Goal/ Policy No.	Applicable Policy	Consistency Determination
5.2-I-5	Emphasize regional transportation demand management and trip reduction strategies as alternatives to improvements to existing facilities and the construction of new facilities.	Consistent: The proposed project would employ trip reduction strategies through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. It would also promote the use of pedestrian and bicycle modes of transportation and encourage trip reduction through its adjacency to the Iron Horse Trail, and its siting of residential and office uses near shopping, dining, and entertainment. The proposed project's trip reduction measures were credited to its trip generation in the DMJM Harris traffic study and partially reduced the mitigation necessary to ensure that roadway performance met acceptable standards. Refer to Section 4.12, Transportation for further discussion.
5.3-I-4	Maximize the carrying capacity of arterial roadways by controlling the number of intersections and driveways, prohibiting residential access, and requiring sufficient off-street parking to meet the needs of each project.	Consistent: No direct driveway access to any project uses or parking structures would be taken from Bollinger Canyon Road or Camino Ramon. Instead, all driveway access would be taken from collectors or local streets. In addition, the proposed project's off-street parking capacity would exceed minimum City standards. Refer to Section 4.12, Transportation for further discussion.
5.3-I-5	Require traffic impact mitigation fees on new residential and commercial development to ensure that transportation improvements are constructed before the increased traffic causes conditions to deteriorate.	Consistent: The proposed project would implement roadway improvements prior to occupancy to ensure that acceptable intersection levels of service meets adopted performance standards. Refer to Section 4.12, Transportation for further discussion.
5.5-G-1	Utilize Transportation Demand Management (TDM) as an integral component of the City's transportation program to reduce total vehicle trips on San Ramon streets and to contribute to regional air quality improvements.	Consistent: The proposed project would employ TDM strategies through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. It would also promote the use of pedestrian and bicycle modes of transportation and encourage trip reduction through its adjacency to the Iron Horse Trail, and its siting of residential and office uses near shopping, dining, and entertainment.
5.5-I-1	Cooperate with public agencies and other jurisdictions to promote local and regional public transit service in San Ramon.	Consistent: The proposed project includes a Transit Center that would be served by County Connection bus service to neighboring communities and the Dublin/Pleasanton and Walnut Creek BART stations.

Goal/ Policy No.	Applicable Policy	Consistency Determination
5.5-I-2	Encourage and assist major employers and commercial complexes to reduce the number of single-occupant vehicles by participating in the City's Transportation Systems Management programs.	Consistent: The proposed project would employ trip reduction strategies through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. It would also promote the use of pedestrian and bicycle modes of transportation and encourage trip reduction through its adjacency to the Iron Horse Trail, and its siting of residential and office uses near shopping, dining, and entertainment.
5.5-I-3	Support local bus service to and from regional transit lines. Bus service or other public transportation service should be included under the Initial Level of Development as part of the Dougherty Valley area. The City shall work to improve the transit service to and from San Ramon.	Consistent: The proposed project includes a Transit Center that would be served by County Connection bus service to neighboring communities and the Dublin/Pleasanton and Walnut Creek BART stations.
5.5-I-7	Encourage new development to include a mix of uses that will allow people to walk between destinations.	Consistent: The proposed project would promote the use of pedestrian use by centering the Plaza District around a large pedestrian plaza, located in front of the hotel. The plaza would be used for seasonal programs, such as farmer's markets during the warmer months and outdoor ice-skating during the winter months. The proposed project's location adjacent to the Iron Horse Trail would also encourage non-motorized modes of transportation. Also included in the proposed project, and within walking distance, are department stores, retail shops, restaurants, a theater, civic services, and office space.
5.5-I-9	Encourage employers and commercial complexes to emphasize public transit services or private alternatives to the single-occupant vehicle.	Consistent: The proposed project would promote public transit usage through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. It would also promote the use of pedestrian and bicycle modes of transportation and encourage trip reduction through its adjacency to the Iron Horse Trail, and its siting of residential and office uses near shopping, dining, and entertainment.
5.5-I-10	Work with regional transit providers to situate transit stops and hubs at locations that are convenient for transit users, and promote increased transit ridership through the provision of shelters, benches, and other amenities.	Consistent: The proposed project would include a Transit Center that would be incorporated into the ground floor of the two-level, 414-space parking garage located on the south side of the City Hall. The Transit Center would provide four bus stalls and a waiting area for passengers. In addition, the proposed project would be served by bus routes on nearby streets including Bollinger Canyon Road, Sunset Drive, Bishop Drive, and Camino Ramon.

Goal/ Policy No.	Applicable Policy	Consistency Determination
5.5-I-13	Consider the construction of public parking facilities in the downtown or City Center areas to serve projected parking demand, while carefully balancing the need for adequate parking against the desire to minimize traffic growth.	Consistent: Public parking facilities would be built for each of the three areas of the proposed project, with a total of 6,992 parking stalls to meet a percentage of projected demand. Traffic growth would be minimized by the construction of a Transit Center near the new City Hall and the development of the pedestrian-friendly Plaza District, which includes retail and housing and is adjacent to office space.
5.6-G-1	Encourage bicycling and walking as alternatives to the automobile.	Consistent: The proposed project would promote the use of pedestrian and bicycle modes of transportation by centering the Plaza District around a large pedestrian plaza, located in front of the hotel. The plaza would be used for seasonal programs, such as farmer's markets during the warmer months and outdoor ice-skating during the winter months. The proposed project's location adjacent to the Iron Horse Trail would also encourage non-motorized modes of transportation.
5.6-I-3	Emphasize the Iron Horse Trail as a major north-south route for non-motorized transportation.	Consistent: The proposed project would provide several pedestrian/bicycle connections to the Iron Horse Trail that would enable convenient and safe access to and from the trail.
5.6-I-4	Require bicycle parking, storage and other support facilities as part of any new office and retail developments and public facilities.	Consistent: Bicycle storage facilities (e.g., racks) would be provided in all three project components.
5.6-I-5	Develop a series of continuous walkways within Bishop Ranch Business Park, commercial districts, and residential neighborhoods so they connect to one another.	Consistent: The proposed project would be accessible to nearby land uses including Bishop Ranch 1, The Market Place, the Shops at Bishop Ranch, Central Park, and the Iron Horse Trail by sidewalks located along roadway frontages or dedicated pathways.
5.6-I-10	Ensure that roadway improvement projects do not decrease mobility or accessibility for bicyclists or pedestrians.	Consistent: The proposed project would provide continuous, uninterrupted sidewalks along all street frontages in the Plaza District, Bishop Ranch 1A, and City Hall. Note that continuous, uninterrupted sidewalks do not currently exist on three sides of Bishop Ranch 2, limiting pedestrian mobility. The proposed project would also provide access to the Iron Horse Trail, a Class I bicycle facility.

Goal/ Policy No.	Applicable Policy	Consistency Determination
Parks and Recreation		
6.5-I-5	Require residential developers to make contributions to the City's park system.	Consistent: Because of the proposed project's location and characteristics, it would not dedicate parkland to the City's park system. Instead, the project applicant would provide in-lieu-of parkland fees to the City to develop parks at other locations in San Ramon. Refer to Section 4.11, Public Services and Recreation for further discussion.
6.5-I-6	Encourage contributions to the City's park system by non-residential developers.	Consistent: Because of the proposed project's location and characteristics, it would not dedicate parkland to the City's park system. Instead, the project applicant would provide in-lieu-of parkland fees to the City to develop parks at other locations in San Ramon. Refer to Section 4.11, Public Services and Recreation for further discussion.
6.5-I-7	Complete all parkland dedication requirements for each development prior to occupancy.	Consistent: The project applicant would provide any required in-lieu-of parkland fees at the time building permits are sought.
6.5-I-8	Encourage the development of landscaped and dedicated open spaces, parkways, trail systems, and special community service facilities in new developments.	Consistent: Landscaping would be provided through the proposed project. Exhibit 3-9, Exhibit 3-12, and Exhibit 3-13 depict the conceptual landscaping plans for the Plaza District, Bishop Ranch 1A, and City Hall and Transit Center components, respectively.
Public Facilities and Utilities		
7.1-G-1	Provide public and cultural facilities that contribute to the City's positive image and enhance community identity.	Consistent: The proposed project contains of a mixed-use Plaza District and a City Hall. The Plaza District would feature an arts cinema, retail, restaurant, and hotel uses, and is intended to be an entertainment destination. The City Hall would include a library, a Police Department, City offices, and Council Chambers. The proposed project would add new, high-quality public and cultural facilities to the City.
7.1-I-1	Develop and implement a City Center.	Consistent: The proposed project is the City Center project and consists of a net increase of 1.6 million square feet of mixed uses above existing vested entitlements, including retail, office, hotel, residential, and civic. The project would be a mixed-use infill project designed to create a vibrant destination and promote the use

Goal/ Policy No.	Applicable Policy	Consistency Determination
cont.		of public transportation and pedestrian and bicycle modes of transportation. The proposed project consists of three components: a Plaza District, an office complex, and a City Hall and Transit Center. Section 3, Project Description details the background of the City Center concept.
7.1-I-2	Maintain City performance standards for libraries in cooperation with the Contra Costa Library System and strive to achieve superior services.	Consistent: The City Hall component of the project would include a new library that would replace the existing library at 100 Montgomery Street. The new library would improve the delivery and quality of library services to San Ramon residents by providing more collection space, more computer stations, enclosed group study rooms, public meeting rooms, and better acoustical controls. Refer to Section 4.11, Public Services and Recreation for further discussion.
7.2-I-2	Require that residential development pay fees to the [San Ramon Valley Unified] School District for the acquisition of school sites to provide adequate, permanent classroom space.	Consistent: The proposed project would provide development fees to the San Ramon Valley Unified School District for capital improvements. Refer to Section 4.11, Public Services and Recreation for further discussion.
7.3-G-1	Encourage development of private educational, cultural, childcare, and medical facilities in San Ramon.	Consistent: The Plaza District would provide more than 400,000 square feet of inline retail space that would be tenanted by restaurants, cafes, small shops, fitness clubs, and other types of lifestyle-oriented businesses that would create a vibrant cultural destination.
7.3-I-1	Require participation by developers of residential and nonresidential projects to assist in funding public or nonprofit facilities and services.	Consistent: The proposed project is subject to and will pay all applicable impact fee for public facilities and services.
7.3-I-9	Allow businesses that can benefit from close association with the Regional Medical Center to locate on adjacent sites designated for mixed use development.	Consistent: The San Ramon Regional Medical Center is located approximately 3,000 feet from the proposed project. This will allow for businesses associated with the proposed project the opportunity to use the medical center's services.
7.3-I-10	Evaluate the feasibility of providing off-site parking at the City Center with transportation service to the medical center.	Consistent: The proposed project would provide 6,992 parking spaces onsite, with most of those spaces being provided in multi-story garages. Given this capacity, there may be the possibility of providing offsite parking for the medical center.

Goal/ Policy No.	Applicable Policy	Consistency Determination
7.4-I-1	Cooperate with Pacific Gas and Electric Company (PG&E) to monitor future utility expansion to ensure that facilities are designed and planned with minimal impact on existing and future residents.	Consistent: PG&E was consulted during the preparation of this DSEIR and during project design about energy needs. PG&E indicated that there are adequate infrastructure and energy supplies available to serve the proposed project. Refer to Section 4.14, Utilities and Service Systems for further discussion.
7.4-I-3	Require new development to underground all utility lines needed to serve the future buildings and their occupants, and work with PG&E to underground utilities in existing residential neighborhoods, making the Southern San Ramon area a priority.	Consistent: All project utility lines would be located underground.
7.4-I-7	Encourage all new development to provide the technology to support multiple telecommunications facilities and providers.	Consistent: The proposed project would be able to be served by both the AT&T and Comcast telecommunications networks.
7.5-G-1	Manage solid waste so that State diversion goals are exceeded and the best possible service is provided to the citizens and businesses of San Ramon.	Consistent: Mitigation is proposed that would require the provision of recycling facilities in the residential and non-residential components of the proposed project. These facilities would promote waste reduction and recycling, and be consistent with the City's goal of exceeding the State's 50 percent waste diversion requirement. Refer to Section 4.14, Utilities and Service Systems for further discussion.
7.5-I-2	Provide and promote opportunities to reduce waste at home and in businesses, and make possible the safe disposal of hazardous materials.	Consistent: Mitigation is proposed that would require the provision of recycling facilities in the residential and non-residential components of the proposed project. These facilities would promote waste reduction and recycling. Refer to Section 4.14, Utilities and Service Systems for further discussion.
7.5-I-4	Require builders to incorporate interior and exterior storage areas for recyclables into new commercial and residential remodeled buildings, and encourage remodeled buildings (both residential and commercial) to make recycling activities more convenient for those who use the buildings.	Consistent: Mitigation is proposed that would require the provision of recycling facilities in the residential and non-residential components of the proposed project. Refer to Section 4.14, Utilities and Service Systems for further discussion.
Open Space and Conservation		
8.3-I-12	Continue participation in the Contra Costa Clean Water Program to control stormwater pollution and protect the quality of the City's waterways.	Consistent: The proposed project would implement a number of stormwater pollution controls that are consistent with those identified in the Contra Costa Clean Water Program, as well as compliance with C.3 provisions. Refer to Section 4.7, Hydrology and Water Quality for further discussion.

