proposed Projects", shall be implemented. [COA] [PLANNING]

EP: THE FOLLOWING CONDITIONS SHALL BE ADDRESSED AS PART OF AN ENCROACHMENT PERMIT APPLICATION.

EP-1. UTILITY CONNECTION:

This project requires connection to all City utilities or private utilities operating under a City or State franchise which provide adequate levels of service. [COA] [PUBLIC WORKS] (SMC 18.08.030, SMC 12.08.010)

EP-2. MODIFICATIONS TO EXISTING PUBLIC UTILITIES:

Developer is required to pay for all changes or modifications to existing City utilities, streets and other public utilities within or adjacent to the project site, including but not limited to utility facilities/conduits/vaults relocation due to grade change in the sidewalk area, caused by the development. [COA] [PUBLIC WORKS]

EP-3. WATER METER:

Install new radio-read domestic water meter at each point of connection to the water main. For water meter size two (2) inch or larger, provide meter sizing calculations to the Department of Public Works for approve of meter size. Please submit as part of the encroachment permit. [COA] [PUBLIC WORKS]

EP-4. SEWER CLEANOUT:

Install new sewer cleanout at the street right-of-way lines for all existing and proposed sanitary sewer laterals to be used for the project. Please submit as part of the encroachment permit. [SDR] [PUBLIC WORKS]

EP-5. UTILITY METER/VAULT:

No existing or new utility meters or vaults shall be located within the new driveway approach. All existing or new utility vaults serving the project site shall be located on-site and not within the public utility easement, if any. [COA] [PUBLIC WORKS]

EP-6. DRIVEWAY APPROACHES:

Remove existing driveway approaches and install new driveway approaches along the project frontage to comply with Americans with Disabilities Act (ADA) requirements and City standard details and specifications. All unused driveway approaches shall be replaced with new curbs, gutters, and sidewalks per current City standards. Please submit as part of the encroachment permit. [SDR] [PUBLIC WORKS]

EP-7. TRAFFIC CONTROL PLAN:

Submit a traffic control plan with the encroachment permit for review and approval. Per the City's Temporary Traffic Control Checklist, the traffic control plan shall include a summary of the traffic control types, dates, times and blocks affected. All construction related materials, equipment, and construction workers parking need to be stored on-site and the public streets need to be kept free and clear of construction debris. [COA] [PUBLIC WORKS]

EP-8. DAMAGE TO EXISTING PUBLIC IMPROVEMENTS:

Developer shall be responsible to rectify any damage to the existing public improvements fronting and adjacent to the project site as a result of project construction, to City's satisfaction by the Public Works Department. All existing traffic detector loops and conduits shall be protected in place during construction. Any damaged detector loops shall be replaced within 7 days at the expense of the developer. [COA] [PUBLIC WORKS]

PF: THE FOLLOWING CONDITION SHALL BE ADDRESSED ON THE CONSTRUCTION PLANS AND/OR SHALL BE MET PRIOR TO RELEASE OF UTILITIES OR ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

PF-1. COMPLETION OF PUBLIC IMPROVEMENTS:

Developer shall complete all required public improvements as required and in accordance with City approved plans, prior to any building occupancy. [COA] [PUBLIC WORKS]

KAN & FAN RESIDENCE

1150 S. BERNARDO AVENUE
SUNNYVALE, CALIFORNIA 94087

GENERAL NOTES

IT IS THE RESPONSIBILITY OF THE CONTRACTORS AND SUBCONTRACTORS TO CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS INDICATED ON THESE DRAWINGS AND MAKE KNOWN ANY DISCREPANCIES PRIOR TO COMMENCING THEIR WORKS.

THESE DRAWINGS ARE INTENDED FOR USE IN A NEGOTIATED CONSTRUCTION CONTRACT AND, THEREFORE, MAY NOT SPECIFICALLY DETAIL OR SPECIFY MATERIAL AND / OR MANUFACTURERS. THE CONTRACTORS SHALL PROVIDE ALL SAMPLES AND OR SPECIFICATION SHEETS AS REQUIRED TO ASSIST OWNERS OR THEIR AGENT IN MAKING MATERIAL SELECTIONS. FOR THE PURPOSE OF ESTIMATING, THE CONTRACTORS SHALL USE THE MATERIALS SELECTED BY THE OWNERS, OR IN ABSENCE OF SAME, THEY SHALL PROVIDE AN ALLOWANCE AMOUNT WITH CONDITION OF ANY COST ESTIMATE. ALL MATERIALS SPECIFIED IN THESE DRAWINGS SHALL BE INCLUDED IN SUCH ESTIMATE.

NO GUARANTEE OF QUALITY OF CONSTRUCTION IS IMPLIED OR INTENDED BY THE ARCHITECTURAL DOCUMENT, AND THE CONTRACTORS SHALL ASSUME FULL RESPONSIBILITY FOR ANY OR ALL CONSTRUCTION DEFICIENCIES.

THE GENERAL CONTRACTOR SHALL HOLD HARMLESS, INDEMNIFY AND DEFEND THE DESIGNER FROM ANY ACTION INITIATED BY THE INITIAL OWNER OR ANY SUBSEQUENT OWNERS FOR CONSTRUCTION DEFICIENCIES, MODIFICATIONS OR SUCH CONDITIONS WHICH MAY BE BEYOND THE CONTROL OF THE DESIGNER.

ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND TRADE STANDARDS WHICH GOVERN EACH PHASE OF WORK, INCLUDING BUT NOT LIMITED TO: CALIFORNIA BUILDING CODE (CBC), CALIFORNIA MECHANICAL CODE (CMC), CALIFORNIA ELECTRICAL CODE (CEC), CALIFORNIA PLUMBING CODE (CPC), AND ALL APPLICABLE LOCAL CODES AND LEGISLATION.

THE CONTRACTORS SHALL REVIEW AND RECORD THE CONDITIONS OF ALL EXISTING SITE IMPROVEMENTS INCLUDING PAVED AREAS. THEY SHALL MAKE KNOWN ALL EXISTING DAMAGED OR DISREPAIRED ITEMS AND CONDITIONS THAT MAY WORSEN DUE TO THE CONSTRUCTION. ALL ITEMS IN GOOD CONDITION SHALL BE MAINTAIN IN THEIR PRESENT CONDITION AND ANY REPAIR OR DAMAGE WHICH OCCURS DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS.

CONTRACTORS SHALL THOROUGHLY EXAMINE THE SITE AND SATISFY THEMSEVE AS OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE CONTRACTORS SHALL VERIFY AT THE SITE ALL MEASUREMENTS AFFECTING THEIR WORK AND SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF SAME. NO EXTRA COMPENSATION WILL BE ALLOWED TO THE CONTRACTORS FOR THE EXPENSES DUE TO THEIR NEGLECT TO EXAMINE OR FAILURE TO DISCOVER CONDITIONS WHICH MAY AFFECT THEIR WORK.

ALL NEW INTERIOR PAINT COLOR, FLOOR, WALLS AND CEILING FINISHES SHALL BE SELECTED BY OWNER AT THE TIME WHEN IT IS NECESSARY FOR THE COMPLETION OF THE PROJECT.

ALL PUBLIC IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE LATEST ADOPTED CITY STANDARDS. THE STORING OF GOODS AND MATERIALS ON SIDEWALK AND/OR STREET WALL NOT BE ALLOWED UNLESS THE CONTRACTOR HAS APPLIED AND SECURED A SPECIAL PERMIT WHICH ALLOWS SUCH STORAGE TO BE PLACED.

PROJECT DATA

ZONING DESIGNATION:	R1	
EXISTING USE:	SINGLE FAMILY RESIDENTIAL	
PROPOSED USE:	SINGLE FAMILY RESIDENTIAL	
OCCUPANCY GROUP:	R3/U	
TYPE OF CONSTRUCTION:	V-B	
SITE AREA: (GROSS)	16800 S.F.	0.3857 ACRE
(NET)	13125 S.F.	0.3013 ACRE
EXISTING LIVING FLOOR:	1993 S.F. (TO BE DEMOLISHED)	
EXISTING GARAGE:	686 S.F. (TO BE DEMOLISHED)	
TOTAL EXISTING BUILDING AREA:	2679 S.F.	
EXISTING COVERED PORCH:	24 S.F. (TO BE DEMOLISHED)	
EXISTING COVERED PATIO:	162 S.F. (TO BE DEMOLISHED)	
PROPOSED LIVING FLOOR:	4701 S.F.	
PROPOSED GARAGE:	760 S.F.	
FLOOR AREA RATIO (FAR):	41.61% (5461 / 13125)	
FRONT COVERED PORCH:	78 S.F.	
REAR COVERED PATIO:	180 S.F.	
LOT COVERAGE:	43.57% (5719 / 13125)	
EXISTING BUILDING HEIGHT:	14'-1"	
PROPOSED BUILDING HEIGHT:	20'-6"	
NUMBER OF STORIES:	1	
PAVING AREA:	1312 S.F.	10.00% OF TOTAL
LANDSCAPE AREA:	6094 S.F.	46.43% OF TOTAL
BUILDING SET BACK:	FRONT 20 FT. SIDE 10 FT. 6 IN. REAR 20 FT.	
APPLICABLE CODES:	2016 CRC, CGBC, CMC, CPC, CFC, CEC, & CITY OF SUNNYVALE MUNICIPAL CODES. 2016 CALIFORNIA ENERGY STANDARD	
ASSESSOR PARCEL NUMBER:	202-34-030	

SCOPE OF WORK

THIS PROJECT IS TO DEMOLISH (E) SINGLE FAMILY HOUSE AND PROPOSE A NEW 1-STORY HOUSE SINGLE FAMILY HOUSE WITH 5 BEDROOMS, 4.5 BATHS, & 3-CAR GARAGE; AND UPGRADE THE ELECTRICAL PANEL TO 400 AMPS.

