Stanford University Belmont Campus Conceptual Development Plan EIR

SCH: 2023050595

Draft EIR | August 2024

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PLACEWORKS

Prepared by: PlaceWorks

2040 Bancroft Way, Suite 400
Berkeley, California 94704
t 510.848.3815

In Association with:

Bollard Acoustical Consultants
Environmental Collaborative
Evans & De Shazo Inc.
Forget Me Not History
W-Trans

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1. Executive Summary

This chapter presents an overview of the proposed Conceptual Development Plan (CDP) and Development Agreement (DA) to create the proposed Stanford Belmont Campus. The proposed CDP and DA are herein referred to together as the "proposed project." This executive summary also provides a summary of the alternatives to the proposed project, identifies issues to be resolved, areas of controversy, and conclusions of the analysis in Chapters 4.1 through 4.18 of this Draft Environmental Impact Report (EIR). For a complete description of the proposed project, see Chapter 3, *Project Description*, of this Draft EIR. For a discussion of alternatives to the proposed project, see Chapter 5, *Alternatives*, of this Draft EIR.

This Draft EIR addresses the environmental effects associated with adoption and implementation of the proposed project. The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An EIR is a public document designed to provide the public, local, and State government decision-makers with an analysis of potential environmental consequences to support informed decision-making.

This Draft EIR has been prepared pursuant to the requirements of CEQA[1] and the State CEQA Guidelines[2] to determine if approval of the identified discretionary actions and related subsequent development could have a significant impact on the environment. The City of Belmont (City), as the lead agency, has reviewed and revised as necessary all submitted drafts, technical studies, and reports to reflect its own independent judgment, including reliance on applicable City technical personnel and review of all technical reports. Information for this Draft EIR was obtained from on-site field observations; discussions with public service agencies; analysis of adopted plans and policies; review of available studies, reports, data, and similar literature in the public domain; and specialized environmental assessments (e.g., air quality, greenhouse gas emissions, noise, and transportation).

1.1 ENVIRONMENTAL PROCEDURES

This Draft EIR has been prepared to assess the environmental effects associated with implementation of the proposed project. The main objectives of this document as established by CEQA are:

- To disclose to decision-makers and the public the significant environmental effects of proposed activities.
- To identify ways to avoid or reduce environmental damage.

[1] The CEQA Statute is found at California Public Resources Code, Division 13, Sections 21000–21177.

[2] The CEQA Guidelines are found at California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387.

- To prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
- To disclose to the public reasons for agency approval of projects with significant environmental effects.
- To foster interagency coordination in the review of projects.
- To enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation identified in the CEQA statute and in the CEQA Guidelines. It provides the information needed to assess the environmental consequences of a proposed project, to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts. An EIR is also one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Prior to approving a proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts and alternatives, and adopt a Statement of Overriding Considerations if the proposed project would result in significant impacts that cannot be avoided.

1.1.1 REPORT ORGANIZATION

This Draft EIR is organized into the following chapters:

- **Chapter 1: Executive Summary.** Summarizes environmental consequences that would result from implementation of the proposed project, describes recommended mitigation measures, and indicates the level of significance of environmental impacts with and without mitigation.
- **Chapter 2: Introduction.** Provides an overview describing the Draft EIR document.
- **Chapter 3: Project Description.** Describes the proposed project in detail, including the characteristics, objectives, and the structural and technical elements of the proposed action.
- **Chapter 4: Environmental Analysis.** Organized into 18 subchapters corresponding to the environmental resource categories identified in CEQA Guidelines Appendix G, *Environmental Checklist*, this chapter provides a description of the physical environmental conditions in the vicinity of the proposed project as they existed at the time the Notice of Preparation (NOP) was published and references relevant historic conditions that are supported with substantial evidence, from both a local and regional perspective. Additionally, this chapter provides an analysis of the potential environmental impacts of the proposed project and recommended mitigation measures, if required, to reduce the impacts to less than significant where possible, and to reduce their magnitude or significance when impacts cannot be reduced to a less-than-significant level. The environmental setting included in each subchapter provides baseline physical conditions, which provide a context that the lead agency uses to determine the significance of environmental impacts resulting from the proposed project. Each subchapter also includes a description of the thresholds used to determine if a

significant impact would occur; the methodology to identify and evaluate the potential impacts of the proposed project; and the potential cumulative impacts associated with the proposed project.

- Chapter 5: Alternatives. Considers alternatives to the proposed project, including the CEQA-required "No Project Alternative" and "environmentally superior alternative."
- Chapter 6: CEQA-Required Conclusions. Discusses growth inducement, cumulative impacts, unavoidable significant effects, and significant irreversible changes as a result of the proposed project.
- Chapter 7: Organizations and Persons Consulted. Lists the people and organizations that were contacted during the preparation of this EIR for the proposed project.
- Appendices: The appendices for this document contain the following supporting documents:
  - Appendix A: Notice of Preparation and Scoping Comments
  - Appendix B: City of Belmont Standard Development Requirements and Conditions of Approval
  - Appendix C: Air Quality, Energy, and Greenhouse Gases
  - Appendix D: Biological Resources
  - Appendix E: Cultural and Tribal Cultural Resources
  - Appendix F: Geology and Soils Data
  - Appendix G: Hazards and Hazardous Materials
  - Appendix H: Preliminary Engineering Report
  - Appendix I: Noise and Vibrational Assessment
  - Appendix J: Transportation
  - Appendix K: Vegetation Management Plan

1.1.2 TYPE AND PURPOSE OF THIS DRAFT EIR

As described in the CEQA Guidelines, different types of EIRs are used for varying situations and intended uses. Because of the long-term planning horizon of the proposed project and the permitting, planning, and development actions that are related both geographically and as logical parts in the chain of contemplated actions for implementation, this Draft EIR has been prepared as a program EIR for the proposed project, pursuant to CEQA Guidelines Section 15168. Once the program EIR has been certified, subsequent activities within the program must be evaluated to determine whether additional CEQA review is needed. See Chapter 2, *Introduction*, for a more detailed explanation of how subsequent activities will be considered by the City in light of this program-level EIR.

1.2 SUMMARY OF THE PROPOSED PROJECT

Implementation of the proposed project would create the proposed Stanford Belmont Campus in a phased manner during a 30-year timeframe at the current 45.6-acre Notre Dame de Namur University (NDNU) campus located at 1500 Ralston Avenue in Belmont, California. Under the proposed CDP, all structures, with the exception of Taube Center, Ralston Mansion, and Madison Art Center (carriage house), could be removed over time and their square footage could be replaced. The proposed Stanford Belmont Campus would increase the building area to a total of 700,000 square feet with up to 200

housing units, resulting in an estimated daytime population of 2,509 and an estimated residential population of 508. At this time, there are no specific development or improvement plans proposed; such proposals will be submitted to the City of Belmont after approval of the proposed CDP. Additionally, under the proposed DA, as part of a package of community benefits, the existing Koret Field would remain a recreation field for the duration of the DA and would be available for public use through the execution of a joint-use agreement or other similar arrangement with the City. Chapter 3, *Project Description*, of this Draft EIR includes a detailed description of the proposed project.

1.3 SUMMARY OF ALTERNATIVES TO THE PROPOSED PROJECT

This Draft EIR analyzes alternatives to the proposed project that are designed to reduce the significant environmental impacts of the proposed project and feasibly attain most of the proposed project objectives. There is no set methodology for comparing the alternatives or determining the environmentally superior alternative under CEQA. Identification of the environmentally superior alternative involves weighing and balancing all of the environmental resource areas by the City. The following alternatives to the proposed project were considered and analyzed in detail.

- Alternative A: No Project. Consistent with Section 15126.6(e)(2) of the CEQA Guidelines, Alternative A presents the No Project scenario. Accordingly, under this alternative the proposed project would not be adopted or implemented, and the project site would continue to be operated as an educational campus under the existing CDP.

  Under this alternative, no physical changes would occur to the existing buildings on the project site, no additional development that may be allowed under the current CDP would occur, and the site would be occupied at its full capacity as analyzed in this EIR based on 2013 occupancy conditions. This alternative assumes that an educational entity other than Stanford University and Notre Dame de Namur University operates the uses on the project site.

- Alternative B: Current Conceptual Development Plan Buildout Alternative. Under this alternative, the project site would be redeveloped to the maximum extent allowable under the current CDP.

Chapter 5, *Alternatives to the Proposed Project*, of this Draft EIR, includes a complete discussion of these alternatives, and also describes alternatives that were considered by the City but rejected from further analysis.

As discussed in Chapter 5, the No Project Alternative is the Environmentally Superior Alternative pursuant to CEQA Guidelines Section 15126.6. However, in accordance with State CEQA Guidelines Section 15126.6(e)(2), if the environmentally superior alternative is the No Project Alternative, the Draft EIR shall also identify an environmentally superior alternative among the other alternatives. In this case, the Current CDP Buildout Alternative would be the next environmentally superior alternative.

1.4 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by the City of Belmont, as lead agency, related to:

- Whether this Draft EIR adequately describes the environmental impacts of the proposed project.
- Whether the benefits of the proposed project override environmental impacts that cannot be feasibly avoided or mitigated to a level of insignificance.
- Whether there are any alternatives to the proposed project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic objectives.

1.5 AREAS OF CONTROVERSY

The City issued an NOP on May 24, 2023. The CEQA-mandated scoping period for this EIR was between May 24, 2023, and June 23, 2023, during which interested agencies and the public could submit comments about the potential environmental impacts of the proposed project. During this time, the City received comment letters from a variety of State agencies as well as a local organization and members of the public.

The following is a discussion of issues that are likely to be of particular concern to agencies and interested members of the public during the environmental review process. Though every concern applicable to the CEQA process is addressed in this Draft EIR, this list is not necessarily exhaustive, but rather attempts to capture concerns that are likely to generate the greatest interest based on the input received during the scoping process.

- Aesthetics (sight line views)
- Greenhouse gas emissions (connection to City of Belmont Climate Action Plan)
- Noise (construction related impacts)
- Parks and recreation (Koret Field use)
- Population and housing (projected growth)
- Transportation (public transit)

1.6 SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Table 1-1, *Summary of Significant Impacts and Mitigation Measures*, summarizes the conclusions of the environmental analysis in this Draft EIR and presents a summary of significant impacts and mitigation measures identified. For a complete description of potential impacts, including those where no mitigation measures are required, please refer to the specific discussions in Chapters 4.1 through 4.18.

TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
AESTHETICS			
No significant impacts			
AIR QUALITY			
AQ-3: The proposed project could include wet laboratory operations that may result in potential impacts to nearby sensitive receptors during project operation. Because the extent of laboratory operations and chemical use are not known at this time, health risk impacts to nearby sensitive receptors could be potentially significant.	S	**AQ-3:** The Project Sponsor shall perform a health risk assessment and obtain a permit from the Bay Area Air Quality Management District (BAAQMD) if the total applicable laboratory floor space is more than 25,000 square feet and the total applicable number of fume hoods exceeds 50 as included in the subsequent Detailed Development Plans (DDP) of the proposed project, consistent with BAAQMD Regulation 2, *Permits*, Rule 1, *General Requirements*, or other, equally effective requirements in place at the time of DDP application submittal. Permit issuance by the BAAQMD may be required either prior to or as a condition of approval of the proposed laboratory space. The health risk assessment (HRA) for wet laboratory operations, if required, shall be based on site-specific data in accordance with current guidance from the California Air Resources Board and BAAQMD. The HRA shall be submitted to the City for review and approval. If an HRA is required, the HRA shall demonstrate that any proposed wet laboratory operations would be below the identified health risk thresholds, to the satisfaction of the City. The BAAQMD's project-level health risk thresholds are: an excess lifetime cancer risk level of 10 in one million, non-cancer chronic and acute Hazard Indexes of 1.0, and an annual average $PM_{2.5}$ concentration of 0.3 micrograms per cubic meter ($\mu g/m^3$).	LTS
BIOLOGICAL RESOURCES			
BIO-1.1: Removal of vegetative cover during future construction under the proposed project may result in the inadvertent destruction of active nests of raptors and other native birds unless appropriate precautions are followed.	S	**BIO-1.1: Nesting Bird Avoidance and Minimization Measures.** The following measures shall be implemented to avoid and minimize impacts of construction on nesting birds: ▪ **Nesting-Season Avoidance.** To the extent feasible, commencement of construction activities shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code would be avoided. The nesting season for most bird species in San Mateo County extends from February 1 through August 31.	LTS

LTS = Less than Significant; S = Significant

TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		▪ **Preconstruction/Pre-disturbance Surveys and Buffers.** If it is not possible to schedule commencement of construction activities and/or tree removal between September 1 and January 31, preconstruction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no active nests are disturbed during future construction. A qualified ornithologist is an individual who has at least a Bachelor of Science degree in biological sciences from an accredited college or university, and has at least four years of professional experience as a biologist specializing in the study of birds, including species known from the Belmont vicinity. These shall include the following provisions: ▪ Required preconstruction surveys shall be conducted no more than seven days prior to the initiation of demolition or construction activities, including tree removal and pruning. ▪ During the survey, the qualified ornithologist shall inspect all trees and other potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas and considered to be at risk of disturbance by these activities, the qualified ornithologist shall determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no active nests of species protected by the MBTA and California Fish and Game Code shall be disturbed during project implementation. ▪ Required setback distances for the construction-free buffer zone shall be based on input received from the California Department of Fish and Wildlife, and may vary depending on nest location, species, and sensitivity to disturbance. ▪ As necessary, the construction-free buffer zone shall be fenced with temporary orange construction fencing if construction is to be initiated on the remainder of the construction site. ▪ A report of findings shall be prepared by the qualified ornithologist and submitted for review and approval by the City of Belmont prior to initiation of vegetation removal, building demolition, grading and other construction activities during the nesting season. The report shall either	

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		confirm absence of any active nests within the construction area or shall confirm that any young are located within a designated construction-free buffer zone and construction can proceed. Following confirmation by the qualified ornithologist that the active nest is not occupied by any young, and approval by the City, construction activities within the construction-free buffer zone may proceed. No report of findings is required if vegetation removal and other construction is initiated during the nonnesting season and continues uninterrupted according to the above criteria. ▪ **Removal of Nesting Substrate.** Potential nesting substrate (e.g., bushes, trees, snags, grass, and suitable artificial surfaces) that would be impacted by approved future development activities shall preferably be removed during the nonbreeding season (i.e., they should be removed between September 1 and January 31), in advance of construction, if feasible, to help prevent establishment of new nests within areas to be disturbed by construction on the project site.	
BIO-1.2: Removal of trees and existing structures during future construction under the proposed project may result in the inadvertent destruction of active bat roosts unless appropriate precautions are followed.	S	**BIO-1.2a**: **Maternity Season Survey.** A qualified bat biologist shall conduct a focused survey for roosting bats within all suitable roost trees on the project site that are to be removed and within all buildings that provide suitable bat roost habitat and that will be either removed or modified in such a way as to reduce their suitability for use by roosting bats. A qualified bat biologist is an individual who has at least a Bachelor of Science degree in biological sciences from an accredited college or university, and has at least four years of professional experience as a biologist specializing in the study of bats, including species known from the Belmont vicinity. This survey shall be conducted during the maternity season (generally March 15–August 31) prior to the start of project construction, to determine presence or absence of a maternity colony, the species present, and an estimate of the colony size, if present. If close inspection of potential roost features during the daytime is infeasible, the focused survey shall consist of a dusk emergence survey when bats can be observed flying out of the roost. This survey may be combined with the pre-activity survey described under Mitigation Measure BIO-1.2b, if desired. However, due to the possibility that the presence of a maternity colony could result in a construction delay (i.e.,	LTS

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		maintaining a nondisturbance buffer around the roost), if work is to be initiated during the maternity season, it is recommended, but not required, that this survey be conducted the year prior to when project construction is to occur. If a maternity colony is detected, the exclusion measures described in Mitigation Measure BIO-1.2c below shall be implemented prior to March 15 of the year during which construction occurs to ensure that bats are excluded from the roost prior to the start of construction. In addition, Mitigation Measure BIO-1.2d shall be implemented to provide adequate compensatory mitigation. **BIO-1.2b: Pre-Activity Survey.** A pre-activity survey shall be conducted for roosting bats within all buildings and trees on the project site that are within 100 feet of project demolition or construction footprints. The survey shall be conducted by a qualified bat biologist within seven days prior to the start of building demolition or tree removal to allow for avoidance of potential impacts. If building demolition and/or tree removal is to occur in phases, a pre-activity survey shall be conducted within seven days prior to the demolition of each building and/or removal of each tree in which suitable roost habitat is present within the surrounding 100 feet. If close inspection of potential roost features during the daytime is infeasible, the focused survey shall include a dusk emergence survey when bats can be observed flying out of the roost. If a moderately sized maternity colony of common bat species (i.e., at least 10 big brown bats, 20 Yuma myotis, 100 individuals of other non-special-status species) or a pallid bat or Townsend's big-eared bat colony of any size or kind (i.e., a maternity or nonmaternity colony) is not detected during the survey, no additional measures are required. If a moderate-sized maternity colony of common bat species (i.e., at least 10 big brown bats, 20 Yuma myotis, or 100 individuals of other non-special-status species) or a pallid bat or Townsend's big-eared bat colony of any size or kind (i.e., a maternity or nonmaternity colony) is present, the qualified bat biologist shall identify a disturbance-free buffer zone appropriate for the species that shall remain in place until either the end of the maternity season	

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		or a qualified biologist has determined that all young are capable of flight to avoid the loss of dependent young. The exclusion measures described in Mitigation Measure BIO-1.2-c shall be implemented after dependent young are no longer present and prior to the removal of any portion of the tree or building where the roost is located. **BIO-1.2c: Bat Exclusion.** If bats are present in a building or tree to be removed or disturbed, the individuals shall be safely evicted outside the bat maternity season (approximately March 15–August 31) and the winter torpor period (approximately October 15–February 28, depending on weather). The qualified biologist shall be present for removal or disturbance of trees or structures occupied by bats. Bats present in adjacent areas that may be indirectly disturbed by construction activities shall be evicted if a qualified biologist determines that evicting the bats is preferential to allowing the bats to remain in their roosts (e.g., if noise or disturbance from nearby construction could pose a threat to a maternity colony, then the bats shall be evicted). Bats may be evicted through exclusion, as directed by a qualified biologist, after notifying the California Department of Fish and Wildlife. For eviction from roost trees, trimming or removal of trees shall follow a two-step removal process whereby limbs and branches not containing roost habitat are removed on Day 1 to disturb the roost, and then the entire tree is removed on Day 2. Disturbance of or removal of structures containing or suspected to contain active (not maternity or hibernation) or potentially active common bat roosts shall be done in the evening and after bats have emerged from the roost to forage. Structures shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost. Removal shall be completed the subsequent day. Alternatively, exclusion methods may include the installation of one-way doors and/or use of ultrasonic deterrence devices. One-way doors and/or deterrence devices shall be left in place for a minimum of two weeks with a minimum of five fair-weather nights with no rainfall and temperatures no colder than 50 degrees Fahrenheit (°F).	

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		BIO-1.2d: Compensatory Mitigation. If a maternity colony of common bat species containing at least 10 big brown bats, 20 Yuma myotis, or 100 individuals of other non-special-status bat species, or a pallid bat or Townsend's big-eared bat day roost of any type (maternity or non-maternity) or size (one or more) could be destroyed or modified such that it would no longer provide a suitable roost site for bats as determined by a qualified biologist, replacement roost habitat that is appropriate to the species shall be provided, as recommended by the qualified bat biologist. The nature of the replacement roost habitat (e.g., the design of an artificial roost structure) shall be determined by a qualified bat biologist based on the number and species of bats detected and input from the California Department of Fish and Wildlife (CDFW). Ideally, the roost structure shall be installed on the project site. If replacement habitat cannot be installed on the project site, exact placement of replacement habitat shall be determined in consultation with the qualified bat biologist and CDFW.	
BIO-1.3: Future construction activities under the proposed project have a remote potential to result in loss or injury to individual California red-legged frogs unless appropriate precautions are followed.	S	**BIO-1.3**: **California Red-legged Frog Avoidance and Minimization Measures.** The following measures shall be implemented for any construction activities within 100 feet of the on-site intermittent stream to minimize potential impacts on individual California red-legged frogs: ▪ Prior to the initiation of construction activities, a qualified biologist shall determine appropriate relocation sites for any California red-legged frogs that may be observed during the pre-construction survey or biological monitoring activities described below and that need to be relocated. ▪ Within 48 hours prior to the start of work, a qualified biologist(s) shall conduct a night-time survey for California red-legged frogs. The survey shall consist of walking the construction limits investigating all potential areas that could be used by the California red-legged frog. Any potential refugia for frogs, including small mammal burrows, shall be examined. If any life stage of California red-legged frog is detected, the qualified biologists shall contact the United States Fish and Wildlife Services (USFWS) to determine if relocation of the individuals is appropriate, and secure authorization to handle and relocate individual frogs. Only qualified biologists with authorization from USFWS are allowed to capture, handle, and monitor California red-legged frog because of its federal status as a threatened species.	LTS

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		▪ A qualified biologist shall conduct environmental training for the construction work crew. All construction personnel working within 100 feet of the intermittent stream shall be required to attend the presentation which shall describe the California red-legged-frog, avoidance and minimization measures, legal protection of the species, and other related issues. All attendees shall sign an attendance sheet along with their printed name, company or agency, email address, and telephone number. ▪ A qualified biologist shall be on-site during all project activities during the first two days of construction activities within 100 feet of the intermittent stream to look for California red-legged frogs. Subsequently, a qualified biologist shall be on-call in case a member of the work crew observes any animal that could potentially be a red-legged frog. ▪ If a California red-legged frog, or an animal that is thought to potentially be a California red-legged frog, is encountered in the action area, all activities which have the potential to result in the harassment, injury, or death of the individual shall be immediately halted. The work crew shall contact a qualified biologist, who shall visit the site to determine whether the animal is a California red-legged frog and to assess the situation in order to select a course of action that would avoid or minimize adverse effects to the animal. To the maximum extent possible, contact with the frog shall be avoided and the applicant shall allow it to move out of the potentially hazardous situation to a secure location on its own volition. This procedure applies to situations where a California red-legged frog is encountered while it is moving to another location. It does not apply to animals that are uncovered or otherwise exposed or in areas where there is not sufficient adjacent habitat to support the species should the individual move away from the hazardous location. ▪ California red-legged frogs that are in danger shall be relocated and released by the qualified biologist to suitable habitat within the same riparian area or watershed, far enough outside the work area that the frogs shall not be impacted by project activities, as arranged with the USFWS. ▪ The qualified biologist shall limit the duration of the handling and captivity of the California red-legged frog to the minimum amount of time	

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Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		necessary to complete the task. If the animal must be held in captivity, it shall be kept in a cool, dark, moist, aerated environment, such as a clean and disinfected bucket or plastic container with a damp sponge. The container used for holding or transporting the individual shall not contain any standing water. ▪ To prevent the inadvertent entrapment of California red-legged frogs, all excavated, steep-walled holes or trenches shall be covered at the end of each work day with plywood or similar materials. If this is not possible, one or more escape ramps constructed of earth fill or wooden planks shall be established in the hole. Before such holes or trenches are filled, they shall be thoroughly inspected for any animals. If at any time a red-legged frog is found trapped or injured in these holes, the individual shall be relocated to the pre-approved relocation site(s) by the USFWS-approved qualified biologist. ▪ All litter and construction debris shall be disposed of off-site in accordance with state and local regulations. All trash and debris within the work area shall be placed in containers with secure lids before the end of work each day in order to reduce the likelihood of predators being attracted to the construction area as a result of discarded food wrappers and other rubbish that may be left on-site. If containers meeting these criteria are not available, all rubbish shall be removed from the construction area at the end of each work day. ▪ Plastic monofilament netting (erosion control matting), loosely woven netting, or similar material in any form shall not be used at the project site because California red-legged frogs and other wildlife can become entangled and trapped in them. Any such material found on the project site shall be immediately removed by construction personnel. Materials utilizing fixed weaves (strands cannot move), polypropylene, polymer or other synthetic materials shall not be used. ▪ All construction equipment shall be maintained to prevent leaks of fuels, lubricants, or other fluids. ▪ Because California red-legged frogs are attracted to structures providing cavities; pipes or similar structures that are stored at the construction site for one or more overnight periods shall be either securely capped prior to storage or thoroughly inspected by the on-site biologist or trained	

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Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		biological monitor for these animals before the structure is subsequently buried, capped, or otherwise used or moved in any way. If a California red-legged frog is discovered inside a pipe, the qualified biologist shall watch the individual until it has moved out of the work area or may relocate the animal.	
BIO-1.4: Removal of vegetative cover during future construction under the proposed project may result in the inadvertent destruction of special-status plants unless appropriate precautions are followed.	S	**BIO-1.4a**: **Pre-Activity Surveys for Special-Status Plants.** Prior to initial ground disturbance for any project-related activities in the currently undeveloped grasslands, nonnative woodlands, coast live oak woodlands, and chaparral habitat in the northern and eastern portions of the project site (see Figure 4.3-1, *Cover Types*, of this EIR), appropriately timed, focused surveys shall be conducted by a qualified plant ecologist for bent-flowered fiddleneck and arcuate bush-mallow. The surveys shall be conducted during the flowering periods for each species (bent-flowered fiddleneck: March through June; arcuate bush-mallow: April through September). They shall encompass suitable grasslands, nonnative woodlands, and coast live oak woodlands for bent-flowered fiddleneck and chaparral habitat for arcuate bush-mallow, together with a 50-foot surrounding buffer (as access allows) to assess the presence or absence of these species within the proposed construction footprint. The survey shall be conducted in a year with sufficient precipitation to detect these species; alternatively, if these species are determined to be detectable in appropriate reference populations (regardless of precipitation), surveys for these species on the project site can be determined to be valid even if precipitation is well below average. **BIO-1.4b: Avoidance Buffers.** If any special-status plants are detected within the survey area, then in consultation with a qualified plant ecologist, the applicant shall design and construct the proposed improvements to avoid impacts on the population(s), to the extent feasible. Avoided special-status plant populations shall be protected by establishing and observing a suitable buffer between plant populations and the impact area. All such populations located in the impact area or the identified buffer, and their associated designated avoidance areas, shall be clearly depicted on any construction plans. In addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around special-status plants to be avoided shall be marked in the field (e.g., with temporary fencing, flagging, or other	LTS

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		means appropriate for the area in question). This marking shall be maintained intact and in good condition throughout construction-related activities. If complete avoidance is not feasible and a population would be impacted by the proposed construction, Mitigation Measure BIO-1.4c shall be implemented. **BIO-1.4c: Preservation and Management of Mitigation Populations.** If avoidance of any occurrences of special-status plant species is not feasible, compensatory mitigation shall be provided via the preservation, enhancement, and management of occupied habitat for the species, or the creation and management of a new population. To compensate for impacts on these plants, on-site and/or off-site habitat occupied by the affected species shall be preserved, enhanced, and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and at least one occupied acre preserved for each occupied acre affected). Alternately, seed from the population to be impacted may be harvested and used either to expand an existing population (by a similar number/occupied area to compensate for impacts to these species) or establish an entirely new population in suitable habitat. Areas proposed to be preserved and enhanced as compensatory mitigation for impacts to special-status plants must contain verified extant populations of the species that is impacted, or in the event that enhancement of existing populations or establishment of a new population is selected, the area must contain suitable habitat for the species as identified by a qualified plant ecologist. Mitigation areas shall be managed in perpetuity to encourage persistence and even expansion of the occurrence of this species. The mitigation habitat shall be of equal or greater habitat quality compared to the impacted areas, as determined by a qualified plant ecologist, in terms of soil features, extent of past disturbance, vegetation structure, and dominant species composition, and shall contain at least as many individuals of the species as are impacted by proposed construction activities. The permanent protection and management of mitigation lands shall be ensured through an appropriate mechanism, such as a conservation easement or fee title purchase. A habitat mitigation and monitoring plan (HMMP) shall be	

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		developed by a qualified plant or restoration ecologists and implemented for the mitigation lands. That HMMP shall, at a minimum: ▪ Summarize impacts to the special-status plant species in question, including impacts to its habitat, and the proposed mitigation. ▪ Describe the location and boundaries of the mitigation location and existing site conditions. ▪ Define measures to be undertaken to enhance (e.g., through focused management that may include removal of invasive species in adjacent suitable but currently unoccupied habitat) the mitigation location for the species. ▪ Identify procedures to transplant individual plants or seeds from the impact area to the mitigation location, if appropriate (as determined by a qualified plant or restoration ecologist). ▪ Define necessary management activities to maintain and enhance high-quality habitat conditions for the species. ▪ Describe habitat conditions and species monitoring measures on the mitigation location, including specific, objective final and performance criteria; monitoring methods; data analysis; reporting requirements; and monitoring schedule. At a minimum, performance criteria shall include demonstration that any plant population fluctuations over the monitoring period of a minimum of 5 years for preserved populations and a minimum of 10 years for enhanced or established populations do not indicate a downward trajectory in terms of reduction in numbers and/or occupied area for the preserved mitigation population that can be attributed to management (i.e., that are not the result of local weather patterns, as determined by monitoring of a nearby reference population, or other factors unrelated to management). ▪ If establishing a new population, it must contain at least 200 individuals or the same number of impacted individuals, whichever is greater, by Year 5 of monitoring. This is to ensure the created population is large enough to expect it to persist. If Year 5 is a poor weather year for summer and fall-blooming annual plants and reference populations show a decline, this criterion shall be measured in the next year occurring with average or better rainfall.	

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		▪ Provide contingency measures for mitigation elements that do not meet performance criteria. For example, by Year 5 of monitoring (or the next suitable rainfall year after year 5), if the mitigation effort is unable to establish a self-sustaining population of the required number of individuals as described above, the applicant shall preserve and manage an extant population of that same species under a revised HMMP. ▪ Approval of the HMMP by the City of Belmont shall be required before potential impacts to special-status plants may occur.	
BIO-3: The proposed project would result in a potential impact on regulated wetlands and aquatic habitat through future development of the project site.	S	**BIO-3a: Impact Avoidance and Minimization.** When planning and designing for new development on the project site, the applicant shall avoid and minimize impacts to the intermittent stream, willow scrub, freshwater marsh and seasonal wetlands to the maximum extent practicable, and where feasible, shall incorporate a buffer (of at least 10 feet, though larger buffers would be preferable) between grading limits and other aspects of new development and these habitats. **BIO-3b: Restoration and Compensatory Mitigation**. If any construction activities extend to or within 10 feet of the intermittent stream, willow scrub, freshwater marsh and seasonal wetlands and these features cannot be completely avoided, the applicant shall restore any temporarily affected habitats in situ by restoring pre-construction elevations, topography, hydrology, and vegetation. The applicant shall compensate for unavoidable permanent loss of any aquatic or wetland habitats through on-site or off-site restoration, creation, or enhancement of similar or higher-quality habitat, the purchase of mitigation credits, or a combination of these two approaches. A qualified biologist shall determine the extent of impacts based on the acreage of overlap of project construction and aquatic or wetland habitat and the linear footage of creek channel within those project impact areas. A minimum of a 1:1 (on an acreage basis for wetlands, ponds, and riparian habitat and a linear footage basis for creeks) replacement-to-loss ratio for in-kind habitat is required (or equivalent or greater as determined in coordination with the United States Army Corps of Engineers [USACE], California Department of Fish and Wildlife [CDFW], and Regional Water Quality Control Board [RWQCB] during permitting). Enhancement of existing, low-quality habitats (rather than restoration or creation) is acceptable if a	LTS

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		substantial increase in ecological functions and values can be achieved, as determined by a qualified biologist in coordination with the USACE, CDFW, and RWQCB. If mitigation is to be satisfied through purchase of mitigation credits in an agency-approved mitigation bank, proof of the purchase of credits shall be provided to the City of Belmont prior to the start of activities that impact the aquatic or wetland habitats. If mitigation is to be satisfied through project-specific habitat restoration, creation, or enhancement, the mitigation shall be described in a Habitat Mitigation and Monitoring Plan (HMMP), which shall be prepared by a qualified biologist retained by the applicant and submitted to the City for review and approval prior to the start of activities that impact the aquatic or wetland habitats. At a minimum, the HMMP shall include the following: ▪ Summary of project impacts to jurisdictional habitats. ▪ Plans and detailed description of all restoration, creation, or enhancement activities. ▪ Evidence of available water source necessary to support long-term survival of any restored, created, or enhanced aquatic and riparian habitats. ▪ List of native plant species, quantities, and location of plants to be installed in as part of mitigation. ▪ Specific timing for plant installation and method for supplemental irrigation during the establishment period. ▪ Management and maintenance activities, such as weeding of invasive plants, providing for supplemental water, and repair of water delivery systems. ▪ Definition of the maintenance and monitoring period, which shall not be less than five years. ▪ Identification of performance standards and success criteria under which the mitigation efforts are to be deemed a success; at a minimum, success for vegetated wetlands shall include at least 75 percent cover by native vegetation or 75 percent survival of planted or seeded native riparian vegetation within the target mitigation acreage by the end of Year 5. ▪ Identification of possible adaptive management procedures that address uncertainties that can sometimes arise with restoration projects. These	

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		include, but are not limited to, measures to address colonization by invasive species, unexpected lack of water, excessive foraging of installed plants by native wildlife, and variable climatic conditions. This section shall also describe the process by which adaptive management decisions shall be made and implemented. ▪ Description of the financial mechanisms for funding of all monitoring activities and ensuring that the created aquatic and riparian habitats shall be preserved and managed in perpetuity.	
BIO-4: The proposed project would result in the potential impact of increased risk of bird collisions associated with future development of the project site.	S	**BIO-4: Bird Safe Design.** New buildings associated with redevelopment of the project site, or building expansions that increase the height or extent of façade glazing of existing structures, shall be designed to minimize the potential risk of bird collisions. New building plans shall be prepared using input from the latest bird-safe design guidelines and shall include specific Best Management Practice (BMP) strategies to reduce bird strikes, as summarized below. Of particular concern is the importance of avoiding the use of highly reflective glass as an exterior treatment, which appears to reproduce natural habitat and can be attractive to some birds. To limit reflectivity and prevent exterior glass from attracting birds, building plans shall preferably utilize low-reflectivity glass and provide other nonattractive surface treatments, as outlined below. Low-reflectivity glass or other glazing treatments shall be used for the entirety of the building's glass surface, not just the lower levels, to minimize the risk of bird collisions. Interior light "pollution" shall be reduced during evening hours through the use of a lighting control system, where feasible, and exterior lighting shall be directed downward and screened to minimize illuminating the exterior of the building at night except as needed for safety and security. The following design considerations shall be considered to minimize the risk of bird strikes: ▪ To the extent possible, no more than 10 percent of the surface area of a façade for any new building or any modification to the façade of an existing building shall have untreated glazing between the ground and 60 feet above ground if, in the opinion of a qualified biologist, that façade faces habitat that is of moderate to high value to migratory and resident birds. ▪ Bird-friendly glazing treatments may include fritting, netting, permanent stencils, frosted glass, exterior screens, physical grids placed on the	LTS

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		exterior of glazing or ultraviolet patterns visible to birds. Unless subject to an equally effective requirement at the time of the Detailed Development Plan (DDP) submittal, all bird-friendly glazing on the building shall have a reflectivity of 15 percent or lower and shall meet the following specifications: ▪ Vertical elements of the window patterns should be at least 0.25 inches wide at a maximum spacing of 4 inches and/or have horizontal elements at least 0.125 inches wide at a maximum spacing of 2 inches; OR ▪ Bird-friendly glazing shall have a Threat Factor[3] less than or equal to 30. ▪ Free-standing clear glass walls, glass skywalks, transparent building corners, glass at rooflines of buildings, glass enclosures (e.g., greenhouses) on rooftops, and free-standing clear glass railings shall be avoided, where feasible. If any such features are included in the project design, all glazing used in any such features shall be 100 percent treated with a bird-friendly glazing treatment as specified in the bullet above. The specific areas where bird-friendly glazing is necessary shall be identified by a qualified biologist. For transparent glass corners, the required treatment area extends horizontally from a building corner as far the corner as it is possible to see through the corner to the other side of the building. ▪ All exterior lighting shall be shielded to block illumination from shining outward toward high-quality habitat for migratory birds. ▪ To the maximum extent feasible, up-lighting (i.e., lighting that projects upward above the fixture) shall be avoided in the project design. All lighting shall be fully shielded to block illumination from shining upward above the fixture. If up-lighting cannot be avoided in the project design, up-lights shall be shielded and/or directed such that no luminance projects	

[3] A material's Threat Factor is assigned by the American Bird Conservancy and refers to the level of danger posed to birds based on birds' ability to perceive the material as an obstruction, as tested using a "tunnel" protocol (a standardized test that uses wild birds to determine the relative effectiveness of various products at deterring bird collisions). The higher the Threat Factor, the greater the risk that collisions will occur. An opaque material will have a Threat Factor of 0, and a completely transparent material will have a Threat Factor of 100. Threat Factors for many commercially available façade materials can be found by clicking on the "Threat Factor Table" link at https://abcbirds.org/glass-collisions/nyc-threat-factor.

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		above/beyond objects at which they are directed (e.g., trees and buildings) and such that the light would not shine directly into the eyes of a bird flying above the object. If the objects themselves can be used to shield the lights from the sky beyond, no substantial adverse effects on migrating birds are anticipated. ▪ Unless subject to an equally effective requirement at the time of DDP application submittal, exterior lighting shall be minimized (i.e., total outdoor lighting lumens shall be reduced) by at least 30 percent or extinguished, consistent with recommendations from the International Dark-Sky Association[4] from 10:00 p.m. until sunrise, except as needed for safety and City code compliance. ▪ The above-listed bird-friendly design requirements may be waived or modified for specific facades or buildings based on analysis by a qualified biologist indicating that such specific facades or buildings will not pose a collision hazard to birds. Such a waiver shall generally not be appropriate for façades facing well-vegetated areas. A waiver may be appropriate, for example, for façades that face developed areas lacking vegetation, water features, or other features that would be particularly attractive to birds.	
CULTURAL RESOURCES			
CULT-1: The proposed project has the potential to materially impair the significance of historic architectural resources within the project site through the alteration or rehabilitation of historic architectural resources or their immediate surroundings in a manner that is not in conformance with the Secretary of the Interior's Standards for Rehabilitation.	S	**CULT-1a:** If a project could cause a substantial adverse change in features that convey the significance of a historical architectural resource, an assessment shall be completed to evaluate whether the proposed treatment of the historical resource is in conformance with the Secretary of the Interior's Standards for Rehabilitation (the Standards), or equally effective requirements in place at the time of Detailed Development Plan application submittal. Such projects might include, but may not be limited to, alterations of exterior character-defining features of Ralston Hall/Carriage House and Carriage House or Taube Center; alterations of character-defining features of publicly accessible interior spaces of Ralston Hall; or new construction within or immediately adjacent to the Legacy and Taube development areas. The	LTS

[4] International Dark-Sky Association, 2011, *Model Lighting Ordinance with User's Guide*, https://www.darksky.org/wp-content/uploads/bsk-pdfmanager/16_MLO_FINAL_JUNE2011.PDF, accessed March 2023.

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		assessment may be required for new construction located adjacent to or facing Ralston Hall/Carriage House within the West, Plateau, or South development areas. It may also be required for new construction located adjacent to or facing Taube Center within the East or Ralston development areas. Consultation with the City of Belmont Planning Division, as early as possible in the planning process, would be required to determine if a project requires the assessment. A qualified historic preservation professional who meets the Secretary of Interior's Professional Qualification Standards shall complete the assessment. The assessment shall take the form of a memorandum or equivalent documentation that includes a summary of the existing conditions and historic significance of the resource, the identification of character-defining features and non-contributing elements or additions, a project description, a statement of conformance with the Standards, and relevant project plans. If the project conforms with the Secretary of the Interior's Standards for Rehabilitation, then it is generally considered not to result in a significant impact on a historical resource, and no additional review or documentation is necessary. If the proposed project is found to not be in conformance with the Standards, the assessment shall include recommendations for how to modify the project design so as to bring it into conformance. The Project Sponsor shall consider means of reducing the impact to the historic resource to a level less than significant by redesigning or modifying the project as feasible and prudent. The City of Belmont Planning Division shall review the assessment and may require additional documentation. The City may also require a peer review of the assessment by a qualified preservation professional at Stanford University's expense. **CULT-1b:** For projects that are unable to conform to the Secretary of the Interior's Standards for Rehabilitation (or equally effective requirement at the time of DDP application submittal), a Historic American Building Survey (HABS) documentation, or an equally effectively requirements in place at the time of DDP application submittal, shall be completed by a qualified historical preservation professional who meets the Secretary of Interior's Professional Qualification Standards for the historical resource and its setting. This documentation shall include drawings, photographs, and a written report:	

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		▪ Measured Drawings: Existing historic drawings of the historical resource, if available, shall be reproduced. In absence of existing drawings, a set of measured drawings shall be prepared that depict the plan and exterior elevations of the historical resource. ▪ Photographs: HABS standard large-format or digital photographs shall be prepared in accordance with the latest National Park Service (NPS) standards. The photography shall be undertaken by a qualified professional with experience in HABS photography. Photographs shall document the setting and context, building exterior, character-defining features, and publicly accessible interior spaces if applicable. Photographs shall be identified, labeled, and referenced on a photographic key using HABS standards. ▪ Written Historical and Descriptive Data: A qualified preservation professional shall assemble historical background information relevant to the historical resource. The written report shall be prepared in accordance with the HABS Guidelines for Historical Reports. The report shall include a statement of significance, an overview of applicable historic contexts, a physical description, and bibliographic information. Copies of historical photographs, if available, shall also be included. The HABS documentation shall be reviewed and approved by the City of Belmont Planning Division. To ensure public access, a copy of the documentation shall be submitted to the City of Belmont Planning Division, Belmont Historical Society, San Mateo County Historical Association, and the California Historical Resources Information System Northwest Information Center.	
CULT-2: The proposed project has the potential to result in a substantial adverse change to on-site archaeological resources, including the former coal gas plant, which is considered potentially eligible for listing in the National Register and California Register. Additionally, the proposed project could also result in substantial adverse changes to previously unknown sites in areas of the project site that have not been subject to previous ground disturbance.	S	**CULT-2a:** If a building project is proposed to be situated on the archaeological remains of the former coal gas plant and if the site cannot be avoided, an Archaeological Resources Treatment Plan shall be prepared by a Secretary of Interior-qualified archaeologist at the direction of the City Planning Division prior to commencement of ground-disturbing activities, unless subject to an equally effective requirement in place at the time of Detailed Development Plan (DDP) application submittal. At a minimum, the following measures must be included in the Archaeological Resources Treatment Plan: monitoring of construction activities at the site, recovery of any archaeological resources	LTS

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		that cannot be avoided by construction activities, and recordation and preservation of such resources. This plan may include, but is not limited to, the following types of measures: subsurface testing, capping or covering the site with a layer of soil before construction begins on the site, recovering data regarding resources left in place, excavation, preparation of a report to be submitted to the California Historical Resources Information System, and permanent curation of significant artifacts recovered from the site. Unless subject to an equally effective regulation in place at the time of DDP application submittal, project-specific measures, if necessary, shall be identified in accordance with the provisions of Public Resources Code Section 21083.2. **CULT-2b:** Prior to the commencement of construction-related ground-disturbing activities (greater than 12 inches in depth), within the West, Legacy, and Ralston Development Areas, all construction workers engaged in such ground-disturbing activities shall complete Worker Awareness Training (WAT) in regard to potential prehistoric and historic-period resources, unless subject to equally effective requirements in place at the time of Detailed Development Plan application submittal. Training shall include how to recognize artifacts and features, respectful treatment of Native American resources, measures to prevent vandalism and unauthorized removal of artifacts, penalties for noncompliance, and procedures for securing and reporting finds, including temporary work stoppages if necessary. **CULT-2c:** Archaeological monitoring shall be conducted by a Secretary of Interior-qualified archaeologist at any time construction-related ground-disturbing activities are taking place within 100 feet of the remains of the former coal gas plant or within the boundaries of the Ralston Hall National Historic Landmark. A technical report including the results of all monitoring activities shall be prepared once monitoring is completed in accordance with professional standards and submitted to the Planning Division and Northwest Information Center. **CULT-2d:** In the event previously unidentified historic or prehistoric archaeological resources are discovered during construction, work immediately shall stop in the immediate area of 100 feet, and the City	

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Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		Planning Division and University Archaeologist shall be contacted immediately. A Secretary of Interior-qualified archaeologist shall assess the significance of the find to determine whether the resource may constitute a unique archaeological resource according to Public Resources Code Section 21083.2(g) or a historical resource according to Public Resources Code Section 21084.1, or equally effective regulations in place at the time of Detailed Development Plan (DDP) application submittal. If the site is determined to be eligible, the University Archaeologist shall provide and implement a proposed Archaeological Resources Treatment Plan to avoid, minimize, or otherwise mitigate any potential impacts to the resource. Unless subject to an equally effective requirement at the time of DDP application submittal, before construction-related ground-disturbing activities occur, at a minimum, the following measures must be included in the Archaeological Resources Treatment Plan: monitoring of construction activities at the site, recovery of any archaeological resources that cannot be avoided by construction activities, and recordation and preservation of such resources. This plan may include, but is not limited to, the following types of measures: preserving the site in place, capping or covering the site with a layer of soil before construction continues, recovering data regarding the resources left in place, excavation, and preparation of a report to be submitted to the California Historical Resources Information System. Should the resources be associated with Native American history, a Native American observer may also be required during excavation and to advise on recordation activities. At the discretion of the City's Planning Division, an independent qualified archaeologist may be retained by the City at Stanford University's expense to assess the significance of the find and the adequacy of the proposed Archaeological Resources Treatment Plan.	
CULT-3: Future construction activities that involve ground disturbance have the potential to disturb subsurface human remains.	S	**CULT-3:** In the event human skeletal remains are encountered the San Mateo County Coroner must be immediately notified. Work immediately shall stop within a 100-foot radius of the find. If the County Coroner determines that the remains are Native American, the coroner shall contact the California Native American Heritage Commission, pursuant to Health and Safety Code Section 7050.5(c), or an equally effective requirement in place at the time of the event. It is the responsibility of the Project Sponsor to comply with the required Native American consultation process described in Health and Safety	LTS

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Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		Code Section 7050.5(c), or an equally effective requirement in place at the time of the event, and to provide for reburial of human skeletal remains and associated artifacts in a setting of appropriate dignity not subject to further subsurface disturbance following completion of consultation. Unless subject to equally effective requirements at the time of the event, a State Record Form (DPR Series) documenting the discovery and reburial location with the California Historical Resources Information System shall be filed along with the Sacred Lands file at the Native American Heritage Commission.	
ENERGY			
No significant impacts			
GEOLOGY AND SOILS			
GEO-1: The proposed project could result in the placement of new buildings in areas susceptible to ground shaking, liquefaction, and landslide, potentially resulting in significant loss, injury, or death.	S	**GEO-1:** Project construction shall adhere to the recommendations of a City-reviewed final design-level geotechnical report, which shall address the concerns and recommendations presented in the preliminary geotechnical report related to geology and soils issues potentially resulting in significant loss, injury, or death. Prior to the issuance of grading and/or building permits (whichever comes first), the City shall verify that the final design-level geotechnical report has been prepared, that it has been reviewed and approved by the City, and that its recommendations and requirements to construct buildings in a way that eliminates significant loss, injury, or death have been incorporated into final project plans.	LTS
GEO-3: Potential future development under the proposed project could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	S	**GEO-3:** Implement Mitigation Measure GEO-1.	LTS
GEO-4: The proposed project could result in substantial direct or indirect risk to life or property.		**GEO-4:** Implement Mitigation Measure GEO-1.	LTS
GREENHOUSE GAS EMISSIONS			
GHG-1: The proposed project could potentially include natural gas appliances or natural gas hook-ups that may result in greenhouse gas (GHG) emissions impacts to the environment. Because the enforceability of project	S	**GHG-1.1:** Prior to the issuance of building permits, the Project Sponsor shall demonstrate to the City of Belmont Building Department that individual Detailed Development Plans (DDP) under the proposed project are designed to be all-electric and do not include any natural gas plumbing or hook-ups,	LTS

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TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
commitments to be designed all-electric and the application of exemptions included in the City's all-electric ordinance are unknown at the time of this analysis, the proposed project's GHG emissions impacts could be potentially significant.		except for laboratory uses where natural gas is deemed absolutely necessary for that laboratory's operation. This all-electric design requirement shall be noted on all applicable building site plans and utility plans and confirmed by the City of Belmont Building Department prior to the issuance of any building permit. For laboratory uses where natural gas is deemed absolutely necessary for that laboratory's operation, the Project Sponsor shall submit documentation to the City of Belmont Planning Division that sufficiently demonstrates the necessity of natural gas for the laboratory use and quantifies the estimated annual GHG emissions generated from natural gas use associated with the laboratory use. Any laboratory use which uses natural gas as part of the proposed project shall be designed and pre-wired to accommodate future all-electric conversion. Prior to the issuance of any certificate of occupancy for the subject laboratory use, the Project Sponsor shall provide documentation to the City of Belmont Planning Division that verifies the implementation of measures either on-site or off-site that fully offset annual GHG emissions associated with natural gas use for that laboratory use. Should carbon offsets be purchased to offset any part of the GHG emissions associated with natural gas use, the Project Sponsor shall purchase carbon credits from a voluntary GHG carbon offset provider with an established protocol that requires projects generating GHG carbon offsets to demonstrate that the reduction of GHG emissions are real, permanent, quantifiable, verifiable, enforceable, and additional (per the definition in California Health Safety Code Sections 38562(d)(1) and (2)), unless subject to an equally effective requirement in place at the time of DDP application submittal). Definitions for these terms are as follows: ▪ **Real:** Estimated GHG reductions should not be an artifact of incomplete or inaccurate emissions accounting. Methods for quantifying emission reductions should be conservative to avoid overstating a project's effects. The effects of a project on GHG emissions must be comprehensively accounted for, including unintended effects (often referred to as "leakage"). ▪ **Additional:** GHG reductions must be additional to any that would have occurred in the absence of the Climate Action Reserve, or of a market for	

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Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
		GHG reductions generally. "Business as usual" reductions (i.e., those that would occur in the absence of a GHG reduction market) should not be eligible for registration. ▪ **Permanent:** To function as offsets to GHG emissions, GHG reductions must effectively be "permanent." This means, in general, that any net reversal in GHG reductions used to offset emissions must be fully accounted for and compensated through the achievement of additional reductions. ▪ **Quantifiable:** The ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs in the offset project boundary, while accounting for uncertainty and activity-shifting leakage and market-shifting leakage. ▪ **Verified:** GHG reductions must result from activities that have been verified. Verification requires third-party monitoring data for a project to ensure the data are complete and accurate. ▪ **Enforceable:** The emission reductions from offset must be backed by a legal instrument or contract that defines exclusive ownership and can be enforced within the legal system in the country in which the offset project occurs or through other compulsory means. Please note that for this mitigation measure, only credits originating within the United States are allowed.	
GHG-1.2: The proposed project would include new parking areas that could potentially fail to comply with Bay Area Air Quality Management District's performance standard for meeting the electric vehicle (EV) charging standards in the most recently adopted version of CALGreen Tier 2. Because the enforceability of project commitments to meet the current most stringent voluntary standards for off-street EV requirements is unknown at the time of this analysis, the proposed project's greenhouse gas emissions impacts could be potentially significant.	S	**GHG-1.2:** Prior to the issuance of building permits, the Project Sponsor shall demonstrate to the City of Belmont Building Department that future off-street parking improvements are designed to comply with the latest CALGreen Tier 2 EV charging standards, unless subject to equally effective requirements in place at the time of Detailed Development Plan application submittal. This shall be noted on all applicable building site plans and utility plans and confirmed by the City of Belmont Building Department prior to the issuance of any building permit.	LTS

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Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
HAZARDS AND HAZARDOUS MATERIALS			
HAZ-1: Asbestos-containing material (ACM) in existing buildings may result in an increased exposure to students and staff during routine cleaning, maintenance, and general operations.	S	**HAZ-1**: Prior to the issuance of building permits for demolition or renovation of existing buildings, the project applicant shall prepare an Asbestos Operation and Maintenance (O&M) Plan in line with the California Code of Regulations Title 8, Section 1529, and Code of Federal Regulations 1926.1101, unless subject to equally effective requirements in place at the time of Detailed Development Plan application submittal. The primary objective of the Asbestos O&M plan is to control building occupant and employee exposure to asbestos fibers. The procedures in the plan shall minimize any potential hazard posed by ACM/presumed ACM during cleaning, maintenance, and general operation activities.	LTS
HYDROLOGY AND WATER QUALITY			
No significant impacts			
LAND USE AND PLANNING			
No significant impacts			
NOISE			
No significant impacts			
PARKS AND RECREATION			
No significant impacts			
POPULATION AND HOUSING			
No significant impacts			
PUBLIC SERVICES			
No significant impacts			
TRANSPORTATION			
TRAN-1: The proposed project would conflict with General Plan Policy 3.2-3 and the goal of the Comprehensive Bicycle and Pedestrian Plan to provide a continuous network of pedestrian facilities that connects neighborhoods with key destinations and transit stops.	S	**TRAN-1:** Prior to the issuance of building permits for new or expanded buildings, the bicycle and pedestrian circulation plan shall be revised to provide pedestrian facilities that enhance connectivity from key points on the proposed Stanford Belmont Campus to Ralston Avenue. The revised plan shall be submitted to the City of Belmont for review and approval.	LTS

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Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
TRAN-4: The proposed project could result in inadequate emergency access if secondary emergency access is not provided.	S	**TRAN-4:** Prior to the issuance of building permits for new or expanded buildings, the San Mateo Consolidated Fire Department shall confirm that adequate emergency access and egress exists and that site plans comply with applicable State and local codes in effect at the time of permit application submittal.	LTS
TRIBAL CULTURAL RESOURCES			
No significant impacts			
UTILITIES AND SERVICE SYSTEMS			
No significant impacts			
WILDFIRE			
WILD-1: The proposed project could slow or impede evacuation in the project site vicinity during a wildfire evacuation event.	S	**WILD-1:** Prior to the issuance of the first building permit for a new or expanded building, a Wildfire Evacuation Plan shall be prepared in coordination with the City of Belmont's Police Department Office of Emergency Services and the San Mateo Consolidated Fire Department (SMC Fire). Unless subject to equally effective requirements in place at the time of Detailed Development Plan (DDP) application submittal, the Wildfire Evacuation Plan shall identify: ▪ Key contacts between Stanford University and the City in the event of a wildfire emergency ▪ Protocols to follow to manage the campus' evacuation process ▪ Evacuation route options ▪ An early warning system to require early evacuation and cancelled programming in order to minimize the project's congestion effects on Ralston Avenue ▪ Proof of compliance with applicable local and State codes and requirements related to wildfire and evacuation in effect at the time of permit application submittal ▪ Benchmarks for the Wildfire Evacuation Plan to be updated as the campus grows The Wildfire Evacuation Plan shall be submitted to the City of Belmont's Police Department Office of Emergency Services and SMC Fire for review and approval prior to initiation of construction activities.	LTS

LTS = Less than Significant; S = Significant

TABLE 1-1 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Environmental Impact	Significance without Mitigation	Mitigation Measures	Significance with Mitigation
WILD-2: Implementation of the proposed project would increase population, buildings, and infrastructure in wildfire-prone areas, thereby exacerbating wildfire risks due to the presence of highly flammable vegetation.	S	**WILD-2:** Prior to issuance of building permits, the applicant shall submit a final vegetation management plan to the City of Belmont and SMC Fire for review and approval. The final vegetation management plan shall require defensible space to be maintained within 100 feet from each side of a structure and an ember resistant zone within 5 feet of a structure. Unless subject to equally effective requirements in place at the time of Detailed Development Plan (DDP) application submittal, the final vegetation management plan shall also include provisions for initial treatment and maintenance of vegetation in the project site using mechanical, manual, and/or prescribed herbivory strategies. These strategies shall include, but are not limited to, use of motorized equipment to cut, uproot, crush/compact, or chop existing vegetation; use of hand tools and hand-operated power tools to cut, clear, or prune herbaceous or woody species; and use of domestic livestock to reduce a target plant population, thereby reducing fire fuels or competition with desired plant species. Unless subject to an equally effective requirement at the time of DDP application submittal, vegetation management activities shall comply with Public Resources Code Section 4442, which requires that engines that use hydrocarbon fuels be equipped with a spark arrester, and that these engines be maintained in effective working order to help prevent fire.	LTS
WILD-3: Construction of utilities and maintenance of fuel breaks could exacerbate wildfire risks in vegetated areas of the project site.	S	**WILD-3:** Implement Mitigation Measure WILD-2.	LTS
WILD-5: Potential development under the proposed project could, in combination with other surrounding projects in western Belmont, result in cumulative impacts associated with impairing an emergency response or evacuation plan.	S	**WILD-5:** Implement Mitigation Measure WILD-1.	LTS

LTS = Less than Significant; S = Significant

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2. Introduction

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, Chapter 14, California Code of Regulations, Section 15378(a), the proposed Conceptual Development Plan (CDP) and Development Agreement (DA) to create the proposed Stanford Belmont Campus is considered a "project" subject to environmental review. The implementation is "an action [undertaken by a public agency] which has the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment." This Draft Environmental Impact Report (EIR) provides an assessment of the potential environmental consequences of adoption and implementation of the proposed CDP and DA, herein referred to together as the "proposed project."

This Draft EIR identifies mitigation measures and alternatives to the proposed project that would avoid or reduce potentially significant impacts. This Draft EIR compares the development potential of the proposed project with the existing baseline condition that is described in detail in each section of Chapter 4, *Environmental Analysis*, of this Draft EIR. The City of Belmont (City) is the lead agency for the proposed project. This assessment is intended to inform the City's decision-makers, other responsible agencies, and the public-at-large of the nature of the proposed project and its potential effect on the environment.

2.1 PROPOSED ACTION

Implementation of the proposed project would create the proposed Stanford Belmont Campus in a phased manner during a 30-year time frame at the current 45.6-acre Notre Dame de Namur University (NDNU) campus at 1500 Ralston Avenue in Belmont, California. Chapter 3, *Project Description*, of this Draft EIR includes a detailed description of the proposed project.

2.2 EIR SCOPE

This Draft EIR is a program EIR that analyzes the adoption and implementation of the proposed project. This is in contrast to a project-level EIR, which is used to identify and analyze the potential impacts of site-specific construction and operation. CEQA and the CEQA Guidelines allow lead agencies to prepare different types of EIRs for varying situations and intended uses. Section 15168 of the CEQA Guidelines states that program EIRs are appropriate when a project consists of a series of actions related to the issuance of rules, regulations, and other planning criteria.

In this case, the proposed project that is the subject of this Draft EIR consists of a long-term plan that would be implemented over a 30-year time frame. No specific development projects are proposed as part of the proposed project, and decisions about whether to move forward with individual development projects may require further environmental review and approval. Therefore, as a program EIR, it does not

evaluate the proposed activities at a project level of detail and does not evaluate the impacts of later site-specific activities that may be proposed in the future under the proposed Conceptual Development Plan (CDP).

The program EIR addresses the potential environmental impacts of the proposed project as specifically and comprehensively as reasonably possible. Later activities would be required to adhere to applicable regulations and standards, and later activities that require a discretionary permit would require the submittal of Detailed Development Plans (DDP) to the City for review and approval and would be required to obtain all necessary permits and approvals, such as design review approval, building permits, grading permits, and tree removal permits. At the time of preparation of this Draft EIR, it is anticipated that future DDPs will be consistent with and within the scope of the CDP. However, the City will consider future activities, including future DDPs, to determine if additional CEQA review is required.

Later activities will first be reviewed to determine whether they are within the scope of the proposed CDP reviewed in this EIR. If the later activity is not within the scope of the CDP, then it must be examined as an independent project under CEQA. If the project does not qualify for an exemption, an initial study must be prepared to determine if a Negative Declaration or EIR is necessary.[1]

If the later activity is within the scope of the CDP, then the City must consider the potential site-specific impacts to determine whether the environmental effects of the later activity are within the scope of the analysis in this program EIR. If the City determines that the later activity is within the scope of the CDP and that potential impacts are within the scope of the analysis in this program EIR, the City would document that determination, including in any public hearing notice required for the later activity, and no additional CEQA analysis would be required. If the site-specific activity would have environmental effects not examined in this EIR, then an initial study must be prepared to determine if a Negative Declaration or EIR must be prepared, which may tier off this EIR.

Lastly, the City must consider whether any of the conditions in CEQA Guidelines Section 15162 require a supplemental EIR. This may include changes in the project or in the circumstances under which it is undertaken that require evaluation of new significant effects, or the availability of new information or new mitigation measures that were not known and could not have been known when this EIR was prepared.

For any subsequent environmental review documents, this program EIR will serve as the first-tier environmental analysis to streamline future environmental review (see Section 2.4, *Environmental Review for Future Development Projects and Activities*, for further details). The lead agency must incorporate feasible mitigation measures and alternatives developed in this program EIR into subsequent activities.

If a subsequent activity would have effects that are not within the scope of the program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, a Mitigated Negative Declaration, or an EIR, unless the activity qualifies for an exemption.

[1] CEQA Guidelines Section 15168(c) and CEQA streamlining provisions.

2.3 ENVIRONMENTAL REVIEW PROCESS

2.3.1 DRAFT EIR

Pursuant to CEQA Section 21080(d) and CEQA Guidelines Section 15063, the City determined that the proposed project could result in potentially significant environmental impacts and that a program EIR would be required. In compliance with CEQA Section 21080.4, the City circulated the Notice of Preparation (NOP) of an EIR for the proposed project to the Office of Planning and Research State Clearinghouse and interested agencies and persons on May 24, 2023, for a 30-day review period. A public scoping meeting was held on June 6, 2023, at the Belmont City Council Chambers. The NOP and scoping process solicited comments regarding the scope of the Draft EIR from responsible and trustee agencies and interested parties. Appendix A, *Notice of Preparation and Scoping Comments*, of this Draft EIR contains the NOP and the comments received by the City in response to the NOP.

This Draft EIR will be available for review by the public and interested parties, agencies, and organizations for a 45-day comment period starting August 2, 2024, and ending September 16, 2024. During the comment period, the public is invited to provide written comments on the Draft EIR via mail or email to the City of Belmont Planning Department by 5:00 p.m. on September 16, 2024. Comments should be submitted as follows:

- Written: Attn: Laura Russell, Deputy Community Development Director, Planning Department
  One Twin Pines Lane, Suite 310
  Belmont, CA 94002
- Email: StanfordNDNU@belmont.gov. with “Stanford University Belmont Location Conceptual Development Plan EIR” as the subject line.

2.3.2 FINAL EIR

After the 45-day review period for the Draft EIR, the City will review all written comments received and prepare written responses to each comment on the adequacy of the Draft EIR. A Final EIR will then be prepared that contains all of the comments received, responses to comments raising environmental issues, and any changes to the Draft EIR. The Final EIR will be presented to the Belmont Planning Commission where a public hearing will be held for public comments on the Final EIR. During this public hearing recommendations will be considered for certification of the Final EIR. Following the public hearing, the Final EIR will be presented to City Council for consideration of the certification as the environmental document for the proposed project. All persons who commented on the Draft EIR will be notified of the availability of the Final EIR and the date of the public hearing, which is tentatively scheduled for first quarter of 2025.

All responses to comments submitted on the Draft EIR by agencies will be provided to those agencies at least 10 days prior to certification of the EIR. The City Council will make findings regarding the extent and nature of the impacts as presented in the EIR. The EIR will need to be certified as having been prepared in compliance with CEQA by the City prior to making a decision to approve or deny the proposed project. Public input is encouraged at all public hearings before the City.

If the City Council certifies the EIR, it may then consider action on the proposed project. If approved, the City Council would adopt and incorporate all feasible mitigation measures identified in the EIR and may also require other feasible mitigation measures.

In some cases, the City Council may find that certain mitigation measures are outside the jurisdiction of the City to implement, or that no feasible mitigation measures have been identified for a given significant impact. In that case, the City Council would have to adopt a statement of overriding considerations that determines that economic, legal, social, technological, or other benefits of the proposed project outweigh the unavoidable, significant effects on the environment.

2.3.3 MITIGATION MONITORING

CEQA Section 21081.6 requires that the lead agency adopt a Mitigation Monitoring and Reporting Program (MMRP) for any project for which it has made findings pursuant to CEQA Section 21081. Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR. If mitigation measures are required, the MMRP for the proposed project will be completed congruently as part of the Final EIR process.

2.4 ENVIRONMENTAL REVIEW FOR FUTURE DEVELOPMENT PROJECTS AND ACTIVITIES

CEQA includes several provisions to streamline the environmental review of qualified projects based on several factors. These include where environmental review has already occurred (e.g., a program-level EIR), which could apply to future development on the project site. As a program EIR, this document and the mitigation measures presented herein will be used as a guide for implementing the proposed project. This program EIR will also be used as a base resource for reviewing future development projects. As discussed in Section 2.2, *EIR Scope*, later activities consistent with the proposed project will be reviewed to determine whether they are within the scope of this program EIR. Pursuant to CEQA Guidelines Section 15168(c)(2), for future activities that do not require subsequent environmental review, the City can approve the activity as being within the scope of the project analyzed in this program EIR. CEQA Guidelines Section 15168(d) provides for simplifying the preparation of environmental documents by incorporating by reference analyses and discussions in the program EIR. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance.[2]

If a subsequent activity would have effects that are not within the scope of the program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, a Mitigated Negative Declaration, or an EIR, unless the activity qualifies for an exemption. This document will assist in guiding the assessment of projects and provide environmental review tiering, where appropriate.

[2] CEQA Guidelines Section 15152(d).

The CEQA concept of "tiering" refers to the evaluation of general environmental matters in a broad program-level EIR, with subsequent focused environmental documents for individual projects. CEQA and the CEQA Guidelines encourage the use of tiered environmental documents to reduce delays and excessive paperwork in the environmental review process. This is accomplished in tiered documents by eliminating repetitive analyses of issues that were adequately addressed in the program EIR and by incorporating those analyses by reference.

When tiering from the program EIR, the environmental analysis for a future project implementing the proposed project would rely on the program EIR for the following:

1. A discussion of general background and setting information for environmental topic areas;
2. Overall growth-related issues;
3. Issues that were evaluated in sufficient detail in the program EIR for which there is no significant new information or change in circumstances that would require further analysis;
4. Assessment of cumulative impacts; and
5. Mitigation measures adopted and incorporated into the proposed project.

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3. Project Description

This chapter of the Draft Program Environmental Impact Report (EIR) describes Leland Stanford Junior University's (Stanford's) proposed Conceptual Development Plan (CDP) and Development Agreement (DA) to create the proposed Stanford Belmont Campus. The CDP and DA are herein referred to together as the "proposed project." The proposed project would guide renovations and revitalization on the project site to develop the Stanford Belmont Campus in a phased manner during a 30-year timeframe.

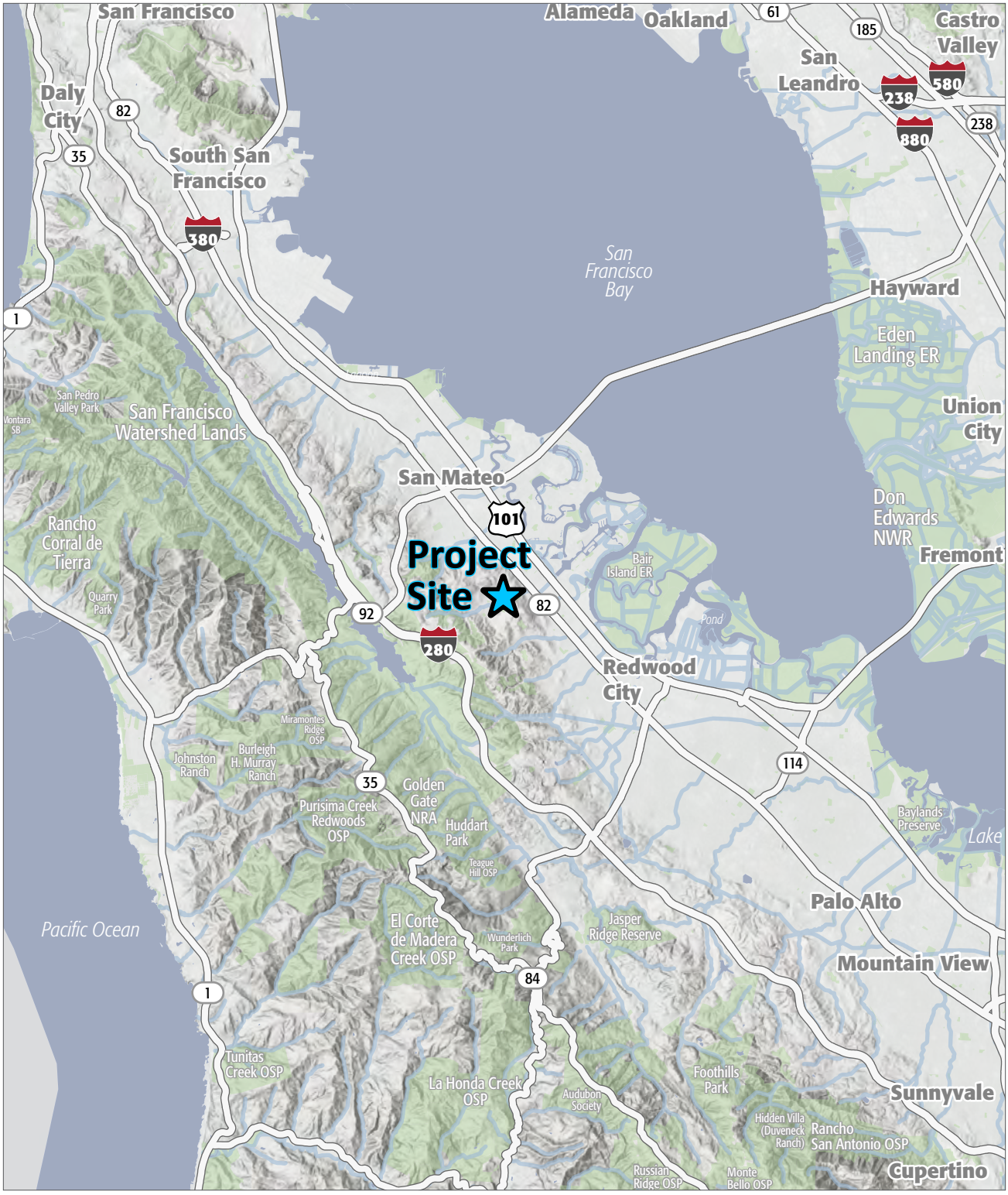
This chapter provides a detailed description of the proposed project, including the location, setting, and characteristics of the project site; the principal project features; project objectives; and required permits and approvals. Section 3.4, *Components of the Proposed Project*, provides a detailed description of the proposed project. Section 3.6, *Required Permits and Approvals*, describes permits and approvals anticipated for implementing the proposed project. Additional descriptions of the environmental setting as they relate to each of the environmental issues analyzed in Chapter 4, *Environmental Analysis*, of this Draft EIR, are included in the environmental setting discussions contained within Chapters 4.1 through 4.18.

3.1 PROJECT SITE CHARACTERISTICS AND SETTING

3.1.1 REGIONAL LOCATION AND ACCESS

The project site is at 1500 Ralston Avenue, which provides its primary access. The site is currently the location of Notre Dame de Namur University (NDNU) in the City of Belmont, on the San Francisco Peninsula, 24 miles southeast of San Francisco and 26 miles northwest of San Jose. The Belmont location is 6 miles from Stanford's Redwood City location and 11 miles from the main Stanford campus location. Generally, all three locations are along the El Camino Real (State Route 82) and the Caltrain corridor, which connects the current two Stanford locations on the Peninsula as well as the proposed Stanford Belmont Campus. As shown on Figure 3-1, *Regional Vicinity*, the project site is between El Camino Real and Highway 101 (Bayshore Freeway) to the north and east, Interstate 280 to the south, and State Route 92 to the west. The Belmont Caltrain Station is approximately 0.5 miles to the east of the project site.

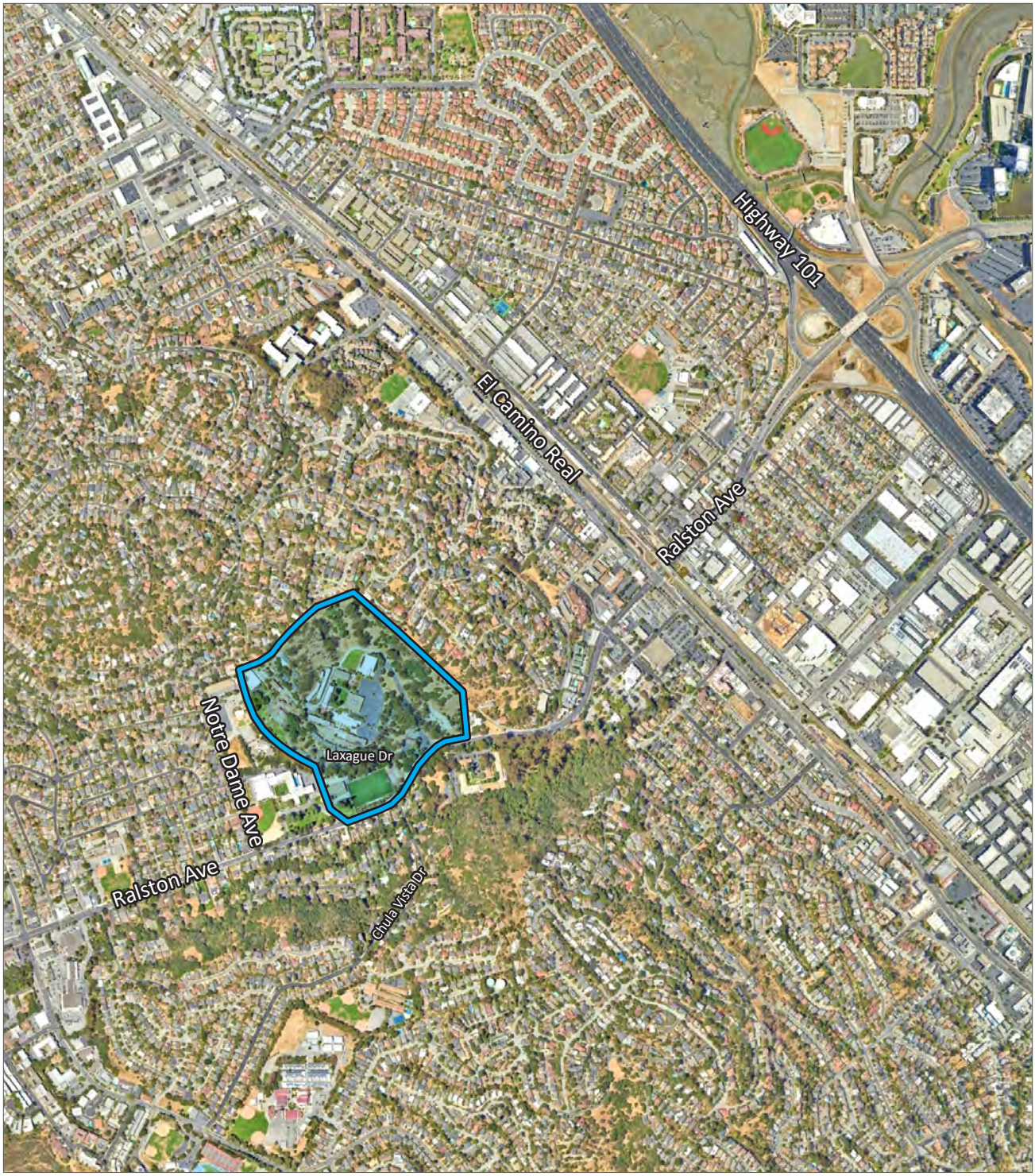
The main arterials that are used to access the project site are Ralston Avenue and Laxague Drive. See Figure 3-2, *Local Vicinity*.



Source: ESRI, 2023 (Date 5-17-2023). PlaceWorks, 2023.

0 5
Scale (Miles)

Figure 3-1
Regional Vicinity



Source: © Google Earth, 2023 (Date 5-10-2023). PlaceWorks, 2023.

0 2,000
Scale (Feet)

Approximate Project Site Boundary

Figure 3-2
Local Vicinity

3.1.2 LOCAL SETTING

The project site consists of a terraced hillside that is surrounded by one- and two-story residential buildings to the north and east, above the site. The area south of the project site includes the Silverado Belmont Memory Care facility and additional residential development. The area west of the project site (west of Laxague Drive) includes Notre Dame Elementary School, Notre Dame High School Belmont, and the Sisters of Notre Dame De Namur Convent.