Goal/ Policy No.	Applicable Policy	Consistency Determination
8.6-G-1	Improve and protect San Ramon's air quality and promote improvements in subregional air quality.	Consistent: The proposed project would promote improvements in sub-regional air quality, including reduction of greenhouse gas emissions, through the inclusion of a Transit Center that would serve as a convenient, centralized location for public transit providers. The proposed project would also promote the use of pedestrian and bicycle modes of transportation and encourage trip reduction with its adjacency to the Iron Horse Trail, and would encourage trip and greenhouse gas reduction through the siting of residential and office uses near shopping, dining, and entertainment.
8.6-I-3	Use the City's environmental review process to impose appropriate mitigation measures on new development to reduce impacts on air quality.	Consistent: The proposed project's air quality impacts are evaluated in Section 4.2, Air Quality. Mitigation measures are proposed to reduce the proposed project's emission of air pollutants.
8.6-I-4	Provide information to encourage the use of transportation modes that minimize motor vehicle use and resulting contaminant emissions.	Consistent: The proposed project would promote the use of public transportation, bicycling, and walking through the provision of a Transit Center and a mixed-use district, and through the project's proximity to the Iron Horse Trail, the Bishop Ranch Business Park, The Shops at Bishop Ranch, the Market Place, and Central Park.
8.6-I-5	Evaluate new commercial and industrial development for potential handling, storage, and transport of hazardous materials to minimize public exposure to toxic air contaminants.	Consistent: The proposed project's potential for emission of air toxics and hazardous materials usage are evaluated Section 4.2, Air Quality and Section 4.6, Hazards and Hazardous Materials.
8.6-I-6	Require businesses to comply with City ordinances that regulate the use of ozone-depleting compounds.	Consistent: Project tenants would be expected to comply with federal and State laws prohibiting the use of chlorofluorocarbons and other banned ozone-depleting compounds.
8.6-I-7	Support measures to reduce exhaust and particulate emissions from construction and grading activities.	Consistent: Section 4.2, Air Quality sets forth mitigation measures as required by the Bay Area Air Quality Management District to ensure less than significant impacts from grading and construction activities. The proposed project would be required to implement these measures during construction.

Goal/ Policy No.	Applicable Policy	Consistency Determination
8.7-G-1	Encourage the implementation of water quality and conservation programs and measures by San Ramon employers, residents, and service providers.	Consistent: The proposed project's stormwater drainage system would include structural treatment measures such as green roofs and bioswales that would sequester pollutants though percolation and prevent their release to the maximum extent feasible. Refer to Section 4.7, Hydrology and Water Quality and Section 4.14, Utility and Service Systems for further discussion.
8.7-I-2	Require new development to be equipped with water conservation devices, including the possibility of dual water systems.	Consistent: The proposed project would include a recycled water system for landscape irrigation, evapotranspiration-based water controllers, and water budgets for landscape irrigation to monitor and regulate outdoor water usage. Refer to Section 4.14, Utility and Service Systems for further discussion.
8.7-I-3	Continue to implement and enforce provisions of the Water Conservation and Landscape Ordinance 218.	Consistent: Consistent with the requirements of Ordinance 218, the proposed project includes evapotranspiration-based water controllers and drought tolerant plants. Refer to Section 4.14, Utility and Service Systems for further discussion.
8.7-I-4	Support the application of reclaimed water to reduce the demand on municipal water supplies.	Consistent: The proposed project's landscaped areas would be irrigated by recycled water provided by the San Ramon Valley Recycled Water Program. The Plaza District would intertie with a future San Ramon Valley Recycled Water Program recycled water line that would be installed under Camino Ramon. Bishop Ranch 1A, City Hall, and the Transit Center would intertie with a future San Ramon Valley Recycled Water Program recycled water line that would be installed under Bollinger Canyon Road. Refer to Section 4.14, Utility and Service Systems for further discussion.
8.7-I-5	Work with DERWA (Dublin San Ramon Services District and East Bay Municipal Utilities District Recycled Water Authorities) to encourage and promote water reclamation projects in the City of San Ramon.	Consistent: The proposed project would be served by the DERWA recycled water system and may serve as a catalyst for further expansion of the system in the surrounding area. Refer to Section 4.14, Utility and Service Systems for further discussion.
8.8-I-1	Require that new development analyze, and therefore avoid any potential impacts to archaeological, paleontological, and historic resources.	Consistent: The proposed project's potential to disturb or destroy archaeological, paleontological, and historic resources is evaluated in Section 4.4, Cultural Resources.

Goal/ Policy No.	Applicable Policy	Consistency Determination
	Safety	
9.1-I-1	Review proposed development sites at the earliest stage of the planning process to locate any potential geologic or seismic hazards.	Consistent: A geotechnical study was prepared for the proposed project and identifies potential geologic and seismic hazards. Refer to Section 4.5, Geology, Soils, and Seismicity, for further analysis.
9.1-I-4	Require comprehensive geologic and engineering studies of critical structures regardless of location.	Consistent: A geotechnical study was prepared for the proposed project. Refer to Section 4.5, Geology, Soils, and Seismicity for further analysis.
9.1-I-5	Require geotechnical field review during the construction phase of any new development.	Consistent: A geotechnical study was prepared for the proposed project that set forth soil engineering recommendations. The project applicant will retain a geotechnical engineer to monitor project grading and construction to ensure that the recommendations are implemented. Refer to Section 4.5, Geology, Soils, and Seismicity for further analysis.
9.1-I-6	Require preparation of a soils report as part of the development review and/or building permit process.	Consistent: A soils analysis has been completed for the proposed project. Refer to Section 4.5, Geology, Soils, and Seismicity for further discussion.
9.1-I-10	Control erosion of graded areas with revegetation or other acceptable methods.	Consistent: Concurrent with grading activities, a Storm Water Management Plan would be implemented, which would include standard erosion control measures such as silt fencing, hydroseeding or covering exposed areas, and other standard practices. Refer to Section 4.7, Hydrology and Water Quality for further discussion.
9.3-I-1	Eliminate hazards caused by local flooding through improvements to the storm drain system and/or creek corridors.	Consistent: The proposed project would install onsite drainage collection and conveyance facilities to ensure that the potential for flooding is abated. The proposed project would also re-route the existing 96-inch storm drain that runs through Bishop Ranch 1 to South San Ramon Creek to avoid areas that would be developed as structures. Refer to Section 4.7, Hydrology and Water Quality for further discussion.
9.3-I-2	Require new development to prepare hydrologic studies to assess storm runoff impacts on the local and subregional storm drainage systems and/or creek corridors.	Consistent: A preliminary hydrology study was prepared for the proposed project. Refer to Section 4.7, Hydrology and Water Quality for the hydrologic analysis.
9.3-I-3	Require new development to provide for the perpetual funding and ongoing maintenance of detention basins. Maintenance may be by the City under contract, by a private entity, or by another public agency.	Consistent: Storm water detention would be provided in green roofs and bioswales. These areas would be part of the landscaped areas of the proposed project and would be maintained by project maintenance personnel.

Goal/ Policy No.	Applicable Policy	Consistency Determination
9.4-I-1	Require site design features and fire retardant building materials to reduce the risk of fire within the City.	Consistent: The proposed project's structures would comply with the California Building Standards Code, including the applicable provisions related to fire prevention and safety.
9.4-I-5	Require sprinklers in all mixed use development to protect residential uses from non-residential uses, which typically pose a higher fire risk.	Consistent: The proposed project would include sprinkler systems in residential and non-residential uses.
Noise		
10.1-I-1	Minimize vehicular and stationary noise sources and noise emanating from temporary activities.	Consistent: Mitigation is proposed to limit short-term construction noise from heavy equipment and stationary equipment. Refer to Section 4.9, Noise for further discussion.
10.1-I-2	Require a noise study for all projects that have noise exposure greater than "normally acceptable" levels....	Consistent: This DSEIR contains analysis of the proposed project's noise impacts. Refer to Section 4.9, Noise for further discussion.
10.1-I-4	Include noise attenuation measures in new developments that expose the community to greater than "normally acceptable" noise levels.	Consistent: Noise attenuation mitigation measures are proposed where noise levels would exceed normally acceptable levels. Refer to Section 4.9, Noise for further discussion.
10.1-I-5	Discourage the use of sound walls.	Consistent: The proposed project would not employ the use of sound walls to mitigate for noise exposure. Refer to Section 4.9, Noise for further discussion.
10.1-I-6	Require developers to reduce the noise impacts of new development on adjacent properties through appropriate means, including, but not limited to, the following actions: • Screen and control noise sources, such as parking and loading facilities, outdoor activities and mechanical equipment, • Increase setbacks for noise sources from adjacent dwellings, • Retain fences, walls, and landscaping that serve as noise buffers, • Use soundproofing materials and doubleglazed windows, • Control hours of operation, including deliveries and trash pickup, to minimize noise impacts, and • As a last resort, construct noise walls along highways and arterials when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility.	Consistent: The proposed project would not expose adjacent land uses to noise levels in excess of normally acceptable levels and, therefore, would not need to mitigate for such impacts. Refer to Section 4.9, Noise for further discussion.

Goal/ Policy No.	Applicable Policy	Consistency Determination
10.1-I-9	Implement the City's regulations and performance standards for noise control to ensure appropriate regulation of common residential, commercial, and industrial noise sources.	Consistent: The City's regulations and performance standards for noise control were used as the basis for evaluating the proposed project's noise impacts. Refer to Section 4.9, Noise for further discussion.
10.1-I-10	Require new noise sources to use best available control technology (BACT) to minimize noise from all sources.	Consistent: Where such technology is available, project stationary noise sources uses BACT. Refer to Section 4.9, Noise for further discussion.
Housing		
11.9-G-1	Provide a range of opportunities for affordable housing.	Consistent: The proposed project would provide inclusionary workforce dwelling units onsite and would provide in-lieu of fees.
11.9-I-2	Require residential developments with more than 10 housing units to provide Below Market Rate (BMR) units through new construction, donation of land, or payment of in-lieu fees. A minimum of 25 percent of all residential developments shall be constructed as BMR units, with guarantees of continued affordability for 50 years.	Consistent: The proposed project would provide inclusionary workforce dwelling units onsite and would provide in-lieu of fees to develop below-market rate housing elsewhere in the City to cover the balance not provided onsite.
11.10-G-1	Promote a full range of housing types, size, location, and price to permit a choice of housing for a variety of economic levels.	Consistent: The proposed project would provide up to 487 high-density residential units ranging in size from 750 to 2,000 square feet in mixed-use development. The proposed project would be a "lifestyle center," which is a type of development that does not currently exist in San Ramon. The proposed project would also provide inclusionary workforce dwelling units and would provide in-lieu-of fees to develop below-market rate housing elsewhere in the City.
11.10-I-4	Promote a combination of residential, retail, and office uses in areas designated for mixed use.	Consistent: Parcels 1A, 1B, 2, and 3A are zoned Mixed-Use and the proposed project would develop residential, retail, and office uses on these parcels.
11.10-I-5	The City will promote mixed-use development by offering a number of incentives, including use of redevelopment housing set-aside funds to support the housing component, non-housing redevelopment funds for the retail/commercial component, priority processing, and consideration for potential parking reductions. Develop and implement a homeownership assistance program, giving priority to public services employees, residents, and employed workers of San Ramon.	Consistent: The proposed project is a mixed-use project that contains 487 dwelling, including workforce housing. By virtue of being a co-applicant on the project, the City is directly promoting the development of this type of development.

Goal/ Policy No.	Applicable Policy	Consistency Determination
11.10-I-7	Require diversity in unit-size within multi-family housing projects to ensure that 3- and 4-bedroom units are provided for large families.	Consistent: The proposed project would provide up to 487 high-density residential units ranging in size from 750 to 2,000 square feet. The larger units would provide three- and four-bedroom units that could be tenanted by large families.
11.12-I-5	Disperse below-market housing throughout residential neighborhoods, and ensure that affordable units are essentially indistinguishable from surrounding market-rate units.	Consistent: The proposed project would contain inclusionary work force dwelling units dispersed throughout the various residential components of the Plaza District. These units will be similar in design and appearance to surrounding units.
11.13-I-2	Encourage developers to provide amenities for a diversity of families, including single heads of households, the disabled, senior citizens, and extended families.	Consistent: The Plaza District would provide a range of amenities for various lifestyles, including retail, restaurants, a six-screen cinema, a seasonal skating rink, a seasonal farmer's market, and outdoor plaza.
11.14-G-1	Promote energy conserving practices in the construction, renovation, and maintenance of San Ramon's housing units.	Consistent: The dwelling units developed as part of the proposed project would adhere to the 2005 Title 24 energy efficiency requirements, which are the most stringent energy efficiency standards in the nation.
11.14-I-2	Enforce the State's energy conservation standards for new residential construction and renovations to existing structures.	Consistent: The dwelling units developed as part of the proposed project would adhere to the 2005 Title 24 energy efficiency requirements, which are the most stringent energy efficiency standards in the nation.
11.14-I-3	Encourage innovative designs to maximize passive energy efficiencies, while retaining compatibility with surrounding neighborhoods.	Consistent: A principal architectural element that has been incorporated into the proposed project is the use of glass to promote natural daylight in building interiors. The use of glass is consistent with the appearance of surrounding structures in the Bishop Ranch Business Park.
Source: Michael Brandman Associates, 2007.		

Summary of Project Consistency With General Plan

The development of a City Center project is clearly addressed by the City of San Ramon General Plan. As indicated by several policies, as well as related supporting language, the General Plan envisions the City Center concept as a vibrant civic, cultural, and entertainment destination intended to be an activity center during all hours of the day, on both weekdays and weekends. In recognition of the evolution of the City Center concept over time (refer to Section 3, Project Description for further discussion), the General Plan provides significant flexibility in regards to scale, intensity, end uses, and other critical design features to allow for creativity and innovation in designing a project with such unique characteristics. This was affirmed by the San Ramon electorate when they approved the General Plan in March 2002.

The proposed project meets the General Plan's conceptual objectives for the City Center. It provides a City Hall with a Council Chamber, library, and police headquarters that satisfy the civic hub component of the City Center vision. The project would provide a Plaza District with a cinema, retail uses, and an outdoor plaza that fulfill the objective of creating a vibrant cultural and entertainment destination. The residential, office, and hotel uses of the project complement this component and create a constituency of patrons for the Plaza District, thereby enhancing the viability of the project as a daytime and nighttime destination throughout the week. Overall, while the General Plan did not place any prescriptive limits on the intensity of the City Center, proposed project is within the foreseeable range of development intensity implied by General Plan's conceptual objectives for the City Center.

In summary, the proposed project is consistent with the General Plan's vision of a City Center. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Zoning Ordinance Consistency

Impact LU-3:	**The proposed project would be consistent with the City of San Ramon Zoning Ordinance.**

Impact Analysis

The parcels on the proposed project site are zoned City Center Mixed Use (CCMU) and Administrative Office, Height Overlay (OA-H) by the San Ramon Zoning Ordinance. Below is a discussion of each project component's consistency with these Zoning Ordinance designations.