DRAWING INDEX

ARCHITECTURAL

A-0 TITLE SHEET / SITE PLAN
A-1.1 DEMOLITION PLAN / BLOCKOUT CALCULATION
A-1.2 PROPOSED ROOF PLAN
A-2.1 PROPOSED FLOOR PLAN
A-2.2 PROPOSED UTILITY PLAN
A-3.1 PROPOSED BUILDING ELEVATIONS & SECTION
A-3.2 PROPOSED BUILDING ELEVATIONS & SECTION
A-4.1 EXISTING BUILDING ELEVATIONS
A-4.2 STREET VIEW FRONT ELEVATIONS
A-5 RARCHITECTURAL DETAILS
T-24 T-24 ENERGY COMPLIANCE

STRUCTURAL

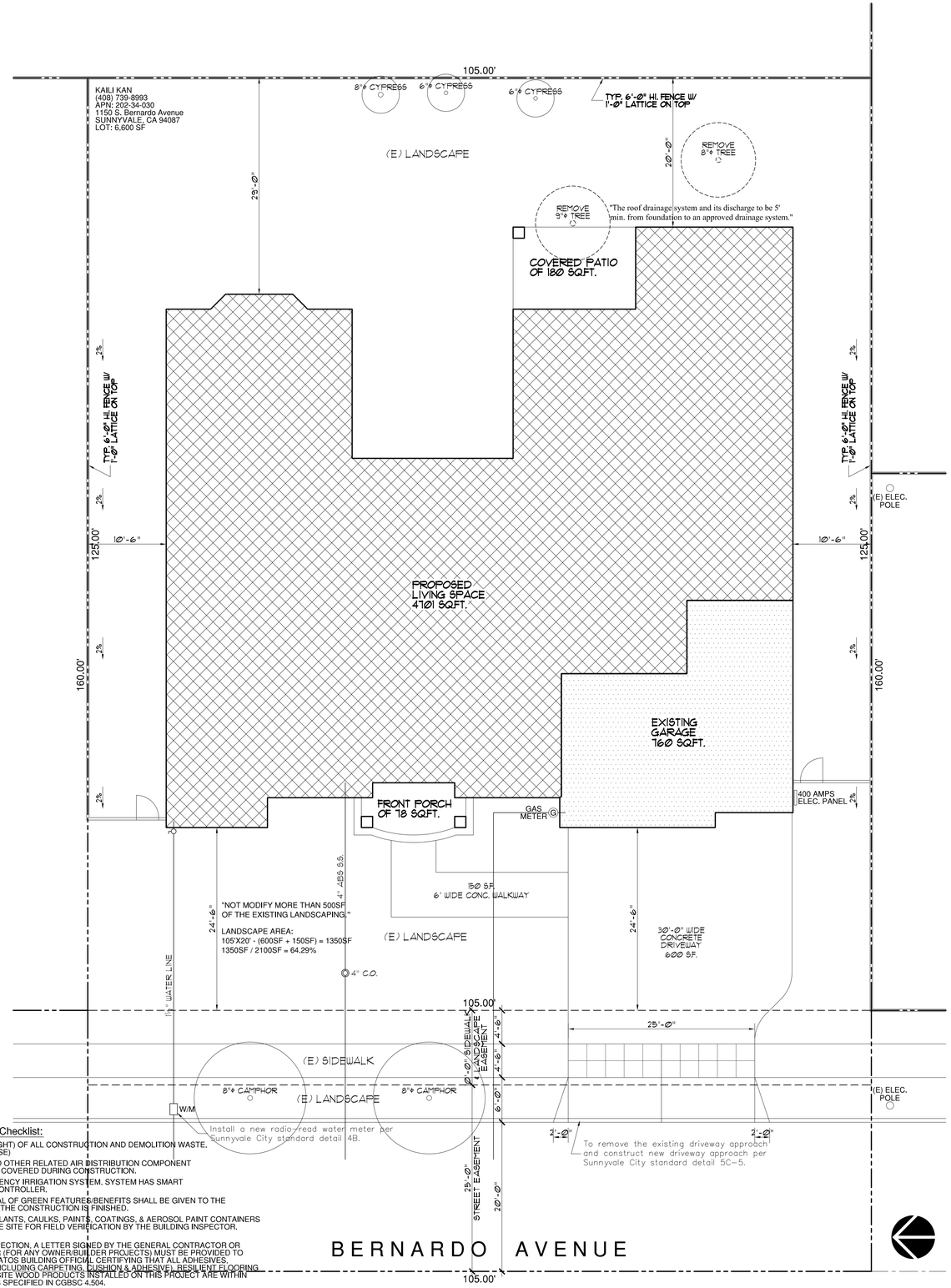
S-0 GENERAL NOTES / STRUCTURAL DETAILS
S-1 FOUNDATION FRAMING PLAN / STRUCTURAL DETAILS
S-2 ROOF FRAMING & CEILING JOIST PLAN

OWNER:
KAILI KAN & QING FAN
1150 S. BERNARDO AVENUE
SUNNYVALE, CA 94087
TEL: (408) 739-8993

ARCHITECT:
LHC ARCHITECTURAL DESIGN
13937 LYNDE AVENUE
SARATOGA, CA 95070
TEL: (408) 483-1965

VICINITY MAP





GreenPoint Rated Checklist:

* DIVERT 65% (BY WEIGHT) OF ALL CONSTRUCTION AND DEMOLITION WASTE. (RECYCLING OR REUSE)
* DUCT OPENINGS AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED DURING CONSTRUCTION.
* INSTALL HIGH-EFFICIENCY IRRIGATION SYSTEM. SYSTEM HAS SMART (WEATHER-BASED) CONTROLLER.
* HOMEOWNER MANUAL OF GREEN FEATURES BENEFITS SHALL BE GIVEN TO THE THE OWNERS AFTER THE CONSTRUCTION IS FINISHED.
* ALL ADHESIVES, SEALANTS, CAULKS, PAINTS, COATINGS, & AEROSOL PAINT CONTAINERS MUST REMAIN ON THE SITE FOR FIELD VERIFICATION BY THE BUILDING INSPECTOR. CGBSC 4.504.
* PRIOR TO FINAL INSPECTION, A LETTER SIGNED BY THE GENERAL CONTRACTOR OR THE OWNER/BUILDER (FOR ANY OWNER/BUILDER PROJECTS) MUST BE PROVIDED TO THE TOWN OF LOS GATOS BUILDING OFFICIAL CERTIFYING THAT ALL ADHESIVES, CARPET SYSTEMS (INCLUDING CARPETING, CUSHION & ADHESIVE), RESILIENT FLOORING SYSTEMS, & COMPOSITE WOOD PRODUCTS INSTALLED ON THIS PROJECT ARE WITHIN THE EMISSION LIMITS SPECIFIED IN CGBSC 4.504.