3.1.3 EXISTING SITE CONDITIONS

The 45.6-acre project site currently contains academic and housing buildings concentrated in the north and central portion of the project site. The project site is bounded by an internal access road that connects to Ralston Avenue. On the eastern edge of the project site is a parking lot. On the southern edge of the project site along Ralston Avenue and adjacent to Notre Dame High School is the NDNU theater and recreational field, known as Koret Field, as well as tennis courts and parking. Another grouping of academic and housing development, including Ralston Hall Mansion, is on the western edge of the project site.

The topography varies across the project site, with a roughly 155-foot downslope difference in grade from north to south. The majority of the existing buildings sit on a large flat plateau toward the center of the site, which is bounded by upslope hillsides to the north and a steep downslope hillside to the south. An intermittent tributary to Belmont Creek runs in a wooded riparian corridor along the southern boundary of Laxague Drive. Several large, mature redwoods and coast live oak trees are scattered throughout the site, and eucalyptus trees dominate the edges along Laxague Drive and the main entry access road.

As shown in Table 3-1, *Existing Development on the Project Site*, the project site contains 318,156 square feet of existing academic facilities, academic support facilities, and student housing. The heights of existing buildings vary across the project site. Apart from the 257-foot-tall monument adjacent to the on-site chapel, the tallest building on the project site is Ralston Mansion, which is 43 feet above existing grade.

TABLE 3-1 EXISTING DEVELOPMENT ON THE PROJECT SITE

Existing Buildings	Square Footage	Type	Rooms [a]	Units [b]
Taube	3,268	Academic/Support		
Gym	19,124	Academic/Support		
Chapel	10,146	Academic/Support		
Library	19,380	Academic/Support		
St. Joseph	25,191	Academic/Support & Student Housing	40	
Campus Center	11,421	Academic/Support		
St. Mary's	21,614	Academic/Support		
Juliet Billiart	24,581	Academic/Support & Student Housing	60	
Wilkie, Kane, Carroll Apartments	32,466	Student Housing		36
Oaks	2,656	Academic/Support		1
New Hall East & New Hall West	40,191	Student Housing	50	1
Toso (Compeigne, Courtrai, Namur)	8,505	Academic/Support		
Tabard	973	Academic/Support		
Gavin	3,426	Academic/Support		
Bookstore	960	Academic/Support		
Cuvilly	8,224	Academic/Support		
Madison	25,572	Academic/Support		
Ralston Hall	46,870	Academic/Support		
Theatre	13,588	Academic/Support		
Total	318,156		150 Rooms	38 Units

Notes:
a. "Rooms" refers to dormitory housing.
b. "Units" refers to apartment housing.
Source: Stanford University, 2022, "Application for a Conceptual Development Plan and a Development Agreement."

3.1.4 GENERAL PLAN LAND USE DESIGNATION AND ZONING

The General Plan land use designation and zoning for the project site are Institution and Planned Unit Development, respectively.

The General Plan land use designations for the areas surrounding the project site are Residential Low Density (RES-L), Public/Community Facilities (PCF), and Residential High Density (RES-M). The zoning districts in the surrounding areas are Single Family Residential, 1 acre/du (dwelling unit) (R1E); Public Space (PS); Single Family Residential, 6,000 square feet/du (R1B); Single Family Residential, 5,000 square feet/du (R1C); and Single Family Residential, 1/2 acre/du (R1H).

3.2 PROJECT BACKGROUND

NDNU is an accredited, independent Catholic, coeducational, university offering graduate, credential, and undergraduate degree completion programs. While still currently in use, NDNU was last at full capacity in

2013. (Please see Chapter 4, *Environmental Evaluation*, of this Draft EIR for an explanation of the baseline conditions used in this EIR as they relate to the past usage of the project site.)

In September 2021, Stanford entered into an *option to purchase agreement* regarding Stanford's potential purchase of the project site. The planning area for the proposed project includes the entire NDNU campus. It does not include Notre Dame High School or Notre Dame Elementary School or the Province Center.

Stanford began a public outreach process for the proposed project in February 2022. Stanford maintains a website for the proposed project, allowing the public to weigh in directly to Stanford on key issues and download information about the project. The CDP application was submitted to the City of Belmont on October 5, 2022.

3.3 INTENDED USES OF THIS EIR

This EIR is intended to identify and assess potential environmental impacts associated with the approval and implementation of the proposed project and to determine corresponding mitigation measures, if necessary. This EIR provides a program-level analysis of the proposed project. This EIR does not evaluate project-level impacts of future activities. For further discussion on the scope of this EIR, please refer to Chapter 2, *Introduction*, Section 2.2, *EIR Scope,* of this Draft EIR.

3.4 COMPONENTS OF THE PROPOSED PROJECT

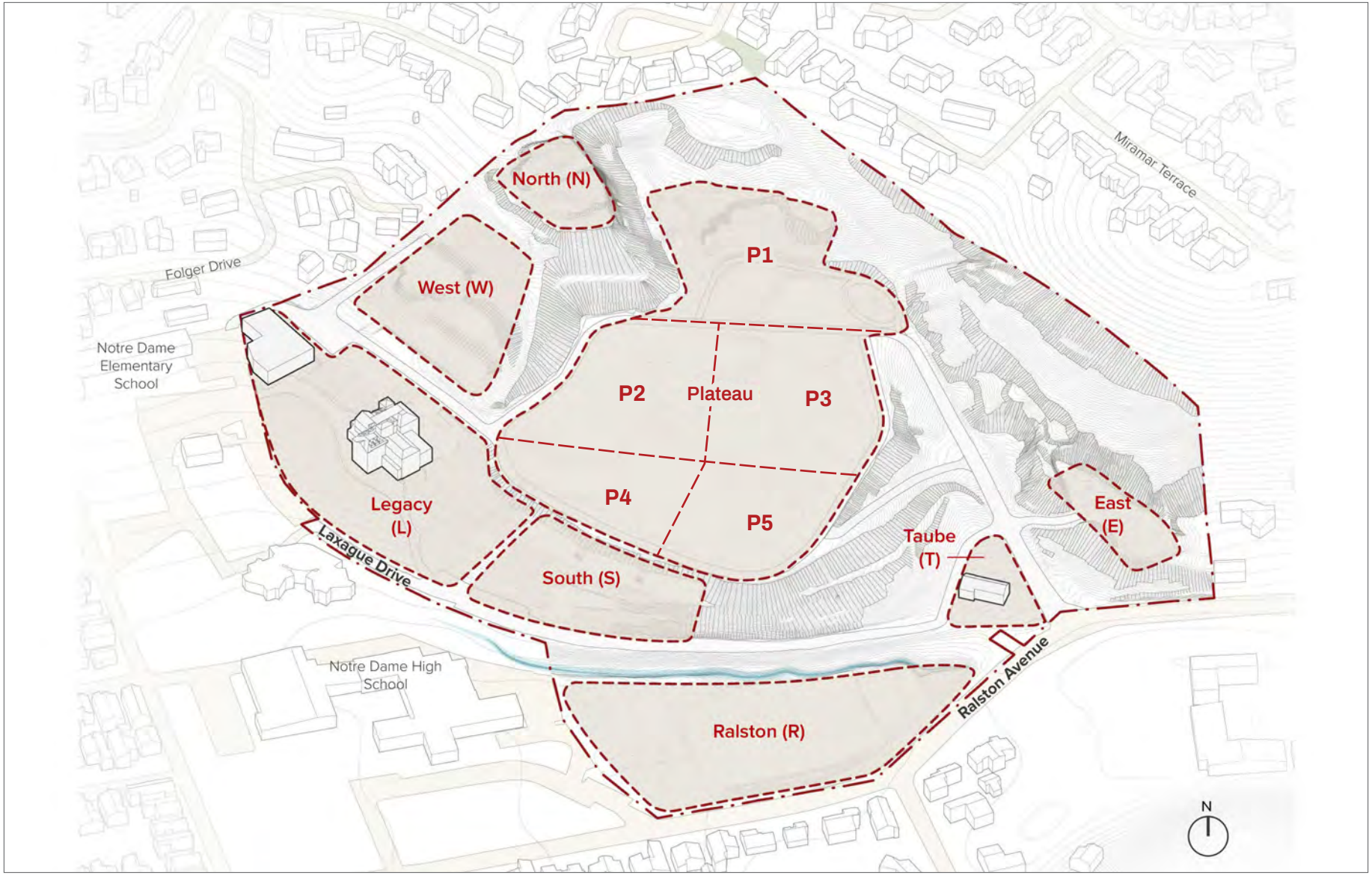
This section describes the contents of the proposed project. At this time, there are no specific development or improvement plans proposed; such proposals would be submitted to the City of Belmont after Stanford has secured approval of the proposed project. Stanford would identify the planned program details for the first phase of the proposed Stanford Belmont Campus when it proposes specific development and improvement plans.

Under the proposed project, all structures, with the exception of Taube Center, Ralston Mansion, and Madison Art Center (carriage house), would be removed over time and their square footage would be replaced. Proposed new development would occur in the designated development areas, which are outlined on Figure 3-3, *Proposed Development Areas*. Spaces outside of the development areas, which are mainly natural areas, would be preserved. The proposed project would not require a change in either the General Plan designation or zoning for the project site.

3.4.1 ORGANIZATION OF THE CONCEPTUAL DEVELOPMENT PLAN

The proposed CDP is an overarching plan to guide long-term development of the proposed Stanford Belmont Campus. The CDP contains the following sections:

- **Proposed Land Uses.** This section gives an overview of the land uses that would occur as part of the proposed project. This section also provides definitions and examples of terms that are used to describe the land use types.
- **Existing and Proposed Density; Dwelling Unit Density.** This section outlines what changes to the buildings on the project site would occur and the existing and proposed density. This section also provides further detail on the proposed project's overall building square footage, parking stall amount, site floor-area ratio (FAR), and residential dwelling unit density.
- **Development Areas.** In this section, development areas are identified and described. Other spaces that were not intended as development areas are also identified and described.
- **Proposed Building Heights.** This section of the CDP labels the varying maximum heights in each development area as part of the proposed project.
- **Conceptual Framework Plan.** In this section, the conceptual framework plan is explained. Different physical and design elements of the proposed project are highlighted to describe their specific characteristics.
- **Proposed Circulation Systems.** This section of the CDP outlines the proposed circulation system that would be part of the proposed project, including emergency access and service routes.
- **Proposed Utility Systems.** In this section, various utility systems are described and proposed upgrades are identified.
- **Proposed Recreation Fields and Open Spaces.** This section describes the existing Koret Field and how it would remain a recreation area. This section also outlines that there would be additional private green spaces as part of the proposed project, but no additional recreation areas.
- **Landscape.** This section describes the landscape framework and identifies landscape typologies that are part of the existing project site.
- **Implementation: Utilities and Parking.** This section gives an overview of the phased approach of the plan and the estimated number of years it will take to reach full development of the plan.



Source: Stanford University, Proposed Conceptual Development Plan, 2022.

Figure 3-3
Proposed Development Areas

3.4.2 PROPOSED DEVELOPMENT

As shown in Table 3-2, *Existing and Proposed Development*, Stanford proposes increasing the building area to a total of 700,000 square feet, with parking meeting the City's standards to be provided with each phase of development.

TABLE 3-2 EXISTING AND PROPOSED DEVELOPMENT

	Existing Conditions (2024)	Proposed Project
Site Area (Acres)	45.65	45.65
Site Area (Square Feet)	1,988,514	1,988,514
Building Area (Square Feet)	318,156	700,000
Parking Stalls	624	950 to 1,350
Stalls per 1,000 Square Feet of Building Area	2.24	1.38 to 1.93
Building Heights (Feet)	13 to 43	45 to 75
Site Floor-Area Ratio [1]	0.16	0.35
Housing Units	38	50 to 200
Residential Population	11	127 to 508

Notes: N/A = not available
[1] Floor-area ratio (FAR) is the measurement of a building's floor area in relation to the size of the lot/parcel that the building is located on.
Source: Stanford University, 2022, "Application for a Conceptual Development Plan and a Development Agreement."

Daytime and residential population estimates for the proposed project are shown in Table 3-3, *Population Projections*. The location is currently not at full capacity, and a charter school and high school are being operated out of a small portion of the buildings. Currently, 11 people live on the project site.

TABLE 3-3 POPULATION PROJECTIONS

	NDNU Full Occupation (2013)	Current Daily Occupation (2024)	Proposed Project (Estimated)
Daytime Population			
Faculty Population	246	100	251
Staff Population	175	N/A	1,004
Student Population	2,030	232	1,254
Total Daytime Population	2,451	332	2,509
Residential Population	441	11	127 to 508

Source: Stanford University, 2023.

3.4.2.1 PROPOSED LAND USES

Stanford proposes to construct and operate some combination of academic facilities, associated academic support uses, and housing.

Academic uses may include facilities used for teaching, learning, research, collaboration, athletics, recreation, performance, and art.

Academic support uses may include all nonacademic uses that facilitate the day-to-day operation of the academic uses. These include activities not conducted by Stanford and commercial uses that meet the following criteria: (1) the use supports academic programs; or (2) the use primarily serves faculty, students, staff, and program attendees.

Examples of support uses include, but would not be limited to, retail food service; retail book and academic supplies; copy and computer services; childcare; convenience retail; bike shop; transit hub or connection facilities; central energy facility; steam plants; mechanical equipment; water supply infrastructure, distribution, and storage; wastewater storage, treatment, and reuse facilities; stormwater capture facilities; energy supply infrastructure and equipment, including solar energy facilities; heating and cooling facilities; composting facilities; waste recycling and reuse facilities; landscape and service yard operations; art installations; recreation facilities; cellular, radio, and similar transmission and reception facilities; storage facilities and containers; and portable trailers used for temporary purposes, such as surge space and construction office.

Housing uses proposed for the project site would include dormitory-style group housing and apartment-style housing. Apartments may be occupied by faculty, staff, postdoctoral scholars, medical residents, visiting scholars, graduate students, undergraduate students, and academic program attendees.

3.4.2.2 DEVELOPMENT AREAS

The precise locations of individual new buildings are not known at this time and would be shown on subsequent Detailed Development Plans (DDP) submitted to the City for review and approval consistent with the proposed project. The general development areas for proposed new buildings, structures, and building groups would be as shown on Figure 3-3. Development would be concentrated on the existing, developed plateau. Development within the remaining building areas would be more limited and at lower densities. The proposed CDP organizes the project site into the following eight development areas that reflect the existing conditions of the site:

- **North (N).** This area is on the most northern edge of the project site. Currently, there are no buildings in this area. Currently undeveloped, the area would be envisioned for low-intensity use with low building heights.
- **West (W).** This area is on the western edge of the project site and is directly adjacent to existing Belmont homes. Some of the existing buildings in this zone include Courtrai, Namur, Gavin Hall, and the bookstore. These would be removed over time and replaced.
- **Plateau (P).** This area in the northern and central part of the project site is the largest flat area on the project site. It would be the academic core. Some of the existing buildings in this zone include Gleason Gym, chapel, New Hall, and Gellert Library. These would be removed over time and replaced.
- **Legacy (L).** This area is in the western part of the project site and includes the Ralston Hall Mansion and Madison Art Center (carriage house), which would be preserved.
- **Ralston (R).** This area is at the southern edge of the project site and currently includes Koret Field, an old theater building, some tennis courts, and parking. The theater building would be removed over

time and Koret Field, tennis courts, and parking could be removed and upgraded or redeveloped over the lifetime of the project.

- **South (S).** This area is right above the Ralston area and connects the Ralston and Plateau areas. Some of the existing buildings in this area include campus apartment buildings and academic/support buildings, such as Wilkie, Kane, Carrol, and Oaks. These would be removed over time and replaced.
- **Taube (T).** This area is in the southeastern part of the project site. This area includes the Taube Center and the primary entrance to the project site. The Taube Center would be preserved.
- **East (E).** This area is in the easternmost portion of the project site and includes an existing parking lot. The East area sits on a smaller plateau above the entrance and below the Plateau, with the capacity for development that could be visible from Ralston Avenue.

Stanford proposes to locate academic facilities, associated academic support uses, and housing in any of these development areas. Stanford anticipates that all of the housing would be dormitory or apartment-style housing, such that housing would be clustered in one or more relatively dense configurations rather than spread at a low density across the project site.

3.4.2.3 BUILDING HEIGHTS

Table 3-4, *Proposed Building Heights*, indicates the maximum height proposed for each development area. Proposed heights take into consideration the site's topography. Any new building sites that would be on slopes would feature smaller, stepped building footprints. The tallest maximum height of proposed structures is 75 feet above grade.

TABLE 3-4 PROPOSED BUILDING HEIGHTS

Development Area	Proposed Height (Feet)
Legacy (L)	45
South (S)	45
Ralston (R)	45
Plateau (P)	
P1	75 and 45
P2 & P4	75
P3 & P5	60
Taube (T)	45
East (E)	60
North (N)	20
West (W)	45

Source: Stanford University, 2022, "Application for a Conceptual Development Plan and a Development Agreement."

3.4.3 SITE CHARACTER

The proposed site design is intended to reflect the village-like character of Belmont while incorporating design features similar to those found at other Stanford campus locations. Outdoor spaces at the Stanford Belmont Campus would promote a diverse variety of programs and activities, ranging from large active communal spaces to secluded gardens.

The proposed conceptual framework plan in the CDP is made up of nine elements that include both "connections" and "nodes." Connections would be pathways through the project site that can be used for pedestrian, bicycle, or automobile access, or a combination of all three. Connections could also connect the campus with adjacent Belmont neighborhoods. Nodes would be developed where certain connections intersect and serve as important junctures of activity within the project site by providing moments for gathering and community building.

The nine connections and nodes of the proposed conceptual framework plan in the CDP are listed and described here; an overview of the connections and nodes is shown on Figure 3-4, *Proposed Conceptual Framework Plan*.

1. The Greenway. This area would be at the middle of the project site and would run north to south. This would connect to a number of developmental areas, including the square. The greenway is envisioned as a central element of the campus and would also provide stormwater drainage and treatment.
2. Academic Mall. This area would be the pedestrian walkway that would run from east to west of the project site and would connect the Legacy Area and the Square. This area would provide gathering spaces for students and faculty.
3. The Ridgewalk. This area would follow the ridgeline around the main plateau of the project site from the top of the Entry Drive and Plateau Node around to the intersection of the Academic Mall at the edge of the Legacy Area. This area would mainly be used for bicycle and pedestrian circulation.
4. Entry Drive. Entry Drive is the existing entry road from Ralston Avenue up to the main portion of the existing project site. This would be the primary entrance to the project site. Beginning at the intersection of Ralston Avenue, Entry Drive would continue uphill where it would connect to the main plateau of the project site. Entry Drive is also part of the bicycle network system and link to pedestrian sidewalk facilities that will connect to the project site pedestrian network system.
5. Plateau Node. This area would be in the middle of the project site and would connect into the Greenway. This area would be designed with a curbless plaza environment in mind and would be mainly used by pedestrians.
6. Laxague Drive. This roadway would connect the Legacy buildings of Ralston Mansion and Madison to the project site entry at Ralston Avenue. Laxague Drive would become the formal entrance to the Legacy Area and would include pedestrian connections and potentially a parking structure.
7. Square. Located in the central node on the “Plateau” development zone, at the intersection of the Greenway and Academic Mall, the Square would connect the Plateau Node, the Legacy Node, and the Creekside Node. From this vantage point, views of the Greenway and the hills beyond the site would be visible.
8. Legacy Node. This node would be where Ralston Manor and the Madison Art Center are located. In this node, Ralston Manor would be renovated and used to host a variety of activities and events.
9. Creekside Node. The Creekside node is another organizing feature that will provide a pedestrian connection between the upper “Plateau” development zone and Laxague Drive. The grade change between the two levels will not allow for vehicular connection at this point. This node would become a circulation transition between lower Laxague Drive and the upper ridgewalk. This node might support a parking structure and/or a bike facility.

Source: Stanford University, Proposed Conceptual Development Plan, 2022.

Figure 3-4
Proposed Conceptual Framework Plan

3.4.4 PROPOSED RECREATION FIELDS AND OPEN SPACES

The proposed CDP states that, as part of a package of community benefits in a DA (described in Section 3.6, *Required Permits and Approval*), the existing Koret Field would remain a recreation field for the duration of the DA and would be available for public use through the execution of a joint-use agreement or other similar arrangement with the City.

Physical improvements within recreation and open space areas would include recreation improvements, landscaping, art installations, utilities, antennas, on-site roadways, circulation improvements, surface water treatment facilities, retention basins, and small structures.

The proposed project does not include any additional public recreational or open space facilities. However, the project site, but not buildings, would be open to the general public during normal business hours. The project site would remain in private ownership, and as private property, Stanford would reserve the right to secure and/or limit access to portions of their property if they deem it necessary. All areas would be maintained by Stanford.

3.4.5 PROPOSED LANDSCAPE FRAMEWORK AND TREE RETENTION

The proposed landscape framework has the goal of establishing typologies that are appropriate to their locations, are resilient, require little supplemental water, and establish a rich palette of plants that provide year-round interest. These materials could also be used in teaching and provide examples of sustainable methods of care.

In the undeveloped portions of the site, Stanford expects that less than 10 percent of existing trees would be removed. In each of the development areas, although efforts would be made to preserve trees, to the extent feasible, to maintain the established feel, existing trees may be removed.

A detailed drought-tolerant vegetation plan that reflects California native plantings would be developed with the first DDP.

- Woodland. This area would continue to wrap around the site along the steep cliffs. This area would provide an opportunity to restore native trees over time following Belmont's existing tree preservation ordinance.
- Interior. This would become an open space and potentially include lawns as well as ornamental plants. Most of the plants in this area would be native or climate/adaptive that would require less ongoing maintenance and provide slope stabilization and assist in stormwater infiltration.
- Riparian. This area is characterized by the existing drainage fed by regional runoff and would be maintained as a stormwater drainage feature.
- Legacy Landscape. The landscaping in this area would be directly related to the legacy structures within this area. Any of the plants being rehabilitated or restored would be in connection with the preservation of the structures in this development area.

3.4.6 TRANSPORTATION AND ACCESS

The proposed project would include between 950 and 1,350 parking spaces, based on the amount of building square footage proposed. With each phase of development, Stanford would coordinate with the City to determine the number of parking spaces needed. With each DDP application, Stanford would propose vehicular and bicycle parking, including electric vehicle (EV) charging, proportional to the amount and type of development proposed. Adequate parking would be provided with each phase of development. Where appropriate, existing surface lots may continue to be used until the development area of the surface lot is redeveloped. Figure 3-5, *Proposed Private Streets and Parking Locations*, illustrates the potential parking locations and the vehicular circulation of the project site. Currently, it is not yet known whether the proposed parking will be in "above-grade" or "below-grade" parking structures; when a future application is submitted to the City, environmental impacts related to parking infrastructure will be compared to the analysis in this EIR to determine whether additional project-level analysis is required.

As shown in Figure 3-6, *Proposed Bicycle and Pedestrian Circulation*, biking paths would generally be around the outside plateau of the project site; meanwhile, major pedestrian circulation would be in the plateau area of the project site. The ridgeway area is where mixed bike and pedestrian circulation is proposed.

Service routes for the proposed project are shown in Figure 3-7, *Proposed Service Routes*. In broad terms, the service routes would be located throughout the project site but outside of the plateau area. Services include loading, package deliveries, garbage and trash collection, and parking for maintenance and service vehicles.

Conceptual emergency access to the proposed project is shown on Figure 3-8, *Proposed Emergency Access*. As shown on the figure, three potential emergency access options are proposed on the western side of the project site.

3.4.7 PROPOSED UTILITY SYSTEMS

The project site is served by public water supply, wastewater collection and treatment, and storm drainage facilities. Stanford would reuse and upgrade existing on-site utilities, where possible. Development of the Stanford Belmont Campus may also require installation of new utility improvements as deemed necessary. Necessary utility layouts would vary with each development area. Stanford would provide a utility master plan to the City with the submittal of the first DDP and update the site utility master plan over time as subsequent phases of development are submitted for review and approval. Preliminary conceptual plans for water lines, sanitary sewer lines, and storm drain lines are provided on Figure 3-9, *Proposed Conceptual Water Line Plan*; Figure 3-10, *Proposed Conceptual Sanitary Sewer Line Plan*; and Figure 3-11, *Proposed Conceptual Storm Drain Line Plan*.

The project site lies on an existing hillside and is subject to stormwater runoff during the winter months. The existing watershed would be preserved and modified, and the majority of stormwater on the project site would be directed down through a central greenway in which the stormwater would be remediated and infiltrated before it flows under Ralston Avenue to Belmont Creek.

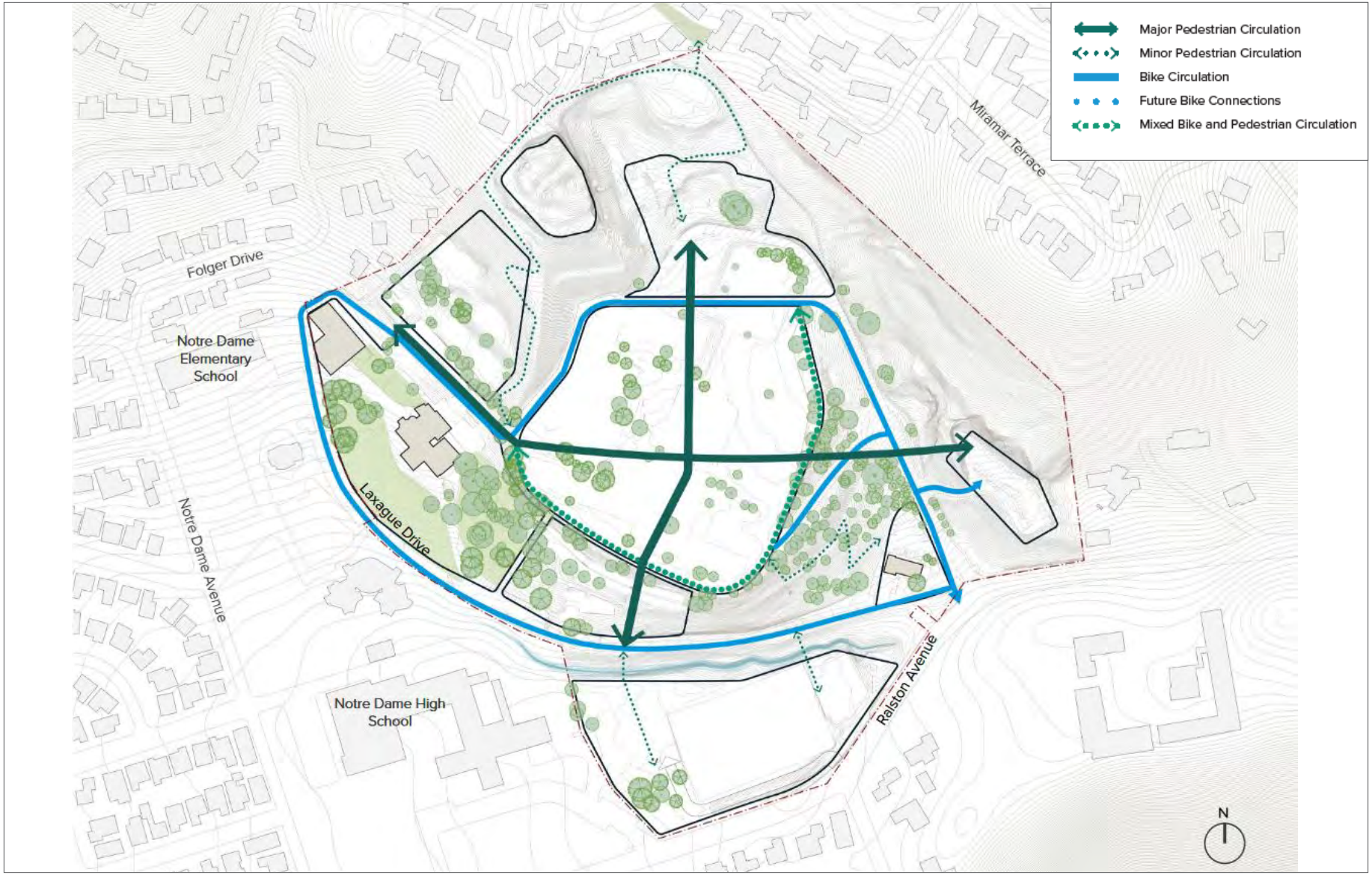
Source: Stanford University, Proposed Conceptual Development Plan, 2022.

Vehicular Circulation

P Potential Parking Location

Figure 3-5

Proposed Private Streets and Parking Locations



Source: Stanford University, Proposed Conceptual Development Plan, 2022.

Figure 3-6
Proposed Bicycle and Pedestrian Circulation

Source: Stanford University, Proposed Conceptual Development Plan, 2022.

Figure 3-7
Proposed Service Routes

Source: Stanford University, Proposed Conceptual Development Plan, 2022.

Emergency Circulation

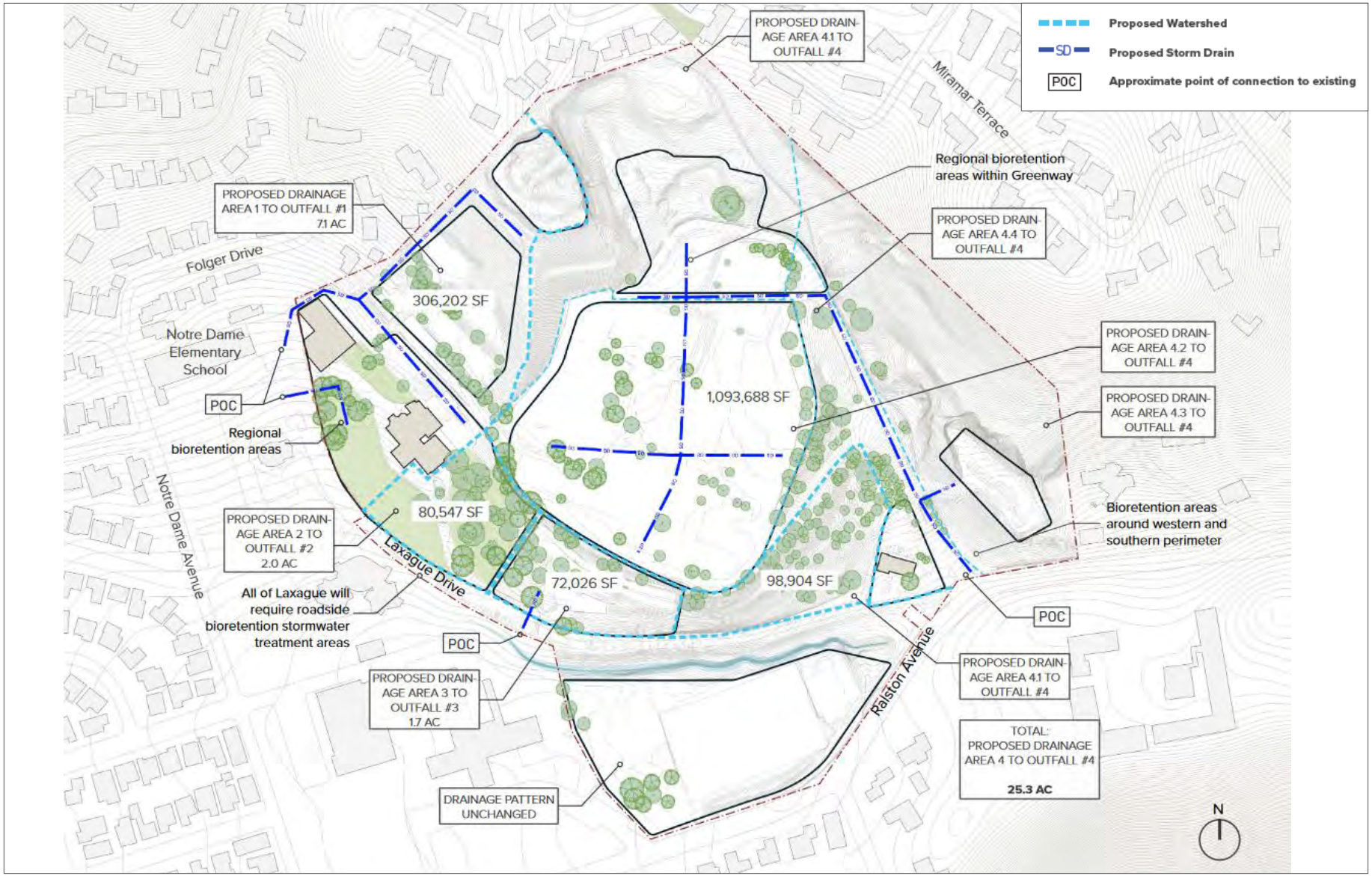
Figure 3-8
Proposed Emergency Access

Source: Stanford University, Proposed Conceptual Development Plan, 2022.

Figure 3-9
Proposed Conceptual Water Line Plan

Source: Stanford University, Proposed Conceptual Development Plan, 2022.

Figure 3-10
Proposed Conceptual Sanitary Sewer Line Plan



Source: Stanford University, Proposed Conceptual Development Plan, 2022.

Figure 3-11
Proposed Conceptual Storm Drain Line Plan

3.4.8 SUSTAINABILITY FEATURES

The proposed project would include several sustainability features. Key features consistent with regulatory requirements that are in place as of January 1, 2023, include the following:

- A robust Transportation Demand Management (TDM) program would be implemented to minimize trips in single-occupant vehicles in favor of alternative transportation modes, including public transit, walking, biking, teleworking, carpooling, and vanpooling. The TDM program would incorporate measures designed to achieve the reduction in single-occupant vehicle trip generation rates required by Section 8A.7 of the Belmont Zoning Ordinance.
- All new residential buildings would achieve net zero-energy usage. No later than 2030, all new nonresidential buildings would achieve net zero-energy usage. Refer to the California Energy Code.
- EV charging stations would be provided at parking stalls in proportions consistent, at minimum, with then-current code requirements. The City of Belmont Reach Code overrides certain sections of the California Green Code regarding the installation of EV chargers for all residential and commercial projects due to its more stringent application of the code.
- Residential buildings would be entirely electric and would use no natural gas. This is addressed in the City of Belmont Reach Code, which addresses the requirements for all newly constructed buildings to be fully electric. Certain exceptions can be sought depending on all affordable developments.
- Water-efficient interior plumbing fixtures, appliances, and equipment would be installed in all new buildings. This is addressed in Chapter 4 of the California Green Building Code.
- Green infrastructure techniques would be used on-site to treat stormwater runoff from the project site. This is addressed in the City of Belmont Municipal Code, Section 7-17; the California Green Code; and the California Plumbing Code.
- A minimum of 65 percent of nonhazardous construction and demolition waste would be recycled and/or salvaged for reuse. Refer to California Green Building Code Chapter 4.
- 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing would be reused or recycled.
- Readily accessible areas would be provided that serve the entire project site for deposit, storage, and collection of nonhazardous materials for recycling, including, at a minimum, paper, corrugated cardboard, glass, plastics, organic waste, and metals. These areas would be subject to Public Works requirements for exterior collection areas that require a structure for these materials and/or require drainage to a sanitary sewer.

In addition to compliance with regulatory standards, the proposed project would include, at a minimum, the following key sustainability features that are not required by regulations or ordinances:

- All electricity used at the Stanford Belmont Campus would be generated from renewable sources, either through purchase from the City of Belmont's green energy provider (Peninsula Clean Energy) or through other means.

- To the extent feasible, all diesel-powered equipment used for construction of the proposed project would satisfy Tier 4 standards.

3.4.9 FUTURE DEVELOPMENT PHASING AND CONSTRUCTION ACTIVITIES

The proposed project is intended to renovate and revitalize the project site in a phased manner over a 30-year time frame. The first development area has not yet been determined.

Over the 30-year buildout horizon, Stanford may at times elect to occupy and upgrade existing structures for academic and academic support uses at the Stanford Belmont Campus prior to implementing the proposed project. In this event, Stanford may need to maintain operations in existing buildings and efficiently transfer uses, equipment, and occupants from existing buildings to new or expanded buildings.

Future development projects that implement the proposed project would involve the following construction activities:

- Building and site demolition
- Earthwork, including excavation, grading, utility trenching
- Import and export of materials and soil/fill
- Construction staging
- Building and site construction
- Utility installation and upgrades
- Site transportation and access improvements
- Landscaping installation and potential tree removal

3.5 PROJECT OBJECTIVES

The objectives for the proposed project include:

- Authorize use and redevelopment of the Stanford Belmont Campus to provide high-quality academic opportunities over a 30-year development period.
- Provide flexibility to develop the Stanford Belmont Campus within a framework that enables Stanford to support evolving academic needs, while minimizing potential negative effects on the surrounding community.
- Enable development that welcomes the community through both physical connections and community-accessible programs and activities.
- Fulfill Stanford's academic mission by creating a new cohesive, walkable project with state-of-the-art buildings tailored to their academic programs.
- Foster collaboration and learning through on-site housing for occupancy by faculty, staff, postdoctoral scholars, medical residents, visiting scholars, graduate students, undergraduate students, and academic program attendees.

- Use the redevelopment of the Stanford Belmont Campus as a catalyst to re-energize and activate the site as a more attractive and community-oriented space for Belmont residents.

3.6 REQUIRED PERMITS AND APPROVALS

This document serves three primary purposes. First, the City of Belmont will use this EIR to evaluate the environmental implications of approving the proposed CDP and the DA, which is a negotiated agreement between Stanford and the City of Belmont that will describe the proposed community benefits to be provided by Stanford in exchange for the ability to implement the CDP over a 30-year period. Second, if this EIR is certified and the proposed CDP and DA are approved, this EIR will be used in connection with future environmental review of subsequent development approvals implementing the CDP and DA. Finally, this document may be used as a source of information and a CEQA compliance document by responsible, trustee, or federal agencies with permitting or approval authority over projects or portions of projects implementing the proposed CDP and DA.

The City of Belmont is the lead agency under CEQA. The City of Belmont Planning Commission and City Council shall consider the Final EIR, certify the Final EIR, and adopt the Mitigation Monitoring and Reporting Program. This certification shall include the findings that the Final EIR has been completed in compliance with CEQA. No other agency approval is required for the proposed CDP and DA. However, under limited circumstances, other permits and approvals may be needed depending on the characteristics of the future activity.

Future development proposals would require the submittal of DDPs to the City for review and approval and would be required to obtain all necessary permits, including design review, grading permits, and tree removal permits. Stanford would prepare a detailed vegetation plan and utility master plan with the first DDP.

Later activities consistent with the proposed project will be reviewed to determine whether further environmental review is needed, as described in Section 2.2, *EIR Scope*.[1]

[1] CEQA Guidelines Section 15168(c) and CEQA streamlining provisions.

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4. Environmental Analysis

This chapter describes the organization of the environmental analysis section of this Draft Environmental Impact Report (EIR) and the assumptions and methodology of the direct, indirect, and cumulative impact analysis regarding the proposed Conceptual Development Plan (CDP) and Development Agreement (DA) to create the proposed Stanford Belmont Campus. The proposed CDP and DA are herein referred to together as the "proposed project."

CHAPTER ORGANIZATION

This chapter of the Draft EIR is made up of 18 subchapters that evaluate the direct, indirect, and cumulative environmental impacts of the proposed project. In accordance with Appendix F, *Energy Conservation*, and Appendix G, *Environmental Checklist*, of the CEQA Guidelines, the potential environmental effects of the proposed project are analyzed for potential significant impacts in the following 18 environmental issue areas, which are organized with the listed abbreviations:

4.1 Aesthetics (AES)
4.2 Air Quality (AQ)
4.3 Biological Resources (BIO)
4.4 Cultural Resources (CULT)
4.5 Energy (ENE)
4.6 Geology and Soils (GEO)
4.7 Greenhouse Gas Emissions (GHG)
4.8 Hazards and Hazardous Materials (HAZ)
4.9 Hydrology and Water Quality (HYD)
4.10 Land Use and Planning (LU)
4.11 Noise (NOISE)
4.12 Parks and Recreation (REC)
4.13 Population and Housing (POP)
4.14 Public Services (PS)
4.15 Transportation (TRAN)
4.16 Tribal Cultural Resources (TCR)
4.17 Utilities and Service Systems (UTIL)
4.18 Wildfire (WILD)

Each subchapter is organized into the following sections:

- Environmental Setting offers a description of the existing environmental conditions, providing a baseline against which the impacts of the proposed project can be compared, and an overview of federal, State, regional, and local laws and regulations relevant to each environmental issue.
- Standards of Significance refer to the quantitative or qualitative standards, performance levels, or criteria used to evaluate the existing setting with and without the proposed project to determine whether the impact is significant. These thresholds are based primarily on the CEQA Guidelines, and may also reflect established health standards, ecological tolerance standards, public service capacity standards, or guidelines established by agencies or experts.
- Impact Discussion gives an overview of the potential impacts of the proposed project and explains why impacts are found to be significant or less than significant prior to mitigation. This subsection also includes a discussion of cumulative impacts related to the proposed project. Impacts and mitigation

measures are numbered consecutively within each topical analysis and begin with an acronym or abbreviated reference to the impact section.

STANDARDS OF SIGNIFICANCE

As stated above, significance criteria are identified before the impact discussion subsection, under the subsection, "Standards of Significance." For each impact identified, a level of significance is determined using the following classifications:

- No Impact. A no impact conclusion describes circumstances where there is no adverse effect on the environment.
- Less Than Significant (LTS). A less-than-significant impact includes effects that are noticeable, but do not exceed established or defined thresholds, or can be mitigated below such thresholds.
- Significant (S). A significant impact includes a description of the circumstances where an established or defined threshold would be exceeded. For each impact identified as being significant, the EIR identifies mitigation measures to reduce, eliminate, or avoid the adverse effect. If one or more mitigation measure(s) would reduce the impact to a less-than-significant level, this is stated in the EIR.
- Significant and Unavoidable (SU). Significant and unavoidable impacts are described where mitigation measures would not diminish these effects to less-than-significant levels. The identification of a program-level significant and unavoidable impact does not preclude the finding of less-than-significant impacts for subsequent projects that comply with the applicable regulations and meet applicable thresholds of significance.

EVALUATION METHODOLOGY

Under CEQA, the decision as to whether an environmental effect should be considered significant is reserved at the discretion of the City of Belmont (City), acting as the lead agency, based on substantial evidence in the record as a whole, including views held by members of the public. An ironclad definition of "significant effect" is not always possible because the significance of an activity may vary based on the setting. The analysis in the Draft EIR is based on scientific and factual data that has been reviewed by the lead agency and represents the lead agency's independent judgment and conclusions.[1] This section describes the methodology for the program-level evaluation in Chapters 4.1 through 4.18.

[1] California Code of Regulations, Title 14, Division 6, Chapter 3, Section 15064(b).

DEVELOPMENT POTENTIAL

The environmental analysis in this EIR discusses the potential for adverse impacts to occur as a result of the increased development potential at the project site from implementation of the proposed project. As discussed in Chapter 3, *Project Description*, of this Draft EIR, the proposed project would be implemented in a phased manner during a 30-year time frame. At this time, there are no specific development or improvement plans proposed; such proposals will be submitted to the City of Belmont after approval of the proposed CDP. However, the proposed Stanford Belmont Campus would increase the building area to a total of 700,000 square feet with up to 200 housing units, resulting in an estimated daytime population of 2,509 and an estimated residential population of 508. A comparison of existing and proposed development and population estimates of the proposed project are shown in Table 3-2, *Existing and Proposed Development*, and Table 3-3, *Population Projections*, respectively, in Chapter 3, *Project Description*, of this Draft EIR.

BASELINE

This EIR does not evaluate the proposed project compared to the full potential buildout allowed by the existing CDP, but rather evaluates the impacts of the proposed project compared to existing conditions, as required by CEQA Guidelines Section 15126.2. Generally, baseline represents the existing physical conditions "on the ground." As allowed under CEQA Guidelines Section 15125(a)(1), this EIR uses two baseline conditions. For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) is used. This includes the analyses for the environmental topics of aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, and wildfire. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. This includes the analyses for the environmental topics of air quality, GHG emissions, energy, parks and recreation, population and housing, public services, transportation, and utilities and service systems.

CITY OF BELMONT STANDARD DEVELOPMENT REQUIREMENTS AND CONDITIONS OF APPROVAL

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. Complex projects generally include General Plan amendments; rezonings; new buildings greater than 10,000 gross square feet in size; major subdivisions of land into five or more lots or condominium units; tentative maps; vesting tentative maps; roadway improvement plans; and projects that include multiple, interrelated project entitlements. The City's standard conditions were formally adopted in March 2023 via City Council Resolution No. 2023-034 and are listed in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR.

The standard conditions were developed in part to implement the City's 2035 General Plan EIR, and are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. By applying SDRs and COAs to large and complex development projects, regardless of the level of CEQA review required for projects, the City anticipates that the environmental effects of development projects will be substantially lessened.

Chapters 4.1 through 4.18 identify the applicable City standard conditions relevant to CEQA standards of significance and discuss their effect in avoiding or reducing impacts to the environment from the construction and operation of future development on the project site under the proposed project.

In some cases, standard conditions may involve temporary physical effects during construction or short-term physical effects during operation that would have the potential to create or contribute to an impact on the environment. The environmental effects of implementing the City's standard conditions would generally be nominal when compared to the overall effects of the construction and operation of the future development projects with which they are associated. For example, an air quality COA included in Chapter 4.2, *Air Quality*, requires watering of active construction sites in compliance with the Bay Area Air Quality Management District's basic control measures for fugitive dust; this COA would use a nominal amount of water during the temporary construction period compared to the ongoing operation of a development project. The combined effect of SDRs and COAs, when implemented as part of construction and operation of future development projects or daily maintenance operations, would be to reduce environmental effects as demonstrated where listed in each environmental topic of this Draft EIR.

PRIORITY DEVELOPMENT AREAS AND TRANSIT PRIORITY AREAS

Plan Bay Area is the San Francisco Bay Area's Regional Transportation Plan and Sustainable Communities Strategy, prepared by the Association of Bay Area Governments (ABAG) in partnership with the Metropolitan Transportation Commission (MTC), the Bay Area Air Quality Management District, and the Bay Conservation and Development Commission. Plan Bay Area 2050, adopted October 21, 2021, is the current version.[2] Plan Bay Area is a limited and focused update to the Plan Bay Area 2040, with updated planning assumptions that incorporate key economic, demographic, and financial trends from the last several years.

Plan Bay Area provides transportation and environmental strategies to continue to meet the regional transportation-related GHG reduction goals of Senate Bill (SB) 375. Under the Plan Bay Area strategies, just under half of all Bay Area households would live within one half-mile of frequent transit by 2050, with this share increasing to over 70 percent for households with low incomes. Transportation and environmental strategies that support active and shared modes, combined with a transit-supportive land use pattern, are forecast to lower the share of Bay Area residents that drive to work alone from over 50 percent in 2015 to 36 percent in 2050. GHG emissions from transportation would decrease significantly as a result of these transportation and land use changes, and the Bay Area would meet the State mandate of

[2] Association of Bay Area Governments and Metropolitan Transportation Commission, 2021, October, *Plan Bay Area 2050*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed May 25, 2023.

a 19 percent reduction in per-capita emissions by 2035—but only if all strategies are implemented.[3] Strategies to reduce GHG emissions include focusing housing and commercial construction in walkable, transit-accessible places; investing in transit and active transportation; and shifting the location of jobs to encourage shorter commutes.

Priority development areas (PDAs) and transit priority areas (TPAs) provide an implementing framework for Plan Bay Area. PDAs and TPAs were identified through a regional effort initiated by the ABAG and MTC to link planned development with regional land use and transportation planning objectives. PDAs are areas along transportation corridors that are served by public transit that allow opportunities for higher-density development of transit-oriented, infill development in existing communities that are expected to host the majority of future development. TPAs are areas within half a mile of a major transit stop, such as a transit center or rail line. Figure 4-1, *Priority Development Areas and Transit Priority Areas*, shows the PDAs and TPAs that are adjunct and overlap the project site. The project site is adjacent to the Villages of Belmont PDA and within the TPA surrounding El Camino Real.[4]

SB 743, which became effective on January 1, 2014, amended CEQA by adding California Public Resources Code (PRC) Section 21099 regarding analysis of transportation, aesthetics, and parking impacts for urban infill projects,[5] among other provisions.

- Transportation Impacts. SB 743 required the Governor's Office of Planning and Research—the entity charged with drafting guidelines to help agencies implement CEQA—to identify new metrics for identifying and mitigating transportation impacts under CEQA, shifting from a congestion-based standard (level of service or LOS) to a vehicle miles traveled (VMT) standard. CEQA Guidelines Section 15064.3 was added in December 2018 pursuant to SB 743 and describes specific considerations for evaluating a project's transportation impacts. CEQA Guidelines Section 15064.3(b)(1) states that projects within half a mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less-than-significant transportation impact. Accordingly, transportation impacts related to VMT from potential future development in the TPA that meets the specific criteria, are presumed to be less than significant. Transportation impacts consistent with the required VMT standard are discussed in Chapter 4.15, *Transportation*, of this Draft EIR.
- Aesthetic and Parking Impacts. PRC Section 21099(d)(1), states, "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a TPA shall not be considered significant impacts on the environment." Accordingly, these topics are no longer considered in determining significant environmental effects for a project that meets all three of the following criteria:

[3] Association of Bay Area Governments and Metropolitan Transportation Commission, 2021, October, *Plan Bay Area 2050*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed June 21, 2023.

[4] Association of Bay Area Governments/Metropolitan Transportation Commission, 2023, March 22 (updated), Transit Priority Areas (2021), https://opendata.mtc.ca.gov/datasets/MTC::transit-priority-areas-2021-1/explore?location=37.797999%2C-122.384700%2C11.78, accessed February 16, 2024.

[5] "Infill site" means a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.

- Is located on an infill site which is defined as "a lot located within an urban area that has been previously developed or on a vacant site where at least 75 percent of the perimeter of the site adjoins or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses."
- Is a residential, mixed-use residential, or an employment-center project.
- Is in a TPA, which is defined as "an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or Section 450.322 of Title 23 of the Code of Federal Regulations."

The project site is in an urban area of Belmont that has been previously developed, therefore qualifying as an infill site. The northern and eastern sections of the project site are within the TPA surrounding El Camino Real, as shown on Figure 4-1. Additionally, the proposed project includes a residential component, which satisfies the second criterion. Therefore, in compliance with SB 743, no significant aesthetic or parking impacts can be made in this environmental analysis for potential future development in the TPA. Aesthetic and parking impacts are not discussed further in this EIR with respect to potential future development in the designated TPA. As appropriate, aesthetic impacts are considered for potential future development outside of these areas in Chapter 4.1, *Aesthetics*, of this Draft EIR.

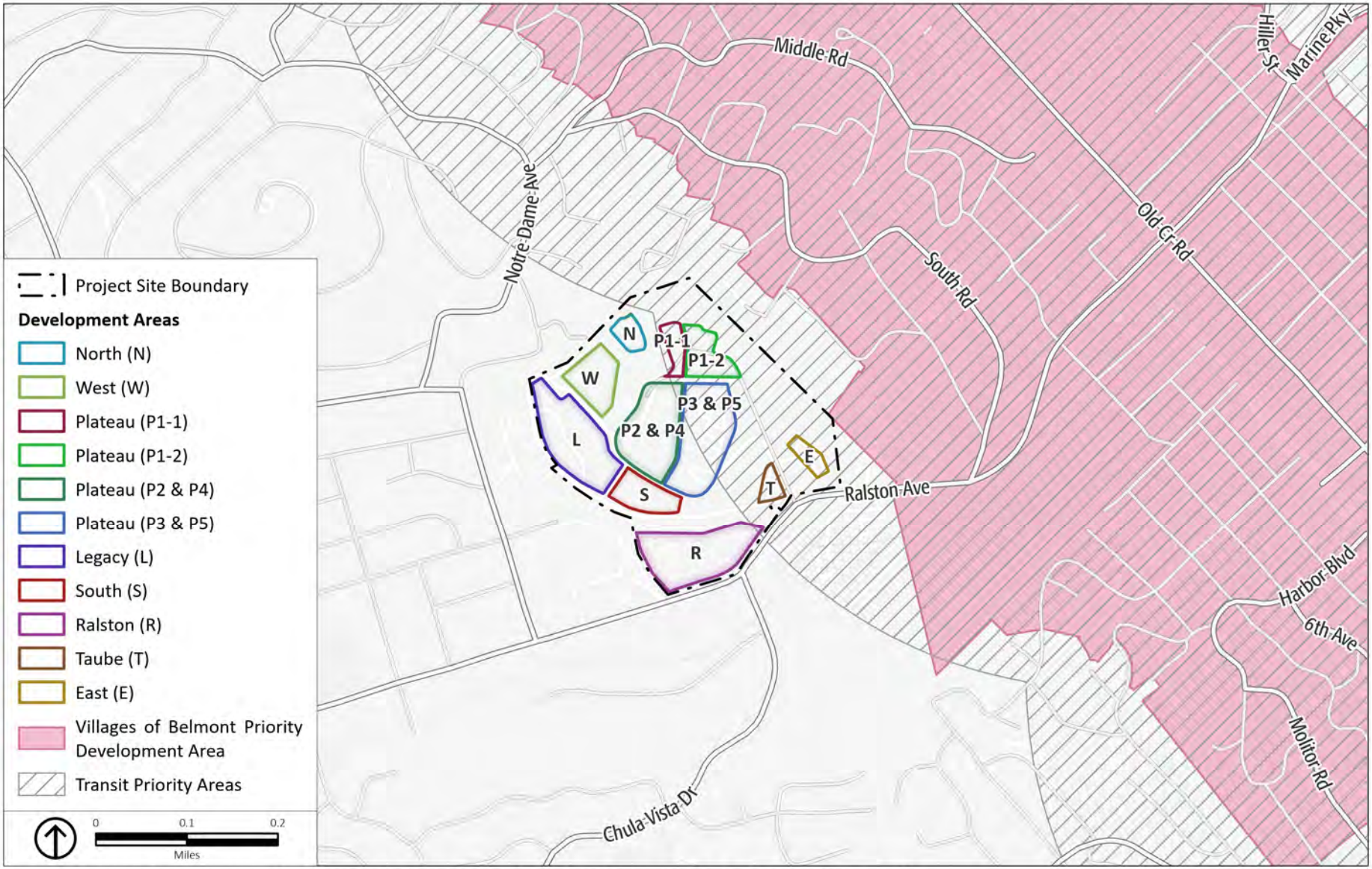
PARKING

Effective in 2010, parking inadequacy as a significant environmental impact was eliminated from the CEQA Guidelines by the Governor's Office of Planning and Research, which is the entity charged with drafting guidelines to help agencies implement CEQA. Accordingly, parking adequacy is not discussed further in this EIR.

POTENTIAL EFFECTS OF THE PROJECT ON THE ENVIRONMENT

The California Supreme Court concluded in *California Building Industry Association vs. Bay Area Air Quality Management District* (*CBIA vs. BAAQMD*) that "CEQA generally does not require an analysis of how existing environmental conditions will impact a project's future users or residents."[6] The *CBIA vs. BAAQMD* ruling provided for several exceptions to the general rule where an analysis of the project on the environment is warranted: 1) if the project would exacerbate existing environmental hazards (such as exposing hazardous waste that is currently buried); 2) if the project qualifies for specific exemptions (certain housing projects and transportation priority projects per Public Resource Code (PRC) 21159.21 (f),(h); 21159.22 (a),(b)(3); 21159.23 (a)(2)(A); 21159.24 (a)(1),(3);or 21155.1 (a)(4),(6)); 3) if the project is exposed to potential noise and safety impacts on projects due to proximity to an airport (per PRC 21096); and 4) school projects require specific assessment of certain environmental hazards (per PRC 21151.8).

[6] *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369.



Source: Metropolitan Transportation Commission/Association of Bay Area Governments, 2023; PlaceWorks, 2024.

Figure 4-1
Priority Development Areas and Transit Priority Areas

Therefore, the evaluation of the significance of project impacts under CEQA focuses on the potential impacts of the proposed project on the environment, including whether the proposed project may exacerbate any existing environmental hazards. Existing environmental hazards at the project site include, but are not limited to, seismic hazards and wildfire. While the effects of these hazards on the proposed project are not subject to CEQA review following the CBIA case, a discussion of the proposed project's potential to exacerbate these hazardous conditions is provided in Chapter 4.6, *Geology and Soils*, and Chapter 4.18, *Wildfire*, of this Draft EIR.

CUMULATIVE IMPACT ANALYSIS

A cumulative impact consists of an impact created as a result of the combination of the project evaluated in the EIR, together with other reasonably foreseeable projects causing related impacts. Section 15130 of the CEQA Guidelines requires an EIR to discuss cumulative impacts of a project when the project's incremental effect is "cumulatively considerable." Cumulative effects could occur when future development under the project is combined with development in the surrounding area or, in some instances, in the entire region.

Used in this context, cumulatively considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. In the case of a long-range plan such as the proposed CDP, cumulative effects occur when future development under the long-range plan is combined with development in the surrounding areas, or in some instances, in the entire region.

Where the incremental effect of a project is not "cumulatively considerable," a lead agency need not consider that effect significant but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. The CEQA Guidelines state that a lead agency has discretion to determine if a project's contribution to a significant cumulative impact is cumulatively considerable.

The cumulative discussions in Chapters 4.1 through 4.18 of this Draft EIR explain the geographic scope of the area affected by each cumulative effect (e.g., immediate project vicinity, county, watershed, or air basin). The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing macro-scale air quality impacts, all development within the air basin contributes to regional emissions of criteria pollutants, and basinwide projections of emissions are the best tool for determining the cumulative impact. In assessing aesthetic impacts, on the other hand, only development within the local area of change would contribute to a cumulative visual effect since the area of change is only visible in its vicinity.

CEQA Guidelines Section 15130 permits two different methodologies for the cumulative impact analysis:

- The "list" approach permits the use of a list of past, present, and probable future projects producing related or cumulative impacts, including projects both within and outside the city.
- The "projections" approach allows the use of a summary of projections in an adopted plan or related planning document, such as a regional transportation plan, or in an EIR prepared for such a plan. The projections may be supplemented with additional information such as regional modeling.

The cumulative impact analysis in this Draft EIR relies on a list approach and takes into account the various ways development projects in the area could contribute to a cumulative impact. Table 4-1, *Cumulative Development Projects*, lists all the present and probable future projects producing related or cumulative impacts for each impact area.

TABLE 4-1 CUMULATIVE DEVELOPMENT PROJECTS

Site No.	Project Name	Address	Distance from Project Site
1	1300 El Camino Real, Firehouse Square (Mixed Use Residential/Commercial)	1300 El Camino Real Belmont, CA 94002	0.7 miles
2	1301 Shoreway Project	1301 Shoreway Road Belmont, CA 94002	1.7 miles
3	1325 Old County Road, Artisan Crossing aka Windy Hill (Mixed Use Residential/Commercial)	1325 Old County Road Belmont, CA 94002	0.8 miles
4	2 Davis Drive (Office/Research & Fire Station)	2 Davis Drive Belmont, CA 94002	1.2 miles
5	500-580 Masonic Way, Belmont Town Center	500-580 Masonic Way Belmont, CA 94002	0.8 miles
6	601 Harbor Boulevard (Office/R&D/Life Sciences)	601 Harbor Blvd. Belmont, CA 94002	0.9 miles
7	604-608-610 Harbor Boulevard, Windy Hill	604, 608, 610 Harbor Boulevard Belmont, CA 94002	0.9 miles
8	608 Harbor Boulevard (Apartments)	608 Harbor Boulevard Belmont, CA 94002	0.9 miles
9	678 Ralston Avenue (100-percent Affordable Residential Apartment Project)	678 Ralston Avenue Belmont, CA 94002	0.6 miles
10	800 Laurel Avenue (Townhomes)	800 Laurel Avenue Belmont, CA 94002	0.6 miles
11	800-803 Belmont Avenue (Apartments)	800-803 Belmont Ave Belmont, CA 94002	1.2 miles
12	815 Old County Road (Apartments)	815 Old County Road Belmont, CA 94022	0.7 miles
13	900 El Camino Real (100-percent Affordable Housing via Linc Housing)	Hill Street and El Camino Belmont, CA 94002	0.6 miles
14	Harbor Industrial Area Specific Plan	ONeill Ave and Old County Road Belmont Creek to Highway 101 Belmont, CA 94002	0.7 miles
15	Island Parkway Life Sciences Campus (Office/R&D/Life Sciences)	300, 301, and 400 Island Parkway & 800 Clipper Drive Belmont, CA 94002	1.6 miles

Source: City of Belmont, 2024.

In addition to the cumulative development projects listed in Table 4-1, the Ralston Avenue Corridor Study and Improvement Plan recommends the installation of a single-lane modern roundabout at the Ralston Avenue/Laxague Drive/Entry Drive intersection to provide traffic calming benefits along Ralston Avenue by moderating travel speeds.[7] The Ralston Avenue Corridor Study and Improvement Plan also identifies that

[7] City of Belmont, August 2014, *The Ralston Avenue Corridor Study and Improvements Plan*, accessed November 16, 2023, https://www.belmont.gov/home/showpublisheddocument/14931/636167236470470000.

if a roundabout is not constructed at the Ralston Avenue/Laxague Drive/Entry Drive intersection, other traffic control measures in the vicinity may be needed. Final designs for a future roundabout have not yet been prepared, and its precise location has not been determined. Preliminary plans developed by the City following the Ralston Avenue Corridor Study and Improvement Plan indicate that, if constructed, the roundabout would be located at either the Ralston Avenue/Chula Vista Drive intersection or the Ralston Avenue/Laxague Drive/Entry Drive intersection. The cumulative condition in the environmental analysis considers these potential future Ralston Avenue corridor roadway improvements.

The following provides a summary of the cumulative impact setting for each impact area:

- Aesthetics: The cumulative setting for aesthetic impacts includes the effects of the proposed project together with cumulative development projects in the vicinity of the project site.
- Air Quality: The proposed project's potential contribution to cumulative impacts is assessed using the same significance criteria as those for project-specific impacts. Individual development projects that generate construction or operational emissions that exceed the Air District's screening thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the San Francisco Bay Area Basin is in nonattainment.
- Biological Resources: The cumulative setting for impacts on biological resources includes the effects of the proposed project together with cumulative development projects in the vicinity of the project site.
- Cultural Resources: Cumulative impacts on cultural resources could occur when development at the project site, combined with impacts from projected growth in the surrounding region, lead to the loss of a substantial type of site, building, or resource.
- Energy: Cumulative energy impacts are considered in the context of the growth from the proposed project combined with the estimated growth in the energy provider's service area.
- Geology and Soils: Potential cumulative geological impacts could arise from a combination of the effects of the proposed project with cumulative development projects in the vicinity of the project site.
- Greenhouse Gas Emissions: Because GHG emissions are not confined to a particular air basin but are dispersed worldwide, the cumulative analysis focuses on the global impacts and thus is cumulative by nature.
- Hazards and Hazardous Materials: The cumulative setting for hazards and hazardous materials impacts includes the effects of the proposed project together with cumulative development projects in the vicinity of the project site.
- Hydrology and Water Quality: The geographic context used for the cumulative assessment of hydrology and water quality impacts includes the areas within the City of Belmont that discharge stormwater to Belmont Creek and Laural Creek Watersheds, which drain into the San Francisco Bay.
- Land Use and Planning: The cumulative setting for land use and planning impacts includes the effects of the proposed project together with the cumulative development projects in the vicinity of the project site.

- **Noise:** The cumulative setting for noise impacts includes the effects of the proposed project together with the cumulative development projects in the vicinity of the project site.
- **Parks and Recreation:** Cumulative parks and recreation impacts are considered in the context of potential future development under the proposed project combined with the cumulative development projects evaluated under the 2035 General Plan buildout.
- **Population and Housing:** Impacts from cumulative growth are considered in the context of potential future development under the proposed project combined with the cumulative development projects evaluated under the 2035 General Plan buildout.
- **Public Services:** Cumulative public services impacts are considered in the context of the growth from the proposed project combined with the estimated growth in each public service's service area.
- **Transportation:** The analysis of the proposed project addresses cumulative impacts to the transportation network in the context of the region.
- **Tribal Cultural Resources:** Cumulative impacts on tribal cultural resources could occur when development at the project site, combined with impacts from projected growth in the surrounding region, lead to adverse effects on local Native American tribes or tribal lands.
- **Utilities and Service Systems:** Cumulative utilities and service systems impacts are considered in the context of the growth from the proposed project combined with the estimated growth in each utility provider's service area.
- **Wildfire:** The cumulative setting for wildfire impacts includes the effects of the proposed project together with cumulative development projects in the vicinity of the project site.

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4.1 AESTHETICS

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential aesthetics impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential aesthetics impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

4.1.1 ENVIRONMENTAL SETTING

4.1.1.1 REGULATORY FRAMEWORK

State Regulations

California State Scenic Highways Program

California's Scenic Highway Program was created by the State of California legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The State laws governing the Scenic Highways Program are found in the Streets and Highways Code, Sections 260 through 263. The California Scenic Highway Program is maintained by the California Department of Transportation (Caltrans).

California Building Code

The State of California provides a minimum standard for building design through Title 24, Part 2, of the California Code of Regulations, commonly referred to as the California Building Code (CBC). The CBC is updated every three years and, once adopted, automatically applies to all occupancies throughout the state.[1] Local jurisdictions may adopt ordinances that include building standards which are more restrictive than the CBC based on local climatic, geological, or topographical conditions.[2] The CBC includes standards for outdoor lighting that are intended to reduce light pollution and glare by regulating light power and brightness, shielding, and sensor controls.

The California Building Standards Commission adopted the California Green Building Standards Code, also known as CALGreen. As part of the CBC, CALGreen is in Part 11 of Title 24. CALGreen establishes building standards aimed at enhancing the design and construction of buildings using building concepts that reduce negative impacts and increase positive environmental impacts by encouraging sustainable construction practices. Specifically, Section 5.106.8, *Light Pollution Reduction*, establishes backlight, uplight, and glare ratings to minimize the effects of light pollution for nonresidential development. The local building permit process enforces the mandatory provisions of CALGreen.

[1] California Health and Safety Code Section 18938.

[2] California Building Standards Commission, July 2022, Guide to Title 24, https://www.dgs.ca.gov/-/media/Divisions/BSC/05-Resources/Guidebooks/2022-Guide-toTitle-24-06-28-22-Final.pdf, accessed on July 29, 2024.

Senate Bill 743

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, Senate Bill (SB) 743, which became effective on January 1, 2014, amended the California Environmental Quality Act (CEQA) by adding California Public Resources Code Section 21099 regarding analysis of aesthetics impacts for urban infill projects, among other provisions. CEQA Section 21099(d)(1), states, "Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site located within a transit priority area (TPA) shall not be considered significant impacts on the environment."

Accordingly, these topics are no longer considered when determining significant environmental effects for projects that meet all three of the following criteria:

- Is located on an infill site which is defined as "a lot located within an urban area that has been previously developed or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses."
- Is a residential, mixed-use residential, or an employment-center project.
- Is in a transit priority area, which is defined as "an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or Section 450.322 of Title 23 of the Code of Federal Regulations."

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to aesthetics that are relevant to the proposed project are found in the Land Use, Circulation, and Conservation Elements and are listed in Table 4.1-1, *City of Belmont 2035 General Plan Policies Relevant to Aesthetics.*

TABLE 4.1-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO AESTHETICS

Policy Number	Policy Text
Chapter 2, Land Use Element	
Policy 2.13-1	Ensure that new development is balanced with preservation of open space and natural features.
Policy 2.13-3	Ensure that the scale and character of new development is appropriate to the setting and intended use. Promote development that is scaled and sited to respect the natural terrain, so that hills, parks, open space, trees, and distant vistas, rather than buildings, dominate the overall landscape, while also developing the Belmont Village PDA and other focus areas for economic growth as concentrated, urban-scale nodes of activity.
Policy 2.13-4	Minimize light and glare from new development.
Policy 2.13-7	Require energy and telecommunication devices (such as solar panels) that are added to the exteriors of buildings, or otherwise visible on a site, to be designed to minimize impacts on scenic views and vistas from the public realm to the maximum extent feasible without interfering with their function.
Policy 2.14-4	Ensure that development on hillsides, where permitted pursuant to regulations in the Zoning Ordinance, is designed to preserve or enhance the visual quality of the existing topography.

TABLE 4.1-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO AESTHETICS

Policy Number	Policy Text
Chapter 3, Circulation Element	
Policy 3.4-5	Design new roads and improvements to existing roads to minimize visual and environmental impacts.
Chapter 5, Conservation Element	
Policy 5.3-6	Avoid light pollution and unnecessary glare by requiring development projects to use design features and shielding methods that cast outdoor light downward and minimize glare and to install the minimum amount of outdoor lighting necessary for safety and security.
Policy 5.3-7	Encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation, and ensure the maximum number and variety of well-adapted plants are maintained.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to aesthetics. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to aesthetics are included in Chapter 7, *Buildings*, and Chapter 25, *Trees*.

- Chapter 7, Article IV, Division 1, *Building Code*, adopts the 2022 CBC with amendments and is referred to as the City of Belmont Building Code.
- Chapter 7, Article IV, Division 10, *Green Building Standards Code*, adopts the 2022 CALGreen standards.
- Chapter 7, Article VII, *Structures of Historic or Aesthetic Value*, is relevant to preserve and enhance, structures and areas having special historical or aesthetic interest or value. Among others, this article outlines the classification and declassification process and administrative approval needed for minor alterations.
- Chapter 25, *Trees*, provides guidance on protected trees in order to preserve scenic beauty, among other reasons. If a person wants to remove a protected tree, they must submit an application and pay the applicable fees as established by the City Council. A notice form must also be placed on the tree during the review process. This chapter is also known as the Belmont Tree Ordinance. Protected trees include principal native trees, such as a coast live oak, valley oak, redwood, madrone, bay laurel, or buckeye, having a single main stem or trunk of 10 inches or more diameter at 4.5 feet above grade height (DBH), or up to three of the largest secondary stems totaling 10 inches or more DBH. They also include woody, perennial plants with 14 inches or more DBH.

Belmont Zoning Ordinance

The purpose of the Belmont Zoning Ordinance is to promote and protect public health, safety, peace, comfort, convenience and general welfare, and to provide a precise guide for the physical development of the City. According to Section 12, *Planned Unit Development Or "PD" District*, of the Belmont Zoning Ordinance, the Planned Unit Development (PD) zoning district can accommodate various types of

development but requires a conceptual development plan (CDP).[3] A Conditional Use Permit is also required for any and all uses, projects, and/or additions in a PD District that require Planning Commission approval and may only be granted if the Planning Commission finds that such use(s) substantially conform to the City of Belmont General Plan and are shown on the approved CDP. A Detailed Development Plan (DDP) and development schedule are also required with the application for a Use Permit. The DDP shall contain certifications that a Design-Professional or group of Design-Professionals have participated in its preparation. Within the DDP, design standards are established and approved by the Planning Commission and become part of the Use Permit. Design standards that could be applied include minimum building height, minimum lot dimensions, maximum building site coverage by buildings and structures, minimum yards, maximum building or structure heights, maximum height of fences and walls, signs, and off-street parking.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.1.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

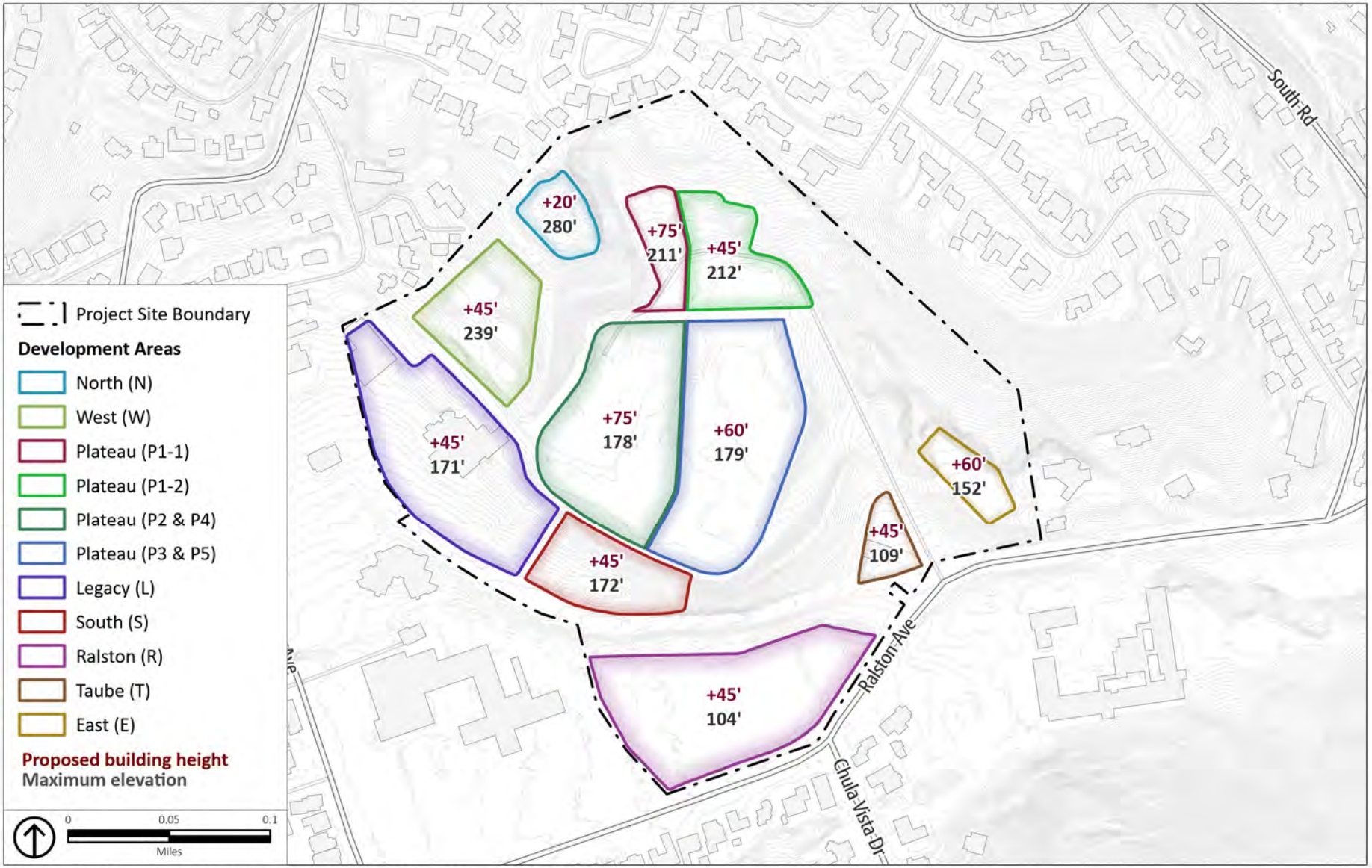
4.1.1.2 EXISTING CONDITIONS

Visual Character

Key elements that contribute to the visual character of the project site are the wooded surroundings, views of nearby hills, and open space areas. The project site is located on the eastern side of the City of Belmont and is approximately seven miles west of the San Francisco Bay.

The project site consists of a terraced hillside that is surrounded by one- and two-story residential buildings to the north and east, uphill from the site. Currently, the project site has 24 buildings that are dispersed throughout the area. As shown on Figure 4.1-1, *Maximum Elevations and Proposed Building Heights*, the project site ranges in elevation, with the lowest elevation at the southern edge of the site at 104 feet and the highest elevations at the northern edge of site from 212 to 280 feet. The buildings vary in size and height. Apart from the 257-foot-tall monument adjacent to the on-site chapel, the tallest building on the project site is Ralston Mansion, which is 43 feet above existing grade.

[3] City of Belmont Zoning Ordinance, Section 12 – Planned Unit Development or "PD" District, accessed on February 28, 2024, https://www.belmont.gov/home/showpublisheddocument/9234/636637155794700000.



Source: Stanford University, Proposed Conceptual Development Plan, 2022.

Figure 4.1-1
Maximum Elevations and Proposed Building Heights

There are also many trees throughout the project site that offer aesthetic value. Within the project site, there are approximately 990 trees representing 55 species. The most frequently occurring species are coast live oaks, blue gums, and coast redwoods. (see Appendix D, *Biological Resources*, of this Draft EIR) An unnamed tributary of Belmont Creek also bisects the southern portion of the project site, flowing from west to east parallel to Laxague Drive. This creek is intermittent and originates from the west of the project site. The aesthetic value of this creek varies, as some portions are visible and vegetated while other sections are fully culverted or covered.

The project site contains existing sources of nighttime illumination, including street and parking area lights, building-mounted lights, security lighting, and interior and exterior lighting on existing buildings. Glare is primarily from building materials and parked cars.