Plaza District

Parcels 2 and 3A are designated City Center Mixed Use (CCMU) by the Zoning Ordinance. The Plaza District would include (but would not be limited to) such tenants as accessory retail and services, banks, eating and drinking establishments, fitness and health facilities, general retail, mixed-use residential, professional offices, parking facilities, and theaters. All of these uses would be consistent with allowed uses of the City Center Mixed Use (CCMU) zoning district. The hotel and cinema would be required to obtain Use Permits, and other uses (e.g., eating and drink establishments, fitness and health, parking structures) would be required to obtain minor use permits. Several Plaza District structures would be more than 85 feet above grade; however, there are no height restrictions for buildings within City Center Mixed Use (CCMU) zoning district.

Bishop Ranch 1A

The City-owned portion of Parcel 1A is designated City Center Mixed Use (CCMU), and the Sunset Development-owned portion is designated Administrative Office, Height Overlay (OA-H). The Bishop Ranch 1A office structures would be developed on the City-owned portion of Parcel 1A. Professional office space is an allowed use within the City Center Mixed Use (CCMU) zoning district. The Bishop Ranch 1A office structures would be approximately110 feet above grade; however, there are no height restrictions for buildings within the City Center Mixed Use (CCMU) zoning district.

The Bishop Ranch 1 and the Bishop Ranch 1A parking structures would be developed on the Sunset Development-owned portion of Parcel 1A. Parking structures are an allowed use within the Administrative Office (OA) designation with a minor use permit. The parking structures, including one additional future shared structure, would be approximately 40 feet above grade, which is within the 55-foot height limit of the Administrative Office (OA) zoning district, and they would not require the benefit associated with a height overlay.

City Hall and Transit Center

Parcel 1B is designated City Center Mixed Use (CCMU). City Hall would contain government offices and a public safety facility (the Police Department), which are allowed uses within the City Center Mixed Use (CCMU) zoning district. The Transit Center would contain a public parking facility and a transit station, which are also allowed uses within the City Center Mixed Use (CCMU) zoning district. The parking facility would be required to obtain a minor use permit. The City Hall would be approximately 70 feet above grade and the Transit Center would be approximately 28 feet above grade; however, there are no height restrictions for buildings within the City Center Mixed Use (CCMU) zoning district.

Density Bonus

The proposed project has a 1.27 FAR. The Zoning Ordinance establishes 0.70 FAR for City Center Mixed Use (CCMU) zone, but allows a density bonus of up to 1.35 FAR if affordable housing and significant public benefits or amenities such as public art and plazas, public facilities, or a transit facility are included. The proposed project would meet the requirements for the density bonus because it would include affordable housing, a public plaza, a City Hall with a Council Chamber, library, and police headquarters, and a transit center. Therefore, the proposed project's 1.27 FAR is consistent with the Zoning Ordinance provisions.

Other Zoning Requirements

The Zoning Ordinance establishes various additional requirements for the City Center Mixed Use (CCMU) zone:

- Setbacks from Residential Zoning Districts
- Design considerations, including:

- Internal compatibility between residential and non-residential uses
- Ensuring that residential uses are protected from light, glare, and noise
- Pedestrian accessibility
- Compatibility with surround land uses

The proposed project's mixed-uses are not adjacent to any residential zoning district and, therefore, no set backs are required. In regards to the design considerations, these issues are addressed in further detail in Section 4.1, Aesthetics, Light, and Glare; Section 4.9, Noise; and Section 4.12 Transportation. In all cases, the proposed project would be consistent with these requirements.

Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

4.9 - Noise

4.9.1 - Introduction

This section describes the existing noise setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Noise Impact Analysis prepared in June 2007 by Michael Brandman Associates. The entirety of the Noise Impact Analysis is contained in Appendix G.

As explained in Section 1, Introduction, where applicable, this project-level Draft Subsequent Environmental Impact Report (DSEIR) tiers off and incorporates by reference information and analysis contained in the City of San Ramon General Plan EIR and the San Ramon City Civic Center EIR, certified by the San Ramon City Council in 2001 and 2003, respectively. The General Plan EIR contemplated buildout of the General Plan at a programmatic level and concluded that all noise impacts were less than significant after mitigation in Section 4.8 of the document. The General Plan EIR found that some new development proposed by the General Plan may be in areas with ambient noise levels in excess of what is normally considered acceptable for sensitive receptors, including mixed use sites such as the City Center, but concluded that after mitigation, the impact would be less than significant. See General Plan EIR, Impacts 4.8-a through 4.8-c and Figure 4.8-2.

The City Civic Center EIR provided project-level analysis of the smaller and less intense City Civic Center project and concluded that all noise impacts were less than significant after mitigation in Section 4.4 of the document. This DSEIR also incorporates by reference the City of San Ramon Zoning Ordinance Final Negative Declaration and the Addendum to the City of San Ramon Zoning Ordinance Final Negative Declaration, both of which were certified by the San Ramon City Council in 2006.

This DSIER accounts for modifications to the baseline conditions that have occurred since certification of the previous EIRs and changes that have increased the size and intensity of the proposed project. Accordingly, not all of the conclusions in the previous EIRs are applicable to the proposed project and new analysis is provided for potential impacts not previously considered in those documents.

4.9.2 - Environmental Setting

Noise Fundamentals

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit that expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the

audible spectrum. They are adjusted to reflect only those frequencies that are audible to the human ear.

Noise Descriptors

Noise-equivalent sound levels are not measured directly, but are calculated from sound pressure levels typically measured in A-weighted decibels. The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The peak traffic hour L_{eq} is the noise metric used by California Department of Transportation (Caltrans) for all traffic noise impact analyses.

The Day-Night Average Level (L_{dn}) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of ten decibels to sound levels at night between 10 p.m. and 7 a.m. The Community Noise Equivalent Level (CNEL) is similar to the L_{dn}, except that it has another addition of 4.77 decibels to sound levels during the evening hours between 7 p.m. and 10 p.m. These adjustments are made to the sound levels at these time periods because during the evening and nighttime hours, when compared to daytime hours, there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds. For this reason, the sound appears louder in the evening and nighttime hours and is weighted accordingly. The City of San Ramon relies on the CNEL noise standard to assess transportation-related impacts on noise-sensitive land uses.

Traffic Noise Propagation

Traffic noise is analyzed as a line source noise, where the noise levels are normalized throughout a roadway segment. In order to assess the noise levels at different locations near the roadway, the roadway noise, the trajectory of the path from the source to receiver, and the location of the receiver are all considered in the noise prediction analysis. This analysis method is known as the source-path-receiver concept. In general, noise control measures can be applied to each of these three elements.

Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models: soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For traffic, a drop-off rate of 4.5 dBA per doubling of distance is typically observed over soft ground with landscaping, compared with a 3.0 dBA drop-off rate over hard ground such as asphalt, concrete, stone and very hard, packed earth. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis.

Traffic Noise Prediction

The level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires.

Because of the logarithmic nature of traffic noise levels, a doubling of the traffic noise (acoustic energy) results in a noise-level increase of 3 dBA. Based on the FHWA community noise assessment criteria, this change is "barely perceptible." In other words, doubling the traffic volume (assuming that the speed and truck mix do not change) results in a noise increase of 3 dBA. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. For a noise barrier to work, it must be high enough and long enough to block the view of a road. A noise barrier is most effective when placed close to the noise source or receiver. A noise barrier can achieve a 5-dBA noise-level reduction when it is tall enough to break the line of sight. When the noise barrier is a berm instead of a wall, the noise attenuation can be increased by another 3 dBA.

Construction Noise

FHWA compiled noise measurement data regarding the noise generating characteristics of several different types of construction equipment used during the Central Artery/Tunnel project in Boston. Table 4.9-1 below provides a list of the construction equipment measured along with the associated measured noise emissions and measured percentage of typical equipment use per day. From this data, the FHWA developed the Roadway Construction Noise Model, which may be used for the prediction of construction noise.

Table 4.9-1: Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Spec 721.560 L_{max} at 50 ft (dBA, slow)	Actual Measured L_{max} at 50 ft (dBA, slow)	No. of Actual Data Samples (Count)
All other equipment > 5 HP	No	50	85	N/A	0
Auger drill rig	No	20	85	84	36
Backhoe	No	40	80	78	372
Bar bender	No	20	80	N/A	0
Blasting	Yes	N/A	94	N/A	0
Boring jack (power)	No	50	80	83	1

Table 4.9-1 (Cont.): Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Spec 721.560 L_{max} at 50 ft (dBA, slow)	Actual Measured L_{max} at 50 ft (dBA, slow)	No. of Actual Data Samples (Count)
Chain saw	No	20	85	84	46
Clam shovel (dropping)	Yes	20	93	87	4
Compactor (ground)	No	20	80	83	57
Compressor (air)	No	40	80	78	18
Concrete batch plant	No	15	83	N/A	0
Concrete mixer truck	No	40	85	79	40
Concrete pump	No	20	82	81	30
Concrete saw	No	20	90	90	55
Crane	No	16	85	81	405
Dozer	No	40	85	82	55
Drill rig truck	No	20	84	79	22
Drum mixer	No	50	80	80	1
Dump truck	No	40	84	76	31
Excavator	No	40	85	81	170
Flatbed truck	No	40	84	74	4
Front-end loader	No	40	80	79	96
Generator	No	50	82	81	19
Generator (<25KVA, VMS signs)	No	50	70	73	74
Gradall	No	40	85	83	70
Grader	No	40	85	N/A	0
Grapple (on backhoe)	No	40	85	87	1
Horizontal boring hydraulic jack	No	25	80	82	6
Hydra break ram	Yes	10	90	N/A	0
Impact pile driver	Yes	20	95	101	11
Jackhammer	Yes	20	85	89	133
Man lift	No	20	85	75	23
Mounted impact hammer (hoe ram)	Yes	20	90	90	212
Pavement scarafier	No	20	85	90	2
Paver	No	50	85	77	9

Table 4.9-1 (Cont.): Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Spec 721.560 L_{max} at 50 ft (dBA, slow)	Actual Measured L_{max} at 50 ft (dBA, slow)	Count of Actual Data Samples
Pickup truck	No	40	55	75	1
Pneumatic tools	No	50	85	85	90
Pumps	No	50	77	81	17
Refrigerator unit	No	100	82	73	3
Rivet buster/chipping gun	Yes	20	85	79	19
Rock drill	No	20	85	81	3
Roller	No	20	85	80	16
Sand blasting (single nozzle)	No	20	85	96	9
Scraper	No	40	85	84	12
Shears (on backhoe)	No	40	85	96	5
Slurry plant	No	100	78	78	1
Slurry trenching machine	No	50	82	80	75
Soil mix drill rig	No	50	80	N/A	0
Tractor	No	40	84	N/A	0
Vacuum excavator	No	40	85	85	149
Vacuum street sweeper	No	10	80	82	19
Ventilation fan	No	100	85	79	13
Vibrating hopper	No	50	85	87	1
Vibratory concrete mixer	No	20	80	80	1
Vibratory pile driver	No	20	95	101	44
Warning horn	No	5	85	83	12
Welder/torch	No	40	73	74	5
Source: FHWA, January 2006.					

Groundborne Vibration Fundamentals

Groundborne vibration consists of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of groundborne vibrations typically cause a nuisance only to people, but at extreme vibration levels, damage to buildings may occur. Although groundborne vibration can be felt outdoors, it is typically an annoyance only to people indoors, where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may consist of the rattling of windows or dishes on shelves.

Vibration Descriptors

Vibration is quantified through the measurement of the motion of a particular point on the ground or structure. Since the current available vibration measurement devices measure either the velocity or acceleration of the ground or structure, vibratory motion is commonly described by identifying the peak particle velocity (PPV) or peak particle acceleration (PPA). The PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. However, for human response, an average vibration amplitude is more appropriate, since it takes time for the human body to respond to the vibration. Since the average particle velocity over time is zero, the root-mean-square amplitude of the vibration velocity is typically used to assess human response. The root-mean-square values are always less than PPV, and for typical single-frequency conditions, the root-mean-square value is about 70 percent of the PPV.

Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels, is denoted as L_v, and is based on the root-mean-square velocity amplitude. A commonly used abbreviation is VdB, which, in this text, is L_v based on the reference quantity of 1 micro-inch per second.

Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Offsite sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration. Generally, the thresholds of perception and annoyance are higher for transient sources than continuous sources. Table 4.9-2 shows PPV levels for continuous and transient sources and the associated human response.

Table 4.9-2: Vibration Levels and Human Response

Peak Particle Velocity (inches/second)		Human Response
Continuous	Transient	
0.40	2.00	Severe
0.10	0.90	Strongly perceptible
0.04	0.25	Distinctly perceptible
0.01	0.04	Barely perceptible
Source: California Department of Transportation, 2004.		

Vibration Propagation

The propagation of groundborne vibration is not as simple to model as airborne noise. This is caused by noise in the air that travels through a relatively uniform medium, while groundborne vibrations travel through the earth, which may contain significant geological differences. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh

waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature, and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

Construction-Related Vibration Level Prediction

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings near construction activities respond to these vibrations with varying results, ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table 4.9-3 gives approximate vibration levels for particular construction activities. The data in the table provides a reasonable estimate for a wide range of soil conditions.

Table 4.9-3: Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v) at 25 feet
Pile driver (impact)	1.518 (upper range) 0.644 (typical)	112 104
Pile driver (sonic)	0.734 (upper range) 0.170 (typical)	105 93
Clam shovel drop (slurry wall)	0.202	94
Hydromill (slurry wall)	0.008 (soil) 0.017 (rock)	66 75
Vibratory roller	0.210	106
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58
Source: California Department of Transportation, 2004. Federal Transit Administration, 1995.		

Existing Noise Environment

To determine the existing noise environment, short-term, peak-hour noise measurements were taken at nine locations in the project study area, and 24-hour noise measurements were taken at two locations on the project site in June 2007. These measurements were then used to calculate ambient noise levels, both on and around the project site.