SITE PLAN 1/8" 1

LHC
L.H.C. Construction
21000-A Big Basin Way
Saratoga, CA 95070
(408) 867-9331

LICENSED ARCHITECT — HAO-QING "HAO" FAN — C-28947 — RENEWAL 10-31-19 — STATE OF CALIFORNIA

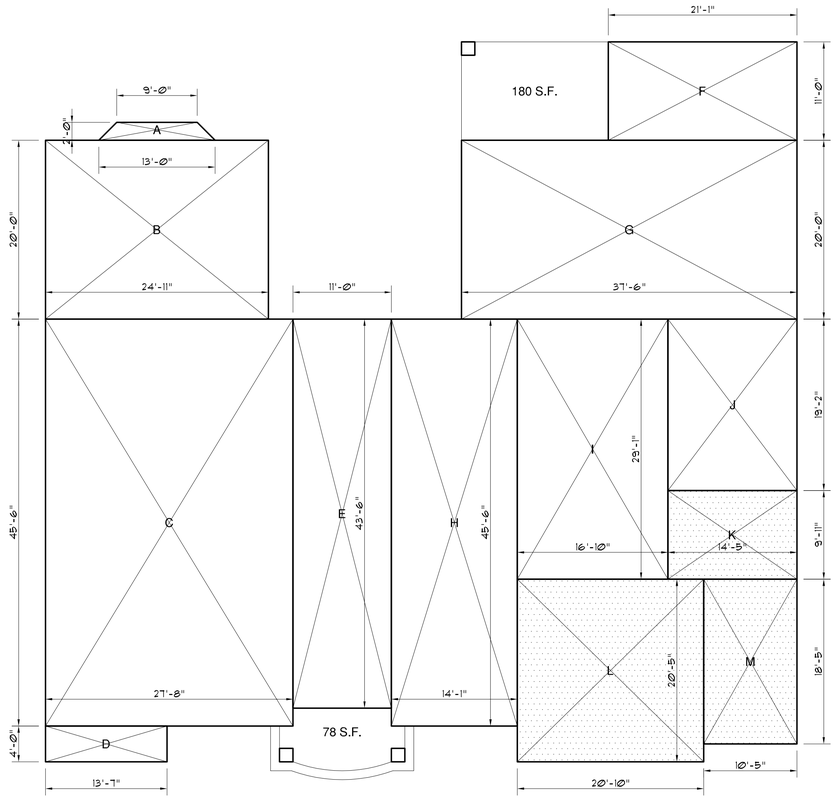
OWNER:
Kaili Kan & Qing Fan
1150 S. Bernardo Avenue
Sunnyvale, CA 94087
(408) 739-8993

KAN & FAN RESIDENCE
1150 S. BERNARDO AVENUE
SUNNYVALE, CALIFORNIA 94087

REVISIONS:

SHEET TITLE:
SITE PLAN
TITLE SHEET

DATE: Feb. 1, 2019
PROJECT NO.: 17-77
SCALE: AS SHOWN
DRAWN: HC
SHEET: A-0
OF 10 SHEETS



LIVING AREA:

A	(9'-0"+13'-0")/2 X 2' =	22.00 S.F.
B	24'-11" X 20'-0" =	498.33 S.F.
C	27'-8" X 45'-6" =	1258.83 S.F.
D	13'-7" X 4'-0" =	54.33 S.F.
E	11'-0" X 43'-6" =	478.50 S.F.
F	21'-1" X 11'-0" =	231.92 S.F.
G	37'-6" X 20'-0" =	750.00 S.F.
H	45'-4" X 45'-6" =	2062.67 S.F.
I	16'-10" X 29'-1" =	489.57 S.F.
J	14'-5" X 19'-2" =	276.32 S.F.
	TOTAL:	4700.59 S.F.

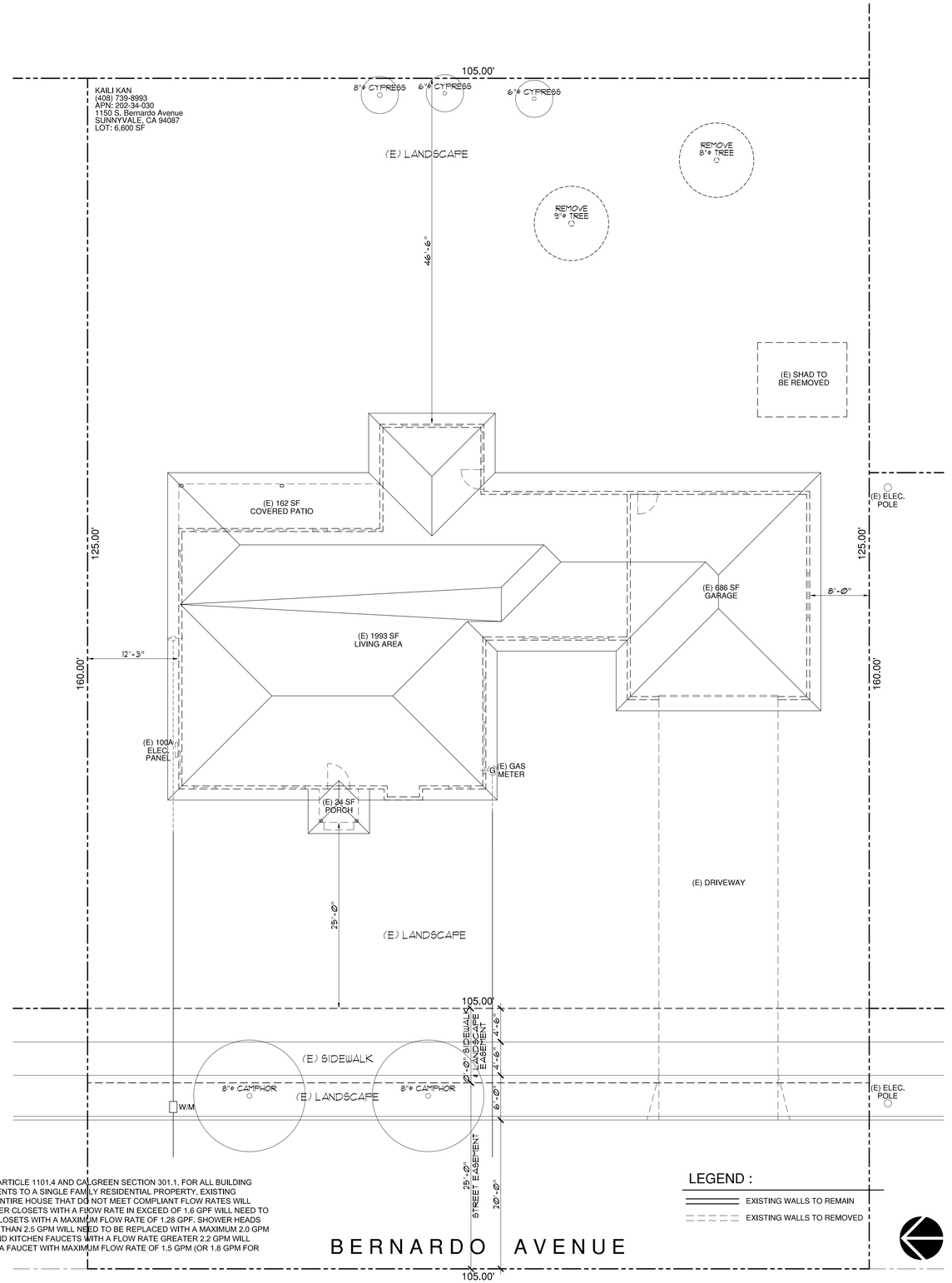
GARAGE AREA:

K	12'-5 X 9'-11" =	142.97 S.F.
L	20'-10" X 20'-5" =	425.35 S.F.
M	10'-5" X 18'-5" =	191.84 S.F.
	TOTAL:	760.16 S.F.

PORCH & PATIO:

FRONT PORCH	78.00 S.F.
REAR PATIO	180.00 S.F.
TOTAL:	258.00 S.F.

BLOCKOUT CALCULATION | 1/8" | 2



NOTES:

PER CALIFORNIA CIVIL CODE ARTICLE 1101.4 AND CALGREEN SECTION 301.1, FOR ALL BUILDING ALTERATIONS OR IMPROVEMENTS TO A SINGLE FAMILY RESIDENTIAL PROPERTY, EXISTING PLUMBING FIXTURES IN THE ENTIRE HOUSE THAT DO NOT MEET COMPLIANT FLOW RATES WILL NEED TO BE UPGRADED. WATER CLOSETS WITH A FLOW RATE IN EXCEED OF 1.6 GPF WILL NEED TO BE REPLACED WITH WATER CLOSETS WITH A MAXIMUM FLOW RATE OF 1.28 GPF. SHOWER HEADS WITH A FLOW RATE GREATER THAN 2.5 GPM WILL NEED TO BE REPLACED WITH A MAXIMUM 2.0 GPM SHOWER HEAD. LAVATORY AND KITCHEN FAUCETS WITH A FLOW RATE GREATER 2.2 GPM WILL NEED TO BE REPLACED WITH A FAUCET WITH MAXIMUM FLOW RATE OF 1.5 GPM (OR 1.8 GPM FOR KITCHEN FAUCETS).