Scenic Corridors and Vistas

Scenic corridors consist of land visible from roadways and are composed primarily of scenic and natural features where corridor boundaries are determined by the topography, vegetation, viewing distance, and jurisdictional lines.[4] Scenic vistas are generally interpreted as long-range views of a specific scenic feature (e.g., open space lands, mountain ridges, bay, or ocean views). Public views are those that can be seen from vantage points that are publicly accessible, such as freeways, streets, parks, and vista points. These views are generally available to a greater number of people than private views. Private views are those that can be seen from vantage points on private property. Private views are not necessarily considered impacted when interrupted by land uses on adjacent properties. CEQA case law has established that only protection of public views is considered, generally, rather than the private views specific to a particular person.[5]

Views from the project site include residential neighborhoods and nearby hills. Caltrans has not designated any highways next to the project site as a State Scenic Highway. The nearest designated highway to the project site is Interstate 280 (I-280), which is approximately 3.2 miles to the west of the project site.[6] Ralston Avenue, while not a designated state scenic highway, offers a scenic route through Belmont and scenic vistas from numerous vantage points, but views of the project site are generally blocked by existing vegetation, and the portion of Ralston Avenue in the project vicinity does not offer any scenic vistas.[7] The City of Belmont's numerous hillsides and ridgelines provide vantage points from which scenic vistas can be viewed; however, the three Belmont neighborhoods that are characterized by their

[4] Caltrans, 2022, Scenic Highways – Frequently Asked Questions, https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways/lap-liv-i-scenic-highways-faq2, accessed February 11, 2022.

[5] *Protect Niles v. City of Fremont* (2018) 25 Cal.App.5th 1129, 1142; Casetext, July 2018. Protect Niles v. City of Fremont, https://casetext.com/case/niles-v-city-of-fremont, accessed February 11, 2022. See also, *Taxpayers for Accountable School Bond Spending v. San Diego Unified School District* (2013) 215 Cal.App.4th 1013, 1042 [complaints that high school stadium lights would disturb peace and calm of neighborhood were evidence of aesthetic impacts only on particular persons].

[6] California Department of Transportation, 2018, California State Scenic Highway System Map, https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa, accessed August 15, 2023.

[7] City of Belmont, June 2017, Draft Environmental impact Report (SCH 2016082075), https://www.belmont.gov/home/showpublisheddocument/16595/636680209062370000.

views are not near the project site.[8] Publicly accessible areas near the project site are College View Parklet and Patricia Wharton Park, which are both upslope of the project site and owned by the City of Belmont. Neither park offers views of the project site.

4.1.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant aesthetic impact if it would:

1. Have a substantial adverse effect on a scenic vista.
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
3. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.
4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.
5. In combination with past, present, and reasonably foreseeable projects, result in cumulative aesthetics impacts in the area.

4.1.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following aesthetics analysis is based on the natural environmental setting and therefore utilizes information gathered in 2023.

The proposed project does not suggest a specific development project, but instead sets parameters for the range of development that could follow. Therefore, the analysis in this section will focus on the maximum possible development that could occur under the proposed project for the most conservative analysis (i.e., "worst case"). Furthermore, as described in further detail in Chapter 4, *Environmental Analysis*, and Chapter 4.10, *Land Use and Planning*, of this Draft EIR, the project site is in a TPA surrounding El Camino Real and the one Caltrain station in Belmont (Belmont Station). Accordingly, in compliance with SB 743, no significant aesthetic impact findings can be made in this environmental analysis for potential future development in the TPA.[9] Aesthetic impacts are not discussed further in this

[8] City of Belmont, June 2017, Draft Environmental Impact Report (SCH 2016082075), https://www.belmont.gov/home/showpublisheddocument/16595/636680209062370000.

[9] Metropolitan Transportation Commission, 2021, Transit Priority Areas, https://www.arcgis.com/apps/mapviewer/index.html?layers=370de9dc4d65402d992a769bf6ac8ef5, accessed August 8, 2022.

chapter with respect to potential future development in the development areas that the TPA covers, including the East, Taube, Plateau P1-2 and P1-1, and portions of Plateau P3 and P5 development areas, as shown on Figure 4-1*, Priority Development Areas and Transit Priority Areas*, in Chapter 4, *Environmental Analysis*, of this Draft EIR. As appropriate, aesthetic impacts are only considered for potential future development outside of these areas.

AES-1 The proposed project would not have a substantial adverse effect on a scenic vista.

Scenic vistas are generally interpreted as long-range views, while scenic corridors may provide short-, middle-, and/or long-range views. As described under Section 4.1.1.2, *Existing Conditions*, there are a few scenic routes within a few miles of the project site, including I-280 and Ralston Avenue. However, the project site is not visible from I-280 or Ralston Avenue, as views of the project site are generally blocked by existing vegetation. The portion of Ralston Avenue in the project vicinity also does not offer any scenic vistas. Portions of the project site are developed with roads, academic buildings, and associated parking areas, but the remainder of the site is vegetated. Views from the project site include residential neighborhoods and nearby hills. Areas outside of the TPA are visible from surrounding residential neighborhoods upslope from the project site and from residential houses on adjacent hills. Publicly accessible areas near the project site are College View Parklet and Patricia Wharton Park, which do not offer views of the project site.

As described in Chapter 3, *Project Description*, potential future development under the proposed project would increase the building area to a total of 700,000 square feet and increase the range of development heights from 13 to 43 feet above grade to 45 to 75 feet above grade, depending on the development area. The proposed development heights and their respective maximum elevations for these areas are shown on Figure 4.1-1*.* As detailed in Table 3-4, *Proposed Building Heights*, in Chapter 3, *Project Description*, of this Draft EIR and on Figure 4-1, the tallest development areas in the proposed project are in the North, West, and Plateau P1-1 development areas. Accounting for the elevation, these three Development Areas could reach maximum heights of 300 feet, 286 feet, and 284 feet, which is above the existing tallest structure on campus, Chapel Tower, which is approximately 83 feet tall above grade and 258 feet tall when elevation is considered.

However, potential future development under the proposed project would be dispersed over a 30-year timeframe and would be subject to the regulations of the BCC. As the project site is located within the PD zoning district, a CDP would be required. Because the proposed project includes the proposed CDP, it would comply with the Zoning Ordinance. The proposed CDP would require Planning Commission approval, including approval of the proposed building heights. A Conditional Use Permit would also be required and may only be granted if the Planning Commission finds that such use(s) substantially conform to the City of Belmont General Plan and are shown on the approved CDP. A DDP and development schedule are also required with the application for a Use Permit. Such General Plan policies include Policy 2.13-3 and Policy 2.14-4, which promote development that is scaled to respect the natural terrain and have development on hillsides be designed to preserve or enhance the visual quality of the existing topography, as outlined in Table 4.1-1. The DDP shall contain certifications that a design professional or group of design professionals have participated in its preparation. In the DDP, design standards are

established and approved by the Planning Commission and become part of the Use Permit. Design standards that could be applied include minimum building height, minimum lot dimensions, maximum building site coverage by buildings and structures, minimum yards, maximum building or structure heights, maximum height of fences and walls, signs, and off-street parking. In addition, potential future development under the proposed project would be required to implement the City's following standard conditions related to scenic vistas:

- Installation of roof mounted mechanical equipment shall be consistent with Elevation Drawings (_____ and Sections _____) dated _____. Roof-mounted equipment shall be placed behind roof screens so as not to be visible from surrounding vantage points at or below the highest point of the equipment.
- Except as modified by these conditions of approval, or as required by subsequent project review, the Building Permit Plans shall be consistent with the approved Planning Plans, date stamped _____ and inclusive of the architectural drawings (Sheets ____ through ___); Civil Engineering Plans (Sheets ____ through ____); Landscape Plans (Sheets ____ through ___), and Lighting Plans (Sheets ____ through ____).
- The applicant shall demonstrate that the _____ building is consistent with the maximum floor area and height approved for the project, prior to final building permit inspection. As built, floor plans and a roof height elevation from an engineer or surveyor that includes any roof top equipment and screens shall be provided.
- Ground Equipment Screening. All exterior trash, recycling, and storage utility boxes, wood service poles, and electric and gas meters must be screened from visibility from the surrounding public vantage points (right-of-way, public trails, open space and parks). Said screening must incorporate the same architectural design, colors, and materials as the main building on site.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Compliance with the Zoning Ordinance's process to regulate aesthetics of proposed developments and implementation of the City's standard conditions would ensure that the proposed project has a *less-than-significant* impact on scenic vistas.

Significance without Mitigation: Less than significant.

AES-2	The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

As discussed under Section 4.1.1.1, *Regulatory Framework*, the nearest designated State Scenic Highway is I-280, approximately 3.2 miles west of the project site. The project site is not visible from this scenic highway due to the topography of the land along the east side of I-280. Therefore, the proposed project would have *no impact* on a state scenic highway.

Significance without Mitigation: No impact.

AES-3	The proposed project would not, in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.

An "urbanized area," as defined by CEQA Section 21071, is an incorporated city that either has a population of at least 100,000 persons, or a population of 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons. The project site is located in the City of Belmont, and contiguous incorporated cities include San Mateo, Foster City, and San Carlos. Belmont and San Mateo have a combined population of over 120,000. Thus, this impact analysis addresses whether, for an urbanized area, the proposed project would conflict with applicable zoning and other regulations governing scenic quality.

As the project site is located within the PD zoning district, a CDP would be required. Because proposed project includes the proposed CDP, it would be in compliance with the Zoning Ordinance. The proposed CDP would require Planning Commission approval. A Conditional Use Permit would also be required for and may only be granted if the Planning Commission finds that such use(s) substantially conform to the City of Belmont General Plan and are shown on the approved CDP. A DDP and development schedule are also required with the application for a Use Permit. The DDP shall contain certifications that a Design-Professional or group of Design-Professionals have participated in its preparation. Within the DDP, design standards consistent with the approved CDP are established and approved by the Planning Commission and become part of the Use Permit. Design standards that could be applied, provided such standards are consistent with the approved CDP, include minimum building height, minimum lot dimensions, maximum building site coverage by buildings and structures, minimum yards, maximum building or structure heights, maximum height of fences and walls, signs, and off-street parking. In addition, potential future development under the proposed project would be required to implement the City's following standard conditions governing scenic quality:

- Installation of roof mounted mechanical equipment shall be consistent with Elevation Drawings (_____ and Sections _____) dated _____. Roof mounted equipment shall be placed behind roof screens so as not to be visible from surrounding vantage points at or below the highest point of the equipment.
- Except as modified by these conditions of approval, or as required by subsequent project review, the Building Permit Plans shall be consistent with the approved Planning Plans, date stamped _____ and inclusive of the architectural drawings (Sheets ____ through ___); Civil Engineering Plans (Sheets

____ through ____); Landscape Plans (Sheets ____ through ___), and Lighting Plans (Sheets ____ through ____).

- The applicant shall demonstrate that the _____ building is consistent with the maximum floor area and height approved for the project, prior to final building permit inspection. As built, floor plans and a roof height elevation from an engineer or surveyor that includes any roof top equipment and screens shall be provided.
- Ground Equipment Screening. All exterior trash, recycling, and storage utility boxes, wood service poles, and electric and gas meters must be screened from visibility from the surrounding public vantage points (right-of-way, public trails, open space and parks). Said screening must incorporate the same architectural design, colors, and materials as the main building on site.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

The proposed project would undergo a process that is regulated by the Zoning Ordinance to govern scenic quality in the area and would be required to comply with the City's standard conditions. Therefore, the proposed project would not conflict with applicable zoning and other regulations governing scenic quality and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

AES-4 The proposed project could create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Nighttime illumination and glare impacts are the effects of a development's exterior lighting on adjoining uses and areas. Nighttime uses associated with potential future development may increase light intensity levels and may have the potential to affect existing and future nearby sensitive receptors. If lighting in new development is not designed to reduce upwardly directed light, nighttime lighting could obscure views of the night sky or intrude into neighboring properties. Potential future development would also incrementally increase glare due to the new building surfaces, parked cars, and solar panels if exterior glazing (i.e., windows and doors) and site planning (i.e., landscaping and solar panel placement) are not carefully considered. Light and glare impacts are determined through a comparison of the existing light sources with the lighting plans or policies incorporated in development proposals. Currently, the project site contains existing sources of nighttime illumination, including street and parking area lights, building-mounted lights, security lighting, and interior and exterior lighting on existing buildings. Glare is primarily from building materials and parked cars.

Potential future development under the proposed project could intensify lighting sources throughout the project site. However, potential future development would follow applicable lighting and glare requirements, such as the CBC, CALGreen, and General Plan Policy 2.13-4 and Policy 5.3-6, which seek to

minimize light and glare from new development and require development projects to use design features and shielding methods that cast outdoor light downward and minimize glare and to install the minimum amount of outdoor lighting necessary for safety and security. In addition, potential future development under the proposed project would be required to implement the City's following standard condition related to lighting:

> All exterior lighting must employ the use of cut-off fixtures to restrict the direction of the light in accordance with City standards. Lighting should be the minimum required for safety, but not result in undue glare off site. There must be no floodlighting of landscape plantings, buildings, courtyards, or patios/decks. To ensure consistency with city standards for lighting and compliance with the submitted photometric plan, a final lighting review shall occur by Planning after installation of project lighting and before final Building Permit inspection.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project.

Following these requirements would reduce the light intensity level on the project site and therefore potential future development under the proposed project would not create a new source of substantial light. The potential for buildings to be substantial sources of light and glare would be further minimized by the implementation of Mitigation Measure BIO-4 in Chapter 4.3, *Biological Resources*, of this Draft EIR, which includes bird-safe design requirements to reduce the potential of bird collisions with on-site buildings.

Potential future development under the proposed project could involve the use of solar photovoltaic panels. The installation of solar panels on the project site could potentially result in a new source of glare on the project site, and the specifications, placement, and layout for future solar panels are not yet known. However, it is expected that solar panels would be similar to those used for typical urban residential and commercial development, and would not involve highly reflective panels or large solar arrays. As such, impacts are *less than significant*.

AES-5 The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative aesthetics impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, the cumulative setting for aesthetic impacts includes the effects of the proposed project together with cumulative development projects in the vicinity of the project site. The proposed project would not result in significant impacts to scenic vistas and scenic resources, conflict with applicable zoning or other regulations governing scenic quality, or create a new source of substantial light or glare.

Furthermore, future development in the area would be subject to environmental review, as applicable, to mitigate any significant aesthetic impacts. Cumulative development projects would also be subject to

design review by the City, where applicable, and would conform to the Zoning Ordinance and General Plan regulations regarding community character and visual appearance. Specifically, the roundabout recommended at the project site by the Ralston Avenue Corridor Study and Improvement Plan would be subject to General Plan Policy 3.4-5, which requires new roads and improvements to existing roads to minimize visual and environmental impacts. Therefore, aesthetics impacts of the proposed project would not be cumulatively considerable, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

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4.2 AIR QUALITY

This chapter evaluates the potential air quality impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential air quality impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

This evaluation is based on the methodology recommended by the Bay Air Quality Management District (BAAQMD) for project-level analyses. The analysis focuses on air pollution from regional emissions and localized pollutant concentrations and is based on the results reported in the *Stanford University Belmont Campus Conceptual Development Plan and Development Agreement: Air Quality, Health Risk Assessment, Greenhouse Gas and Energy Technical Report* (Ramboll Tech Report), prepared by Ramboll US Consulting in June 2024 and contained in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR. Transportation-sector impacts are based on estimated trip generation and vehicle miles traveled (VMT) provided by Fehr and Peers, contained in Appendix J, *Transportation*, of this Draft EIR. Note that this quantitative analysis was conducted based on construction and full operation of the proposed project, which is described in Chapter 3, *Project Description*, of this Draft EIR. Cumulative impacts related to air quality from the development and operation of up to 700,000 square feet of building space and associated parking and housing units (see Table 3-2, *Existing and Proposed Development*) are based on the regional boundaries of the San Francisco Bay Area Air Basin (SFBAAB).

4.2.1 ENVIRONMENTAL SETTING

Terminology

The following are definitions for terms used throughout this chapter:

- **AAQS.** Ambient Air Quality Standards.
- **CalEnviroScreen (CES).** CES is a mapping tool that helps identify the California communities most affected by sources of pollution and where people are often especially vulnerable to pollution's effects.
- **Concentrations.** Refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter ($\mu g/m^3$).
- **Criteria Air Pollutants.** Those air pollutants specifically identified for control under the Federal Clean Air Act (currently seven—carbon monoxide, nitrogen oxides, lead, sulfur oxides, ozone, and coarse and fine particulates).
- **DPM.** Diesel particulate matter.
- **Emissions.** Refers to the actual quantity of pollutant, measured in pounds per day or tons per year.
- **Impacted Community.** Unincorporated communities in Santa Clara County that are disproportionately burdened by pollution as defined by the County in the proposed General Plan using CES data.

- **Overburdened Community.** As defined by the BAAQMD, an area located within a census tract identified by CES, Version 4, having an overall CES score at or above the 70th percentile, or located within 1,000 feet of any such census tract.
- **ppm.** Parts per million.
- **Sensitive receptor.** Land use types that are considered more sensitive to air pollution than others due to the types of population groups or activities involved. These land uses include residential, retirement facilities, hospitals, and schools.
- **TAC.** Toxic air contaminant.
- **µg/m³.** Micrograms per cubic meter.
- **VMT.** Vehicle miles traveled.

Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_X), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that AAQS have been established for them. ROG and NO_X are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants. Table 4.2-1, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

TABLE 4.2-1 CRITERIA AIR POLLUTANT HEALTH EFFECTS SUMMARY

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	Chest pain in heart patients Headaches, nausea Reduced mental alertness Death at very high levels	Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O_3)	Cough, chest tightness Difficulty taking a deep breath Worsened asthma symptoms Lung inflammation	Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO_2)	Increased response to allergens Aggravation of respiratory illness	Same as carbon monoxide sources
Particulate Matter (PM_{10} and $PM_{2.5}$)	Hospitalizations for worsened heart diseases Emergency room visits for asthma Premature death	Cars and trucks (particularly diesels) Fireplaces and woodstoves Windblown dust from overlays, wildfires and brush/waste burning, agriculture, and construction
Sulfur Dioxide (SO_2)	Aggravation of respiratory disease (e.g., asthma and emphysema)	

TABLE 4.2-1 CRITERIA AIR POLLUTANT HEALTH EFFECTS SUMMARY

Pollutant	Health Effects	Examples of Sources
	Reduced lung function	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	Behavioral and learning disabilities in children Nervous system impairment	Contaminated soil

Sources:
California Air Resources Board, Reduce Your Exposure to Particle Pollution, https://ww2.arb.ca.gov/resources/fact-sheets/reduce-your-exposure-particle-pollution.
South Coast Air Quality Management District, May 6, 2005, *Guidance Document for Addressing Air Quality, Issues in General Plans and Local Planning*, https://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4.

A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces its oxygen-carrying capacity. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses. Even healthy people exposed to high CO concentrations can experience headaches, dizziness, fatigue, unconsciousness, and even death.[1]
- **Nitrogen Oxides (NO_X)** are a by-product of fuel combustion and contribute to the formation of ground-level O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_X are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO_X produced by combustion is NO, but NO reacts quickly with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO_2 is only potentially irritating. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure.[2] NO_2 acts as an acute irritant and in equal concentrations is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary

[1] Bay Area Air Quality Management District, 2017, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

[2] Bay Area Air Quality Management District, 2017, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 parts per million (ppm).[3]

- **Sulfur Dioxide (SO_2)** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2. When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_X). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing) at lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue.[4]
- **Suspended Particulate Matter (PM_{10})** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. PM_{10} also includes dust from construction sites, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; wind-blown dust from open lands; pollen; and fragments of bacteria. In the SFBAAB, most particulate matter is caused by combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Inhalable coarse particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM_{10} bypasses the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing). Motor vehicles are currently responsible for about half of particulates in the SFBAAB. Wood burning in fireplaces and stoves is another large source of fine particulates.[5]
- **Suspended Particulate Matter ($PM_{2.5}$)** is another form of fine particulate matter that has an aerodynamic diameter of 2.5 microns or less (i.e., 2.5 millionths of a meter or 0.0001 inch). Fine particulate matter originates from a variety of sources, including fossil fuel combustion, residential wood burning and cooking, and natural sources, such as wildfires and dust. As mentioned above, extended exposure to particulate matter can cause negative effects on the respiratory system, such as triggering asthma attacks, aggravating bronchitis, and diminishing lung function. $PM_{2.5}$ studies have also found harm to the cardiovascular system and impacts on the brain, such as reduced cognitive function.

[3] Bay Area Air Quality Management District, 2017, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

[4] Bay Area Air Quality Management District, 2017, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

[5] Bay Area Air Quality Management District, 2017, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

Local jurisdictions have the option of developing community risk reduction plans to cumulatively reduce community wide $PM_{2.5}$ concentrations by following a comprehensive plan. Stationary source screening maps contain all the facilities in the Bay Area where a permit has been issued and that emit one or more TACs. These stationary source screening maps can be used as a basis for community baseline conditions and to evaluate screening-level health risk impacts using the cavity effects equation. An alternative screening methodology is to use the California Air Resources Board's (CARB) gas station screening tool to estimate cancer risk and chronic/acute hazards from gas station emissions.[6]

- **Ozone (O_3)** is a key ingredient of "smog" and is a gas that is formed when ROGs and NO_X, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma; reduce lung function; and inflame the linings of the lungs. Besides causing shortness of breath, it can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. O_3 can also damage plants and trees and materials such as rubber and fabrics.[7]
- **Reactive Organic Gases (ROGs)/Volatile Organic Compounds (VOCs)** are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as O_3. There are no AAQS established for ROGs. However, because they contribute to the formation of O_3, the BAAQMD has established a significance threshold for this pollutant.[8]
- **Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phasing out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in the air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.[9]

[6] Bay Area Air Quality Management District, 2017, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

[7] Bay Area Air Quality Management District, 2017, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

[8] Bay Area Air Quality Management District, 2017, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

[9] Bay Area Air Quality Management District, 2017, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

Toxic Air Contaminants

People exposed to TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems. By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. There are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most relevant to the proposed project being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified DPM as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs. Long-term (chronic) inhalation of DPM is likely a lung cancer risk. Short-term (i.e., acute) exposure can cause irritation and inflammatory symptoms and may exacerbate existing allergies and asthma symptoms.[10]

Placement of New Sensitive Receptors

Because placement of sensitive land uses falls outside CARB's jurisdiction, CARB developed and approved the Air Quality and Land Use Handbook: A Community Health Perspective (2005) to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources.

CARB's recommendations on the siting of new sensitive land uses identified in Table 4.2-2, *CARB Recommendations for Siting New Sensitive Land Uses*, were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources.

The key observation in these studies is that proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. There are three carcinogenic TACs that constitute the majority of the known health risks from motor vehicle traffic: DPM from trucks and benzene and 1,3-butadiene from passenger vehicles.

[10] US Environmental Protection Agency, May 2002, Health Assessment Document for Diesel Engine Exhaust, Prepared by the National Center for Environmental Assessment, Washington, DC, for the Office of Transportation and Air Quality, EPA/600/8-90/057F. https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=29060.

TABLE 4.2-2 CARB RECOMMENDATIONS FOR SITING NEW SENSITIVE LAND USES

Source/Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week).
Rail Yards	Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.
Ports	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Refineries	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or CARB on the status of pending analyses of health risks.
Chrome Platers	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Dry Cleaners Using Perchloroethylene	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.

Source: California Air Resources Board, April 2005, *Air Quality and Land Use Handbook: A Community Health Perspective*, http://www.aqmd.gov/docs/default-source/ceqa/handbook/california-air-resources-board-air-quality-and-land-use-handbook-a-community-health-perspective.pdf.

In 2017, CARB provided a supplemental technical advisory to the handbook for near-roadway air pollution exposure, Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Strategies include practices and technologies that reduce traffic emissions, increase dispersion of traffic pollution (or the dilution of pollution in the air), or remove pollution from the air.[11]

4.2.1.1 REGULATORY FRAMEWORK

AAQS have been adopted at the State and federal levels for criteria air pollutants. In addition, both the State and federal government regulate the release of TACs. Land uses in the City of Belmont are subject to the rules and regulations imposed by BAAQMD, the California AAQS adopted by CARB, and National AAQS adopted by the United States Environmental Protection Agency (USEPA). Federal, State, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized in this section.

[11] Bay Area Air Quality Management District, 2017, *Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways*, https://ww2.arb.ca.gov/sites/default/files/2017-10/rd_technical_advisory_final.pdf.

Federal and State

Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the United States Congress and has been amended several times. The 1970 CAA amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or include other pollutants. The California CAA, signed in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS.

The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 4.2-3, *Ambient Air Quality Standards for Criteria Pollutants*. These pollutants are ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

TABLE 4.2-3 AMBIENT AIR QUALITY STANDARDS FOR CRITERIA AIR POLLUTANTS

Pollutant	Averaging Time	California Standard [a]	Federal Primary Standard [b]	Major Pollutant Sources
Ozone (O_3) [c]	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	

TABLE 4.2-3 AMBIENT AIR QUALITY STANDARDS FOR CRITERIA AIR POLLUTANTS

Pollutant	Averaging Time	California Standard [a]	Federal Primary Standard [b]	Major Pollutant Sources
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Respirable Fine Particulate Matter ($PM_{2.5}$) [d,e]	Annual Arithmetic Mean	12 µg/m^3	9 µg/m^3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m^3	
Lead (Pb)	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4) [f]	24 hours	25 µg/m^3	No Federal Standard	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Notes: ppm: parts per million; µg/m^3: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.
a. California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded. California AAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
b. National standards (other than O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the

TABLE 4.2-3 AMBIENT AIR QUALITY STANDARDS FOR CRITERIA AIR POLLUTANTS

Pollutant	Averaging Time	California Standard [a]	Federal Primary Standard [b]	Major Pollutant Sources

standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

c. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

d. On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

e. On February 7, 2024, the national annual $PM_{2.5}$ standard was lowered from 12 µg/m^3 to 9 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary), secondary annual $PM_{2.5}$ standard, and PM_{10} standards (primary and secondary) were retained.

f. On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

Source: California Air Resources Board, May 4, 2016, *Ambient Air Quality Standards*, https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf.

California has also adopted a host of other regulations that reduce criteria pollutant emissions.

- **Assembly Bill (AB) 1493: Pavley Fuel Efficiency Standards.** Pavley I is a clean-car standard that reduced emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.
- **Heavy-Duty (Tractor-Trailer) Greenhouse Gas (GHG) Regulation.** The tractors and trailers subject to this regulation must either use USEPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay-verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low-rolling-resistance tires. Sleeper-cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay-verified low-rolling-resistance tires. This rule has criteria air pollutant co-benefits.
- **California Code of Regulations (CCR) Title 20: Appliance Energy Efficiency Standards.** The 2006 Appliance Efficiency Regulations (20 CCR secs. 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. This Code reduces natural gas use from appliances.
- **24 CCR, Part 6: Building and Energy Efficiency Standards.** Energy conservation standards for new residential and nonresidential buildings adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977. This Code reduces natural gas use from buildings.
- **24 CCR, Part 11: Green Building Standards Code.** Establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. This Code reduces natural gas use from buildings.

Tanner Air Toxics Act and Air Toxics Hot Spot Information and Assessment Act

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and reduce exposure to them. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health" (17 CCR Section 93000). A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal CAA (42 United States Code Section 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act set up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit that TAC. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate "toxics best available control technology" to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings. CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR Chapter 10 Section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. Generally restricts on-road diesel-powered commercial motor vehicles with a gross vehicle weight rating of greater than 10,000 pounds from idling more than five minutes.
- 13 CCR Chapter 10 Section 2480: Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools. Generally restricts a school bus or transit bus from idling for more than five minutes when within 100 feet of a school.
- 13 CCR Section 2477 and Article 8: Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate. Regulations established to control emissions associated with diesel-powered TRUs.

Regional

Bay Area Air Quality Management District

BAAQMD is the agency responsible for ensuring that the National and California AAQS are attained and maintained in the SFBAAB. Air quality conditions in the SFBAAB have improved significantly since the BAAQMD was created in 1955. BAAQMD prepares air quality management plans (AQMP) to attain AAQS in the SFBAAB. BAAQMD prepares ozone attainment plans for the National O3 standard and clean air

plans for the California O3 standard. BAAQMD prepares these AQMPs in coordination with Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) to ensure consistent assumptions about regional growth.

Bay Area Air Quality Management District 2017 Clean Air Plan

BAAQMD adopted the 2017 "Clean Air Plan: Spare the Air, Cool the Climate" (2017 Clean Air Plan) on April 19, 2017, making it the most recently adopted comprehensive plan. The 2017 Clean Air Plan incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2017 Clean Air Plan serves as an update to the adopted Bay Area 2010 Clean Air Plan and continues to provide the framework for SFBAAB to achieve attainment of the California and National AAQS. The 2017 Clean Air Plan updates the Bay Area's ozone plan, which is based on the "all feasible measures" approach to meet the requirements of the California CAA. It sets a goal of reducing health risk impacts to local communities by 20 percent between 2015 and 2020 and lays the groundwork for reducing GHG emissions in the Bay Area to meet the State's 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

A comprehensive multipollutant control strategy was developed to be implemented in the next three to five years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone, particulate matter, TACs, and GHG from a full range of emission sources. These control measures cover the following sectors: (1) stationary (industrial) sources, (2) transportation, (3) energy, (4) agriculture, (5) natural and working lands, (6) waste management, (7) water, (8) super-GHG pollutants, and (9) buildings.

The proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and TACs from all key sources.
- Reduce emissions of "super-GHGs" such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (gasoline, diesel, and natural gas).
  - Increase efficiency of the energy and transportation systems.
  - Reduce demand for vehicle travel, and high-carbon goods and services.
- Decarbonize the energy system.
  - Make the electricity supply carbon-free.

- Electrify the transportation and building sectors.[12]

Community Air Risk Evaluation Program

BAAQMD's Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposure to outdoor TACs in the Bay Area, primarily DPM. The last update to this program was in 2014. Based on findings of the latest report, DPM was found to account for approximately 85 percent of the cancer risk from airborne toxics. Carcinogenic compounds from gasoline-powered cars and light duty trucks were also identified as significant contributors: 1,3-butadiene contributed 4 percent of the cancer risk-weighted emissions, and benzene contributed 3 percent. Collectively, five compounds—DPM, 1,3-butadiene, benzene, formaldehyde, and acetaldehyde—were found to be responsible for more than 90 percent of the cancer risk attributed to emissions. All of these compounds are associated with emissions from internal combustion engines. The most important sources of cancer risk-weighted emissions were combustion-related sources of DPM, including on-road mobile sources (31 percent), construction equipment (29 percent), and ships and harbor craft (13 percent). Overall, cancer risk from TAC dropped by more than 50 percent between 2005 and 2015, when emissions inputs accounted for State diesel regulations and other reductions.

The major contributor to acute and chronic non-cancer health effects in the BAAQMD is acrolein (C_3H_4O). Major sources of acrolein are on-road mobile sources and aircraft near freeways and commercial and military airports. Currently CARB does not have certified emission factors or an analytical test method for acrolein. Since the appropriate tools needed to implement and enforce acrolein emission limits are not available, BAAQMD does not conduct health risk screening analysis for acrolein emissions.

Assembly Bill 617 Community Action Plans

AB 617 (C. Garcia, Chapter 136, Statues of 2017) was signed into law in July 2017 to develop a new community-focused program to reduce exposure more effectively to air pollution and preserve public health in environmental justice communities. AB 617 directs CARB and all local air districts to take measures to protect communities disproportionally impacted by air pollution through monitoring and implementing air pollution control strategies.

On September 27, 2018, CARB approved BAAQMD's recommended communities for monitoring and emission reduction planning. The State approved communities for year 1 of the program as well as communities that would move forward over the next five years. Bay Area recommendations included all the CARE areas, areas with large sources of air pollution (e.g., refineries, seaports, and airports), areas identified via statewide screening tools as having pollution and/or health burden vulnerability, and areas with low life expectancy.[13]

[12] Bay Area Air Quality Management District, 2017, *Spare the Air, Cool the Climate: Final 2017 Clean Air Plan*, https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf.

[13] Bay Area Air Quality Management District, 2019, *AB 617 Fact Sheet: San Francisco Bay Area Community Health Protection Program*, https://www.baaqmd.gov/~/media/files/ab617-community-health/2019_0325_ab617onepager-pdf.pdf?la=en&rev=9f6dcd6de8854fd9853ff0498c6bbdff.

- Year 1 Communities:
  - West Oakland. The West Oakland community was selected for BAAQMD's first Community Action Plan. In 2017, cancer risk from sources in West Oakland (local sources) was 204 in a million. The primary sources of air pollution in West Oakland include heavy trucks and cars, port and rail sources, large industries, and to a lesser extent other sources such as residential sources (i.e., wood burning). The majority (over 90 percent) of cancer risk is from DPM.
  - Richmond. Richmond was selected for a community monitoring plan in year 1 of the AB 617 program. The Richmond area is in western Contra Costa County and includes most of Richmond and portions of El Cerrito. It also includes communities just north and east of Richmond, such as San Pablo and several unincorporated communities, including North Richmond. The primary goals of the Richmond monitoring effort are to leverage historical and current monitoring studies, better characterize the area's mix of sources, and more fully understand the associated air quality and pollution impact.
- Year 2 to 5 Communities: East Oakland/San Leandro, Eastern San Francisco, the Pittsburg-Bay Point area, San Jose, Tri-Valley, and Vallejo are slated for action in years 2 to 5 of the AB 617 program.[14]

BAAQMD Rules and Regulations

Regulation 7, Odorous Substances

Sources of objectionable odors may occur within the unincorporated county. BAAQMD's Regulation 7, Odorous Substances, places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Odors are also regulated under BAAQMD Regulation 1, Rule 1-301, Public Nuisance, which states that "no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause, injury or damage to business or property." Under BAAQMD's Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance.

Other BAAQMD Regulations

In addition to the plans and programs described above, BAAQMD administers a number of specific regulations on various sources of pollutant emissions that would apply to the proposed project:

- Regulation 2, Rule 2, Permits, New Source Review
- Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- Regulation 6, Rule 1, General Requirements
- Regulation 6, Rule 2, Commercial Cooking Equipment
- Regulation 8, Rule 3, Architectural Coatings

[14] Bay Area Air Quality Management District, 2019, *AB 617 Fact Sheet: San Francisco Bay Area Community Health Protection Program*, https://www.baaqmd.gov/~/media/files/ab617-community-health/2019_0325_ab617onepager-pdf.pdf?la=en&rev=9f6dcd6de8854fd9853ff0498c6bbdff.

- Regulation 8, Rule 4, General Solvent and Surface Coatings Operations
- Regulation 11, Rule 2, Asbestos, Demolition, Renovation and Manufacturing

Plan Bay Area 2050

MTC and ABAG adopted Plan Bay Area 2050 on October 21, 2021. Plan Bay Area provides transportation and environmental strategies to continue to meet the regional transportation-related GHG reduction goals of Senate Bill 375, which is described further in Chapter 4.7, *Greenhouse Gas Emissions*, of this Draft EIR. Strategies to reduce GHG emissions include focusing housing and commercial construction in walkable, transit-accessible places; investing in transit and active transportation; and shifting the location of jobs to encourage shorter commutes. To achieve MTC's/ABAG's sustainable vision for the Bay Area, the Plan Bay Area land use concept plan for the region concentrates the majority of new population and employment growth in the region in Priority Development Areas (PDAs). PDAs are transit-oriented, infill development opportunity areas within existing communities. An overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions.

Local

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to air quality that are relevant to the proposed project are found in the Conservation Element and are listed in Table 4.2-4, *City of Belmont 2035 General Plan Policies Relevant to Air Quality.*

TABLE 4.2-4 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO AIR QUALITY

Policy Number	Policy Text
Chapter 5, Conservation Element	
Policy 5.10-2	Require that new development with sensitive uses that is located adjacent to sources of toxic air contaminants (TAC) be designed to minimized any potential health risks.
Policy 5.10-3	Ensure that construction and grading activities minimize short-term impacts to air quality by employing appropriate mitigation measures and best practices.
Policy 5.10-4	Support land use, transportation management, infrastructure, and environmental planning programs that reduce vehicle emissions and improve air quality.
Policy 5.10-5	Provide information about non-toxic alternatives to construction, interior and exterior finishes and furnishings, and planting and landscaping maintenance to contractors, business owners and homeowners to enhance indoor and outdoor air quality and reduce exposure to toxins.
Policy 5.10-6	Ensure compliance with the most current Bay Area Clean Air Plan by implementing the Plan's recommended Transportation Control Measures (TCMs). *See policies under Goal 3.2*. *Note: the 2017 Clean Air Plan identifies numerous TCMs aimed at reducing vehicle trips and vehicle miles traveled; increasing access to and support of alternative modes of transportation; promoting compact, walkable land use patterns; and increasing public education and awareness.*

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to air quality. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to air quality are included in Chapter 7, *Buildings,* and Chapter 25*, Trees.*

- Chapter 7, Article IV, Division 4, *Mechanical Code*, adopts the 2022 California Building Code, Part 4, Mechanical Code, by reference, which includes provisions for indoor filtration for new residential and non-residential developments.
- Chapter 7, Article IV, Division 10, *Green Building Standards Code*, includes definition updates for terms from the 2022 California Building Standards Code as well as specific local requirements for new development related to EV charging and building fuel use. In particular, Section 7-98.4.106.5, *All-electric buildings*, stipulates that new construction buildings and qualifying alteration projects shall comply with Section 4.106.5.1 or 4.106.5.2 so that they do not use *combustion equipment* or are ready to accommodate installation of *electric heating appliances*.
- Chapter 7, Article IV, Division 10, Section 7-98.4.106.5.1, *New construction and qualifying alteration projects*, stipulates that all newly constructed buildings shall be *all-electric buildings*. Alterations that include replacement of over 50 percent of the existing foundation for purposes other than a repair or reinforcement, or where over 50 percent of the existing framing above the sill plate is removed or replaced for purposes other than repair, shall be *all-electric buildings*. Exceptions to this code include:
  - Multifamily residential building projects that have approved entitlements before the effective date of this section may install *fuel gas* for water heating systems serving multiple dwelling units. The applicant shall comply with Section 4.106.5.2.
  - If the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the California Building Energy Efficiency Standards, and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Efficiency Standards using commercially available technology and an approved calculation method, then the local enforcing agency may grant a modification. The applicant shall comply with Section 4.106.5.2.
- Chapter 25, *Trees*, provides guidance on Protected Trees in order to preserve scenic beauty, and welfare of residents and in order to counteract air pollutants and maintain climatic balances, among reasons. If a person wants to remove a Protected Tree, they must submit an application and pay the applicable fees as established by the City Council. A notice form must also be placed on the tree during the review process. This chapter is also known as the Belmont Tree Ordinance. Protected Trees include principal native trees, such as a Coast Live Oak, Valley Oak, Redwood, Madrone, Bay Laurel, or Buckeye having a single main stem or trunk of 10 inches or more diameter at 4.5 feet above grade height (DBH), or up to three of the largest secondary stems totaling 10 inches or more DBH. They also include woody, perennial plants with 14 inches or more in DBH.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and

complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.2.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

4.2.1.2 EXISTING CONDITIONS

San Francisco Bay Area Air Basin Conditions

California is divided geographically into air basins for the purpose of managing the air resources of the State on a regional basis. An air basin generally has similar meteorological and geographic conditions throughout. The State is divided into 15 air basins, and the City of Belmont is in the SFBAAB. The discussion below identifies the natural factors in the Air Basin that affect air pollution. Air pollutants of concern are criteria air pollutants and TACs. Federal, State, and local air districts have adopted laws and regulations intended to control and improve air quality.

BAAQMD is the regional air quality agency for the SFBAAB, which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara Counties; the southern portion of Sonoma County; and the southwestern portion of Solano County. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions.[15]

Meteorology

The SFBAAB is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range[16] splits in the Bay Area, creating a western coast gap, the Golden Gate, and an eastern coast gap, the Carquinez Strait, which allows air to flow in and out of the Bay Area and the Central Valley. The climate is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface because of the northwesterly flow produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold-water band, resulting in condensation and the presence of fog and stratus clouds along the Northern California coast. In the winter, the Pacific high-pressure cell weakens and shifts southward, resulting in wind flow

[15] Bay Area Air Quality Management District, 2017, C*alifornia Environmental Quality Act Air Quality Guidelines,* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.

[16] The Coast Range traverses California's west coast from Humboldt County to Santa Barbara County.

offshore, the absence of upwelling, and the occurrence of storms. Weak inversions coupled with moderate winds result in a low air pollution potential.

Wind Patterns

During the summer, winds flowing from the northwest are drawn inland through the Golden Gate and over the lower portions of the San Francisco Peninsula. Immediately south of Mount Tamalpais in Marin County, the northwesterly winds accelerate considerably and come more directly from the west as they stream through the Golden Gate. This channeling of wind through the Golden Gate produces a jet that sweeps eastward and splits off to the northwest toward Richmond and to the southwest toward San José when it meets the East Bay hills. Wind speeds may be strong locally in areas where air is channeled through a narrow opening, such as the Carquinez Strait, the Golden Gate, or the San Bruno gap.

The air flowing in from the coast to the Central Valley, called the sea breeze, begins developing at or near ground level along the coast in late morning or early afternoon and the sea breeze deepens and increases in velocity while spreading inland. Under normal atmospheric conditions, the air in the lower atmosphere is warmer than the air above it. In the winter, the SFBAAB frequently experiences stormy conditions with moderate to strong winds, as well as periods of stagnation with very light winds. Winter stagnation episodes (i.e., conditions where there is little mixing, which occurs when there is a lack of or little wind) are characterized by nighttime drainage flows in coastal valleys. Drainage is a reversal of the usual daytime air-flow patterns; air moves from the Central Valley toward the coast and back down toward the Bay from the smaller valleys within the SFBAAB.

Temperature

Summertime temperatures in the Air Basin are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the Central Valley, and small-scale local gradients are often produced along the shorelines of the ocean and bays. The temperature gradient near the ocean is also exaggerated, especially in summer, because of the upwelling of cold water from the ocean bottom along the coast. On summer afternoons, the temperatures at the coast can be 35 degrees Fahrenheit (°F) cooler than temperatures 15 to 20 miles inland; at night, this contrast usually decreases to less than 10°F. In the winter, the relationship of minimum and maximum temperatures is reversed. During the daytime the temperature contrast between the coast and inland areas is small, whereas at night the variation in temperature is large.

Precipitation

The Air Basin is characterized by moderately wet winters and dry summers. Winter rains (November through March) account for about 75 percent of the average annual rainfall. The amount of annual precipitation can vary greatly from one part of the Air Basin to another, even within short distances. In general, total annual rainfall can reach 40 inches in the mountains, but it is often less than 16 inches in sheltered valleys.

During rainy periods, ventilation (rapid horizontal movement of air and injection of cleaner air) and vertical mixing (an upward and downward movement of air) are usually high, and thus pollution levels

tend to be low (i.e., air pollutants are dispersed more readily into the atmosphere rather than accumulate under stagnant conditions). However, during the winter, frequent dry periods do occur, where mixing and ventilation are low and pollutant levels build up.

Wind Circulation

Low wind speed contributes to the buildup of air pollution because it allows more pollutants to be emitted into the air mass per unit of time. Light winds occur most frequently during periods of low sun (fall and winter, and early morning) and at night. These are also periods when air pollutant emissions from some sources are at their peak, namely, commuter traffic (early morning) and wood-burning appliances (nighttime). The problem can be compounded in valleys, when weak flows carry the pollutants up-valley during the day, and cold air drainage flows move the air mass down-valley at night. Such restricted movement of trapped air provides little opportunity for ventilation and leads to buildup of pollutants to potentially unhealthful levels.

Inversions

An inversion is a layer of warmer air over a layer of cooler air. Inversions affect air quality conditions significantly because they influence the mixing depth (i.e., the vertical depth in the atmosphere available for diluting air contaminants near the ground). There are two types of inversions that occur regularly in the SFBAAB. Elevation inversions[17] are more common in the summer and fall, and radiation inversions[18] are more common during the winter. The highest air pollutant concentrations in the SFBAAB generally occur during inversions.

Attainment Status of the SFBAAB

The AQMP provides the framework for air quality basins to achieve attainment of the State and federal AAQS through the State Implementation Plan. Areas that meet AAQS are classified attainment areas, and areas that do not meet these standards are classified nonattainment areas. Severity classifications for O_3 range from marginal, moderate, and serious to severe and extreme.

- Unclassified: A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- Attainment: A pollutant is in attainment if the AAQS for that pollutant was not violated at any site in the area during a three-year period.
- Nonattainment: A pollutant is in nonattainment if there was at least one violation of an AAQS for that pollutant in the area.
- Nonattainment/Transitional: A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

[17] When the air blows over elevated areas, it is heated as it is compressed into the side of the hill/mountain. When that warm air comes over the top, it is warmer than the cooler air of the valley.

[18] During the night, the ground cools off, radiating the heat to the sky.

The attainment status for the SFBAAB is shown in Table 4.2-5, *Attainment Status of Criteria Pollutants in the San Francisco Bay Area Air Basin.* The SFBAAB is currently designated a nonattainment area for California and National O_3, California and National $PM_{2.5}$, and California PM_{10} AAQS.

TABLE 4.2-5 ATTAINMENT STATUS OF CRITERIA AIR POLLUTANTS IN THE SAN FRANCISCO BAY AREA AIR BASIN

Pollutant	State	Federal
Ozone – 1-hour	Nonattainment	Classification revoked (2005)
Ozone – 8-hour	Nonattainment (serious)	Nonattainment (marginal) [a]
PM_{10}	Nonattainment	Unclassified/Attainment [b]
$PM_{2.5}$	Nonattainment	Unclassified/Attainment
CO	Attainment	Attainment
NO_2	Attainment	Unclassified
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	Attainment	Unclassified/Attainment
All others	Unclassified/Attainment	Unclassified/Attainment

Notes:
a. Severity classification as of February 13, 2017.
b. In December 2014, USEPA issued final area designations for the 2012 primary annual $PM_{2.5}$ National AAQS. Areas designated "unclassifiable/attainment" must continue to take steps to prevent their air quality from deteriorating to unhealthy levels (effective April 15, 2015).
Source: California Air Resources Board, Maps of State and Federal Area Designations, https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the county are best documented by measurements taken by BAAQMD. BAAQMD has 30 permanent monitoring stations around the Bay Area. The nearest station is the Redwood City Monitoring Station, which monitors O_3, NO_2, and $PM_{2.5}$. The Redwood City Monitoring Station does not monitor PM_{10}, therefore, the nearest station for and PM_{10} is the San José-Jackson Street monitoring station. Data from these monitoring stations are summarized in Table 4.2-6, *Ambient Air Quality Monitoring Summary*. The data show that the area regularly exceeds the State and federal one-hour and eight-hour O_3 standards and federal $PM_{2.5}$, and occasionally exceeds the State and federal PM_{10} in the last three recorded years.

TABLE 4.2-6 AMBIENT AIR QUALITY MONITORING SUMMARY

Pollutant/Standard [a]	Number of Days Thresholds Were Exceeded and Maximum Levels 2020	2021	2022
Ozone (O_3) [a]			
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	1	0	0
State & Federal 8-hour ≥ 0.070 ppm (days exceed threshold)	1	0	0
Max. 1-Hour Conc. (ppm)	0.098	0.085	0.079
Max. 8-Hour Conc. (ppm)	0.078	0.064	0.062
Nitrogen Dioxide (NO_2) [a]			
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	0	0
Max. 1-Hour Conc. (ppm)	0.046	0.041	0.044
Coarse Particulates (PM_{10}) [b]			
State 24-Hour > 50 µg/m^3 (days exceed threshold)	10	0	0
Federal 24-Hour > 150 µg/m^3 (days exceed threshold)	0	0	0
Max. 24-Hour Conc. (µg/m^3)	137.1	45.1	44.5
Fine Particulates ($PM_{2.5}$) [a]			
Federal 24-Hour > 35 µg/m^3 (days exceed threshold)	9	0	0
Max. 24-Hour Conc. (µg/m^3)	124.1	30.1	27.4

Notes: ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter; * = Data not available
a. Data for O_3, NO_2 and $PM_{2.5}$ obtained from the Redwood City Monitoring Station.
b. Data for PM_{10} obtained from the San José-Jackson Street Monitoring Station.
Source: California Resources Board, Air Pollution Data Monitoring Cards (2020, 2021, and 2022), https://www.arb.ca.gov/adam/topfour/topfour1.php.

Sensitive Receptors

Some land use types are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. BAAQMD defines sensitive receptors as "Facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals and residential areas".[19]

Residential areas are also considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as most of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

[19] Bay Area Air Quality Management District, 2023, California Environmental Quality Act Air Quality Guidelines. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

4.2.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant air quality impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.
5. In combination with past, present, and reasonably foreseeable projects, result in cumulative air quality impacts in the area.

4.2.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University (NDNU) was at full capacity. The following operational analysis is based on occupancy and therefore utilizes information gathered in 2013, while the following construction analysis is based on the built environment and utilizes information gathered in 2023.

Methodology

Construction

Mass Emissions

In calculating construction emissions from the proposed project, the following updates were made to the CalEEMod default construction activities and emission factors:

- Total construction activity for buildout of the proposed project was based on CalEEMod default construction schedule and activities for land use categories used for the emissions modeling. CalEEMod-default construction duration based on the land uses sizes was approximately four years. However, to account for a conservatively compressed potential buildout schedule, CalEEMod default construction phase durations were halved, while total equipment and construction-default on-road activity was conserved. The result of this was an effective doubling of equipment population, to account for an assumed compressed construction schedule of two years, vehicle activity, and emissions on a given construction day. The CalEEMod default construction duration for the entire project site was compressed to two years to represent the most intensive buildout schedule that could be possible for the project and is a conservative assessment of project construction impacts as

it results in higher annual construction emissions and pollutant concentrations for the purpose of the criteria air pollutant emissions and health risk analyses.

- Construction of the proposed project was assumed to include demolition of all existing buildings except for the three historic buildings that will remain (Taube Center, Madison Art Center, and Ralston Hall Mansion).
- Stanford has committed to using renewable diesel and Tier 4 engines for all off-road equipment, including those rated less than 50 horsepower. The emission factors for Tier 4 engines were obtained from CalEEMod, which are based on CARB's Carl Moyer Guidelines.
- All worker vehicles are assumed to be fueled by gasoline, and all vendor vehicles and haul trucks are assumed to be fueled by diesel. On-road emissions were calculated using emission factors from EMFAC2021.
- One-way haul truck trip rates and VMT were calculated based on the amount of material to be moved and the truck capacity of 10 tons (or 16 cubic yards) per truck, as provided by Stanford.
- 50 percent of the parking spaces are assumed to be in a parking lot, while the other 50 percent are assumed to be in enclosed parking garages with an elevator. The parking lot is assumed to be paved with asphalt.
- Implementation of the City's following standard condition related to VOC:

  > Pursuant to the City of Belmont 2035 General Plan EIR Mitigation Measure AQ-3, the applicant shall require their contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that low-VOC coatings that have a VOC content of 10 grams/liter (g/L) or less are used during construction. The project applicant will submit evidence of the use of low-VOC coatings to BAAQMD prior to the start of construction.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Health Risk Assessment

A site-specific construction health risk assessment (HRA) was prepared which evaluates the estimated cancer risk, non-cancer chronic and acute hazard indices (HIs), and fine particulate matter ($PM_{2.5}$) concentration associated with construction of the proposed project. The HRA conservatively assumes that the proposed project would be constructed in one phase, which assumes an elevated pollutant concentration at nearby receptors during the most susceptible years of development (e.g., third trimester pregnancy, infants). In addition, construction of the proposed project was assumed to include demolition of all existing buildings except for the three historic buildings that will remain (Taube Center, Madison Art Center, and Ralston Hall Mansion). The HRA also conservatively excludes any health risk reduction benefits of the proposed project for removing the existing operations on the project site. Since the proposed project does not anticipate adding any new stationary sources to the site, with the exception of potential

laboratory spaces (see discussion below), health risks from the proposed project's operations were not quantified.

To estimate air concentrations of DPM and $PM_{2.5}$, Ramboll used AERMOD v22112, a steady-state Gaussian plume model developed by USEPA for regulatory applications, along with AERMET v18081. AERMOD requires emission source locations and release parameters, receptor locations, and processed meteorological data. An overview of AERMOD input parameters, selected in accordance with the BAAQMD's 2022 CEQA Guidelines, is provided in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR. Construction emissions were modeled as occurring between 8 am and 5 pm, consistent with the City of Belmont's noise ordinance. AERMOD's variable emission factor option was used to limit emissions to this time period.

Ramboll used three years (2013 to 2015) of meteorological data from the BAAQMD San Carlos Airport meteorological station with upper air data collected at the Oakland International Airport for the same time period. Elevation and land use data were imported from the National Elevation Dataset maintained by the United States Geological Survey at a resolution of 1/3 arc-second (10m). Another important consideration in an air dispersion modeling analysis is the selection of whether to model an urban area. Here the model assumes an urban land use with representative population as has been done for similar projects in the area.

Emissions from each source group were modeled using the x/Q ("chi over q") method, such that each source has unit emission rates (i.e., 1 gram per second [g/s]), and the model estimates dispersion factors with units of [$\mu g/m^3$]/[g/s]. For annual average ambient air concentrations, the estimated annual average dispersion factors were multiplied by the annual average emission rates. The emission rates will vary day to day, with some days having no emissions. For simplicity, the model assumed a constant emission rate during the entire year.

For the HRA, a receptor grid with 20-meter spacing was used for areas within 1,000 feet of the facility. All sensitive receptors (resident, worker, high school, elementary school, daycare, and preschool) were identified within the receptor grid. All the receptors were modeled at a breathing height of 1.5 meters as recommended in BAAQMD guidance.[20] For each receptor location, the model generated air concentrations (or air dispersion factors as unit emissions that were modeled) that result from emissions from multiple sources. The maximally exposed individual (MEI) location with the maximum health risk impacts from project construction is a residence about 80 feet from the project site boundary (see Figure 4.2-1, *Maximally Exposed Individual*).

[20] Bay Area Air Quality Management District, 2023, *California Environmental Quality Act Air Quality Guidelines*, Appendix E, *Recommended Methods for Screening and Modeling Local Risks and Hazard*, https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-e-recommended-methods-for-screening-and-modeling-local-risks-and-hazards_final-pdf.pdf?la=en.

Source: © Nearmap, 2024 (Date 2-18-2024). Ramboll, 2023.

Figure 4.2-1
Maximally Exposed Individual

Operation

As previously discussed, the proposed project would result in the operation of up to 700,000 square feet of building space and associated parking and housing units (see Table 3-2, *Existing and Proposed Development*, in Chapter 3, *Project Description*, of this Draft EIR). To calculate emissions and energy consumption from the existing land uses, emission factors consistent with project partial buildout and full buildout years were applied to site activity levels in 2013. Therefore, the proposed project's net new operational emissions were estimated by calculating the difference between 2013 baseline emissions at full occupancy of the NDNU campus and project emissions at partial and full buildout of the proposed project. Details of emission estimate assumptions for each operational criteria air pollutant emissions are provided below.

On-Road Mobile Sources

Daily trips and VMT generated by the existing conditions and the proposed project were provided by Stanford's transportation consultant. The proposed project will implement a TDM program that would result in a 19.2 percent reduction in trips and VMT compared to campus operations without such a program.

Mobile emission factors from running, idling, and starting vehicle exhaust, as well as evaporative running loss, tire wear, and brake wear emissions were calculated using EMFAC2021 for San Mateo County. Running exhaust, running loss evaporative, tire wear, and brake wear emissions were determined using factors with units of grams/mile while idling, and starting exhaust and other evaporative emissions were determined using factors with units of grams/trip. These mobile emission factors are based on default vehicle population projections in EMFAC2021 and do not account for CARB's Advanced Clean Cars II rule, which requires 100 percent of new cars and light trucks to be zero-emission vehicles by 2035.

Vehicles driving on roadways would also emit $PM_{2.5}$ and PM_{10} in the form of resuspended road dust. The weighted average silt loading factor specific to San Mateo County was calculated based on travel fraction by roadway category and silt loading parameters obtained from CARB's Entrained Road Travel Emission Inventory Source Methodology document, as shown in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR. The average silt loading factor was then used in conjunction with parameters from the CARB Miscellaneous Process Methodology 7.9 for Entrained Road Travel, Paved Road Dust to calculate fugitive PM_{10} and $PM_{2.5}$ emission factors, summarized in Appendix C of this Draft EIR. Road dust $PM_{2.5}$ and PM_{10} emissions were added to exhaust $PM_{2.5}$ and PM_{10} emissions for comparison against BAAQMD's total operational criteria air pollutant emissions significance thresholds. As discussed above, mobile emissions for the proposed project's partial and full operations do not account for the Advanced Clean Cars II rule and are therefore conservative. Mobile emissions from the proposed project are expected to be less than what is presented in Table 4.2-9, *Summary of Criteria Air Pollutant Emissions from Existing Conditions and Project Operations*, due to the higher fleet projections of zero-emission vehicles by 2035.

Area Sources

Area sources that would generate criteria air pollutant emissions from project operations would include landscaping equipment, consumer products, and architectural coatings.

For emissions from landscaping equipment, annual usage hours for typical landscaping equipment were estimated based on CalEEMod default usage hours per residential and non-residential square foot, derived from CARB's Small Off-Road Engines Model. Existing and proposed project landscaping areas were obtained from the Preliminary Engineering Report. To be conservative, all CalEEMod default landscaping equipment was assumed to be used except for snowblowers, which are not expected for the proposed project's climate. All landscaping equipment was assumed to use gasoline. Usage and emissions for gasoline landscaping equipment are summarized in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR. CARB's AB No. 1346 requires engines of landscaping equipment produced on or after January 1, 2024, to be zero-emissions (e.g., electric). This is expected to increase the amount of zero-emission landscaping equipment in the Statewide fleet. Consistent with the Statewide trend, the percentage of zero-emission landscaping equipment used for project operations is expected to be non-zero and to grow during the proposed project's buildout period. Thus, the estimates for project operations in Table 4.2-9, *Summary of Criteria Air Pollutant Emissions from Existing Conditions and Project Operations*, are conservative (i.e., they represent a "worst case" scenario).

Operational architectural coatings include the reapplication of paint and coatings on interior and exterior surfaces, which result in emissions of ROG. CalEEMod default assumptions were used to calculate the building surface area that would be coated, as well as the application rate and outdoor ROG emission factors based on BAAQMD Regulation 8 Rule 3 paint VOC regulations. All VOC content parameters used CalEEMod default assumptions for BAAQMD except for the indoor paint VOC content, which was required to be low-VOC paint by the City's standard condition. In addition, ROG emissions for parking garages were calculated using CalEEMod default assumptions for additional painting of stripes, handicap symbols, directional arrows, and car space descriptions for parking land uses.

Consumer product emissions come from various non-industrial solvents, including cleaning supplies, kitchen aerosols, cosmetics, and toiletries, which emit ROG during their use. CalEEMod provides a statewide consumer products emission factor based on CARB's 2008 emissions inventory. For this analysis, a San Mateo County specific emission factor was developed based on the emissions from consumer products from CARB's 2020 emissions inventory for San Mateo County and the building square footage in the county using the same methodologies utilized in CalEEMod. The emission factor for the parking area and parks are the default values for these land use categories from the CalEEMod User's Guide. ROG emissions from consumer product uses are summarized in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR.

The proposed project would be required to implement the City's following standard condition related to green consumer products:

> Pursuant to City of Belmont 2035 General Plan EIR Mitigation Measure AQ-5, the developer(s) shall provide education for residential and commercial tenants concerning green consumer products. Prior to receipt of any certificate of final occupancy, the project sponsors shall work with the City of Belmont to develop electronic correspondence to be distributed by email to new residential and commercial tenants that encourages the purchase of consumer products that generate lower than typical VOC emissions. Examples of green products may include low-VOC architectural coatings, cleaning supplies, and consumer products, as well as alternatively fueled landscaping equipment.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Implementation of this standard condition may result in higher likelihood for the proposed project occupants and patrons to use green products compared to the regional average. Potential ROG emissions would be reduced by the use of green products, such as low-VOC coatings, cleaning supplies, and consumer products, as well as alternatively fueled landscaping equipment. However, because the use of green products is a voluntary action, emissions estimated for area sources did not quantify the additional reductions that may result from this standard condition.

Energy Sources

Typical commercial and residential buildings consume natural gas and electricity. Both energy sources would generate GHG emissions; however, only on-site consumption of natural gas in heaters, boilers, and stoves would generate project-specific criteria air pollutants emissions. The proposed project will be all electric and will not include any natural gas hookups. Proposed project buildings would be all-electric, with no natural gas hook-ups known at this time. Natural gas hook-ups may be necessary for laboratory uses associated with proposed academic uses; however, the design and energy needs of future laboratory uses are currently unknown, and it would be speculative to quantify criteria air pollutant emissions due to natural gas consumption associated with these future potential uses. Because the proposed new buildings on the project site would be all-electric, the default energy consumption from CalEEMod was adjusted to reflect an increase in electricity consumption consistent with the methodology presented in Sacramento Air Quality Management District GHG Thresholds development. Natural gas usage based on CalEEMod default parameters was replaced with electricity usage by multiplying the electric energy use rates from Table A-9 of the Sacramento Metropolitan Air Quality Management District Greenhouse Gas Threshold Report by the proposed project's number of dwelling units or non-residential square footage. Methodology from Sacramento Air Quality Management District (rather than from BAAQMD) was used because currently BAAQMD does not have guidance to account for increased electricity use to replace natural gas appliances and the Sacramento region is the one geographically closest to the SFBAAB with this guidance.

Existing conditions include both natural gas and electricity consumption for building operations. Electricity use and natural gas consumption for existing (2013) conditions were estimated from the campus's January 2018 to November 2020 utility bills. The total electricity and natural gas use was summed annually then divided by the campus population for each year to estimate a per-person use. This per person energy use was averaged and adjusted to the 2013 campus population.

AQ-1 The project would not conflict with or obstruct implementation of the applicable air quality plan.

Appendix G of the CEQA Guidelines requires a project to determine whether it would conflict with or obstruct implementation of the applicable air quality plan. The most recently adopted regional air quality plan is the BAAQMD 2017 Clean Air Plan,[21] which includes all feasible measures to reduce emissions of NOx and ROG, which are ozone precursors, reduce transport of ozone and its precursors, and reduce emissions of fine particulate matter and toxic air contaminants. The Clean Air Plan focuses on protecting public health and the climate, and includes measures designed to reduce GHG emissions in addition to air quality-related measures. The Clean Air Plan is established pursuant to air quality planning requirements defined in the California Health and Safety Code.

In determining consistency with the Clean Air Plan, this analysis considers whether the proposed project would (1) support the primary goals of the Clean Air Plan, (2) include applicable control measures from the Clean Air Plan, and (3) avoid disrupting or hindering implementation of control measures identified in the Clean Air Plan.

The 2017 Clean Air Plan defines a control strategy based on reducing emissions from all key sources, reducing "super-GHGs",[22] decreasing demand for fossil fuels, and decarbonizing the energy system. The control strategy contains 85 control measures that are specific actions to reduce air pollutants and GHGs in the San Francisco Bay Area Air Basin. These control strategies are grouped into the following economic sectors:

- Stationary source (SS)
- Transportation (TR)
- Energy (EN)
- Building (BL)
- Agriculture (AG)
- Natural and working lands (NW)
- Waste management (WA)
- Water (WR)
- Super-GHGs (SL)

The following economic sectors are not applicable to the proposed project: stationary source, agriculture, and super-GHGs. In addition, many of the control measures are beyond the scope and control of the proposed project. For instance, some control measures will be implemented by BAAQMD, publicly owned treatment works, and other public agencies, and therefore are not suited to implementation through approval actions for individual projects. The Clean Air Plan measures applicable to the proposed project are listed below along with how the proposed project would be consistent with the measures.

[21] Bay Area Air Quality Management District, 2017, *Spare the Air, Cool the Climate: Final 2017 Clean Air Plan*, https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf.

[22] Super-GHGs are defined in the Clean Air Plan as methane, black carbon, and fluorinated gases.

For measures that are largely directed at BAAQMD action, the summary below in Table 4.2-7, *Consistency of Project with Clean Air Plan Control Measures*, describes how project features would support the BAAQMD's implementation of the measures.

TABLE 4.2-7 CONSISTENCY OF PROJECT WITH CLEAN AIR PLAN CONTROL MEASURES

Measure	Measure Description	Project Consistency
TR1–Clean Air Teleworking Initiative	Develop teleworking best practices for employers and develop additional strategies to promote telecommuting. Promote teleworking on Spare the Air Days.	**Consistent**. The TDM program described in the next row would include a provision allowing telecommuting and a flexible work schedule.[23]
TR2 - Trip Reduction Programs	Implement the regional Commuter Benefits Program (Rule 14-1) that requires employers with 50 or more Bay Area employees to provide commuter benefits. Encourage trip reduction policies and programs in local plans, e.g., general and specific plans while providing grants to support trip reduction efforts. Encourage local governments to require mitigation of vehicle travel as part of new development approval, to adopt transit benefits ordinances in order to reduce transit costs to employees, and to develop innovative ways to encourage rideshare, transit, cycling, and walking for work trips. Fund various employer-based trip reduction programs.	**Consistent.** The proposed project will implement a TDM program, consistent with the City of Belmont's TDM Program requirements to support trip reduction.[24] The proposed project's TDM program will include, but is not limited to, the following measures: ▪ On-street bicycle racks/lockers ▪ Indoor bicycle racks and/or lockers ▪ Long-term bicycle parking for residents/workers ▪ Shower and locker facilities ▪ Provide curbside carpool/vanpool/rideshare loading zones ▪ Provide preferential parking for carpool/vanpool vehicles ▪ Provide employees with carpool/vanpool matching services ▪ Provide/participate in shuttle program ▪ Provide guaranteed emergency rides ▪ Participate in Transportation Management Association ▪ Designate a TDM Liaison ▪ Pre-tax transportation benefits ▪ Provide free transit passes ▪ Allow telecommuting and flexible work schedule
TR5 - Transit Efficiency and Use	Improve transit efficiency and make transit more convenient for riders through continued operation of 511 Transit, full implementation of Clipper® fare payment system and the Transit Hub Signage Program.	**Consistent**. The proposed project will provide a first/last mile shuttle service and subsidized transit fares to encourage use of Caltrain, SamTrans, and other transit services. The proposed project will implement a new shuttle service connecting the campus and Belmont Caltrain Station during peak periods, provide free transit passes, and provide pre-tax transportation benefits.
TR8 - Ridesharing	Promote carpooling and vanpooling by providing funding to continue regional and	**Consistent**. The proposed project will promote carpooling and vanpooling through a

[23] Fehr and Peers, 2023, *Conceptual Transportation Demand Management Plan*.
[24] Fehr and Peers, 2023, *Conceptual Transportation Demand Management Plan*.

TABLE 4.2-7 CONSISTENCY OF PROJECT WITH CLEAN AIR PLAN CONTROL MEASURES

Measure	Measure Description	Project Consistency
	local ridesharing programs, and support the expansion of carsharing programs. Provide incentive funding for pilot projects to evaluate the feasibility and cost-effectiveness of innovative ridesharing and other last-mile solution trip reduction strategies. Encourage employers to promote ridesharing and carsharing to their employees.	combination of a ride-matching program and preferential parking. The proposed project will incorporate all the carpool and vanpool measures identified in the City's TDM program, including providing curbside loading zones, preferential parking, and matching services.
TR9 - Bicycle and Pedestrian Access and Facilities	Encourage planning for bicycle and pedestrian facilities in local plans, e.g., general and specific plans, fund bike lanes, routes, paths and bicycle parking facilities.	Consistent. The proposed project will incorporate all the pedestrian and bicycle measures identified in the City's TDM program. Pedestrian measures will include sidewalk-facing pedestrian-oriented building entrances, multiple pedestrian entrances for large buildings, pedestrian breezeways/ paseos, extra-wide sidewalks and amenities. Bicycle measures will include on-street bicycle racks/lockers, indoor bicycle racks/lockers, long-term bicycle parking for residents/ workers, and shower/locker facilities.
TR22 – Construction, Freight and Farming Equipment	Provide incentives for the early deployment of electric, Tier 3 and 4 off-road engines used in construction, freight and farming equipment. Support field demonstrations of advanced technology for off-road engines and hybrid drive trains.	Consistent. A majority of the construction equipment used during the construction of the proposed project will have Tier 4 engines powered by renewable diesel, as required by the City's standard conditions as follows: ▪ Pursuant to GP EIR Mitigation Measure AQ-1, the applicant shall require their contractors, as a condition of contract, to further reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall operate on an EPA-approved Tier 4 or newer engine. Exemptions can be made for specialized equipment where Tier 4 engines are not commercially available within 200 miles of the project site. The construction contract must identify these pieces of equipment, document their unavailability, and ensure that they operate on no less than an EPA- approved Tier 3 engine. ARB regulations will result in the percentage of Tier 4 engines increasing over the next several years. ▪ Pursuant to GP EIR Mitigation Measure AQ-2, the applicant shall require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road

TABLE 4.2-7 CONSISTENCY OF PROJECT WITH CLEAN AIR PLAN CONTROL MEASURES

Measure	Measure Description	Project Consistency
		equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall operate on renewable diesel (such as Diesel high performance renewable). Renewable diesel is currently commercially available in San Francisco Bay Area.
EN1 - Decarbonize Electricity Production	Engage with PG&E, municipal electric utilities and CCEs to maximize the amount of renewable energy contributing to the production of electricity within the Bay Area as well as electricity imported into the region. Work with local governments to implement local renewable energy programs. Engage with stakeholders including dairy farms, forest managers, water treatment facilities, food processors, public works agencies and waste management to increase use of biomass in electricity production.	**Consistent**. Electricity used on the proposed project site will be provided from load serving entities (e.g., Pacific Gas & Electric, Peninsula Clean Energy) with 100 percent renewable service plans options. Utility compliance with the State's Renewable Portfolio Standard will ensure that electricity purchased for the proposed project will increasingly be procured from renewable sources through 2045. The proposed project is committed to sourcing all purchased electricity from 100 percent renewable sources.
EN2 – Decrease Electricity Demand	Work with local governments to adopt additional energy efficiency policies and programs. Support local government energy efficiency program via best practices, model ordinances, and technical support. Work with partners to develop messaging to decrease electricity demand during peak times.	**Consistent**. The proposed project will comply with existing energy standards and will not conflict with or obstruct the State and local plans for renewable energy or energy efficiency. The design of proposed buildings that are constructed through buildout must comply with the applicable energy efficiency standards contained in CCR Title 24, and appliances used in the proposed buildings must comply with the applicable energy efficiency standards contained in CCR Title 20. As such, the proposed project will maximize the energy efficiency design and performance of the buildings and appliances used through compliance with increasingly stringent energy efficiency standards.
WA3 - Green Waste Diversion	Develop model policies to facilitate local adoption of ordinances and programs to reduce the amount of green waste going to landfills.	**Consistent**. The proposed project will comply with the model waste diversion ordinance established by the State that requires a minimum of 65 percent of nonhazardous construction and demolition waste to be recycled and/or salvaged for reuse. The proposed project will also reuse or recycle 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing.

Source: Appendix C, *Air Quality, Energy, and Greenhouse Gases,* of this Draft EIR.

As illustrated in Table 4.2-7, the proposed project would be consistent with the pertinent goals and control measures of the BAAQMD's 2017 Clean Air Plan. Therefore, the proposed project's impact related to consistency with the applicable air quality plan would be *less than significant*.

Significance without Mitigation: Less than significant.

AQ-2	The project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

Construction

Construction emissions from the proposed project include on-site, off-road heavy equipment, off-site, on-road vehicle travel, architectural coating, paving, and fugitive dust. As described below, Ramboll updated several default assumptions to project-specific information to calculate emission estimates with CalEEMod equivalent methodologies. Where project-specific data were not available, Ramboll used CalEEMod defaults.

The BAAQMD thresholds of significance for construction-related PM_{10} and $PM_{2.5}$ criteria air pollutant emissions do not include a quantified fugitive dust emission threshold. For a project to have a less-than-significant criteria air pollutant impact related to construction-related fugitive dust emissions, that project must implement the BAAQMD's basic BMPs, including but not limited to, watering exposed surfaces two times a day, covering of haul trucks, and limiting vehicle speeds on unpaved road. Furthermore, all large projects are required to implement the City's following standard conditions to help reduce construction-related emissions and satisfy the performance requirements of the fugitive dust BMPs recommended by BAAQMD:

- Pursuant to the City of Belmont 2035 General Plan EIR Mitigation Measure AQ-1, the applicant shall require their contractors, as a condition of contract, to further reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 hp and operating for more than 20 total hours over the entire duration of construction activities shall operate on an EPA-approved Tier 4 or newer engine. Exemptions can be made for specialized equipment where Tier 4 engines are not commercially available within 200 miles of the project site. The construction contract must identify these pieces of equipment, document their unavailability, and ensure that they operate on no less than an EPA-approved Tier 3 engine. ARB regulations will result in the percentage of Tier 4 engines increasing over the next several years.

    a) The applicant must require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by implementing following measures during construction related activities: Idling times must be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage must be provided for construction workers at all access points.

b) All construction equipment must be maintained and properly tuned in accordance with manufacturer's specifications. All equipment must be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- Pursuant to the City of Belmont 2035 General Plan EIR Mitigation Measure AQ-2, the applicant shall require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall operate on renewable diesel (such as Diesel high performance renewable). Renewable diesel is currently commercially available in San Francisco Bay Area.
- Pursuant to the City of Belmont 2035 General Plan EIR Mitigation Measure AQ-3, the applicant shall require their contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that low-VOC coatings that have a VOC content of 10 grams/liter (g/L) or less are used during construction. The project applicant will submit evidence of the use of low-VOC coatings to BAAQMD prior to the start of construction.
- Pursuant to the City of Belmont 2035 General Plan EIR Mitigation Measure AQ-4, the applicant shall require their contractors, as a condition of contract, to reduce construction-related fugitive dust by implementing BAAQMD's basic control measures at all construction and staging areas. The following measures are based on BAAQMD's current CEQA guidelines.

  a) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day.

  b) All haul trucks transporting soil, sand, or other loose material offsite will be covered.

  c) All visible mud or dirt track-out onto adjacent public roads or sidewalks will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

  d) Entry and exit from the site will use rock or rumble strips to prevent tracking.

  e) All vehicle speeds on unpaved roads, driveways, or driving surfaces shall be limited to 15 mph.

  f) All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used.

  g) Post a publicly visible sign with the telephone number and the name of the person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The phone number of the Air District will also be visible to ensure compliance.

- The applicant must require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by implementing following measures during construction related activities:
  - Idling times must be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure CCR Title 13, Section 2485). Clear signage must be provided for construction workers at all access points.

- All construction equipment must be maintained and properly tuned in accordance with manufacturer's specifications. All equipment must be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- The applicant must require their contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that paints and solvents have a VOC content of 100 grams per liter or less for interior surfaces and 150 grams per liter or less for exterior surfaces.
- The owner/applicant must submit a dust control plan for approval by the Department of Public Works. To reduce dust levels, exposed earth surfaces shall be watered as necessary. The application of water must be monitored to prevent runoff into the storm drain system. Spillage resulting from hauling operations along or across any public or private property shall be removed immediately. Dust nuisances originating from the contractor's operations, either inside or outside of the right-of-way must be controlled. The measures must also include:

  a) Water all active construction sites at least twice daily.

  b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.

  c) Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.

  d) Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. All sidewalks shall be kept clear of dust and debris unless the sidewalk is closed as part of a City approved traffic control plan.

  e) Sweep streets daily along the haul route (with water sweepers) if visible soil material is carried onto adjacent public streets.

  f) Entry and exit from the site will use rock or rumble strips to prevent tracking.

  g) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).

  h) Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiled materials.

  i) Install sandbags or other erosion-control measures to prevent silt runoff to public roadways.

  j) Replant vegetation in disturbed areas as quickly as possible.

  k) Watering should be used to control dust generation during the break-up of pavement.

  l) Cover all trucks hauling demolition debris from the site.

  m) Use dust-proof chutes to load debris into trucks whenever feasible.

  n) Water or cover stockpiles of debris, soil, sand or other materials that can be blown by the wind.

  o) All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be in proper running order prior to operation.

p) Diesel powered equipment shall not be left inactive and idling for more than five minutes, and shall comply with applicable BAAQMD rules.

q) Use alternative fueled construction equipment, if possible.

r) All vehicle speeds on unpaved roads shall be limited to 15 mph.

s) Post a visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 24 hours. The Air District phone number shall also be visible to ensure compliance with applicable regulations.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

With compliance with the City's standard conditions, construction emissions of particulate matter would have a l*ess-than-significant* impact.

The proposed project's construction criteria air pollutant emissions are summarized in Table 4.2-8, *Summary of Construction Emissions by Source*.