Noise Measurement Locations

The project site is located in a developed area. The project site is generally bounded by Bishop Drive and Bishop Ranch 3 to the north, Iron Horse Trail, the Market Place and the Reflections Condominiums to the east, a Bishop Ranch 1 surface parking area and single-family residential area to the south, and Chevron Park, Sunset Drive, and the Shops at Bishop Ranch to the west. Besides the local roadways, the project site is primarily impacted by noise from Interstate 680 (I-680), which is located approximately 1,400 feet west of Bishop Ranch 2.

The offsite, short-term, peak-hour noise monitoring locations were selected on basis of the potential for impacts from noise level increases that are due to the development of the proposed project. Each site is described below. The short-term measurement locations are shown on Exhibit 4.9-1.

- Site 1 is located approximately 50 feet west of the centerline of San Ramon Valley Boulevard, approximately 25 feet north of the centerline of Talavera Drive, and approximately 120 feet west of the right-of-way for I-680.
- Site 2 is located approximately 50 feet west of the centerline of Bollinger Canyon Road and approximately 25 feet north of the centerline of Aranda Drive.
- Site 3 is located approximately 50 feet west of the centerline of Sunset Drive and approximately 50 feet south of The Shops at Bishop Ranch.
- Site 4 is located approximately 100 feet south of the centerline of Bollinger Canyon Road and approximately 50 feet east of the centerline of Bishop Ranch East.
- Site 5 is located in the southwest Bishop Ranch 1 surface parking area near Chevron Park.
- Site 6 is located approximately 20 feet north of the water feature located in Bishop Ranch 1.
- Site 7 is located approximately 90 feet south of the centerline of Bollinger Canyon Road and approximately 240 feet west of Canyon Lakes Drive.
- Site 8 is located approximately 50 feet southeast of the centerline of Woodview Circle and approximately 250 feet northwest of the centerline of Bollinger Canyon Road.
- Site 9 is located approximately 200 feet northeast of the centerline of Alcosta Boulevard and approximately 50 feet southeast of the centerline of Bollinger Canyon Road.

Source: Vista Environmental and Thomas Guides Digital Edition, 2007.

NORTH

Not to Scale

Michael Brandman Associates

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Exhibit 4.9-1
Noise Measurement Locations

The noise measurements were recorded between 3:20 p.m. and 6:20 p.m. on June 4, 2007 and between 7:10 a.m. and 9:35 a.m. on June 5, 2007. On June 4, 2007, the temperature was 76 degrees Fahrenheit, barometric pressure was 29.50 inches of mercury, with wind gusts up to 8 miles per hour during the noise measurement readings. On June 5, 2007, the temperature was 60 degrees Fahrenheit, barometric pressure was 29.47 inches of mercury, and the wind speed was around 5 miles per hour during the noise measurement readings.

The onsite 24-hour noise monitoring locations were selected in order to assess the existing ambient noise levels currently impacting the project site and to determine the noise generated from a parking structure. The 24-hour measurement locations are shown in Exhibit 4.9-1.

- Site A is located approximately 160 feet southeast of the southern Bishop Ranch 3 parking structure and approximately 25 feet from the centerline of Iron Horse Trail on Parcel 3A.
- Site B is located approximately 20 feet from the south side and 75 feet from the east side of the southern Bishop Ranch 3 parking structure, on Parcel 3A.

Noise Measurement Results

Short-Term Peak Hour Measurement Results

The results of the offsite short-term peak hour noise level measurements are presented in Table 4.9-4. Except for Site 6, which measured the steady noise from the water feature, all other noise level measurements were monitored for a minimum period of 10 minutes. The existing noise level measurements ranged from 51.6 to 72.5 dBA L_{eq}, with the highest noise measurement at Site 9.

Table 4.9-4: Existing Ambient Offsite, Short-Term Noise Level Measurements

Site No.	Site Description	Primary Noise Source	Start Time and (Measurement Length - Minutes)	Noise Level (dBA L_{eq})
1	San Ramon Valley Boulevard, near Talavera Drive	Traffic noise from I-680 and San Ramon Valley Boulevard.	3:22 p.m. (15:30) 7:11 a.m. (10:01)	71.8 71.9
2	Bollinger Canyon Road near Aranda Drive.	Traffic noise from Bollinger Canyon Road.	3:53 p.m. (12:00) 7:26 a.m. (10:30)	65.0 65.5
3	Sunset Drive near The Shops at Bishop Ranch.	Traffic noise from Sunset Drive.	4:16 p.m. (11:00) 7:50 a.m. (10:00)	67.1 65.1
4	Bollinger Canyon Road near Bishop Ranch East.	Traffic noise from Bollinger Canyon Road.	4:34 p.m. (11:30) 8:04 a.m. (10:30)	64.6 63.9
5	Southwest Bishop Ranch 1 surface parking area near Chevron Park	Traffic noise from I-680.	4:51 p.m. (10:00) 8:18 a.m. (10:00)	51.6 52.0
6	Bishop Ranch 1 water feature	Water feature noise.	5:06 p.m.(5:00) 8:34 a.m. (4:00)	66.3 66.2

Table 4.9-4 (Cont.): Existing Ambient Offsite, Short-Term Noise Level Measurements

Site No.	Site Description	Primary Noise Source	Start Time and (Measurement Length - Minutes)	Noise Level (dBA L_{eq})
7	Bollinger Canyon Road near Canyon Lakes Drive	Traffic noise from Bollinger Canyon Road.	5:28 p.m. (12:30) 8:46 a.m. (11:59)	69.6 70.0
8	Woodview Circle near Bollinger Canyon Road.	Traffic noise from Bollinger Canyon Road and I-680.	5:49 p.m. (11:30) 9:04 a.m. (10:00)	50.8 52.6
9	Alcosta Boulevard near Bollinger Canyon Road.	Traffic noise from Bollinger Canyon Road and Alcosta Boulevard.	6:09 p.m. (11:00) 9:21 a.m. (11:30)	72.5 70.4

Notes:
Weather conditions for June 4, 2007 p.m.: partly cloudy, temperature 76 degrees Fahrenheit, barometric pressure 29.50 inches of mercury, with wind gusts up to 8 miles per hour. For June 5, 2007 a.m.: Partly cloudy, temperature 60 degrees Fahrenheit, barometric pressure 29.47 inches of mercury, and the wind speed was around 5 miles per hour.
Source: Michael Brandman Associates, 2007.

The noise level measurements were taken during both the peak afternoon and morning traffic periods. The noise level difference between the two measurements time are all within 1 dBA except for Site 3, where there was noticeably less traffic entering The Shops at Bishop Ranch during the morning peak hour and for Sites 8 and 9, where the morning noise measurements were taken towards the end of the morning peak traffic period.

The noise measurement results show that except for Sites 5 and 8, the remaining sites exceed the City's exterior noise standards of 60 dBA for noise-sensitive residential areas. The noise monitoring data printouts are included in Appendix G. According to Section N-2230 of the Caltrans Technical Noise Supplement, the CNEL values are generally within plus or minus 2 dBA of the measured peak hour L_{eq} dBA.

24-Hour Measurement Results

The two, onsite, 24-hour measurements were taken from 10:53 p.m. on June 4, 2007 until 11:12 a.m. on June 5, 2007. Site A was positioned to capture the ambient noise of the project site, without the noise impacts from the local roadways. Site B was positioned to capture the noise levels generated from the southern Bishop Ranch 3 parking structure. At 2:30 p.m. on June 4, 2007, there were 311 vehicles parked in the parking structure, and it is assumed approximately that number of vehicles enter and leave the parking structure each day. Around 10 a.m. on June 5, 2007, maintenance workers were scraping peeling paint off the parking structure and utilizing a gas powered vacuum to pick up the paint flakes, which is not part of the typical daily maintenance, so the measured parking structure noise levels should be considered as worst-case noise levels for a parking structure.

The measured sound pressure levels in dBA have been used to calculate the minimum and maximum L_{eq} averaged over 10-minute intervals, and the 24-hour CNEL, which are shown in Table 4.9-5 along

with the measured L_{eq} averaged over the entire measurement time. In addition, a graph of the calculated L_{eq} averaged over 10 minute intervals for both 24-hour measurements is shown in Exhibit 4.9-2.

Table 4.9-5: Existing (Ambient) Onsite, 24-Hour Noise Level Measurements

Site No.	Site Description	24-Hour Average (dBA L_{eq})	Minimum 10 Minute Interval (dBA L_{eq}/Time)	Maximum 10 Minute Interval (dBA L_{eq}/Time)	24-Hour Average (dBA CNEL)
A	Located approximately 160 feet southeast of the southern Bishop Ranch 3 parking structure and approximately 25 feet from the centerline of Iron Horse Trail in the northeast corner of Parcel 3A	52.5	43.6/ 1:25 a.m.	59.3/ 4:25 p.m.	58.0
B	Located approximately 20 feet from the south side and 75 feet from the east side of the southern Bishop Ranch 3 parking structure, in the northeast corner of Parcel 3A.	55.7	44.1/ 1:34 a.m.	71.1/ 10:31 a.m.	59.4
Source: Michael Brandman Associates, 2007.					

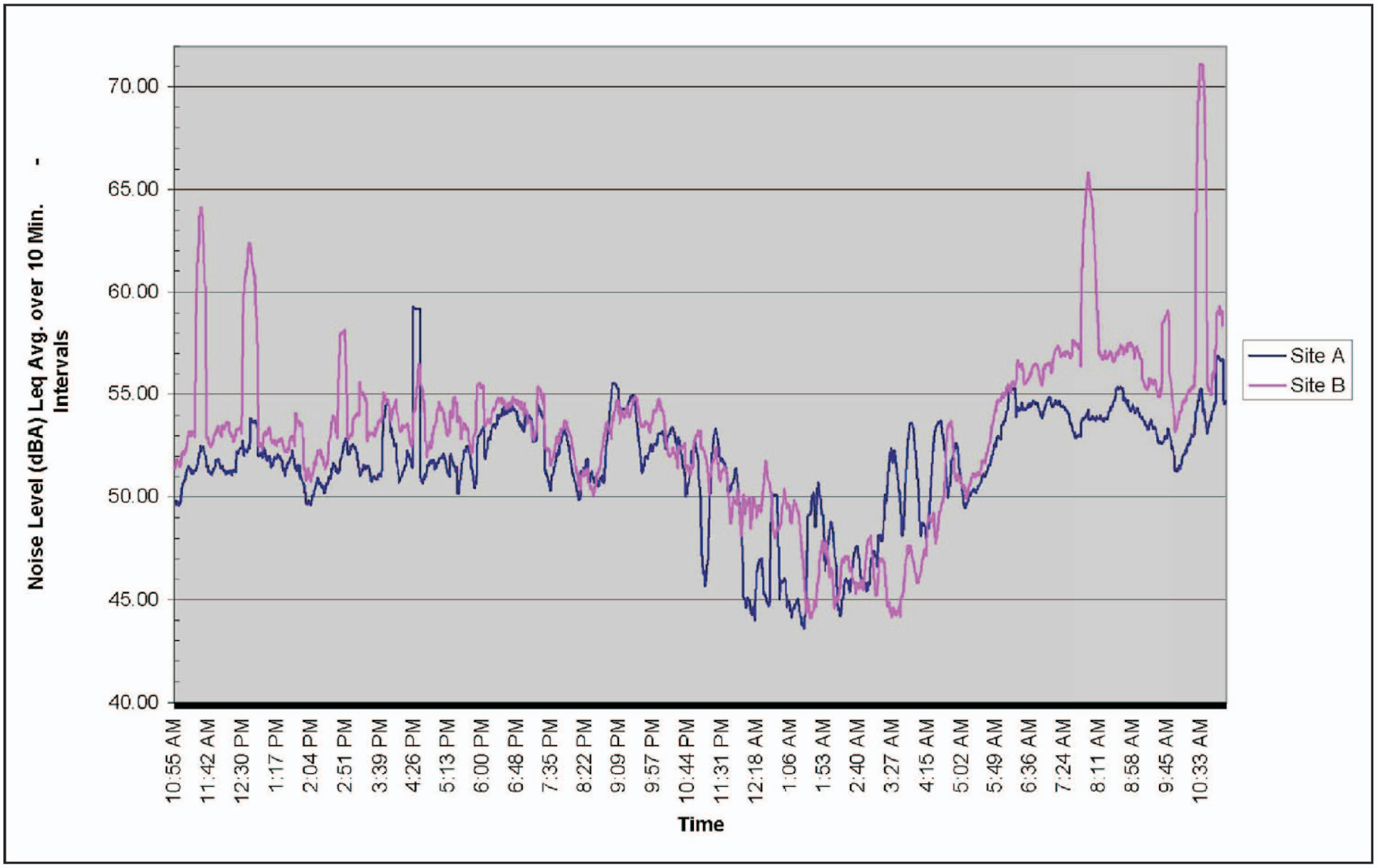
As shown in the above table, the existing ambient noise level for the northern portion of the project site, represented by Site A, is 52.5 dBA, which is consistent with the short-term peak noise measurements for Site 5, which measured the ambient noise levels at the southern portion of the project site. Table 4.9-5 and Exhibit 4.9-2 also show that the southern Bishop Ranch 3 parking structure produces a noise level of 3.2 dBA L_{eq} above the ambient noise level. The 24-hour hour noise monitoring data printouts are included in Appendix G.

Existing Roadway Noise Volumes

The calculated existing condition noise contours are shown below in Table 4.9-6. As shown in the table, at 100 feet the analyzed segments of: San Ramon Valley Boulevard (except for north of Norris Canyon Road), Sunset Drive north of Bollinger Canyon Road, Alcosta Boulevard north of Montevideo Road, Dougherty Road, Crow Canyon Road, and the east-west portion of Bollinger Canyon Road currently exceed the City's 60-dBA CNEL standard. The noise levels from all analyzed roadway segments range from 48.5 to 68.1 dBA CNEL.