LEGEND :

- EXISTING WALLS TO REMAIN
- EXISTING WALLS TO REMOVED

DEMOLITION PLAN | 1/8" | 1

LHC
L.H.C. Construction
21000-A Big Basin Way
Saratoga, CA 95070
(408) 867-9331

LICENSED ARCHITECT HAO QING FAN C-28947 RENEWAL: 10-31-19 STATE OF CALIFORNIA

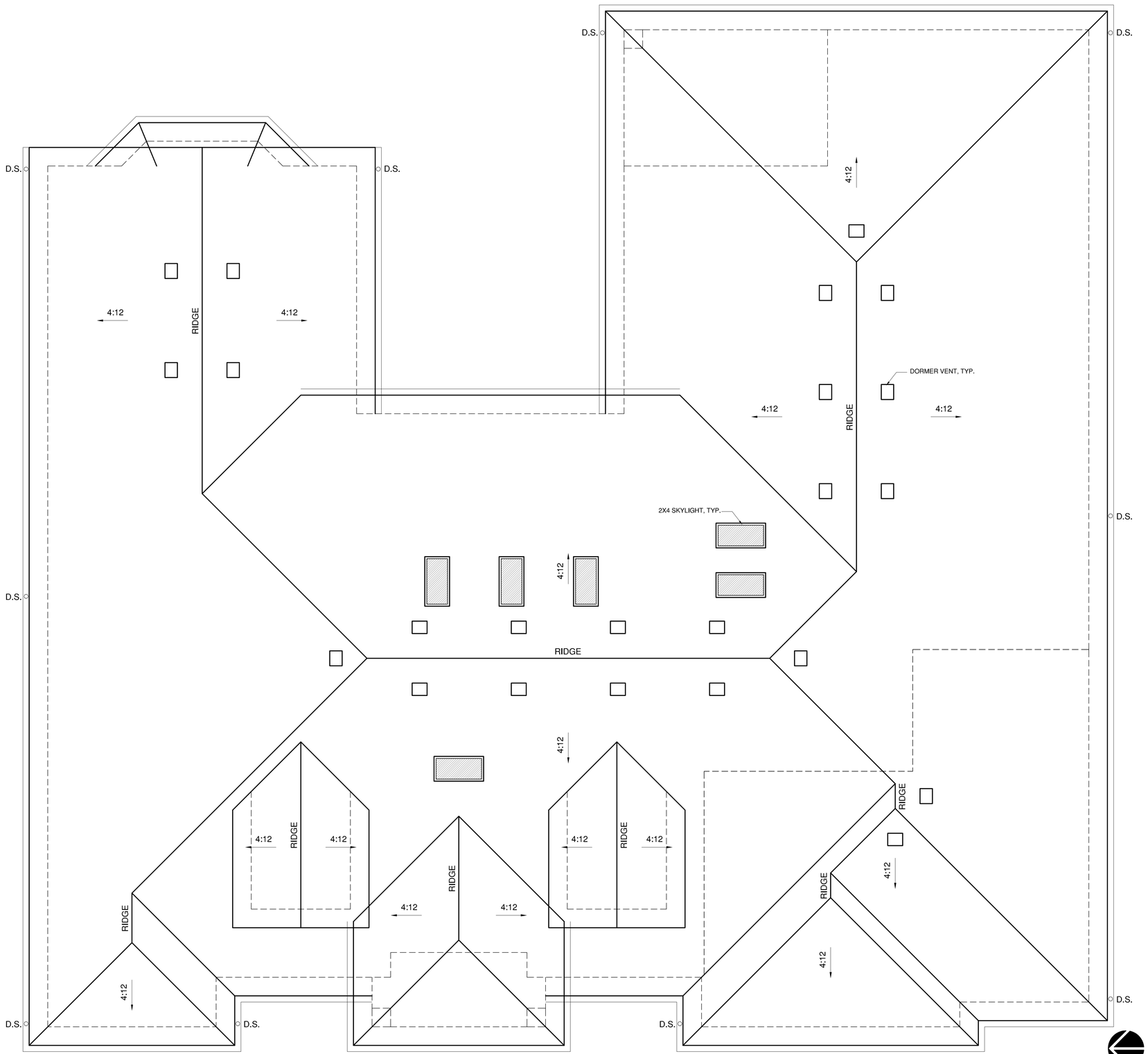
OWNER:
Kaili Kan & Qing Fan
1150 S. Bernardo Avenue
Sunnyvale, CA 94087
(408) 739-8993

KAN & FAN RESIDENCE
1150 S. BERNARDO AVENUE
SUNNYVALE, CALIFORNIA 94087

REVISIONS:

SHEET TITLE:
DEMOLITION PLAN
BLOCKOUT CALCULATION

DATE: Feb. 1, 2019
PROJECT NO.: 17-77
SCALE: AS SHOWN
DRAWN: HC
SHEET: A-1.1
OF **10** SHEETS



NOTE

1. PROVIDE POSITIVE DRAINAGE TO ROOF DRAINS FROM ALL PARTS OF THE ROOF.
2. D.S. ○—— : INDICATES 2" X 3" 26 GA. G.I. DOWNSPOUTS LOCATED AS SHOWN.
3. PROVIDE 5" - 26 GA. G.I. OGEE GUTTER OVER 2 X 8 SPRUCE FASCIA BOARD - TYP.
4. ROOF PITCH TO BE 4 : 12, TYP. - U.N.O.
5. ROOF MATERIAL TO BE PRESIDENTIAL COMPOSITION SHINGLE OVER 30 # FELT - TYP.
6. PROVIDE NECESSARY FLASHING AT ALL ROOF AND WALL CONNECTIONS AS REQUIRED.
7. PROVIDE 3/4" THICK T&G WOOD PLANK @ ALL ROOF OVERHANG AREA.

PROPOSED ROOF PLAN

1/4" | 1

LHC
L.H.C. Construction
21000-A Big Basin Way
Saratoga, CA 95070
(408) 867-9331

LICENSED ARCHITECT
HAO-QING FAN
C-28947
RENEWAL: 10-31-20
STATE OF CALIFORNIA

OWNER:
Kaili Kan & Qing Fan
1150 S. Bernardo Avenue
Sunnyvale, CA 94087
(408) 739-8993

KAN & FAN RESIDENCE
1150 S. BERNARDO AVENUE
SUNNYVALE, CALIFORNIA 94087

REVISIONS:

SHEET TITLE:
PROPOSED ROOF PLAN

DATE: Feb. 1, 2019
PROJECT NO.: 17-77
SCALE: AS SHOWN
DRAWN: HC
SHEET

A-1.2

OF **10** SHEETS

LEGEND :

EXISTING WALL TO REMAIN AND REPAIR AS REQUIRED.

2X OR 3X WOOD STUDS W/ 1/2" THK. GYP. BD. ON BOTH SIDES (CDX OR OSB PLYW'D O/ STUD @ SHEAR WALLS)

2X OR 3X WOOD STUDS W/ 1/2" THK. GYP. BD. INTERIOR SIDE 7/8" CEMENT PLASTER O/ (2) "D" PAPER BACKED LATH OR WOOD SIDING OVER 15# BLDG. PAPER (PAINTED) OVER CDX OR OSB PLYWOOD (SEE ELEVATIONS FOR EXTERIOR FINISH)

2X OR 3X WOOD STUDS W/ 1/2" THK. GYP. BD. ON LIVING AREA SIDE OF WALLS & 5/8" TYPE "X" GYP. BD. ON GARAGE SIDE OF WALLS (CDX OR OSB PLYW'D O/ STUD @ SHEAR WALLS)