As discussed in the Methodology section, the construction emissions shown in Table 4.2-8 reflect an assumed full buildout construction schedule of two years, which accounts for a doubling of equipment and vehicle activity to retain the default horsepower hours from CalEEMod. As a result, the construction emissions shown in Table 4.2-8 are considered a conservative estimate of construction emissions because the same extent of buildout for the proposed project would occur over a 30-year period and average daily construction emissions would be lower than what is shown in this analysis. Therefore, the proposed project's daily average criteria air pollutant emissions during the construction period would be below the BAAQMD's thresholds of significance, and this impact would be *less than significant*.

TABLE 4.2-8 SUMMARY OF CONSTRUCTION EMISSIONS BY SOURCE

		Criteria Air Pollutant Emissions (lb/phase/construction source) [a]			
Phase	Construction Sources	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Demolition	Off-Road Equipment	19	234	3.3	3.3
	On-Road Vehicles	4.7	154	1.3	1.3
Site Preparation	Off-Road Equipment	16	83	3.2	3.2
	On-Road Vehicles	17	1,114	9.4	9.0
Grading	Off-Road Equipment	49	336	9.4	9.4
	On-Road Vehicles	20	1,117	9.5	9.0
Building Construction	Off-Road Equipment	183	1,880	33	33
	On-Road Vehicles	838	3,775	37	35
Paving	Off-Road Equipment	9.0	108	1.6	1.6
	On-Road Vehicles	2.6	1.9	<0.1	<0.1
	Paving Off-Gasing	16	0	0	0

TABLE 4.2-8 SUMMARY OF CONSTRUCTION EMISSIONS BY SOURCE

		Criteria Air Pollutant Emissions (lb/phase/construction source) [a]			
Phase	Construction Sources	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Architectural Coating	Off-Road Equipment	1.2	36	0.1	0.1
	On-Road Vehicles	11	8.2	0.2	0.1
	Architectural Coatings	3,378	0	0	0
		Daily Average Criteria Air Pollutant Emissions (lb/day) [b]			
Construction Year		ROG	NOx	PM10 Exhaust	PM2.5 Exhaust
Year 1		2.6	23	0.3	0.3
Year 2		15.7	11.6	0.1	0.1
BAAQMD Thresholds [c]		**54**	**54**	**82**	**54**
Exceed Thresholds?		**No**	**No**	**No**	**No**

Notes: BAAQMD = Bay Area Air Quality Management District; lb = pound
a. Emissions above include emissions from diesel off-road equipment, gasoline and diesel on-road equipment, and off-gasing emissions from architectural coating. Tier 4 Final emission factors are applied to all off-road equipment.
b. Emissions were calculated using the annual emissions for each year divided by the working days in each year.
c. Thresholds are from BAAQMD's 2022 CEQA Guidelines. For PM, this excluded construction fugitive dust emissions.
Source: Appendix C, *Air Quality, Energy, and Greenhouse Gases,* of this Draft EIR.

Operation

Operational criteria air pollutant emissions from the proposed project would include on-road mobile sources, and area sources such as consumer product use, landscaping, and architectural coating. In addition, potential future development under the proposed project would be required to implement the City's following standard condition, which would help reduce operational emissions:

> Pursuant to GP EIR Mitigation Measure AQ-5, the developer(s) shall provide education for residential and commercial tenants concerning green consumer products. Prior to receipt of any certificate of final occupancy, the project sponsors shall work with the City of Belmont to develop electronic correspondence to be distributed by email to new residential and commercial tenants that encourages the purchase of consumer products that generate lower than typical VOC emissions. Examples of green products may include low-VOC architectural coatings, cleaning supplies, and consumer products, as well as alternatively fueled landscaping equipment.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

As previously discussed, the proposed project's net new operational emissions were estimated by calculating the difference between baseline emissions at full occupancy of the NDNU campus and project emissions at partial and full buildout of the proposed project. The proposed project's operational criteria air pollutant emissions are summarized by emission source and presented in Table 4.2-9, *Summary of Criteria Air Pollutant Emissions from Existing Conditions and Project Operations*. Overall, criteria air

pollutant emissions from project operation would be below the applicable thresholds of significance, and this impact would be *less than significant*.

TABLE 4.2-9 SUMMARY OF CRITERIA AIR POLLUTANT EMISSIONS FROM EXISTING CONDITIONS AND PROJECT OPERATIONS

	Criteria Air Pollutant Emissions (ton/year) [a]				Criteria Air Pollutant Emissions (lb/day) [a,b]			
Emissions Source	ROG	NO_x	PM_{10}	$PM_{2.5}$	ROG	NO_x	PM_{10}	$PM_{2.5}$
Existing Conditions [c,d]								
Architectural Coating	0.1	-	-	-	0.4	-	-	-
Consumer Products	1.0	-	-	-	5.4	-	-	-
Landscaping (2030 Emission Factors)	0.5	<0.1	<0.1	<0.1	2.7	0.1	<0.1	<0.1
Landscaping (2035 Emission Factors)	0.5	<0.1	<0.1	<0.1	2.7	0.1	<0.1	<0.1
Natural Gas Use	<0.1	0.8	0.1	0.1	0.2	4.4	0.3	0.3
Mobile (2030 Emission Factors)	1.1	0.7	1.1	0.2	6.2	4.1	6.0	1.1
Mobile (2035 Emission Factors)	1.0	0.6	1.1	0.2	5.7	3.5	6.0	1.1
Full Buildout Conditions [d]								
Architectural Coating	0.2	-	-	-	0.9	-	-	-
Consumer Products	2.3	-	-	-	13.0	-	-	-
Landscaping	2.2	0.1	<0.1	<0.1	11.8	0.6	0.2	0.1
Mobile	0.9	0.8	1.8	0.3	4.8	4.3	10.0	1.7
Partial Buildout Conditions [d,e]								
Architectural Coating	0.1	-	-	-	0.4	-	-	-
Consumer Products	1.1	-	-	-	6.3	-	-	-
Landscaping	1.1	0.1	<0.1	<0.1	5.9	0.3	0.1	0.1
Mobile	0.5	0.5	0.9	0.2	2.6	2.6	4.8	0.9
Net Emissions [f]								
Net Emissions (2030 Partial to Existing)	0.1	-1.1	-0.3	-0.1	0.3	-5.8	-1.5	-0.5
Net Emissions (2035 Buildout to Existing)	2.9	-0.6	0.6	0.1	15.7	-3.1	3.4	0.4
BAAQMD Thresholds [g]	**10**	**10**	**15**	**10**	**54**	**54**	**82**	**54**
Exceed Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No**

Notes: BAAQMD = Bay Area Air Quality Management District; lb = pound
a. Emissions estimated using methods consistent with CalEEMod Version 2022.1.
b. Operational emissions shown represent activity and emissions across 365 days per year.
c. Operational emissions from existing conditions were calculated using CalEEMod default data and emission factors based on the existing land use types provided by Stanford and CalEEMod defaults.
d. Detailed emissions calculations are presented in Tables 10 through 20 in Appendix C, *Air Quality, Energy, and Greenhouse Gases,* of this Draft EIR.
e. Operational emissions were estimated for partial buildout by applying scaling factors on emission activities, and using 2030 emission factors where applicable.
f. Net emissions were calculated as the difference between buildout emissions and existing condition emissions.
g. Net emissions were compared to the BAAQMD Thresholds of Significance.
Source: Appendix C, *Air Quality, Energy, and Greenhouse Gases,* of this Draft EIR.

Significance without Mitigation: Less than significant.

AQ-3	The project could expose sensitive receptors to substantial pollutant concentrations.

Construction

Project construction would generate TAC emissions, specifically DPM, through off-road diesel construction equipment and on-road diesel haul and vendor trucks. Diesel exhaust, a complex mixture that includes hundreds of individual constituents, is identified by the State of California as a known carcinogen.[25] Under California regulatory guidelines, DPM is used as a surrogate measure of exposure for the mixture of chemicals that make up diesel exhaust as a whole. The CalEPA-approved toxicity values for DPM were used to evaluate health impacts from construction and operational diesel fueled sources.[26] There is currently no acute non-cancer toxicity value available for DPM. All diesel-fueled off-road equipment and on-road vehicle emissions of exhaust PM_{10} were assumed to be DPM.

$PM_{2.5}$ originates from a variety of sources, including fossil fuel combustion, residential wood burning, cooking, wildfires, and dust. For assessment of local risks and hazards, quantification of construction-related fugitive dust in addition to exhaust is at the discretion of the lead agency.[27] The modeled $PM_{2.5}$ emissions in this HRA include both exhaust and fugitive dust sources, to be conservative. The following construction activities would generate fugitive dust emissions: dismemberment and debris loading during demolition; and material movements including grading equipment passes, bulldozing, truck loading, and road dust. Fugitive $PM_{2.5}$ emission rates summarized in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR, were based on the total emissions for a given construction phase, averaged by phase duration and daily construction hours.

As discussed in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, and under Section 4.2.3, *Impact Discussion*, of this Draft EIR proposed project construction risks were analyzed by estimating ambient air concentrations of DPM and $PM_{2.5}$. Although the project site would have different areas of construction throughout the 30-year buildout period, the entire project site was modeled as one emission source because the exact buildout sequence and phasing are not known at the time of preparation of this HRA. As part of the site-specific HRA, a receptor grid with 20-meter spacing was used for areas within 1,000 feet of the facility. All sensitive receptors (resident, worker, high school, elementary school, daycare, and preschool) were identified within the receptor grid. All the receptors were modeled at a breathing height of 1.5 meters as recommended in BAAQMD guidance.[28] For each receptor location, the air dispersion

[25] California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, 1998, Findings of the Scientific Review Panel on The Report on Diesel Exhaust, as adopted at the Panel's April 22, 1998 meeting.

[26] California Environmental Protection Agency, 2022, *OEHHA/ARB Consolidated Table of Approved Risk Assessment Health Values*, http://www.arb.ca.gov/toxics/healthval/contable.pdf.

[27] Bay Area Air Quality Management District, 2023, 2022 CEQA Air Quality Guideline, https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines.

[28] Bay Area Air Quality Management District, 2023, *California Environmental Quality Act Air Quality Guidelines*, Appendix E, *Recommended Methods for Screening and Modeling Local Risks and Hazard*, https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-e-recommended-methods-for-screening-and-modeling-local-risks-and-hazards_final-pdf.pdf?la=en.

model generated air concentrations that result from emissions from multiple sources (refer to Health Risk Assessment under Section 4.2.3, *Impact Discussion*, for more details).

The MEI location with the maximum health risk impacts from project construction is a residence about 80 feet from the project site boundary. As discussed in the Ramboll Tech Report, the residential MEI which would experience the highest cancer risk of all identified receptors would experience a cancer risk of 2 in one million people, which is below BAAQMD's significance threshold of 10 in one million people. In addition, all receptors would experience a hazard index of less than 1 and an annual average $PM_{2.5}$ concentration of less than 0.3, which represent BAAQMD's significance thresholds. As such, construction of the proposed project would not result in exposing sensitive receptors to substantial pollutant concentrations. This impact would be *less than significan*t.

Operation – Vehicles

Operational traffic can also contribute vehicular TAC emissions, predominantly from gasoline-fueled engines, if the proposed project would increase traffic volumes on nearby roadways substantially. The BAAQMD defines major roadways as those with at least 10,000 annual average daily traffic and requires major roadways to be considered as a mobile source of TAC emissions.[29] Based on the trip generation data (see Appendix J, *Transportation*, of this Draft EIR), the proposed project would result in a net decrease in average daily vehicle trips and therefore would not cause any nearby roadways to exceed 10,000 daily trips. Therefore, operational on-road vehicles were not modeled as a TAC source.

Moreover, according to the 2022 BAAQMD CEQA Guidelines, the proposed project would result in less-than-significant localized CO concentrations if the following criteria are met:

- Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans.
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Peak-hour traffic volumes from the project were analyzed to determine whether the proposed project would meet BAAQMD screening criteria. Maximum traffic volumes at the intersections under all scenarios would be well below the 44,000-vehicle-per-hour screening threshold.[30] Also, intersection traffic volumes under all scenarios would be below the 24,000-vehicle- per-hour screening threshold for areas where vertical and/or horizontal mixing is substantially limited; therefore, there would be no exceedance of

[29] Bay Area Air Quality Management District, 2022, *Risk and Hazard Screening Analysis Process Flow Chart*, https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/tools/2020_02_20-screening-approach-flow-chart-pdf.pdf?la=en.

[30] Fehr and Peers, 2023, *Stanford Belmont Campus Traffic Study*.

either the non-limited mixing threshold (44,000 vehicles per hour) or the limited vertical/horizontal mixing threshold (24,000 vehicles per hour). Furthermore, the proposed project's TDM program would meet the metrics in the City of Belmont and the City/County Association of Governments of San Mateo County (C/CAG) plans. Specifically, the proposed project's TDM program would exceed the 18-point reduction required by the City's TDM program and would exceed the 35 percent VMT reduction in the C/CAG TDM checklist. Therefore, the proposed project would be consistent with the C/CAG's congestion management program.[31] The proposed project would not result in an exceedance of the BAAQMD screening criteria and would have a less-than-significant impact related to CO emissions.

Operation – Laboratory Uses

The proposed project is committed to all-electric buildings and would not have any diesel emergency generators, an operational TAC source, during project operations. It is possible for the proposed project to include wet laboratories as part of the proposed academic land uses; however, at the time of preparation of this analysis, such details of the proposed academic land use are not determined and would be provided through submission of a DDP at a later date.

The HRA does not quantify health risks associated with laboratory TACs. Wet laboratory operations could potentially generate TAC emissions from manipulations of evaporative liquids and pulverized metal-containing materials. Without knowing the scale of future laboratory operations, the types of operations, and the chemicals that would be used, any quantitative analysis on health risk impacts from possible wet laboratory is speculative at this time. In addition, potential future development under the proposed project would be required to implement the City's following standard condition related to site-specific HRA to protect nearby sensitive receptors:

> The City of Belmont 2035 General Plan EIR indicates that the construction of individual development projects has the potential to expose sensitive receptors (residential uses, hospitals, schools, daycare centers, etc.) to TACs. Thus, General Plan EIR Mitigation Measure AQ-6, requires that all projects proposing development within 1,000 feet of existing sensitive receptors prepare a site-specific HRA. If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures for adjacent receptors will be less than BAAQMD project-level thresholds, then additional mitigation would be unnecessary. The preparation of a project-specific HRA is an SDR for all large projects that are proposed within 1,000 feet of existing sensitive receptors.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Wet laboratories proposed through a future DDP application would be subject to the City's standard condition related to site-specific HRA to protect nearby sensitive receptors, in addition to BAAQMD

[31] Fehr and Peers, 2023, *Conceptual Transportation Demand Management Plan*.

permitting requirements as applicable and other relevant safety and building code standards. BAAQMD's Rule 2-1 exempts laboratory space below certain sizes from the requirement to obtain permits for authority to construct and permits to operate, detailed in BAAQMD's Rule 2-1, provided that Responsible Laboratory Management Practices (RLMP) are followed. RLMP include the incorporation of information about the emissions of volatile TACs into training for laboratory personnel, avoidance of open container storage of volatile TACs and hazardous chemical waste, the periodic monitoring of fume hoods, and proper disposal of hazardous chemical waste containing TACs. If RLMPs are followed, then the following laboratory sources are exempt from permitting requirements in Rule 2-1:

- Teaching laboratories used exclusively for classroom experimentation and/or demonstration.
- Laboratories located in a building where the total laboratory floor space is less than 25,000 square feet or the total number of fume hoods is less than 50. In addition, laboratory units for which the owner or operator can demonstrate that there will not be any TAC emissions (except under accidental conditions) are not included in the floor space or fume hood calculations.
- Bench scale laboratory equipment or processes (excluding pilot plants) used exclusively for experimentation, quality control testing, or research and development.
- Vacuum-producing devices in laboratory operations which are used exclusively with other equipment that are also exempt from permitting, and which do not remove or transfer air contaminants from another source.

Although specifically unknown at the time this analysis was prepared, because the proposed project could include wet laboratory operations that may be subject to the City's standard condition related to site-specific HRA to protect nearby sensitive receptors, Mitigation Measure AQ-3 would be required to ensure that potential operational health risks are identified and mitigated to below significance thresholds. Therefore, this impact would be potentially *significant* without mitigation.

Impact AQ-3: The proposed project could include wet laboratory operations that may result in potential impacts to nearby sensitive receptors during project operation. Because the extent of laboratory operations and chemical use are not known at this time, health risk impacts to nearby sensitive receptors could be potentially significant.

> Mitigation Measure AQ-3: The Project Sponsor shall perform a health risk assessment and obtain a permit from the Bay Area Air Quality Management District (BAAQMD) if the total applicable laboratory floor space is more than 25,000 square feet and the total applicable number of fume hoods exceeds 50 as included in the subsequent Detailed Development Plans (DDP) of the proposed project, consistent with BAAQMD Regulation 2, *Permits*, Rule 1, *General Requirements*, or other, equally effective requirements in place at the time of DDP application submittal. Permit issuance by the BAAQMD may be required either prior to or as a condition of approval of the proposed laboratory space. The health risk assessment (HRA) for wet laboratory operations, if required, shall be based on site-specific data in accordance with current guidance from the California Air Resources Board and BAAQMD. The HRA shall be submitted to the City for review and approval. If an HRA is required, the HRA shall demonstrate that any proposed wet laboratory operations would be below the identified health risk thresholds, to the satisfaction of the City. The BAAQMD's project-level health risk thresholds are: an excess lifetime cancer risk level of 10 in one million, non-cancer chronic and acute

Hazard Indexes of 1.0, and an annual average $PM_{2.5}$ concentration of 0.3 micrograms per cubic meter ($\mu g/m^3$).

Significance with Mitigation: Less than significant. Because BAAQMD requires laboratory uses which exceed the size metrics specified in Regulation 2, Rule 1, which specify laboratory floor space greater than 25,000 square feet and the fume hoods greater than 50 in quantity, to be permitted and analyzed for potential health effects, laboratory uses smaller than these sizes are considered to result in less-than-significant health effects. Therefore, implementation of Mitigation Measure AQ-3 would ensure that potential health effects associated with future laboratory uses greater than the sizes specified in BAAQMD Regulation 2, Rule 1, would be identified and mitigated to less-than-significant levels, and this impact would be less than significant with mitigation.

AQ-4 The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

For odor impacts, BAAQMD recommends that potential impacts be evaluated if a potential source of objectionable odors is proposed at a location near existing sensitive receptors. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source, the wind speed and direction, and the sensitivity of receptors. According to BAAQMD's 2022 CEQA guidelines, examples of land uses that have the potential to generate considerable odors include, but are not limited to, wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The proposed project is an academic campus that would not include any of the odor-generating facilities identified by BAAQMD. Therefore, project operation is not anticipated to generate persistent and objectional odors affecting a substantial number of people.

During construction, odors could be emitted from various diesel-powered vehicles and equipment in use on-site as well as architectural coatings. These could create localized odors; however, these odors would be temporary, depend on specific construction activities occurring at certain times, and are not likely to be noticeable for extended periods of time beyond the boundaries of the project site. Therefore, the proposed project's construction odor impacts on existing sensitive receptors are considered less than significant.

In addition, BAAQMD Regulation 7 contains requirements on the discharge of odorous substances after the Air Pollution Control Officer receives odor complaints from ten or more complainants within a 90-day period, alleging that a person has caused odors perceived at or beyond the property line of such person and deemed to be objectionable by the complainants in the normal course of their work, travel or residence (BAAQMD 7-102). The operations within the proposed project will be subject to this regulation and will comply with the requirements if the regulation becomes applicable via BAAQMD 7-102, which is not expected.

Overall, the impact of the proposed project would be considered *less than significant* with respect to odors.

Significance without Mitigation: Less than significant.

AQ-5 The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative air quality impacts in the area.

The proposed project would be consistent with the pertinent goals and control measures of the BAAQMD's 2017 Clean Air Plan. Therefore, the proposed project's impact related to consistency with the applicable air quality plan would not be cumulatively considerable.

The proposed project's construction and net operational criteria air pollutant emissions are below the applicable BAAQMD recommended thresholds. The proposed project will also implement BAAQMD's BMPs and the City's standard condition on reducing construction-related fugitive dust emissions. Therefore, the proposed project would not result in any cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment. This impact would not be cumulatively considerable.

The proposed project's direct health risk impacts on existing nearby receptors from its construction activities would be below the BAAQMD recommended health risk thresholds. However, according to BAAQMD's CEQA Guidelines, cumulative health risks should also be evaluated from all sources of TACs within a 1,000-foot radius from a project site, and the combined impact compared to BAAQMD's cumulative health risk thresholds.

Nearby sources of TAC, as well as project-related activities including construction and operation, could contribute to a cumulative health risk for sensitive receptors near the project site. BAAQMD's inventory of stationary sources health risks and the distance multiplier approach were used to estimate excess impacts from existing stationary sources at the maximum impacted sensitive receptor. Geographic information system roadway and rail screening data layers provided by BAAQMD were used to estimate impacts due to nearby railway and roadways. The results of the cumulative impact assessment show the estimated cumulative impact at the most affected sensitive receptor and contributions of the existing sources at the same location. The sum of the health risk impacts including cancer risk, non-cancer chronic hazard index, and annual average $PM_{2.5}$ concentration were compared to their respective BAAQMD cumulative thresholds. The cumulative cancer risk, chronic hazard index and annual average $PM_{2.5}$ concentrations would all be below the BAAQMD's thresholds of significance for the exposure scenarios analyzed, as reported in greater detail in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR. Thus, community health risk impacts associated with the proposed project would not be cumulatively considerable.

Due to the level of proposed project-generated daily vehicle trips and lack of operational stationary sources (i.e., diesel generators), operational health risk impacts are similarly below BAAQMD recommended health risk thresholds. However, should the proposed project include wet laboratory operations, incorporation of Mitigation Measure AQ-3 would ensure any potential health risks are below applicable thresholds. Therefore, the proposed project's operational health risk impacts would not be cumulatively considerable with incorporation of Mitigation Measure AQ-3.

In addition to impacts summarized above, the proposed project would not result in other emissions (such as those leading to odors) adverse affecting a substantial number of people. As discussed in impact

discussion AQ-4, neither the proposed project's construction nor its operations would generate persistent and objectional odors. Furthermore, the proposed land uses and operations at the project site are consistent with the existing higher education site use. Therefore, this impact would be *less than significant*.

Significance without Mitigation: Less than significant.

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4.3 BIOLOGICAL RESOURCES

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential impacts on biological resources associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential impacts on biological resources, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

The information and analysis in this chapter is based in part on the following technical studies:

- *Biological Constraints Analysis* (BCA), prepared by H.T. Harvey & Associates, dated March 2, 2022.
- *Tree Inventory Report* (TIR), prepared by HortScience|Bartell, dated March 2022, revised August 2022 and February 2023.
- *Biological Resources Report* (BRR), prepared by H.T. Harvey & Associates, dated November 7, 2023.

A complete copy of each of these reports is included in Appendix D, *Biological Resources*, of this Draft EIR. The adequacy of these documents was peer reviewed by the independent consulting biologist who prepared this chapter of the Draft EIR. The EIR biologist reviewed other available information on biological resources, including the records of special-status species maintained by the California Natural Diversity Data Base of the California Department of Fish and Wildlife (CDFW), mapping of critical habitat by the United States Fish and Wildlife Service (USFWS), and mapping of wetlands prepared as part of the National Wetland Inventory by the USFWS. A field reconnaissance of the project site was conducted by the EIR biologist on October 3, 2023, to confirm mapping of resources in the TIR, BCA and BRR, and to assess the suitability of the site to support special-status species and other sensitive biological resources. The findings of this independent review are summarized in the discussion of potential impacts and need for mitigation measures, below.

4.3.1 ENVIRONMENTAL SETTING

4.3.1.1 REGULATORY FRAMEWORK

Federal Regulations

Federal Endangered Species Act

The USFWS and National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) is responsible for implementation of the Federal Endangered Species Act (FESA) (16 US Code Section 1531 et seq.). The Act protects fish and wildlife species that are listed as threatened or endangered and their habitats. “Endangered” species, subspecies, or distinct population segments are those that are in danger of extinction through all or a significant portion of their range, and “threatened” species, subspecies, or distinct population segments are likely to become endangered in the near future.

If a listed species or its habitat is found to be affected by a project, then according to Section 7 of the FESA, all federal agencies are required to consult with USFWS and NOAA Fisheries when a federal nexus exists. The purpose of consultation with USFWS and NOAA Fisheries is to ensure that the federal agencies’

actions do not jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat for listed species. A Section 10(a) incidental take permit applies to situations where a nonfederal government entity must resolve potential adverse impacts to species protected under FESA, which typically requires preparation of an agency-approved habitat conservation plan to allow for the anticipated take.

Section 9 of the FESA prohibits the take of any fish or wildlife species listed as endangered, including the destruction of habitat that prevents the species' recovery. "Take" is defined as an action or attempt to hunt, harm, harass, pursue, shoot, wound, capture, kill, trap, or collect a species. Section 9 prohibitions also apply to threatened species unless a special rule has been defined with regard to taking at the time of listing. Under Section 9 of the FESA, the take prohibition applies only to wildlife and fish species. However, Section 9 does prohibit the unlawful removal and reduction to possession, or malicious damage or destruction, of any endangered plant from federal land. Section 9 prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in non-federal areas in knowing violation of any State law or in the course of criminal trespass. Section 9 does not provide any protection for candidate species and species that are proposed or under petition for listing.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 US Code 703 et seq.) governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. Moreover, the MBTA prohibits the take, possession, import, exports, transport, selling, purchase, barter—or offering for sale, purchase, or barter—any migratory bird, their eggs, parts, or nests, except as authorized under a valid permit.[1]

Federal Clean Water Act

The United States Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into "waters of the United States,"[2] including wetlands and non-wetland bodies of water that meet specific criteria. Pursuant to Section 404 of the federal Clean Water Act (CWA), a permit is required for any filling or dredging within waters of the United States. The permit review process entails an assessment of potential adverse impacts to USACE wetlands and jurisdictional waters, wherein the USACE may require mitigation measures. Where a federally listed species may be affected, a Section 7 consultation with the USFWS may be required in instances where a federal nexus exists such as a potential impact on regulated waters. Where a Section 404 permit is required, a Section 401 Water Quality Certification would also be required from the Regional Water Quality Control Board (RWQCB).

[1] Code of Federal Regulations Title 50 Section 21.11.

[2] "Waters of the United States," as it applies to the jurisdictional limits of the authority of the USACE under the CWA, includes: all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; and wetlands adjacent to waters. The terminology used by Section 404 of the CWA includes "navigable waters" which is defined at Section 502(7) of the Act as "waters of the United States including the territorial seas."

Section 401(a)(1) of the CWA specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency with certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with water quality standards. Permits requiring Section 401 Certification include USACE Section 404 permits and National Pollutant Discharge Elimination System (NPDES) permits issued by the Environmental Protection Agency under Section 402 of the CWA. NPDES permits are issued by the applicable RWQCB; the City of Belmont is within the jurisdiction of the San Francisco Bay RWQCB (Region 2).

State Regulations

California Fish and Game Code

Section 1600 of the California Fish and Game Code requires that a project proponent notify the CDFW of any proposed alteration of streambeds, rivers, and lakes. The intent is to protect habitats that are important to fish and wildlife. The CDFW may review a project and place conditions on the project as part of a Streambed Alteration Agreement. The conditions are intended to address potentially significant adverse impacts within CDFW's jurisdictional limits.

California Fish and Game Code Section 3503.5 prohibits take, possession, or destruction of any raptor (bird of prey species in the orders Falconiformes and Strigiformes), including their nests or eggs. Violations of this law include destruction of active raptor nests as a result of tree removal and disturbance to nesting pairs by nearby human activity that causes nest abandonment and reproductive failure.

In addition, the Native Plan Protection Act of 1977 prohibits the taking, possessing, or sale within the State of any plants with a state designation of rare, threatened, or dangerous in the California Fish and Game Code Section 1900, et seq. Under specific circumstances, an exception to this prohibition allows landowners to take listed plant species when the owners first notify the CDFW and allot the agency at least 10 days to retrieve the plants before they are otherwise destroyed. Project impacts to these species are not considered significant unless the species are known to have a high potential of occurring within the area of disturbance on the project site.

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect State-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, the CESA also applies the take prohibitions to species petitioned for listing (State candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, the CESA does not include listing provisions for invertebrate species. Under certain conditions, the CESA has provisions for take through a 2081 permit or Memorandum of Understanding. In addition, some sensitive mammals and birds are protected by the State as Fully Protected Species. California Species of Special Concern (SSC) are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This

list is primarily a working document for the CDFW's California Natural Diversity Data Base (CNDDB), a database of known and recorded occurrences of sensitive species. Informally listed taxa are not protected per se but warrant consideration in the preparation of biological resources assessments.

California Porter-Cologne Water Quality Control Act

The RWQCB has regulatory authority over wetlands and waterways under both the CWA and the State of California's Porter-Cologne Water Quality Control Act (California Water Code, Division 7). Under the CWA, the RWQCB has regulatory authority over actions in waters of the United States, through the issuance of water quality certifications under Section 401 of the CWA in conjunction with permits issued by the USACE under Section 404 of the CWA. When the RWQCB issues Section 401 certifications, it simultaneously issues general Waste Discharge Requirements for the project under the Porter-Cologne Water Quality Control Act. Activities in areas that are outside of the jurisdiction of the USACE (e.g., isolated wetlands, vernal pools, seasonal streams, intermittent streams, channels that lack a nexus to navigable waters, or stream banks above the ordinary high water mark) are regulated by the RWQCB under the authority of the Porter-Cologne Water Quality Control Act. Activities that lie outside of USACE jurisdiction may require the issuance of either individual or general waste discharge requirements.

Other Statutes, Codes, and Policies Affording Species Protection

The CDFW maintains an administrative list of California SSCs, defined as a

> ...species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:
>
> - Is extirpated from the State, or, in the case of birds, in its primary seasonal or breeding role;
> - Is listed as federally, but not State threatened or endangered;
> - Meets the State definition of threatened or endangered but has not formally been listed;
> - Is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
> - Has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for State threatened or endangered status.[3]

The CDFW's Nongame Wildlife Program is responsible for producing and updating SSC publications for mammals, birds, and reptiles and amphibians. Section 15380 of the California Environmental Quality Act (CEQA) Guidelines clearly indicates that SSCs should be included in an analysis of project impacts if they

[3] California Department of Fish and Wildlife, 2024, Species of Special Concern, https://wildlife.ca.gov/Conservation/SSC, accessed July 3, 2024.

can be shown to meet the criteria of sensitivity outlined therein. In contrast to species listed under the FESA or CESA, however, SSCs have no formal legal status.

The California Native Plant Society (CNPS) is a non-profit conservation organization dedicated to the preservation of native flora in California. The CNPS has been involved in assembling, evaluating, and distributing information on special-status plant species in the state, as listed in the *Inventory of Rare and Endangered Plants of California* (inventory). CNPS has recently updated its rating system for the rarity of special-status plants, and now includes both a California Rare Plant Rank and a Threat Rank. CEQA requires government agencies to consider environmental impacts of discretionary projects and to avoid or mitigate them where possible. Under Section 15380, CEQA provides protection for both State-listed species and for any other species which can be shown to meet the criteria for State listing. The CDFW recognizes that special-status plants with a California Rare Plant Rank of 1A (Presumed extinct in California), 1B (Rare, threatened, or endangered in California and elsewhere), and 2 (Rare and endangered in California, but are more common elsewhere) in the CNPS Inventory consist of plants that, in a majority of cases, would qualify for listing, and these species should be addressed under CEQA review. In addition, the CDFW recommends and local governments may require protection of species that are regionally significant, such as locally rare species, disjunct populations, essential nesting and roosting habitat for more common wildlife species, or plants with a CNPS California Rare Plant Rank of 3 (Plant species for which additional data is needed, i.e., a review list) and 4 (Plant species of limited distribution, i.e., a watch list).

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to biological resources that are relevant to the proposed project are found in the Conservation Element and are listed in Table 4.3-1, *City of Belmont 2035 General Plan Policies Relevant to Biological Resources*.

TABLE 4.3-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO BIOLOGICAL RESOURCES

Policy Number	Policy Text
Chapter 5, Conservation Element	
Policy 5.3-1	Support the protection, preservation, restoration, and enhancement of habitats of State or federally listed rare, threatened, endangered and/or other sensitive and special status species, and favor enhancement of contiguous areas over small, segmented remainder parcels.
Policy 5.3-2	Continue to maintain, protect, restore, and enhance Belmont's ecologically important areas and seek to reduce impacts on them, including the creek corridors, the open space, and the wetlands around O'Neill Slough.
Policy 5.3-3	To the greatest extent feasible, ensure that development does not disturb sensitive habitat and special status species by requiring appropriate and feasible mitigation measures.
Policy 5.3-4	Maintain functional wildlife corridors and habitat linkage in order to contribute to regional biodiversity and the viability of rare, unique or sensitive biological resources throughout the city and region.
Policy 5.3-5	In design and construction, require use of best practices that preserve natural resources, such as soil, trees, native plants, and permeable surfaces.

TABLE 4.3-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO BIOLOGICAL RESOURCES

Policy Number	Policy Text
Policy 5.3-6	Avoid light pollution and unnecessary glare by requiring development projects to use design features and shielding methods that cast outdoor light downward and minimize glare and to install the minimum amount of outdoor lighting necessary for safety and security.
Policy 5.3-7	Encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation, and ensure the maximum number and variety of well-adapted plants are maintained.
Policy 5.3-8	Use native or drought-resistant vegetation in landscaping on City-owned property, and encourage private property owners to use native or drought-resistant vegetation in landscaping on private property.
Policy 5.3-9	Promote the healthy growth of trees and control the removal of trees within the city.
Policy 5.4-2	Preserve, where possible, natural watercourses or provide naturalized drainage channels within the city. Where necessary and feasible, implement restoration and rehabilitation measures.
Policy 5.4-3	Protect, restore, and enhance a continuous corridor of native riparian vegetation and wildlife habitat along Belmont's waterways, water bodies, and wetlands.
Policy 5.4-4	Preserve and enhance the natural riparian environment along waterway corridors, including Belmont Creek, by minimizing environmental and visual impacts. See also Policy 4.5-2 in the Parks, Recreation, and Open Space Element.
Policy 5.5-1	Continue to participate in the San Mateo Countywide Water Pollution Prevention Program.
Policy 5.5-2	Encourage residents and businesses to use best management practices (BMPs) to reduce water pollutant loads that result from daily activities, such as using landscaping chemicals and fertilizers and repairing and washing cars outdoors.
Policy 5.5-3	Require development projects to incorporate structural and non-structural best management practices (BMPs) to mitigate or reduce the projected increases in pollutant loads, in accordance with the NPDES permit guidelines.
Policy 5.5-4	Ensure that the design and construction of new infrastructure elements does not contribute to stream bank or hillside erosion or creek or wetland siltation, and incorporates site design and source control BMPs, construction phase BMPs, and treatment control BMPs to minimize impacts to water quality.
Policy 5.5-5	Implement water pollution prevention methods to the maximum extent practicable, supplemented by pollutant source controls and treatment.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to aesthetics. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to biological resources are included in Chapter 25, *Trees*.

- Chapter 25, *Trees*, also known as the Belmont Tree Ordinance, provides guidance on Protected Trees. This ordinance details permit requirements for tree related work, including the removal, pruning, and replacement planting of trees. A permit is typically required for removal of a protected tree, defined in the ordinance as follows:
  - Principal Native Trees: Coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), coast redwood (*Sequoia sempervirens*), madrone (*Arbutus menziesii*), bay laurel (*Umbellularia californica*), and buckeye (*Aesculus californica*) having a single main stem or trunk of 10 inches or more diameter at 4.5 feet above grade height (DBH), or up to three of the largest secondary stems totaling 10 inches or more DBH.

- City Tree: Any woody, perennial plant, regardless of size, located in a city park, a designated open space, or on any other city property. A single or multi-stemmed shrub or bush is not a city tree.
- Large Diameter Tree: A woody, perennial plant characterized by having a single main stem or trunk of 14 inches or more DBH, or up to three of the largest secondary stems totaling 18 inches or more DBH.
- Replacement Tree: Any tree, regardless of size, which has been planted as required mitigation for the previous removal of another tree at the same site or elsewhere in the city.
- Right-of-Way Tree: A tree located in a public street right-of-way.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.3.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

4.3.1.2 EXISTING CONDITIONS

This section describes the existing biological resources at the project site and the surrounding area. Biological resources were identified by compiling and reviewing existing information and conducting a field survey of the project site by the independent EIR biologist. The background review provided information on general resources in the project area, the extent of sensitive natural communities, jurisdictional wetlands, and the distribution and habitat requirements of special-status species that have been recorded from or are suspected to occur in the Belmont vicinity. Detailed surveys and mapping of resources present on the project site were also prepared by consultants to the project applicant, which were peer reviewed for adequacy by the EIR biologist. These consist of the following:

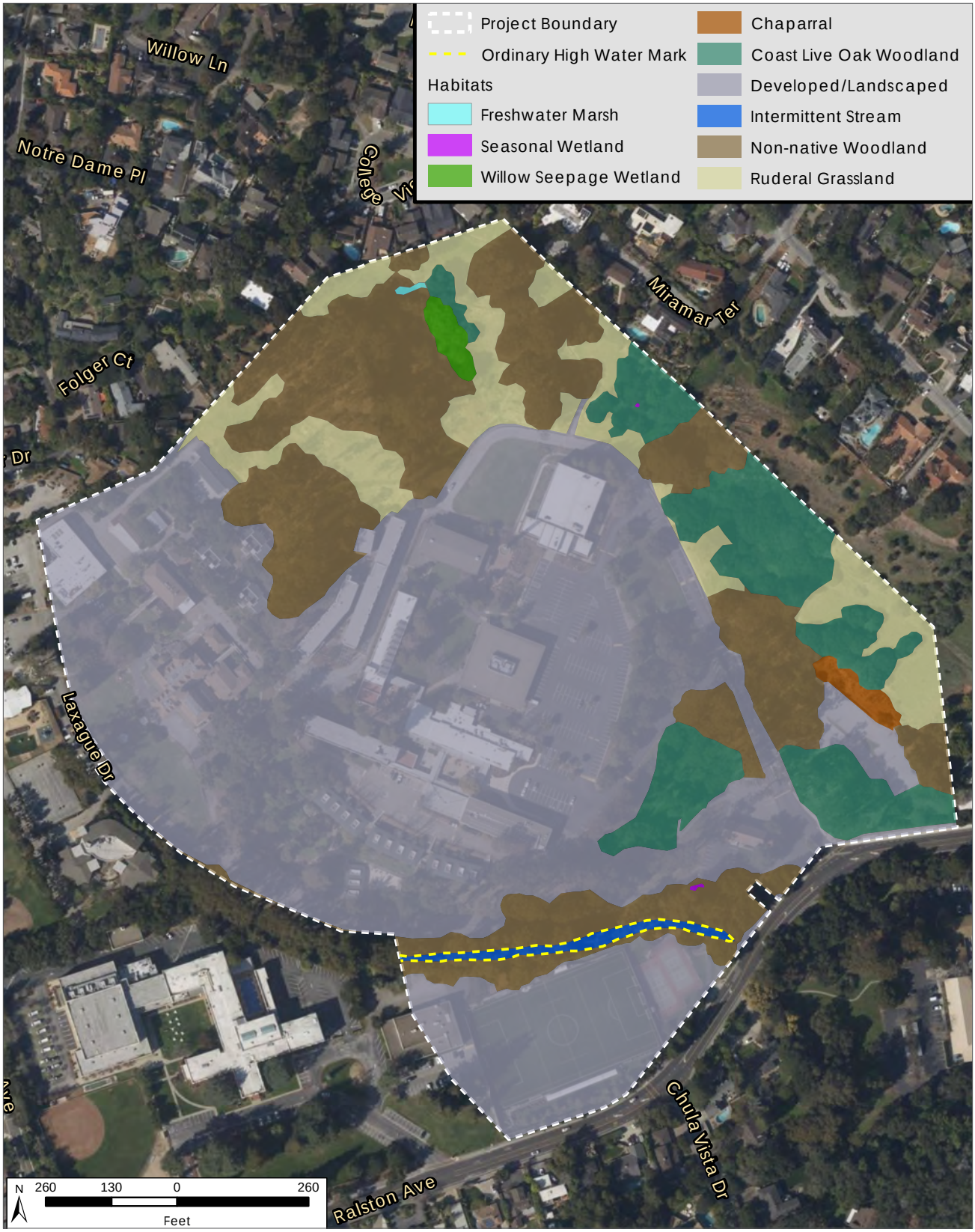
- The TIR provides an inventory of existing trees on the project site, providing a table of all mapped trees, a map of trunk locations and tree identification numbers, and a brief summary of existing tree resources by species, size, and general health. The inventory provided an assessment of certain native trees 8 inches and greater in diameter and all trees 14 inches and greater, located within and adjacent to the project site. The TIR is intended to provide an assessment of the health and structural condition of existing trees, along with preliminary guidelines for tree preservation to be implemented during the design, construction, and maintenance phases of any future development.

- The BCA provides a review of existing biological resources on the site, a discussion of possible significant impacts under the CEQA, and anticipated impacts that would require regulatory agency approvals or mitigation measures as a result of potential future redevelopment of the existing Notre Dame de Namur University (NDNU) campus. The BCA provides a summary of methods and findings with respect to biological resources that represent potential constraints to future redevelopment in the context of applicable laws and regulations. The BCA notes that the conclusions and recommendations are based on the professional opinion of the preparer, but the ultimate decision regarding the significance of the potential impacts under CEQA rests with the City of Belmont. As discussed in the BCA, it was the opinion of the preparer that with implementation of the recommended mitigation measures, all project impacts could be appropriately mitigated to less-than-significant levels under CEQA.
- The BRR summarizes the biological resources on the site, describes the potential impacts of the proposed CDP, and identifies mitigation measures considered to reduce project impacts to less-than-significant levels under CEQA. The impact assessment was based on information in the October 2022 CDP application submitted by Stanford University to the City of Belmont.

Vegetation and wildlife habitat on the project site reflect a history of past disturbance associated with the previous institutional use on the property. The majority of the project site has been modified by past grading and other disturbance, during construction of roadways, NDNU campus buildings, residences, other structures, and ornamental landscaping. These developed areas occupy an estimated 28.5 acres of the project site. The northeastern edge of the project site and the corridor along an unnamed tributary of Belmont Creek in the southern portion of the site remain largely undeveloped and support a cover of non-native woodlands, coast live oak woodlands, ruderal grasslands, willow thickets and small areas of scattered freshwater marsh, seasonal wetlands and chaparral (see Figure 4.3-1, *Cover Types*). The following provides a summary of the characteristic cover types and wildlife habitat conditions found on the project site.

Developed/Ornamental Landscaping

The majority of the project site has been developed as part of the former institutional use and is occupied by roadways, parking lots, buildings, sports fields, and ornamental landscaping dominated by non-native species. Common tree and shrub species used in landscaping include blue gum (*Eucalyptus globulus*), coast redwood (*Sequoia sempervirens*), Chinese juniper (*Juniperus chinensis*), Mexican fan palm (*Washingtonia robusta*), red maple (*Acer rubrum*), Peruvian pepper tree (*Schinus molle*), deodar cedar (*Cedrus deodara*), Monterey cypress (*Hesperocyparis macrocarpa*), and oleander (*Nerium oleander*). Scattered native coast live oak (*Quercus agrifolia*) occur within and at the fringe of developed areas. The understory of these landscaped areas includes irrigated turf and groundcover species such as English ivy (*Hedera helix*), Mexican sage (*Salvia mexicanus*), New Zealand flax (*Phormium tenax*), and Mexican bush sage (*Salvia leucantha*). The highly invasive shrub French broom (*Genista monspessulana*) has spread through portions of the developed and undeveloped areas, though signs of recent removal were apparent from the abundant trunks cut off just above the ground surface.



Source: Harvey & Associates 2023.

Figure 4.3-1
Cover Types

Wildlife habitat values in the developed/landscaped portions of the project site tend to be relatively low, given the limited vegetative cover and frequency of human activity. Most wildlife species that occur in these areas are tolerant of human activity and utilize landscaped areas for foraging and structures and planted trees for nesting and roosting. These include nonnative European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), house sparrow (*Passer domesticus*), house finch (*Haemorhous mexicanus*), house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), and Virginia opossum (*Didelphis virginiana*), as well as the native raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*). Native bird species common in developed and landscaped areas include: American crow (*Corvus brachyrhynchos*), California scrub-jay (*Aphelocoma californica*), Anna's hummingbird (*Calypte anna*), California towhee (*Melozone crissalis*), bushtit (*Psaltriparus minimus*), and dark-eyed junco (*Junco hyemalis*), which may nest and forage in landscape vegetation in these areas. The blue gum and other mature trees provide roosting and nesting habitat for a number of raptors, including great horned owl, red-tailed hawk, and red-shouldered hawk, although no conspicuous stick nests were reported in the BRR or observed during the field reconnaissance by the EIR biologist. The field reconnaissance survey by the EIR biologist was conducted in October 2023 outside the typical bird nesting season, but large stick nests of raptors tend to be visible year-round.

The BRR includes a detailed assessment of the potential presence of roosting bats on the project site. This includes an evaluation of the existing buildings, woodlands, and individual trees to determine whether potentially suitable roosting habitat is present or absent. The assessments determined that marginally suitable roosting habitat for crevice-roosting bats, such as the pallid bat (*Antrozous pallidus*), California myotis (*Myotis californicus*), Yuma myotis (*Myotis yumanensis*), and Mexican free-tailed bat (*Tadarida brasiliensis*), is present in several of the buildings and trees on the project site. Many of the buildings contain crevices and cavities that could support individual bats, or possibly maternity roosts, of these species. Conclusions over the potential for each of the buildings on the project site to support roosting bats are described as follows:

- Ralston Hall provides many crevices and cavities throughout the external portion of the building, and it is possible that individual roosts (i.e., roosts used by single bats) or maternity roosts could occur within the internal features of this building. Further, suitable winter roosting habitat for the Townsend's big-eared bat (*Corynorhinus townsendii*) is present within a covered passageway entering this building, though no evidence of roosting bats was detected at this location during the survey conducted in February 2022.
- Wiegand Gallery and Madison Art Center building contains three stories of exterior rock wall features with crevices suitable for individual roosting bats, though no areas suitable for maternity roosts or large nonbreeding roosts were detected during examination of the building's exterior.
- Tabard Center, Dining Hall, and Campus Center contain holes and/or crevices in the eaves that could support small numbers of crevice-roosting bats, especially California myotis and big brown bats (*Eptesicus fuscus*).
- Gavin Hall, Toso Residency, New Hall, the Chapel, and a rock cave feature along Laxague Drive contain night roosting habitat, though no evidence of bats roosting was detected during the February 2022 survey, and no areas suitable for day roosts were detected.
- New Hall, St. Mary's Hall, Julie Billiart Hall, St. Joseph's Hall, and the Chapel contain flashing along roof edges and at the tops of some floors for crevice-roosting bats, such as small numbers of Mexican free-

tailed bats and possibly California myotis and big brown bats. No staining or guano pellets were observed below the flashing or on outside walls, suggesting bats in larger numbers were not occupying these spaces.

- In addition to the flashing habitat described above, St. Joseph's Hall contains cracks in the ceiling of an outside entryway that provides potential day-roosting habitat for small numbers of California myotis, big brown bats, and Mexican free-tailed bats.
- Carroll, Kane, Wilkie, and Oaks dorm buildings contain warped shingles that provide potential day-roosting habitat for crevice roosting bats, especially California myotis. Some areas of these outside eastern-facing walls could potentially support a maternity colony.
- Taube Center contains a tile roof that provides crevices for maternity colonies, especially for those of Mexican free-tailed bats.
- Bookstore, Cuvilly Hall, and Gleason Gym do not contain habitat that could support roosting bats.

Nonnative Woodland

Nonnative woodlands occupy an estimated 9 acres of the project site, with stands of native coast live oak and grasslands to the northeast and along the unnamed tributary to Belmont Creek (see Figure 4.3-1). The nonnative woodlands were differentiated from developed areas by their more natural and less disturbed structure and appearance. Blue gum forms the dominant tree species in the nonnative woodlands, with an understory of Italian thistle (*Carduus pycnocephalus*), milk thistle (*Silybum marianum*), cleavers (*Galium aparine*), chickweed (*Stellaria madia*), ripgut brome (*Bromus diandrus*), and French broom. The understory of nonnative woodland is not mowed or planted, but signs that French broom have been removed in the past were observed.

The nonnative woodland along the unnamed tributary to Belmont Creek contains a higher diversity of tree species. Non-native blue gum, Mexican fan palm, Canary Island date palm (*Phoenix canariensis*), and silver wattle (*Acacia dealbata*) as well as native coast live oak line the creek corridor. The understory is dominated by English ivy, Himalayan blackberry (*Rubus armeniacus*), crane's bill geranium (*Geranium molle*), Bermuda buttercup (*Oxalis pes-caprae*), and ruderal (weedy) grass species.

Although the nonnative woodlands are dominated by nonnative plant species, a number of wildlife species utilize them for breeding, foraging, and roosting. These include the resident California towhee, American crow, dark-eyed junco, Anna's hummingbird, northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), and lesser goldfinch (*Spinus psaltria*). Birds that are typically associated with oak woodland habitats, such as the oak titmouse (*Baeolophus inornatus*), will also forage in the non-ative woodlands due to the presence of trees and proximity to the oak woodlands on the project site. Raptors such as the Cooper's hawk (*Accipiter cooperii*) may forage for prey in the mosaic of woodlands and grasslands, and may nest in the mature trees, although no conspicuous raptor stick nests were detected during the site visits. These included surveys by the applicant's biologists during the typical bird nesting season in February 2022 and by the EIR biologist outside the nesting season in October 2023.

Common mammals such as the native striped skunk, deer mouse (*Peromyscus maniculatus*), California mouse (*Peromyscus californicus*), and the nonnative Virginia opossum will forage through the nonnative

woodland habitat on the project site. Foliage-roosting bats such as western red bat (*Lasiurus blossevillii*) and hoary bat (*Lasiurus cinereus*) may roost in the eucalyptus and other trees in the woodland during the winter months, though neither species is suspected of breeding in the woodlands on the project site. Reptiles such as western fence lizard (*Sceloporus occidentalis*) and gopher snake (*Pituophis catenifer*) forage in nonnative woodland habitat. Black-tailed deer (*Odocoileus hemionus*) use the nonnative woodlands for foraging and bedding, and likely venture into adjacent developed areas of the project site in the evenings when human activity is less intense.

The unnamed tributary to Belmont Creek is an intermittent stream that flows from west to east through the project site, flowing through a concrete culvert under Ralson Avenue and a memory care center to the southeast before it flows into Belmont Creek. The shallow pools provide potential breeding habitat for amphibians such as Pacific treefrog (*Pseudacris regilla*) and possibly western toad (*Anaxyrus boreas*). However, it lacks deep pools suitable for use as breeding habitat by California red-legged frogs (*Rana aurora draytonii*) or suitable basking areas and deep pools necessary to support southwestern pond turtles (*Actinemys pallida*). No fish were observed in the channel during site visits conducted as part of the BRR. Mallards (*Anas platyrhynchos*) and herons (*Ardeidae*) may occasionally forage along the stream, and the surface water likely serves as a source of drinking water. Trees along the stream are likely used by the same species present in the other stands of nonnative woodland habitat.

Coast Live Oak Woodlands

Stands of coast live oak woodland are present in the eastern and northeastern portions of the project site, occupying an estimated 4 acres, intermixed with nonnative woodland and ruderal grassland (see Figure 4.3-1). These woodlands are dominated by coast live oak, with an understory of ruderal grasses. French broom is spreading throughout this understory, as it is in the nonnative woodlands. The coast live oak woodland mapped to the southeast of the large parking lot within the center of the NDNU campus is also dominated by coast live oak, and the understory consists primarily of ruderal grass and herb species, including ripgut brome, wild oats (*Avena fatua*), soft brome (*Bromus hordeaceus*), Italian thistle, Bermuda buttercup, chickweed, and cleavers.

Woodlands dominated by oaks typically support a high number of wildlife species in California, providing trunk cavities, bark crevices, and complex branching growth that create shelter for birds and other wildlife species, and producing large crops of acorns that are an important food source for many birds and mammals. However, the patches of coast live oak woodland on the project site are limited in extent, with limited understory vegetation. As a result, this habitat provides fewer structural resources and foraging opportunities for wildlife species compared to more natural and/or more extensive oak woodlands in the region. Nevertheless, birds such as the California scrub-jay, Bewick's wren (*Thryomanes bewickii*), chestnut-backed (*Poecile rufescens*), and oak titmouse may nest and forage in the oak woodlands on the project site. Other birds expected to use this habitat are the wintering ruby-crowned kinglet (*Regulus calendula*) and Townsend's warbler (*Setophaga townsendi*). Raptors such as the Cooper's hawk may forage for prey in oak woodlands on the site. It is possible that raptors could nest in the oak woodland, but no evidence of any active or inactive raptor nests were detected during the site visits as part of the BRR or by the EIR biologist.

Because the oak woodland habitat on the site contains only sparse understory cover and vegetation, amphibian and reptile species that are typically associated with dense leaf cover and coarse woody debris in wooded habitats are not expected to occur here. Reptiles associated with the adjacent grassland habitat, such as the western fence lizard and gopher snake, may forage in the native and nonnative woodland patches. Mammals that forage in grasslands on the site such as the native striped skunk and black-tailed deer and nonnative Virginia opossum and feral cat are expected to forage in this habitat.

Ruderal Grassland

Ruderal grasslands are scattered in the woodland openings through the northern and northeastern parts of the project site, collectively occupying an estimated 3.4 acres (see Figure 4.3-1). These grasslands support a cover of primarily nonnative grasses and forbs, such as wild oats, ripgut brome, soft brome, bristly ox-tongue (*Helminthotheca echioides*), and dandelions (*Taraxacum officinale*). Areas with more shallow soils and rocky outcrops are dominated by soft brome and red-stemmed filaree (*Erodium cicutarium*), together with scattered native California poppy (*Eschscholzia californica*) and native purple needlegrass (*Stipa nassella*). But the native grassland component is not high enough for these stands to qualify as a sensitive natural community type. Some of the more shaded patches of the ruderal grasslands support a cover of nonnative annual bluegrass (*Poa annua*), orchard grass (*Dactylis glomerata*), and English daisies (*Bellis perennis*).

Wildlife use of grasslands on the project site is limited by their relatively small size and disturbed condition, the proximity of human disturbance, and the isolation of this habitat from more extensive grasslands in the region by surrounding urbanization. However, a number of resident bird species associated with the surrounding developed and woodland areas forage in the ruderal grassland habitat on the project site. These include California towhee, mourning dove, lesser goldfinch, northern mockingbird, white-crowned sparrow (*Zonotrichia leucophrys*), and golden-crowned sparrow (*Zonotrichia atricapilla*). Rodents include Botta's pocket gophers (*Thomomys bottae*), California vole (*Microtus californicus*), and deer mouse, which likely serve as prey for predatory raptors (e.g., hawks, owls, and falcons) that likely forage where suitable habitat remains on the project site. Several reptile species may occur in the ruderal grassland habitat on the site, including the western fence lizard and gopher snake. Mammals associated with surrounding developed areas such as the native striped skunk, as well as the nonnative Virginia opossum and feral cat, are likely to occasionally forage in the grasslands. Common species of bats, such as the Mexican free-tailed bat, may forage for insects at night over the grasslands.

Chaparral

A small patch of chaparral occurs in the southeast portion of the project site, occupying approximately 0.2 acres (see Figure 4.3-1). The chaparral cover grows on a narrow, rocky slope, just above a parking lot. This patch of chaparral is disturbed and of low quality, dominated by coyote brush (*Baccharis pilularis*) and California sagebrush (*Artemisia californica*) shrubs with an understory of wild oats, ripgut brome, and red-stemmed filaree.

Given the very limited extent of chaparral on the project site, no wildlife species specifically associated with chaparral are expected to occur on the project site. Reptiles such as the western fence lizard and gopher snake, as well as small mammals such as the deer mouse and California mouse, would occur in

this chaparral. Birds associated with dense cover, such as the Bewick's wren, California towhee, and spotted towhee (*Pipilo maculatus*), may forage and nest in the chaparral habitat, and a variety of migrant and wintering sparrows could use this vegetation for cover.

Willow Scrub

A small thicket of willows associated with a wetland seep occurs in the northern portion of the project site, occupying an estimated 0.2 acres (see Figure 4.3-1). This wetland thicket is dominated by arroyo willow (*Salix lasiolepis*). It is not associated with a waterway but occurs as an isolated wetland seep. Other wetland indicator species associated with the seep include Himalayan blackberry and pampas grass (*Cortaderia selloana*). The understory of this scrub vegetation is dominated by a number of nonnative and invasive ground cover species, including greater periwinkle (*Vinca major*), Harding grass (*Phalaris aquatica*), and English Ivy.

Due to the very limited extent of the willow scrub on the project site, the lack of pooled water, and its isolation from other wetland habitats, this area does not provide high-quality habitat for wetland-associated wildlife species. Pacific treefrogs likely use this wetland as a moist refuge during the dry season, though no suitable breeding habitat is present. Otherwise, wildlife species using this willow thicket would be similar to those found in the surrounding woodland and grassland habitats.

Freshwater Marsh

A small patch of freshwater marsh was mapped in the northern portion of the project site, occupying an area of 0.02 acres (see Figure 4.3-1). This feature occurs within a small depression on a topographically level portion of a steep hillside, just upslope of the willow thicket on the project site. Vegetation within the marsh is dominated by hydrophytic species such as periwinkle, cattail (*Typha latifolia*), and tall flat sedge (*Cyperus eragrostis*). However, the depression also contains upland species such as pampas grass and coyote brush. Approximately 0.5 inches of water was present in the depression at the time of the survey in February 2022, and appeared to trickle downslope. Steep cliffs in the northern portion of the project site, along with this subtle depression located midslope, appear to be the result of an old quarry or other anthropogenic activities.

Due to the very limited extent of freshwater marsh associated with this feature and its isolation from other wetland habitats, it does not provide high-quality habitat for wetland-associated wildlife species. The pooled water associated with the marsh is too shallow to provide suitable breeding habitat for amphibians, though Pacific treefrogs likely use this marsh as a moist refuge during the dry season. Otherwise, animals using this marsh would be similar to those found in the surrounding woodland and grassland habitats.

Seasonal Wetland

Two small seasonal wetlands occur on the project site, occupying an estimated 0.004 acres (see Figure 4.3-1). One of the seasonal wetlands is located near the northeastern boundary of the project site, at the downslope end of a small swale that appears to convey stormwater and irrigation runoff away from the adjacent residences. This seasonal wetland was approximately 5 feet by 5 feet in size, occurring in the

understory of coast live oak woodland. Dominant vegetation associated with the feature included tall flat sedge, common rush (*Juncus effusus*), Italian wild rye (*Festuca perennis*), and curly dock (*Rumex pulcher*). As reported in the BRR, the soils within this shallow depression were saturated during the February 2022 field surveys, despite the absence of standing water. The second seasonal wetland was observed in a shallow, roadside depression along Laxague Drive. Species composition of vegetation in this seasonal wetland was similar to the other seasonal wetland, being dominated by tall flat sedge, Italian wild rye, and bur clover (*Medicago polymorpha*). Though no standing water was observed at the time of the survey in February 2022, the soil within this depression was soft and moist.

Due to the very limited extent of these two small seasonal wetlands on the project site, the lack of pooled water, and their isolation from other wetland habitats, these features do not provide high-quality habitat for wetland-associated wildlife species. Pacific treefrogs likely use these wetlands as moist refugia during the dry season, though no suitable breeding habitat is present. Otherwise, wildlife species using these wetlands would be similar to those in surrounding woodland and grassland habitats.

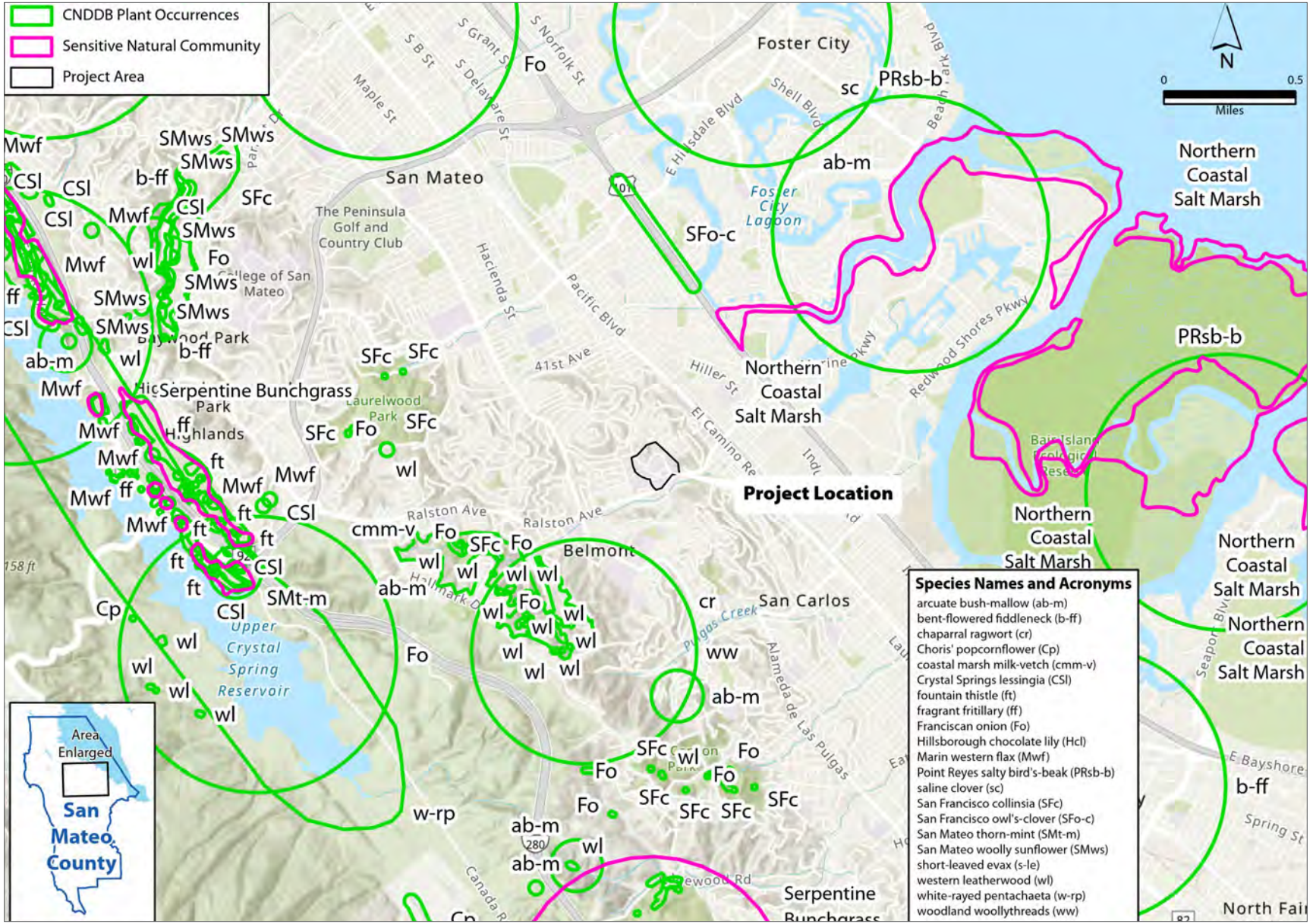
Special-Status Species

Special-status species[4] are plants and animals that are legally protected under CESA and/or FESA or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Species protected by the CESA and FESA often represent major constraints to development, particularly when the species are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take" of these species.

Based on data from the CNDDB and other information sources, numerous special-status species are known or suspected to occur in the open water and marshlands of San Francisco Bay, riparian corridors along streams and creeks, and undeveloped uplands of the San Mateo Peninsula. Figure 4.3-2, *Special-Status Plant Species,* and Figure 4.3-3, *Special-Status Animal Species*, show the known occurrences of special-status plant and animal species respectively in the Belmont area based on the CNDDB inventory, which indicates that there are no known occurrences from the project site or immediate vicinity. Figure 4.3-3 also shows designated critical habitat for federally listed threatened bay checkerspot butterfly (*Euphydryas editha bayensis*) and the California red-legged frog, both located over two miles to the west and southwest of the project site.

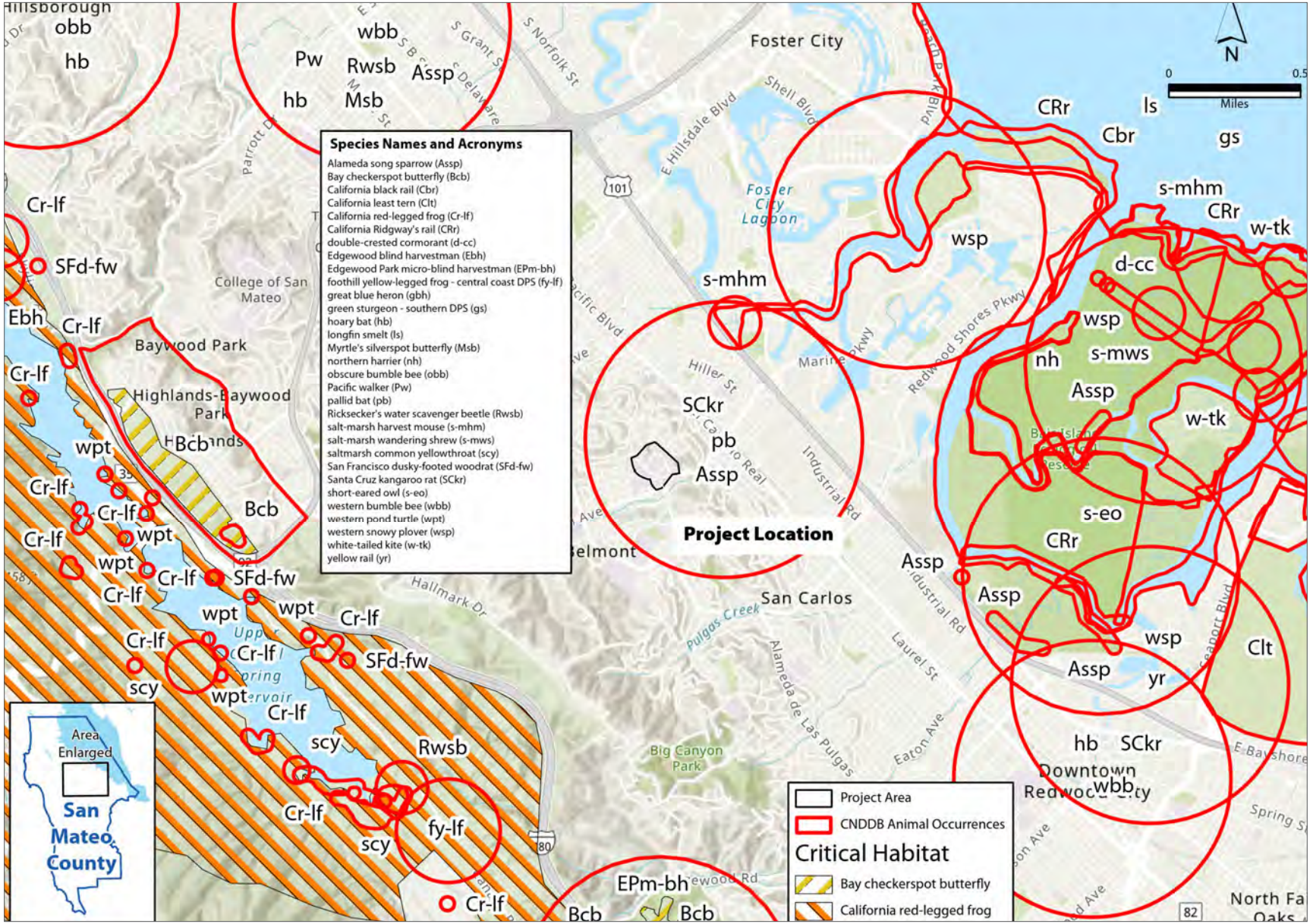
[4] Special-status species include:

- Officially designated (rare, threatened, or endangered) and candidate species for listing identified by the CDFW;
- Officially designated (threatened or endangered) and candidate species for listing identified by the USFWS;
- Species considered to be rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those with a rank of 1 or 2 in the *Inventory of Rare and Endangered Plants of California* maintained by the California Native Plant Society (CNPS); and
- Possibly other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those with a rank of 3 and 4 in the CNPS *Inventory* or identified as animal "Species of Special Concern" (SSC) by the CDFW which have no legal protective status under CESA but are of concern to the CDFW because of severe decline in breeding populations in California.



Source: CNDDB, 2024.

Figure 4.3-2
Special-Status Plant Species



Source: CNDDB, 2024.

Figure 4.3-3
Special-Status Animal Species

As indicated in Figure 4.3-3, very generalized occurrences for three special-status animal species have been reported in the Belmont vicinity—Santa Cruz kangaroo rat (*Dipodomys venustus venustus*), Alameda song sparrow (*Melospiza melodia pusillula*) and pallid bat—extending over portions of the central Belmont area, including the project site. But according to the CNDDB, these reported occurrences are based on very general records, summarized as follows:

- The general occurrence of Santa Cruz kangaroo rat was made in 1900 from the "Belmont vicinity," with an updated review in 2003 concluding that suitable habitat for this species has been eliminated as a result of extensive land use changes, fragmentation, and fire suppressing. It is believed to occur in chaparral habitat with seed-producing plants for foraging such as manzanita and sandy soils for burrowing, which are not present on the project site.
- The general occurrence of Alameda song sparrow was made in 2004 from salt marsh habitat along Highway 101, and suitable habitat for this species is not present on the project site.
- The general occurrence of pallid bat was made from the Belmont vicinity, with the first collection of a male and female bat made in 1949 and the second collection consisting of a female made by a "Sister Anna SND" in 1952, suggesting that at least the second record may have been from the project site. As discussed in the BRR and summarized below, there remains a potential for occurrence of pallid bat and other special-status bat species on the project site.

Some of the more well-known special-status species known from the San Mateo Peninsula are associated with the open water and coastal salt marsh habitat of San Francisco Bay not found on the project site. These include the state-listed threatened California black rail (*Laterallus jamaicensis coturniculus*) and the state and federally listed endangered California Ridgway's rail (*Rallus longirostris obsoletus*) and salt-marsh harvest mouse (*Reithrodontomys raviventris*), and Alameda song sparrow, which has no formal listing under FESA or CESA but is considered a California SSC by the CDFW.

Perennial stream corridors were once used by the federally listed threatened steelhead (*Oncorhynchus mykiss*) for migration and spawning, but no fish were observed along the intermittent stream on the project site and suitable aquatic habitat conditions for this species are absent. Similarly, suitable breeding and dispersal habitat for the California red-legged frog, the state and federally listed endangered San Francisco garter snake (*Thamnophis sirtalis tetrataenia*), and western pond turtle is absent on the project site and vicinity. Western pond turtle has no formal listing under FESA and CESA but is considered a California SSC by the CDFW and was recently proposed for listing as threatened under FESA.

Finally, a number of invertebrate species known from the San Mateo Peninsula are not suspected to occur in the project site vicinity due to lack of suitable natural habitat or larval host plant species. These include overwintering colonies of monarch butterfly (*Danaus plexippus*), bay checkerspot, Myrtle's silverspot butterfly (*Speyeria zerene myrtleae*), western bumblebee (*Bombus occidentalis*), Edgewood blind harvestman (*Calicina minor*), Edgewood Park micro-blind harvestman (*Microcina edgewoodensis*), Pacific walker (*Pomatiopsis californica*), and Ricksecker's water scavenger beetle (*Hydrochara rickseckeri*), among others. Monarch butterfly is known to disperse throughout northern California, and individuals may utilize the flowers from blue gum and other nonnative species for nectaring during the winter and spring months, but no conspicuous overwintering roosts have been reported from the project site or surrounding area of Belmont. Monarch requires milkweed (*Asciepias* spp.) for egg-laying and larval

development. No milkweed plants were reportedly observed during the February 2022 survey conducted during preparation of the BRR or by the EIR biologist. Although unlikely, if milkweed is present, monarchs could breed on the project site, but this would likely occur in the remaining natural areas to the north and northeastern, which are to remain as undeveloped lands and would continue to provide potential breeding habitat for this species.

The BRR provides a review of the potential for occurrence of special-status species on the project site and includes a detailed table summarizing information on special-status species suspected to possibly occur in the project site vicinity, providing their name, status, habitat descriptions, and conclusion regarding presence or absence on the project site. The BRR concludes that suitable habitat for most special-status species in the Belmont vicinity is absent on the project site, with the possible exception of fully protected white-tailed kite (*Elanus leucurus*) and other native birds protected under the MBTA and State Fish and Game Code, roosting bat species, and possibly two special-status plant species and California red-legged frog. These are discussed below, together with information on mountain lion (*Puma concolor*), a specially protected mammal species known to range through San Mateo County.

The two special-status plant species identified in the BRR as possibly occurring on the project site are arcuate bush-mallow (*Malacothamnus arcuatus*) and bent-flowered fiddleneck (*Amsinckia lunaris*). Both of these species are found in woodland, chaparral, scrub, and grassland habitats. Neither has a formal listing status under CESA or FESA, but both have a California Rare Plant Rank of 1B.2[5] in the CNPS Inventory. The closest occurrence of arcuate bush-mallow was reported in 2004 from a proposed development site in the City of San Carlos south of Pulgas Creek and north of Big Canyon Park, a little over one mile to the south and associated with chaparral habitat being encroached on by invasive French broom, similar to the conditions on the project site. The closest occurrences of bent-flowered fiddleneck are reported from 2018 and earlier along Pulgas Ridge east of Crystal Spring Reservoir over two miles to the northwest, associated with grassland, scrub and woodland habitats. A historic general occurrence of bent-flowered fiddleneck was reported from the Redwood City vicinity in 1933 about three miles to the southeast of the project site. Although the potential for presence of either of these species is considered low because of the extent of past and ongoing disturbance, there remains a remote potential for their presence in the undeveloped areas along the northern and northeastern portions of the project site. Detailed surveys would be necessary to confirm presence or absence of these species on the project site.

California Red-Legged Frog

California red-legged frog is typically found in streams, freshwater pools, and ponds with emergent or overhanging riparian vegetation. Numerous occurrences of this species have been reported by the CNDDB from the vicinity of Crystal Springs Reservoir, over 2 miles west and southwest of the project site. The intermittent stream on the project site lacks extensive emergent vegetation and pools of adequate depth to support breeding by California red-legged frogs, and any individual frogs would be at high risk of predation by foraging herons, raccoons and other predatory species. Urbanization along Ralston Avenue and Hallmark Drive, together with the Interstate 280 (I-280) freeway form largely substantial barriers to

[5] Plants with a California Rare Plant Rank of 1B in the CNPS Inventory are considered rare throughout their range with the majority of them endemic to California.

future movement by individual California red-legged frogs into the central Belmont area. However, undercrossings of I-280 between the known occurrences around Crystal Springs Reservoir and the upper Belmont Creek watershed provide for a remote means by which individual red-legged frogs could possibly disperse to Belmont Creek and then reach the unnamed stream on the project site. This potential is considered extremely remote, but because protocol surveys on the project site have not been conducted, there remains a remote possibility that species may be present along the unnamed intermittent stream or could disperse there in the future.

Raptors and Other Native Birds

There is a possibility that one or more species of birds protected under the federal MBTA and State Fish and Game Code could nest in the trees, dense vegetation, and structures on the project site. As noted above, no evidence of any nesting by raptors was observed during the field surveys conducted during preparation of the BRR or by the EIR biologist. However, there is a possibility that new bird nests could be established in advance of construction. Preconstruction surveys are typically conducted in advance of vegetation removal and construction during the nesting season (generally from February through August) to identify any active nests and ensure avoidance while occupied.

Roosting Bats

As reviewed in the BRR, trees and structures on the project site could provide roosting habitat for a number of special-status bat species, including: pallid bat, Townsend's western big-eared bat (*Corynorhinus townsendii*), and hoary bat. As indicated in Figure 4.3-3, an occurrence of pallid bat has been reported from the Belmont vicinity by the CNDDB, and other bat species such as hoary bat are known from the coast range through San Mateo County. Pallid and Townsend's western big-eared bat are considered California SSC by the CDFW. Roost locations of hoary bat and other bat species on the Special Animals List[6] maintained by the CDFW are infrequently monitored by the CNDDB. Suitable habitat varies for each species, but roosting locations can include trees, tree cavities, abandoned or little used buildings, openings in building facades and roofs, mines, caves and crevices in cliff faces. No bats or evidence of bat occupation was observed during field surveys of the project site as part of the BRR, but individuals could occupy cavities in the numerous existing structures or trees with cavities and other suitable conditions, or could establish roosts in advance of future construction.