Table 4.9-6: Existing Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Bollinger Canyon Road (North-South)	South of Crow Canyon Road	55.6	RW	RW	51	110
	North of Norris Canyon Road	57.1	RW	RW	64	139
	South of Norris Canyon Road	59.6	RW	44	94	203
San Ramon Valley Boulevard	North of Crow Canyon Road	61.8	RW	61	131	283
	North of Norris Canyon Road	59.7	RW	44	95	206
	North of Bollinger Canyon Road	61.4	RW	58	125	269
	South of Bollinger Canyon Road	63.8	39	83	180	387
	South of Montevideo Drive	62.4	RW	67	144	310
Sunset Drive	South of Bishop Drive	57.8	RW	RW	72	155
	North of Bollinger Canyon Road	60.0	RW	47	100	216
Camino Ramon	North of Crow Canyon Road	58.0	RW	RW	74	159
	North of Norris Canyon Road	59.9	21	46	98	212
	North of Executive Parkway	59.7	21	44	95	205
	North of Bishop Drive	59.7	RW	44	95	205
	North of Bollinger Canyon Road	59.9	RW	46	99	214
	South of Bollinger Canyon Road	54.3	RW	RW	42	90
Bishop Ranch East	South of Bollinger Canyon Road	48.5	RW	RW	RW	RW
Market Place	South of Bollinger Canyon Road	57.0	RW	RW	63	137



Source: Extech Model 407780 Type 2 Integrating Sound Level Meter.

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Exhibit 4.9-2
24-Hour Noise Measurement Graph

Table 4.9-6 (Cont.): Existing Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Alcosta Boulevard	North of Norris Canyon Road	61.9	RW	62	133	287
	North of Bollinger Canyon Road	62.3	RW	66	142	306
	South of Bollinger Canyon Road	62.6	RW	69	148	319
	South of Montevideo Drive	60.0	RW	46	100	216
	North of Old Ranch Road	59.2	RW	41	88	189
	South of Old Ranch Road	59.3	RW	42	90	194
Canyon Lakes Drive	North of Bollinger Canyon Road	55.1	RW	RW	47	102
Dougherty Road	South of Crow Canyon Road	62.1	RW	RW	138	297
	North of Bollinger Canyon Road	62.2	RW	RW	140	302
	North of Old Ranch Road	63.5	RW	80	171	369
	South of Old Ranch Road	63.7	RW	82	178	383
Crow Canyon Road	West of Bollinger Canyon Road	62.5	RW	68	147	316
	East of Bollinger Canyon Road	62.7	RW	70	151	326
	West of San Ramon Valley Boulevard	65.1	RW	102	220	473
	West of Camino Ramon	66.5	RW	126	272	586
	East of Camino Ramon	66.2	RW	121	260	560
	East of Alcosta Boulevard	65.6	RW	109	236	508
	West of Dougherty Road	63.4	RW	79	170	365
	East of Dougherty Road	65.1	RW	102	220	474
Norris Canyon Road	West of Bollinger Canyon Road	54.6	RW	RW	43	94
	West of San Ramon Valley Boulevard	58.2	RW	RW	76	163
	West of Camino Ramon	58.5	RW	RW	80	172

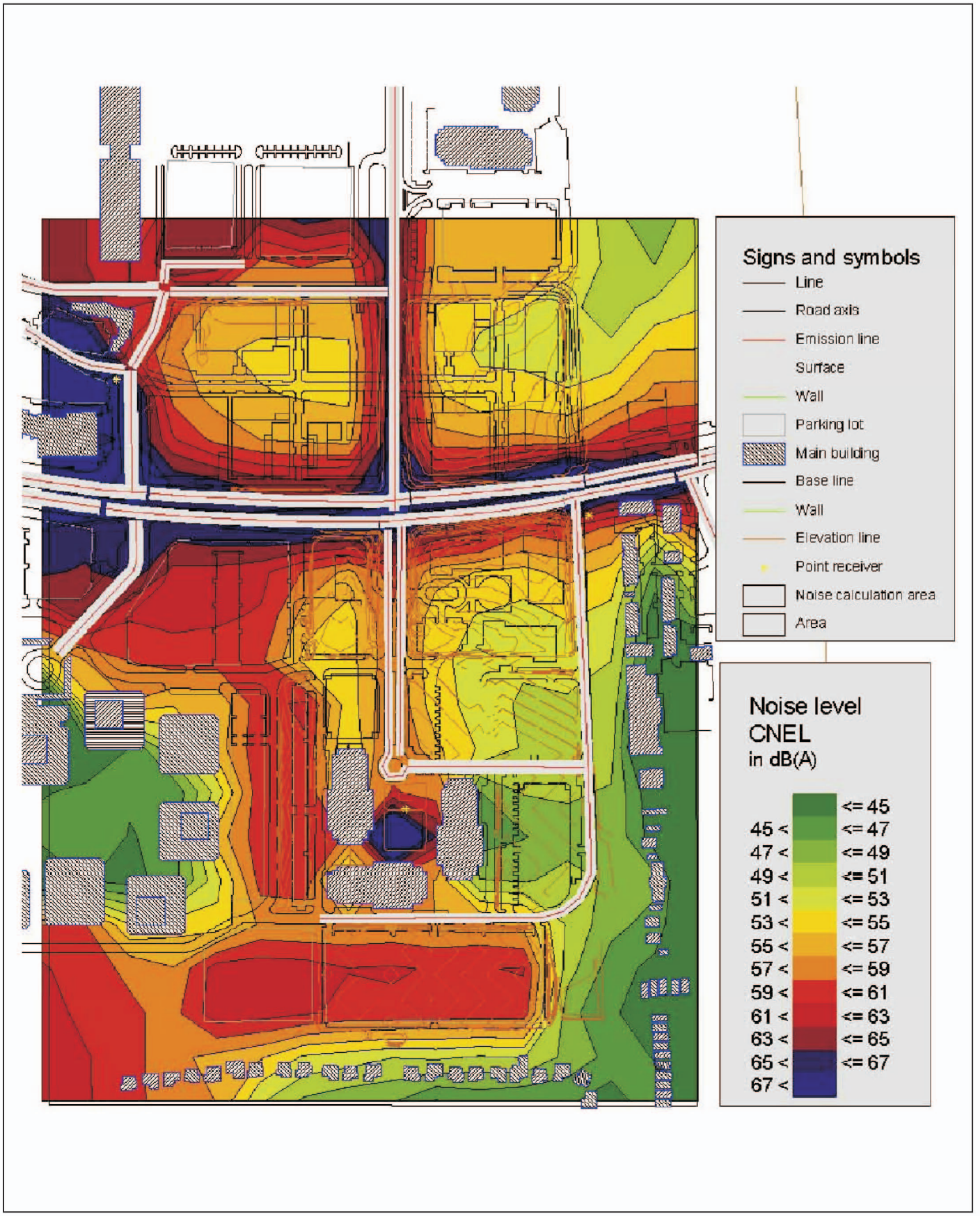
Table 4.9-6 (Cont.): Existing Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Bishop Drive	West of Sunset Drive	55.9	RW	RW	53	115
	West of Camino Ramon	53.2	RW	RW	RW	76
	East of Camino Ramon	51.6	RW	RW	RW	59
Bollinger Canyon Road (East-West)	West of San Ramon Valley Boulevard	61.2	RW	56	120	258
	West of Sunset Drive	68.1	RW	160	345	744
	West of Camino Ramon	66.8	RW	131	282	607
	East of Camino Ramon	66.0	RW	117	252	544
	East of Bishop Ranch East	66.0	RW	116	250	539
	East of Market Place	65.3	RW	104	225	485
	East of Alcosta Boulevard	64.7	RW	96	207	445
	East of Canyon Lakes Drive	63.7	RW	82	176	380
	West of Dougherty Road	63.1	RW	75	162	348
	East of Dougherty Road	62.9	RW	72	156	336
Montevideo Drive	East of San Ramon Valley Boulevard	58.6	RW	RW	81	174
	West of Alcosta Boulevard	52.6	RW	RW	RW	70
Old Ranch Road	East of Alcosta Boulevard	58.5	RW	37	79	170
	West of Dougherty Road	57.4	RW	RW	67	145

RW = Noise contour is located within right-of-way of roadway.
Source: Michael Brandman Associates, 2007.

Onsite Noise Levels

Onsite noise levels represent the location of the proposed project's structures. Existing onsite noise levels were modeled in order to calibrate the noise model to the six field noise measurements that were obtained on or near the project site. Table 4.9-7 shows the modeled noise level, the field noise measurement, and the difference for each noise measurement site, and Exhibit 4.9-3 shows the modeled existing noise contours of the project vicinity. The exhibit also shows the placement of the noise calibration receivers. As shown in the table, the difference between the modeled noise levels and the average field measurement ranged between 0.4 and 1.6 dBA.



Source: SoundPlan Version 6.4.

NORTH Not to Scale

Michael Brandman Associates

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Exhibit 4.9-3
Existing Noise Contour Map

Table 4.9-7: Existing Noise Level Calculations and Model Calibration

Site No.	Site Description	Noise Levels (dBA L_{eq})		
		Modeled	Average Field Measurement	Difference
3	Sunset Drive near The Shops at Bishop Ranch.	65.2	66.1	-0.9
4	Bollinger Canyon Road near Bishop Ranch East.	65.9	64.3	1.6
5	Southwest Bishop Ranch 1 surface parking area near Chevron Park	52.9	51.8	1.1
6	Bishop Ranch 1 water feature	65.4	66.3	-0.9
A	Located approximately 160 feet southeast of the southern Bishop Ranch 3 parking structure and approximately 25 feet from the centerline of Iron Horse Trail in the northeast corner of Parcel 3A.	51.2	52.5	-1.1
B	Located approximately 20 feet from the south side and 75 feet from the east side of the southern Bishop Ranch 3 parking structure, in the northeast corner of Parcel 3A.	55.3	55.7	-0.4
Source: Michael Brandman Associates, 2007.				

Sensitive Receptors

Sensitive receptors are land uses that are sensitive to increases in ambient noise levels. Examples of sensitive receptors include hospitals, schools, convalescent facilities, and residential areas. Sensitive receptors in the project vicinity are summarized in Table 4.9-8.

Table 4.9-8: Sensitive Receptors

Sensitive Receptor	Address	Relationship to Project Site
Marriot Residence Inn	1071 Market Place	180 feet east of Parcel 1A
Reflections Condominiums	205 Reflections Drive	210 feet east of Parcel 1A
Iron Horse Middle School	12601 Alcosta Boulevard	2,000 feet northeast of Parcel 3A
Source: Michael Brandman Associates, 2007.		

4.9.3 - Regulatory Framework

State

Caltrans

Construction vibration Construction vibration is regulated in accordance with standards established by the Transportation and Construction-Induced Vibration Guidance Manual issued by the California Department of Transportation (Caltrans). The manual recommends a threshold of 0.2 inches per second or 106 VdB (dB re: 1 micro-inch per second) as the significance level for construction activities.

Government Code Section 65302

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." The City of San Ramon's adopted land use compatibility guidelines are discussed below.

Local

City of San Ramon

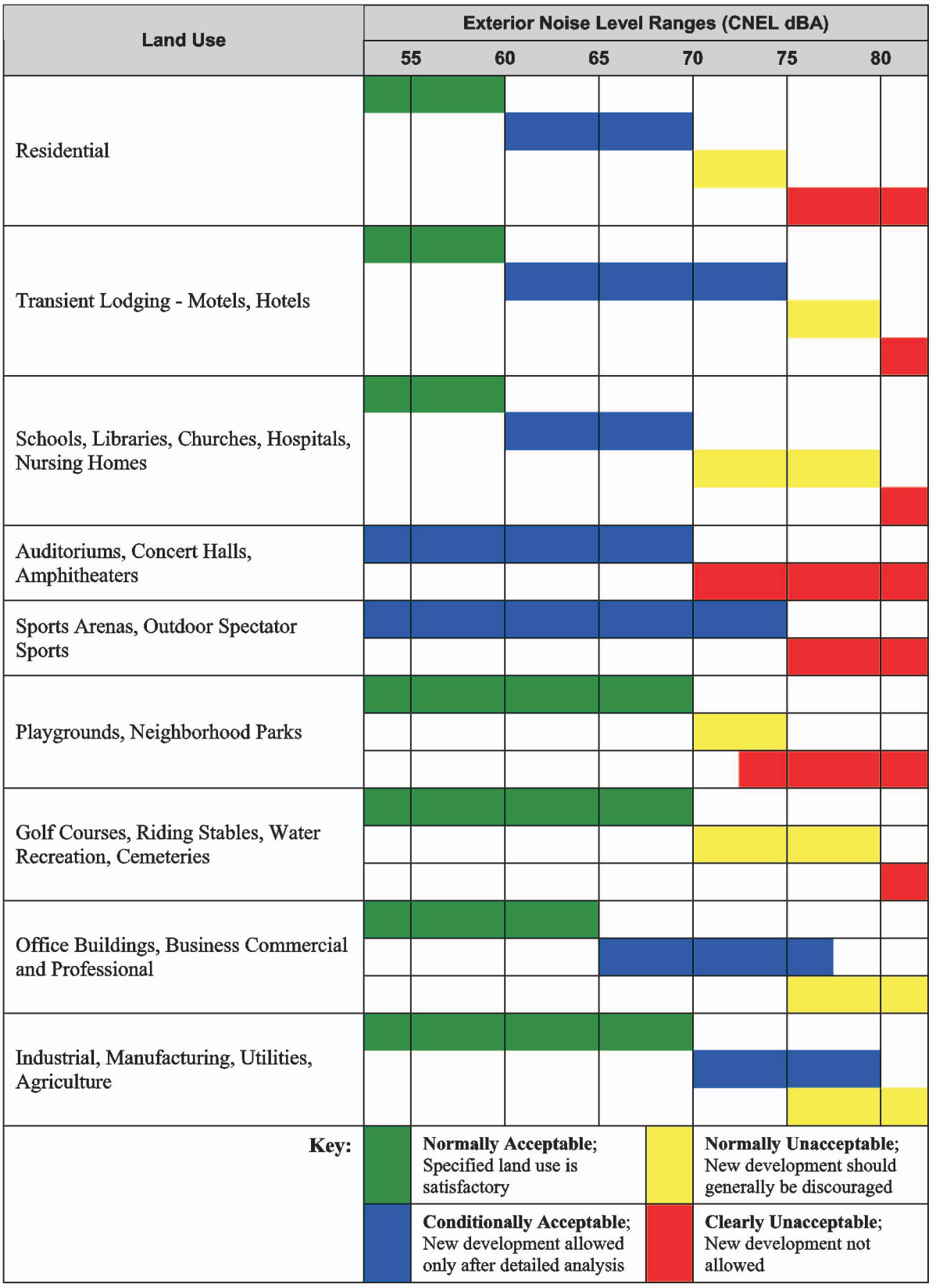
The project site is located in the jurisdiction of the City of San Ramon, which has separate standards for transportation, stationary, and construction noise and vibration sources. The following provides a discussion of the standards for these types of noise and vibration sources.