WINDOWS

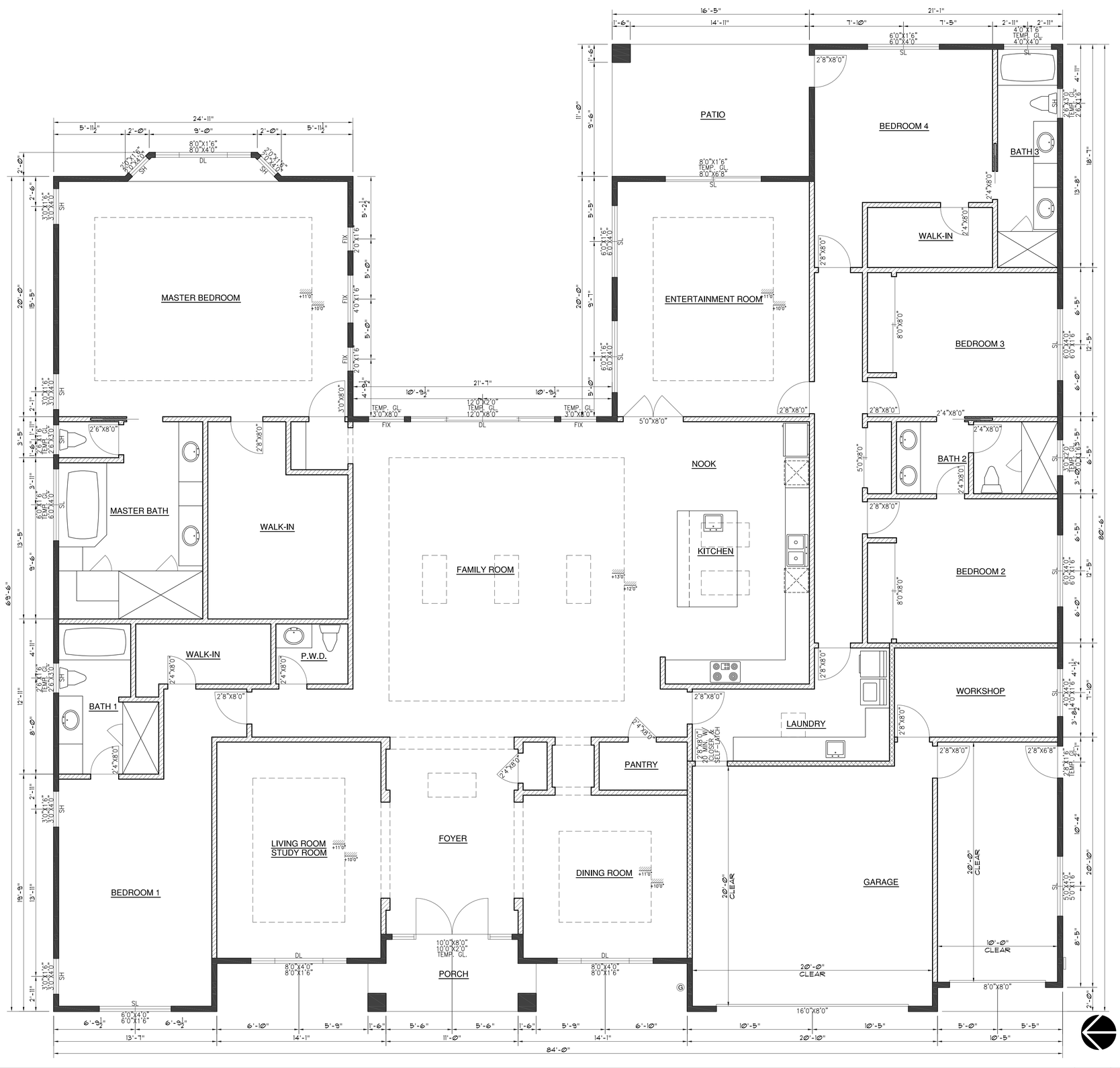
✻ All escape or rescue windows shall have a minimum net clear openable area of 5.7 square feet on 2nd floor & 5.0 square feet on 1st floor. The minimum net clear openable height dimension shall be 24". The minimum net clear openable width dimension shall be 20". When windows are provided as a means of escape or rescue they shall have the bottom of the opening no higher than 44 inches above the floor per CBC 1026.3.

GENERAL PLAN NOTES

1. ALL INTERIOR DOORS TO BE HOLLOW CORE 1-⅜" THK. U.N.O. (SEE PLAN FOR SIZE)
2. ALL HOUSE TO GARAGE DOORS TO BE SOLID CORE 1-⅜" THK. W/ SELF CLOSING AND TIGHT FITTING. (SEE PLAN FOR SIZE)
3. ALL ENTRY DOORS TO BE SOLID CORE 1-¾" THICK. (SEE PLAN FOR SIZE)
4. PROVIDE 4 LANDINGS WITH A MIN. DEPTH 4 WIDTH OF 36" AT ALL EXIT DOOR WHERE THE FINISH GRADE IS O/ 7-3/4" BELOW THE FINISH PER 2016 C.B.C.
5. PROVIDE SOUND BATT INSULATION @ ALL INTERIOR WALL W/ R-13 MIN.

FLOOR PLAN NOTES

1. FIRE SEPARATION BETWEEN HOUSE & GARAGE TO BE 1/2" GYP. BD. ON GARAGE SIDE W/ 6d COOLER NAIL AT 7" O.C. CONTINUOUS FROM GARAGE SLAB TO ROOF SHEATHING.
2. PROVIDE 3'X3' MIN. CONC. LANDING AT ALL NEW EXTERIOR DOOR OF 7.75" HI. STEP MAX.
3. 22"X30" ATTIC ACCESS PANEL PER C.B.C. 1209.2.
4. 18"X24" UNDERFLOOR ACCESS PANEL PER C.B.C. 1209.1.
5. 36"X60" SHOWER W/ 3"X3" FLOOR TILE & ASPHALT SEAL. TILE TO 72". U.O.N. PROVIDE SOAP DISH.
6. TEMPERED GLASS SHOWER ENCLOSURE W/ TOWER BAR.
7. SERVICE COUNTER & CABINET PER OWNER.
8. TOILET ACCESS AREA SHALL BE 24"(D)X30"(W)
9. (E) GAS METER
10. (N) 200 AMPS ELECTRICAL METER & PANEL.
11. PROVIDE "DUROCK" OR "WONDER BOARD" WALL LINING AROUND SHOWER/BATHTUB AREA. CULTURE MARBLE OR TILE FINISH.
12. ALL PLUMBING FIXTURES SHALL BE OF CPC APPROVED PRODUCTS. THE FIXTURE IN SHOWER SHALL HAVE PRESSURE OR THERMOSTATIC MIXING VALVE THAT LIMIT WATER TEMPERATURE TO 120F.
13. PROVIDE FUEL GAS F.A.U. F.A.U. SIZING SEE T-24 ENERGY REPORT.
14. RELOCATED CLOTH DRYER, DRYER PER CMC 504.3.
15. RELOCATED CLOTH WASHER, PROVIDE COLD AND HOT WATER.
16. 100 AMPS ELECTRICAL SUB-PANEL.
17. PROVIDE CONC. PAD FOR AC UNIT.
18. 36"X48" SHOWER W/ 3"X3" FLOOR TILE & ASPHALT SEAL. TILE TO 72". U.O.N. PROVIDE SOAP DISH.
19. TUB. PROVIDE MOTOR ACCESS PANEL AT OPTIONAL HYDROMASSAGE BATHTUBS. (VERIFY)
    a. THE MOTOR SHALL BE UL LISTED FOR HYDRO-MASSAGE USE. (CPC 415.3)
    b. A REMOVABLE PANEL OF SUFFICIENT DIMENSION TO ACCESS THE PUMP. (CPC 415.0)
    c. GFCI SINGLE-PHASE OUTLET WITH BONDING PER CEC 680.71.
20. ISLAND CABINET W/ COUNTER & 2 GFCI OUTLETS.



GreenPoint Rated Checklist:

* HIGH EFFICIENCY SHOWERHEADS ≤ 2.0 GPM AT 80 PSI. (MULTIPLE SHOWERHEADS SHALL NOT EXCEED MAX. FLOW RATES)
* HIGH EFFICIENCY BATHROOM FAUCETS ≤ 1.5 GPM AT 60 PSI.
* HIGH EFFICIENCY KITCHEN AND UTILITY FAUCETS ≤ 1.8 GPM.
* INSTALL ONLY HIGH EFFICIENCY TOILETS. (DUAL-FLUSH OR ≤ 1.28 GPF) PER CPC 402.2.2.
* DESIGN AND INSTALL HVAC SYSTEM TO ACCA MANUAL J, D, AND S RECOMMENDATIONS.
* DUCT SYSTEMS ARE SIZED, DESIGNED, AND EQUIPMENT IS SELECTED PER SEC. 4.507.2. HVAC SYSTEM INSTALLERS MUST BE TRAINED AND CERTIFIED AND SPECIAL INSPECTORS EMPLOYED BY THE ENFORCING AGENCY MUT BE QUALIFIED.
* INSTALL ENERGY STAR BATHROOM FANS ON TIMER AND HUMIDISTAT.
* INSTALL WHOLE HOUSE FAN W/ INSULATED LOUVERS/COVERS (MIN. R-4.2) WHICH CLOSE WHEN THE FAN IS OFF.
* COMPLIANCE WITH ASHRAE 62.2 MECHANICAL VENTILATION STANDARDS. (AS ADOPTED IN T-24 PART 6)
* ALL PLUMBING FIXTURES & FITTINGS SHALL MEET THE STANDARDS REFERENCED IN TABLE 1401.1 OF 2016 CPC PER CGBSC 4.303.3.2.