Mountain Lion

Mountain lion is protected under the California Wildlife Protection Act of 1990 as a "specially protected mammal" in California. The evolutionarily significant unit (ESU) encompassing Southern California and the central coast is currently designated as a candidate species by the CDFW. The Fish and Game Commission is currently conducting a status review of mountain lions within the proposed ESU. At the end of the review, CDFW will make its recommendation on listing to the Commission. Under CESA, species classified as a candidate species are afforded the same protection as listed species. Mountain lions have large home ranges that may include heterogenous habitats, including riparian, chaparral, oak woodlands, coniferous forests, grasslands, and occasionally rocky desert uplands. Individuals are known to forage and disperse

[6] California Department of Fish and Wildlife, California Natural Diversity Database, 2024, *Special Animals List*.

through the open space and undeveloped lands to the west of Belmont and may occasionally move through residential areas at the western edge of the city limits. But it is unlikely individuals disperse as far east as the project site on any regular basis given the extent of dense urbanization and absence of undeveloped lands, creek corridors, or other natural areas that would serve as a movement corridor. The project site and adjacent residential development lack suitable denning locations for this species and are not considered essential habitat for mountain lions given the intensity of existing development that completely surrounds the project area.

Sensitive Natural Communities

Sensitive natural communities are community types recognized by CDFW and other agencies because of their rarity. In the Belmont vicinity, sensitive natural community types include coastal salt marsh, brackish water, freshwater marshlands, native riparian woodland, and native grasslands, among other community types. Figure 4.3-2 shows the distribution of known occurrences of serpentine bunchgrass and northern coastal salt marsh reported by the CNDDB in the surrounding area of Belmont, none of which have been mapped on or near the project site.

Based on the findings of the BRR and field surveys of the EIR biologist, sensitive natural community types are absent on the project site. While the grassland cover on the project site includes native grasses and forbs, such as purple needlegrass, these do not occur in high enough densities or aerial extent to be considered a sensitive natural community type. The oak woodlands, while considered important for their wildlife habitat value, are dominated by coast live oak, which is a widespread and common species. The small area of willow and freshwater marsh are typically considered sensitive natural community types and are likely state-regulated waters, but these have developed in a heavily disturbed location and are not large enough in extent to be considered a sensitive natural community type. Similarly, the nonnative woodland along the unnamed intermittent stream is likely a regulated waters but does not support native cover to the degree that it qualifies as a sensitive natural community type.

Jurisdictional Waters

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or groundwater and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage areas for storm and flood waters, and water recharge, filtration, and purification functions. The CDFW, USACE, and RWQCB have jurisdiction over modifications to riverbanks, lakes, stream channels and other wetland features, as discussed above under Section 4.1.1.1, *Regulatory Framework*.

A formal wetland delineation of the project site has not yet been conducted, but preliminary wetland assessments were performed as part of the BRR and the field reconnaissance by the EIR biologist. Based on these preliminary assessments, regulated waters appear to be limited to the unnamed intermittent stream and the scattered willow scrub, freshwater marsh, and seasonal wetland features (see Figure 4.3-1). The intermittent stream has an obvious bed and bank, is hydrologically connected to Belmont Creek, and is likely regulated as a federal waters by the USACE and a state waters by the CDFW and RWQCB. The limits of USACE jurisdiction likely extend to the Ordinary High Water Mark, and state waters

extend to the top of bank or edge of riparian vegetation associated with the drainage. The smaller scattered features may be considered hydrologically isolated and therefore not regulated by the USACE under Section 404 of the Clean Water Act but would still likely be considered state waters by the RWQCB. A formal wetland delineation verified by the USACE would be necessary to confirm the limits of regulated waters on the project site.

Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by impassible barriers, large bodies of water, distinct changes in cover, and intensive human activity, among other factors. Urbanization and the resulting fragmentation of undeveloped open space areas can create isolated "islands" of wildlife habitat, separating populations that can lead to genetic isolation and sometimes extirpation. Corridors act as an effective link between populations, allowing for genetic exchange and recruitment of dispersing individual animals where the local carrying capacity, competition and other influences allow.

The project site is surrounded by urbanization, limiting its importance as wildlife habitat and opportunities for wildlife movement into the undeveloped upper Belmont Creek Watershed. Deer, raccoon, and other wildlife found on the project site currently have relatively unrestricted access on the property, and likely disperse into the surrounding residential neighborhoods at night. The intermittent nature of the unnamed stream on the project site and fact that it continues downstream and upstream through culverts, precludes movement by fish and other aquatic-dependent wildlife.

Habitat Conservation Plans

The project site is not located within the planning area of an adopted Natural Community Conservation Plan or Habitat Conservation Plan and none are located in the surrounding area of Belmont. The project would therefore not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.3.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant impact to biological resources if it would:

1. Have a substantial adverse effect, either directly, or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.
3. Have a substantial or adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.
7. In combination with past, present, or reasonably foreseeable projects, have a cumulative significant impact in regard to biological resources.

4.3.3 IMPACT DISCUSSION

As discussed in Chapter 4, Environmental Analysis, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following biological resources analysis is based on the natural environmental setting and therefore utilizes information gathered in 2023.

BIO-1	The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

In general, the proposed project is not expected to have any substantial adverse impacts on special-status species. The habitat suitability analysis conducted as part of the BRR and by the EIR biologist determined that suitable habitat for most special-status plant and animal species is absent from the project site. However, there is a possibility that tree removal, building demolition, and other disturbance could affect roosting habitat for special-status bats, two species of special-status plants, and active bird nests protected under federal and State regulations, if present on the project site and appropriate measures are not taken during construction. There is also a remote possibility that individual California red-legged frogs could be affected by future construction activities if they are able to disperse onto the project site. The following provides an assessment of the potential impacts on these special-status species, together with recommended measures where potentially significant impacts could occur.

Nesting Raptors and Other Native Birds

Grading and other construction activities associated with potential future development under the proposed project would require removal of an unknown number of trees, other vegetation, and existing structures on the project site that provide suitable nesting habitat for numerous species of raptors as well as more common native bird species. Destruction of an active nest would be a violation of the MBTA and State Fish and Game Code, and appropriate avoidance measures would be required to ensure compliance

with these regulations. Vegetation removal and other construction activities in close proximity of nests in active use could lead to nest abandonment unless appropriate seasonal restrictions are implemented.

A standard method to address the potential for nesting birds is either to initiate construction during the nonnesting season, which is typically from September 1 to January 31 in Belmont, or to conduct a nesting survey prior to initial tree removal and construction to determine whether any active nests are present that must be protected until any young have fledged and are no longer dependent on the nest. Protection of the nest(s), if present, would require that construction setbacks be provided during the nesting and fledging period, with the setback depending on the type of bird species, degree to which the individuals have already acclimated to other ongoing disturbance, and other factors.

Potential future development under the proposed project would typically be required to implement the City's standard condition related to nesting birds. However, the standard condition is limited to protection of raptor species and does not specifically address other native birds that are also protected under the MBTA and State Fish and Game Code. While the City's standard condition is useful for many projects to ensure avoidance of raptor nests when in active use, project-specific mitigation is recommended below to ensure appropriate setback distances, temporary fencing of any occupied nest protection zones, and reporting to the City in advance of initiating construction during the nesting season with the findings of the preconstruction survey by the qualified biologist.

Without additional controls beyond what is specified in the City's standard condition related to nesting birds, vegetation removal and other construction activities associated with future development of the project site could adversely affect nesting birds, which would be a potentially *significant* impact.

Impact BIO-1.1: Removal of vegetative cover during future construction under the proposed project may result in the inadvertent destruction of active nests of raptors and other native birds unless appropriate precautions are followed.

Mitigation Measure BIO-1.1: Nesting Bird Avoidance and Minimization Measures. The following measures shall be implemented to avoid and minimize impacts of construction on nesting birds:

- Nesting-Season Avoidance. To the extent feasible, commencement of construction activities shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code would be avoided. The nesting season for most bird species in San Mateo County extends from February 1 through August 31.
- Preconstruction/Pre-disturbance Surveys and Buffers. If it is not possible to schedule commencement of construction activities and/or tree removal between September 1 and January 31, preconstruction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no active nests are disturbed during future construction. A qualified ornithologist is an individual who has at least a Bachelor of Science degree in biological sciences from an accredited college or university, and has at least four years of professional experience as a biologist specializing in the study of birds, including species known from the Belmont vicinity. These shall include the following provisions:

- Required preconstruction surveys shall be conducted no more than seven days prior to the initiation of demolition or construction activities, including tree removal and pruning.
- During the survey, the qualified ornithologist shall inspect all trees and other potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas and considered to be at risk of disturbance by these activities, the qualified ornithologist shall determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no active nests of species protected by the MBTA and California Fish and Game Code shall be disturbed during project implementation.
- Required setback distances for the construction-free buffer zone shall be based on input received from the California Department of Fish and Wildlife, and may vary depending on nest location, species, and sensitivity to disturbance.
- As necessary, the construction-free buffer zone shall be fenced with temporary orange construction fencing if construction is to be initiated on the remainder of the construction site.
- A report of findings shall be prepared by the qualified ornithologist and submitted for review and approval by the City of Belmont prior to initiation of vegetation removal, building demolition, grading and other construction activities during the nesting season. The report shall either confirm absence of any active nests within the construction area or shall confirm that any young are located within a designated construction-free buffer zone and construction can proceed. Following confirmation by the qualified ornithologist that the active nest is not occupied by any young, and approval by the City, construction activities within the construction-free buffer zone may proceed. No report of findings is required if vegetation removal and other construction is initiated during the nonnesting season and continues uninterrupted according to the above criteria.

- Removal of Nesting Substrate. Potential nesting substrate (e.g., bushes, trees, snags, grass, and suitable artificial surfaces) that would be impacted by approved future development activities shall preferably be removed during the nonbreeding season (i.e., they should be removed between September 1 and January 31), in advance of construction, if feasible, to help prevent establishment of new nests within areas to be disturbed by construction on the project site.

Significance with Mitigation: Less than significant.

Roosting Bats

Tree removal, building demolition, and construction disturbance in the immediate vicinity of an active bat roost could affect special-status bats and other more common bats, if present. Special-status and common bat species are addressed here together because both the potential impacts and necessary avoidance and minimization measures for these species are similar. When buildings or trees containing roosting colonies or individual bats are removed or modified, individual bats can be physically injured or killed, subjected to physiological stress from disturbance during torpor, or can face increased predation

because of exposure during daylight. In addition, nursing young may be subjected to disturbance-related abandonment by their mothers. Loss of high-quality roost locations could limit populations due to habitat loss.

No evidence of a colony of roosting bats was detected in trees or buildings on the project site during the habitat assessment conducted as part of the BRR in February 2022. However, there remains a potential for roosting on the project site by both special-status bat species, such as pallid bat and Townsend's big-eared bat, and common bat species, such as the Yuma myotis and Mexican free-tailed bat. As discussed in the BRR, potential impacts on a moderately sized maternity colony of common species that have potential to occur on the project site (i.e., at least 10 big brown bats, 20 Yuma myotis or at least 100 individuals of other non-special-status bat species) or impacts on a pallid bat or Townsend's big-eared bat day roost of any type (i.e., a maternity or nonmaternity colony) or size would be considered a substantial adverse effect on these species as this could have a substantial impact on their regional populations.[7]

Potential future development under the proposed project would typically be required to implement the City's standard condition related to roosting bats. While the City's standard condition is useful for many projects to ensure avoidance of bat roosts, project-specific mitigation is recommended below to ensure appropriate survey methodologies and compensatory mitigation thresholds for the project site, which is a location with high potential for presence.

Without additional controls beyond what is specified in the City's standard conditions related to bats, if roosting bat colonies are present, future development associated with the proposed project could have potentially *significant* impacts depending on species, size, and proximity to construction.

Impact BIO-1.2: Removal of trees and existing structures during future construction under the proposed project may result in the inadvertent destruction of active bat roosts unless appropriate precautions are followed.

> Mitigation Measure BIO-1.2a: Maternity Season Survey. A qualified bat biologist shall conduct a focused survey for roosting bats within all suitable roost trees on the project site that are to be removed and within all buildings that provide suitable bat roost habitat and that will be either removed or modified in such a way as to reduce their suitability for use by roosting bats. A qualified bat biologist is an individual who has at least a Bachelor of Science degree in biological sciences from an accredited college or university, and has at least four years of professional experience as a biologist specializing in the study of bats, including species known from the Belmont vicinity. This survey shall be conducted during the maternity season (generally March 15–August 31) prior to the start of project construction, to determine presence or absence of a maternity colony, the species present, and an estimate of the colony size, if present. If close inspection of potential roost features during the daytime is infeasible, the focused survey shall consist of a dusk emergence survey when bats can be observed flying out of the roost.

[7] These population-level thresholds were developed by senior bat biologist Dave Johnson, Ph.D., with H.T. Harvey & Associates (one of the authors of the BRR), for these species based on his knowledge of their local populations. These thresholds provide guidance on assessing potential impacts of any roosting colony encountered during surveys recommended in the BRR.

This survey may be combined with the pre-activity survey described under Mitigation Measure BIO-1.2b, if desired. However, due to the possibility that the presence of a maternity colony could result in a construction delay (i.e., maintaining a nondisturbance buffer around the roost), if work is to be initiated during the maternity season, it is recommended, but not required, that this survey be conducted the year prior to when project construction is to occur.

If a maternity colony is detected, the exclusion measures described in Mitigation Measure BIO-1.2c below shall be implemented prior to March 15 of the year during which construction occurs to ensure that bats are excluded from the roost prior to the start of construction. In addition, Mitigation Measure BIO-1.2d shall be implemented to provide adequate compensatory mitigation.

Mitigation Measure BIO-1.2b: Pre-Activity Survey. A pre-activity survey shall be conducted for roosting bats within all buildings and trees on the project site that are within 100 feet of project demolition or construction footprints. The survey shall be conducted by a qualified bat biologist within seven days prior to the start of building demolition or tree removal to allow for avoidance of potential impacts. If building demolition and/or tree removal is to occur in phases, a pre-activity survey shall be conducted within seven days prior to the demolition of each building and/or removal of each tree in which suitable roost habitat is present within the surrounding 100 feet. If close inspection of potential roost features during the daytime is infeasible, the focused survey shall include a dusk emergence survey when bats can be observed flying out of the roost.

If a moderately sized maternity colony of common bat species (i.e., at least 10 big brown bats, 20 Yuma myotis, 100 individuals of other non-special-status species) or a pallid bat or Townsend's big-eared bat colony of any size or kind (i.e., a maternity or nonmaternity colony) is not detected during the survey, no additional measures are required.

If a moderate-sized maternity colony of common bat species (i.e., at least 10 big brown bats, 20 Yuma myotis, or 100 individuals of other non-special-status species) or a pallid bat or Townsend's big-eared bat colony of any size or kind (i.e., a maternity or nonmaternity colony) is present, the qualified bat biologist shall identify a disturbance-free buffer zone appropriate for the species that shall remain in place until either the end of the maternity season or a qualified biologist has determined that all young are capable of flight to avoid the loss of dependent young. The exclusion measures described in Mitigation Measure BIO-1.2-c shall be implemented after dependent young are no longer present and prior to the removal of any portion of the tree or building where the roost is located.

Mitigation Measure BIO-1.2c: Bat Exclusion. If bats are present in a building or tree to be removed or disturbed, the individuals shall be safely evicted outside the bat maternity season (approximately March 15–August 31) and the winter torpor period (approximately October 15–February 28, depending on weather). The qualified biologist shall be present for removal or disturbance of trees or structures occupied by bats.

Bats present in adjacent areas that may be indirectly disturbed by construction activities shall be evicted if a qualified biologist determines that evicting the bats is preferential to allowing the bats to remain in their roosts (e.g., if noise or disturbance from nearby construction could pose a threat to a maternity colony, then the bats shall be evicted). Bats may be evicted through exclusion, as directed

by a qualified biologist, after notifying the California Department of Fish and Wildlife. For eviction from roost trees, trimming or removal of trees shall follow a two-step removal process whereby limbs and branches not containing roost habitat are removed on Day 1 to disturb the roost, and then the entire tree is removed on Day 2.

Disturbance of or removal of structures containing or suspected to contain active (not maternity or hibernation) or potentially active common bat roosts shall be done in the evening and after bats have emerged from the roost to forage. Structures shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost. Removal shall be completed the subsequent day.

Alternatively, exclusion methods may include the installation of one-way doors and/or use of ultrasonic deterrence devices. One-way doors and/or deterrence devices shall be left in place for a minimum of two weeks with a minimum of five fair-weather nights with no rainfall and temperatures no colder than 50 degrees Fahrenheit (°F).

Mitigation Measure BIO-1.2d: Compensatory Mitigation. If a maternity colony of common bat species containing at least 10 big brown bats, 20 Yuma myotis, or 100 individuals of other non-special-status bat species, or a pallid bat or Townsend's big-eared bat day roost of any type (maternity or non-maternity) or size (one or more) could be destroyed or modified such that it would no longer provide a suitable roost site for bats as determined by a qualified biologist, replacement roost habitat that is appropriate to the species shall be provided, as recommended by the qualified bat biologist. The nature of the replacement roost habitat (e.g., the design of an artificial roost structure) shall be determined by a qualified bat biologist based on the number and species of bats detected and input from the California Department of Fish and Wildlife (CDFW). Ideally, the roost structure shall be installed on the project site. If replacement habitat cannot be installed on the project site, exact placement of replacement habitat shall be determined in consultation with the qualified bat biologist and CDFW.

Significance with Mitigation: Less than significant.

California Red-Legged Frog

Although California red-legged frog is not expected to breed on the project site, there is a remote potential for an individual(s) to disperse onto the project site given the presence of the intermittent stream and hydrologic connection to Belmont Creek and the upper Belmont Creek watershed. If the species is present on the project site, construction activities could result in the loss of habitat, and injury or mortality of individuals as a result of equipment operation, vehicle traffic, and other activities. Petrochemicals, hydraulic fluids, and solvents that are spilled or leak from construction vehicles or equipment may kill or injure individuals if present in the intermittent stream, and increased turbidity during construction could make predator and prey detection more difficult. Vibrations and noise from construction equipment operation could cause individuals to move out of refugia, exposing them to a greater risk of predation or desiccation, and may interfere with predator detection, resulting in a decrease in time spent foraging. Increases in human activity near suitable habitat may also result in an increase in

native and nonnative predators that are attracted to trash left in the activity area. For example, raccoons, American crows, and common ravens are attracted to trash and prey opportunistically on amphibians.

Indirect impacts on water quality from future construction activities on the project site would be avoided and minimized by implementing erosion and sediment control measures, as well as best management practices (BMP) for work near aquatic environments. Construction projects in California disturbing one or more acres must comply with state requirements to control the discharge of storm water pollutants under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Water Board Order No. 2009-0009-DWQ, as amended and administratively extended). A Storm Water Pollution Prevention Plan (SWPPP) must be developed and maintained during the proposed construction activities, and it must include the use of BMPs to protect water quality until the disturbed area is stabilized. Standard permit conditions under the Construction General Permit require that an applicant utilize various measures, including on-site sediment control BMPs, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances and/or wash racks, among other factors.

In many Bay Area counties, including those in San Mateo County, proposed projects must also comply with the California RWQCB, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit (Water Board Order No. R2-2015-0049). This permit requires that all projects implement BMPs and incorporate Low Impact Development practices into the design to prevent stormwater runoff pollution, promote infiltration, and hold/slow down the volume of water coming from a site after construction has been completed. In order to meet these permit and policy requirements, projects must incorporate the use of tree planters, grassy swales, bioretention and/or detention basins, among other factors. Compliance with these permit requirements would minimize the potential for indirect impacts on water quality due to increases in erosion, sedimentation, and turbidity as well as releases of pollutants into the creek water.

Because the project site is not known or expected to support large numbers of California red-legged frogs, or to support breeding by this species, potential impacts on habitat for this species resulting from project activities would not restrict its range or result in a substantial reduction in its abundance. However, injury or mortality of individual California red-legged frogs could reduce population numbers for this federally listed species, which would be a s*ignificant* impact under CEQA. The City does not have any standard conditions related specifically to California red-legged frog that would serve to address this potentially *significant* impact.

Impact BIO-1.3: Future construction activities under the proposed project have a remote potential to result in loss or injury to individual California red-legged frogs unless appropriate precautions are followed.

Mitigation Measure BIO-1.3: California Red-legged Frog Avoidance and Minimization Measures. The following measures shall be implemented for any construction activities within 100 feet of the on-site intermittent stream to minimize potential impacts on individual California red-legged frogs:

- Prior to the initiation of construction activities, a qualified biologist shall determine appropriate relocation sites for any California red-legged frogs that may be observed during the pre-

construction survey or biological monitoring activities described below and that need to be relocated.

- Within 48 hours prior to the start of work, a qualified biologist(s) shall conduct a night-time survey for California red-legged frogs. The survey shall consist of walking the construction limits investigating all potential areas that could be used by the California red-legged frog. Any potential refugia for frogs, including small mammal burrows, shall be examined. If any life stage of California red-legged frog is detected, the qualified biologists shall contact the United States Fish and Wildlife Services (USFWS) to determine if relocation of the individuals is appropriate, and secure authorization to handle and relocate individual frogs. Only qualified biologists with authorization from USFWS are allowed to capture, handle, and monitor California red-legged frog because of its federal status as a threatened species.
- A qualified biologist shall conduct environmental training for the construction work crew. All construction personnel working within 100 feet of the intermittent stream shall be required to attend the presentation which shall describe the California red-legged-frog, avoidance and minimization measures, legal protection of the species, and other related issues. All attendees shall sign an attendance sheet along with their printed name, company or agency, email address, and telephone number.
- A qualified biologist shall be on-site during all project activities during the first two days of construction activities within 100 feet of the intermittent stream to look for California red-legged frogs. Subsequently, a qualified biologist shall be on-call in case a member of the work crew observes any animal that could potentially be a red-legged frog.
- If a California red-legged frog, or an animal that is thought to potentially be a California red-legged frog, is encountered in the action area, all activities which have the potential to result in the harassment, injury, or death of the individual shall be immediately halted. The work crew shall contact a qualified biologist, who shall visit the site to determine whether the animal is a California red-legged frog and to assess the situation in order to select a course of action that would avoid or minimize adverse effects to the animal. To the maximum extent possible, contact with the frog shall be avoided and the applicant shall allow it to move out of the potentially hazardous situation to a secure location on its own volition. This procedure applies to situations where a California red-legged frog is encountered while it is moving to another location. It does not apply to animals that are uncovered or otherwise exposed or in areas where there is not sufficient adjacent habitat to support the species should the individual move away from the hazardous location.
- California red-legged frogs that are in danger shall be relocated and released by the qualified biologist to suitable habitat within the same riparian area or watershed, far enough outside the work area that the frogs shall not be impacted by project activities, as arranged with the USFWS.
- The qualified biologist shall limit the duration of the handling and captivity of the California red-legged frog to the minimum amount of time necessary to complete the task. If the animal must be held in captivity, it shall be kept in a cool, dark, moist, aerated environment, such as a clean and disinfected bucket or plastic container with a damp sponge. The container used for holding or transporting the individual shall not contain any standing water.

- To prevent the inadvertent entrapment of California red-legged frogs, all excavated, steep-walled holes or trenches shall be covered at the end of each work day with plywood or similar materials. If this is not possible, one or more escape ramps constructed of earth fill or wooden planks shall be established in the hole. Before such holes or trenches are filled, they shall be thoroughly inspected for any animals. If at any time a red-legged frog is found trapped or injured in these holes, the individual shall be relocated to the pre-approved relocation site(s) by the USFWS-approved qualified biologist.
- All litter and construction debris shall be disposed of off-site in accordance with state and local regulations. All trash and debris within the work area shall be placed in containers with secure lids before the end of work each day in order to reduce the likelihood of predators being attracted to the construction area as a result of discarded food wrappers and other rubbish that may be left on-site. If containers meeting these criteria are not available, all rubbish shall be removed from the construction area at the end of each work day.
- Plastic monofilament netting (erosion control matting), loosely woven netting, or similar material in any form shall not be used at the project site because California red-legged frogs and other wildlife can become entangled and trapped in them. Any such material found on the project site shall be immediately removed by construction personnel. Materials utilizing fixed weaves (strands cannot move), polypropylene, polymer or other synthetic materials shall not be used.
- All construction equipment shall be maintained to prevent leaks of fuels, lubricants, or other fluids.
- Because California red-legged frogs are attracted to structures providing cavities; pipes or similar structures that are stored at the construction site for one or more overnight periods shall be either securely capped prior to storage or thoroughly inspected by the on-site biologist or trained biological monitor for these animals before the structure is subsequently buried, capped, or otherwise used or moved in any way. If a California red-legged frog is discovered inside a pipe, the qualified biologist shall watch the individual until it has moved out of the work area or may relocate the animal.

Significance with Mitigation: Less than significant.

Special-Status Plants

Based on the detailed assessment conducted as part of the BRR, at least marginally suitable habitat is present in the remaining undeveloped areas in the northern and eastern portions of the project site for two special-status plant species: the bent-flowered fiddleneck and arcuate bush-mallow. Although the possible presence of these special-status plants is considered unlikely due to the lack of recent records in the project area and the extent of past disturbance, the absence of these two species cannot be confirmed without further systematic surveys.

If occurrences of either of these species are present on the project site, the proposed project could impact them as a result of grading, deposition of dust, changes to hydrology, and other direct and indirect impacts. Due to the regional rarity of bent-flowered fiddleneck and arcuate bush-mallow, potential impacts to any occurrence would be considered potentially *significant*. The City does not have any

standard conditions related specifically to special-status plants that would serve to address this potentially *significant* impact.

Impact BIO-1.4: Removal of vegetative cover during future construction under the proposed project may result in the inadvertent destruction of special-status plants unless appropriate precautions are followed.

Mitigation Measure BIO-1.4a: Pre-activity Surveys for Special-Status Plants. Prior to initial ground disturbance for any project-related activities in the currently undeveloped grasslands, nonnative woodlands, coast live oak woodlands, and chaparral habitat in the northern and eastern portions of the project site (see Figure 4.3-1, *Cover Types*, of this EIR), appropriately timed, focused surveys shall be conducted by a qualified plant ecologist for bent-flowered fiddleneck and arcuate bush-mallow. The surveys shall be conducted during the flowering periods for each species (bent-flowered fiddleneck: March through June; arcuate bush-mallow: April through September). They shall encompass suitable grasslands, nonnative woodlands, and coast live oak woodlands for bent-flowered fiddleneck and chaparral habitat for arcuate bush-mallow, together with a 50-foot surrounding buffer (as access allows) to assess the presence or absence of these species within the proposed construction footprint. The survey shall be conducted in a year with sufficient precipitation to detect these species; alternatively, if these species are determined to be detectable in appropriate reference populations (regardless of precipitation), surveys for these species on the project site can be determined to be valid even if precipitation is well below average.

Mitigation Measure BIO-1.4b: Avoidance Buffers. If any special-status plants are detected within the survey area, then in consultation with a qualified plant ecologist, the applicant shall design and construct the proposed improvements to avoid impacts on the population(s), to the extent feasible. Avoided special-status plant populations shall be protected by establishing and observing a suitable buffer between plant populations and the impact area. All such populations located in the impact area or the identified buffer, and their associated designated avoidance areas, shall be clearly depicted on any construction plans. In addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around special-status plants to be avoided shall be marked in the field (e.g., with temporary fencing, flagging, or other means appropriate for the area in question). This marking shall be maintained intact and in good condition throughout construction-related activities. If complete avoidance is not feasible and a population would be impacted by the proposed construction, Mitigation Measure BIO-1.4c shall be implemented.

Mitigation Measure BIO-1.4c: Preservation and Management of Mitigation Populations. If avoidance of any occurrences of special-status plant species is not feasible, compensatory mitigation shall be provided via the preservation, enhancement, and management of occupied habitat for the species, or the creation and management of a new population. To compensate for impacts on these plants, on-site and/or off-site habitat occupied by the affected species shall be preserved, enhanced, and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and at least one occupied acre preserved for each occupied acre affected). Alternately, seed from the population to be impacted may be harvested and used either to expand an existing population (by a similar number/occupied area to compensate for impacts to these species) or establish an entirely new population in suitable habitat.

Areas proposed to be preserved and enhanced as compensatory mitigation for impacts to special-status plants must contain verified extant populations of the species that is impacted, or in the event that enhancement of existing populations or establishment of a new population is selected, the area must contain suitable habitat for the species as identified by a qualified plant ecologist. Mitigation areas shall be managed in perpetuity to encourage persistence and even expansion of the occurrence of this species. The mitigation habitat shall be of equal or greater habitat quality compared to the impacted areas, as determined by a qualified plant ecologist, in terms of soil features, extent of past disturbance, vegetation structure, and dominant species composition, and shall contain at least as many individuals of the species as are impacted by proposed construction activities. The permanent protection and management of mitigation lands shall be ensured through an appropriate mechanism, such as a conservation easement or fee title purchase. A habitat mitigation and monitoring plan (HMMP) shall be developed by a qualified plant or restoration ecologists and implemented for the mitigation lands. That HMMP shall, at a minimum:

- Summarize impacts to the special-status plant species in question, including impacts to its habitat, and the proposed mitigation.
- Describe the location and boundaries of the mitigation location and existing site conditions.
- Define measures to be undertaken to enhance (e.g., through focused management that may include removal of invasive species in adjacent suitable but currently unoccupied habitat) the mitigation location for the species.
- Identify procedures to transplant individual plants or seeds from the impact area to the mitigation location, if appropriate (as determined by a qualified plant or restoration ecologist).
- Define necessary management activities to maintain and enhance high-quality habitat conditions for the species.
- Describe habitat conditions and species monitoring measures on the mitigation location, including specific, objective final and performance criteria; monitoring methods; data analysis; reporting requirements; and monitoring schedule. At a minimum, performance criteria shall include demonstration that any plant population fluctuations over the monitoring period of a minimum of 5 years for preserved populations and a minimum of 10 years for enhanced or established populations do not indicate a downward trajectory in terms of reduction in numbers and/or occupied area for the preserved mitigation population that can be attributed to management (i.e., that are not the result of local weather patterns, as determined by monitoring of a nearby reference population, or other factors unrelated to management).
- If establishing a new population, it must contain at least 200 individuals or the same number of impacted individuals, whichever is greater, by Year 5 of monitoring. This is to ensure the created population is large enough to expect it to persist. If Year 5 is a poor weather year for summer and fall-blooming annual plants and reference populations show a decline, this criterion shall be measured in the next year occurring with average or better rainfall.
- Provide contingency measures for mitigation elements that do not meet performance criteria. For example, by Year 5 of monitoring (or the next suitable rainfall year after year 5), if the mitigation effort is unable to establish a self-sustaining population of the required number of individuals as

described above, the applicant shall preserve and manage an extant population of that same species under a revised HMMP.

- Approval of the HMMP by the City of Belmont shall be required before potential impacts to special-status plants may occur.

Significance with Mitigation: Less than significant.

BIO-2	The proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

The proposed project would not have a substantial adverse effect on any sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. No native riparian habitat, native grasslands or other sensitive natural communities are present on the project site, and *no impacts* are therefore anticipated, and no mitigation is considered necessary. The City's standard conditions related to Riparian and Aquatic Resources would generally not apply under this significance criterion given the absence of native riparian habitat on the project site, but would be applicable if regulated aquatic habitat is affected as discussed below under Impact BIO-3.

Significance without Mitigation: No impact.

BIO-3	The proposed project could have a substantial or adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

The unnamed intermittent stream, willow scrub, freshwater marsh, and seasonal wetlands on the project site are likely regulated waters under the jurisdiction of the various state and federal resource agencies. Due to the importance of aquatic and wetland habitats in maintaining water quality and providing wildlife habitat, potential impacts to regulated waters are typically considered significant under CEQA. If vegetation removal, grading, construction, or other project activities were to occur in areas occupied by one or more of these features, potential adverse impacts could occur due to placement of fills, excavation, modification of hydrology, vegetation removal, or introduction of nonnative plants. Impacts on water quality within these features may also occur during construction, although compliance with the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit; Water Board Order No. 2009-0009-DWQ, as amended and administratively extended) and California RWQCB, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit (Water Board Order No. R2-2015-0049) should avoid substantial adverse impacts on water quality.

The proposed development areas (see Figure 3-3, *Proposed Development Areas*, in Chapter 3, *Project Description*, of this Draft EIR) generally conform with the footprint of existing development and landscaped areas and appear to largely avoid the nonnative woodlands along the intermittent stream and much of the willow scrub and freshwater marsh wetlands in the northern undeveloped portion of the

project site. However, the proposed bicycle and pedestrian circulation plan (see Figure 3-6, *Bicycle and Pedestrian Circulation*, in Chapter 3, *Project Description*, of this Draft EIR) shows two new schematic crossings of the intermittent stream to improve pedestrian and bicycle connectivity between the proposed Ralston development area and other areas on the project site. No detailed plans have been prepared for these crossings, and further evaluation would be provided as part of subsequent environmental review, if and when any actual improvement plans are proposed for new bridges or other modifications to regulated habitat. Given that the intermittent stream is a natural drainage, and likely regulated by the USACE, RWQCB, and CDFW, authorizations may be necessary from these agencies depending on the design and potential for impact on state and federal waters. These authorizations would address any direct and indirect impacts associated with these possible new crossings, ensuring that adequate mitigation is provided where impacts are unavoidable.

Where potential regulated waters could be affected by potential future development under the proposed project, including the intermittent stream and the scattered potential wetlands on the project site, the applicant would have to complete a formal wetland delineation and submit it to the USACE for verification. If regulated waters were impacted, applications or notifications would have to be submitted to the regulatory agencies and appropriate authorizations obtained, where impacts are unavoidable. Adequate mitigation would be required as part of the regulatory agency review and authorization, emphasizing avoidance and providing adequate compensatory mitigation where avoidance is not feasible. Despite the relatively low habitat value of these on-site aquatic and wetland habitats, potential impacts on these possibly regulated waters would be considered potentially *significant* under CEQA due to the regional loss of such sensitive habitats.

Future development under the proposed project would typically be required to implement the City's standard conditions related to riparian and aquatic resources. However, the standard conditions do not address the various regulated features on the project site and the importance of minimizing potential impacts on these features. While the City's standard conditions are useful for many projects to ensure appropriate authorizations have been obtained where impacts on regulated waters would occur as a result of proposed development, project-specific mitigation is recommended below to ensure appropriate compensatory mitigation where avoidance is not feasible. Without additional controls beyond what is specified in the City's standard conditions related to riparian and aquatic resources, future development associated with the proposed project could continue to have potentially *significant* impacts on the on-site aquatic and wetland habitats.

Impact BIO-3: The proposed project would result in a potential impact on regulated wetlands and aquatic habitat through future development of the project site.

> Mitigation Measure BIO-3a: Impact Avoidance and Minimization. When planning and designing for new development on the project site, the applicant shall avoid and minimize impacts to the intermittent stream, willow scrub, freshwater marsh and seasonal wetlands to the maximum extent practicable, and where feasible, shall incorporate a buffer (of at least 10 feet, though larger buffers would be preferable) between grading limits and other aspects of new development and these habitats.

Mitigation Measure BIO-3b: Restoration and Compensatory Mitigation. If any construction activities extend to or within 10 feet of the intermittent stream, willow scrub, freshwater marsh and seasonal wetlands and these features cannot be completely avoided, the applicant shall restore any temporarily affected habitats in situ by restoring pre-construction elevations, topography, hydrology, and vegetation. The applicant shall compensate for unavoidable permanent loss of any aquatic or wetland habitats through on-site or off-site restoration, creation, or enhancement of similar or higher-quality habitat, the purchase of mitigation credits, or a combination of these two approaches.

A qualified biologist shall determine the extent of impacts based on the acreage of overlap of project construction and aquatic or wetland habitat and the linear footage of creek channel within those project impact areas. A minimum of a 1:1 (on an acreage basis for wetlands, ponds, and riparian habitat and a linear footage basis for creeks) replacement-to-loss ratio for in-kind habitat is required (or equivalent or greater as determined in coordination with the United States Army Corps of Engineers [USACE], California Department of Fish and Wildlife [CDFW], and Regional Water Quality Control Board [RWQCB] during permitting). Enhancement of existing, low-quality habitats (rather than restoration or creation) is acceptable if a substantial increase in ecological functions and values can be achieved, as determined by a qualified biologist in coordination with the USACE, CDFW, and RWQCB.

If mitigation is to be satisfied through purchase of mitigation credits in an agency-approved mitigation bank, proof of the purchase of credits shall be provided to the City of Belmont prior to the start of activities that impact the aquatic or wetland habitats. If mitigation is to be satisfied through project-specific habitat restoration, creation, or enhancement, the mitigation shall be described in a Habitat Mitigation and Monitoring Plan (HMMP), which shall be prepared by a qualified biologist retained by the applicant and submitted to the City for review and approval prior to the start of activities that impact the aquatic or wetland habitats. At a minimum, the HMMP shall include the following:

- Summary of project impacts to jurisdictional habitats.
- Plans and detailed description of all restoration, creation, or enhancement activities.
- Evidence of available water source necessary to support long-term survival of any restored, created, or enhanced aquatic and riparian habitats.
- List of native plant species, quantities, and location of plants to be installed in as part of mitigation.
- Specific timing for plant installation and method for supplemental irrigation during the establishment period.
- Management and maintenance activities, such as weeding of invasive plants, providing for supplemental water, and repair of water delivery systems.
- Definition of the maintenance and monitoring period, which shall not be less than five years.
- Identification of performance standards and success criteria under which the mitigation efforts are to be deemed a success; at a minimum, success for vegetated wetlands shall include at least 75 percent cover by native vegetation or 75 percent survival of planted or seeded native riparian vegetation within the target mitigation acreage by the end of Year 5.

- Identification of possible adaptive management procedures that address uncertainties that can sometimes arise with restoration projects. These include, but are not limited to, measures to address colonization by invasive species, unexpected lack of water, excessive foraging of installed plants by native wildlife, and variable climatic conditions. This section shall also describe the process by which adaptive management decisions shall be made and implemented.
- Description of the financial mechanisms for funding of all monitoring activities and ensuring that the created aquatic and riparian habitats shall be preserved and managed in perpetuity.

Significance with Mitigation: Less than significant.

BIO-4	The proposed project could interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

In general, the proposed project would not have any significant adverse impacts on ground-mobile wildlife movement opportunities or adversely affect native wildlife nursery sites. During future construction, smaller, less mobile wildlife species could be lost as a result of vegetation grubbing and grading, and larger, more mobile wildlife would be displaced to surrounding areas. Grading and construction would temporarily disrupt wildlife use of the immediate vicinity, but this would be a relatively short-term effect on common wildlife species, which could continue to use the surrounding undeveloped hillside areas for foraging and other activities. The construction-related disturbance would affect common wildlife species, and protective measures would be taken to avoid inadvertent take of nesting birds, roosting bats, and other special-status species, as discussed under impact discussion BIO-1. Potential future development under the proposed project would remain permeable to wildlife once construction is completed, and replacement tree plantings and other landscaping would eventually provide habitat that could be used for dispersal, foraging, roosting, and nesting by common wildlife species associated with the project site. No substantial disruption of movement corridors or access to native wildlife nursery sites is anticipated.

Avian injury and mortality resulting from collisions with buildings, towers, and other man-made structures is a common occurrence in city and suburban settings. Some birds are unable to detect and avoid glass and have difficulty distinguishing between actual objects and their reflected images, particularly when the glass is transparent and views through the structure are possible. Night-time lighting can interfere with movement patterns of some night-migrating birds, causing disorientation or attracting them to the light source.

The frequency of bird collisions in any particular area is dependent on numerous factors, including characteristics of building height, fenestration, and exterior treatments of windows and their relationship to other buildings and vegetation in the area; local and migratory avian populations, their movement patterns, and proximity of water, food and other attractants; time of year; weather conditions and prevailing winds; and other variables. The greatest risk of avian collisions with buildings typically occurs

within 60 feet of the ground because this is the zone within with most resident bird activity occurs.[8] In addition, excessive lighting, especially lights pointed skyward, can disorient migrant birds at night, potentially attracting birds into areas where they are at greater risk of colliding with buildings. These risks are highest for buildings in or near areas of high avian activity or movement, such as migratory corridors, large open spaces, large water bodies, and riparian habitats.

New buildings associated with potential future development under the proposed project would alter existing physical characteristics of the project site and could contribute to an increased risk of bird collisions and mortalities. In the context of the surrounding suburban areas of Belmont, the project site likely serves as an important habitat for birds given the abundance of trees and natural habitat, and presence of the intermittent stream and other sources of surface water. As a result, the project site likely supports a fairly large number of birds, and during migration periods, the number of birds is likely even higher. The project site is currently occupied by buildings with glazing and contains night-time lighting, but bird collision risk may increase with redevelopment of the project site if new buildings have more extensively glazed facades and/or if lighting on the site is more extensive than under existing conditions.

The City of Belmont has not adopted any bird-safe design standards for guidance on assessing and addressing potential impacts on birds as a result of collisions with new structures, or standard conditions related to the risk of bird collision. However, impacts from bird collisions could be significant under CEQA if project construction or modification of buildings resulted in substantial increases in glazing or introduce new lighting that could disorient birds. Given the relatively higher habitat quality of the project site compared with surrounding existing development, there is a potential that future redevelopment could result in loss or injury to a substantial number of birds over time, which could be a potentially *significant* impact unless appropriate bird safe design measures were incorporated into the new building design.

Impact BIO-4: The proposed project would result in the potential impact of increased risk of bird collisions associated with future development of the project site.

> Mitigation Measure BIO-4: Bird Safe Design. New buildings associated with redevelopment of the project site, or building expansions that increase the height or extent of façade glazing of existing structures, shall be designed to minimize the potential risk of bird collisions. New building plans shall be prepared using input from the latest bird-safe design guidelines and shall include specific Best Management Practice (BMP) strategies to reduce bird strikes, as summarized below. Of particular concern is the importance of avoiding the use of highly reflective glass as an exterior treatment, which appears to reproduce natural habitat and can be attractive to some birds. To limit reflectivity and prevent exterior glass from attracting birds, building plans shall preferably utilize low-reflectivity glass and provide other nonattractive surface treatments, as outlined below. Low-reflectivity glass or other glazing treatments shall be used for the entirety of the building's glass surface, not just the lower levels, to minimize the risk of bird collisions. Interior light "pollution" shall be reduced during evening hours through the use of a lighting control system, where feasible, and exterior lighting shall be

[8] San Francisco Planning Department, 2011, *Standards for Bird-Safe Buildings*, San Francisco, California, adopted July 14, 2011, https://sfplanning.org/sites/default/files/documents/reports/bird_safe_bldgs/Standards%20for%20Bird%20Safe%20Buildings%20-%2011-30-11.pdf.

directed downward and screened to minimize illuminating the exterior of the building at night except as needed for safety and security. The following design considerations shall be considered to minimize the risk of bird strikes:

- To the extent possible, no more than 10 percent of the surface area of a façade for any new building or any modification to the façade of an existing building shall have untreated glazing between the ground and 60 feet above ground if, in the opinion of a qualified biologist, that façade faces habitat that is of moderate to high value to migratory and resident birds.
- Bird-friendly glazing treatments may include fritting, netting, permanent stencils, frosted glass, exterior screens, physical grids placed on the exterior of glazing or ultraviolet patterns visible to birds. Unless subject to an equally effective requirement at the time of the Detailed Development Plan (DDP) submittal, all bird-friendly glazing on the building shall have a reflectivity of 15 percent or lower and shall meet the following specifications:
  - Vertical elements of the window patterns should be at least 0.25 inches wide at a maximum spacing of 4 inches and/or have horizontal elements at least 0.125 inches wide at a maximum spacing of 2 inches; OR
  - Bird-friendly glazing shall have a Threat Factor[9] less than or equal to 30.
- Free-standing clear glass walls, glass skywalks, transparent building corners, glass at rooflines of buildings, glass enclosures (e.g., greenhouses) on rooftops, and free-standing clear glass railings shall be avoided, where feasible. If any such features are included in the project design, all glazing used in any such features shall be 100 percent treated with a bird-friendly glazing treatment as specified in the bullet above. The specific areas where bird-friendly glazing is necessary shall be identified by a qualified biologist. For transparent glass corners, the required treatment area extends horizontally from a building corner as far the corner as it is possible to see through the corner to the other side of the building.
- All exterior lighting shall be shielded to block illumination from shining outward toward high-quality habitat for migratory birds.
- To the maximum extent feasible, up-lighting (i.e., lighting that projects upward above the fixture) shall be avoided in the project design. All lighting shall be fully shielded to block illumination from shining upward above the fixture. If up-lighting cannot be avoided in the project design, up-lights shall be shielded and/or directed such that no luminance projects above/beyond objects at which they are directed (e.g., trees and buildings) and such that the light would not shine directly into the eyes of a bird flying above the object. If the objects themselves can be used to shield the lights from the sky beyond, no substantial adverse effects on migrating birds are anticipated.

[9] A material's Threat Factor is assigned by the American Bird Conservancy and refers to the level of danger posed to birds based on birds' ability to perceive the material as an obstruction, as tested using a "tunnel" protocol (a standardized test that uses wild birds to determine the relative effectiveness of various products at deterring bird collisions). The higher the Threat Factor, the greater the risk that collisions will occur. An opaque material will have a Threat Factor of 0, and a completely transparent material will have a Threat Factor of 100. Threat Factors for many commercially available façade materials can be found by clicking on the "Threat Factor Table" link at https://abcbirds.org/glass-collisions/nyc-threat-factor.

- Unless subject to an equally effective requirement at the time of DDP application submittal, exterior lighting shall be minimized (i.e., total outdoor lighting lumens shall be reduced) by at least 30 percent or extinguished, consistent with recommendations from the International Dark-Sky Association[10] from 10:00 p.m. until sunrise, except as needed for safety and City code compliance.
- The above-listed bird-friendly design requirements may be waived or modified for specific facades or buildings based on analysis by a qualified biologist indicating that such specific facades or buildings will not pose a collision hazard to birds. Such a waiver shall generally not be appropriate for façades facing well-vegetated areas. A waiver may be appropriate, for example, for façades that face developed areas lacking vegetation, water features, or other features that would be particularly attractive to birds.

Significance with Mitigation: Less than significant.

BIO-5 The proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The TIR prepared for the proposed project provides an inventory of existing trees on the project site, mapping their location by species, determining trunk diameter, and assessing their health and suitability for preservation, along with preliminary guidelines for tree preservation to be implemented during the design, construction, and maintenance phases of any future development. A total of 991 trees were evaluated as part of the TIR. Of this total, 423 were coast live oaks and 324 were blue gums, collectively representing about 76 percent of the trees evaluated. Blue gums were mostly in fair (133 trees) to poor (100 trees) condition, while coast live oaks were mostly in fair (220 trees) to good (129 trees) condition. Coast redwoods (59 trees) were planted in small stands throughout the NDNU campus and were typically in good condition. The few individuals of the remaining 52 species of trees evaluated in the TIR tended to be in fair condition. Of the 991 trees evaluated in the TIR, a total of 619 trees qualify as "protected" under the various categories in the Belmont Tree Ordinance. Of these, 229 trees were determined to have a high suitability for preservation, 387 were considered moderate, and 340 had a low suitability for preservation. The TIR recommended focusing preservation efforts associated with future development plans on trees with a high suitability for preservation. Retention of trees with a moderate suitability for preservation would be dependent on the intensity of proposed changes in the vicinity of the tree, along with other factors.

As discussed in Chapter 3, *Project Description*, of this Draft EIR, it is anticipated that less than 10 percent of existing trees would be removed from the currently undeveloped portions of the project site. In each of the proposed development areas, although efforts would be made to preserve trees, to the extent feasible, to maintain the established feel, existing trees may be removed. A detailed drought-tolerant vegetation plan would be developed with the first DDP that would serve to protect much of the existing

[10] International Dark-Sky Association, 2011, *Model Lighting Ordinance with User's Guide*, https://www.darksky.org/wp-content/uploads/bsk-pdfmanager/16_MLO_FINAL_JUNE2011.PDF, accessed March 2023.

tree resources and provide opportunities for replacement and enhancement plantings. This would include a woodland planting zone along the undeveloped northern and northeastern portions of the project site that would contain a mosaic of woodlands, grasslands, and chaparral cover. The proposed development areas (see Figure 3-3, *Proposed Development Areas*, in Chapter 3, *Project Description*, of this Draft EIR) generally conform with the footprint of existing development and landscaped areas. The nonnative woodlands along the unnamed intermittent stream and the native oak woodlands and grasslands in the northern portion of the project site would be largely avoided by potential future development under the proposed project. This approach would avoid the more sensitive biological resources on the project site, including the regulated habitat associated with the intermittent stream, the willow scrub wetland and the small area of freshwater marsh wetland, and native oak woodlands. Avoiding these features would be consistent with the relevant policies of the 2035 General Plan, as listed in Table 4.3-1.

The Belmont Tree Ordinance (BCC Chapter 25) details permit requirements for tree-related work, including the removal, pruning, and replacement planting of trees. A permit is typically required for removal of a protected tree. Protected trees regulated under the ordinance fall under five different categories—Principal Native Trees, City Tree, Large Diameter Tree, Replacement Tree, or Right-of-Way Tree. In addition, potential future development under the proposed project would be required to implement the City's following standard conditions related to tree protection and oak woodland habitat.

- Submittal of an arborist report for development projects where trees may be impacted. The arborist report is required to assess the project's potential impacts to trees on and adjacent to the site (depending on the scope of the project), and to provide protective measures to either prevent impacts or mitigate impacts to less than significance.
- The applicant shall implement the Tree Protection Guidelines identified in the project Arborist Report; the project arborist must review the final building and grading plans, and confirm in writing any changes to the design recommendations. The guidelines must be included on a plan sheet submitted with the building permit application.
- Prior to issuance of a grading or building permit, the applicant must submit written confirmation from the Project Arborist that all tree protection measures, and pre-construction treatments have been installed and inspected, and that they meet the arborist's specifications.
- Any approved grading, construction, demolition or other work within the tree protection zone must be monitored by the project arborist.
- Tree protection devices are to remain until all site work has been completed within the work area. Fences or other protection devices may not be relocated or removed without permission of the Project Arborist.
- If unplanned or unapproved tree injuries or tree removals occur during project construction, the applicant shall contact City Planning Staff. Additional permits may be required.
- After completion of exterior construction work and before final building permit inspection, the applicant shall submit a final written report/letter from the Project Arborist. Said report/letter must provide an evaluation of the construction impacts to the subject tree's health or structural stability, and must identify any additional provisions that may be required to these address impacts. The

applicant is responsible to implement these recommendations. A final report may be required on the effectiveness of the measures.

- Submittal of a biological report and an arborist report for development projects that contain oak woodland resources. The arborist report is required to assess the project's potential impacts to trees on and adjacent to the site (depending on the scope of the project), and to provide protective measures to either prevent impacts or mitigate impacts to less than significance.
- The loss of oak woodland habitat must be mitigated through onsite plantings of coast live oaks (*Quercus Agrifolia*) trees at a minimum 15-gallon size. The project applicant must prepare a Planting Plan to address oak woodland planting as mitigation. The project applicant must replace removed oak trees at the following ratios:
  - 5:1 replacement for impacted oak trees greater than 25 inches in diameter
  - 2:1 replacement for impacted oak trees smaller than 25 inches in diameter
- The replacement oak trees must be monitored for a period of five years and must be able to survive the last two years of the minimum five-year monitoring period without supplemental irrigation. If at any time the applicant identifies additional trees that need to be removed, the applicant must first get written approval from the City of Belmont and applicant must revise the final Planting Plan to include additional tree plantings in accordance with the above mentioned ratios.
- In circumstances when oak trees plantings cannot be replanted onsite, as determined by a qualified arborist or forester, the applicant may also mitigate by contributing to the City's in-lieu fee program fund (at the replacement ratios identified above) in accordance with the City's current Master Fee Schedule.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

The proposed project would be required to comply with the Belmont Tree Ordinance as part of future development plans and implement the City's standard conditions related to tree protection and oak woodland habitat. Protected trees would be evaluated for possible retention or removal, and appropriate avoidance measures and replacement plantings provided in accordance with the Ordinance. Replacement trees plantings could easily be accommodated within proposed development areas or the northern and northeastern portions of the project site to be retained as undeveloped natural habitat. No major conflicts with the relevant policies of the 2035 General Plan, the City's standard conditions, or the Tree Ordinance are anticipated. Potential conflicts with local plans and policies would be *less than significant* and no mitigation is required.

Significance without Mitigation: Less than significant.

BIO-6	The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

The proposed project would not conflict with any approved habitat conservation plans as none encompass the project site or surrounding area. *No impacts* are anticipated, and no mitigation is considered necessary.

Significance without Mitigation: No impact.

BIO-7	The proposed project would not, in combination with past, present, or reasonably foreseeable projects, have a cumulative significant impact in regard to biological resources.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, the cumulative setting for impacts on biological resources includes the effects of the proposed project together with cumulative development projects in the vicinity of the project site. The project area is surrounded by existing roadways and suburban development, is not an important linkage for wildlife movement, does not contain major wetlands or natural drainages, and has limited suitability as essential habitat for special-status species. Nevertheless, Mitigation Measures BIO-1.1, BIO-1.2a through BIO-1.2d, BIO-1.3, and BIO-1.4a through BIO-1.4c would address the potential for nesting birds, roosting bats, and possible presence of rare plants and California red-legged frog on the project site and would ensure that appropriate measures are taken to address any adverse effects beyond those provided under the City's standard conditions. Mitigation Measures BIO-3a and BIO-3b would avoid significant impacts to State or federally protected wetlands on the project site, and Mitigation Measure BIO-4 would reduce the risk of bird collisions associated with future development of the project site.

The potential impacts of proposed development on biological resources tend to be site specific, and the overall cumulative effect would be dependent on the degree to which significant vegetation and wildlife resources are protected on each property. This includes preservation of regulated trees, well-developed native vegetation (native grasslands, riparian woodland, and mature oaks), populations of special-status plant or wildlife species, and wetland features (including seasonal wetlands and stream channels). To some degree, cumulative development contributes to an incremental reduction in the amount of existing wildlife habitat, particularly for birds and larger mammals. Habitat for species intolerant of human disturbance would be lost as development encroaches into previously undeveloped areas, disrupting or eliminating movement corridors and fragmenting the remaining suitable habitat retained within parks, private open space, or undeveloped properties. Additional development may also contribute to degradation of the aquatic habitat in creeks in the area. Grading associated with construction activities generally increases erosion and sedimentation, and urban pollutants from new development would reduce water quality.

Future development in the area would be subject to environmental review, as applicable, to mitigate any significant impacts to biological resources. Furthermore, preparation of a SWPPP for development sites

encompassing more than an acre, as required by NPDES, would serve to reduce potential indirect impacts on the quality of surface water and sensitive wetland and riparian areas. Recommendations to control erosion and sedimentation after grading should serve to minimize the potential for water quality degradation associated with the proposed development of the project site and would adequately address any possible cumulative contribution to water quality degradation.

Given the limited potential for presence of special-status species or other highly sensitive biological resources, and measures recommended to avoid nests and roots in active use, impacts of the proposed project to biological resources would not be cumulatively considerable, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.4 CULTURAL RESOURCES

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential impacts on cultural resources associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential impacts on cultural resources, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

The information and analysis in this chapter is based in part on the following technical studies:

- *Campus Historical Resources Survey, Notre Dame de Namur University, Belmont, County of San Mateo, California*, prepared by Julie A. Cain and Laura Jones, Stanford University Heritage Services, March 25, 2024.
- *Peer Review of Revised Notre Dame de Namur University Campus Historical Resources Survey*, prepared by Erica Schultz, Forget Me Not History, April 23, 2024.
- *Historical Significance of Cunningham Chapel*, prepared by Laura Jones, Stanford University Heritage Services, June 12, 2024.
- *Cultural Resource Services: CEQA Level Archaeological Resources Assessment Belmont Notre Dame de Namur Campus*, prepared by Colin I. Busby, Ph.D., RPA, Basin Research Associates, May 5, 2023.
- *Appendix to Archaeological Assessment Report, Notre Dame de Namur University Campus*, prepared by Stanford University Heritage Services, received May 14, 2024.

These reports are included in Appendix E, *Cultural and Tribal Cultural Resources*, of this Draft EIR. Archaeological reports are not included in Appendix E because they contain confidential information on the location of archaeological resources and therefore are not available for public review. The full archaeological resource studies are available for review by qualified professionals at the City of Belmont Community Development Department. The adequacy of the historic architectural resource documents and archaeological documents were reviewed by the City of Belmont and by an independent historic resources consultant and an independent archaeological resources consultant, respectively.[1]

4.4.1 ENVIRONMENTAL SETTING

4.4.1.1 REGULATORY FRAMEWORK

Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act of 1966 established the National Register of Historic Places (National Register) as the official federal designation of historical resources, including districts, sites,

[1] Please see Section 4.4.1.2, Existing Conditions, under the subheading "Historic Resources" for more detail regarding the conclusions of the historic resources peer review.

buildings, structures, and objects. Typically, resources more than 50 years in age are eligible for listing in the National Register if they meet one of the four eligibility criteria for historic significance and retain integrity. Resources less than 50 years in age may be eligible if they are found to be exceptionally important. Though a listing in the National Register does not prohibit demolition or alteration of a property, the California Environmental Quality Act (CEQA) requires the evaluation of a project's effects and feasible mitigations on properties that are listed in, or determined eligible for listing in, the National Register.

According to 36 Code of Federal Regulations, part 60.4, the criteria for inclusion in the National Register are based on the resource's significance in American history, architecture, archeology, engineering, or culture. The criteria for listing in the National Register include resources that:

- Are associated with events that have made a significant contribution to the broad patterns of our history; or
- Are associated with the lives of persons significant in our past; or
- Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or that possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting at least one of the four criteria, a resource must retain integrity, which means that it is able to convey its significance through the retention of location, design, setting, materials, workmanship, feeling, and association.

Secretary of the Interior's Standards for the Treatment of Historic Properties

The Secretary of the Interior's Standards for the Treatment of Historic Properties (Secretary's Standards) promote responsible practices that help protect the nation's irreplaceable cultural resources. The Secretary's Standards are neither technical nor prescriptive, and cannot, in and of themselves, be used to make essential decisions about which features of a historic building should be saved and which can be changed. But once a treatment is selected, the Secretary's Standards provide for philosophical consistency in the work. An individual set of Secretary's Standards has been formulated for each of four identified treatment approaches: Preservation, Rehabilitation, Restoration, and Reconstruction. The four approaches are defined below:

- *Preservation* requires retention of the greatest amount of historic fabric, along with the building's historic form, features, and detailing as they have evolved over time.
- *Rehabilitation* acknowledges the need to alter or add to a historic building to meet continuing or new uses while retaining the building's historic character.
- *Restoration* allows for the depiction of a building at a particular time in its history by preserving materials from the period of significance and removing materials from other periods.
- *Reconstruction* establishes a limited framework for re-creating a vanished or non-surviving building with new materials, primarily for interpretive purposes.

The Secretary's Standards for Rehabilitation—*Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (1995)—specifically address and encourage alterations or additions to a historical resource to allow new uses while retaining the resource's historic character. The Secretary of the Interior's Standards for Rehabilitation include the following:

1. A property will be used as it was historically or be given new use that requires minimal changes to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alterations of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.[2]

[2] Anne E. Grimmer, revised 2017, *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings*, https://www.nps.gov/orgs/1739/upload/treatment-guidelines-2017-part1-preservation-rehabilitation.pdf, accessed May 24, 2024.

State Regulations

California Environmental Quality Act

Section 15064.5 of the CEQA Guidelines states that projects which may cause a substantial adverse change in the significance of a historical resource may also have a significant effect on the environment. The CEQA Guidelines define four ways that a property can qualify as a historical resource for purposes of CEQA compliance:

- The resource is listed in or determined eligible for listing in the California Register of Historical Resources, as determined by the State Historical Resources Commission.
- The resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- The lead agency determines the resource to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, as supported by substantial evidence in light of the whole record.
- The lead agency determines that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1 (CEQA Guidelines Section 15064.5) which means, in part, that it may be eligible for the California Register.

In addition, Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines specify lead agency responsibilities in determining whether a project may have a significant effect on archaeological resources. If it can be demonstrated that a project will damage a unique archaeological resource, reasonable efforts may be required of the lead agency so the resources are preserved in place or left in an undisturbed state. Preservation in place is the preferred approach to mitigation. The Public Resources Code also details required mitigation if unique archaeological resources are not preserved in place.

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These provisions protect such remains from disturbance, vandalism, and inadvertent destruction by establishing procedures to be implemented if Native American skeletal remains are discovered during construction of a project and establish the Native American Heritage Commission (NAHC) as the authority to identify the most likely descendant and mediate any disputes regarding disposition of such remains.

California Register of Historical Resources

The California State Historic Preservation Office maintains the California Register of Historical Resources (California Register). Historical resources listed or formally designated as eligible to be listed in the National Register and State Historical Landmarks (numbered 770 and higher) are automatically listed in the California Register. State Points of Historical Interest reviewed and recommended by the State

Historical Resources Commission are also listed in the California Register. Properties designated under local preservation ordinances or through local historical resource surveys may also be listed.

A historical resource may be listed in the California Register if it meets any of the following criteria (Public Resources Code [PRC] Section 5025.1(c)):

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- It is associated with the lives of persons important in California's past.
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value.
- It has yielded, or is likely to yield, information important in prehistory or history.

In order to be eligible for listing in the California Register, a resource must also retain a sufficient level of integrity to be recognizable as a historic resource and to convey its significance. Similar to the National Register, integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. A resource that does not retain sufficient integrity for listing in the National Register may still be eligible for listing in the California Register.

California Health and Safety Code

California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to their authorized representative. If the coroner determines that the remains are not subject to their authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, they shall contact, by telephone within 24 hours, the NAHC.

California Public Resources Code Section 5097

Archaeological resources are protected pursuant to a wide variety of state policies and regulations enumerated under the PRC. In addition, cultural resources are recognized as a nonrenewable resource and therefore receive protection under the California PRC and CEQA.

PRC Sections 5097.9 through 5097.991 provide protection to Native American historical and cultural resources, and sacred sites and identifies the powers and duties of the NAHC. It also requires notification to descendants of discoveries of Native American human remains and provides for treatment and disposition of human remains and associated grave goods.

State Laws Pertaining to Human Remains

Any human remains encountered during ground-disturbing activities are required to be treated in accordance with California Code of Regulations Section 15064.5(e) (CEQA), PRC Section 5097.98, and the California Health and Safety Code Section 7050.5. California law protects Native American burials, skeletal

remains, and associated grave goods regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Specifically, Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are determined to be of Native American origin, the county coroner must contact the California NAHC within 24 hours of this identification. An NAHC representative will then identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. In addition, CEQA Guidelines Section 15064.5 specifies the procedures to be followed in case of the discovery of human remains on nonfederal land. The disposition of Native American burials falls within the jurisdiction of the NAHC.

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to cultural resources that are relevant to the proposed project are found in the Land Use Element and are listed in Table 4.4-1, *City of Belmont 2035 General Plan Policies Relevant to Cultural Resources*.

TABLE 4.4-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO CULTURAL RESOURCES

Policy Number	Policy Text
Chapter 2, Land Use Element	
Policy 2.23-4	Encourage adaptive reuse of historic structures—preserving their original design and character—as an option for preserving sites that are threatened with demolition or degradation.
Policy 2.23-5	Support Notre Dame de Namur University's efforts to restore Ralston Hall as an important community asset.

Source: City of Belmont, 2017, *2035 General Plan.*

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to cultural resources. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to cultural resources are included in Chapter 7, *Buildings*.

- Chapter 7, Article VII, *Structures of Historic or Aesthetic Value*, prescribes the procedure for altering, relocating, and demolishing buildings, structures, and areas having special historical or aesthetic interest or value which contribute to community aesthetics and identity.
- Section 7-183, *Administrative approval of minor alterations to historic resources,* allows the approval of minor alterations to historic resources as part of the building permit process.
- Section 7-184, *Certificate application required*, requires a certificate of appropriateness if a landmark or historic resource is proposed to be altered, relocated, or demolished.

- Section 7-187, *Findings for alteration of landmarks and historic resources*, allows a certificate of appropriateness to be granted if the proposed alteration to a landmark retains its exterior appearance and setting and incorporates compatible architectural materials. It also allows a certificate of appropriateness to be granted if the proposed alteration to a historic resource retains its essential architectural elements and maintains the continuity and scale of its materials and design.
- Section 7-188, *Findings for relocation of a landmark or historic resource*, allows the relocation of a landmark or historic resource if rehabilitation on the existing site is not economically viable or it is moved to a compatible site.
- Section 7-189, *Findings for demolition of a landmark or historic resource*, requires a finding that the rehabilitation of the building is not economically viable or that demolition provides a city benefit that overrides the benefit of its preservation. Additionally, the landmark or historic resource must also be recorded to Historic American Building Survey (HABS) Standards prior to its demolition.

City of Belmont Historical Resources Inventory

In 1991, the City of Belmont completed a historical resource inventory to identify landmarks, historical resources, and historic districts, as defined in Article 7, Article VII of the BCC:

- Landmark: A building or structure being the first, last, only, or most significant of a type in a region; over 50 years old; and possessing tangible elements of important historical periods, persons, architecture, or use.
- Historic Resource: A building or structure over 50 years old representative of a historic period or building type but does not meet landmark standards. A historic resource is significant because it was present during the period of significance and possesses historic integrity, architecture, or historic association reflecting its character at that time or is capable or yielding important information about the period.
- Historic District: A geographically definable area with a concentration of historic resources and/or landmarks.

Following the completion of a comprehensive windshield survey of the city and property research, 52 Landmarks and Historic Resources and 2 Historic Districts were added to the inventory.[3]

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical

[3] City of Belmont, June 1991, "Historical Resources Inventory of Belmont, California."

impacts later in this chapter under Section 4.4.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project.

4.4.1.2 EXISTING CONDITIONS

Archaeological Resources

Archaeological Overview

Prehistoric

Cultural resources are traces of human occupation and activity. In northern California, human occupation extends back in time for at least 9,000 to 11,500 years with Native American occupation and use of the Bay Area extending over 5,000 to 8,000 years and possibly longer. Evidence for early occupation along the bay shore has been hidden by rising sea levels from about 15,000 to 7,000 years ago, or was buried under sediments caused by bay marshland infilling along estuary margins from about 7,000 years onward. The locations of the shoreline, marshlands, and creeks within the greater San Francisco Bay area have changed over the past 6,000 years due to either natural factors or urban development including flood control. In general, the prehistoric archaeological sites associated with the bay, inland areas and the Coast Ranges are located close to water (e.g., creeks, marshes, and the shoreline) and exploitable resources.

The project site is within an environmentally advantageous area for Native American use and occupation during the prehistoric period prior to white contact. The area would have provided a favorable environment during the prehistoric period with coastal, riparian, and inland resources readily available. Prehistoric use was heavily influenced by the presence of various seasonal creeks, the San Francisco Bay marshlands around the bay margin, the coastal margins, and the foothills and higher elevations. In addition, travel would have been relatively easy between the coast and bay shorelines and interior. The foothills and higher elevations would have provided access to acorns, seeds, game, tool stone, and other resources. Three to four miles to the east, San Francisco Bay and its margins, along with the many perennial and seasonal creeks and sloughs, would have been sources of shellfish, fish, waterfowl, and riparian vegetation. The San Mateo coast would have provided ocean resources similar to the bay and was approximately 10 to 12 miles to the west.

Prehistoric site types in the general project vicinity include habitation sites ranging from villages to temporary campsites, stone tool and other manufacturing areas, quarries for tool stone procurement, cemeteries usually associated with large villages, isolated burial sites, rock art locations, bedrock mortars or other milling feature sites, and trails. Archaeological sites appear to have been selected for relative accessibility, protection from seasonal flooding, and proximity to a diversified resource base. The higher elevations were probably occupied seasonally for hard seed collection and processing and hunting.

Archaeological information suggests a slow, steady increase in the prehistoric population in the greater Bay Area and the San Mateo Peninsula over time, with an increasing focus on permanent settlements with large populations in later periods. This change from hunter-collectors to a more sedentary lifestyle is due

both to more efficient resource procurement as well as a focus on staple food exploitation, the increased ability to store food at village locations, and the development of increasingly complex social and political systems including long-distance trade networks.

Ethnographic

The aboriginal inhabitants of the project vicinity belonged to a group known as the Costanoan, a name derived from the Spanish word Costanos ("coast people" or "coastal dwellers") who occupied the central California coast as far east as the Diablo Range. Their territory covered 6,000 to 7,000 square miles extending along the Pacific Coast from south of Monterey Bay north to the San Francisco Peninsula and inland 20 to 45 miles into the Coast Ranges, including the east shore of San Francisco Bay from the Carquinez Straits south. The descendants of the Costanoan in the greater San Francisco Bay Area now generally prefer to be known as Ohlone.

The Costanoan language belongs to the larger Penutian language family spoken by other California Indian groups known as the Wintun, Maidu, Miwok, and Yokuts. The language has been subdivided into eight distinct branches or possible dialects. Linguistic analyses suggest that the Ohlone moved into the San Francisco Bay Area around A.D. 500 and may have replaced an original Hokan-speaking population.

In 1770, the Ohlone lived in approximately 50 separate and politically autonomous tribelets with each group having one or more permanent villages surrounded by a number of temporary camps. The camps were used to obtain seasonally available floral and faunal resources. Tribelet territories, defined by physiographic features, generally supported a population of approximately 200 persons with a range of between 50 and 500 individuals. The Ohlone population at the time of Spanish contact was estimated at 7,000, though recent research using mission records suggests a population of 16,000.

The proposed project site is within the Ramaytush subdivision of the Ohlone, which included much of present-day San Mateo and San Francisco counties. One ethnographic village is identified in the Belmont area. Guloisnistac [Wuloinistac] was located in the “central hollow” of Belmont, known in the post-missionary period as Cañada del Diablo. This “little village” was occupied by members of Lamchin tribe who occupied the area from present-day Belmont to Redwood City.

Traditional Native American lifeways were disrupted by European exploration, colonization, and the development of the Spanish missions in the late 18th century. Introduced diseases, the cataclysmic impact of the mission system, a declining birthrate, and the secularization of the missions by the Mexican government followed by the establishment of the rancho system led to drastic reductions of the Native American population and the disappearance of the pre-contact lifeway. The sparse ethnographic data available on the Ohlone was collected by the early explorers, mission staff, and late 19th and early 20th century interviews of members of the surviving multi-ethnic Indian communities that formed in and around Ohlone territory. Recent interpretations of the prehistoric Ohlone populations have been based on intensive mission records study.

Archaeological Resources

Basin Research Associates, with the assistance of Stanford University Heritage Services, completed an archaeological resources assessment of the campus in support of the project. The surveys were undertaken to determine if significant archaeological and/or tribal cultural resources are present or could be present at the project site. To complete the historical resources survey, Stanford University Heritage Services undertook the following:

- A prehistoric and historic site record and literature search by the California Historical Resources Information System, Northwest Information Center, and Sonoma State University.
- Reference material from the Bancroft Library, University of California, Berkeley; and Basin Research Associates, San Leandro.
- Contact with the NAHC for potential resources in the Sacred Lands File.
- The Campus Historic Resources Survey, prepared by Stanford University Heritage Services.
- An archaeological survey of the portions of the campus that had not been impacted by historic development, conducted by Mr. Christopher Canzonieri (MA, RPA) with assistance from Dr. Colin I. Busby (RPA) on April 6, 2023.

The full results of the survey completed by Basin Research Associates and supplemented with information from Stanford University Heritage Services are presented in the Campus Archaeological Resources Survey, included as Appendix E.

A search by the NAHC yielded negative results, and none of the eight Native American individuals or groups responded to letters and email messages soliciting additional information.

Based on a Northwest Information Center record search, there are no previously recorded prehistoric and/or historic archaeological resources in the project site, and there is one recorded prehistoric resource within the 0.25-mile search area. Since this site is outside of the project site boundaries, it would not be affected by ground-disturbing activity during construction and operation of the proposed project.

The William Ralston Home (Ralston Hall) on the campus is a National Historic Landmark (NHL) and California State Historic Landmark (#856). Other historic built environmental resources in the campus area include the Wiegand Gallery (Ralston Estate Carriage House, 1874) and Taube Center (1930). The Wiegand Gallery is included in the listing of Ralston Hall for the NHL and the California State Historic Landmark. Taube Center is identified as a historical resource in the City of Belmont's 1991 historical resources survey.

Historic-period archaeological resources were identified in the Archaeological Resources Assessment, including a historic fence along portions of the eastern property boundary; introduced eucalyptus trees in the eastern section of the project site and northwest of New Hall; a stacked-stone retaining wall and stone quarry northwest of New Hall; and a potential wood retaining wall, bricks, sediment feature, and cast iron pipe along Ralston Creek that may be remnants of the former coal gas plant (i.e., Ralston gas house), likely dating between 1868 and the late 1920s/early 1930s, associated with William C. Ralston’s historic occupation of the property (herein referred to as “Identified Resources”).

The Archaeological Resources Assessment concludes that one of the identified historic-period resources, the archaeological remains of a former coal gas plant near the creek, appears potentially eligible for listing in both the National Register and the California Register due the association with William Ralston. Accordingly, this historic period archaeological resource constitutes a historical resource according to Public Resources Code Section 21084.1. The site has been recorded on DPR series forms for submittal to the Northwest Information Center.

None of the other cultural resources discussed in the Archaeological Resources Assessment were recommended eligible for the California Register or National Register. In brief, the Archaeological Resources Assessment concludes as follows with respect to cultural resources that were not found to be eligible for listing:

- The remains of a barbed-wire fence along portions of the eastern boundary of the Project site: This fragmentary structure does not qualify for consideration as an "unique archaeological resource," nor does it appear to have the potential to yield important scientific information. The property boundary is well documented by other sources. The fence fragment has been recorded on DPR series forms for submittal to the Northwest Information Center.[4]
- Introduced eucalyptus trees in the eastern portion of the project site and northwest of New Hall: No historical documentation was found related to these trees, which appear to have been planted after the grading of the upper area of the college in the 1950s. There is no surviving evidence to support a finding that the trees are a historic designed landscape or eligible for consideration as a cultural resource. There is not sufficient evidence to warrant recordation of these trees as a potential resource.
- Stacked-stone retaining wall northwest of New Hall: No documentation was found to identify the age or original use of this feature. No artifacts were observed on the surface in its vicinity. Based on available information, the wall does not qualify for listing on the California Register or consideration as a unique archaeological resource. The wall has been recorded on DPR series forms for submittal to the Northwest Information Center.
- Stone quarry northwest of New Hall: This area appears to be a modern borrow pit related to grading of the upper campus in recent decades. There is not sufficient evidence to warrant recordation of this feature as a potential resource.

The general proposed locations of future building areas as well as some roadway and utility infrastructure improvements are depicted on the project application site plans. Some of these potential project improvements are in the vicinity of the remains of the former manufactured gas facility, the sole identified archaeological resource on the project site that is considered a Historical Resource under CEQA. It is possible, therefore, that development under the proposed CDP could adversely affect a previously identified historic-period site. An adverse effect on such a site would be considered significant.

[4] Appendix to Archaeological Assessment Report, Notre Dame de Namur University Campus, prepared by Stanford University Heritage Services, received May 14, 2024.

In addition, it is possible that previously unknown prehistoric or historic-period archaeological sites could be unearthed during excavation or earth-moving activities associated with development under the proposed CDP. There may be an enhanced likelihood of encountering previously unknown sites in areas of the property that have not been previously subject to ground disturbance, as well as previously disturbed areas. In particular, the Archaeological Resources Assessment identifies areas of the site where buried features associated with the 19th-century development and use of the Ralston Estate may be present within the Legacy, West, and Ralston Development Areas. Also, the streamside terraces within the CDP's Ralston and Taube Development Areas could house buried precolonial archaeological resources, as the flatter terraces along Ralston Creek were suitable for precolonial indigenous occupation sites. The areas of the campus that were heavily graded in the 1950s—the North, Plateau, East and South Development Areas—have no potential to contain intact archaeological resources.