Transportation-Related Noise

To control transportation-related noise sources such as arterial roads, freeways, airports, and railroads, the City has established guidelines for acceptable community noise levels in the General Plan Noise Element. The Noise Element outlines the land use compatibility for community noise exposure by land use category. For development of a site with exterior noise levels less than 65 dBA CNEL, commercial development is normally acceptable, with typically no noise analysis or mitigation required. For development of a site with exterior noise levels in the 65- to 78-dBA CNEL range, commercial development is conditionally acceptable upon further analysis through a noise impact analysis and possible mitigation. For development of a site with exterior noise levels in the 75- to 85-dBA CNEL range, commercial-retail development is normally unacceptable. Exhibit 4.9-4 provides the Land Use Compatibility Matrix that identifies compatibility of land uses with noise levels.

For the residential portion of the proposed project, the General Plan Noise Element provides an interior noise level standard of 45 dBA CNEL or less and no noise standard for the commercial portion of the proposed project. For the surrounding noise-sensitive residential uses, the General Plan Noise Element provides an exterior noise level standard of 60 dBA CNEL or less for the outdoor living areas and an interior noise level standard of 45 dBA CNEL or less. In the context of this noise impact analysis, the noise impacts from transportation-related noise associated with the proposed project are controlled by the City Noise Element.

In community noise assessment, changes in noise levels less than 3 dBA are often identified as "barely perceptible," while changes of 5 dBA or greater are "readily perceptible." The range of 1 dBA to 3 dBA may be perceived by people who are very sensitive to noise as a slight change in noise level. It is recognized that an increase in noise level of 3 dBA is considered just perceptible in a community noise environment and an increase of 5 dBA would be readily perceptible. An increase above ambient noise levels between 3 dBA and 5 dBA would result in an adverse, but not significant



Source: City of San Ramon General Plan, Figure 10-2.

Michael Brandman Associates

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Exhibit 4.9-4
City of San Ramon Land Use Compatibility Noise Standards

impact, while an increase in noise level greater than 5 dBA when the community noise level already exceeds the City's 60-dBA CNEL standard for noise-sensitive land uses would be considered a significant impact.

Stationary Noise and Vibration

The City Code has established exterior noise level performance standards to control stationary source/non-transportation related noise impacts. The performance standards do not provide quantitative noise limits; instead, they provide operating rules, which are presented below from Municipal Code Chapter V Noise Control B6-101, Business and Residential Relationships:

- Store deliveries by any vehicle in the area between the business and residences is prohibited between 10 p.m. and 6:30 a.m. weekdays and between 10 p.m. and 8 a.m. on weekend and federal holidays. Delivery vehicles will have their engines turned off during deliveries.
- Garbage disposal, construction and maintenance by power equipment in the area between the business and residences is prohibited between 10 p.m. and 6:30 a.m. weekdays and between 10 p.m. and 8 a.m. on weekends and federal holidays.
- Pedestrian, cycle or unauthorized vehicle traffic in the area between the business and residences is prohibited between 10 p.m. and 8 a.m.

In addition to the standards shown above, the City's General Plan Noise Element also provides a 45-dBA L_{eq} noise level threshold for the interior living areas of all residences.

Construction Noise and Vibration

To control construction-related noise and vibration, the City has derived standards specifically for construction noise and vibration, because of their short-term nature. The City standards are specified in the General Plan Noise Element and Noise Ordinance.

The City of San Ramon's City Code Chapter V Noise Control, B6-100 requires that construction in residential zoning districts be limited to the hours of 7:30 a.m. and 6:00 p.m. Monday through Friday and holidays, and 9:00 a.m. and 6:00 p.m. on Saturday and Sunday.

Since the City of San Ramon does not have specific vibration impact criteria for construction-related vibration levels, Caltrans' vibration impact thresholds presented in the Transportation- and Construction-Induced Vibration Guidance Manual were utilized.

4.9.4 - Methodology

Michael Brandman Associates prepared a Noise Impact Analysis, dated June 2007, to determine the offsite and onsite noise impacts associated with the proposed project.

Existing Noise Levels

To ascertain the existing noise at and adjacent to the project site, field monitoring was conducted from Monday, June 4, 2007 to Tuesday, June 5, 2007. The field survey noted that noise within the proposed project area is generally characterized by vehicle traffic on the local roadways and from I-680. No noise impacts from aircraft were observed during the measurements.

Noise monitoring was performed using two different styles of noise meters for the short-term peak hour measurements and the 24-hour measurements, which are described below.

Short-Term Peak Hour Noise Measurements

The short-term peak hour noise measurements were taken using a Larson-Davis Model 824 Type 1 precision sound level meter programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meter and microphone were mounted on a tripod five feet above the ground and were equipped with a windscreen during all measurements. The sound level meter was calibrated before and after the monitoring using a Larson-Davis calibrator, Model CAL 200. The accuracy of the calibrator is maintained through a program established through the manufacturer and is traceable to the National Bureau of Standards. The unit meets the requirements of ANSI Standard S1.4-1984 and IEC Standard 942: 1988 for Class 1 equipment. All noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

All noise measurement durations were measured according to the standards stated in Section N-3320 of Caltrans Technical Noise Supplement, which specifies that the measurements be a duration of at least 10 minutes and shall be continued past 10 minutes until the fluctuations in the displayed L_{eq} are less than 0.5 dBA.

24-Hour Noise Measurements

The 24-hour noise measurements were taken using an Extech Model 407780 Type 2 integrating sound level meter programmed in "slow" mode to record the sound pressure level at 5-second intervals for 24 hours in "A" weighted form. In addition, the L_{eq} averaged over the entire measuring time was also recorded. The sound level meter and microphone were mounted on a tripod five feet above grade and was equipped with a windscreen during all measurements. The sound level meter was calibrated before and after the monitoring using an Extech calibrator, Model 407766. All noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

Onsite Noise Levels

In order to provide a more detailed noise analysis of the project vicinity, calculations of the expected future exterior noise levels were made using SoundPlan Version 6.4 noise modeling software. The following section describes the noise analysis methodologies, which includes a discussion of the software and modeling input parameters used in this analysis.

SoundPlan Noise Modeling Software

Because of the project site's proximity to I-680, which is a significant source of traffic noise, and since the project vicinity is impacted by multiple roadways and existing and proposed parking lots, the SoundPlan Version 6.4 noise modeling software was used. SoundPlan's road noise algorithms are based on the FHWA Traffic Noise Model (FHWA TNM Model) and SoundPlan's parking lot noise algorithms are based on the international standard ISO 9613-2, since no national standard for parking lot noise currently exists. The SoundPlan Model requires the input of roadways, parking lots, and the locations of the noise measurement receivers. In addition, sound barriers, terrain contour lines, building placement, and specific ground coverage zones may be incorporated as well. The site plan along with scaled aerial photographs, were used to determine the placement of the roadways, parking lots, structures, and key contour lines to establish the terrain in project vicinity. Except for the roadways and buildings that were analyzed as "hard" site conditions, the remainder of the area was analyzed as "soft" site conditions. The default temperature and humidity were used in the analysis. The SoundPlan Model printouts are provided in Appendix G and the following describes the roadway, parking lot, and receiver assumptions used.

Roadway Assumptions

The model analyzed the noise impacts from I-680, Sunset Drive, West Street (proposed), Camino Ramon, East Street (proposed), Bishop Ranch East, Bishop Drive (includes extension), Bollinger Canyon Road, and the road into the City Hall parking structure. Each direction of travel for I-680, Bollinger Canyon Road, and Camino Ramon south of Bollinger Canyon Road was analyzed separately, while the remaining roadways were analyzed based on a single-lane equivalency. The CNEL noise levels were calculated for the existing condition, Year 2020 baseline (without project), and Year 2020 with project scenarios. The average daily traffic volumes were obtained from the Traffic Operations Evaluation, except for West Street (proposed), East Street (proposed), and the road into City Hall parking structure, which were not analyzed by the Traffic Operations Evaluation and were assumed to have average daily traffic volumes of 2,000 vehicles for the Year 2020 with project scenario.

The model requires the separate input of autos, medium trucks, and heavy trucks. For the local roadways, the vehicle mix was based on the roadway's General Plan classification vehicle mix shown. The collector vehicle mix was used for those roadways that do not have a General Plan classification. For I-680, the vehicle mix was obtained from the 2005 Annual Average Daily Truck Traffic on the California Highway System, prepared by State of California Department of Transportation, November 2006, and is shown below in Table 4.9-9. The roadway speeds were based on the posted speed limits.

Table 4.9-9: Interstate 680 Vehicle Mix

Vehicle Type	Percent of Vehicle Mix			
	Day (7 a.m. - 7p.m.)	Evening (7 p.m. - 10 p.m.)	Night (10 p.m. - 7 a.m.)	Overall
Automobiles	65.6	13.4	15.7	94.7
Medium trucks	1.8	0.3	0.5	2.5
Heavy trucks	1.7	0.1	1.0	2.8
Source: California Department of Transportation, November 2006.				

Transit Assumptions

The proposed project includes a transit center with four bus stalls that would be located on the ground floor of the parking structure adjacent to City Hall. According to the Traffic Operations Evaluation, there are currently seven bus routes serving the project site, which average approximately one stop per hour per route near the project site. It was assumed that each of these routes would add a stop at the transit center and that an additional route would serve the area in the future. Therefore, the analysis was based on the transit center, which would be utilized by 8 buses per hour. The bus volumes were added to the Bishop Ranch 1 entrance road.

Parking Lot Assumptions

The SoundPlan model—which requires input of the placement of the parking lots, the number of parking spaces in each lot, and the average number of car movements per hour that occur per space—also analyzed the noise impacts from the existing and proposed parking lots,. Twenty-four-hour noise measurements were taken of the parking lot noise from the Bishop Ranch 3 southern parking structure. The noise measurements found that, at 20 feet from the Bishop Ranch 3 southern parking structure, the noise level was 55.7 dBA L_{eq} or 59.4 dBA CNEL. It was assumed that the Bishop Ranch 3 southern parking structure has 1,200 parking spaces. The noise level for each proposed parking structure was based on the noise level proportional to the number of parking spaces provided in each parking structure.

Water Feature Assumptions

The SoundPlan model also analyzed the noise impacts from the existing and proposed water features in the project study area. Noise measurements of the existing water feature in Bishop Ranch 1A were obtained. The noise measurements found that, at 20 feet from the water feature, the noise level was 66.3 dBA L_{eq}. The water features were analyzed as area noise sources, and the noise levels for the proposed water features were based on the measured water-feature noise level proportional to the area of the water feature.

Receiver Assumptions

Receivers were placed at the field noise measurements locations; in the offsite structures with noise sensitive uses; and onsite, where residential uses are proposed. The receivers were placed either 5 feet above ground level or 5 feet above floor level for the residential structure receivers.

4.9.5 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether noise impacts are significant environmental effects, the following questions are analyzed and evaluated: Would the project result in:

a.) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b.) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

c.) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

d.) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

e.) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (Refer to Section 7, Effects Found Not To Be Significant.)

f.) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (Refer to Section 7, Effects Found Not To Be Significant.)

4.9.6 - Project Impacts and Mitigation Measures

This section discusses potential impacts associated with the development of the project and provides mitigation measures where appropriate.

Construction Noise

Impact NOI-1:	**The proposed project would generate substantial construction noise that may adversely impact nearby noise-sensitive land uses.**

Impact Analysis

Construction noise and vibration represent a short-term increase in ambient noise levels. Noise impacts from construction activities associated with the proposed project would be functions of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

The construction activities for the proposed project are anticipated to include demolition of 194,652 square feet of office space spread among four, two-story office structures; ground clearing, excavation, and grading of approximately 44 acres of land; and construction of more than 2.1 million square feet of mixed uses. The following describes the anticipated construction schedule:

Plaza District:

- Construction starts in fall 2008 and ends with construction completion and opening in November 2010.

Bishop Ranch 1A

- The first Bishop Ranch 1A office building starts in mid-2008 with a construction period of 14 months.
- Bishop Ranch 1A parking structure starts in mid-2008 with a construction period of 10 months.
- The second office building starts mid-2009 with a construction period of 14 months.
- Bishop Ranch 1 parking structure starts in mid-2009 with a construction period of 10 months.
- The third office building starts in mid-2010 with a construction period of 14 months.

City Hall and Transit Center

- Construction begins mid-2009 with a construction period of 18 months.

Short-term noise impacts could occur during construction activities either from the noise impacts created from the noise generated onsite during demolition, ground clearing, excavation, grading, and construction activities, or from the transport of workers and movement of construction materials to and from the project site. Onsite and offsite construction noise are discussed separately.

Onsite Construction Noise

Onsite construction noise is of the greatest concern as it relates to nearby noise-sensitive land uses. The nearest noise-sensitive land uses include a Marriott Residence Inn, located approximately 180 feet east of the nearest construction activity on Parcel 1A, and the Reflections Condominiums, located approximately 210 feet east of the nearest construction activity on Parcel 1A. In addition, the nearest Iron Horse Middle School classrooms are approximately 2,000 feet from the northeast corner of Parcel 3A. Commercial and office developments and parks are not considered noise-sensitive land uses.

The Marriott Residence Inn would experience the greatest noise impact during the construction of the three Bishop Ranch 1A office buildings, which would be phased in between mid-2008 and 2011. The Reflections Condominiums would experience the greatest noise impact during the construction of the Bishop Ranch 1 parking structure, which is anticipated to start in mid-2009 and last for 10 months. Iron Horse Middle School would experience the greatest noise impacts during the construction of

Block F of the Plaza District, which is anticipated to start in the fall of 2008 and be completed by November 2010.