PROPOSED FLOOR PLAN

1/4" | 1

LHC
L.H.C. Construction
21000-A Big Basin Way
Saratoga, CA 95070
(408) 867-9331

LICENSED ARCHITECT — HAO QING FAN — C-28947 — RENEWAL: 10-31-19 — STATE OF CALIFORNIA

OWNER:
Kaili Kan & Qing Fan
1150 S. Bernardo Avenue
Sunnyvale, CA 94087
(408) 739-8993

KAN & FAN RESIDENCE

1150 S. BERNARDO AVENUE
SUNNYVALE, CALIFORNIA 94087

REVISIONS:

SHEET TITLE:
PROPOSED FLOOR PLAN

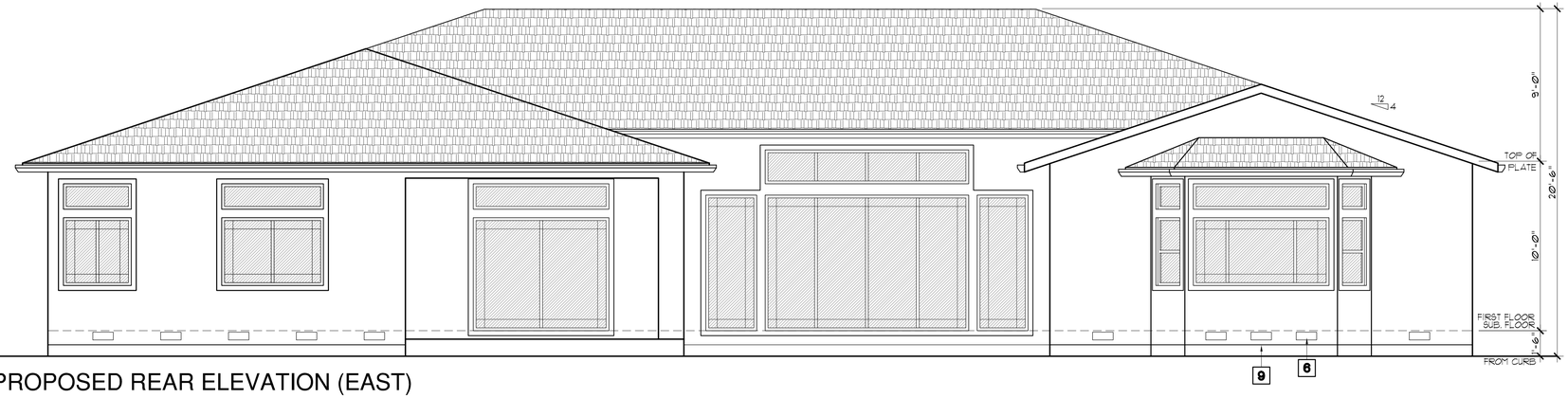
DATE: Feb. 1, 2019
PROJECT NO.: 17-77
SCALE: AS SHOWN
DRAWN: HC
SHEET

A-2.1

OF **10** SHEETS



A. PROPOSED FRONT ELEVATION (WEST)



B. PROPOSED REAR ELEVATION (EAST)

VENT CALCULATION IS FOR THE ADDITION AREA ONLY. PROVIDE ADDITIONAL VENTS WHERE THE EXISTING VENTS ARE BLOCKED.

ATTIC VENTILATION

REQUIRED: 2745.12 SI
5719 SF / 300 = 19.06 SF X144 = 2745.12 SI
50% TOP = 2745.12 X 50% = 1372.56 SI
50% BOTTOM = 2745.12 X 50% = 1372.56 SI

PROPOSED: 2871.00 SI
50% TOP:
LOW PROFILE VENTS 18 @ 14.5"X5.5" = 18X79.75 = 1435.50 SI
50% BOTTOM:
EAVE VENTS 18 @ 14.5" X5.5" = 18X79.75 = 1435.50 SI

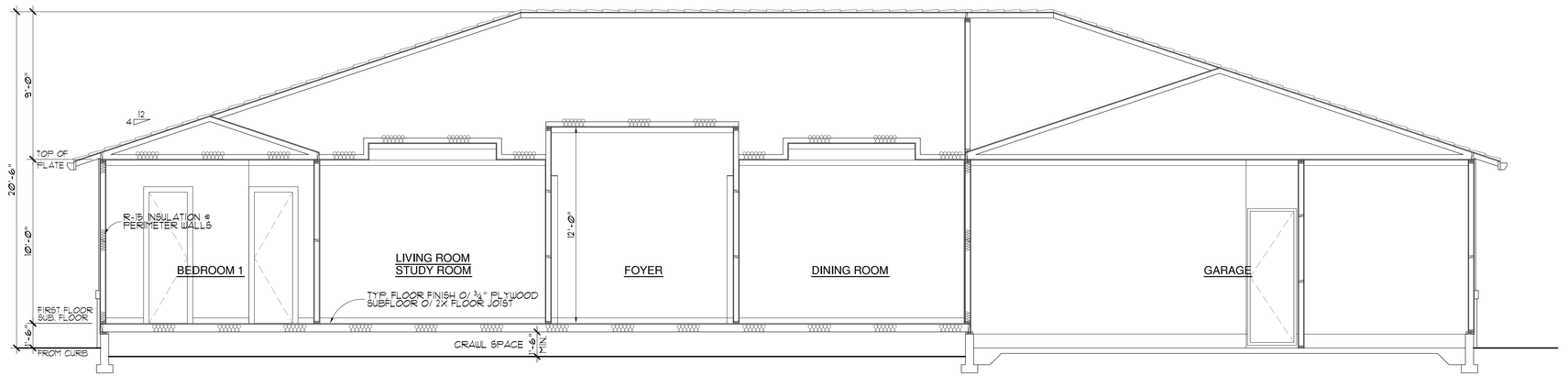
UNDER FLOOR VENTILATION

REQUIRED: 4512.96 SI
4701 SF / 150 = 31.34 SF X144 = 4512.96 SI

PROPOSED: 4545.75 SI
VENTS 57 @ 14.5"X5.5" = 57X79.75 = 4545.75 SI

ELEVATION NOTES:

1. PRESIDENTIAL COMPOSITION SHINGLE ROOF, STYLE & COLOR PER OWNER.
2. 3 COAT STUCCO FINISH W/ 2 LAYERS TYPE "D" PLACED INDEPENDTELY.
3. WOOD TRIM @ EAVE W/ GUTTER.
4. 6" FOAM TRIM ABOVE STONE OR BRICK VENEER.
5. 4" WOOD TRIM AROUND WINDOW / DOOR.
6. 14.5"X5.5" UNDER FLOOR VENT.
7. GARAGE DOOR, STYLE & COLOR PER OWNER
8. MAIN DOORS, STYLE & COLOR PER OWNER.
9. WEEP SCREED, A MIN. OF 26 GA. CORROSION-RESISTANT WEEP SCREED W/ A MIN. VERTICAL ATTACHMENT FLAGE OF FOUNDATION PLATE LINE ON ALL EXTERIOR STUD WALLS W/ STUCCO. THE SCREED SHALL BE PLACED A MIN. OF 4" ABOVE THE EARTH OR 2" ABOVE PAVED AREAS AND SHALL BE OF A TYPE WHICH WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING.
10. STONE OR BRICK VENEER, STYLE & COLOR PER OWNER.



E. BUILDING CROSS SECTION

PROPOSED BUILDING ELEVATIONS & SECTION | 1/4" | 1

LHC
L.H.C. Construction
21000-A Big Basin Way
Saratoga, CA 95070
(408) 867-9331

LICENSED ARCHITECT
HAO-QING LIN
Hao
C-28947
RENEWAL: 10-31-19
STATE OF CALIFORNIA

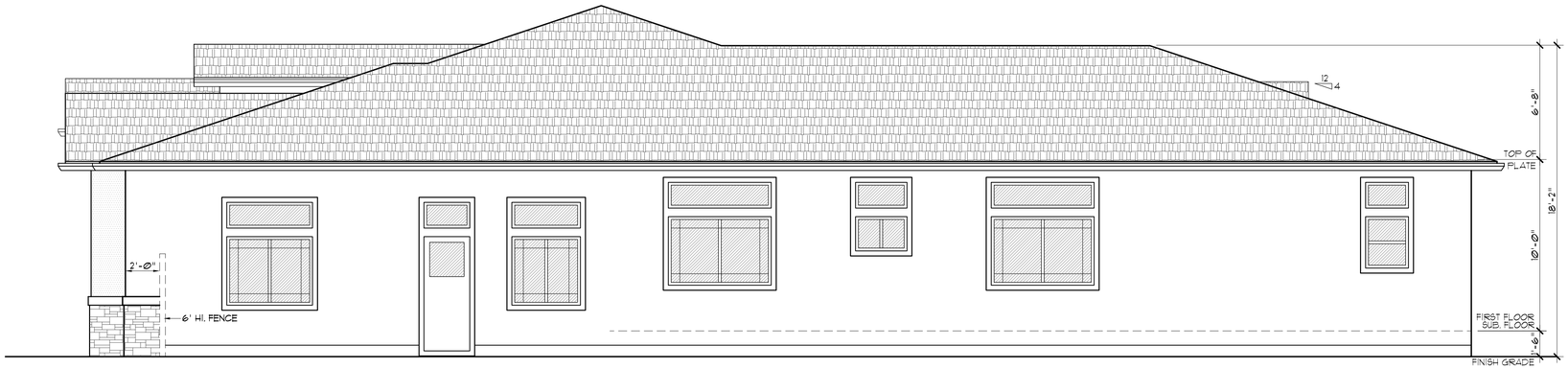
OWNER:
Kaili Kan & Qing Fan
1150 S. Bernardo Avenue
Sunnyvale, CA 94087
(408) 739-8993