Historical Resources

Historic Overview

The Arguello Family and El Rancho de las Pulgas (1795 to 1852)

During the Spanish Period (1769 to 1822) and the subsequent Mexican Period (1822 to 1846), the respective governments gifted grants of land in Alta California to men who had prominent roles in either the pueblos or the military and to a few neophyte Native Americans. In 1795, the Spanish governor of California granted some 35,000 acres on the San Francisco Peninsula, including the future site of the town of Belmont, to José Dario Argüello. The property became known as El Rancho de las Pulgas. Following his death in Mexico in 1828, his daughter-in-law Maria de la Soledad Ortega de Argüello and her two sons retained the rancho.[5] When Alta California came under the control of the United States in 1848, their claim for 35,240 acres of the rancho was eventually upheld by the U.S. Supreme Court in 1856.[6]

The attorney who successfully argued the Argüello claim was Simon Montserrate Mezes, who had arrived in California in 1849. Mezes was paid by the Argüello family in land rather than cash; the 1856 decision confirmed his earned 15 percent of the Rancho de las Pulgas grant.[7] Mezes's portion included land that would one day make up all of Belmont and much of Redwood City, among other places. He would sell most of the land he owned to a mix of settlers, farmers, squatters and land speculators, but in 1853, he moved into an existing house in Cañada del Diablo (Devil's Canyon), which was the initial Spanish name for the Belmont area.[8]

[5] Ria Elena MacCrisken, *Heritage of the Wooded Hills: A Belmont History* (Belmont, CA: City of Belmont, 1977, 2001), page 2; Cynthia Karpa McCarthy, *Belmont* (Charleston, SC: Arcadia Publishing, 2014), page 9.

[6] Ria Elena MacCrisken, *Heritage of the Wooded Hills: A Belmont History* (Belmont, CA: City of Belmont, 1977, 2001), page 2; Cynthia Karpa McCarthy, *Belmont* (Charleston, SC: Arcadia Publishing, 2014), page 3.

[7] Ria Elena MacCrisken, *Heritage of the Wooded Hills: A Belmont History* (Belmont, CA: City of Belmont, 1977, 2001), page 2; Cynthia Karpa McCarthy, *Belmont* (Charleston, SC: Arcadia Publishing, 2014), page 3.

[8] Ria Elena MacCrisken, *Heritage of the Wooded Hills: A Belmont History* (Belmont, CA: City of Belmont, 1977, 2001), page 2; Cynthia Karpa McCarthy, *Belmont* (Charleston, SC: Arcadia Publishing, 2014), page 4.

Leonetto Cipriani (1853 to 1864)

Simon Mezes soon acquired a new neighbor, Corsican-born Colonel Leonetto Cipriani, who purchased his first villa lot in Belmont in November 1853.[9] He referred to the property as Cañada del Diablo, and in 1854, he built a new house that he claimed was considered "magnificent" to local eyes.[10] He enlarged the property in 1857 and 1859.[11] Cipriani spent relatively little time living there. From 1855 to 1858, his friend Alessandro Garbi lived at and managed the property, which was used for farming, most likely wheat, based on the four surviving millstones found on the property.[12] Cipriani also grew wine grapes and other fruit. In late 1863, Cipriani decided to sell his Cañada del Diablo property and to return permanently to Italy. His 14.21-acre property was purchased in February 1864 by Morton Cheeseman for $5,500.[13] Cheeseman promptly signed the property over to his business associate William Chapman Ralston for $6,500.[14]

William Chapman Ralston (1864 to 1875)

In 1849, William C. Ralston heard widespread news of the California Gold Rush that beckoned many men to take their chances in the gold fields. An impoverished Ralston left his home state of Ohio and traveled to Panama, where he became wealthy through various business ventures.[15] The political and economic conditions of Panama fluctuated heavily, and by mid-1854 he had moved to San Francisco. After helping establish two banks in the mid-1850s, Ralston began to work secretly to establish the Bank of California in 1863. It would become the third largest bank in the United States.[16]

In 1858, Ralston married Elizabeth "Lizzie" Fry and settled in San Francisco with his wife and young children.[17] In 1864, he purchased the Cipriani house as a summer country home. Once remodeled, it would serve as a fine venue in which he could entertain and dazzle both important visitors to San Francisco and prospective business partners and investors looking to make money in California. Initially he added onto Cipriani's house, but as more money became available, he hired an architect (presumed to be

[9] Ria Elena MacCrisken, *Heritage of the Wooded Hills: A Belmont History* (Belmont, CA: City of Belmont, 1977, 2001), page 2; Cynthia Karpa McCarthy, *Belmont* (Charleston, SC: Arcadia Publishing, 2014), page 10.

[10] Ernest Falbo, (translated and edited), *California and Overland Diaries of Count Leonetto Cipriani From 1853-1871* (Portland, OR: The Champoeg Press, 1962), page 15.

[11] Ria Elena MacCrisken, *Heritage of the Wooded Hills: A Belmont History* (Belmont, CA: City of Belmont, 1977, 2001), page 2; Cynthia Karpa McCarthy, *Belmont* (Charleston, SC: Arcadia Publishing, 2014), page 10.

[12] Ernest Falbo (translated and edited), *California and Overland Diaries of Count Leonetto Cipriani From 1853-1871* (Portland, OR: The Champoeg Press, 1962), page 30.

[13] George Lyman, *Ralston's Ring: California Plunders the Comstock Lode* (New York: Charles Scribner's Sons, 1937), 335–336.

[14] Ria Elena MacCrisken, *Heritage of the Wooded Hills: A Belmont History* (Belmont, CA: City of Belmont, 1977, 2001), page 2; Cynthia Karpa McCarthy, *Belmont* (Charleston, SC: Arcadia Publishing, 2014), page 83.

[15] David Lavender, *Nothing Seemed Impossible: William C. Ralston and Early San Francisco* (Palo Alto, CA: American West Publishing Company, 1975), page 63.

[16] David Lavender, *Nothing Seemed Impossible: William C. Ralston and Early San Francisco* (Palo Alto, CA: American West Publishing Company, 1975), page 181.

[17] David Lavender, *Nothing Seemed Impossible: William C. Ralston and Early San Francisco* (Palo Alto, CA: American West Publishing Company, 1975), page 118.

Irish-born architect John Plant Gaynor) in 1867 to design a new structure, demolishing the majority of the Cipriani villa in the process.[18]

The new house, which Ralston christened "Belmont," was eclectic in style as two "Steamboat Gothic" glass corridors flanked the main entrance. These corridors were designed to emulate promenades found on the finer Ohio and Mississippi River steamboats where Ralston had worked as a young man.[19]

Notable features of Belmont included a mechanical gate that Ralston could open and close without climbing down from the vehicle he was driving to convey guests to the house.[20] A trap door underneath the grand staircase led down to a giant cistern where a tied rowboat floated.[21] One of the most notable innovations, credited to Ralston, were the frosted-glass curtain walls found between several of the ground-floor rooms as they could be raised or lowered at the touch of a finger, dividing or opening rooms as needed.[22] The interior included other ornate Steamboat Gothic features throughout.

In August 1868, Ralston expanded the house to include 50 bedrooms.[23] Other new features included tennis courts, a bowling alley, a dairy, a gymnasium with a large Turkish bath, a blacksmith shop, and a $50,000 gas house, which fed over 1,000 jet fixtures in the mansion. Ralston allowed gas to be piped down from his private gas house for the burgeoning town of Belmont to utilize.[24] The landscaping around the mansion was also significantly expanded.[25]

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[18] Julian Dana, *The Man Who Built San Francisco: A Study of Ralston's Journey with Banners* (New York: Macmillan Company, 1936), page 213; George Lyman, *Ralston's Ring: California Plunders the Comstock Lode* (New York: Charles Scribner's Sons, 1937), page 99; Cecil Tilton, *William Chapman Ralston: Courageous Builder* (Boston: Christopher Publishing House, 1935), page 186; David Lavender, *Nothing Seemed Impossible: William C. Ralston and Early San Francisco* (Palo Alto, CA: American West Publishing Company, 1975), page 252; Joseph A. Baird Jr., "Ralston Hall," HABS No. Cal-1674 (1966), page 3; Pacific Coast Architecture Database, "William Henry Cleaveland," accessed February 23, 2022, https://pcad.lib.washington.edu/person/5199/; Pacific Coast Architecture Database, "John Plant Gaynor," accessed February 17, 2022, =://pcad.lib.washington.edu/person/5603.

[19] George Lyman, *Ralston's Ring: California Plunders the Comstock Lode* (New York: Charles Scribner's Sons, 1937), page 100.

[20] MacCrisken, *Heritage of the Wooded Hills*, 83; Sister Barbara Engs, "I Live in A Palace," page 83; Sister Barbara Engs, "I Live in A Palace," pages 4 to 5, Manuscript Collection, Box 1, California Province Archives, Sisters of Notre Dame de Namur, Belmont, California.

[21] Ralston ultimately purchased additional land and built a dam to capture water from an artificial lake that was piped to the house and grounds. George Lyman, *Ralston's Ring: California Plunders the Comstock Lode* (New York: Charles Scribner's Sons, 1937), pages 100 to 101; MacCrisken, *Heritage of the Wooded Hills*, 83; Sister Barbara Engs, "I Live in A Palace," pages 24 and 83.

[22] George Lyman, *Ralston's Ring: California Plunders the Comstock Lode* (New York: Charles Scribner's Sons, 1937), page 101; Gertrude Atherton, *California: An Intimate History* (New York: Blue Ribbon Books, 1914, 1936), page 274; Cecil Tilton, *William Chapman Ralston: Courageous Builder* (Boston: Christopher Publishing House, 1935), page 187.

[23] Julian Dana, *The Man Who Built San Francisco: A Study of Ralston's Journey with Banners* (New York: Macmillan Company, 1936), page 256; Ria Elena MacCrisken, *Heritage of the Wooded Hills: A Belmont History* (Belmont, CA: City of Belmont, 1977, 2001), page 19.

[24] "Gas Light," *Times Gazette* (Redwood City, CA), August 24, 1867; Ria Elena MacCrisken, *Heritage of the Wooded Hills: A Belmont History* (Belmont, CA: City of Belmont, 1977, 2001), page 83; Sister Barbara Engs, "I Live in A Palace," page 21; Cecil Tilton, *William Chapman Ralston: Courageous Builder* (Boston: Christopher Publishing House, 1935), page 186.

[25] Cecil Tilton, *William Chapman Ralston: Courageous Builder* (Boston: Christopher Publishing House, 1935), page 186; Julian Dana, *The Man Who Built San Francisco: A Study of Ralston's Journey with Banners* (New York: Macmillan Company, 1936), page 213.

In 1874, after his original redwood stable was destroyed in a fire, Ralston had a fireproof carriage house built with rubblestone quarried from the estate grounds.[26] Around the same time, Ralston's tide of good fortune relentlessly turned downward as both personal and bank losses began to exponentially rise. In August 1875, a severe San Francisco stock market run sent local investors flocking to the Bank of California where only $1.4 million in coin resided in the vaults. The stock market run precipitated the bank run, forcing Ralston to order the Bank of California's iron doors closed on August 26, 1875, with only $40,000 still in the bank's possession.[27] The following day, Ralston admitted to owing the bank some $4 million, along with another $5.5 million due to other creditors, and was forced to resign.[28] Later that day, he passed away while swimming in the San Francisco Bay, and his death was ruled an accident.[29]

William Sharon and Family (1875 to 1895)

Ralston deeded Belmont to his longtime friend and business partner William Sharon. Sharon announced that Belmont—"the wonder of the West Coast" and one of three of "the most magnificently hospitable mansions in the United States"—would become an adjunct to the Palace Hotel.[30] But by the end of 1876, he instead moved his younger children to the property.[31] He moved into a top-floor suite at the Palace Hotel and continued to use Belmont for occasional weekend parties. In 1879, he held a grand party for ex-President Ulysses S. Grant. Sharon reputedly added a room to the mansion's northeast corner to serve as a banquet hall for the event; it later became known as the "Grant Room."[32] Following Sharon's death in 1885, Belmont sat empty and cared for by a skeleton staff for the next decade.[33] Finally, in 1895, Francis Newlands, Sharon's son-in-law and sole executor, made the decision to sell the estate rather than try to lease a white elephant that cost a great deal of money to properly maintain.

Mrs. Jennie C. Bull and Radcliffe Hall (1895 to 1900)

In 1895, Jennie C. Bull, widow of a business associate of both Ralston and Sharon, purchased Belmont with the intention of turning the mansion into a seminary for young ladies. Mrs. Bull, the mother of one son and three daughters, intended for her school, known as Radcliffe Hall, to provide an excellent education for young women headed for college. Although the school only ran for two or three years, it would appear Mrs. Bull's ill health played a factor in its closure rather than a lack of success or funds.[34]

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[26] Ria Elena MacCrisken, *Heritage of the Wooded Hills: A Belmont History* (Belmont, CA: City of Belmont, 1977, 2001), page 21.

[27] Cecil Tilton, *William Chapman Ralston: Courageous Builder* (Boston: Christopher Publishing House, 1935), page 342; David Lavender, *Nothing Seemed Impossible: William C. Ralston and Early San Francisco* (Palo Alto, CA: American West Publishing Company, 1975), page 376.

[28] George Lyman, *Ralston's Ring: California Plunders the Comstock Lode* (New York: Charles Scribner's Sons, 1937), page 306.

[29] Julian Dana, *The Man Who Built San Francisco: A Study of Ralston's Journey with Banners* (New York: Macmillan Company, 1936), page 264.

[30] Makley, *The Infamous King of the Comstock*, page 137.

[31] Makley, *The Infamous King of the Comstock*, pages 110 and 137.

[32] Sister Anthony, 2001, "From San Jose to Belmont," unpublished memoir, Notre Dame de Namur Province House Archives; Carey & Co., "Ralston Hall, Belmont, CA: Historic Structure Report," page 10 to 11.

[33] Ria Elena MacCrisken, Heritage of the Wooded Hills: A Belmont History (Belmont, CA: City of Belmont, 1977, 2001), page 27.

[34] *San Mateo Times Gazette* (Redwood City, CA), November 19, 1898.

After her death in 1898, the Bull heirs hung onto the property for nearly two years before selling it to Dr. Alden M. Gardner for $35,000 in 1900.[35]

The Gardener Sanitarium (1900 to 1921)

Dr. Alden M. Gardner was a noted psychiatrist who assisted patients in overcoming nervous disorders. In 1900, he purchased the Belmont property to open a private sanitarium.[36] Appalled at the horrible conditions at Napa Insane Asylum (present-day Napa State Hospital), where he had served as superintendent, Gardner envisaged patients living in a homelike setting rather than an institutional one.[37] Patients who needed to be confined would still have access to the billiards room, the bowling alley, and the gymnasium at his sanitarium. Others had free access to fresh air and extensively landscaped grounds.[38]

At an unknown date, Gardner added nine dormer windows—three on the north side and six on the south side of the central roof of the Ralston mansion—to enable natural light to pour into bedrooms intended for either staff or patients. He extended the original two-story Cipriani wing outward to the north and upward by one story and added a second rooftop terrace on top of the new third floor.[39] In 1913, Dr. Gardner passed away and his family continued operation of the sanitarium, albeit greatly reduced in scope, over the next twenty years before selling the property to the Sisters living at the Notre Dame de Namur convent in San Jose.

College of Notre Dame de Namur and Notre Dame de Namur University (1923–Present)

In August 1851, the Sisters of Notre Dame de Namur had opened a girl's boarding and day school in San Jose. In June 1868, the school would be chartered by the state, making the College of Notre Dame the first higher educational institution for women in California.[40] By the turn of the century, the Notre Dame campus in San Jose had evolved from a rustic and remote country location to an urban commercial environment with increasing pressure for Notre Dame to sell due to the high value of their property. Several sites were considered, but the Sisters were impressed with the "rural elegance" of the "historic Ralston Mansion" and the natural beauty of the surrounding bucolic grounds.[41] In February 1922, they took out a loan to purchase the Gardner property and a neighboring 52-acre property, which was flatter

[35] *San Mateo Times Gazette* (Redwood City, CA), December 24, 1898.

[36] The Gardner Sanitarium inspired the creation of several sanitariums within the town of Belmont: the California Sanitarium in 1910, the Alexander Sanitarium and the Howard Sanitarium in 1924, and the Twin Pines Sanitarium in 1925. "Evaluation of Cooper Medical College 1901-1902," Stanford University School of Medicine, and "Predecessor Schools: An Historical Perspective," Stanford Medical History Center, accessed May 17, 2022, https://lane.stanford.edu/med-history/wilson/chap27.html; MacCrisken, *Heritage of the Wooded Hills*, pages 64 to 66.

[37] Michael Svanevik and Shirley Burgett, *A Century of Medicine in San Mateo County* (San Mateo: San Mateo Medical Association, 2005), clipping in Gardner Sanitarium, Ownership and Biographical Research, Ralston Hall, Box 1, Notre Dame de Namur University Archives.

[38] Lorna Gardner Fosberg, untitled memoirs, Gardner Sanitarium, Ownership and Biographical Research, Ralston Hall, Box 1, Notre Dame de Namur University Archives.

[39] Frank M. Stanger, *South From San Francisco* (San Mateo, CA: San Mateo County Historical Association, 1963), page 99.

[40] Source identified as "Gavin, unpaginated" in the Campus Historical Resources Survey in Appendix E of this report.

[41] Sister Mary Domenica McNamee, Light in the Valley: The Story of California's College of Notre Dame (Berkeley, CA: Howell-North Books, 1967), pages 282 to 284.

and offered a better site for building opportunities than the steep hillside the Gardner Sanitarium perched on.[42]

In 1923, the Sisters received a bid for the purchase of the San Jose campus, with the requirement that they leave within six months, and began cleaning out the Ralston mansion, converting rooms to new uses, replacing the plumbing, installing electrical wiring, repairing floors, and repainting the interior.[43] They also notably changed the exterior cladding from redwood boards to stucco.[44] The two stories of the carriage house provided versatile space, with half of the lower floor serving as a garage while the upper floor initially housed two large classrooms and later science labs, recital rooms, and an auditorium, among other uses.[45] In the vicinity of the mansion and carriage house, they demolished a derelict chicken coop, where today's Taube Center stands, two greenhouses, the Turkish bath, several outhouses, a row of fuel sheds, one wood stable with circular stalls, and at least one cottage.[46] In September 1923, registration began in Ralston's billiards room (today's Cipriani Room), with students making their way past piles of debris and bustling workmen.[47]

The first building put up after the College of Notre Dame opened in Belmont was Blessed Julie Billiart Hall, today's Cuvilly Hall. A vernacular building composed of two stories of wood frame and stucco construction, the building was completed in late 1924, with salvaged material from the novitiate in San Jose.[48]

In 1928, the Sisters gifted the newly formed Parish of the Immaculate Heart of Mary a 0.25-acre parcel of land near the entrance gates to build a Spanish Colonial Revival-style church, which was completed in 1930.[49] In 1958, the Catholic parish deeded the property back to the college. Known today as Taube Center, it has been used by the College of Notre Dame in multiple ways: an art studio, theater space, musical performances, classroom space for art and adult education, and a conference center.[50]

The financial depredations of the Great Depression (1929 to 1939) and the materials shortage of World War Two (1939 to 1945) meant no new building took place on the Notre Dame de Namur campus until 1948, when scrap lumber was used to build Tabard Inn, a popular snack bar built in the vernacular style.[51] In 1950, the wheels were in motion for the College of Notre Dame to apply for accreditation from the

[42] Sister Mary Domenica McNamee, Light in the Valley: The Story of California's College of Notre Dame (Berkeley, CA: Howell-North Books, 1967), page 284.

[43] Sister Barbara Engs, "I Live in A Palace," 2; Sister Anthony Quinlan, "From San Jose to Belmont," page 13, Annals of Belmont Collection, California Province House, Sisters of Notre Dame de Namur Archives, Belmont, California.

[44] Sister Anthony Quinlan, "From San Jose to Belmont," page 16.

[45] Sister Anthony Quinlan, "From San Jose to Belmont," page 10.

[46] Sister Anthony Quinlan, "From San Jose to Belmont," page 9, pages 11 to 13.

[47] Sister Anthony Quinlan, "From San Jose to Belmont," page 30.

[48] Sister Mary Domenica McNamee, Light in the Valley: The Story of California's College of Notre Dame (Berkeley, CA: Howell-North Books, 1967), page 294.

[49] Source identified as "Gavin, 5" in the Campus Historical Resources Survey in Appendix E of this report.

[50] Source identified as "Gavin, unpaginated" in the Campus Historical Resources Survey in Appendix E of this report.

[51] Source identified as "Gavin, unpaginated" in the Campus Historical Resources Survey in Appendix E of this report.

Western College Association to offer Baccalaureate Degrees and the State of California to offer teaching credentials.[52] Were these efforts to succeed, there needed to be a substantial expansion of the campus.

The pressing need to accommodate an expanding student population caused the Sisters to hire architect Vincent G. Raney to design their new campus. Raney earned his architecture degree at the University of Illinois with postgraduate work at the University of Indiana and the University of Arizona. He moved to California in the early 1930s and opened his own office after receiving his license in 1936. By the early 1960s, Raney had designed some 1,000 projects primarily in California and also throughout the Western United States and in Hawai'i. As the noted art collector and scholar Frederic Alan Sharf has commented, the "range of his work is amazing: service stations, movie theaters, shopping centers, industrial buildings, churches, and college. His career is especially interesting because it reflected the changes which were occurring in the world around him—most especially to the growth of suburbs in Northern California."[53] His work was featured in periodicals such as *Architectural Record* and *Architect and Engineer* and frequently in local newspapers. His projects included various commercial and industrial buildings (notably hundreds of "Flying A" stations for Associated Oil Company, the Streamline Moderne Round House Café at the Golden Gate Bridge, and the Emiec Corporate Headquarters building in San Carlos), over 40 theaters, many schools, and at least a dozen churches (spanning multiple styles from Colonial Revival to Midcentury Modern to New Formalism).[54] In the postwar era, the Roman Catholic Church began commissioning Raney for so many church buildings that "by 1950, he was considered a church specialist."[55] By the early 1960s, Raney had transitioned to designing futuristic domed theaters (including the National Register-listed Century 21 domed theater in San Jose) for the noted theater developer Ray Syufy. Raney continued designing theaters for Syufy until he closed his practice in the early 1990s.[56] He passed away in 2001. A detailed history of Raney's long and diverse architectural career is presented in Appendix E.

The new campus at the College of Notre Dame was located on a higher level of terrain above and to the east of the mansion. It was extremely hilly, however, and Raney directed the excavation of some eleven acres to form the "academic plateau," which would create a new campus center apart and away from Ralston Hall. From 1951 to 1952, three buildings, known as Campus Center, Saint Julie Billiart Hall, and St. Mary's Hall, were constructed around a courtyard and connected by new sidewalks, pathways, and arcades. When the College of Notre Dame was successfully surveyed for accreditation by the Joint

[52] Kathleen O'Connor, College of Note Dame de Namur Timeline, Notre Dame de Namur University Archives; source identified as "Gavin, unpaginated" in the Campus Historical Resources Survey in Appendix E of this report.

[53] Frederic A. Sharf, "Rediscovering a California Architect, Vincent Raney," in Suburban America, 1930-1970: An Architectural Perspective: Presentation Design Drawings of Buildings Which Changed the Appearance of Suburban America: An Exhibition at Heritage Plantation in Sandwich Massachusetts May 13 to November 25, 2001, ed. Frederic A. Sharf and Heritage Plantation of Sandwich (n.p., 2001), page 12.

[54] Vincent Raney, "1,000 Projects," unpaginated, undated brochure published by his architectural firm Vincent Raney, Inc., NDNU Archives.

[55] Frederic A. Sharf, "Rediscovering a California Architect, Vincent Raney," in Suburban America, 1930-1970: An Architectural Perspective: Presentation Design Drawings of Buildings Which Changed the Appearance of Suburban America: An Exhibition at Heritage Plantation in Sandwich Massachusetts May 13 to November 25, 2001, ed. Frederic A. Sharf and Heritage Plantation of Sandwich (n.p., 2001), page 16.

[56] Frederic A. Sharf, "Rediscovering a California Architect, Vincent Raney," in Suburban America, 1930-1970: An Architectural Perspective: Presentation Design Drawings of Buildings Which Changed the Appearance of Suburban America: An Exhibition at Heritage Plantation in Sandwich Massachusetts May 13 to November 25, 2001, ed. Frederic A. Sharf and Heritage Plantation of Sandwich (n.p., 2001), page 16.

Committee of Western College Association and the California State Board of Education in 1954, the expected increase of students could now be easily accommodated.[57]

By 1964, the total enrollment for the College of Notre Dame had reached 1,000 students, creating a pressing need for more student housing.[58] In 1965, the Trustees voted to construct Carroll, Kane, and Wilkie, three 3-story apartment residences, and The Oaks, a single-story recreation center with a swimming pool. San Jose architect Hollis Logue Jr. designed the new buildings, along with Gavin Hall the following year. He graduated from the University of Illinois, Champaign-Urbana with a bachelor's degree in architecture; he was also awarded a Rome prize medal for an Island Airbase design in 1942. Hollis later obtained his Master's degree in Urban Planning from San Jose State University.[59] Best known for designing Terminal C at the Mineta San Jose International Airport, he was "a devotee of Frank Lloyd Wright and a believer in simple, workmanlike buildings that served their function without fuss."[60] His design ethos was a perfect match for the cash-strapped College of Notre Dame and the rustic Second Bay Tradition style harmonized well with the existing Raney buildings.

In 1967, the matriculated Evening Division began enrolling students, who traveled to and from campus for classes rather than living on campus. Two years later, the college officially became co-educational, although women still greatly outnumbered the men for the next few years.[61] Concurrently, the university was planning to grow the College Division up to 1,000 students and the Evening Division up to 1,000 students over the next decade.[62] Logue helped formulate a 1967 campus master plan, along with a campus planning group called Lackey, Hamilton, Blewett Associates.[63] Additional quadrangles were planned on the remaining five acres of land that had been severely graded in 1953, creating an eleven-acre "upper campus" site.[64]

While much of the 1967 master plan never came to fruition, additional buildings did go up between 1974 and 2004. The first was Gellert Library, which was designed by Reid and Tarics Associates and included in the master plan.[65] In 1984, the three 2-story Toso Residences, designed by Gordon H. Chong in a Post-modern style with Expressionist influences, were built as residential quarters for the Sisters still living in Ralston Hall. In 1991, Gleason Gymnasium, also designed by Gordon H. Chong, and a bookstore were built. Lastly, in 2004, the three-story New Hall student residence complex, designed by Gensler Architects, was completed.

Facing declining undergraduate enrollments and high operating costs for the campus, Notre Dame de Namur University decided to take its programs fully online in 2021, focusing on their highly regarded education and teaching credentialing, business and clinical psychology graduate programs. The university

[57] Source identified as "Gavin, unpaginated" in the Campus Historical Resources Survey in Appendix E of this report.
[58] Source identified as "Gavin, 10, 14" in the Campus Historical Resources Survey in Appendix E of this report.
[59] Hollis Logue Obituary, Mercury.com, accessed June 23, 2022, https://www.le11:acy.com/us/obituaries/mercur:ynews/name/hollis-lo11:ue- obituar:y?id=21364450.
[60] "Designer of San Jose Airport's Terminal C Dies at 90," San Jose Mercury News, September 23, 2010.
[61] Kathleen O'Connor, College of Note Dame de Namur Timeline, Notre Dame de Namur University Archives.
[62] Lawrence Lackey, "The Long Range Campus Plan for the College of Notre Dame," 1967, page 6, NDNU Archives.
[63] Lawrence Lackey, "The Long Range Campus Plan for the College of Notre Dame," 1967, NDNU Archives.
[64] Lawrence Lackey, "The Long Range Campus Plan for the College of Notre Dame," 1967, page 15, NDNU Archives
[65] Lawrence Lackey, "The Long Range Campus Plan for the College of Notre Dame," 1967, page 7, NDNU Archives

has entered into agreements with Stanford University for an anticipated sale of the campus; it is expected to remain as a tenant in some buildings even after the sale is complete.[66]

Historic Resources

Stanford University Heritage Services completed a historical resources survey of the campus in support of the project. This report was peer reviewed and the results of the peer review are presented in Appendix E. The purpose of the survey is to confirm the eligibility of previously identified historic architectural resources and to evaluate the remaining architectural resources over 45 years old for listing in the national, state, and local registers. To complete the historical resources survey, Stanford University Heritage Services undertook the following:

- A literature search of newspaper archives, scholarly books, local history publications, journals, and genealogical databases.
- Archival research at the Notre Dame de Namur (NDNU) archives and Belmont Historical Society.
- A review of the evaluations of previously identified historical architectural resources, which include Ralston Hall and Carriage House and Taube Center.
- Intensive-level field surveys to document the existing conditions of the buildings and site features.

To supplement this work, the California Office of Historic Preservation's (OHP) Built Environment Resource Directory (BERD) for Belmont was reviewed. The BERD provides the evaluation status of non-archaeological resources that have been inventoried by OHP.[67]

The adequacy of the Campus Historical Resources Survey was peer reviewed by an independent consulting historian, who found that Vincent Raney qualifies as a Master Architect and that the Cunningham Chapel and Campanile are eligible for listing in the California Register under Criterion 3 as the representative work of a Master Architect. Stanford University Heritage Services then responded via memorandum to many of the points in the peer review and re-affirmed its original conclusions that Vincent Raney does not qualify as a Master Architect and the Cunningham Chapel and associated Campanile are not architecturally significant at the level that would qualify them to be historical resources under CEQA.

As the lead agency, the City has the authority to resolve the disputed fact (i.e., whether Vincent Raney should be considered a Master Architect) and make the determination as to the significance of these buildings. After review of the evidence in the relevant reports, the City determines that the Cunningham Chapel and Campanile are not eligible for listing in the California Register under Criterion 3. Please see Appendix E2 and E3 of this EIR for the independent peer review and response memorandum from Stanford University Heritage Services, respectively.

[66] Notre Dame de Namur University, "The New NDNU," accessed July 21, 2022, https://www.ndnu.edu/new-ndnu/ .

[67] California Office of Historic Preservation, Built Environment Resource Directory (BERD), Belmont, San Mateo County, accessed June 3, 2024, https://ohp.parks.ca.gov/?page_id=30338.

Historical Resources in the Project Site

The full results of the survey completed by Stanford University Heritage Services are presented in the Campus Historical Resources Survey, included as Appendix E. After surveying the buildings on campus, it was determined that most did not fit within the eligibility criteria for the California Register or for the City of Belmont's Historic Inventory. The buildings were either not associated with significant events, important persons, architecture or architects of merit, qualify as a local landmark, or qualify as a local historic resource. Due to this, out of the approximately 15 buildings surveyed, only two existing historical resources under CEQA were identified within the project site, Ralston Hall and Carriage House and Taube Center (see Table 4.4-2, *Historic Architectural Resources in the Project Site*).

TABLE 4.4-2 HISTORIC ARCHITECTURAL RESOURCES IN THE PROJECT SITE

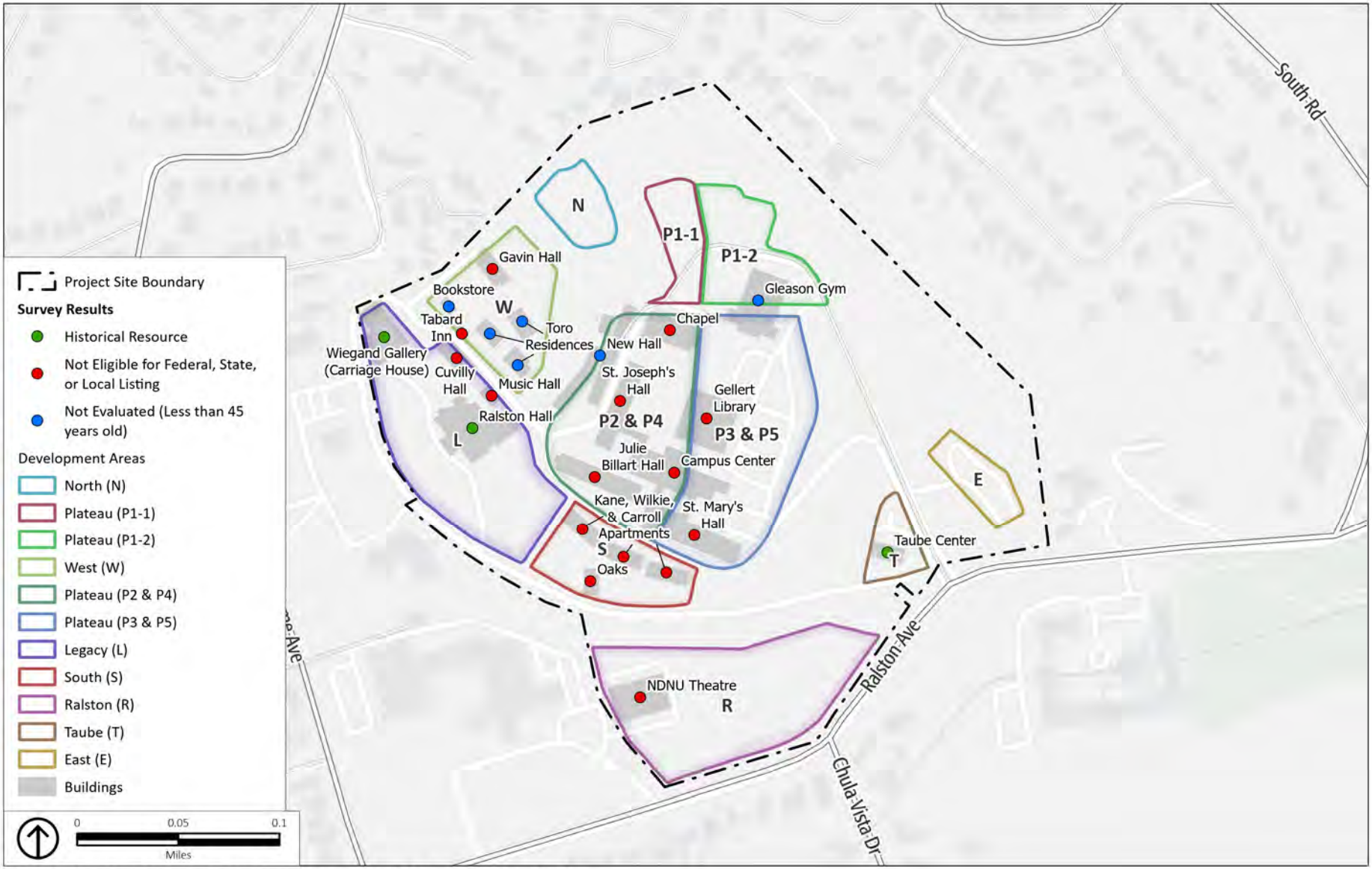
Resource Name	Construction Date	Historic Status
Ralston Hall and Carriage House	1867–1868, 1874	National Historic Landmark, National Register Listed, California Historical Landmark, California Register Listed, City of Belmont Landmark
Taube Center (former Immaculate Heart of Mary Church)	1930	City of Belmont Landmark

Source: Julie A. Cain and Laura Jones, "Campus Historical Resources Survey, Notre Dame de Namur University, Belmont, County of San Mateo, California," prepared by Stanford University Heritage Services, March 25, 2024.

Ralston Hall and Carriage House were confirmed to be listed jointly as a National Historic Landmark, in the National Register, as a California Historical Landmark, in the California Register, and as a City of Belmont Landmark. Taube Hall was confirmed to be a City of Belmont Landmark. The two resources are summarized below and shown on Figure 4-4.1, *Historical Resources Survey Results*.

Ralston Hall and Carriage House

Ralston Hall, originally named Belmont by owner William C. Ralston, was constructed from 1867 to 1868 and incorporated a two-story wing that was a remnant of an 1854 Italian Villa-style house. Built in an eclectic Italianate style with Steamboat Gothic elements, the attributed architect is John Plant Gaynor. The residence is three stories in height with an attic and two towers providing four-story space along with a basement. It has a combination of gabled roofs, a mansard roof over the ballroom, and flat roofs. Additional significant design characteristics for Ralston Hall include the wood-sash windows, flanking promenades (sun porches), a porte-cochere, and the urns on the front steps. The interior of the first two floors contains the elements that convey the "Steamboat Gothic" flavor and contribute to the significance of the building.



Source: Stanford University Heritage Services, 2024; PlaceWorks, 2024.

Figure 4.4-1
Historic Resources Survey Results

Following Ralston's death in 1875, the mansion changed ownership many times, and its use evolved from a residence to an entertainment venue, a women's school, a sanitarium, a private women's college, and a co-educational university. In 1879, a new room, the Grant Room, was either completed or built anew at the rear northeast corner. In 1901, nine dormer windows were added to the central roof gable. The two-story wing located south of the portico was extended outward and raised by one story. That roof was changed from gable to flat, and a fenced terrace was added to it. The original laundry was extended outward or a new laundry was built at the rear of the house. In 1906, chimneys were damaged by the San Francisco Earthquake; chimneys and fireplaces were closed off. In 1923, the wood-frame building was covered with stucco, and interior alterations were undertaken after it was acquired by the Sisters of Notre Dame de Namur. In 1993, brick piers and perimeter foundation walls were repaired and repainted, and the Office Addition, an annex to the Grant Room at the rear of the house, was renovated. In 1995, a new concrete landing with new wrought-iron railings was installed at the east entrance and was raised to align with the interior floor level. Octagonal basement ventilation louvers were also added to the exterior.

Built in 1874, the Carriage House is an associated feature of Ralston Hall. William C. Ralston built the two-story Carriage House immediate west of his mansion in 1874 after his original wood stable burned down. Built of unreinforced hand-hewn rock quarried on the estate in a rustic style, the walls are two feet thick, and a suspended ceiling hung by cables allowed for carriage maneuvering. Damaged in the 1989 Loma Prieta earthquake, seismic and structural upgrades included a new steel frame, a steel floor structure supporting the second floor, and a new roof structure in 2014.

The Ralston-era country house landscape was characterized by an oak woodland with open space deliberately created around the immediate areas surrounding the mansion. Landscape features of Ralston Hall and Carriage House that remain include the front lawn, which still exhibits some trees and shrubs, and a set of stairs and urns leading up to the open area in front of the porte-cochere. A hedge still lines the lower edge of the lawn, and a remnant of a rock wall with original estate fencing on top stands parallel to the east façade of the Carriage House. Part of the Ralston-era upper promenade still runs from the west side of the mansion, past Cuvilly Hall and to the Carriage House, parallel to the open space that also still exists between the west façade of the mansion and the Carriage House. The original stairway of the promenade still leads up to where Cuvilly Hall stands today. The east side of Ralston Hall remains relatively wooded and is also terraced. Other extant landscape features include rock walls built from stone quarried on the estate, the Ralston-era water trough along the driveway, and the split of the driveway, the upper portion of which ran past the port cochere to the east wall of the Carriage House and downward portion ran to the back of the Carriage House. The views to the front of Ralston Hall and between the residence and the Carriage House remain open with landscaping along each side.

Over the past six decades, Ralston Hall and Carriage House have been designated as a historic resource at the national, state, and local level as the principal residence of William C. Ralston, who has been recognized for his significant contributions to the development of mining, railroad infrastructure, and the financial industry in San Francisco and throughout California. The buildings have been designated jointly as a National Historic Landmark in 1966, designated as California Historical Landmark #856 and listed in the California Register in 1972, listed in the National Register in 1977, and listed as a City of Belmont Landmark in 1974. The buildings were subsequently included in the City of Belmont Historical Resource Inventory in 1991.

The period of significance of Ralston Hall and Carriage House spans from 1864 to 1875, beginning when Ralston Hall was initially completed by William C. Ralston and concluding with his death and sale of the property by the Ralston family. Despite alterations to both buildings and their associated landscape over the past 150 years, Ralston Hall and Carriage House retain integrity of location, design, setting, materials, workmanship, feeling, and association.

Character-defining features of Ralston Hall are listed below.

Exterior features:

- Height and massing
- Center gable on the front façade
- Hipped roofs
- Tall narrow windows
- Cornices
- Square towers or cupolas
- Flanking promenades (sun porches)
- Porte-cochere

Interior features in public spaces:

- Parquet floors
- Remaining silver-plated hardware
- Laurel staircase and fireplaces
- Marble fireplace
- Painted ceiling in the Cipriani room
- Sliding frosted glass panels
- Orange peel doors
- Doors with etched glass that fold back against the walls
- Chandeliers
- Fresh air vents
- Mirrors
- Skylights

Setting and site features:

- Rustic stone retaining walls
- Ornamental garden features
- Groves of trees to sides and rear
- Stairs leading to the open area in front of the porte-cochere
- Stairs leading to the upper promenade
- Open space in front of Ralston Hall and between Ralston Hall and Carriage House

Character-defining features of the Carriage House include:

- Height and massing
- Flat roof

- Stone walls
- Punched round windows
- Surviving original metal doors and shutters
- Uninterrupted relationship to Ralston Hall

Taube Center

Taube Center was built in 1930 as the Church of the Immaculate Heart of Mary on a quarter acre of land given by NDNU to the newly formed local Catholic parish. Designed by architect Henry A. Minton, this Spanish Colonial Revival building features stucco cladding, an S-curve clay tile roof, and wood-sash fixed and leaded glass windows. The main door is framed by pilasters and decorative tile. The building was used as a church from 1930 to 1958, when the land and building were given back to NDNU. The building has been renovated inside to serve as academic space, performance space, conference space, and art studio space over the years. The building no longer hosts religious observances and functions today as an academic facility.

In 1974, the building was recognized as a City of Belmont Landmark as a significant example of Spanish Eclectic architecture and subsequently included in the City of Belmont Historical Resource Inventory in 1991. The period of significance for Taube Center dates to 1930, corresponding with its construction date. The exterior of Taube Center has not been extensively altered since its construction in 1930, and the building retains integrity of location, design, setting, materials, workmanship, feeling, and association.

Character-defining features of Taube Center are listed below.

Exterior features:

- One-story height
- Stucco cladding
- Gable roof with clay tiles
- Elaborated chimney
- Main door framed by pilasters
- Fenestration including wood-sash fixed and leaded glass windows
- Decorative exterior wrought iron, vents, and tilework

Setting and site features:

- Landscaping at the front of the building that separates the building from adjacent roadways
- Trees on either side of the building entrance
- Forested hillside behind the building as a backdrop

Historical Resources Adjacent to the Project Site

Adjacent resources are defined as those that lie directly opposite the boundary of the project site, including those located across the streets of Ralston Avenue and Laxague Drive from the project site. One existing historical resource, the residence at 1403 Ralston Avenue, is located adjacent to the project site, at the southeast corner of Ralston Avenue and Chula Vista Drive, just south of Koret Field. The property

contains a single-family residence that was constructed in 1940 and listed as a City of Belmont Historical Resource in the 1991 Historical Resources Inventory. The one-and-one-half-story residence was identified as a rare example of pre-World War II Georgian Revival style residences in Belmont. The building's primary features that express this architectural style include wide horizontal shiplap siding, three gabled wall dormers on the side-gabled roof, symmetrical fenestration, central recessed main entrance with pilasters and entablature, and paired brick end wall chimneys.[68]

4.4.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant cultural resource impact if it would:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
3. Disturb any human remains, including those interred outside of dedicated cemeteries.
4. In combination with past, present, and reasonably foreseeable projects, result in cumulative cultural resource impacts in the area.

4.4.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following cultural resources analysis is based on the physical environmental setting and therefore utilizes information gathered in 2023.

CULT-1	The proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.

Potential Impacts to Off-Site Historic Resources

The only historical resource located adjacent to the project site is the residence at 1403 Ralston Avenue, which is listed as a City of Belmont Historic Resource. It is situated approximately 100 feet south of the Ralston development area, which currently includes the College of Notre Dame Theater, Koret Field, tennis courts, and paved parking. The Ralston development area would allow building heights up to 45

[68] City of Belmont, "Historical Resources Inventory of Belmont, California," June 1991, 25, 43; Kent L. Seavey, Historic Resources Inventory Form for 1403 Ralston Avenue, Belmont, California, May 25, 1991, in City of Belmont, "Historical Resources Inventory of Belmont, California."

feet tall. The historical architectural resource is set back from the project site due to its location on the south side of Ralston Avenue. Development within the Ralston development area will be a continuation of the existing academic use of the site, and the residential setting composed of detached single-family residences to the east, south, and west would remain intact. Therefore, the proposed project would not compromise the setting of the historical resource, and impacts would be *less than significant*.

Potential Impacts to On-Site Historic Resources from Construction Activities

Construction activities in the project site would generate new temporary sources of vibration that could potentially impact adjacent and nearby buildings. As discussed in Chapter 4-11, *Noise*, of this Draft EIR, construction activities at the project site involving heavy equipment commonly used in general construction projects, including grading, excavation, paving, and demolition/construction, were analyzed at a distance of 25 feet from work areas where these activities would occur within the project site. Construction-related vibration would not exceed the Caltrans criterion of 0.25 peak particle velocity (PPV) for historic buildings. Additionally, Policy 7.1-10 of the City of Belmont General Plan and the City's standard conditions related to construction vibration would be implemented for future projects located within the immediate vicinity of historical architectural resources. As such, impacts would be l*ess than significant*.

Potential Impacts to On-Site Historic Resources through Alteration

As described in Chapter 3, *Project Description*, of this Draft EIR, the proposed project would guide renovations and revitalization on the project site to develop the Stanford Belmont Campus in a phased manner during a 30-year time frame. Two historic architectural resources, Ralston Hall/Carriage House and Taube Center, are located within the project site. Under the proposed project, these historic architectural resources, including the contributing buildings and landscape features, would be retained and rehabilitated.

All other buildings and structures would have the potential to be removed and replaced. Ralston Hall/Carriage House and Carriage House are located within the Legacy development area, which would allow building heights up to 45 feet. Building heights for new construction in adjacent development areas would extend up to 45 feet in the West and South development areas and up to 75 feet in the Plateau area.

Taube Center is located within the Taube development area, which would allow building heights up to 45 feet. Nearby development areas would allow building heights up to 45 to 60 feet (Ralston and East development areas, respectively), although these development areas are offset from the historical resource by natural areas that would remain undeveloped.

Implementation of the proposed project would have the potential to materially and adversely alter the physical characteristics that convey the significance of one or more of these historic architectural resources. Due to the specific design of the project being unknown, new development has the potential to significantly impact the historical resources within the project site. Material alteration could result from the renovation or rehabilitation of a historical resource in a manner not in conformance with the Secretary of the Interior's Standards for Rehabilitation that would compromise the integrity of the

resource and from new construction in the immediate vicinity of a historical resource that would compromise that resource's integrity of setting through incompatible design, resulting in a *significant* impact.

Impact CULT-1: The proposed project has the potential to materially impair the significance of historic architectural resources within the project site through the alteration or rehabilitation of historic architectural resources or their immediate surroundings in a manner that is not in conformance with the Secretary of the Interior's Standards for Rehabilitation.

Mitigation Measure CULT-1a: If a project could cause a substantial adverse change in features that convey the significance of a historical architectural resource, an assessment shall be completed to evaluate whether the proposed treatment of the historical resource is in conformance with the Secretary of the Interior's Standards for Rehabilitation (the Standards), or equally effective requirements in place at the time of Detailed Development Plan application submittal. Such projects might include, but may not be limited to, alterations of exterior character-defining features of Ralston Hall/Carriage House and Carriage House or Taube Center; alterations of character-defining features of publicly accessible interior spaces of Ralston Hall; or new construction within or immediately adjacent to the Legacy and Taube development areas. The assessment may be required for new construction located adjacent to or facing Ralston Hall/Carriage House within the West, Plateau, or South development areas. It may also be required for new construction located adjacent to or facing Taube Center within the East or Ralston development areas. Consultation with the City of Belmont Planning Division, as early as possible in the planning process, would be required to determine if a project requires the assessment.

A qualified historic preservation professional who meets the Secretary of Interior's Professional Qualification Standards shall complete the assessment. The assessment shall take the form of a memorandum or equivalent documentation that includes a summary of the existing conditions and historic significance of the resource, the identification of character-defining features and non-contributing elements or additions, a project description, a statement of conformance with the Standards, and relevant project plans. If the project conforms with the Secretary of the Interior's Standards for Rehabilitation, then it is generally considered not to result in a significant impact on a historical resource, and no additional review or documentation is necessary. If the proposed project is found to not be in conformance with the Standards, the assessment shall include recommendations for how to modify the project design so as to bring it into conformance. The Project Sponsor shall consider means of reducing the impact to the historic resource to a level less than significant by redesigning or modifying the project as feasible and prudent. The City of Belmont Planning Division shall review the assessment and may require additional documentation. The City may also require a peer review of the assessment by a qualified preservation professional at Stanford University's expense.

Mitigation Measure CULT-1b: For projects that are unable to conform to the Secretary of the Interior's Standards for Rehabilitation (or equally effective requirement at the time of DDP application submittal), a Historic American Building Survey (HABS) documentation, or an equally effectively requirement in place at the time of DDP application submittal, shall be completed by a qualified historical preservation professional who meets the Secretary of Interior's Professional Qualification

Standards for the historical resource and its setting. This documentation shall include drawings, photographs, and a written report:

- Measured Drawings: Existing historic drawings of the historical resource, if available, shall be reproduced. In absence of existing drawings, a set of measured drawings shall be prepared that depict the plan and exterior elevations of the historical resource.
- Photographs: HABS standard large-format or digital photographs shall be prepared in accordance with the latest National Park Service (NPS) standards. The photography shall be undertaken by a qualified professional with experience in HABS photography. Photographs shall document the setting and context, building exterior, character-defining features, and publicly accessible interior spaces if applicable. Photographs shall be identified, labeled, and referenced on a photographic key using HABS standards.
- Written Historical and Descriptive Data: A qualified preservation professional shall assemble historical background information relevant to the historical resource. The written report shall be prepared in accordance with the HABS Guidelines for Historical Reports. The report shall include a statement of significance, an overview of applicable historic contexts, a physical description, and bibliographic information. Copies of historical photographs, if available, shall also be included.

The HABS documentation shall be reviewed and approved by the City of Belmont Planning Division. To ensure public access, a copy of the documentation shall be submitted to the City of Belmont Planning Division, Belmont Historical Society, San Mateo County Historical Association, and the California Historical Resources Information System Northwest Information Center.

Significance with Mitigation: Less than significant. Under CEQA, conformance with the Secretary of the Interior's Standards for Rehabilitation would mitigate impacts to a less-than-significant level. Because the proposed project is a program-level document, it is not possible to determine whether individual projects under the proposed project would be able to conform with the Secretary of Interior's Standards. However, CEQA would require that future potential projects permitted under the proposed project with the potential to significantly impact historical architectural resources be subject to project-level CEQA review wherein the future potential project's potential to affect the significance of a surrounding historical resource would be evaluated and mitigated to the extent feasible. The requirement for subsequent CEQA review, pursuant to State law, would minimize the potential for new development to indirectly affect the significance of existing historical architectural resources to the maximum extent practicable.

CULT-2 The proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

Individual building projects approved under the proposed CDP would require approval by the City of a DDP that would be subject to conditions of approval that could include specific requirements to ensure protection of known and unknown archaeological resources within the project site. As described in Section 4.4.1.2, *Existing Conditions*, several historic period archaeological resources were identified in the Archaeological Assessment Report, including a historic fence along portions of the eastern property boundary; introduced eucalyptus trees in the eastern section of the project site and northwest of New

Hall; a stacked-stone retaining wall and stone quarry northwest of New Hall; and a potential wood retaining wall, bricks, sediment feature, and cast iron pipe along Ralston Creek that may be remnants of the former coal gas plant (i.e., Ralston gas house), likely dating between 1868 and the late 1920s/early 1930s, associated with William C. Ralston's historic occupation of the property (herein referred to as "Identified Resources"). Future construction activities under the proposed project would have the potential to disturb the former coal gas plant that is considered potentially eligible for listing in the National Register and California Register. Therefore, this impact is *significant*.

Impact CULT-2: The proposed project has the potential to result in a substantial adverse change to on-site archaeological resources, that is, the former coal gas plant, which is considered potentially eligible for listing in the National Register and California Register. Additionally, the proposed project could result in substantial adverse changes to previously unknown sites in areas of the project site that have not been subject to previous ground disturbance.

Mitigation Measure CULT-2a: If a building project is proposed to be situated on the archaeological remains of the former coal gas plant and if the site cannot be avoided, an Archaeological Resources Treatment Plan shall be prepared by a Secretary of Interior-qualified archaeologist at the direction of the City Planning Division prior to commencement of ground-disturbing activities, unless subject to an equally effective requirement in place at the time of Detailed Development Plan (DDP) application submittal. At a minimum, the following measures must be included in the Archaeological Resources Treatment Plan: monitoring of construction activities at the site, recovery of any archaeological resources that cannot be avoided by construction activities, and recordation and preservation of such resources. This plan may include, but is not limited to, the following types of measures: subsurface testing, capping or covering the site with a layer of soil before construction begins on the site, recovering data regarding resources left in place, excavation, preparation of a report to be submitted to the California Historical Resources Information System, and permanent curation of significant artifacts recovered from the site. Unless subject to an equally effective regulation in place at the time of DDP application submittal, project-specific measures, if necessary, shall be identified in accordance with the provisions of Public Resources Code Section 21083.2.

Mitigation Measure CULT-2b: Prior to the commencement of construction-related ground-disturbing activities (greater than 12 inches in depth), within the West, Legacy, and Ralston Development Areas, all construction workers engaged in such ground-disturbing activities shall complete Worker Awareness Training (WAT) in regard to potential prehistoric and historic-period resources, unless subject to equally effective requirements in place at the time of Detailed Development Plan application submittal. Training shall include how to recognize artifacts and features, respectful treatment of Native American resources, measures to prevent vandalism and unauthorized removal of artifacts, penalties for noncompliance, and procedures for securing and reporting finds, including temporary work stoppages if necessary.

Mitigation Measure CULT-2c: Archaeological monitoring shall be conducted by a Secretary of Interior-qualified archaeologist at any time construction-related ground-disturbing activities are taking place within 100 feet of the remains of the former coal gas plant or within the boundaries of the Ralston Hall National Historic Landmark. A technical report including the results of all monitoring activities

shall be prepared once monitoring is completed in accordance with professional standards and submitted to the Planning Division and Northwest Information Center.

Mitigation Measure CULT-2d: In the event previously unidentified historic or prehistoric archaeological resources are discovered during construction, work immediately shall stop in the immediate area of 100 feet, and the City Planning Division and University Archaeologist shall be contacted immediately. A Secretary of Interior-qualified archaeologist shall assess the significance of the find to determine whether the resource may constitute a unique archaeological resource according to Public Resources Code Section 21083.2(g) or a historical resource according to Public Resources Code Section 21084.1, or equally effective regulations in place at the time of Detailed Development Plan (DDP) application submittal. If the site is determined to be eligible, the University Archaeologist shall provide and implement a proposed Archaeological Resources Treatment Plan to avoid, minimize, or otherwise mitigate any potential impacts to the resource. Unless subject to an equally effective requirement at the time of DDP application submittal, before construction-related ground-disturbing activities occur, at a minimum, the following measures must be included in the Archaeological Resources Treatment Plan: monitoring of construction activities at the site, recovery of any archaeological resources that cannot be avoided by construction activities, and recordation and preservation of such resources. This plan may include, but is not limited to, the following types of measures: preserving the site in place, capping or covering the site with a layer of soil before construction continues, recovering data regarding the resources left in place, excavation, and preparation of a report to be submitted to the California Historical Resources Information System. Should the resources be associated with Native American history, a Native American observer may also be required during excavation and to advise on recordation activities. At the discretion of the City's Planning Division, an independent qualified archaeologist may be retained by the City at Stanford University's expense to assess the significance of the find and the adequacy of the proposed Archaeological Resources Treatment Plan.

Significance with Mitigation: Less than significant.

CULT-3 The proposed project could disturb any human remains, including those interred outside of dedicated cemeteries.

Prehistoric archaeological resources may contain human burials. Although unlikely, there is the possibility that human remains, including those interred outside of formal cemeteries, could be encountered during ground-disturbing activities associated with new development under the CDP. This impact, therefore, is considered significant.

Impact CULT-3: Future construction activities that involve ground disturbance have the potential to disturb subsurface human remains.

Mitigation Measure CULT-3: In the event human skeletal remains are encountered the San Mateo County Coroner must be immediately notified. Work immediately shall stop within a 100-foot radius of the find. If the County Coroner determines that the remains are Native American, the coroner shall contact the California Native American Heritage Commission, pursuant to Health and Safety Code Section 7050.5(c), or an equally effective requirement in place at the time of the event. It is the

responsibility of the Project Sponsor to comply with the required Native American consultation process described in Health and Safety Code Section 7050.5(c), or an equally effective requirement in place at the time of the event, and to provide for reburial of human skeletal remains and associated artifacts in a setting of appropriate dignity not subject to further subsurface disturbance following completion of consultation. Unless subject to equally effective requirements at the time of the event, a State Record Form (DPR Series) documenting the discovery and reburial location with the California Historical Resources Information System shall be filed along with the Sacred Lands file at the Native American Heritage Commission.

Significance with Mitigation: Less than significant.

CULT-4 The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative cultural resource impacts in the area.

Cumulative cultural resource impacts would occur when a series of actions leads to the loss of a substantial type of site, building, or resource. For example, while the loss of a single historic building may not be significant to the character of a neighborhood or streetscape, continued loss of such resources on a project-by-project basis could constitute a significant cumulative effect. This is most obvious in historic districts, where destruction or alteration of a percentage of the contributing elements may lead to a loss of integrity for the district overall. For example, changes to the setting or atmosphere of an area by adding modern structures on all sides of a historically significant building, thus altering the aesthetics of the streetscape, would create a significant impact. Demolition or relocation of historic buildings would also significantly impact the setting.

The mitigation measures identified for Impact CULT-1 and Impact CULT-2 would ensure that potential impacts to historic resources, historic-period archaeological resources, and unknown buried archaeological resources, if encountered, would be mitigated through additional evaluation and appropriate documentation. Mitigation Measure CULT-3 would ensure that any potential human remains encountered during site excavation would be properly handled. Additionally, the existing federal, State, and local regulations and policies described throughout this chapter serve to protect any as-yet-undiscovered cultural resources. Continued compliance with these regulations and implementation of existing policies and requirements would preclude cumulative impacts to the maximum extent practicable. Therefore, cumulative impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.5 ENERGY

This chapter evaluates the potential energy impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential energy impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

The information and analysis in this chapter is based in part on the *Standford University Belmont Campus Conceptual Development Plan and Development Agreement: Air Quality, Health Risk Assessment, Greenhouse Gas and Energy Technical Report* (Ramboll Tech Report), prepared by Ramboll US Consulting in June 2024. This study is in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR. Transportation-sector impacts are based on the Conceptual Transportation Demand Management (TDM) Plan and trip generation and vehicle miles traveled (VMT) data provided by Fehr and Peers, contained in Appendix J, *Transportation*, of this Draft EIR. Note that this quantitative analysis was conducted based on the construction and full operation for the proposed project, which would constitute up to 700,000 square feet of building space and associated parking and housing units, as summarized in Chapter 3, *Project Description*.

4.5.1 ENVIRONMENTAL SETTING

4.5.1.1 REGULATORY FRAMEWORK

Federal Regulations

Federal Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 was established in response to the 1973 oil crisis. The act created the Strategic Petroleum Reserve, established vehicle fuel economy standards, and prohibited the export of U.S. crude oil (with a few limited exceptions). It also created Corporate Average Fuel Economy (CAFE) standards for passenger cars starting in model year 1978. The CAFE standards are updated periodically to account for changes in vehicle technologies, driver behavior, and/or driving conditions.

The federal government issued new CAFE standards in 2012 for model years 2017 to 2025 that required a fleet average of 54.5 miles per gallon (MPG) for model year 2025. However, on March 30, 2020, the United States Environmental Protection Agency (EPA) finalized an updated CAFE and greenhouse gas (GHG) emissions standards for passenger cars and light trucks and established new standards, covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021–2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 MPG for model year 2026 vehicles.[1]

[1] Federal Register, 2020, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks: Final Rule, Vol. 85 Federal Register, No. 84.

On December 21, 2021, under direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed SAFE Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, on March 31, 2022, the National Highway Traffic Safety Administration finalized new fuel standards in response to EO 13990. Fuel efficiency under the standards proposed will increase 8 percent annually for model years 2024 to 2025 and 10 percent annually for model year 2026. Overall, the new CAFE standards require a fleet average of 49 MPG for passenger vehicles and light trucks for model year 2026, which would be a 10 MPG increase relative to model year 2021.[2]

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The act sets increased CAFE standards; the Renewable Fuel Standard; appliance energy-efficiency standards; building energy-efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration.[3]

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This act includes tax incentives for energy conservation improvements in commercial and residential buildings, fossil fuel production and clean coal facilities, and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

National Energy Policy

Established in 2001 by the National Energy Policy Development Group, the National Energy Policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future. Key issues addressed by the energy policy are energy conservation, repair and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the United States Department of Transportation to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as

[2] National Highway Traffic Safety Administration, August 5, 2021, USDOT Proposes Improved Fuel Economy Standards for MY 2024-2026 Passenger Cars and Light Trucks, accessed March 12, 2024, https://www.nhtsa.gov/press-releases/fuel-economy-standards-2024-2026-proposal.

[3] United States Environmental Protection Agency, 2019, Summary of the Energy Independence and Security Act Public Law 110-140, accessed March 12, 2024, https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act.

the transportation and storage of liquefied natural gas. The Pipeline and Hazardous Materials Safety Administration within the Department of Transportation develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6-million-mile pipeline transportation system.

State Regulations

2023 Integrated Energy Policy Report

The California Energy Commission (CEC) published the 2023 Integrated Energy Policy Report to identify pathways to deeply decarbonize the state's electricity system in response to meeting the Senate Bill (SB) 100 goal of zero-carbon by 2045. The report provides an analysis of electricity sector trends, building decarbonization and energy efficient, zero-emission vehicles, energy equity, climate change adaptation, electricity reliability, natural gas assessment, and electricity, natural gas, and transportation energy demand forecasts. The aim is to leverage California's clean electricity system to decarbonize, or remove carbon from, other portions of the state's energy system. SB 1389 (Chapter 568, Statutes of 2002) requires the CEC to conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery, distribution, electricity demand, and price to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the State's economy, and protect public health and safety.

AB 2076 Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076, the CEC and the California Air Resources Board (CARB) prepared and adopted in 2003 a joint agency report, Reducing California's Petroleum Dependence. AB 2076 emphasizes the importance of adopting measures to improve transportation energy efficiency and expand the use of non-petroleum fuels to allow for a smooth transition away from petroleum dependence in the transportation sector. The areas of influence include legislative direction, fuel efficiency and fuel substitution.

AB 1007 State Alternative Fuels Plans

AB 1007 (Chapter 371, Statutes 2005) required the CEC to prepare a State plan to increase the use of alternative fuels in California. The CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other State, federal, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative, nonpetroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-State production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-State production of biofuels without causing a significant degradation of public health and environmental quality.

Executive Order S-06-06, Bioenergy Action Plan

EO S-06-06, adopted April 25, 2006, establishes targets for the use and production of biofuels and biopower, and directs State agencies to work together to advance biomass programs in California while

providing environmental protection and mitigation. The EO establishes the following target to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels in California by 2010, 40 percent by 2020 and 75 percent by 2050. EO S-06-06 also calls for the State to meet a target for use of biomass electricity.

The 2011 Bioenergy Action Plan identifies those barriers and recommends actions to address them so that the State can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan updates the 2011 Plan and provides a more detailed action plan to achieve the following goals.

- Increase environmentally and economically sustainable energy production from organic waste.
- Encourage development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable fuels for transportation and fuel cell applications.
- Create jobs and stimulate economic development, especially in rural regions of the State.
- Reduce fire danger, improve air and water quality, and reduce waste.

Regional Regulations

Peninsula Clean Energy Strategic Integrated Resource Plan

The Peninsula Clean Energy (PCE) Strategic Integrated Resource Plan (IRP) provides guidance for serving the electric needs of the residents and businesses in San Mateo County while meeting PCE's policy objectives and regulatory requirements over a 10-year planning period from 2018-2027. This Strategic IRP addresses how PCE will meet the following targets by managing a portfolio of energy and capacity resources to:

- Meet California's Renewable Portfolio Standards (RPS) requirements of 50 percent of retail electricity sales to come from renewable energy sources by 2030.
- Provide the necessary capacity reserves to meet California's Resource Adequacy (RA) regulatory requirements for load-serving entities.
- Maintain a minimum renewable energy content of 50 percent for its ECOplus product, and 100 percent for its ECO100 product, while working towards a goal of increasing PCE's renewable content to 100 percent renewable energy for all PCE customers by 2025.
- Meet its GHG-free target of 85 percent for 2018, and increase its GHG-free energy by 5 percent per year to 100 percent GHG-free in 2021. (This target was met in 2021 based on PCE's most recent two-year report to California Public Utilities Commission [CPUC]).[4]

[4] Peninsula Clean Energy, November 1, 2022, *Standard Load Serving Entity (LSE) Plan*, accessed March 12, 2024, https://www.peninsulacleanenergy.com/wp-content/uploads/2022/10/Attachment-A-pcea_public_v1.pdf.

San Mateo County's Alternative Fuel Readiness Plan

The Alternative Fuel Readiness Plan (AFRP) for San Mateo County provides a resource regarding the increased use and incorporation of alternative fuel vehicles and alternative fuel infrastructure in communities within San Mateo County. This AFRP provides an overview of each alternative fuel in the marketplace and presents the motivations for having an AFRP, including existing legislation and incentives, environmental benefits, and economic factors.

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to energy that are relevant to the proposed project are found in the Circulation and Conservation Elements and are listed in Table 4.5-1, *City of Belmont 2035 General Plan Policies Relevant to Energy.*

TABLE 4.5-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO ENERGY

Policy Number	Policy Text
Chapter 3, Circulation Element	
Policy 3.2-1	Promote energy efficiency and accommodate new and improved technology, such as alternative fuel vehicles, in meeting transportation needs.
Policy 3.2-2	Look for ways to partner with ride-sharing services as a means to reduce single-occupancy vehicle trips, reduce the need for car ownership, and cover service gaps in the public transportation system.
Policy 3.2-3	Maintain and expand transit and active transportation networks that connect neighborhoods with key destinations to encourage travel by non-automobile modes while also improving public health.
Policy 3.2-4	Support thoughtful and appropriate land use locations and densities with development or redevelopment in Belmont that promote alternatives to travel via single-occupant vehicles.
Policy 3.2-5	Comply with the adopted Complete Streets Policy of the City of Belmont.
Policy 3.6-1	Encourage the use of park-and-ride and shuttle services.
Policy 3.6-2	Encourage (or require, for large employment centers with high projected trip generate rates) businesses to implement Transportation Demand Management Programs with an emphasis on connecting and sharing the service with other businesses in the City and region, such as commuter buses, carpools, and other forms of private transit, especially in conjunction with major new industrial or commercial development.
Policy 3.6-3	Ensure that major new development is adequately served by transit.
Policy 3.7-1	Ensure that adequate transit service facilities are provided in Belmont, including bus turn-outs along arterials when needed, and bus stop amenities including, but not limited to, lighted shelters, benches, and route information signs.
Policy 3.7-4	Design streets and rights-of-way to accommodate and support safe and efficient bus operations.
Chapter 5, Conservation Element	
Policy 5.11-1	Adopt a Climate Action Plan that incorporates a Greenhouse Gas Emissions Reduction Plan, which quantifies current and anticipated future emissions and focuses on feasible actions the City can take to minimize the adverse impacts of General Plan implementation on climate change and air quality.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to energy. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to energy are included in Chapter 7, *Buildings*. Chapter 7, Article XV, *Green Building Requirements,* outlines the compliance thresholds for green building requirements. The green building practices referenced in this chapter are intended to increase energy efficiency and lower energy usage, among other goals. Ordinances relevant to the proposed project's energy use are listed below.

- Chapter 7, Article IV, Division 8, *Solar Permit Streamlining*, this division provides an expedited, streamlined solar permitting process.
- Chapter 7, Article IV, Division 10, *Green Building Standards Code*, adopts the 2022 California Green Building Standards (CALGreen), and is referred to as the Green Building Standards Code of the City of Belmont, California. Within this code, certain regulations are outlined about electric vehicle (EV) charging and how EV supply equipment shall be installed in accordance with the California Electrical Code. Additionally, this code outlines the amount of parking spaces that should have EV charging stations with Level 2 EV Ready.
- Chapter 7, Article IV, Division 10, Section 7-98.4.106.5.1, *New construction and qualifying alteration projects*, stipulates that all newly constructed buildings shall be *all-electric buildings*. Alterations that include replacement of over 50 percent of the existing foundation for purposes other than a repair or reinforcement, or where over 50 percent of the existing framing above the sill plate is removed or replaced for purposes other than repair, shall be *all-electric buildings*. Exceptions to this code include:
  - Multifamily residential building projects that have approved entitlements before the effective date of this section may install fuel gas for water heating systems serving multiple dwelling units. The applicant shall comply with BCC Section 4.106.5.2.
  - If the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the California Building Energy Efficiency Standards, and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Efficiency Standards using commercially available technology and an approved calculation method, then the local enforcing agency may grant a modification. The applicant shall comply with BCC Section 4.106.5.2.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.5.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard

conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

City of Belmont Climate Action Plan

The City's Climate Action Plan (CAP) is a blueprint for the community's response to the challenges posed by climate change. The CAP is designed to reduce GHG emissions and create new City programs and services that support the community in doing the same. The CAP offers ways to make homes more energy-efficient, increase locally produced renewable energy, promote smart development patterns that emphasize complete neighborhoods and alternate modes of transportation, reduce waste heading to landfills, and make the municipal government an efficient and resource-conservation-minded organization. The CAP was developed in collaboration with the City/County Association of Governments of San Mateo.

The CAP has several City initiatives to promote energy efficiency, water efficiency, and installation of renewable energy technologies. The City shall adopt the CALGreen codes triennially, which would promote energy efficiency and water conservation measures in new development. Additionally, the City will encourage commercial and residential energy efficiency by providing energy audits and upgrades as implemented by Energy Upgrade San Mateo County, San Mateo County Energy Watch, and PG&E. Belmont will also promote renewable energy by assessing its current solar permitting, planning and zoning, and financing mechanisms and bringing them in line with the requirements of AB 2188 or relevant legislation as adopted.

4.5.1.2 EXISTING CONDITIONS

Electricity and Natural Gas

Electricity is quantified using kilowatts (kW) and kilowatt-hours (kWh), and natural gas is measured in therms. A therm is a measurement of the amount of heat energy in natural gas, equal to 100,000 British thermal units (BTUs). The volumetric billing unit used for natural gas delivered to customers is typically expressed in hundreds of cubic feet (Ccf)—approximately 0.01 therm per Ccf—or thousands of cubic feet (Mcf)—approximately 10.37 therms per Mcf.[5] A kW is a measure of 1,000 watts of electrical power and a kWh is a measure of electrical energy equivalent to a power consumption of 1,000 watts for one hour. The kWh is commonly used as a billing unit for energy delivered to consumers by electric utilities. According to the CEC's "Tracking Progress" regarding statewide energy demand, total electric energy usage in California was 287,826 gigawatt hours in 2022.[6] A gigawatt is equal to one million kilowatts.

[5] United States Energy Information Administration, 2023, Frequently Asked Questions (FAQs), https://www.eia.gov/tools/faqs/faq.php?id=45&t=7, accessed March 12, 2024.

[6] California Energy Commission, Electricity Consumption by Planning Area, http://www.ecdms.energy.ca.gov/elecbyplan.aspx, accessed March 12, 2024.

Energy Providers

Two energy providers, PCE and Pacific Gas & Electric (PG&E), serve end users in the City of Belmont, as described below.

Peninsula Clean Energy

PCE was created as a Community Choice Aggregation (CCA) program by San Mateo County in 2016 and all of its cities and town and was joined by the City of Los Banos in 2020.[7] PCE aims to provide electricity that is 100 percent renewable or carbon-free by 2025. PCE provides two different production options for electricity: ECOplus and ECO100.

Sources of electricity sold by PCE under the ECOplus plan in 2023, the latest year for which data are available, were:[8]

- 52.3 percent renewable, consisting mostly of solar and wind.
- 47.7 percent large hydroelectric.

Customers are automatically enrolled in ECOplus but have the option of opting up to ECO100, which provides 100 percent renewable and carbon-free electricity.[9] Conversely, customers have the option to opt out of PCE renewable energy sources and receive their energy service from PG&E. PG&E is responsible for maintaining transmission lines, handling customer billing, and responding to new service requests and emergencies within the PCE service area.

Pacific Gas and Electric Company

Electricity

PG&E is a publicly traded utility company which generates, purchases, and transmits energy and natural gas under contract with CPUC. PG&E's service territory is 70,000 square miles, roughly extending north to Eureka, south to Bakersfield, west to the Pacific Ocean, and east to the Sierra Nevada mountain range. PG&E's electricity distribution system consists of 106,681 circuit-miles of electric distribution lines and 18,466 circuit-miles of interconnected transmission lines.[10] PG&E owns and maintains above-ground networks of electric transmission and distribution facilities throughout the city.

PG&E electricity is generated by a combination of sources such as coal-fired power plants, nuclear power plants, and hydroelectric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants, also known as solar farms. The bulk electric grid (collectively referred to as "the grid") is a network of high-voltage transmission lines linked to power plants within the PG&E system. The distribution system, consisting of lower voltage secondary lines, is at the street and neighborhood level,

[7] Peninsula Clean Energy, Background, https://www.peninsulacleanenergy.com/background/, accessed March 12, 2024.
[8] Peninsula Clean Energy, Energy Mix, https://www.peninsulacleanenergy.com/power-mix/, accessed March 12, 2024.
[9] Peninsula Clean Energy, Energy Choices, https://www.peninsulacleanenergy.com/energy-choices/, accessed March 12, 2024.
[10] Pacific Gas and Electric Company, 2024, Company profile, https://www.pge.com/en_US/about-pge/company-information/profile/profile.page, accessed March 12, 2024.

and consists of overhead or underground distribution lines, transformers, and individual service "drops" that connect to the individual customer.

Natural Gas

PG&E gas transmission pipeline systems serve approximately 4.5 million gas customers in northern and central California.[11] The system is operated under an inspection and monitoring program. The system operates in real time on a 24-hour basis, and includes leak inspections, surveys, and patrols of the pipelines. PG&E also adopted the Pipeline 2020 program, which aims to modernize critical pipeline infrastructure, expand the use of automatic or remotely operated shut-off valves, catalyze development of next-generation inspection technologies, develop industry-leading best practices, and enhance public safety partnerships with local communities, public officials, and first responders. Total natural gas consumption in PG&E's service area was 442,163,006,000 kilo-BTU (KBTU) for 2022.[12]

In 2022, approximately 38 percent of PG&E's energy generated came from renewable resources including biopower, geothermal, small hydroelectric, solar, and wind power. PG&E's portfolio consisted of 49 percent nuclear generation, 8 percent large hydroelectric facilities, and 5 percent natural gas.[13]

PG&E and PCE together provide electrical services to users in the City of Belmont. PG&E is the sole provider for natural gas services in the city. PG&E provides distribution of electrical services in the city, while PCE provides the electrical commodity. PCE works in conjunction with PG&E to provide electricity to consumers through the use of PG&E's distribution infrastructure and network. Both utilities are regulated by CPUC.

Fuel Consumption

California is one of the top producers of petroleum in the nation, with drilling operations throughout the state. A network of crude oil pipelines connects production areas to oil refineries in the Los Angeles area, the San Francisco Bay Area, and the Central Valley. California oil refineries also process Alaskan and foreign crude oil received in ports in Los Angeles, Long Beach, and the San Francisco Bay Area. Crude oil production in California and Alaska is in decline, and California refineries have become increasingly dependent on foreign imports.[14] Since 2012, foreign supplies, led by Saudi Arabia through 2019, Ecuador

[11] Pacific Gas and Electric Company, 2024, Company profile, https://www.pge.com/en_US/about-pge/company-information/profile/profile.page, accessed March 12, 2024.

[12] California Energy Commission, Gas Consumption by Entity, https://ecdms.energy.ca.gov/gasbyutil.aspx., accessed March 12, 2024.

[13] Pacific Gas & Electric Company, 2024, Clean Energy Solutions, https://www.pge.com/en/about/corporate-responsibility-and-sustainability/taking-responsibility/clean-energy-solutions.html#:~:text=The%20power%20mix%20delivered%20to,Large%20hydroelectric%20facilities%20(8%25), accessed March 12, 2024.

[14] California Energy Commission, Annual Oil Supply Sources to California Refineries, https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/, accessed January 8, 2024. annual-oil-supply-sources-California.

in 2020 and 2021, and Iraq in 2022, provide over half of the crude oil refined in California[15]. According to the United States Energy Information Administration, California's field production of crude oil has steadily declined since the mid-1980s, totaling approximately 125 million barrels in 2022.[16]

According to the Energy Information Administration, transportation accounted for nearly 38 percent of California's total energy demand in 2021, the latest year of available information, amounting to approximately 2,785 trillion BTUs.[17]

4.5.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant energy impact if it would:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
3. In combination with past, present, and reasonably foreseeable projects, result in cumulative energy impacts in the area.