Construction noise impacts onto the nearby sensitive receptors have been calculated according to the methodology discussed previously and through the use of the Roadway Construction Noise Model. Pile drivers may be used during the construction of Bishop Ranch 1A office buildings, the Bishop Ranch 1 parking structure, and Block F of the Plaza District, which would be the noisiest phase of construction. Along with the operation of a pile driver, it was assumed that the simultaneous operation of an excavator and a front-end loader would occur. The individual noise levels of the various types of equipment have been previously shown above in Table 4.9-1. The results of the construction noise impacts are shown below in Table 4.9-10. The Roadway Construction Noise Model printouts are provided in Appendix G.

Table 4.9-10: Construction Noise Impacts

Land Use	Distance to Nearest Construction Noise Source	Combined Equipment Noise Level	
		dBA L_{max}	dBA L_{eq}
Marriot Residence Inn	180	90.1	83.3
Reflections Condominiums	210	88.8	81.9
Iron Horse Middle School	2,000	69.2	62.4
Source: FHWA Roadway Construction Noise Model Version 1.0.			

Table 4.9-10 shows that the Marriot Residence Inn, located approximately 180 feet east of the nearest construction noise source will experience the greatest construction noise impact from the proposed project with combined maximum average noise levels from construction equipment of 83.3 dBA L_{eq}.

Since construction noise is of a temporary nature, it is exempt from compliance with the City's land use compatibility guidelines shown in Exhibit 4.9-4. However, the City Code does require construction-related operational considerations such as limitation on the hours of construction and proper maintenance of sound attenuation devices on construction equipment. These requirements are incorporated into the project as mitigation. The implementation of the construction noise control mitigation measures would reduce potential impacts to a level of less than significant.

Offsite Construction Noise

The transport of workers and movement of construction materials could incrementally increase the noise levels along nearby roadways. In order for offsite roadway noise impacts created by construction trips associated with the proposed project to be considered significant, the offsite roadway noise levels would have to increase by 5 dBA CNEL, and the resulting noise level would have to exceed the City's 60 dBA CNEL exterior noise standard for noise-sensitive uses. The greatest construction-related offsite noise impact is expected to occur when the existing 194,652 square feet of the Bishop Ranch 2 office complex is demolished and the debris is hauled offsite.

According to the URBEMIS2002 Model default settings for air quality analysis, this would require haul trucks to make approximately 45 round-trips per day for 20 days.

As discussed in Section 4.12, Transportation, mitigation is proposed that would limit construction traffic to the streets along the project site frontage. Truck traffic would not be permitted east of the Bollinger Canyon Road and Bishop Ranch East intersection or north of the Camino Ramon intersection with Bishop Drive. With this limitation, no offsite noise-sensitive land uses would be impacted by the construction-related traffic. Therefore, no significant impact is anticipated from construction noise impacts that would occur off the project site.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-1 All construction activities shall adhere to the following requirements:

- All construction equipment shall use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.
- Construction staging and heavy equipment maintenance activities shall be performed a minimum distance of 300 feet from either the Residence Inn or the Reflections Condominiums, unless safety or technical feasibility takes precedence.
- Stationary combustion equipment such as pumps or generators operating within 500 feet of the Residence Inn or the Reflections Condominiums shall be shielded from these noise-sensitive land uses with a noise protection barrier.

Level of Significance After Mitigation

Less than significant impact.

Vibration

Impact NOI-2: Operational vibration associated with the proposed project may subject project residents to substantial vibration.

Impact Analysis

This impact assesses the proposed project's potential to expose persons and structures to substantial vibration from construction and operational activities. Because the City of San Ramon does not have any adopted vibration exposure threshold criteria, the thresholds presented in the Caltrans' Transportation- and Construction-Induced Vibration Guidance Manual were used in this analysis.

Construction Vibration

Construction activities can produce vibration that may be felt by adjacent uses. The primary sources of vibration during construction will potentially be from pile drivers, which are known to generate substantial vibration levels. As shown previously in Table 4.9-3, an impact pile driver truck generates the most amount of vibration of any piece of construction equipment with an upper range of 1.518 PPV or 112 VdB at 25 feet.

The nearest sensitive receptor to pile driving activities would be the Marriott Residence Inn, located approximately 180 feet east of the Bishop Ranch 1A construction footprint. It is anticipated that the vibration levels created at the Residence Inn caused by an impact pile driver operating on the eastern portion of the Bishop Ranch 1A site would be around 95 VdB. This vibration level is below the 106-VdB significance level. Therefore, construction-related vibration from the proposed project would not result in a significant vibration impact. Impacts would be less than significant.

Operational Vibration

The proposed project would result in the operation of a total of more than 2.1 million square feet of mixed uses, including retail, office, hotel, residential, and civic, on the project site. The commercial uses would require the use of delivery trucks that may create vibration. In addition, in Blocks A, D, and E of the Plaza District, proposed parking and residential uses will be present on the same floor levels, which may create vibration impacts to the proposed residential uses. For the purposes of evaluating operational vibration, a threshold of 0.25 inches per second was used as the significance level for ongoing, operation-related impacts, which was obtained from the Caltrans Transportation- and Construction-Induced Vibration Guidance Manual.

The nearest offsite sensitive receptor to the proposed project would be the Residence Inn, located approximately 150 feet east of the northbound lane of the Bishop Ranch 1 East road, which would be the nearest path of travel for delivery trucks. As shown in Table 4.9-3, a large bulldozer, which would be comparable to a tractor-trailer, generates 87 VdB at 25 feet. Since the Residence Inn would be 6 times that distance from the nearest truck path, operational vibration from truck movements on the Bishop Ranch 1 East road would not be expected to be felt by occupants. Therefore, no offsite vibration impacts are anticipated from the operation of delivery trucks.

Detailed architectural plans are not yet available for Blocks A, D, and E of the Plaza District to adequately analyze the potential vibration impacts that may be created by the proposed parking and residential uses on the same floor levels. This vibration may result in a significant impact to the proposed residential units in Block A, D, and E of the Plaza District.

The incorporation of the following mitigation measures would reduce the possibly significant, onsite, long-term vibration impacts to a less than significant level.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM NOI-2 Upon completion of the architectural plans for Block A, D, and E of the Plaza District and prior to the issuance of a building permit, the applicant shall retain a qualified acoustical consultant to prepare a vibration analysis to assess the potential vibration impacts onto the proposed residential units. If the vibration analysis indicates that residential units would be exposed to vibration greater than 0.25 PPV, the analysis shall provide vibration-attenuation recommendations that shall be incorporated into the project design. The City shall review and approve the vibration analysis.

Level of Significance After Mitigation

Less than significant impact.

Operational Noise - Offsite Impacts

Impact NOI-3: Operational activities associated with the proposed project would not create any substantial offsite noise impacts.

Impact Analysis

The ongoing operation of the proposed project would result in a long-term increase in ambient noise levels. Potential noise impacts associated with the operations of the proposed project are a result of project-generated vehicular traffic on the project vicinity roadways. An analysis of potential offsite noise impacts associated with the ongoing operations of the proposed project follows.

Potential Offsite Vehicular Noise Impacts

The potential offsite noise impacts caused by the increase in vehicular traffic from the ongoing operations of the proposed project to the project study area roadways have been analyzed for the following scenarios:

- **Existing Plus Project:** This scenario refers to the existing traffic noise conditions based on the site's current conditions plus the additional noise generated by the project. Note that the existing noise conditions presented previously constitute the without project scenario.
- **Year 2020 Without Project:** This scenario refers to the future traffic noise conditions based on the assumed regional growth shown in the Contra Costa Transportation Authority Countywide Travel Demand Model.
- **Year 2020 With Project:** This scenario refers to the Year 2020 baseline (without project) condition with the addition of traffic from the proposed condition.

In order to quantify the traffic noise impacts along the analyzed roadways, the roadway noise contours were calculated. Noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway. For analysis comparison purposes, the L_{dn} and CNEL noise levels are calculated at 100 feet from the centerline. In addition, the distance from the

centerline to the 55- 60-, 65-, and 70-dBA noise levels are calculated for both L_{dn} and CNEL standards.

Existing Plus Project Conditions

The calculated existing plus project noise contours are shown below in Table 4.9-11. The table shows that, at 100 feet compared to the existing conditions, Bollinger Canyon Road south of Norris Canyon Road, Sunset Drive south of Bishop Drive, Camino Ramon from north of Norris Canyon Road to north of Bishop Drive, and Alcosta Boulevard south of Montevideo Drive are the additional roadway segments that would exceed the City's 60 dBA CNEL standard. The noise levels from all analyzed roadway segments would range from 54.0 to 69.0 dBA CNEL.

Table 4.9-11: Existing Plus Project Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Bollinger Canyon Road (North-South)	South of Crow Canyon Road	56.5	RW	RW	58	125
	North of Norris Canyon Road	57.7	RW	RW	71	152
	South of Norris Canyon Road	60.1	RW	47	102	220
San Ramon Valley Boulevard	North of Crow Canyon Road	61.9	RW	62	134	289
	North of Norris Canyon Road	59.8	RW	45	97	210
	North of Bollinger Canyon Road	61.6	RW	59	127	274
	South of Bollinger Canyon Road	63.9	39	85	183	393
	South of Montevideo Drive	62.5	RW	68	146	314
Sunset Drive	South of Bishop Drive	60.2	RW	48	104	224
	North of Bollinger Canyon Road	61.7	RW	60	130	281
Camino Ramon	North of Crow Canyon Road	58.1	RW	RW	74	160
	North of Norris Canyon Road	61.1	RW	55	118	255
	North of Executive Parkway	61.0	RW	55	117	253
	North of Bishop Drive	61.1	RW	55	118	254
	North of Bollinger Canyon Road	59.4	RW	43	92	198
	South of Bollinger Canyon Road	58.6	RW	RW	80	173
Bishop Ranch 1 East	South of Bollinger Canyon Road	54.0	RW	RW	RW	85
Market Place	South of Bollinger Canyon Road	57.3	RW	RW	66	142

Table 4.9-11 (Cont.): Existing Plus Project Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Alcosta Boulevard	North of Norris Canyon Road	62.1	RW	64	138	296
	North of Bollinger Canyon Road	62.5	RW	68	146	315
	South of Bollinger Canyon Road	63.4	36	78	168	362
	South of Montevideo Drive	60.7	RW	52	111	240
	North of Old Ranch Road	60.0	RW	46	100	215
	South of Old Ranch Road	59.8	RW	45	96	208
Canyon Lakes Drive	North of Bollinger Canyon Road	55.5	RW	RW	50	108
Dougherty Road	South of Crow Canyon Road	62.2	RW	RW	141	304
	North of Bollinger Canyon Road	62.4	RW	RW	143	309
	North of Old Ranch Road	63.6	RW	80	173	374
	South of Old Ranch Road	63.8	RW	84	180	388
Crow Canyon Road	West of Bollinger Canyon Road	63.0	RW	74	159	343
	East of Bollinger Canyon Road	63.0	RW	73	158	341
	West of San Ramon Valley Boulevard	65.3	RW	104	225	485
	West of Camino Ramon	66.8	RW	133	286	615
	East of Camino Ramon	66.5	RW	125	270	581
	East of Alcosta Boulevard	65.9	RW	115	249	536
	West of Dougherty Road	63.8	RW	83	179	385
	East of Dougherty Road	65.3	RW	105	225	486
Norris Canyon Road	West of Bollinger Canyon Road	55.0	RW	RW	47	101
	West of San Ramon Valley Boulevard	58.5	RW	RW	79	170
	West of Camino Ramon	58.7	RW	RW	82	176
Bishop Drive	West of Sunset Drive	56.0	RW	RW	55	117
	West of Camino Ramon	58.2	RW	RW	75	163
	East of Camino Ramon	59.0	RW	RW	86	185
Bollinger Canyon Road (East-West)	West of San Ramon Valley Boulevard	61.5	RW	59	126	272
	West of Sunset Drive	69.0	85	184	396	854

Table 4.9-11 (Cont.): Existing Plus Project Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
cont.	West of Camino Ramon	67.6	RW	148	320	689
	East of Camino Ramon	66.5	RW	126	272	587
	East of Bishop Ranch East	67.2	RW	141	304	655
	East of Market Place	66.7	RW	130	279	602
	East of Alcosta Boulevard	65.6	RW	110	237	511
	East of Canyon Lakes Drive	64.7	RW	96	206	444
	West of Dougherty Road	64.1	RW	88	189	407
	East of Dougherty Road	63.7	RW	82	178	383
Montevideo Drive	East of San Ramon Valley Boulevard	58.7	RW	RW	82	176
	West of Alcosta Boulevard	54.2	RW	RW	41	89
Old Ranch Road	East of Alcosta Boulevard	58.9	RW	39	85	182
	West of Dougherty Road	58.0	RW	RW	74	159

RW = Noise contour is located within right-of-way of roadway.
Source: Michael Brandman Associates, 2007.

The proposed project's potential offsite noise impacts have been calculated by comparing the existing without project scenario with the existing with project scenario. The results of this comparison shown in Table 4.9-12 indicate that the noise level contributions from the proposed project to the study area roadways would range from -0.5 to 7.4 dBA CNEL. The greatest increase of 7.4 dBA CNEL would be anticipated to occur on Bishop Drive east of Camino Ramon. Although the proposed project would have the potential to result in a large increase in traffic-related noise on Bishop Drive east of Camino Ramon, the resulting with project noise level at 100 feet is expected to be 59.0 dBA CNEL, less than the City's threshold of 60 dBA CNEL. Therefore, for the existing conditions and based on thresholds of significance defined above, no significant, long-term offsite noise impacts from project-related vehicle noise would occur along the study area roadway segments.