KAN & FAN RESIDENCE
1150 S. BERNARDO AVENUE
SUNNYVALE, CALIFORNIA 94087

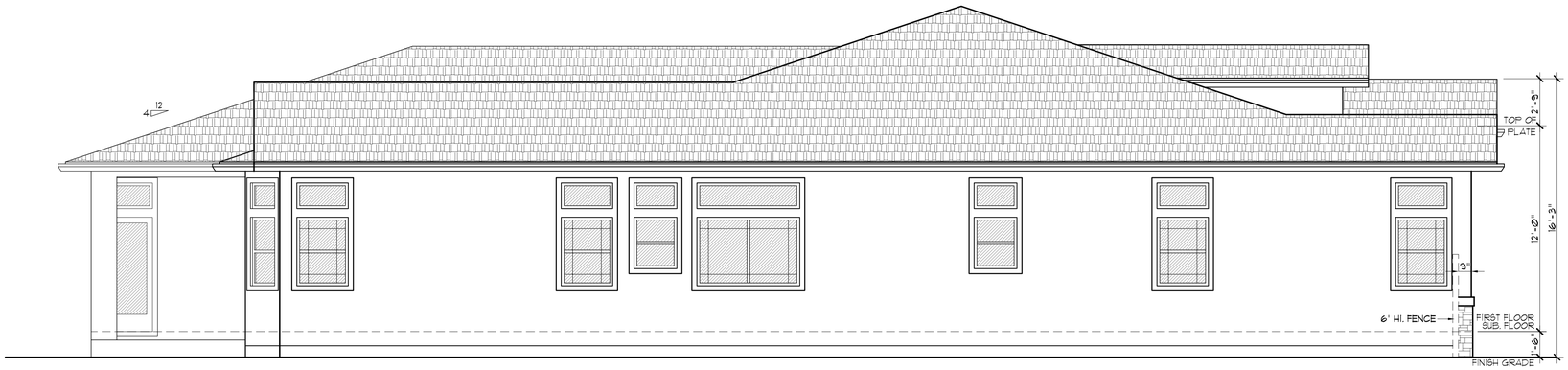
REVISIONS:

SHEET TITLE:
BUILDING ELEVATIONS & BUILDING SECTION

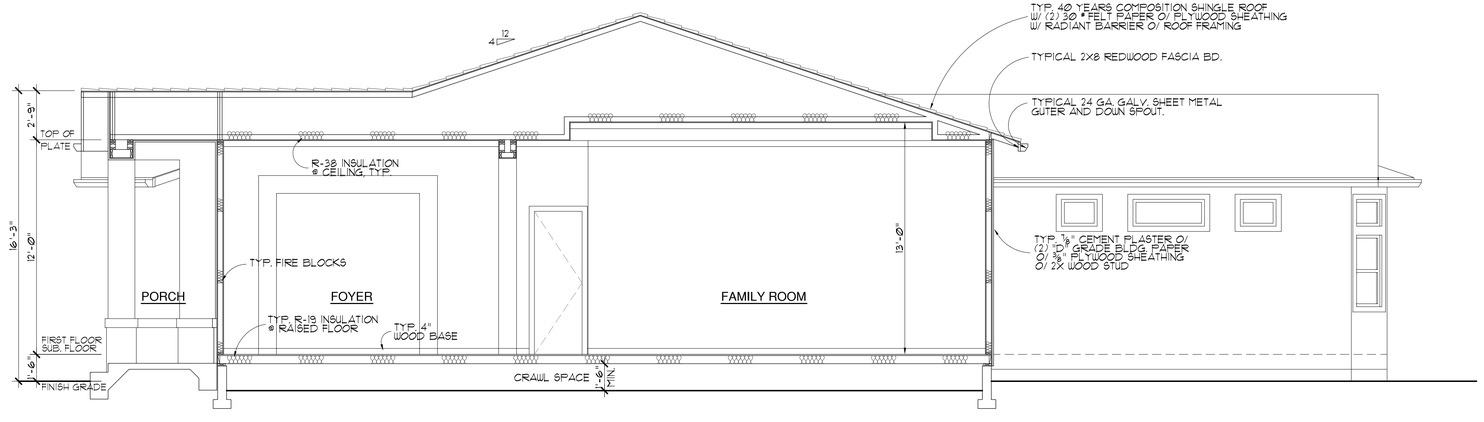
DATE: Feb. 1, 2019
PROJECT NO.: 17-77
SCALE: AS SHOWN
DRAWN: HC
SHEET: A-3.1
OF 10 SHEETS



C. PROPOSED RIGHT ELEVATION (SOUTH)



D. PROPOSED LEFT ELEVATION (NORTH)



F. BUILDING CROSS SECTION

PROPOSED BUILDING ELEVATIONS & SECTION | 1/4" | 1

LHC
L.H.C. Construction
21000-A Big Basin Way
Saratoga, CA 95070
(408) 867-9331

LICENSED ARCHITECT
HSIN-MING LAU
C-28947
RENEWAL 10-31-2019
STATE OF CALIFORNIA

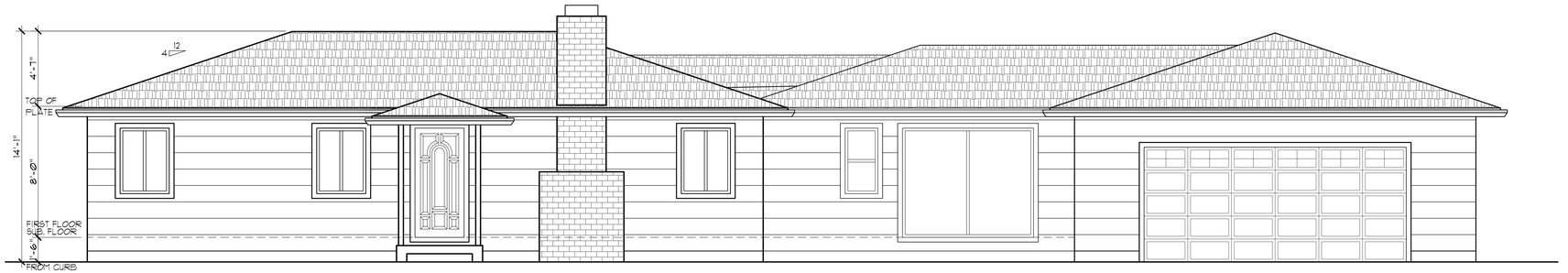
OWNER:
Kaili Kan & Qing Fan
1150 S. Bernardo Avenue
Sunnyvale, CA 94087
(408) 739-8993

KAN & FAN RESIDENCE
1150 S. BERNARDO AVENUE
SUNNYVALE, CALIFORNIA 94087

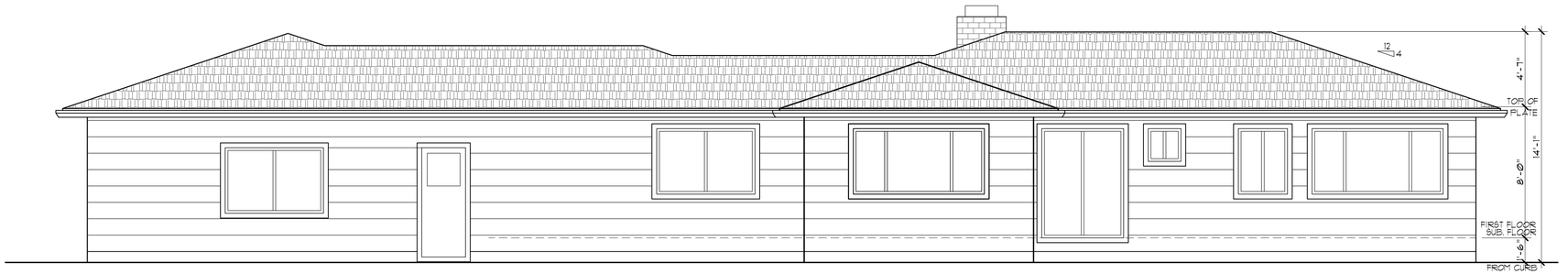
REVISIONS:

SHEET TITLE:
BUILDING SECTIONS & BUILDING SECTION

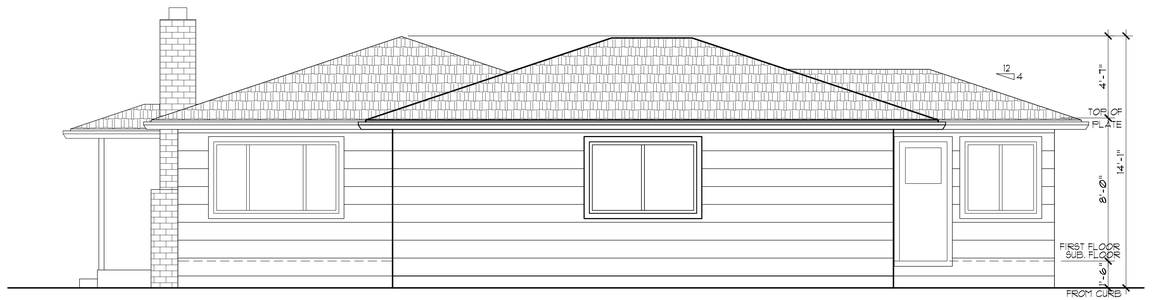
DATE: Feb. 1, 2019
PROJECT NO.: 17-77
SCALE: AS SHOWN
DRAWN: HC
SHEET
A-3.2
OF **10** SHEETS



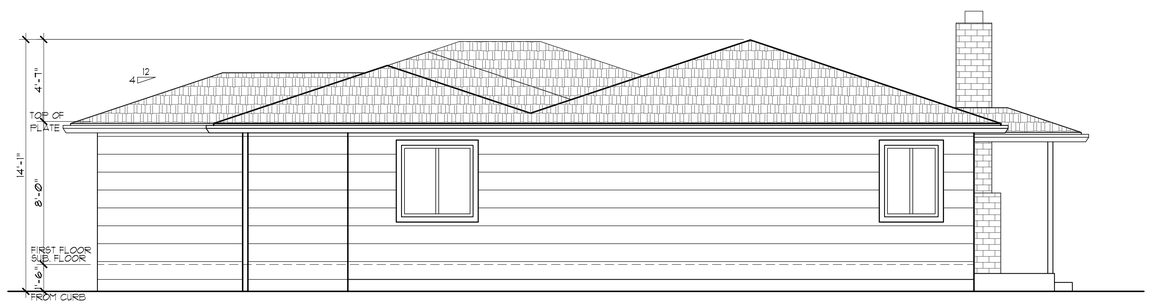
A. EXISTING FRONT ELEVATION (WEST)



B. EXISTING FRONT ELEVATION (EAST)



C. EXISTING RIGHT ELEVATION (SOUTH)



D. EXISTING LEFT ELEVATION (NORTH)

EXISTING BUILDING ELEVATIONS | 1/4" | 1

LHC
L.H.C. Construction
21000-A Big Basin Way
Saratoga, CA 95070
(408) 867-9331

LICENSED ARCHITECT
HAO-QING "HAO" LIN
C-28947
RENEWAL: 10-31-19
STATE OF CALIFORNIA

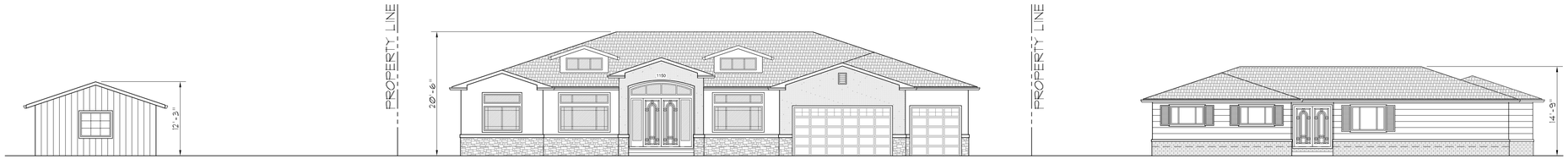
OWNER:
Kaili Kan & Qing Fan
1150 S. Bernardo Avenue
Sunnyvale, CA 94087
(408) 739-8993

KAN & FAN RESIDENCE
1150 S. BERNARDO AVENUE
SUNNYVALE, CALIFORNIA 94087

REVISIONS:

SHEET TITLE:
(E) BUILDING ELEVATIONS

DATE: Feb. 1, 2019
PROJECT NO.: 17-77
SCALE: AS SHOWN
DRAWN: HC
SHEET
A-4.1
OF **10** SHEETS



1112 S. BERNARDO AVENUE | 1150 S. BERNARDO AVENUE | 1156 S. BERNARDO AVENUE

PROPOSED STREET VIEW BUILDING FRONT ELEVATIONS



1112 S. BERNARDO AVENUE | 1150 S. BERNARDO AVENUE | 1156 S. BERNARDO AVENUE

EXISTING STREET VIEW BUILDING FRONT ELEVATIONS

STREET VIEW BUILDING FRONT ELEVATIONS | 10' | 1

LHC
L.H.C. Construction
21000-A Big Basin Way
Saratoga, CA 95070
(408) 867-9331

LICENSED ARCHITECT
HAO-QING "LEN" FAN
C-28947
RENEWAL: 10-31-20
STATE OF CALIFORNIA

OWNER:
Kaili Kan & Qing Fan
1150 S. Bernardo Avenue
Sunnyvale, CA 94087
(408) 739-8993

KAN & FAN RESIDENCE
1150 S. BERNARDO AVENUE
SUNNYVALE, CALIFORNIA 94087

REVISIONS:

SHEET TITLE:
STREET VIEW
BUILDING FRONT ELEVATIONS

DATE: Feb. 1, 2019
PROJECT NO.: 17-77
SCALE: AS SHOWN
DRAWN: HC
SHEET: A-4.2
OF 10 SHEETS



KAN RESIDENCE

1150 S. BERNARDO AVENUE
SUNNYVALE, CA 95087

Roof Material
Brand: Presidential
Model: Shake TL
Color: Platinum



Stone Veneer
Brand: Coronado
Model: Quick Stack
Color: Aspen



Exterior Wall Color
Brand: Kelly-Moore
Color: Oyster
(26)



Exterior Wall Color
Brand: Kelly-Moore
Color: Spanish sand
(231)



Color Trim
Brand: Kelly-Moore
Color: Bungalow Brown
(4213)



Neighborhood Comparison Table

Address	Year Built	Lot Area	Stories	Gross Floor Area (s. f.)	Floor Area Ratio (FAR)	Notes
1111 S Bernardo Av	1964	8800	2	3152	36%	
1117 S Bernardo Av	1964	7920	2	3178	40%	
1121 S Bernardo Av	1964	7920	2	3178	40%	
1125 S Bernardo Av	1964	7920	2	3200	40%	
1129 S Bernardo Av	1964	7920	2	3120	39%	
1133 S Bernardo Av	1964	7200	2	3165	44%	
1137 S Bernardo Av	***1964***	***7920***	***2***	***3100***	***39%***	
1141 S Bernardo Av	***1964***	***7920***	***2***	***3177***	***40%***	
1145 S Bernardo Av	1963	9020	1	2503	28%	
1150 S Bernardo Av	1950	13125	1	2299	18%	Proposed FAR is 43%
1156 S Bernardo Av	***1963***	***7632***	***1***	***2516***	***33%***	
1160 S Bernardo Av	1963	7704	1	2372	31%	
1164 S Bernardo Av	1963	8000	1	2544	32%	
1168 S Bernardo Av	1963	7800	1	2267	29%	
1084 W Remington Dr	1961	8300	1	2398	29%	
1088 W Remington Dr	1960	8200	2	2506	31%	
1092 W Remington Dr	1960	8300	2	2339	28%	
1096 W Remington Dr	1960	8400	2	2506	30%	
1194 W Remington Dr	1963	8924	1	2380	27%	
1198 W Remington Dr	1964	10200	1	2469	24%	
1202 W Remington Dr	1963	9360	1	2475	26%	
1090 Rockefeller Dr	1961	8112	1	2301	28%	
1091 Rockefeller Dr	1960	9086	2	2339	26%	
1094 Rockefeller Dr	1960	8175	1	2174	27%	
1095 Rockefeller Dr	**1960**	**7725**	**2**	**2506**	**32%**	
Average (Existing)		**8463**		**2647**	**32%**	
Average (Proposed)		**8450**		**2626**	**32%**	

Note:

1. The row with grey highlight indicates the proposed project.
2. The rows with bolded and italicized texts indicate the proposed project's immediate neighbors.