4.5.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University (NDNU) was at full capacity. The following operational analysis is based on occupancy and therefore utilizes information gathered in 2013, while the following construction analysis is based on the built environment and utilizes information gathered in 2023.

[15] California Energy Commission, Foreign Sources of Crude Oil Imports to California, https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/, accessed January 8, 2024. foreign-sources-crude-oil-imports.

[16] United States Energy Information Administration, December 29, 2023, Petroleum and Other Liquids, Crude Oil Production, https://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbbl_a.htm.

[17] United States Energy Information Administration, California State Energy Profile, https://www.eia.gov/state/print.php?sid=CA, accessed January 8, 2024.

ENE-1	The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Appendix F of the California Environmental Quality Act (CEQA) Guidelines identifies factors relating to whether a project would result in the wasteful, inefficient, or unnecessary consumption of fuel or energy, and conversely whether the project would fail to incorporate renewable energy or energy efficiency measures into building design, equipment uses, transportation or other project features. The Appendix F factors are addressed below and used as guidance to evaluate the energy impact of the proposed project relative to the identified significance criteria.

Construction

During the proposed project's construction period, there would be a temporary increase in energy consumption due to the transportation of construction materials, site preparation, demolition, and building foundation, as well as the construction of the proposed buildings. This increase in energy consumption would be small compared to the energy used by the operations of the proposed project during its useful life. To assess the potential energy-related impacts of the proposed project, the estimated fuel use during the construction phase is summarized in Table 4.5-2, *Summary of Construction Energy Consumption*.

TABLE 4.5-2 SUMMARY OF CONSTRUCTION ENERGY CONSUMPTION

Source [a]	Gasoline Usage (gal)	Conventional Diesel Usage (gal)	Renewable Diesel Usage (gal)
Off-Road Construction Equipment [b]	NA	NA	118,116
On-Road Construction Trips	100,820	147,509	NA
Total	100,820	147,509	118,116

Notes: gal = gallons.
a. See Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR for on-road and off-road fuel usage calculations.
b. Diesel used by off-road construction equipment is renewable diesel.
Source: Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR.

Detailed off- and on-road fuel consumption by construction vehicle fuel use during proposed project construction is summarized in Appendix C, *Air Quality, Energy, and Greenhouse Gas Emissions*, of this Draft EIR. This analysis conservatively assumes all worker vehicles would consume gasoline and all vendor and haul trucks would consume diesel, whereas, in reality, some of the construction vehicles are likely powered by electricity or use a hybrid of fossil fuels and electricity. This proposed project will use renewable diesel in all on-site construction equipment.

It is important to note that the energy consumption during construction will vary depending on factors such as the duration of the construction period, specific construction operations, equipment types, and number of workers. However, it is anticipated that fuel conservation would be prioritized during construction, as higher-tier engines (and thus newer models) will be used during proposed project construction. In addition, construction contractors have a financial disincentive to waste fuel used by the construction equipment (i.e., excess fuel usage reduces profits).

Potential future development under the proposed project would be required to implement the City's following standard condition to reduce the use of diesel fuel and idling time:

> The applicant must require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by implementing following measures during construction related activities:
>
> a) Idling times must be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage must be provided for construction workers at all access points.
>
> b) All construction equipment must be maintained and properly tuned in accordance with manufacturer's specifications. All equipment must be checked by a certified mechanic and determined to be running in proper condition prior to operation.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

The demand for diesel and gasoline during project construction is expected to be minimal. As shown in Table 4.5-2, *Summary of Construction Energy Consumption*, the demand for gasoline during the entire construction period is estimated to be 100.8 thousand gallons. The demand for conventional diesel and renewable diesel is estimated to be 147.5 thousand gallons and 118.1 thousand gallons, respectively. These amounts represent about 0.02 percent and less than 0.002 percent of the Northern California region's 2022 annual average diesel and gasoline production throughput.[18] Therefore, the impact of the proposed project construction on local and regional fuel supplies would be temporary and minimal and would not require an increase in fuel production capacity. Additionally, the proposed project is not expected to cause any significant disruptions in local fuel supplies, nor will it require additional capacity to be constructed. Overall, the proposed project's energy impact during construction would be less than significant.

Operation

As discussed above, the proposed project would result in the consumption of electricity, natural gas, gasoline, and diesel associated with mobile vehicle sources, building and landscaping energy uses, and construction activities. Table 4.5-3, *Summary of Operational Energy Use,* summarize annual energy and water consumption by the proposed project's operational activities.

[18] California Energy Commission, 2023, Refinery Inputs and Production, https://www.energy.ca.gov/media/6522 , accessed March 20, 2023.

TABLE 4.5-3 SUMMARY OF OPERATIONAL ENERGY USE

Operational Energy Use	Electricity (MWh)	Natural Gas (MMBTu)	Gasoline (gal)	Diesel (gal)
		Existing Conditions		
Landscaping Equipment [a]	NA	NA	382	NA
Building Energy Use [b]	1,771	16,409	NA	NA
Water Energy Use [c]	287	NA	NA	NA
Mobile Energy Use [d]	243	220	243,761	29,222
Total	**2,301**	**16,628**	**244,143**	**29,222**
		Full Buildout Conditions		
Landscaping Equipment [a]	NA	NA	1,310	NA
Building Energy Use [b]	7,971	NA	NA	NA
Water Energy Use [c]	272	NA	NA	NA
Mobile Energy Use [d]	540	323	365,536	41,327
Total	**8,783**	**323**	**366,846**	**41,327**
		Net Operational Energy Use [e]		
Landscaping Equipment [a]	NA	NA	928	NA
Building Energy Use [b]	6,201	-16,409	NA	NA
Water Energy Use [c]	-16	NA	NA	NA
Mobile Energy Use [d]	297	103	121,775	12,105
Total	**6,482**	**-16,305**	**122,703**	**12,105**

Notes: gal = gallons, kWh = kilowatt-hour, Mgal = million gallons, MMBtu = Metric Million British Thermal Units, MWh = Megawatt-hour, yr = year.
a. Landscaping equipment fuel use is detailed in Appendix C of this Draft EIR.
b. Building energy use for existing conditions and proposed project operations is detailed in Appendix C of this Draft EIR.
c. Energy use from water for both the existing conditions and project operations were calculated using the Electricity Intensity Factors (kWh/Mgal) from CalEEMod and water usage (gallons/yr) from the project applicant.
d. Mobile energy use calculations are summarized in Appendix C of this Draft EIR.
e. Net operational energy use is calculated as proposed project energy use minus existing conditions' energy use.
Source: Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR.

The default energy consumption from CalEEMod was adjusted to reflect an increase in electricity consumption consistent with the methodology presented in the Sacramento Air Quality Management District GHG Thresholds development. Methodology from Sacramento Air Quality Management District (rather than from BAAQMD) was used because currently BAAQMD does not have guidance to account for an increase in electricity use to replace natural gas appliances and the Sacramento region is the one geographically closest to the SFBAAB with this guidance. Additionally, the proposed buildings would be all-electric, with no natural gas hook-ups known at this time. Natural gas hook-ups may be necessary for laboratory uses associated with proposed academic uses; however, the design and energy needs of future laboratory uses are currently unknown, and it would be speculative to quantify the natural gas consumption associated with these future potential uses. The new buildings would be designed to be more energy efficient compared to the existing school buildings, and greater proportions of electricity consumed by the proposed building would be sourced from renewable energy sources as the State progresses toward meeting SB 100. As such, the proposed project is anticipated to decrease reliance on fossil fuels from implementation of greater energy efficiencies in building design and materials.

Operational mobile source fuel use was estimated based on the proposed project's unmitigated VMT and the fleet-average fuel efficiency (in gallons per mile or kilowatts per mile) from EMFAC2021 for San Mateo County. Because the proposed project would provide EV charging stations for project users, actual EV penetration in the proposed project's fleet is likely to be higher than EMFAC defaults, which would increase electricity consumption and decrease fossil fuel consumption relative to what is presented.

Energy Impacts

Energy Requirements and Energy Use Efficiencies

CEQA Guidelines Appendix F, Section II.C.1, includes the following impact guidance factor:

> The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate the energy intensiveness of materials may be discussed.

The energy estimates in this evaluation include electricity and fossil fuels used for construction and operation of the proposed project. These energy use requirements were included in Table 4.5-2 and Table 4.5-3.

Local and Regional Energy Supplies

CEQA Guidelines Appendix F, Section II.C.2, includes the following impact guidance factor:

> The effects of the project on local and regional energy supplies and on requirements for additional capacity.

As discussed above, the proposed project would result in the consumption of electricity, natural gas, gasoline, and diesel associated with mobile vehicle sources, building and landscaping energy uses, and construction activities. The project's electricity would be sourced by PCE and delivered to the site through the distribution system of PG&E's. PCE is a Community Choice Aggregation program to provide San Mateo County with electricity from clean energy sources. PCE has established contracts and commitments to ensure there is adequate electricity generation to meet its current and future energy loads.

The proposed project could include natural gas associated with the proposed laboratory operations; however, the quantity and extent is currently unknown. Other types of fossil fuels consumed during project operations would be diesel fuel used by on-road vehicles and gasoline fuel used by on-road vehicles and landscaping equipment. Based on annual consumption of diesel and gasoline summarized in Table 4.5-3, during the first year of full-buildout operations, the proposed project would consume less than 0.2 percent of the county's gasoline consumption volume and less than 0.2 percent of the county's diesel consumption.[19] Presently, California's fossil fuel refining industry has the capacity to produce

[19] County of San Mateo, updated March 2, 2016, San Mateo County Vehicles Miles Traveled (VMT) and Fuel Consumption 2005-2010, https://datahub.smcgov.org/Environment/San-Mateo-County-Vehicle-Miles-Traveled-VMT-and-Fu/sfpq-cg3g., accessed May 19, 2023.

gasoline and diesel fuel in sufficient quantities to meet consumer demand that's anticipated to have seasonal variations and elasticity due to economic conditions. For example, Northern California was a net exporter of gasoline and diesel product from 2007 to 2016, demonstrating that refineries in this region have the capacity to meet increases in demand.[20] In addition, the distribution and delivery infrastructure of transportation fuel has improved in the past and is not expected to be a hindrance to small increases in fuel demand, temporary or permanent. For example, the estimated number of retail fuel stations in San Mateo County remained relatively stable from 2010 to 2015.[21] In future years, as the on-road fleet becomes more electrified and as a larger fraction of the fleet uses alternative fuels, this demand for fossil fuel is anticipated to decrease,[22] and electricity consumption is anticipated to increase.

As shown in Table 4.5-3, the majority of the electricity consumption during project operations would be from building electricity use and mobile sources. The region's building and transportation sectors are expected to have increases in demand for electricity as a result of the building decarbonization and transportation electrification trends. At a State level, the CEC reviews the integrated resources plans required by SB 350 that guide load-serving entities, such as community choice aggregators, to meet demand reliably and cost-effectively while meeting state policy goals and mandates.[23] The PCE's existing and planned supply commitment will enable PCE to fulfill its clean electricity procurement goals. Possible programs that would be implemented by PCE include energy storage, electric vehicle programs, and demand response.[24] In addition, San Mateo County prepared the AFRP in 2022 that serves as guidance to public agencies, private companies, and individuals for incorporation of alternative fuel vehicles and the associated infrastructure. Cities are expected to implement measures recommended in this Plan in anticipation of increase infrastructure demand on different levels of electric vehicle chargers, vehicular natural gas consumption, and renewable diesel by 2030.[25]

Peak and Base Period Demands

CEQA Guidelines Appendix F, Section II.C.3, includes the following impact guidance factor:

> The effects of the project on peak and base period demands for electricity and other forms of energy.

Peak period electrical demand is the short period of time during which electrical power is needed when electricity is in highest demand. Base period electrical load is the minimum amount of electrical demand needed over a 24-hour time period. Wasteful, inefficient, or unnecessary consumption or use of energy during the peak period of electrical demand has greater potential to cause adverse environmental effects compared to during the base period because of the higher demand during the peak period. The proposed

[20] California Energy Commission, September 2017, Transportation Fuel Supply Outlook, Publication Number: CEC-200-2017-008-SF.

[21] California Energy Commission, September 2017, Transportation Fuel Supply Outlook, Publication Number: CEC-200-2017-008-SF.

[22] City/County Association of Governments of San Mateo County & Life Cycle Associates, LLC, January 2022, Alternative Fuel Readiness Plan for San Mateo County, Publication Number: CEC-600-2022-009.

[23] California Energy Commission, November 2023, 2023 Integrated Energy Policy Report.

[24] Peninsula Clean Energy, December 2017, 2018 Integrated Resource Plan.

[25] City/County Association of Governments of San Mateo County & Life Cycle Associates, LLC, January 2022, Alternative Fuel Readiness Plan for San Mateo County, Publication Number: CEC-600-2022-009.

project would not have a substantial impact on the peak and base period demands for electricity or other forms of energy.

In 2021, California's peak grid demand was 43,982 MW. On that same peak day, PG&E reached a maximum demand of 20,118 MW.[26] In comparison, the proposed project's annual electricity usage rate of approximately 8,851 MWh corresponds to average hourly electricity demand of approximately 1 MW (assuming the project would operate every day throughout the year). The maximum peak demand is anticipated to be no more than twice the hourly average usage, corresponding to 2 MW.[27] The proposed project's peak demand would represent less than 0.01 percent of PG&E's peak demand. As mentioned above, PCE is the local CCA program. PCE is required to comply with the CPUC's RA program. Implementation of the RA program ensures that there is enough generation on the grid to ensure sufficient generating capacity and additional "reserve" capacity, as well as the availability of fast response generation sources to address resource intermittency.[28] With proper planning of the power generation inventory, including what's required of the RA program, the proposed project would have a negligible effect on the grid-wide peak demand. This also conservatively excludes improvements in demand response due to future updates to the Title 24 energy standards. These future updates would further reduce peak demand through performance standards that are based on the time dependent valuation of energy, which uses the value of the electricity or natural gas used during every hour of the year to incentivize load shifting from peak use periods. The proposed project would not result in energy demand substantially affecting local and regional energy supplies and capacity.

Existing Energy Standards

CEQA Guidelines Appendix F, Section II.C.4, includes the following impact guidance factor:

> The degree to which the project complies with existing energy standards.

The proposed project would comply with existing energy standards and would not conflict with or obstruct the State and local plans for renewable energy or energy efficiency. Potential future development under the proposed project would be required to implement the City's following standard conditions to minimize the use of fuel during construction:

- The applicant must require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by implementing following measures during construction related activities:
  a) Idling times must be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage must be provided for construction workers at all access points.

[26] California Independent System Operator, March 17, 2022, *2021-2022 Transmission Plan*, http://www.caiso.com/Documents/ISOBoardApproved-2021-2022TransmissionPlan.pdf, accessed May 2023.

[27] Since the peak energy demand for the Proposed Project was not available, Ramboll used a factor of 2 to estimate the peak demand based on historic CAISO peak-to-average demand ratio. Peak-to-average electricity demand ratio rising in California. https://www.eia.gov/todayinenergy/detail.php?id=15051#tabs_SpotPriceSlider-7, accessed May 2023.

[28] Peninsula Clean Energy, December 2017, 2018 Integrated Resource Plan.

b) All construction equipment must be maintained and properly tuned in accordance with manufacturer's specifications. All equipment must be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- The owner/applicant must submit a dust control plan for approval by the Department of Public Works. To reduce dust levels, exposed earth surfaces shall be watered as necessary. The application of water must be monitored to prevent runoff into the storm drain system. Spillage resulting from hauling operations along or across any public or private property shall be removed immediately. Dust nuisances originating from the contractor's operations, either inside or outside of the right-of-way must be controlled. The measures must also include:

  a) Water all active construction sites at least twice daily.

  b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.

  c) Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.

  d) Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. All sidewalks shall be kept clear of dust and debris unless the sidewalk is closed as part of a City approved traffic control plan.

  e) Sweep streets daily along the haul route (with water sweepers) if visible soil material is carried onto adjacent public streets.

  f) Entry and exit from the site will use rock or rumble strips to prevent tracking.

  g) Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).

  h) Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiled materials.

  i) Install sandbags or other erosion-control measures to prevent silt runoff to public roadways.

  j) Replant vegetation in disturbed areas as quickly as possible.

  k) Watering should be used to control dust generation during the break-up of pavement.

  l) Cover all trucks hauling demolition debris from the site.

  m) Use dust-proof chutes to load debris into trucks whenever feasible.

  n) Water or cover stockpiles of debris, soil, sand or other materials that can be blown by the wind.

  o) All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be in proper running order prior to operation.

  p) Diesel powered equipment shall not be left inactive and idling for more than five minutes, and shall comply with applicable BAAQMD rules.

  q) Use alternative fueled construction equipment, if possible.

r) All vehicle speeds on unpaved roads shall be limited to 15 mph.

s) Post a visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 24 hours. The Air District phone number shall also be visible to ensure compliance with applicable regulations.

As noted above, a Dust Control Plan would include limiting equipment idling that would reduce fuel consumption and regular water use to control fugitive dust that would consume additional energy for water treatment and transport. Dust control plans can also include provisions for reducing vehicle speeds, which can improve fuel efficiency of vehicles and encourage the use of alternative energy sources, such as electricity in hybrid vehicles.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Operations of the proposed project would comply with existing building energy efficiency standards and maintain flexible and reliable water supply for deliveries to treatment plants, managed groundwater recharge, and maintenance of a local source of emergency water supply. Operation and maintenance activities would also comply with the State's RPS and other energy and natural resources measures. Therefore, construction and operation of the proposed project would be consistent with the State and local plans for renewable energy and energy efficiency.

Energy Resources

CEQA Guidelines Appendix F, Section II.C.5, includes the following impact guidance factor:

The effects of the project on energy resources.

As discussed above, the proposed project's energy use would be primarily associated with construction activities, vehicle travel, and building operations. The proposed project would rely on existing infrastructure for generation and distribution of electricity and fossil fuels. Despite an increase in total VMT due to proposed project operations, total gasoline and diesel fuel consumption are expected to decrease over time due to the use of vehicles that meet increasingly stringent fuel efficiency standards. The construction of new buildings that comply with the stringent current Title 24 Energy Efficiency Standards, CALGreen, and appliance efficiency standards, would result in high energy efficiency relative to existing buildings in the region. The proposed project's use of energy would not have a substantial adverse effect on statewide or regional energy resources relative to wasteful, inefficient, or unnecessary use of energy.

Transportation Energy Use

CEQA Guidelines Appendix F, Section II.C.6, includes the following impact guidance factor:

The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

The proposed project's transportation energy use requirements in terms of gasoline, diesel, natural gas, and electricity quantities for construction and operations can be found in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR. The proposed project's operational mobile sources would consume some natural gas, because EMFAC's default fleet mix for San Mateo County assumes a portion of buses and heavy trucks in the county are powered by natural gas combustion. SB 743 requires OPR to identify new metrics for identifying and mitigating transportation impacts within CEQA. OPR has identified net VMT as well as VMT per capita and per employee as metrics for land use project transportation analyses. The quantification of VMT associated with proposed project operations, which is used to quantify the total operational transportation-related energy use requirements, was provided by Fehr and Peers.[29]

Summary of Energy Impact Analysis

In conclusion, construction and operations of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy resources. Overall, it is expected that operation-related fuel usage associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than similar development projects. Accordingly, impacts would be *less than significant*, and no mitigation measures would be required.

Significance without Mitigation: Less than significant.

ENE-2 The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Appendix G of CEQA Guidelines requires a project to analyze whether it would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing environmental impacts related to energy. Several State plans as well as the City of Belmont General Plan include energy conservation and energy efficiency strategies intended to enable the State and the City to achieve GHG reduction and energy conservation goals. The proposed project is evaluated for consistency with the following plans, polices, and regulations specific to energy:

- 2023 Integrated Energy Policy Report
- AB 2076 Reducing Dependence on Petroleum
- AB 1007 State Alternative Fuels Plan
- EO S-06-06 Bioenergy Action Plan
- Peninsula Clean Energy's Strategic Integrated Resource Plan
- San Mateo County's Alternative Fuel Readiness Plan

[29] Fehr & Peers, July 24, 2023, Stanford Belmont Campus Transportation Impact Analysis (see Appendix J, *Transportation*, of this Draft EIR).

Table 4.5-4, *Proposed Project's Consistency with State's and City's Energy Plans*, summarizes the proposed project consistency with each plan, policy, and regulation.

TABLE 4.5-4 PROPOSED PROJECT'S CONSISTENCY WITH STATE'S AND CITY'S ENERGY PLANS

Renewable Energy or Energy Efficiency Plan	Applicability/Project Consistency
2023 Integrated Energy Policy Report. The 2023 report highlights the implementation of California's innovative policies and the role they have played in establishing a clean energy economy, as well as provides more detail on several key energy policies, including decarbonizing buildings, increasing energy efficiency savings, and integrating more renewable energy into the electricity system.	**Consistent.** The proposed project will facilitate decarbonization of buildings (removing GHG emissions from the building's energy use) by retrofitting and constructing buildings with no natural gas—except for laboratory uses as necessary—and increase energy efficiency through installation of high efficiency appliances, water heaters, and (heating, ventilation, and air conditioning) HVAC systems. Therefore, the proposed project will not conflict with or obstruct implementation of the 2023 Integrated Energy Policy.
AB 2076: Reducing Dependence on Petroleum. Pursuant to AB 2076, the CEC and CARB prepared and adopted a joint-agency report, Reducing California's Petroleum Dependence, in 2003. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT. One of the performance-based goals of AB 2076 is to reduce petroleum demand to 15 percent below 2003 demand.	**Consistent.** The proposed project features include a TDM program to reduce VMT by campus employees and students and the proposed project is committed to meeting CALGreen Tier 2 EV charging requirements which will promote EV use and reduce petroleum consumption for vehicles. Additionally, the proposed project is committed to non-petroleum fuel sources (renewable diesel) for all construction equipment. Therefore, the project will not conflict with or obstruct implementation of the AB 2076.
AB 1007: State Alternative Fuels Plan. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-State production of biofuels without causing a significant degradation of public health and environmental quality. **EO S-06-06: Bioenergy Action Plan**. The EO establishes the following targets to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels in California by 2010, 40 percent by 2020, and 75 percent by 2050.	**Consistent.** The proposed project will not interfere with or obstruct the production of biofuels in California. Vehicles used by future students and employees will be EVs or will be fueled by gasoline and diesel fuels blended with ethanol and biodiesel fuels as required by CARB regulations. Additionally, all construction equipment will be fueled by renewable diesel. Therefore, the proposed project will not conflict with or obstruct implementation of the SAF Plan or Bioenergy Action Plan.
Peninsula Clean Energy Strategic Integrated Resource Plan. PCE Strategic goals include designing a diverse power portfolio that is GHG free, strive to offer ECOplus at rates that meet or are lower than PG&E rates, stimulate development of new renewable energy projects and clean-tech innovation in San Mateo and California, demonstrate economic benefits to the County/region while prioritizing local hiring and workforce development, implement and invest in programs to further reduce GHG emissions, and maximize customer participation.	**Consistent.** The proposed project, located in San Mateo County, will either generate onsite electricity through solar or purchase electricity from PCE at ECOplus rates. Therefore, the proposed project will not conflict with or obstruct implementation of the PCE Strategic IRP.

TABLE 4.5-4 PROPOSED PROJECT'S CONSISTENCY WITH STATE'S AND CITY'S ENERGY PLANS

San Mateo County's Alternative Fuel Readiness Plan. The goal of AFRP is to stimulate and prepare San Mateo county for the transition from fossil fuels to alternative fuels.	**Consistent.** A portion of vehicles used by future students and employees will be EVs or will be fueled by gasoline and diesel fuels blended with ethanol and biodiesel fuels as required by CARB regulations. Additionally, all construction equipment will be fueled by renewable diesel. Therefore, the proposed project will not conflict with or obstruct implementation of the San Mateo AFRP.

Source: Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR.

As described in Table 4.5-4, the proposed project would not conflict with or obstruct an applicable plan for renewable or energy efficiency. Accordingly, impacts would be *less than significant*, and no mitigation measures would be required.

Significance without Mitigation: Less than significant.

ENE-3	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative energy impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, the cumulative energy impacts are considered in the context of the growth from the proposed project combined with the estimated growth in PG&E and PCE service areas. Using Appendix F of the CEQA Guidelines, the proposed project's energy requirement and energy use efficiencies would not substantially affect energy resources, supplies, and capacity, nor would they affect peak and base period demand of energy, including energy in the forms of electricity and transportation fuel use. The proposed project would be compliant with applicable energy standards, such as Title 24 and City of Belmont General Plan policies, to reduce energy consumption and promote renewable energy sources which align with the state's goals for carbon neutrality.

In conclusion, construction and operations of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy resources. The proposed project would be consistent with relevant state and local plans for renewable energy and energy efficiency. Overall, it is expected that operation-related fuel usage associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than similar development projects.

Furthermore, future development in the area would be subject to environmental review as applicable to mitigate any significant energy impacts. Cumulative development projects would be subject to Title 24 and General Plan regulations regarding energy efficiency. Accordingly, cumulative impacts would be *less than significant*, and impacts would not be cumulatively considerable.

Significance without Mitigation: Less than significant.

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4.6 GEOLOGY AND SOILS

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential impacts on geology and soils associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential impacts on geology and soils, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

The information and analysis in this chapter is based in part on the following technical studies:

- *Due Diligence Report: Geotechnical Feasibility*, prepared by Cornerstone Earth Group, dated February 26, 2021.
- *Preliminary Evaluation of Faulting: Cut Slope Logging,* prepared by Cornerstone Earth Group, dated February 7, 2022.

A complete copy of each of these reports is included in Appendix F, *Geology and Soils Data*, of this Draft EIR.

4.6.1 ENVIRONMENTAL SETTING

4.6.1.1 REGULATORY FRAMEWORK

Federal Regulations

The federal Paleontological Resources Preservation Act of 2002 limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained a permit from the appropriate state or federal agency. Additionally, it specifies these researchers must agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers. This act incorporates key findings of a report, *Fossils on Federal Land and Indian Lands*, issued by the Secretary of the Interior in 2000, that establishes that most vertebrate fossils and some invertebrate and plant fossils are considered rare resources.[1]

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface fault rupture to structures used for human occupancy.[2] The main purpose of the act is to prevent the construction of buildings used for human occupancy on top of active faults. This act only addresses the

[1] United States Department of the Interior, May 2000, *Fossils on Federal & Indian Lands, Report of the Secretary of the Interior*, accessed April 11, 2024, https://www.blm.gov/sites/blm.gov/files/programs_paleontology_quick%20links_Assessment%20of%20Fossil%20Management%20on%20Federal%20%26%20Indian%20Lands%2C%20May%202000.pdf.

[2] California Department of Conservation, 2019, Alquist-Priolo Earthquake Fault Zoning Act, accessed September 30, 2022, https://www.conservation.ca.gov/cgs/alquist-priolo.

hazard of surface fault rupture—not other earthquake hazards such as earthquake-induced liquefaction or landslides. The act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around surface traces of active faults and to issue appropriate maps. The maps, which are developed using existing United States Geological Survey's 7.5-minute quadrangle map bases, are then distributed to all affected cities, counties, and State agencies for their use in planning and controlling new or renewed construction. Generally, construction within 50 feet of an active fault zone is prohibited.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, which was passed in 1990, addresses seismic hazards such as liquefaction and seismically induced landslides.[3] Under this act, seismic hazard zones are mapped by the State Geologist to assist local governments in land use planning. Section 2691(c) of this act states that "it is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety." Section 2697(a) of the act states that "cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard."

California Building Code

The State of California provides a minimum standard for building design through Title 24, Part 2, of the California Code of Regulations (CCR), commonly referred to as the "California Building Code" (CBC). The CBC is updated every three years and, once adopted, automatically applies to all occupancies throughout the state.[4] Local jurisdictions may adopt ordinances that include building standards which are more restrictive than the CBC based on local climatic, geological, or topographical conditions.[5] These codes provide minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. They also regulate grading activities, including drainage and erosion control.

California Environmental Quality Act

Paleontological resources are afforded protection under the California Environmental Quality Act (CEQA). The Society of Vertebrate Paleontology has set significance criteria for paleontological resources.[6] Most practicing professional vertebrate paleontologists adhere closely to the Society of Vertebrate Paleontology's assessment, mitigation, and monitoring requirements as specifically provided in its

[3] California Department of Conservation, 2019, Seismic Hazards Mapping Act, accessed September 30, 2022, https://www.conservation.ca.gov/cgs/hazards/seismic-hazards-mapping-act.

[4] California Health and Safety Code Section 18938.

[5] California Building Standards Commission, July 2022, Guide to Title 24, https://www.dgs.ca.gov/-/media/Divisions/BSC/05-Resources/Guidebooks/2022-Guide-toTitle-24-06-28-22-Final.pdf, accessed on July 29, 2024.

[6] Society of Vertebrate Paleontology, 2010, *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*, accessed September 30, 2022, https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf.

standard guidelines. Most State regulatory agencies with paleontological laws, ordinances, regulations, and standards accept and use the professional standards of the Society of Vertebrate Paleontology.

California Public Resources Code Section 5097

California Public Resources Code (PRC) Section 5097.5 prohibits the destruction or removal of any paleontological site or feature from public lands without the permission of the jurisdictional agency.

California Penal Code Section 622.5

The California Penal Code Section 622.5 details the penalties for damage or removal of paleontological resources, whether from private or public lands.

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to geology and soils that are relevant to the proposed project are found in the Circulation, Conservation, and Safety Elements and are listed in Table 4.6-1, *City of Belmont 2035 General Plan Policies Relevant to Geology and Soils.*

TABLE 4.6-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO GEOLOGY AND SOILS

Policy Number	Policy Text
Chapter 3, Circulation Element	
Policy 3.4-6	Locate, design, and landscape new roadways to preserve the beauty of the area, prevent erosion, and help shield residents from noise and air pollution. To the extent possible, retain trees and vegetative cover and minimize grading.
Chapter 5, Conservation Element	
Policy 5.2-1	Encourage the retention of areas that are hazardous to public safety and welfare as undeveloped open space, including steep hillsides unsuitable for development as identified in area plans and other detailed geotechnical studies; hydrological areas of concern; areas of geological instability; and appropriate setback areas on either side of known active fault traces.
Policy 5.5-3	Require development projects to incorporate structural and non-structural best management practices (BMPs) to mitigate or reduce the projected increases in pollutant loads, in accordance with the NPDES permit guidelines.
Policy 5.5-4	Ensure that the design and construction of new infrastructure elements does not contribute to stream bank or hillside erosion or creek or wetland siltation, and incorporates site design and source control BMPs, construction phase BMPs, and treatment control BMPs to minimize impacts to water quality.
Policy 5.12-1	Ensure that development avoids potential impacts to sites suspected of being archeologically, paleontologically, or culturally significant, tribal or otherwise, or of concern by requiring appropriate and feasible mitigation.
Policy 5.12-2	If cultural, archaeological, paleontological, or cultural resources, tribal or otherwise, are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected until evaluation by a qualified professional is completed. ▪ A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures or appropriate mitigation should be completed, according to CEQA Guidelines. ▪ Use the State Office of Historic Preservation's recommendations for the preparation of Archaeological Resource Management Reports as guidelines.

TABLE 4.6-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO GEOLOGY AND SOILS

Policy Number	Policy Text
Chapter 6, Safety Element	
Policy 6.1-1	Continue to maintain and enforce appropriate standards to ensure new development is designed to meet current safety codes and requirements associated with seismic activity. Require public and private development to be located, designed, and constructed to minimize the risk of loss of life and injury in the event of a major earthquake or other natural disaster.
Policy 6.1-2	Continue to regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards on sites having a history or threat of seismic dangers, erosion, landslides, or shrink swell.
Policy 6.1-3	Prohibit development in areas at risk of landslides or high or very high liquefaction as shown in Figure 6-1, or on slopes steeper than 30 percent, unless detailed site investigations by licensed engineers ensure that risks do not exist, or can be reduced to acceptable levels and the structure will be protected for its expected life.
Policy 6.1-4	Continue to require geotechnical site analysis for proposed development on sites as specified in the Municipal Code, prior to allowing site development.
Policy 6.1-5	Geotechnical studies shall identify any geologic hazards affecting the proposed project site, any necessary mitigation measures, and a statement of the site's suitability for the proposed development and whether or not it will be safe from geologic hazard for its expected life. The study shall identify net developable areas, if any, based on landslide or ground shaking potential or erosion risk. Impacts from the development, such as those resulting from increased water runoff, shall also be determined. Such studies must be signed by a licensed Certified Engineering Geologist or Geotechnical Engineer and are subject to review and approval by City staff and/or contracted employees.
Policy 6.1-6	Require any geotechnical studies to include the study of expansive and creeping soils, as well as analysis of erosion, seismic, and other geotechnical hazards, and make recommendations, as warranted.
Policy 6.1-8	Ensure consideration of seismic and geologic hazards at the earliest possible point in the development process, preferably before comprehensive engineering work has commenced.
Policy 6.1-9	Require real estate transactions, development approval processes, and property titles to declare known or suspected seismic or geologic hazards on a property, including areas suspected of high or very high risk of liquefaction, shrink swell, or landslide.
Policy 6.1-11	Support erosion prevention of hillside areas at risk of landslide, as identified in Figure 6-1 (from the Belmont Safety Element), by revegetation or other acceptable methods.
Policy 6.5-5	Require all new development to be connected to the City's sewer system.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to geology and soils. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to geology and soils are included in Chapter 7, *Buildings*, and Chapter 9, *Grading*.

- Chapter 7, Article IV, Division 1, *Building Code*, adopts the 2022 CBC with amendments and is referred to as the City of Belmont Building Code.
- Chapter 7, Article III, Section 7-12, *Determination of geotechnical hazards; geotechnical reports; procedure for review; geologic hazards in San Juan Hills area*, requires that geotechnical studies be completed prior to issuance of a building or grading permit for sites that are located in areas of potential seismic and geologic hazards, including sites at risk of expansive soils, moderate to low stability of cuts, fair to poor earthquake stability, fair to poor foundation conditions, and high

susceptibility to landsliding. Any required geotechnical reports are reviewed by the City's building official and the City's geologist prior to issuance of a building or grading permit.

- Chapter 9, *Grading*, requires that all applications for grading permits be reviewed by the director of public services who would then make the required findings, and approve, approve with conditions, or disapprove the application. Planning commission review of the grading plan and permit may be required where the proposed grading involves significant engineering or environmental issues as determined by the director of public services, or where specific criteria are met. Grading permits are required in instances where the combined volume of material excavated and filled will exceed 50 cubic yards; the depth of any cut or fill will exceed two feet at its deepest point measured from the natural ground; grading and/or vegetation removal will disturb an area of more than 2,000 square feet; or trenching, boring, or other excavation as part of a geologic or geotechnical investigation required by the city. Grading plans must include plans for erosion control during and after grading including planting, cribbing, terraces, sediment retention structures, and other such means of control, and the grading application should include specifications for revegetation of the graded area to control erosion and restore the appearance of the site.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.6.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

4.6.1.2 EXISTING CONDITIONS

Regional Geology

The project site is in San Mateo County, within the San Fransisco Peninsula. The San Francisco Peninsula lies at the northern end of the Santa Cruz Mountains within the Coast Ranges Geomorphic Province. The Santa Cruz Mountains are one of several coastal mountain ranges in California. The Coast Ranges are northwest-trending mountains ranging in elevation between 2,000 to occasionally 6,000 feet above sea level.[7] As shown on Figure 4.6-1, *Regional Geology*, the foothills within the western portion of the City of Belmont are underlain by bedrock units of the Franciscan Complex. Younger Quaternary colluvial deposits

[7] California Geological Survey, 2002, *Note 36: California Geomorphic Provinces*, https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf.

have accumulated on and at the base of slopes, and alluvial has accumulated within drainages that dissect the hillside terrain in the area.

Local Geology and Soils

Geologic Setting

As described in the Geotechnical Feasibility Study prepared by Cornerstone Earth Group, the project site is in an area that is underlain by an extensive surface outcrop of chert of the Franciscan Complex and transitions into colluvial deposits on the gentler slopes around the extensively developed portion of the campus in the western portion of the campus. Old alluvium is shown as underlying the largely flat areas beyond the west and south of the small seasonal creek that extends along the west property line. Chert is juxtaposed against a large body of Franciscan sandstone by the northwesterly trending Belmont Hill Fault approximately 1,080 feet east of the project site. Greenstone and sandstone are other subunits shown as underlying the upland areas in the general area of the project site.

The project site is in an area of variable topography which encompasses the southern and western flank of a hillside. Moderate to steep slopes occur in the northeastern corner (former quarry), areas just east of the perimeter road in the eastern portion of the property, the East Parking Lot, the slope above Laxague Drive (southeast of St. Mary's Hall), and the large cut slope on the north of New Hall Building Complex.

Geomorphology and Surface Description

The project site is on the top of a hillside that has received grading to accommodate improvements during previous developments. The developed portion of the project site was created by making a series of cuts into the otherwise moderately to gently sloping areas. Laxague Drive was created by making cuts into an otherwise moderate to steep hillside. The cut for the roadway is supported by a crude stone gravity "rockery" wall that varies from 5 feet to 14 feet tall and is inclined generally 1:5 (horizontal: vertical). The main entrance access road ascends a gently inclined hill and provides access to a large parking lot in the central portion of the project site. The East Parking Lot was created by making cuts into the bedrock and placing fill to the south edge of the lot. There are cuts for the building pad in the Toso residence area. These cuts expose greenstone at the ground surface.

An undeveloped rock quarry area is located north of the Chapel Annex building. The canyon has a massive outcrop of bedded chert on the west edge and on the adjacent hilltop, and the central area of the rock quarry area is a local low depression or basin where stockpiles and berms of fill have been placed. The northern edge of the basin in rock quarry area is adjacent to a fill slope that was placed for development of the adjacent residential lots. Small soil slumps are present on this fill slope. The ground surface in this basin and the adjacent slopes on the east of the basin have been previously disturbed by machine grading for quarrying operations. Many small berms of fill exist in the area but the bedrock is very generally shallow throughout the rock quarry area.

Figure 4.6-1
Regional Geography

Pavement distress was observed around the developed portion of the project site, typically associated with fill wedges. This is visible in the parking lot south of Julie Billiart Hall. The fill in this area appears to extend over the top of a previously cut slope above the Wilkie, Kane, Carroll Apartments where rather steep (1:1) slopes were observed.

Soils

Soil properties have a significant bearing on land planning and development. The type of soil will affect liquefaction, shrink swell potential, and landslide potential. The United States Department of Agriculture (USDA) Natural Resources Conservation Service has mapped soils in the project area. Soils are characterized according to various properties and grouped into soil associations. As shown on Figure 4.6-2, *Soil Characterizations*, the soils within the project site include Fagan Loam, Orthents Cut and Fill, Orthents Cut and Fill–Urban Land Complex, Urban Land, and Urban Land–Orthents.[8] The Orthents within the project site are often located in slopes of 5 to 75 percent north of Laxague Drive on the northernmost portion of the street's extent, on the southwestern portion of the project location under the current Notre Dame de Namur University (NDNU) theater, and locations north of Ralston Avenue. The Orthents Cut and Fill–Urban Land Complex and Orthents Cut and Fill are found in slopes of 0 to 5 and 0 to 15 percent along the northeastern-most edge of the project site and a small portion encompassing the soccer field. The Urban Land soils are found under the central area where most of the current standing buildings are located. The remainder of the project site is composed of Fagan Loam, less common than the Orthents and Urban Land complex soils. Fagan loam soils are found in slopes of 15 to 50 percent. Soils found in developed areas have generally been reworked to the point that most of the native soils are only found at depth, if at all.

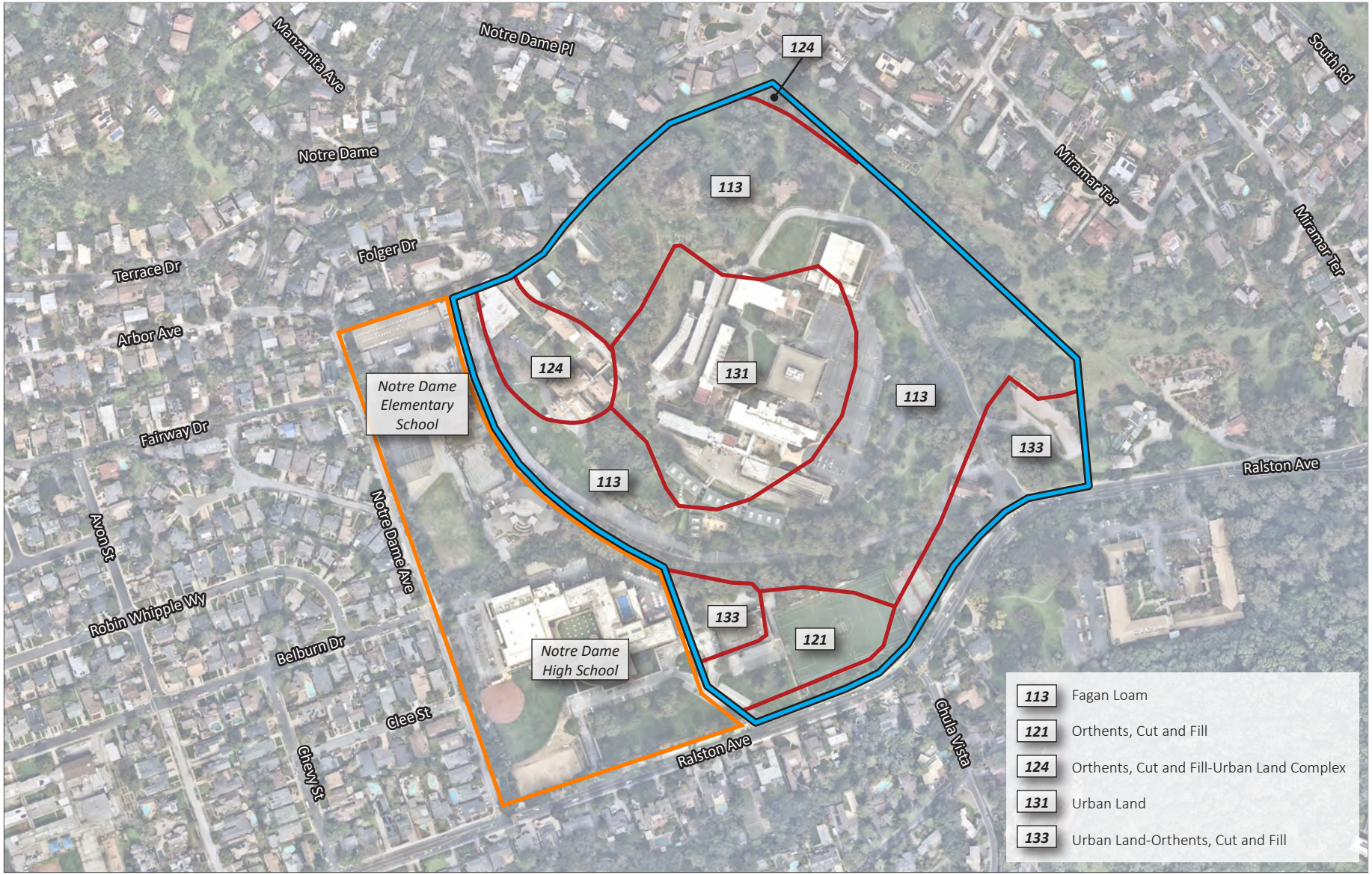
Existing Undocumented Fills

The project site is extensively developed, and some of that development extends back decades and possibly to the beginning of the twentieth century, when grading practices were unregulated and inconsistent and were typically conducted without engineering oversight or documentation. Previous investigations identified that man-made fills exist in scattered locations across the northeastern corner of the project site, ranging in thickness from 1 to 9 feet. Some of the irregular topography in this area is due to past quarrying and access road grading operations and the presence of variable scattered undocumented fills. The remainder of the project site is currently partially developed with existing residential halls, classrooms, and other structures. While these areas were not as well evaluated/investigated regarding the presence of undocumented fill, up to 3 feet of undocumented fill was encountered in the borings located between Julie Billiart Hall and St. Mary's Hall.[9] Fill materials resulting from previous development at the site are present locally and shows possible evidence of being expansive. The Geotechnical Feasibility Study recommends further evaluation as part of the design-level geotechnical investigation for the planned site improvements.

[8] United States Department of Agriculture, 2024, https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

[9] Bay Area Geotechnical Group, August 7, 1996, *Geotechnical Investigation, Proposed Student housing &Technology Center Projects, and Surface Parking Areas, College of Notre Dame Campus, Belmont, California*.

GEOLOGY AND SOILS



Source: www.websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx, 2024.

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Approximate Project Site (Notre Dame de Nemur University Boundary)

Notre Dame Elementary School and Notre Dame High School Boundary

Soil Characteristic Boundaries

Figure 4.6-2
Soil Characteristics

Geologic Hazards

Faults

The San Francisco Bay Area is one of the most seismically active regions of the United States. There are approximately 30 known faults in the Bay Area that are considered capable of generating earthquakes. Possible seismicity in the region varies by fault, however, notable faults and their probability, capable of producing large earthquakes in the area between 2014 and 2043, include the Hayward Fault (33 percent), Calaveras Fault (26 percent), and San Andreas Fault (22 percent). The San Andreas Fault Zone is approximately 2.9 miles from the project site, and the Hayward Fault is approximately 15.3 miles from the site. Both of these faults are designated by the Alquist-Priolo Earthquake Fault Zoning as active faults. However, no significant faults have been mapped as projecting through the project site or immediately adjacent to it.Error! Bookmark not defined. Accordingly, the project site is not in a state-designated Alquist-Priolo Earthquake Fault Zone.Error! Bookmark not defined. See Figure 4.6-3, *Regional Faults*, for an overview of the region showing the project site, the San Andreas and Hayward Faults, and other faults in the region. According to the preliminary geotechnical report been prepared by Cornerstone Earth Group for the proposed project, the compiled reports and locations of earthquake damage from the 1906 San Francisco earthquake and the 1989 Loma Prieta earthquake did not record earthquake damage that had effects on the project site or its proximity.

Three bedrock faults were encountered during the site evaluation conducted by Cornerstone Earth Group and are mapped on Figure 4.6-4, *Project Site Bedrock Faults*. Two of these faults (F1 and F2) extend from the small parking lot (at the southeast property corner) and trend through the eastern portion of the project site to the former quarry. Fault F2 branches into an additional fault (F3) at the quarry. Both F2 and F3 are confined within the chert on the west side of the quarry. These faults appear to be pre-Quaternary structures and therefore are unlikely to experience surface rupture in the future. However, Cornerstone Earth Group noted that fault F1 exhibited features that suggested that it might be a quaternary fault and conducted further investigation to determine the activity status through a direct observation in an exploration trench. The trench revealed a surficial residual soil which exhibits features that suggest the Pleistocene age. This soil overlies two juxtaposed bedrock units: chert and volcanic rock (Andesetic tuff). The tuff exhibits shearing near the contact with the chert but the stratigraphic succession between these two geologic units has not been established. No grooves or striations were noted on the shear surfaces within the fault zone, so it was not possible to determine the relative movement direction (i.e., dip-slip or strike slip). The shears appear to die out vertically within the upper 14 inches of the volcanic unit and the overlying residual soil does not appear to be deformed, truncated, or offset by previous movement within the underlying shears. Therefore, it is inferred that this sheared contact is a pre-Quaternary fault feature, and fault F1 would not pose a constraint for the development of structures.

Ground Shaking

Fault activity has the potential to result in ground shaking, which can be of varying intensity depending on the nature or profile of earthquake activity, proximity to that activity, and local soils and geology conditions. Earthquake damage to structures can be caused by ground rupture, liquefaction, and ground shaking. The level of damage at a location resulting from an earthquake will depend upon the magnitude of the event, the epicenter distance, the response of geologic materials, and the design and construction

quality of structures. Ground shaking could bring widespread and serious damage. Strong ground shaking is expected at the project site during a major earthquake in the area.

Liquefaction

Liquefaction is a process in which uniform, clean, loose, fine sandy, and silty sediments below the water table temporarily lose strength during an earthquake and behave as a viscous liquid rather than a solid, resulting in the loss of foundation-bearing capacity. This loss of strength commonly causes the structure to settle or tip. Loss of bearing strength can also cause light buildings with basements, buried tanks, and foundation piles to rise buoyantly through the liquefied soil.

Liquefaction is restricted to certain geologic and hydrologic environments, primarily recently deposited sand and silt in areas with high groundwater levels. Generally, the younger and looser the sediment, and the higher the water table, the more susceptible the soil is to liquefaction. Sediments most susceptible to liquefaction include Holocene (less than 10,000-year-old) delta, river channel, flood plain, aeolian deposits, and poorly compacted fills. Dense soils, including well-compacted fills, have low susceptibility to liquefaction.

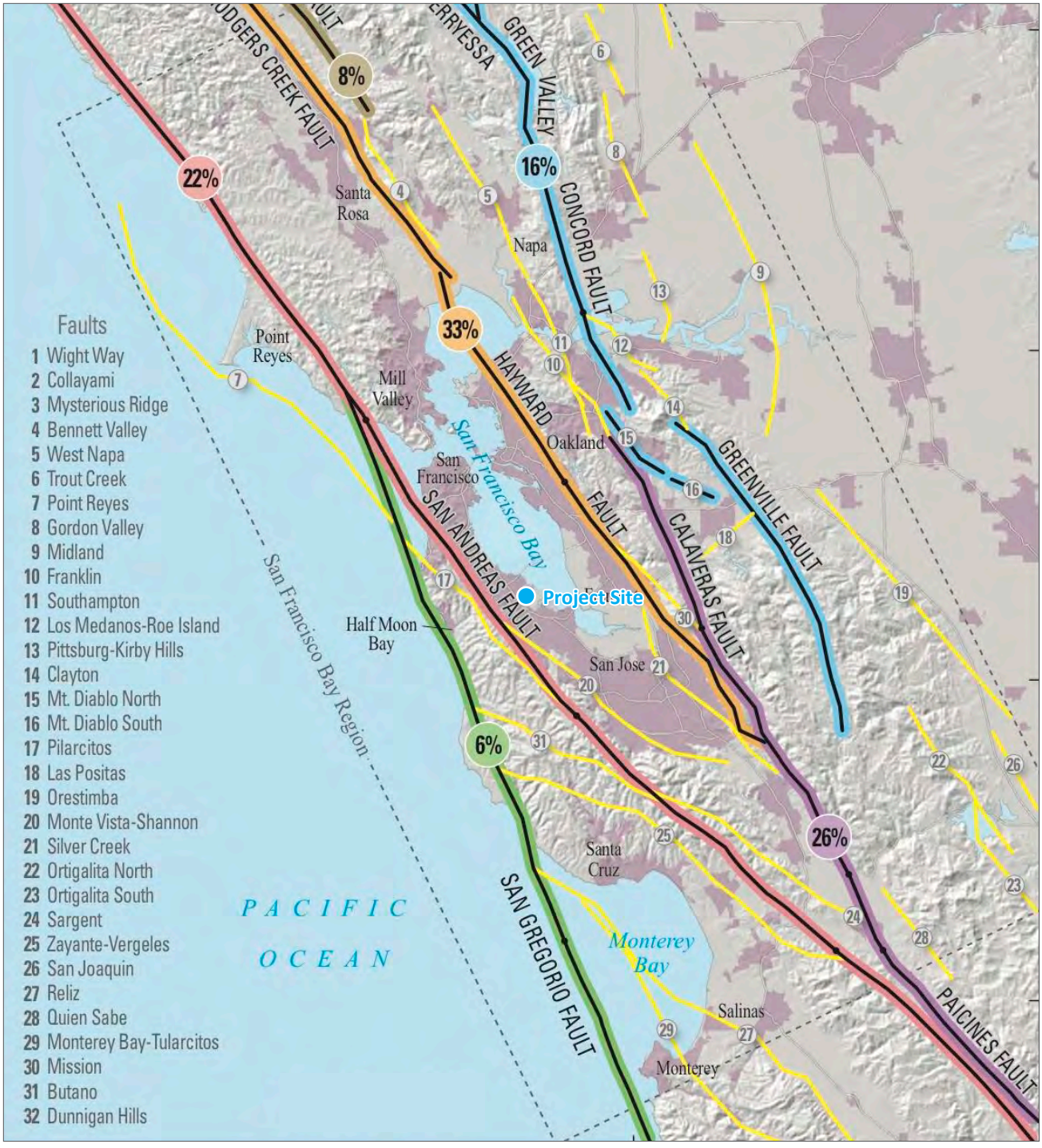
While the majority of the project site is currently not mapped as within a seismic hazard zone for liquefaction, the southernmost parcel of the site, including the NDNU theater and Koret Field, is mapped as within a liquefaction seismic hazard zone, as shown on Figure 4.6-5, *Areas Susceptible to Liquefaction*, and should be further investigated.

Lateral Spreading

Lateral spreading or lurching typically occurs as a form of horizontal displacement of relatively flat-lying material toward an open face such as an excavation, channel, or body of water. Generally, in soils, this movement is due to failure along a weak plane and may often be associated with liquefaction. The presence of a creek channel within the southwestern and southern portions of the project site could potentially serve as a free-face for lateral spreading in a liquefaction event. Based on the site reconnaissance conducted by Cornerstone Earth Group, there is about 8 feet of vertical relief to the creek bottom near the NDNU theater. Therefore, lateral spreading may have potential to occur in the southern parcel and should be further investigated.

Settlement and Collapse

Near-surface soils may be affected by strong earthquake shaking. Earthquake-related ground shaking may cause settlement of near-surface soils. Based on a review by the Cornerstone Earth Group, the potential for seismically induced settlement or collapse in the surficial soils overlying bedrock is likely very low in the northern portion of the project site but should be further evaluated for the southern parcel containing the NDNU theater and Koret Field.



Source: USGS, 2024.

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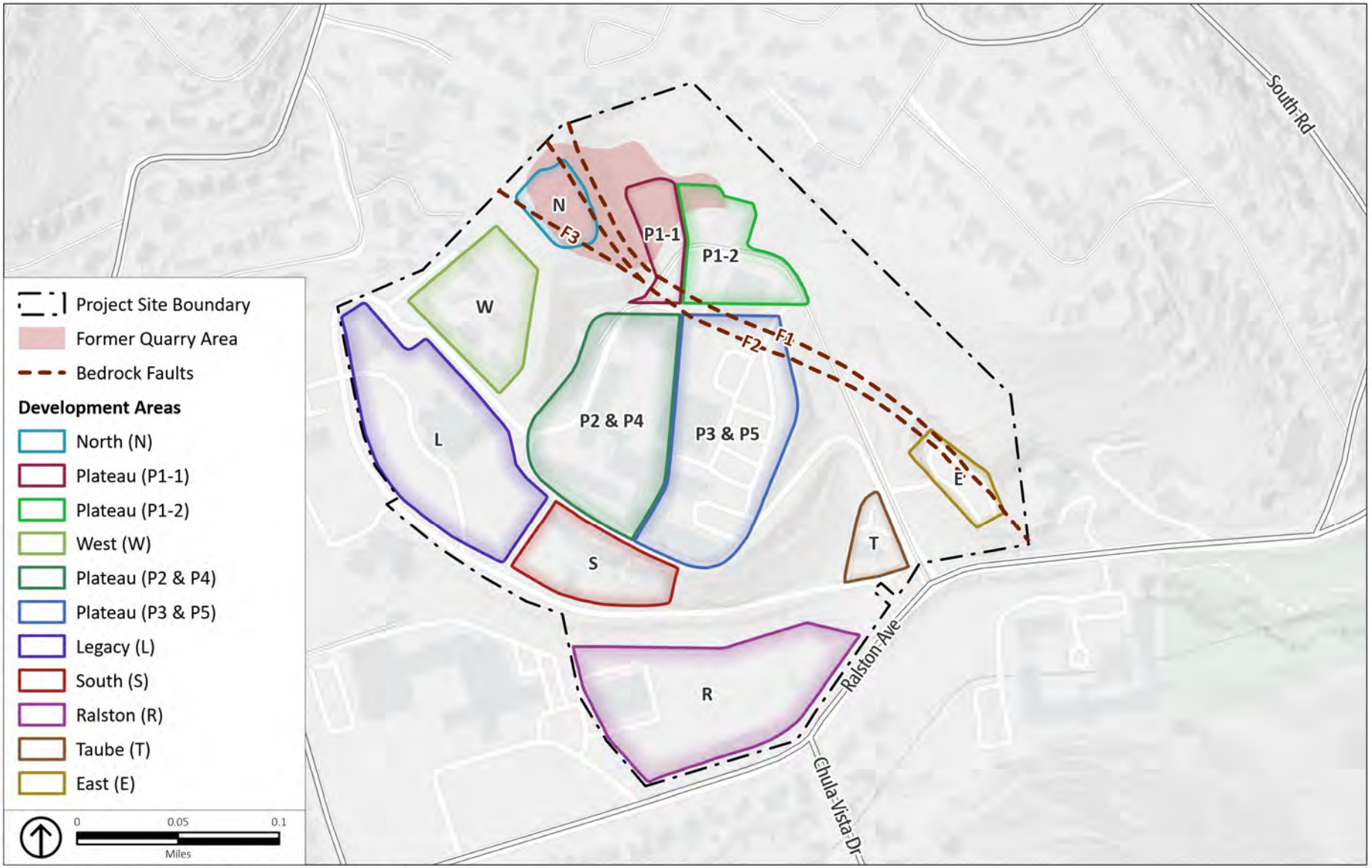
Scale (Miles)

Figure 4.6-3
Regional Faults



Source: Cornerstone Earth Group, 2022; PlaceWorks, 2024.

Figure 4.6-4
Project Site Bedrock Faults

Source: California Geological Survey, 2022; PlaceWorks, 2024.

Figure 4.6-5
Areas Susceptible to Liquefaction

Landslides

Landslides, also referred to as slope failures, include many phenomena that involve the downslope displacement and movement of material, either triggered by static (i.e., gravity) or dynamic (i.e., earthquake or over-saturation) forces. Exposed rock slopes may undergo rockfalls, rockslides, or rock avalanches, while soil slopes may experience shallow soil slides, rapid debris flows, and deep-seated rotational slides. Landslide-susceptible areas are characterized by steep slopes, downslope creep of surface materials, and unstable soil conditions.

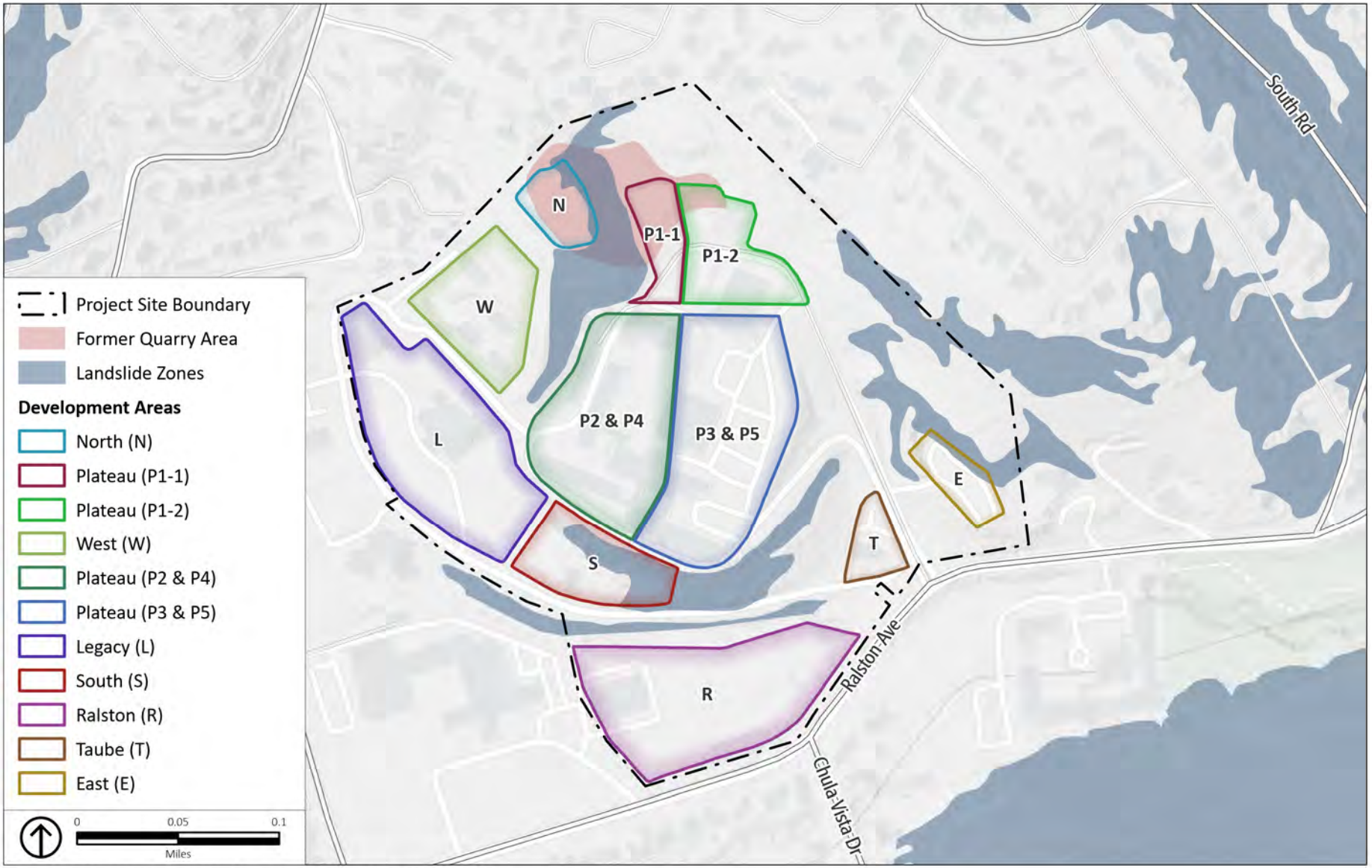
As shown in Figure 4.6-6, *Areas Susceptible to Landslide,* the California Geological Survey has mapped three portions of the campus as a regulatory zone for landslide hazards: 1) the steep, southwesterly facing slope along the uphill side of Laxague Drive, 2) the excavated bluff adjacent to the west edge of the former quarry, and 3) the steep cut slope adjacent to the northwest side of the New Hall Complex. However, this regulatory mapping is interpretive in nature and based on slope steepness. No site-specific information is incorporated into the state seismic hazard mapping program.

During the site investigation, Cornerstone Earth Group noted no evidence of slope creep or other evidence of instability along the steep slope above Laxague Drive. One local outcrop along the existing roadcut indicates the slope is underlain by chert bedrock which is vertically bedded, with the bedding strike oriented at right angles to the slope contours. The hard consistency of the chert and its structural configuration would tend to produce stable slopes and that may be the reason that these steep, natural slopes have maintained stability despite the presence of a cut along the base of the hillside.

The excavated 40- to 50-foot-high bluff adjacent to the west edge of the former quarry exposes chert throughout. The rock here is thin bedded and hard (brittle). Bedding is generally moderately dipping toward the southwest and west which is in general a stable configuration. Fractures and joints exist within the upper vertical portion of the bedrock bluff. While this slope appears grossly stable, theoretically some of these fractures and joints could result in block or wedge failures.

The fill slope located at the north property line (adjacent to the Quarry Area) shows evidence of slumping of the fill material. Two small slumps were noted on this downslope, probably the result of rotational failure and creep within the fill that may be exacerbated from runoff or springing in the immediate area.

The tall cut on the east side of the easterly small parking lot has signs of slope instability which has formed since it was excavated in 2003. Here the rock cut face has sloughed and soil toppled behind the short retaining wall at the east perimeter of the parking lot. The slope was over steepened by the grading of the parking lot in 2003 and therefore the slope has only been in the current configuration for a few decades. To date these slope failures have been relatively minor but they will eventually overtop the retaining wall and perhaps impact some of the parking stalls over time. The bedrock here is highly sheared sedimentary rock (sandstone, shale and minor conglomerate) and is marginally stable in this excavated (over-steepened) condition.



Source: California Geological Survey, 2022; PlaceWorks, 2024.

Figure 4.6-6
Areas Susceptible to Landslide

Subsidence

Subsidence or settlement can occur from immediate settlement, consolidation, shrinkage of expansive soil, and liquefaction. Immediate settlement occurs when a load from a structure or placement of new fill material is applied, causing distortion in the underlying materials. This settlement occurs quickly and is typically complete after placement of the final load. Consolidation settlement occurs in saturated clay from the volume change caused by squeezing out water from the pore spaces. Consolidation occurs over a period of time and is followed by secondary compression, which is a continued change in void ratio under the continued application of the load. Soils tend to settle at different rates and by varying amounts depending on the load weight or changes in properties over an area, which is referred to as differential settlement. Areas underlain by soft sediments or undocumented fills are most prone to settlement. The project location is not within any mapped subsidence zones.[10]

Soil Erosion

Erosion is the wearing away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind, and underground water. Excessive soil erosion can eventually lead to damage to building foundations and roadways. Typically, the soil erosion potential is reduced once the soil is graded and covered with concrete, structures, asphalt, or slope protection.

The western three-quarters of the project site is extensively developed with some sloping areas located adjacent to roads and building pad areas. While surface runoff is generally controlled in this part of the project site, some moderate to locally steep slopes are present. Cornerstone Earth Group noted no evidence of moderate or severe erosion adjacent to structures or improvements in this developed portion of the project site.

The eastern quarter of the project site is only sparsely developed with southwesterly, southerly and westerly slopes being common, some of which are steep to very steep. Surface runoff in this region is generally uncontrolled, except at the eastern (upslope) edge of the easterly perimeter access road where a concrete-lined surface swale collects runoff coming from upslope areas and delivers it to drainage facilities at Belmont Creek. Upslope areas located to the north and northeast of the former quarry drain into the basin within the bottom of the quarry, and standing water accumulated in this area. During the site visit, Cornerstone Earth Group noted recent rains have resulted in standing water and sediments in this area. Fill berms prevent surface runoff from continuing downslope toward the perimeter road.

Expansive Soils

Certain types of soil are inherently expansive, meaning they can expand and contract as the water content fluctuates within the soil. This expansion and contraction, also called “shrink-swell,” can damage structures that are not appropriately engineered for this activity. The USDA analyzes the shrink-swell potential of each soil type, and categorizes it as “low,” “moderate,” “high,” or “very high.” Where the shrink-swell classification is moderate to very high, shrinking and swelling can damage buildings, roads

[10] United States Geological Survey, Areas of Land Subsidence in California, https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html.

and other structures. Moderately to highly expansive surficial soils most likely blanket much of the project site both as native soil and as fill, which was probably derived from the native soils. The previously performed field explorations and laboratory testing indicate that portions of the native chert, when excavated, yield expansive clayey soils. The Plasticity Index tests (PI) performed on samples of the chert as part of a previous investigation, resulted in PIs of 23 to 27, indicating moderate to high expansion potential.

Groundwater

As with all hillside environments, there is a potential for temporary perched groundwater conditions, especially during winter months. Fluctuations in groundwater levels occur due to many factors, including seasonal fluctuation, underground drainage patterns, regional fluctuations, and other factors.**Error! Bookmark not defined.** Groundwater depth has not been mapped in the project site, but a groundwater table may exist in lower elevation, southwestern and southern portions of the site. This can impact grading and underground construction activities.

Paleontological Resources

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These are valued for the information they yield about the history of the earth and its past ecological settings. There are two types of resources: vertebrate and invertebrate. These resources are found in geologic strata conducive to their preservation, typically sedimentary formations. Paleontological sites are areas that show evidence of prehuman activity. Often, they are simply small outcroppings visible on the surface or sites encountered during grading. While the sites are important indications, it is the geologic formations that are the most important since they may contain important fossils. Potentially sensitive areas for the presence of paleontological resources are based on the underlying geologic formation. A paleontological resource search was not conducted for the project site.

4.6.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant geology and soils impact if it would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:
   (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
   (ii) Strong seismic ground shaking;
   (iii) Seismic-related ground failure, including liquefaction;
   (iv) Landslides, mudslides, or other similar hazards.
2. Result in substantial soil erosion or the loss of topsoil.

3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
5. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
7. In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to geology and soils.

4.6.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following geology and soils analysis is based on the natural environmental setting and therefore utilizes information gathered in 2023.

GEO-1	The proposed project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving: (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; (ii) Strong seismic ground shaking; (iii) Seismic-related ground failure, including liquefaction; (iv) Landslides, mudslides, or other similar hazards.

Fault Rupture

The City of Belmont is located within the seismically active San Francisco Bay Area, an area where several faults and fault zones are considered active. Alquist-Priolo Earthquake Fault Zones have been established for the majority of these faults and fault zones. The project site in Belmont is not within an Alquist–Priolo Earthquake Fault Zone. There are three bedrock faults that run through the project site; however, as detailed in Section 4.6.1.2, *Existing Conditions*, there is no constraint posed by these faults. All three faults were found to be pre-Quaternary features and therefore are unlikely to experience surface ruptures.

Ground Shaking

The project site is within the San Francisco Bay region, which experiences frequent earthquakes. Though the project site is not within an earthquake fault zone and the bedrock faults running across the site were determined not to pose constraints, the likelihood of the project site experiencing ground shaking due to nearby faults is high, as throughout much of the region. Although the proposed project would not exacerbate seismic ground shaking itself, the development or redevelopment of structures on the project site without adherence to appropriate seismic recommendations would exacerbate the risks associated with earthquake events.

Liquefaction

Liquefaction typically occurs in areas underlain with loose saturated cohesionless soils within the upper 50 feet of subsurface materials. These soils, when subjected to ground shaking, can lose their strength as a result of the buildup of excess pore water pressure, causing them to behave closer to a liquefied state. While the majority of the project site is currently not mapped as within a seismic hazard zone for liquefaction, the southernmost parcel of the site, including the NDNU theater and Koret Field, is mapped as within a liquefaction seismic hazard zone. Therefore, ground shaking due to a seismic event may result in soil failure.

Landslides

Two limited portions of the project site are mapped as within a landslide hazard regulatory zone by the California Geologic Survey. In conformance with state guidelines in areas of identified seismic hazards, future site studies for potential future development under the proposed project would include slope stability screening analyses.

Cornerstone Earth Group also observed several on-site slope instability features during their site investigation, such as the two slumps adjacent to the north side of the former quarry and the sloughing cutslope at the small easterly parking lot. The vertical rock bluff at the west edge of the former rock quarry also contains structural features that could potentially produce rock falls in the future. In addition to these noted slope instability features, several steeper slopes exist throughout the campus that have not been analyzed.

Summary

Potential future development under the proposed project has the potential to result in substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking; seismic-related ground failure, including liquefaction; and landslides, mudslides, or other similar hazards without appropriate mitigation. The proposed project would be required to adhere to safety standards established in the CBC, Belmont General Plan, and BCC and to minimize the shaking effects experienced during earthquakes. The current seismic design provisions of the CBC would serve to minimize losses from ground failure as a result of an earthquake. General Plan Policy 6.1-1 requires the enforcement of appropriate standards to ensure new development is designed to meet current safety codes, such as the CBC, and requirements associated with seismic activity. It also requires public and private development to

be located, designed, and constructed to minimize the risk of loss of life and injury in the event of a major earthquake or other natural disaster. General Plan Policy 6.1-9 requires real estate transactions, development approval processes, and property titles to declare known or suspected seismic or geologic hazards on a property, including areas suspected of high or very high risk of liquefaction, shrink swell, or landslide. Policies 6.1-2, 6.1-3, and 6.1-8 require regulating development to ensure adequate mitigation of safety hazards on sites and considering seismic and geological hazards at the earliest possible point in the development process. This is accomplished through both General Plan Policies 6.1-4 through 6.1-6 and BCC Chapter 7, Article III, Section 7-12, which require geotechnical site studies to evaluate geotechnical hazards. In addition, potential future development under the proposed project would be required to implement the City's following standard conditions related to geotechnical investigations:

- Geotechnical Plan Review. Before submittal to the City, the Project Geotechnical Consultant shall review and approve all geotechnical aspects of the project building and grading plans (i.e., site preparation and grading, building set-backs, site drainage improvements and design parameters for foundations, retaining walls and access driveway/garage) to ensure that their recommendations have been properly incorporated. The consultant shall ensure that the geotechnical design recommendations comply with the most current seismic design parameters of the California Building Code. The results of the geotechnical plan review and updated geotechnical design recommendations shall be summarized by the Project Geotechnical Consultant in a letter and submitted to the city for review and approval prior to issuance of building permits.
- Geotechnical Field Inspection. The geotechnical consultant must inspect, test (as needed), and approve all geotechnical aspects of the project construction. The inspections must include, but not necessarily be limited to: site preparation and grading, site surface and subsurface drainage improvements, and excavations for foundations and retaining walls prior to the placement of steel and concrete. The results of these inspections and the as-built conditions of the project must be described by the geotechnical consultant in a certification letter and submitted to the City Engineer prior granting final occupancy.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Accordingly, a preliminary geotechnical report has been prepared by Cornerstone Earth Group for the proposed project to determine geological feasibility (see Appendix F, *Geology and Soils Data*, of this Draft EIR). The report recommended a final design-level geotechnical investigation inclusive of further field investigations and analysis for proposed developments or redevelopments near any moderate to steep slopes at the project site and evaluation of the potential for liquefaction and seismic induced settlements for site-specific recommendations to mitigate potential impacts related to ground shaking, liquefaction, and landslides. Therefore, without a final design-level geotechnical report, there is a potential for *significant* impacts.

Impact GEO-1: The proposed project could result in the placement of new buildings in areas susceptible to ground shaking, liquefaction, and landslide, potentially resulting in significant loss, injury, or death.

Mitigation Measure GEO-1: Project construction shall adhere to the recommendations of a City-reviewed final design-level geotechnical report, which shall address the concerns and recommendations presented in the preliminary geotechnical report related to geology and soils issues potentially resulting in significant loss, injury, or death. Prior to the issuance of grading and/or building permits (whichever comes first), the City shall verify that the final design-level geotechnical report has been prepared, that it has been reviewed and approved by the City, and that its recommendations and requirements to construct buildings in a way that eliminates significant loss, injury, or death have been incorporated into final project plans.

Significance with Mitigation: Less than significant.

GEO-2 The proposed project would not result in substantial soil erosion or the loss of topsoil.

Potential future development under the proposed project would likely include earthwork activities that could expose soils to the effects of erosion or loss of topsoil. Once disturbed, either through removal of vegetation, asphalt, or an entire structure, stockpiled soils are left exposed to the effects of wind and water if not managed appropriately.

As described in Chapter 4.9, *Hydrology and Water Quality*, of this Draft EIR, potential future development under the proposed project that would disturb more than one acre would be required to comply with Construction General Permit Water Quality Order 2022-0057-DWQ, which includes the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP requires the incorporation of best management practices (BMP) to control sediment and erosion during construction. Categories of potential BMPs that would be implemented for the proposed project are described in Table 4.9-2, *Construction Best Management Practices*, in Chapter 4.9 of this Draft EIR.

The proposed project would be required to comply with Chapter 7 of the BCC, which addresses erosion standards and, in accordance with the CBC, provide regulations for construction to provide proper grading, drainage, erosion, and sediment control. Furthermore, BCC Chapter 9 requires grading plans to include plans for erosion control during and after grading, and grading applications to include specifications for revegetation of the graded area to control erosion and restore the appearance of the site.

Compliance with Belmont General Plan policies would further reduce potential impacts of erosion. Policy 3.4-6 would minimize erosion from new roadways; Policy 5.5-4 would ensure that the design and construction of new infrastructure elements does not contribute to stream bank or hillside erosion or creek or wetland siltation, and incorporates site design and source control BMPs, construction phase BMPs, and treatment control BMPs; Policy 6.1-2 would ensure adequate mitigation of erosion hazards; Policies 6.1-4 through 6.1-6 would requires geotechnical studies to address the risk of erosion; and Policy 6.1-11 requires the City to support erosion prevention through revegetation and other methods.

In addition, potential future development under the proposed project would be required to comply with the City's following standard conditions related to grading and erosion control:

- Prior to any grading or clearing being performed on-site, the owner/applicant shall submit a grading plan prepared by a California-registered Civil Engineer in accordance with City Grading Ordinance, Chapter 9, Section 3 of the City Code, with a grading permit application, for approval by the Department of Public Works and Building Division. The plan must incorporate the following restrictions:

  a) All soils stockpiled on the site during construction must be covered or otherwise protected from wind and water erosion.

  b) During construction, erosion and sedimentation control plans must be implemented to retain sediments on-site.

  c) Site grading and finished construction must be designed and executed in such a manner as to avoid diverting runoff onto other properties.

  d) Restrictions and recommendation of the Geologic and Soils report as approved by the City's Geologist.