Table 4.9-12: Existing Plus Project Contribution

Roadway	Segment	CNEL at 100 feet			Potential Significant Impact?
		No Project	With Project	Project Contribution	
Bollinger Canyon Road (North-South)	South of Crow Canyon Road	55.6	56.5	0.9	No
	North of Norris Canyon Road	57.1	57.7	0.6	No

Table 4.9-12 (Cont.): Existing Plus Project Contribution

Roadway	Segment	CNEL at 100 feet			Potential Significant Impact?
		No Project	With Project	Project Contribution	
cont.	South of Norris Canyon Road	59.6	60.1	0.5	No
San Ramon Valley Boulevard	North of Crow Canyon Road	61.8	61.9	0.1	No
	North of Norris Canyon Road	59.7	59.8	0.1	No
	North of Bollinger Canyon Road	61.4	61.6	0.2	No
	South of Bollinger Canyon Road	63.8	63.9	0.1	No
	South of Montevideo Drive	62.4	62.5	0.1	No
Sunset Drive	South of Bishop Drive	57.8	60.2	2.4	No
	North of Bollinger Canyon Road	60.0	61.7	1.7	No
Camino Ramon	North of Crow Canyon Road	58.0	58.1	0.1	No
	North of Norris Canyon Road	59.9	61.1	1.2	No
	North of Executive Parkway	59.7	61.0	1.3	No
	North of Bishop Drive	59.7	61.1	1.4	No
	North of Bollinger Canyon Road	59.9	59.4	-0.5	No
	South of Bollinger Canyon Road	54.3	58.6	4.3	No
Bishop Ranch East	South of Bollinger Canyon Road	48.5	54.0	5.5	No
Market Place	South of Bollinger Canyon Road	57.0	57.3	0.3	No
Alcosta Boulevard	North of Norris Canyon Road	61.9	62.1	0.2	No
	North of Bollinger Canyon Road	62.3	62.5	0.2	No
	South of Bollinger Canyon Road	62.6	63.4	0.8	No
	South of Montevideo Drive	60.0	60.7	0.7	No
	North of Old Ranch Road	59.2	60.0	0.8	No
	South of Old Ranch Road	59.3	59.8	0.5	No
Canyon Lakes Drive	North of Bollinger Canyon Road	55.1	55.5	0.4	No

Table 4.9-12 (Cont.): Existing Plus Project Contribution

Roadway	Segment	CNEL at 100 feet			Potential Significant Impact?
		No Project	With Project	Project Contribution	
Dougherty Road	South of Crow Canyon Road	62.1	62.2	0.1	No
	North of Bollinger Canyon Road	62.2	62.4	0.2	No
	North of Old Ranch Road	63.5	63.6	0.1	No
	South of Old Ranch Road	63.7	63.8	0.1	No
Crow Canyon Road	West of Bollinger Canyon Road	62.5	63.0	0.5	No
	East of Bollinger Canyon Road	62.7	63.0	0.3	No
	West of San Ramon Valley Boulevard	65.1	65.3	0.2	No
	West of Camino Ramon	66.5	66.8	0.3	No
	East of Camino Ramon	66.2	66.5	0.3	No
	East of Alcosta Boulevard	65.6	65.9	0.3	No
	West of Dougherty Road	63.4	63.8	0.4	No
	East of Dougherty Road	65.1	65.3	0.2	No
Norris Canyon Road	West of Bollinger Canyon Road	54.6	55.0	0.4	No
	West of San Ramon Valley Boulevard	58.2	58.5	0.3	No
	West of Camino Ramon	58.5	58.7	0.2	No
Bishop Drive	West of Sunset Drive	55.9	56.0	0.1	No
	West of Camino Ramon	53.2	58.2	5.0	No
	East of Camino Ramon	51.6	59.0	7.4	No
Bollinger Canyon Road (East-West)	West of San Ramon Valley Boulevard	61.2	61.5	0.3	No
	West of Sunset Drive	68.1	69.0	0.9	No
	West of Camino Ramon	66.8	67.6	0.8	No
	East of Camino Ramon	66.0	66.5	0.5	No
	East of Bishop Ranch East	66.0	67.2	1.2	No
	East of Market Place	65.3	66.7	1.4	No
	East of Alcosta Boulevard	64.7	65.6	0.9	No

Table 4.9-12 (Cont.): Existing Plus Project Contribution

Roadway	Segment	CNEL at 100 feet			Potential Significant Impact?
		No Project	With Project	Project Contribution	
cont.	East of Canyon Lakes Drive	63.7	64.7	1.0	No
	West of Dougherty Road	63.1	64.1	1.0	No
	East of Dougherty Road	62.9	63.7	0.8	No
Montevideo Drive	East of San Ramon Valley Boulevard	58.6	58.7	0.1	No
	West of Alcosta Boulevard	52.6	54.2	1.6	No
Old Ranch Road	East of Alcosta Boulevard	58.5	58.9	0.4	No
	West of Dougherty Road	57.4	58.0	0.6	No
Source: Michael Brandman Associates, 2007.					

The table above also shows that through development of the proposed project the noise would be reduced slightly for the segment of Camino Ramon north of Bollinger Canyon Road. This would be due to the removal of the Bishop Ranch 2 office complex, which would change the land use and result in a different traffic pattern.

Year 2020 Conditions

The calculated year 2020 baseline (without project) noise contours are shown below in Table 4.9-13. The calculated noise measurements in the table show that at 100 feet, compared with existing conditions, Bollinger Canyon Road south of Norris Canyon Road, San Ramon Valley Boulevard north of Norris Canyon Road, Sunset Drive south of Bishop Drive, Camino Ramon from north of Norris Canyon Road to north of Bishop Drive, and Alcosta Boulevard south of Montevideo Drive to south of Old Ranch Road, are the additional roadway segments that would exceed the City's 60 dBA CNEL standard. The noise levels from all analyzed roadway segments would range from 49.1 to 68.7 dBA CNEL.

Table 4.9-13: Year 2020 Without Project Roadway Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Bollinger Canyon Road (North-South)	South of Crow Canyon Road	56.7	RW	RW	60	129
	North of Norris Canyon Road	58.0	RW	34	74	159
	South of Norris Canyon Road	60.5	RW	50	108	233
San Ramon Valley Boulevard	North of Crow Canyon Road	62.5	RW	68	146	315
	North of Norris Canyon Road	60.5	RW	50	108	233

Table 4.9-13 (Cont.): Year 2020 Without Project Roadway Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
cont.	North of Bollinger Canyon Road	62.2	RW	65	140	302
	South of Bollinger Canyon Road	64.3	42	90	194	419
	South of Montevideo Drive	63.5	37	79	171	368
Sunset Drive	South of Bishop Drive	59.0	RW	40	86	186
	North of Bollinger Canyon Road	61.1	RW	55	119	257
Camino Ramon	North of Crow Canyon Road	58.9	RW	RW	84	181
	North of Norris Canyon Road	60.8	RW	52	112	242
	North of Executive Parkway	60.5	RW	50	108	234
	North of Bishop Drive	60.5	RW	50	108	233
	North of Bollinger Canyon Road	58.2	RW	RW	76	163
	South of Bollinger Canyon Road	54.7	RW	RW	44	96
Bishop Ranch East	South of Bollinger Canyon Road	49.1	RW	RW	RW	40
Market Place	South of Bollinger Canyon Road	57.6	RW	RW	70	150
Alcosta Boulevard	North of Norris Canyon Road	62.7	RW	70	151	326
	North of Bollinger Canyon Road	63.1	RW	75	162	349
	South of Bollinger Canyon Road	63.4	36	78	169	364
	South of Montevideo Drive	60.8	RW	53	114	245
	North of Old Ranch Road	60.0	RW	46	100	215
	South of Old Ranch Road	60.2	RW	48	102	221
Canyon Lakes Drive	North of Bollinger Canyon Road	55.8	RW	RW	53	113
Dougherty Road	South of Crow Canyon Road	63.0	RW	73	158	340
	North of Bollinger Canyon Road	65.6	RW	109	234	505
	North of Old Ranch Road	64.4	RW	92	197	425
	South of Old Ranch Road	64.7	RW	95	204	440
Crow Canyon Road	West of Bollinger Canyon Road	64.1	41	88	189	407
	East of Bollinger Canyon Road	64.3	RW	90	195	420
	West of San Ramon Valley Boulevard	65.8	RW	112	242	522
	West of Camino Ramon	67.3	RW	143	309	665
	East of Camino Ramon	67.1	RW	137	295	636

Table 4.9-13 (Cont.): Year 2020 Without Project Roadway Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
cont.	East of Alcosta Boulevard	66.4	RW	125	268	578
	West of Dougherty Road	64.3	RW	89	193	415
	East of Dougherty Road	66.0	RW	116	250	539
Norris Canyon Road	West of Bollinger Canyon Road	55.3	RW	RW	48	104
	West of San Ramon Valley Boulevard	59.0	RW	RW	86	185
	West of Camino Ramon	59.4	RW	42	91	195
Bishop Drive	West of Sunset Drive	56.2	RW	RW	56	121
	West of Camino Ramon	55.3	RW	RW	48	104
	East of Camino Ramon	56.3	RW	RW	56	122
Bollinger Canyon Road (East-West)	West of San Ramon Valley Boulevard	61.8	RW	61	131	283
	West of Sunset Drive	68.7	82	176	378	815
	West of Camino Ramon	67.2	RW	141	303	652
	East of Camino Ramon	66.2	RW	120	259	559
	East of Bishop Ranch East	66.9	RW	134	289	622
	East of Market Place	66.2	RW	120	258	556
	East of Alcosta Boulevard	65.8	RW	114	245	528
	East of Canyon Lakes Drive	64.6	RW	94	202	436
	West of Dougherty Road	64.5	RW	93	200	431
	East of Dougherty Road	64.5	RW	92	198	427
Montevideo Drive	East of San Ramon Valley Boulevard	59.9	RW	46	98	211
	West of Alcosta Boulevard	53.5	RW	RW	RW	79
Old Ranch Road	East of Alcosta Boulevard	59.4	RW	42	91	195
	West of Dougherty Road	58.3	RW	36	77	167

RW = Noise contour is located within right-of-way of roadway.
Source: Michael Brandman Associates, 2007.

The calculated Year 2020 with project noise contours are shown below in Table 4.9-14. The calculated noise measurements in the table shows that at 100 feet, compared with year 2020 baseline conditions, no additional roadway segments would exceed the City's 60-dBA CNEL standard. The noise levels from all analyzed roadway segments would range from 53.0 to 69.4 dBA CNEL.

Table 4.9-14: Year 2020 With Project Roadway Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Bollinger Canyon Road (North-South)	South of Crow Canyon Road	57.3	RW	RW	66	142
	North of Norris Canyon Road	58.5	RW	37	79	171
	South of Norris Canyon Road	60.9	RW	53	114	247
San Ramon Valley Boulevard	North of Crow Canyon Road	62.6	RW	69	149	321
	North of Norris Canyon Road	60.6	RW	51	110	237
	North of Bollinger Canyon Road	62.4	RW	67	145	312
	South of Bollinger Canyon Road	64.8	45	97	208	449
	South of Montevideo Drive	63.5	37	80	172	371
Sunset Drive	South of Bishop Drive	60.0	RW	47	100	216
	North of Bollinger Canyon Road	61.9	RW	62	134	289
Camino Ramon	North of Crow Canyon Road	58.9	RW	RW	84	181
	North of Norris Canyon Road	61.7	RW	60	130	279
	North of Executive Parkway	61.6	RW	59	127	275
	North of Bishop Drive	61.6	RW	59	128	275
	North of Bollinger Canyon Road	59.8	RW	45	98	210
	South of Bollinger Canyon Road	58.0	RW	RW	74	159
Bishop Ranch East	South of Bollinger Canyon Road	53.0	RW	RW	RW	74
Market Place	South of Bollinger Canyon Road	57.8	RW	RW	72	154
Alcosta Boulevard	North of Norris Canyon Road	62.8	RW	72	155	333
	North of Bollinger Canyon Road	63.3	36	77	165	356
	South of Bollinger Canyon Road	64.1	40	86	186	401
	South of Montevideo Drive	61.4	RW	57	123	266
	North of Old Ranch Road	60.6	RW	51	110	238
	South of Old Ranch Road	60.5	RW	50	108	233
Canyon Lakes Drive	North of Bollinger Canyon Road	56.1	RW	RW	55	118
Dougherty Road	South of Crow Canyon Road	63.1	RW	74	160	345
	North of Bollinger Canyon Road	65.6	RW	110	237	510
	North of Old Ranch Road	64.5	RW	92	199	429
	South of Old Ranch Road	64.7	RW	96	206	445

Table 4.9-14 (Cont.): Year 2020 With Project Roadway Noise Contours

Roadway	Segment	CNEL at 100 feet (dBA)	Distance to Contour (feet)			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Crow Canyon Road	West of Bollinger Canyon Road	64.5	43	92	198	427
	East of Bollinger Canyon Road	64.5	RW	93	200	431
	West of San Ramon Valley Boulevard	65.9	RW	115	247	531
	West of Camino Ramon	67.6	RW	148	320	689
	East of Camino Ramon	67.2	RW	141	304	655
	East of Alcosta Boulevard	66.7	RW	130	279	601
	West of Dougherty Road	64.5	RW	93	200	432
	East of Dougherty Road	66.1	RW	118	255	549
Norris Canyon Road	West of Bollinger Canyon Road	55.7	RW	RW	51	111
	West of San Ramon Valley Boulevard	59.2	RW	41	89	191
	West of Camino Ramon	59.5	RW	43	92	199
Bishop Drive	West of Sunset Drive	56.4	RW	RW	57	123
	West of Camino Ramon	58.1	RW	RW	74	160
	East of Camino Ramon	59.3	RW	42	90	193
Bollinger Canyon Road (East-West)	West of San Ramon Valley Boulevard	62.3	RW	66	143	308
	West of Sunset Drive	69.4	91	195	421	907
	West of Camino Ramon	68.0	RW	158	341	735
	East of Camino Ramon	66.9	RW	135	290	625
	East of Bishop Ranch East	67.9	RW	155	335	721
	East of Market Place	67.3	RW	142	305	657
	East of Alcosta Boulevard	66.9	RW	134	288	621
	East of Canyon Lakes Drive	65.4	RW	106	228	491
	West of Dougherty Road	65.2	RW	103	223	480
	East of Dougherty Road	65.0	RW	100	216	465
Montevideo Drive	East of San Ramon Valley Boulevard	59.9	RW	46	99	213
	West of Alcosta Boulevard	54.8	RW	RW	45	96