- Grading shall neither be initiated nor continued between November 15 and April 15. Grading shall be done between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday unless otherwise specifically authorized by the Director of Public Works, or his/her designee. The Stormwater Pollution Prevention Program BMPs for construction shall be implemented to protect water quality.
- The applicant must obtain a General Construction Permit from Regional Water Quality Control Board prior to beginning of grading.
- A letter from the geotechnical consultant, shall inspect, test (as needed) and approve all geotechnical aspects of the project construction. The inspections shall include, but not necessarily be limited to site preparations and grading, site surface and subsurface drainage improvements, and excavations for foundations and retaining walls prior to the replacement of steel and concrete. The geotechnical consultant shall observe all excavations during project grading to verify anticipated geologic conditions and to check for any apparent indications of temporary excavation instability. In addition, the geotechnical consultant shall observe installation of construction shoring measures. A final geotechnical inspection shall be performed of completed drainage improvements to verify conformance with geotechnical standards.
- The results of these inspections as the as-built conditions of the project shall be described by the geotechnical consultant in a letter and submitted to the City Engineer for review prior to final (granting of occupancy) project approval.
- The applicant must submit an erosion and sedimentation control plan describing BMPs to be used to prevent soil, dirt, and debris from entering the storm drain system. The plan shall include the following items:

  a) A site plan showing the property lines, existing and proposed topography, and slopes; areas to be disturbed, locations of cut/fill and soil storage/disposal area; areas with existing vegetation to be protected; existing and proposed drainage patterns and structures; watercourses or sensitive areas on-site or immediately downstream of project; and designated construction access routes, staging areas and washout areas.

b) Erosion and sediment controls to be used during construction, selected as appropriate from the California Regional Water Quality Control Board, San Francisco Bay Region Erosion and P.O. Box 791, Oakland, CA 94604-0791.

c) Methods and procedures to stabilize denuded areas and install and maintain temporary erosion and sediment control continuously until permanent erosion controls have been established.

d) Provision for preventing erosion and trapping sediment on-site, such as sediment basins or traps, earthen dikes or berms, fiber rolls, silt fence, check dams, storm drain inlet protection, soil blankets or mats, covers for soil stockpiles and/or other measures.

e) Provisions for installing vegetative cover in disturbed areas, including areas to be seeded, planted, and/or mulched, and types of vegetation proposed.

f) Provision for diverting on-site runoff around exposed areas and diverting off-site runoff around the project site (e.g., swales and dikes).

g) Notes, specifications, and/or attachments describing the construction, operation and maintenance of erosion and sediment control measures, including inspection frequency; methods and schedule for grading, excavation, filling clearing of vegetation and storage and disposal of excavated or cleared material; types of vegetative cover and mulch, including methods and schedules for planting and fertilization; and provisions for temporary and permanent irrigation.

- Construction activity resulting in a land disturbance of 5,000 SF or more, or less than 5,000 SF but part of a larger development shall obtain the Construction Activities Storm Water General Permit (General Permit) from the State Water Quality Control Board (http://www.scrcb.ca.gov/stormwtr/construction.html or (916) 341-5537). The State requires a completed Notice of Intent (NOI) to comply package and a SWPPP prepared in accordance with Section A of the General Permit prior to the commencement of soil disturbing activities. The State will issue a Waste Discharge Identification number within 10 business days after it receives a complete NOI package (original signed NOI, vicinity map, and check). Applicant shall also submit copies of the NOI and SWPPP to the City for review and approval. Throughout the project life, the SWPPP shall be revised as necessary to accommodate site changes during construction.
- Construction activity resulting in a land disturbance of one acre or more, or less than one acre but part of a larger development shall obtain the Construction Activities Storm Water General Permit (General Permit) from the State Water Quality Control Board (http://www.scrcb.ca.gov/stormwtr/construction.html or (916) 341-5537). The State requires a completed NOI to comply package and a SWPPP prepared in accordance with Section A of the General Permit prior to the commencement of soil disturbing activities. The State will issue a Waste Discharge Identification number within 10 business days after it receives a complete NOI package (original signed NOI, vicinity map, and check). Applicant shall also submit copies of the NOI and SWPPP to the City for review and approval. Throughout the project life, the SWPPP shall be revised as necessary to accommodate site changes during construction.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR.

However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Compliance with the requirements of the Construction General Permit, BCC, General Plan policies, and the City's standard conditions would ensure that impacts related to erosion would be *less than significant*.

Significance with Mitigation: Less than significant.

GEO-3	The proposed project could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Some improvements associated with implementation of the proposed project could be located on geologic units or soils that are unstable, or that could become unstable and result in geologic hazards if not addressed appropriately. Areas with underlying materials that include undocumented fills, soft compressible deposits, or loose debris could be inadequate to support development, especially multi-story buildings. Soils that exhibit expansive properties when exposed to varying moisture content over time could result in damage to foundations, walls, or other improvements. Structures, including residential units and commercial buildings, could be damaged as a result of a settlement or differential settlement where structures are underlain by materials of varying engineering characteristics. Construction of new structures in the vicinity of relatively steep slopes could provide additional loading and contribute to landslides or slope failure from unstable soils or geologic units. Slope failure can occur naturally through rainfall or seismic activity, or through earthwork and grading related activities.

The project site includes areas that are mapped as within a landslide hazard regulatory zone, and Cornerstone Earth Group noted several on-site slope instability features during their site reconnaissance. The southernmost parcel of the project site, including the NDNU theater and Koret Field, is also mapped as within a liquefaction seismic hazard zone, and Cornerstone Earth Group noted that this area should be further evaluated for the potential for seismically induced settlement or collapse in the surficial soils overlying bedrock. There is also about 8 feet of vertical relief to the creek bottom near the NDNU theater, which presents the potential for lateral spreading. Furthermore, the project site includes undocumented fills. Groundwater depth has not been mapped in the project site, but a groundwater table may exist in lower elevation, southwestern and southern portions of the site.

As described under impact discussion GEO-1, the proposed project would be required to adhere to safety standards established in the CBC, Belmont General Plan, and BCC. The CBC, adopted in BCC Chapter 7, contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition, and also regulates grading activities, including drainage and erosion control. General Plan Policies 6.1-2, 6.1-3, and 6.1-8 require regulating development to ensure adequate mitigation of safety hazards on sites and considering seismic and geological hazards at the earliest possible point in the development process. This is accomplished through both General Plan Policies 6.1-4 through 6.1-6 and BCC Chapter 7, Article III, Section 7-12, which require geotechnical site studies to evaluate geotechnical

hazards. In addition, potential future development under the proposed project would be required to implement the City's following standard conditions related to geotechnical investigations:

- Geotechnical Plan Review - Before submittal to the City, the Project Geotechnical Consultant shall review and approve all geotechnical aspects of the project building and grading plans (i.e., site preparation and grading, building set-backs, site drainage improvements and design parameters for foundations, retaining walls and access driveway/garage) to ensure that their recommendations have been properly incorporated. The consultant shall ensure that the geotechnical design recommendations comply with the most current seismic design parameters of the California Building Code. The results of the geotechnical plan review and updated geotechnical design recommendations shall be summarized by the Project Geotechnical Consultant in a letter and submitted to the city for review and approval prior to issuance of building permits.
- Geotechnical Field Inspection –The geotechnical consultant must inspect, test (as needed), and approve all geotechnical aspects of the project construction. The inspections must include, but not necessarily be limited to: site preparation and grading, site surface and subsurface drainage improvements, and excavations for foundations and retaining walls prior to the placement of steel and concrete. The results of these inspections and the as-built conditions of the project must be described by the geotechnical consultant in a certification letter and submitted to the City Engineer prior granting final occupancy.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Accordingly, a preliminary geotechnical report has been prepared by Cornerstone Earth Group for the proposed project to determine geological feasibility. The report recommended a final design-level geotechnical investigation inclusive of further field investigations and analysis for proposed developments or redevelopments near any moderate to steep slopes at the project site and evaluation of the potential for liquefaction and seismic induced settlements for site-specific recommendations to mitigate potential impacts related to ground shaking, liquefaction, and landslides. Additionally, the final-design level geotechnical report should further characterize undocumented fills and recommend mitigation measure to reduce impacts. Therefore, without a final design-level geotechnical report, there is a potential for *significant* impacts.

Impact GEO-3: Potential future development under the proposed project could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Mitigation Measure GEO-3: Implement Mitigation Measure GEO-1.

Significance with Mitigation: Less than significant.

GEO-4	The proposed project could be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) but would not create substantial direct or indirect risks to life or property.

Moderately to highly expansive surficial soils most likely blanket much of the project site both as native soil and as fills which was probably derived from the native soils. Samples of the chert as part of a previous investigation revealed PIs of 23 to 27, indicating moderate to high expansion potential.

The proposed project would be required to comply with regulations imposed by the CBC, such as standards for seismic safety, excavation, foundations, retaining walls, site demolition, and grading activities including drainage and erosion control, as outlined in BCC Chapter 7. As required by General Plan Policy 6.1-9 the proposed project is to declare known or suspected seismic or geologic hazards on a property, including areas suspected of high or very high risk of liquefaction, shrink swell, or landslide. Policies 6.1-2, 6.1-3, and 6.1-8 require regulating development to ensure adequate mitigation of safety hazards on sites and considering seismic and geological hazards at the earliest possible point in the development process. This is accomplished through both General Plan Policies 6.1-4 through 6.1-6 and BCC Chapter 7, Article III, Section 7-12 which require geotechnical site studies to evaluate geotechnical hazards. In addition, potential future development under the proposed project would be required to implement the City's following standard conditions related to geotechnical investigations:

- Geotechnical Plan Review - Before submittal to the City, the Project Geotechnical Consultant shall review and approve all geotechnical aspects of the project building and grading plans (i.e., site preparation and grading, building set-backs, site drainage improvements and design parameters for foundations, retaining walls and access driveway/garage) to ensure that their recommendations have been properly incorporated. The consultant shall ensure that the geotechnical design recommendations comply with the most current seismic design parameters of the California Building Code. The results of the geotechnical plan review and updated geotechnical design recommendations shall be summarized by the Project Geotechnical Consultant in a letter and submitted to the city for review and approval prior to issuance of building permits.
- Geotechnical Field Inspection –The geotechnical consultant must inspect, test (as needed), and approve all geotechnical aspects of the project construction. The inspections must include, but not necessarily be limited to: site preparation and grading, site surface and subsurface drainage improvements, and excavations for foundations and retaining walls prior to the placement of steel and concrete. The results of these inspections and the as-built conditions of the project must be described by the geotechnical consultant in a certification letter and submitted to the City Engineer prior granting final occupancy.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Accordingly, a preliminary geotechnical report has been prepared by Cornerstone Earth Group for the proposed project to determine geological feasibility. The report recommends consideration of the expansive properties of the native soils in developing design recommendations for foundations, slabs-on-grade, exterior concrete flatwork, pavements, and other site improvements. The report also notes that it is important to limit moisture changes in the surficial soils by using positive drainage away from buildings and other hardscaped areas, as well as limiting landscaping watering. Therefore, there is a potential for *significant* impacts related to development or redevelopment on the project site if expansive properties of native soils are not considered.

Impact GEO-4: The proposed project could result in substantial direct or indirect risk to life or property.

Mitigation Measure GEO-4: Implement Mitigation Measure GEO-1.

Significance with Mitigation: Less than significant.

GEO-5	The project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Potential future development under the proposed project would not require septic systems or other alternative wastewater disposal systems. The proposed project would be required to comply with Belmont General Plan Policy 6.5-5, which mandates all new developments to be connected to the City's sewer system. Therefore, impacts related to soil capability of supporting alternative wastewater disposal systems would be *less-than-significant*.

Significance without Mitigation: Less than significant.

GEO-6	The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Paleontological resources are recognized as nonrenewable and therefore receive protection under the California Public Resources Code and CEQA. Adoption of the proposed project would not directly affect paleontological resources. However, potential future development under the proposed project may include grading of known and unknown sensitive areas. Grading and construction activities of undeveloped areas or redevelopment that requires more intensive soil excavation than in the past could potentially cause the disturbance of paleontological resources. Therefore, the proposed project could potentially unearth previously unrecorded resources.

A records search for specific paleontological resources on, and around, the project site, was not conducted. However, in the event a paleontological resource is unearthed during construction, the proposed project would be required to comply with Belmont General Plan Policy 5.12-2 and cease all grading activity in the immediate area. Materials and their surroundings are not to be altered or collected until evaluation by a qualified professional is completed. In addition, potential future development under

the proposed project would be required to implement the City's following standard conditions related to paleontological resources:

- Applicants are required to: a) Review records for development proposed in areas that are considered archaeologically or paleontologically sensitive; b) Prepare a report that determines the potential effects of development and construction on archaeological or paleontological resources (as required by CEQA); c) Conduct pre-construction surveys and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity; and d) Implement appropriate measures to avoid the identified impacts, as conditions of project approval (i.e., halting construction when resources are uncovered, evaluating the find, and implementing avoidance measures and/or mitigation plans as required by CEQA).
- Prior to issuance of building permits, the applicant shall demonstrate that construction crews have proper training for the discovery, handling and retention methods for paleontological, archeological and/or cultural resources found at the project site. Project personnel should not collect cultural resources. Prehistoric resources include: chert, or obsidian flakes, projectile points, mortars and pestles, dark, friable soil containing shell and bone dietary debris, heat- affected rock, or human burials. Historic resources include: stone or adobe foundations or walls, structures and remains with square nails, and refuse deposits or bottle dumps.
- In the event that paleontological, archaeological, and/or cultural resources are encountered during construction activities, all construction activity in the area of the find shall be halted, and the Community Development Director shall be notified; an archaeologist shall examine the find and make appropriate recommendations. A plan for the mitigation of impacts to the resources will be prepared and submitted to the City of Belmont for approval. Additional CEQA review may be required depending upon the evaluation of the find.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Therefore, compliance with Belmont General Plan and the City's standard conditions would ensure that impacts to paleontological resources are *less than significant*.

Significance without Mitigation: Less than significant.

GEO-7	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to geology and soils.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, potential cumulative geological impacts could arise from a combination of the effects of the proposed project with cumulative development projects in the vicinity of the project site. The proposed project would not require an alternative wastewater disposal systems and would not result in significant impacts to paleontological

resources. A preliminary geotechnical report has been prepared for the proposed project to determine geological feasibility and recommends a final-design level geotechnical report. Implementation of Mitigation Measures GEO-1, GEO-3, GEO-3, and GEO-4 would require the final-design level geotechnical report to address the recommendations of the preliminary geotechnical report and for the recommended measures of the final-design level geotechnical report to be adhered to during project construction to mitigate significant impacts related to geological hazards. Furthermore, future development in the area would be subject to environmental review as applicable to mitigate any significant impacts to geology and soils. Cumulative development projects would be subject to the General Plan regulations such as the requirement for a geotechnical study. Therefore, geological impacts of the proposed project would not be cumulatively considerable, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.7 GREENHOUSE GAS EMISSIONS

This chapter evaluates the potential greenhouse gas (GHG) emissions impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential GHG emissions impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

The information and analysis in this chapter is based in part on the *Stanford University Belmont Campus Conceptual Development Plan and Development Agreement: Air Quality, Health Risk Assessment, Greenhouse Gas and Energy Technical Report* (Ramboll Tech Report), prepared by Ramboll US Consulting in June 2024. This study is contained in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR. Transportation-sector impacts are based on the Conceptual Transportation Demand Management (TDM) Plan and the trip generation and vehicle miles traveled (VMT) data provided by Fehr and Peers, contained in Appendix J, *Transportation*, of this Draft EIR. Note that this quantitative analysis was conducted based on the construction and full operation for the proposed project, which would constitute up to 700,000 square feet of building space and associated parking and housing units, as summarized in Chapter 3, *Project Description*, of this Draft EIR.

4.7.1 ENVIRONMENTAL SETTING

Terminology

The following are definitions for terms used throughout this chapter:

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a GHG absorbs relative to a molecule of carbon dioxide (CO_2) over a given period of time (20, 100, and 500 years). CO_2 has a GWP of 1.
- **Carbon dioxide-equivalent (CO_2e).** The standard unit to measure the amount of GHGs in terms of the amount of CO_2 that would cause the same amount of warming. CO_2e is based on the GWP ratios between the various GHGs relative to CO_2.
- **$MTCO_2e$.** Metric ton of CO_2e.
- **$MMTCO_2e$.** Million metric tons of CO_2e.

4.7.1.1 REGULATORY FRAMEWORK

Federal Regulations

Endangerment Finding

The United States Environmental Protection Agency (USEPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The USEPA's final findings respond to the 2007 United States Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not impose any emission reduction requirements but allowed the USEPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation.[1]

To regulate GHGs from passenger vehicles, the USEPA was required to issue an endangerment finding.[2] The finding identified emissions of six key GHGs—carbon dioxide (CO_2), methane (CH_4), nitrogen oxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF_6)—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the proposed project's GHG emissions inventory because they constitute the majority of GHG emissions and, according to guidance by the Bay Area Air Quality Management District (BAAQMD), are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

Mandatory Reporting Rule for GHGs (2009)

In response to the endangerment finding, the USEPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (e.g., large stationary sources) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO_2e per year are required to submit an annual report.

CAFE Standards (2017 to 2026)

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for vehicle model years 2017 to 2025, requiring a fleet average of 54.5 miles per gallon (MPG) in 2025. However, on March 30, 2020, the USEPA finalized updated CAFE and GHG emissions standards for passenger cars and light trucks, covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 to 2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 MPG for model year 2026 vehicles.[3]

[1] US Environmental Protection Agency, 2009, EPA: Greenhouse Gases Threaten Public Health and the Environment: Science Overwhelmingly Shows Greenhouse Gas Concentrations at Unprecedented Levels due to Human Activity, https://archive.epa.gov/epapages/newsroom_archive/newsreleases/08d11a451131bca585257685005bf252.html.

[2] US Environmental Protection Agency, 2009, USEPA: Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, https://www.epa.gov/climate-change/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a.

[3] 85 Federal Register 24174 (April 30, 2020).

On December 21, 2021, under the direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration (NHTSA) repealed SAFE Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, the NHTSA announced new proposed fuel standards on March 31, 2022. Fuel efficiency under the new standards proposed will increase 8 percent annually for model years 2024 to 2025 and 10 percent for model year 2026. Overall, the new CAFE standards require a fleet average of 49 MPG for passenger vehicles and light trucks for model year 2026, which would be a 10 MPG increase relative to model year 2021.[4]

State Regulations

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in EO S-03-05, EO B-30-15, EO B-55-18, Assembly Bill (AB) 32, AB 1279, Senate Bill (SB) 32, and SB 375.

Executive Order S-03-05

EO S-03-05 was signed June 1, 2005, and set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

AB 32 was passed by the California State legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in EO S-03-05. The California Air Resources Board (CARB) prepared the 2008 Scoping Plan to outline a plan to achieve the GHG emissions reduction targets of AB 32.

Senate Bill 375

SB 375, the Sustainable Communities and Climate Protection Act, was adopted in 2008 to connect the GHG emissions reduction targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (i.e., excluding emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPO). The Metropolitan Transportation Commission (MTC) is the MPO for the Bay Area region, which includes the City of Belmont. Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target.

[4] National Highway Traffic Safety Administration, 2022, USDOT Announces New Vehicle Fuel Economy Standards for Model year 2024-2026, https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026, accessed March 12, 2024.

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology, and then released another update in February 2018, which became effective in October 2018. CARB adopted the updated targets and methodology on March 22, 2018. All Sustainable Communities Strategies (SCS) adopted after October 1, 2018, are subject to these new targets. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. The updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks compared to 2005. This excludes reductions anticipated from implementation of State technology and fuels strategies and any potential future State strategies such as statewide road user pricing. The updated targets call for greater per-capita GHG emission reductions from SB 375 than were currently in place, which for 2035 translates into updated targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCSs. CARB's updated targets result in an additional reduction of over 8 $MMTCO_2e$ in 2035 compared to the prior targets.[5]

Executive Order B-30-15

EO B-30-15, signed April 29, 2015, set a goal of reducing GHG emissions in the state to 40 percent of 1990 levels by year 2030. EO B-30-15 also directed CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the State and requires State agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in EO S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaptation strategy, Safeguarding California, to ensure climate change is accounted for in State planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197 into law, making the EO goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

Executive Order B-55-18

EO B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." EO B-55-18 directs CARB to work with relevant State agencies to ensure future scoping plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other State goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

[5] California Air Resources Board, February 2022, *Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets*, https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Updated_Final_Target_Staff_Report_2018.pdf.

Assembly Bill 1279 and 2022 Climate Change Scoping Plan

AB 1279, signed by Governor Newsom in September 2022, codifies the carbon neutrality targets of EO B-55-18 for year 2045 and sets a new legislative target for year 2045 of 85 percent below 1990 levels for anthropogenic GHG emissions. CARB was required to update the Scoping Plan to identify and recommend measures to achieve the net-zero and GHG emissions-reduction goals.

CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) on December 15, 2022, which lays out a path to achieve carbon neutrality by 2045 or earlier and to reduce the state's anthropogenic GHG emissions.[6] The Scoping Plan was updated to address the carbon neutrality goals of EO B-55-18 and the ambitious GHG reduction target as directed by AB 1279. Previous scoping plans focused on specific GHG reduction targets for industrial, energy, and transportation sectors—to meet 1990 levels by 2020, and then the more aggressive 40 percent below that for the 2030 target. This Plan expands upon earlier scoping plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Carbon neutrality takes it one step further by expanding actions to capture and store carbon, including through natural and working lands and mechanical technologies, while drastically reducing anthropogenic sources of carbon pollution at the same time.

The path forward was informed by the recent Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report (AR6); the measures would achieve 85 percent below 1990 levels by 2045 in accordance AB 1279. CARB's 2022 Scoping Plan identifies strategies, as shown in Table 4.7-1, *Priority Strategies for Local Government Climate Action Plans*, that would be most impactful at the local level for ensuring substantial process towards the State's carbon neutrality goals.

TABLE 4.7-1 PRIORITY STRATEGIES FOR LOCAL GOVERNMENT CLIMATE ACTION PLANS

Priority Area	Priority Strategies
Transportation Electrification	Convert local government fleets to zero-emission vehicles (ZEV) and provide electric vehicle (EV) charging at public sites.
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed State building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).
VMT Reduction	Reduce or eliminate minimum parking standards.
	Implement complete streets policies and investments, consistent with general plan circulation element requirements.
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, and other approaches.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking.
	Implement parking pricing or TDM pricing strategies.
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing allowable density of the neighborhood).

[6] California Air Resources Board, December 2022, 2*022 Scoping Plan for Achieving Carbon Neutrality*, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

TABLE 4.7-1 PRIORITY STRATEGIES FOR LOCAL GOVERNMENT CLIMATE ACTION PLANS

Priority Area	Priority Strategies
	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert "greenfield" land to urban uses (e.g., green belts, strategic conservation easements).
Building Decarbonization	Adopt all-electric new construction reach codes for residential and commercial uses.
	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances.
	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing).
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings).

Source: California Air Resources Board, December 2022, *2022 Scoping Plan for Achieving Carbon Neutrality,* https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

Residential and mixed-use development projects that include the following key project attributes would accommodate growth in a manner consistent with State GHG reduction and equity prioritization goals. This is the first approach the State recommends for qualitatively determining whether a proposed residential or mixed-use residential development would align with the State's climate goals while simultaneously advancing fair housing.

Key residential and mixed-use project attributes that reduce GHGs:

- Transportation Electrification
  - Provide EV charging infrastructure that, at a minimum, meets the most ambitious voluntary standards in the California Green Building Standards Code at the time of project approval.
- VMT Reduction
  - Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, and sewer).
  - Does not result in the loss or conversion of the state's natural and working lands.
  - Consists of transit-supportive densities (minimum of 20 residential dwelling units/acre), or is in proximity to existing transit stops (within a half mile), or satisfies more detailed and stringent criteria specified in the region's SCS.
  - Reduces parking requirements by:
    - Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or
    - Providing residential parking supply at a ratio of <1 parking space per dwelling unit; or

    - For multi-family residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.
  - At least 20 percent of the units are affordable to lower-income residents.
  - Result in no net loss of existing affordable units.
- Building Decarbonization
  - Use all electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking.

The second approach to project-level alignment with State climate goals is net zero GHG emissions, especially for new residential development. The third approach to demonstrating project-level alignment with State climate goals is to align with GHG thresholds of significance, which many local air quality management and air pollution control districts have developed or adopted.[7]

Transportation Sector Specific Regulations

Advanced Clean Fleets and Advanced Clean Trucks

CARB adopted the Advanced Clean Fleets (ACF) regulation in 2023 to accelerate the transition to zero-emission medium- and heavy-duty vehicles. In conjunction with the Advanced Clean Trucks (ACT) regulation, the ACF regulations help to ensure that medium- and heavy-duty zero-emission vehicles (ZEV) are brought to the market, by requiring certain fleets to purchase ZEVs. The ACF ZEV phase-in approach provides initial focus where the best fleet electrification opportunities exist, sets clear targets for regulated fleets to make a full conversion to ZEVs, and creates a catalyst to accelerate development of a heavy-duty public charging infrastructure network.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and was anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the USEPA. In 2012, the USEPA issued a Final Rulemaking that set even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles. (See also the previous discussion in federal regulations under "*Update to Corporate Average Fuel Economy Standards [2017 to 2026]*.")

In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZEVs into a single package of standards. Under California's Advanced

[7] California Air Resources Board, December 2022, *2022 Scoping Plan for Achieving Carbon Neutrality*, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

Clean Car program, by 2025 new automobiles will emit 34 percent less GHG emissions and 75 percent less smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the State set a new low carbon fuel standard (LCFS) for transportation fuels sold in the state. EO S-01-07 set a declining standard for GHG emissions measured in CO_2e gram per unit of fuel energy sold in California. The LCFS required a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applied to refiners, blenders, producers, and importers of transportation fuels, and used market-based mechanisms to allow these providers to choose the most economically feasible methods for reducing emissions during the "fuel cycle."

Executive Order B-16-2012

On March 23, 2012, the State directed CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate ZEVs in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle [EV] charging stations). EO B-16-2012 also directed the number of ZEVs in California's State vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles have zero emissions (ZE) by 2015 and at least 25 percent by 2020. The EO also established a target for the transportation sector of reducing GHG emissions to 80 percent below 1990 levels.

Executive Order N-79-20

On September 23, 2020, Governor Newsom signed EO N-79-20, establishing a goal that 100 percent of in-state sales of new passenger cars and trucks will be ZE by 2035. Additionally, the fleet goals for trucks are that 100 percent of drayage trucks are ZE by 2035, and 100 percent of medium- and heavy-duty vehicles in the state are ZE by 2045, where feasible. The EO's goal for the State is to transition to 100 percent ZE off-road vehicles and equipment by 2035, where feasible.

Renewables Portfolio: Carbon Neutrality Regulations

Senate Bills 1078, 107, and X1-2 and Executive Order S-14-08

A major component of California's Renewable Energy Program is the RPS established under SBs 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. EO S-14-08, signed in November 2008, expanded the State's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production decreases indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

SB 350 (de Leon) was signed into law in September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100. Under SB 100, the RPS for public-owned facilities and retail sellers consists of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Senate Bill 1020

SB 1020 was signed into law on September 16, 2022. SB 1020 provides interim RPS targets (90 percent renewable energy by 2035 and 95 percent renewable energy by 2040) and requires renewable energy and zero-carbon resources to reach 100 percent clean electricity by 2045.

Energy Efficiency Regulations

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for the consideration and possible incorporation of new energy efficiency technologies and methods.

CEC adopted the 2022 Building Energy Efficiency Standards on August 11, 2021, and they went into effect on January 1, 2023. The 2022 standards encourage efficient electric heat pumps, establish electric-ready requirements for new homes, expand solar photovoltaic and battery storage standards, and strengthen ventilation standards, among other approaches. The 2022 standards require mixed-fuel single-family homes to be electric ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers.

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[8] The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2022. The 2022 CALGreen standards became effective on January 1, 2023.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR Sections 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Diversion Regulations

Assembly Bill 939: Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code Section 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the Act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

Assembly Bill 341

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multi-family residential land uses. Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

Assembly Bill 1327

The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code Section 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The Act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of

[8] The green building standards became mandatory in the 2010 edition of the Code.

recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Assembly Bill 1826

In October 2014, Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that, on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multi-family residential dwellings with five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed with food waste.

Water Efficiency Regulations

Senate Bill X7-7

The 20x2020 Water Conservation Plan was issued by the California Department of Water Resources (DWR) in 2010 pursuant to SB 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized DWR to prepare a plan implementing urban water conservation requirements, which DWR did through the 20x2020 Water Conservation Plan. In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 required urban water providers to adopt a water conservation target of a 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

Assembly Bill 1881: Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires CEC to consult with DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves, to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Short-Lived Climate Pollutant Reduction Strategy

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and methane. Black carbon is the light-absorbing component of fine particulate matter produced during the incomplete combustion of fuels. SB 1383 required CARB, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfills. On March 14, 2017, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy, which identifies the State's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black

carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use.[9] In-use on-road rules were expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.

Regional Regulations

Plan Bay Area 2050

MTC and the Association of Bay Area Governments (ABAG) adopted Plan Bay Area 2050 on October 21, 2021. Plan Bay Area 2050 provides transportation and environmental strategies to continue to meet the regional transportation-related GHG reduction goals of SB 375. Under the Plan Bay Area 2050 strategies, just under half of all Bay Area households would live within one half-mile of frequent transit by 2050, with this share increasing to over 70 percent for households with low incomes. Transportation and environmental strategies that support active and shared modes, combined with a transit-supportive land use pattern, are forecasted to lower the share of Bay Area residents that drive to work alone from over 50 percent in 2015 to 36 percent in 2050. GHG emissions from transportation would decrease significantly as a result of these transportation and land use changes, and the Bay Area would meet the State mandate of a 19-percent reduction in per-capita emissions by 2035 — but only if all strategies are implemented.

To achieve this sustainable vision for the Bay Area, the Plan Bay Area land use concept plan for the region concentrates the majority of new population and employment growth in the region in Priority Development Areas (PDAs). PDAs are transit-oriented, infill development opportunity areas within existing communities. An overarching goal of the regional plan is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger vehicle, VMT, and associated GHG emissions reductions.

Bay Area Clean Air Plan

BAAQMD adopted the 2017 *Clean Air Plan, Spare the Air, Cool the Climate* (Clean Air Plan) on April 19, 2017. The 2017 Clean Air Plan also lays the groundwork for reducing GHG emissions in the Bay Area to meet the State's 2030 GHG reduction target and 2050 GHG reduction goal. It also includes a vision for the Bay Area in a post-carbon year 2050 that encompasses the following:

- Construct buildings that are energy efficient and powered by renewable energy.
- Walk, bicycle, and use public transit for the majority of trips and use electric-powered autonomous public transit fleets.
- Incubate and produce clean energy technologies.
- Live a low-carbon lifestyle by purchasing low-carbon foods and goods in addition to recycling and putting organic waste to productive use.

[9] California Air Resources Board, 2017, Short-Lived Climate Pollutant Reduction Strategy, https://www.arb.ca.gov/cc/shortlived/shortlived.htm.

A comprehensive multipollutant control strategy has been developed to be implemented in the next three to five years to address public health and climate change and to set a pathway to achieve the 2050 vision. The control strategy includes 85 control measures to reduce emissions of ozone, particulate matter, toxic air contaminants, and GHG from a full range of emission sources. These control measures cover the following sectors: (1) stationary (industrial) sources; (2) transportation; (3) energy; (4) agriculture; (5) natural and working lands; (6) waste management; (7) water; and (8) super-GHG pollutants. Overall, the proposed control strategy is based on the following key priorities:

- Reduce emissions of criteria air pollutants and toxic air contaminants from all key sources.
- Reduce emissions of "super-GHGs," such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels (i.e., gasoline, diesel, and natural gas).
  - Increase efficiency of the energy and transportation systems.
  - Reduce demand for vehicle travel and high-carbon goods and services.
- Decarbonize the energy system.
  - Make the electricity supply carbon-free.
  - Electrify the transportation and building sectors.

Bay Area Commuter Benefits Program

Under Air District Regulation 14, Model Source Emissions Reduction Measures, Rule 1, Bay Area Commuter Benefits Program, employers with 50 or more full-time employees within the BAAQMD are required to register and offer commuter benefits to employees. In partnership with BAAQMD and MTC, the Rule's purpose is to improve air quality, reduce GHG emissions, and decrease the Bay Area's traffic congestion by encouraging employees to use alternative commute modes, such as transit, vanpool, carpool, bicycling, and walking. The benefits program allows employees to choose from one of four commuter benefit options, including a pre-tax benefit, employer-provided subsidy, employer-provided transit, and alternative commute benefit.

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to GHG emissions that are relevant to the proposed project are found in the Land Use and Conservation Elements and are listed in Table 4.7-2, *City of Belmont 2035 General Plan Policies Relevant to GHG Emissions.*

TABLE 4.7-2 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO GHG EMISSIONS

Policy Number	Policy Text
Chapter 2, Land Use Element	
Policy 2.1-2	Coordinate land use and transportation planning to ensure that land use patterns and intensities can be supported by and are accessible to the transportation network, including pedestrian and bicycle facilities.
Policy 2.13-6	Enhance walkability on a citywide scale by improving or adding sidewalks, landscaping, benches, wayfinding signage, public art, and pedestrian-scaled lighting, where appropriate and feasible.

TABLE 4.7-2 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO GHG EMISSIONS

Policy Number	Policy Text
Chapter 5, Conservation Element	
Policy 5.10-3	Ensure that construction and grading activities minimize short-term impacts to air quality by employing appropriate mitigation measures and best practices.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to GHG emissions. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to GHG emissions are included in Chapter 7, *Buildings,* Chapter 25*, Trees,* and Chapter 33, *Mandatory Organic Waste Disposal Reduction Regulations*.

- Chapter 7, Article IV, Division 8, *Solar Permit Streamlining*, this division provides an expedited, streamlined solar permitting process.
- Chapter 7, Article IV, Division 10, *Green Building Standards Code*, adopts the 2022 CALGreen standards, and is referred to as the Green Building Standards Code of the City of Belmont, California. Within this code, certain regulations are outlined about electric vehicle charging and how Electric vehicle supply equipment shall be installed in accordance with the California Electrical Code. Additionally, this code outlines the amount of parking spaces that should have EV charging station with Level 2 EV Ready.
- Chapter 7, Article IV, Division 10, Section 7-98.4.106.5.1, *New construction and qualifying alteration projects*, stipulates that all newly constructed buildings shall be *all-electric buildings*. Alterations that include replacement of over 50 percent of the existing foundation for purposes other than a repair or reinforcement, or where over 50 percent of the existing framing above the sill plate is removed or replaced for purposes other than repair, shall be *all-electric buildings*. Exceptions to this code include:
  - Multifamily residential building projects that have approved entitlements before the effective date of this section may install *fuel gas* for water heating systems serving multiple dwelling units. The applicant shall comply with BCC Section 4.106.5.2.
  - If the applicant establishes that there is not an all-electric prescriptive compliance pathway for the building under the California Building Energy Efficiency Standards, and that the building is not able to achieve the performance compliance standard applicable to the building under the Energy Efficiency Standards using commercially available technology and an approved calculation method, then the local enforcing agency may grant a modification. The applicant shall comply with Section BCC 4.106.5.2.
- Chapter 25, *Trees,* provides guidance on Protected Trees in order to preserve scenic beauty, and welfare of residents and in order to counteract air pollutants and maintain climatic balances, among reasons. If a person wants to remove a Protected Tree, they must submit an application and pay the applicable fees as established by the City Council. A notice form must also be placed on the tree during the review process. This chapter is also known as the Belmont Tree Ordinance. Protected Trees include principal native trees, such as a coast live oak, valley oak, redwood, madrone, bay laurel, or

buckeye having a single main stem or trunk of 10 inches or more diameter at 4.5 feet above grade height (DBH), or up to three of the largest secondary stems totaling 10 inches or more DBH. They also include woody, perennial plants with 14 inches or more DBH.

- Chapter 33, Section 33-6, *Requirements for tier one and tier two commercial edible food generators*, places regulations for tier one and two commercial edible food generators, one of the requirements is being able to demonstrate a positive reduction in GHG emissions from their Edible Food Recovery activity.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.7.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

City of Belmont Climate Action Plan

The City's Climate Action Plan (CAP) is a blueprint for the community's response to the challenges posed by climate change. The CAP is designed to reduce GHG emissions and create new City programs and services that support the community in doing the same. The CAP offers ways to make homes more energy-efficient, increase locally produced renewable energy, promote smart development patterns that emphasize complete neighborhoods and alternate modes of transportation, reduce waste heading to landfills, and make the municipal government an efficient and resource-conservation-minded organization. The CAP was developed in collaboration with the City/County Association of Governments of San Mateo.

The CAP has several goals. One goal is to demonstrate environmental leadership by taking reasonable steps to reduce GHG emissions. Another goal is to save money and promote green jobs by reducing utility costs through increased energy and water efficiency. The CAP also aims to comply with the letter and spirit of state environmental initiatives and promote sustainable development. By developing this CAP according to BAAQMD's Guidelines, a streamlined environmental review process is enabled for sustainable development projects.

City of Belmont Reach Codes

In January 2023, the City adopted local reach codes for building electrification and electric vehicle readiness.[10] The City of Belmont Reach Code overrides certain sections of the CALGreen regarding the installation of EV chargers for all residential and commercial projects due to its more stringent application of the code. The City of Belmont Reach Code also addresses the requirements for all newly constructed buildings to be fully electric. Certain exceptions can be sought depending on all affordable developments.

4.7.1.2 EXISTING CONDITIONS

Greenhouse Gases and Climate Change

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The IPCC has identified four major GHGs—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contributes to global warming to a lesser extent are nitrous oxide (N_2O), sulfur hexafluoride (SF6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.[11,12,13] The following briefly describes the major GHGs applicable to the proposed project:

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (i.e., oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (i.e., sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in landfills and water treatment facilities.
- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during the combustion of fossil fuels and solid waste.

[10] City of Belmont, 2024, *Reach Codes*, https://www.belmont.gov/departments/community-development/climate-action-plan/reach-codes, accessed on March 7, 2024.

[11] Intergovernmental Panel on Climate Change, 2001, *Third Assessment Report: Climate Change 2001*, New York: Cambridge University Press.

[12] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals); however, water vapor is not considered a pollutant because it is considered part of the feedback loop rather than a primary cause of change.

[13] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. The share of black carbon emissions from transportation is dropping rapidly and is expected to continue to do so between now and 2030 as a result of California's air quality programs. The remaining black carbon emissions will come largely from woodstoves/fireplaces, off-road applications, and industrial/commercial combustion (CARB 2022a). However, State and national GHG inventories do not include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 4.7-3, *GHG Emissions and Their Relative Global Warming Potential Compared to CO_2.* The GWP is used to convert GHGs to CO_2-equivalence (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under the IPCC Fifth Assessment Report (AR5) GWP values for CH_4, 10 MT of CH_4 would be equivalent to 280 MT of CO_2.

TABLE 4.7-3 GHG EMISSIONS AND THEIR RELATIVE GLOBAL WARMING POTENTIAL COMPARED TO CO_2

GHGs	Fourth Assessment Report Global Warming Potential relative to CO_2 [a]	Fifth Assessment Report Global Warming Potential Relative to CO_2 [a]	Six Assessment Report Global Warming Potential Relative to CO_2 [a]
Carbon Dioxide (CO_2)	1	1	1
Methane (CH_4) [b]	25	28	30
Nitrous Oxide (N_2O)	298	265	273

Notes: The IPCC published updated GWP values in its Sixth Assessment Report (AR6) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, GWP values identified in AR5 are used by the 2022 Scoping Plan for long-term emissions forecasting. Therefore, this analysis utilizes AR5 GWP values consistent with the current Scoping Plan.
a. Based on 100-year time horizon of the GWP of the air pollutant compared to CO_2.
b. The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.
Sources: Intergovernmental Panel on Climate Change, 2007, *Fourth Assessment Report: Climate Change 2007*, New York: Cambridge University Press; Intergovernmental Panel on Climate Change, 2013, *Fifth Assessment Report: Climate Change 2013*, New York: Cambridge University Press; Intergovernmental Panel on Climate Change, February 2022, Summary for Policymakers, *Sixth Assessment Report: Climate Change 2022: Impacts, Adaptation and Vulnerability*, https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that is attributable to human activities.

The recent IPCC AR6 summarizes the latest scientific consensus on climate change. It finds that atmospheric concentrations of CO_2 have increased by 50 percent since the Industrial Revolution and continue to increase at a rate of two parts per million each year. By the 2030s, and no later than 2040, the world will exceed 1.5 degrees Celsius (°C) warming.[14] These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants.[15] In the past, gradual changes in the Earth's temperature changed the distribution of species, availability of water, and other conditions. Human activities are accelerating this process so that

[14] California Air Resources Board, December 2022, *2022 Scoping Plan for Achieving Carbon Neutrality*, https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

[15] California Climate Action Team, March 2006, Climate Action Team Report to Governor Schwarzenegger and the Legislature.

environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime.[16]

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are hard to predict. Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historical trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in the frequency of warm spells and heat waves over most land areas.
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.
- Larger areas affected by drought.
- Intense tropical cyclone activity increases.
- Increased incidence of extreme high sea level (excluding tsunamis).

Potential Climate Change Impacts for California

There is at least a greater than 50 percent likelihood that global warming will reach or exceed 1.5°C in the near-term, even for the very low GHG emissions scenario.[17] Climate change is already impacting California and will continue to affect it for the foreseeable future. For example, the average temperature in most areas of California is already 1 degree Fahrenheit (°F) higher than historical levels, and some areas have seen average increases in excess of 2°F.[18] The California Fourth Climate Change Assessment identifies the following climate change impacts under a business-as-usual scenario, in which no new actions are taken to curb GHG emissions:

- Annual average daily high temperatures in California are expected to rise by 2.7°F by 2040, 5.8°F by 2070, and 8.8°F by 2100 compared to observed and modeled historical conditions. These changes are statewide averages. Heat waves are projected to become longer, more intense, and more frequent.
- Warming temperatures are expected to increase soil moisture loss and lead to drier seasonal conditions. Summer dryness may become prolonged, with soil drying beginning earlier in the spring and lasting longer into the fall and winter rainy season.
- High heat increases the risk of death from cardiovascular, respiratory, cerebrovascular, and other diseases.

[16] Intergovernmental Panel on Climate Change, 2007, *Fourth Assessment Report: Climate Change 2007*, New York: Cambridge University Press.

[17] IPCC, 2022, February. Summary for Policymakers. *Sixth Assessment Report: Climate Change 2022: Impacts, Adaptation and Vulnerability*, https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf.

[18] California Office of Emergency Services, 2020, *California Adaptation Planning Guide*, https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf.

- Droughts are likely to become more frequent and persistent through 2100.[19]
- Climate change is projected to increase the strength of the most intense precipitation and storm events affecting California.
- Mountain ranges in California are already seeing a reduction in the percentage of precipitation falling as snow. Snowpack levels are projected to decline significantly by 2100 due to reduced snowfall and faster snowmelt. California's water storage system is designed with the expectation that snow will stay frozen for many months, and that as it melts, it will be stored in a series of reservoirs and dams, many of which are used to generate electricity. Changing waterfall patterns therefore impact both water supply and electricity supply.
- Marine layer clouds are projected to decrease, though more research is needed to better understand their sensitivity to climate change.
- Extreme wildfires (i.e., fires larger than 10,000 hectares or 24,710 acres) are expected to occur 50 percent more frequently. The maximum area burned statewide may increase 178 percent by the end of the century. Drought and reduced water supplies can increase wildfire risk.
- Exposure to wildfire smoke is linked to increased incidence of respiratory illness.
- Sea-level rise is expected to continue to increase erosion of beaches, cliffs, and bluffs.[20]

Global climate change risks to California are shown in Table 4.7-4, *Summary of GHG Emissions Risks to California*, and include impacts to public health, water resources, agriculture, coastal sea level, forest and biological resources, and energy.

TABLE 4.7-4 SUMMARY OF GHG EMISSIONS RISKS TO CALIFORNIA

Impact Category	Potential Risk
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Fewer extremely cold nights Poor air quality made worse Higher temperatures increase ground-level ozone levels Deaths due to extreme heat
Water Resources Impacts	Decreasing Sierra Nevada snowpack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation

[19] Overall, California has become drier over time, with five of the eight years of severe to extreme drought occurring between 2007 and 2016, and with unprecedented dry years in 2014 and 2015. Statewide precipitation has become increasingly variable from year to year, with the driest consecutive four years occurring from 2012 to 2015 (OEHHA 2018).

[20] California Office of Emergency Services, June 2020, *California Adaptation Planning Guide*, https://www.caloes.ca.gov/HazardMitigationSite/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf.

TABLE 4.7-4 SUMMARY OF GHG EMISSIONS RISKS TO CALIFORNIA

Impact Category	Potential Risk
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea-level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pests and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: California Energy Commission, 2006, Our Changing Climate: Assessing the Risks to California, 2006 Biennial Report, CEC-500-2006-077, California Climate Change Center; California Energy Commission, May 2009, The Future Is Now: An Update on Climate Change Science, Impacts, and Response Options for California, CEC-500-2008-0077; California Climate Change Center, July 2012, Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California; California Natural Resources Agency, July 2014, Safeguarding California: Reducing Climate Risk: An Update to the 2009 California Climate Adaptation Strategy; California Office of Emergency Services, June 2020, *California Adaptation Planning Guide*.

4.7.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant greenhouse gas impact if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.
3. In combination with past, present, and reasonably foreseeable projects, result in cumulative greenhouse gas impacts in the area.

4.7.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University (NDNU) was at full capacity. The following operational analysis is based on occupancy and therefore

utilizes information gathered in 2013, while the following construction analysis is based on the built environment and utilizes information gathered in 2023.

Methodology

Construction

In calculating construction emissions from the proposed project, the following updates were made to the CalEEMod default construction activities and emission factors:

- Total construction activity for buildout of the proposed project was based on CalEEMod default construction schedule and activities for land use categories used for the emissions modeling. CalEEMod-default construction duration based on the land uses sizes was approximately four years. However, to account for a conservatively compressed potential buildout schedule, CalEEMod default construction phase durations were halved, while total equipment and construction-default on-road activity was conserved. The result of this was an effective doubling of equipment population, to account for an assumed compressed construction schedule of two years, vehicle activity, and emissions on a given construction day. The CalEEMod default construction duration for the entire project site was compressed to two years to represent the most intensive buildout schedule that could be possible for the project and is a conservative assessment of project construction impacts as it results in higher annual construction emissions and pollutant concentrations for the purpose of the criteria air pollutant emissions and health risk analyses.
- According to the Conceptual Development Plan (CDP) application, Stanford has committed to using renewable diesel and Tier 4 engines for all off-road equipment, including those rated less than 50 horsepower. The emission factors for Tier 4 engines were obtained from CalEEMod, which are based on CARB's Carl Moyer Guidelines.
- All worker vehicles are assumed to be fueled by gasoline, and all vendor vehicles and haul trucks are assumed to be fueled by diesel. On-road emissions were calculated using emission factors from EMFAC2021.
- One-way haul truck trip rates and VMT were calculated based on the amount of material to be moved and the truck capacity of 10 tons (or 16 cubic yards) per truck, as provided by Stanford.
- 50 percent of the parking spaces are assumed to be in a parking lot, while the other 50 percent are assumed to be in enclosed parking garages with an elevator. The parking lot is assumed to be paved with asphalt.
- Implementation of the City's standard condition related to ROG emissions as follows:

  > Pursuant to the City of Belmont 2035 General Plan EIR Mitigation Measure AQ-3, the applicant shall require their contractors, as a condition of contract, to reduce construction-related fugitive ROG emissions by ensuring that low-VOC coatings that have a VOC content of 10 grams/liter (g/L) or less are used during construction. The project applicant will submit evidence of the use of low-VOC coatings to BAAQMD prior to the start of construction.

  The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this

Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Operation

As previously discussed, the proposed project would result in the operation of up to 700,000 square feet of building space and associated parking and housing units (see Table 3-2, *Existing and Proposed Development*, in Chapter 3, *Project Description*, of this Draft EIR). To calculate emissions and energy consumption from the existing land uses, emission factors consistent with project partial buildout and full buildout years were applied to site activity levels in 2013. Therefore, the proposed project's net new operational emissions were estimated by calculating the difference between 2013 baseline emissions at full occupancy of the NDNU campus and project emissions at partial and full buildout of the proposed CDP. Details of emission estimate assumptions for each operational GHG emissions are provided below.

On-Road Mobile Sources

Daily trips and VMT generated by the existing conditions and the proposed project were provided by Fehr & Peers (Appendix J2, *Transportation Impact Analysis* of this Draft EIR). The proposed project will implement a TDM program that would result in a 19.2 percent reduction in trips and VMT compared to campus operations without such a program.

Mobile emission factors from running, idling, and starting vehicle exhaust, as well as evaporative running loss, tire wear, and brake wear emissions were calculated using EMFAC2021 for San Mateo County. Running exhaust, running loss evaporative, tire wear, and brake wear emissions were determined using factors with units of grams/mile while idling, and starting exhaust and other evaporative emissions were determined using factors with units of grams/trip. These mobile emission factors are based on default vehicle population projections in EMFAC2021 and do not account for CARB's Advanced Clean Cars II rule, which requires 100 percent of new cars and light trucks to be zero-emission vehicles by 2035.

Vehicles driving on roadways would also emit $PM_{2.5}$ and PM_{10} in the form of resuspended road dust. The weighted average silt loading factor specific to San Mateo County was calculated based on travel fraction by roadway category and silt loading parameters obtained from CARB's Entrained Road Travel Emission Inventory Source Methodology document, as shown in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR. The average silt loading factor was then used in conjunction with parameters from the CARB Miscellaneous Process Methodology 7.9 for Entrained Road Travel, Paved Road Dust to calculate fugitive PM_{10} and $PM_{2.5}$ emission factors, summarized in Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR. Road dust $PM_{2.5}$ and PM_{10} emissions were added to exhaust $PM_{2.5}$ and PM_{10} emissions for comparison against BAAQMD's total operational criteria air pollutant emissions significance thresholds. As discussed above, mobile emissions for the proposed project's partial and full operations do not account for the Advanced Clean Cars II rule and are therefore conservative. Mobile emissions from the proposed project are expected to be less than what is modeled due to the higher fleet projections of zero-emission vehicles by 2035.

Area Sources

Area sources that would generate GHG emissions from project operations would principally include landscaping equipment. Annual usage hours for typical landscaping equipment were estimated based on CalEEMod default usage hours per residential and non-residential square foot, derived from CARB's Small Off-Road Engines Model. Existing and proposed project landscaping areas were obtained from the Preliminary Engineering Report. To be conservative, all CalEEMod default landscaping equipment was assumed to be used except for snowblowers, which are not expected for the proposed project's climate. All landscaping equipment was assumed to use gasoline. Usage and emissions for gasoline landscaping equipment are summarized in Appendix C, *Air Quality, Energy, and Greenhouse Gases*. CARB's Assembly Bill No. 1346 requires engines of landscaping equipment produced on or after January 1, 2024, to be zero-emissions (e.g., electric). This is expected to increase the amount of zero-emission landscaping equipment in the Statewide fleet. Consistent with the Statewide trend, the percentage of zero-emission landscaping equipment used for Project operations is expected to be non-zero and to grow during the proposed project's buildout period. Thus, the estimates for project operations are conservative.

Energy Sources

Typical commercial and residential buildings consume natural gas and electricity. Both energy sources would generate GHG emissions; however, only on-site consumption of natural gas in heaters, boilers, and stoves would generate project-specific criteria air pollutants emissions. Proposed project buildings would be all-electric, with no natural gas hook-ups known at this time. Natural gas hook-ups may be necessary for laboratory uses associated with proposed academic uses; however, the design and energy needs of future laboratory uses are currently unknown, and it would be speculative to quantify criteria air pollutant emissions due to natural gas consumption associated with these future potential uses. Electricity usage under project conditions was calculated based on energy intensity from CalEEMod 2022 default parameters for the proposed project's land uses. Because the proposed new buildings on the project site would be all-electric, natural gas usage based on CalEEMod default parameters was replaced with electricity usage by multiplying the electric energy use rates from Table A-9 of the Sacramento Metropolitan Air Quality Management District Greenhouse Gas Threshold Report by the proposed project's number of dwelling units or non-residential square footage. Methodology from Sacramento Air Quality Management District (rather than from BAAQMD) was used because currently BAAQMD does not have guidance to account for increases in electricity use to replace natural gas appliances.

Existing conditions include both natural gas and electricity consumption for building operations. Electricity use and natural gas consumption for existing (2013) conditions was estimated from the campus's January 2018 to November 2020 utility bills. The total electricity and natural gas use was summed annually then divided by the campus population for each year to estimate a per-person use. This per person energy use was averaged and adjusted to the 2013 campus population.

GHG-1	The proposed project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

The same methodologies and construction activities described in Chapter 4.2, *Air Quality*, of this Draft EIR for estimating criteria air pollutant emissions were used to estimate short-term and long-term GHG emissions. The following analysis evaluates the proposed project's impacts related to GHG emissions and climate change using the BAAQMD's thresholds of significance for evaluating climate impacts from land use projects and plans.

Construction

BAAQMD has not developed quantitative thresholds for construction related GHG emissions; however, the 2022 Guidelines recommend that the GHG emissions should be quantified and disclosed. Additionally, the Guidelines recommend best management practices (BMPs) for reducing GHG emissions from construction activities.

GHG emissions from project construction would be generated from on-road construction vehicles and off-road construction equipment, which are presented in Table 4.7-5, *Summary of Project Construction Annual GHG Emissions*.

TABLE 4.7-5 SUMMARY OF PROJECT CONSTRUCTION ANNUAL GHG EMISSIONS

Year	Biogenic CO_2 [a] (MT/year)	Non-Biogenic CO_2e [a] (MT/year)
1	796	1,618
2	438	929
Total	**1,234**	**2,547**

Note: MT = metric ton.
a. The Global Warming Potential for CH_4, N_2O and HFC were estimated to be 25,298 and 1,430 respectively, consistent with CalEEMod 2022.1.
Source: Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR.

All off-road construction equipment would use renewable diesel. CO_2 emissions from the combustion of renewable diesel are considered biogenic because the fuel is considered biomass and the CO_2 emitted from biomass burning is a part of the biogenic carbon cycle. Other GHGs emitted from the combustion of renewable diesel are conservatively estimated as non-biogenic CO_2e. In contrast, all on-road construction vehicles are not under any fuel requirements, and all CO_2e emissions from this source are considered non-biogenic.

Construction GHG Best Management Practices

Since construction emissions are temporary and variable, BAAQMD has not developed a quantitative threshold of significance for construction related GHG emissions. However, to minimize GHG emissions and emissions of other air quality pollutants, BAAQMD developed a list of best management practices (BMP) that are recommended for incorporation into projects. The description of each BMP, the applicability to the proposed project, and the consistency of the proposed project's design features are

presented in Table 4.7-6, *Consistency with Best Management Practices for Construction-Related GHG Emissions*.

TABLE 4.7-6 CONSISTENCY WITH BEST MANAGEMENT PRACTICES FOR CONSTRUCTION-RELATED GHG EMISSIONS

Construction BMP	Applicability/Project Consistency
Use zero-emission and hybrid-powered equipment to the greatest extent possible, particularly if emissions are occurring near sensitive receptors or located within a BAAQMD-designated Community Air Risk Evaluation (CARE) area or AB 617 community.	**To be determined.** The proposed project is not located in a CARE area nor is it considered an AB 617 community. Zero-emission and hybrid-powered equipment availability and feasibility will be assessed at the time of construction.
Require all diesel-fueled off-road construction equipment be equipped with EPA Tier 4 Final compliant engines or better as a condition of contract.	**Consistent.** The proposed project will use diesel off-road construction equipment with Tier 4 Final compliant engines.
Require all on-road heavy-duty trucks to be zero emissions or meet the most stringent emissions standard, such as model year (MY) 2024 to 2026, as a condition of contract.	**To be determined.** Availability of zero emission on-road heavy-duty trucks will be assessed at the time of construction.
Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 2 minutes (A 5-minute limit is required by the state airborne toxics control measure [Title 13, Sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site and develop an enforceable mechanism to monitor idling time to ensure compliance with this measure.	**Consistent.** The proposed project will minimize idling time by requiring that engines are turned off when not in use or reducing the time of idling to no more than 2 minutes.
Prohibit off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day.	**Consistent.** The proposed project will prohibit off-road diesel equipment from being in the "on" position for more than 10 hours per day.
Use CARB–approved renewable diesel fuel in off-road construction equipment and onroad trucks.	**To be determined**. The proposed project will use CARB-approved renewable diesel fuel in off-road construction equipment in compliance with the City's standard condition as follows: ▪ Pursuant to the City of Belmont 2035 General Plan EIR Mitigation Measure AQ-2, the applicant shall require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall operate on renewable diesel (such as diesel high performance renewable). Renewable diesel is currently commercially available in the San Francisco Bay Area. ▪ Prior to issuance of a building permit, the applicant must provide documentation (i.e., construction contracts or signed agreements) demonstrating that all contractors and subcontractors agree to operate all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of work on renewable diesel (such as diesel high performance renewable). Feasibility of using renewable diesel in on-road trucks will be assessed at the time of construction.
Use USEPA SmartWay certified trucks for deliveries and equipment transport.	**To be determined.** Availability of SmartWay-certified trucks will be assessed at the time of construction.

TABLE 4.7-6 CONSISTENCY WITH BEST MANAGEMENT PRACTICES FOR CONSTRUCTION-RELATED GHG EMISSIONS

Construction BMP	Applicability/Project Consistency
Require all construction equipment is maintained and properly tuned in accordance with manufacturer's specifications. Equipment should be checked by a mechanic and determined to be running in proper condition prior to operation.	**Consistent.** All construction equipment will be maintained and properly tuned in accordance with manufacturer's specifications and all equipment will be checked by a certified mechanic and determined to be in proper running order prior to operation.
Where grid power is available, prohibit portable diesel engines and provide electrical hook ups for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.	**To be determined.** Details of construction will be developed later at the DDP stage. If feasible, the proposed project will use electrical hook ups for electric construction tools.
Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites.	**Not applicable.** Grid power is available at the project site.
Encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking to construction workers and offer meal options onsite or shuttles to nearby meal destinations for construction employees.	**To be determined.** Details of construction and the construction management plan will be developed later at the DDP stage. If feasible, the proposed project will provide shuttles and bicycle parking to construction workers.
Reduce electricity use in the construction office by using LED bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.	**To be determined.** Details of construction and the construction management plan will be developed later at the DDP stage. As feasible, the proposed project will reduce electricity use in the construction office following these measures.
Minimize energy used during site preparation by deconstructing existing structures to the greatest extent feasible.	**Consistent.** Details of construction will be developed later at the DDP stage. As feasible, the proposed project will minimize energy used during site preparation.
Recycle or salvage nonhazardous construction and demolition debris, with a goal of recycling at least 15 percent more by weight than the diversion requirement in Title 24.	**To be determined.** A minimum of 65 percent of non-hazardous construction and demolition waste would be recycled and/or salvaged for reuse; however, consistent with BAAQMD's CEQA Air Quality Guidelines, should the project sponsor not be able to recycle an additional 15 percent beyond the minimum requirement in Title 24, the proposed project's construction-related GHG emissions would not be considered potentially significant.
Use locally sourced or recycled materials for construction materials (goal of at least 20 percent based on costs for building materials and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products used should be certified through a sustainable forestry program.	**Consistent**. 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing will be reused or recycled.
Use low-carbon concrete, minimize the amount of concrete used and produce concrete on-site if it is more efficient and lower emitting than transporting ready-mix.	**To be determined.** Details of construction will be developed later at the DDP stage. As feasible, the proposed project will use low-carbon concrete, minimize the amount of concrete used and produce concrete on-site if it is more efficient and lower emitting than transporting ready-mix.
Develop a plan to efficiently use water for adequate dust control since substantial amounts of energy can be consumed during the pumping of water.	**Consistent.** The proposed project will control fugitive dust by watering the site two times a day.
Include all requirements in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant on- or off-road construction equipment for use prior to any ground-disturbing and construction activities.	**Consistent.** The proposed project will include all requirements in applicable documents with successful contractors prior to any construction activities.

Source: Bay Area Air Quality Management District, April 20, 2023, *CEQA 2022 Guidelines*.

As shown in Table 4.7-6, the proposed project contains GHG-reducing features that would be implemented and consistent with the BAAQMD-recommended BMPs for construction-related GHG emissions. Additionally, potential future development under the proposed project would be required to implement the City's following standard conditions related to reducing GHG emissions:

- Pursuant to the City of Belmont 2035 General Plan EIR Mitigation Measure AQ-1, the applicant shall require their contractors, as a condition of contract, to further reduce construction-related exhaust emissions by ensuring that all off-road equipment greater than 50 hp and operating for more than 20 total hours over the entire duration of construction activities shall operate on an EPA-approved Tier 4 or newer engine. Exemptions can be made for specialized equipment where Tier 4 engines are not commercially available within 200 miles of the project site. The construction contract must identify these pieces of equipment, document their unavailability, and ensure that they operate on no less than an EPA- approved Tier 3 engine. ARB regulations will result in the percentage of Tier 4 engines increasing over the next several years.

    a) The applicant must require their contractors, as a condition of contract, to reduce construction-related exhaust emissions by implementing following measures during construction related activities: Idling times must be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage must be provided for construction workers at all access points.

    b) All construction equipment must be maintained and properly tuned in accordance with manufacturer's specifications. All equipment must be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- A minimum of 10 percent of the construction materials must be acquired (sourced) within 100 miles of the planning area. Documentation must be provided before the final building permit inspection.
- A minimum of 50 percent of the construction waste generated by this project must be recycled or salvaged for use. Documentation must be provided before the final building permit inspection. Sample forms located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance.
- Prior to issuance of a building permit, the applicant must provide documentation (i.e., construction contracts or signed agreements) demonstrating that all contractors and subcontractors agree to operate all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of work on renewable diesel (such as Diesel high performance renewable).

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Because the proposed project would contain GHG-reducing features and implement City standard conditions to be consistent with the BAAQMD-recommended BMPs for construction-related GHG emissions, impacts would be *less than significant*.

Operation

The proposed project operations would generate GHG emissions from electricity use, water supply and wastewater treatment, operational sources (area sources and mobile sources) and solid waste. Operational emissions of GHGs, namely biogenic CO_2 and non-biogenic CO_2e, are summarized in Table 4.7-7, *Operational GHG Emissions*.

TABLE 4.7-7 OPERATIONAL GHG EMISSIONS

	GHG Emissions (MT/yr) [a]	
Emissions Source	Biogenic CO_2 (MT/year)	Non-Biogenic CO_2e (MT/year)
Existing Conditions (2030) [b]		
Landscaping	NA	10
Electricity Use	NA	79
Natural Gas Use	NA	873
Water Use	13	43
Waste Disposal	75	186
Refrigerants	NA	0.11
Mobile	NA	2,298
Total Emissions	**88**	**3,489**
Existing Conditions (2035) [b]		
Landscaping	NA	10
Electricity Use	NA	72
Natural Gas Use	NA	873
Water Use	13	43
Waste Disposal	75	186
Refrigerants	NA	0.11
Mobile	NA	2,154
Total Emissions	**88**	**3,338**
Partial Buildout [c]		
Landscaping	NA	21.8
Electricity Use	NA	0
Natural Gas Use	NA	NA
Water Use	6	21
Waste Disposal	53	133
Refrigerants	NA	0.28
Mobile	NA	1,797
Total Emissions	**59**	**1,972**
Net Emissions [d]	**-28**	**-1,517**

TABLE 4.7-7 OPERATIONAL GHG EMISSIONS

	GHG Emissions (MT/yr) [a]	
Emissions Source	Biogenic CO_2 (MT/year)	Non-Biogenic CO_2e (MT/year)
Full Buildout Conditions [e]		
Landscaping	NA	44
Electricity Use	NA	0
Natural Gas Use	NA	NA
Water Use	12	41
Waste Disposal	106	266
Refrigerants	NA	0.56
Mobile	NA	3,368
Total Emissions	**119**	**3,719**
Net Emissions [d]	**31**	**381**

Note: MT = metric ton.
a. Emissions estimated using methods consistent with CalEEMod® version 2022.1.0.
b. Operational emissions from existing conditions were calculated using CalEEMod® default data and emission factors (2030 and 2035 to align with partial and full buildout years) based on the existing land use type and energy use rates provided by the Project Sponsor.
c. Operational emissions were estimated for partial buildout by using scaling factors by land use type and phase. For indirect electricity emissions from water usage and wastewater treatment, usage rates rather than emissions were scaled to account for year specific energy emission factors from PG&E.
d. Net emissions were calculated as the difference between buildout emissions and existing condition emissions.
e. Full buildout operational emissions are based on electricity, natural gas, and water usage rates operations provided by the Project Sponsor alongside CalEEMod® defaults for architectural coating, consumer product, landscaping, and waste emissions. Mobile emissions were calculated using traffic information provided from the traffic engineers.
Source: Appendix C, *Air Quality, Energy, and Greenhouse Gases*, of this Draft EIR.

BAAQMD's Performance Standards for Climate Impacts

The proposed project would be compliant with BAAQMD's thresholds of significance for climate impacts of land use projects as follows:

Buildings: The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development); and The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

For performance standards related to buildings, the proposed project must comply with the City's Reach Code, which requires all-electric buildings in most circumstances. Proposed project buildings would be all-electric, with no natural gas hook-ups known at this time. Natural gas hook-ups may be necessary for laboratory uses associated with proposed academic uses; however, the design and energy needs of future laboratory uses are currently unknown, and it would be speculative to assume the proposed project's use of natural gas. Therefore, the proposed project is assumed to not include natural gas appliances or natural gas hook-ups. Nonetheless, enforceability of such a commitment and the specific application of the exemptions listed under City Ordinance 2023-1170 related to the proposed project are unknown at the time this analysis was prepared; thus, Mitigation Measure GHG-1.1 would be required to ensure that all new buildings under the proposed project will be all-electric and will not include natural gas appliances or natural gas hook-ups, except for laboratory uses if deemed absolutely necessary for that laboratory's

operation. In such circumstance, Mitigation Measure GHG-1.1 allows future laboratory uses that determine natural gas to be an essential requirement for operation to offset associated GHG emissions through measures either on-site or off-site to result in net zero operational natural gas GHG emissions. Moreover, as discussed in Chapter 4.5, *Energy*, of this Draft EIR, the proposed project will not result in wasteful, inefficient, or unnecessary energy usage.

Transportation: Achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts on CEQA; and Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

For performance standards related to transportation, the proposed project will implement a TDM program as a project feature and will result in VMT that is more than 15 percent below the regional average for both employee-based VMT and resident-based VMT.[21] Furthermore, the proposed project has committed to meet the voluntary Tier 2 electric vehicle charging standards of the CALGreen Code.[22] Nonetheless, the specific enforceability of this commitment is unknown at the time this analysis was prepared; thus, Mitigation Measure GHG-1b would be required to ensure that all new off-street parking improvements included in the proposed project meet the CALGreen Tier 2 EV charging standards in effect at the time applications are submitted for those DDPs.

Beyond compliance with the BAAQMD's performance thresholds, the proposed project is committed to the following key sustainability features that are not required by regulations or ordinances:

- All electricity used on the proposed Stanford Belmont Campus would be generated from renewable sources, either through purchase from the City of Belmont's green energy provider or through other means.
- To the extent feasible, all diesel-powered equipment used for the proposed project construction would satisfy Tier 4 standards and use renewable diesel.

In addition, potential future development under the proposed project would be required to implement the City's following standard conditions related to GHG emissions reductions:

- Pursuant to the City of Belmont 2035 General Plan EIR Mitigation Measure AQ-5, the developer(s) shall provide education for residential and commercial tenants concerning green consumer products. Prior to receipt of any certificate of final occupancy, the project sponsors shall work with the City of Belmont to develop electronic correspondence to be distributed by email to new residential and commercial tenants that encourages the purchase of consumer products that generate lower than typical VOC emissions. Examples of green products may include low-VOC architectural coatings, cleaning supplies, and consumer products, as well as alternatively fueled landscaping equipment.

[21] Fehr & Peers, 2023, July 24, Stanford Belmont Campus Transportation Impact Analysis.

[22] Stanford University, February 7, 2023, Teleconference on Project details between Kathleen Kavanaugh and John D. Donahoe at Stanford University and Taylor Vencill and Ivy Tao at Ramboll.

- Efficient irrigation systems shall be used throughout all landscaped areas in accordance with the Model Water Efficient Landscape Ordinance.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

As described above, the proposed project would be consistent with BAAQMD's recommended project design elements and would meet the voluntary Tier 2 electric vehicle charging standards of the CALGreen Code with Mitigation Measures GHG-1.1 and GHG-1.2. Because the proposed project would require mitigation to ensure BAAQMD's performance thresholds are met, this impact could be potentially *significant*.

Impact GHG-1.1: The proposed project could potentially include natural gas appliances or natural gas hook-ups that may result in greenhouse gas (GHG) emissions impacts to the environment. Because the enforceability of project commitments to be designed all-electric and the application of exemptions included in the City's all-electric ordinance are unknown at the time of this analysis, the proposed project's GHG emissions impacts could be potentially significant.

Mitigation Measure GHG-1.1: Prior to the issuance of building permits, the Project Sponsor shall demonstrate to the City of Belmont Building Department that individual Detailed Development Plans (DDP) under the proposed project are designed to be all-electric and do not include any natural gas plumbing or hook-ups, except for laboratory uses where natural gas is deemed absolutely necessary for that laboratory's operation. This all-electric design requirement shall be noted on all applicable building site plans and utility plans and confirmed by the City of Belmont Building Department prior to the issuance of any building permit.

For laboratory uses where natural gas is deemed absolutely necessary for that laboratory's operation, the Project Sponsor shall submit documentation to the City of Belmont Planning Division that sufficiently demonstrates the necessity of natural gas for the laboratory use and quantifies the estimated annual GHG emissions generated from natural gas use associated with the laboratory use. Any laboratory use which uses natural gas as part of the proposed project shall be designed and pre-wired to accommodate future all-electric conversion. Prior to the issuance of any certificate of occupancy for the subject laboratory use, the Project Sponsor shall provide documentation to the City of Belmont Planning Division that verifies the implementation of measures either on-site or off-site that fully offset annual GHG emissions associated with natural gas use for that laboratory use. Should carbon offsets be purchased to offset any part of the GHG emissions associated with natural gas use, the Project Sponsor shall purchase carbon credits from a voluntary GHG carbon offset provider with an established protocol that requires projects generating GHG carbon offsets to demonstrate that the reduction of GHG emissions are real, permanent, quantifiable, verifiable, enforceable, and additional (per the definition in California Health Safety Code Sections 38562(d)(1) and (2)), unless subject to an equally effective requirement in place at the time of DDP application submittal). Definitions for these terms are as follows:

- **Real**: Estimated GHG reductions should not be an artifact of incomplete or inaccurate emissions accounting. Methods for quantifying emission reductions should be conservative to avoid overstating a project's effects. The effects of a project on GHG emissions must be comprehensively accounted for, including unintended effects (often referred to as "leakage").
- **Additional**: GHG reductions must be additional to any that would have occurred in the absence of the Climate Action Reserve, or of a market for GHG reductions generally. "Business as usual" reductions (i.e., those that would occur in the absence of a GHG reduction market) should not be eligible for registration.
- **Permanent**: To function as offsets to GHG emissions, GHG reductions must effectively be "permanent." This means, in general, that any net reversal in GHG reductions used to offset emissions must be fully accounted for and compensated through the achievement of additional reductions.
- **Quantifiable**: The ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs in the offset project boundary, while accounting for uncertainty and activity-shifting leakage and market-shifting leakage.
- **Verified**: GHG reductions must result from activities that have been verified. Verification requires third-party monitoring data for a project to ensure the data are complete and accurate.
- **Enforceable**: The emission reductions from offset must be backed by a legal instrument or contract that defines exclusive ownership and can be enforced within the legal system in the country in which the offset project occurs or through other compulsory means. Please note that for this mitigation measure, only credits originating within the United States are allowed.

Impact GHG-1.2: The proposed project would include new parking areas that could potentially fail to comply with Bay Area Air Quality Management District's performance standard for meeting the electric vehicle (EV) charging standards in the most recently adopted version of CALGreen Tier 2. Because the enforceability of project commitments to meet the current most stringent voluntary standards for off-street EV requirements is unknown at the time of this analysis, the proposed project's greenhouse gas emissions impacts could be potentially significant.

Mitigation Measure GHG-1.2: Prior to the issuance of building permits, the Project Sponsor shall demonstrate to the City of Belmont Building Department that future off-street parking improvements are designed to comply with the latest CALGreen Tier 2 EV charging standards, unless subject to equally effective requirements in place at the time of Detailed Development Plan application submittal. This shall be noted on all applicable building site plans and utility plans and confirmed by the City of Belmont Building Department prior to the issuance of any building permit.

Significance with Mitigation: Less than significant. Because the enforceability of project commitments to be designed all-electric and incorporation of Tier 2 CALGreen EV charging standards are unknown at the time of this analysis, the proposed project's GHG emissions impacts could be potentially significant with mitigation and could conflict with the State's long-term GHG emission reduction targets. Consistent with the Sacramento Metropolitan Air Quality Management District's guidance for

determining impact significance for projects related to GHG emissions,[23] off-setting necessary natural gas GHG emissions for the expected lifetime of the project (30 years; expected time before major renovations would be necessary) and prewiring for all-electric conversions will allow new developments to be consistent with the State's 2030 and 2045 GHG emissions reduction goals. In addition, ensuring that new off-street parking under the proposed project meets the CALGreen Tier 2 EV charging standards will support regional adoption of EVs to accelerate the transportation sector's energy transition necessary to meet the State's long-term GHG emissions reduction goals. As such, implementation of Mitigation Measures GHG-1.1 and GHG-1.2 would ensure that the proposed project's natural gas GHG emissions are avoided or offset, and that parking design supports the future regional adoption of EVs. Incorporation of Mitigation Measures GHG-1.1 and GHG-1.2 would ensure that the proposed project's GHG emissions impacts are less than significant with mitigation.

GHG-2	The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Appendix G, *Environmental Checklist*, of CEQA Guidelines requires a proposed project to analyze whether it would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. The proposed project is evaluated for consistency with the following plans, polices, and regulations:

- 2022 CARB Scoping Plan adopted under AB 1279
- Plan Bay Area 2050
- BAAQMD 2017 Clean Air Plan
- City of Belmont CAP

Descriptions of each plan, policy, and regulation in addition to a discussion of project consistency with each plan, policy, and regulation is presented below.

2022 CARB Scoping Plan

In November 2022, CARB approved California's 2022 Scoping Plan for Achieving Carbon Neutrality (Third Update). This update extends the previous Scoping Plans and lays out a path to achieve carbon neutrality no later than 2045, as directed by AB 1279. The 2022 Scoping Plan looks toward the 2045 climate goals and the deeper GHG reductions needed to meet the state's statutory carbon neutrality target specified in AB 1279 and EO B-55-18. The 2022 Scoping Plan provides a sector-by-sector roadmap for achieving these goals, focusing on technological feasibility, cost-effectiveness and equity. Appendix D of the 2022 Scoping Plan makes nonbinding suggestions that local agencies, such as the City of Belmont, may consider as they identify significance thresholds and mitigation measures for GHG impacts. The 2022 Scoping Plan suggests, but does not mandate, measures related to renewable energy, the low carbon fuel standard,

[23] Sacramento Metropolitan Air Quality Management District, 2020, *Greenhouse Gas Thresholds for Sacramento County*, https://www.airquality.org/LandUseTransportation/Documents/SMAQMDGHGThresholds2020-03-04v2.pdf.

cleaner vehicles and fuels, short-lived climate pollutants, and natural and working lands that could be relevant to the proposed project.

Appendix D of the 2022 Scoping Plan states that a development project can determine consistency with the Scoping Plan by using significance criteria from an air district or other lead agency if the criteria align with the State's current GHG emission reduction goals. Because the BAAQMD's current GHG significance criteria were created to determine a project's "fair share" of what is necessary to meet California's 2045 climate goals, the criteria are sufficient to determine consistency with the 2022 Scoping Plan. Because the proposed project's impacts would be less than significant when compared against the BAAQMD's CEQA significance criteria for building and transportation design features, the proposed project would also be consistent with the 2022 Scoping Plan.

The proposed project would be consistent with key State plans and regulatory requirements referenced in the 2022 Scoping Plan designed to reduce statewide emissions. According to the 2022 Scoping Plan, reductions needed to achieve the 2045 target are expected to be achieved by decarbonizing the electricity sector, greatly increasing the fuel economy of vehicles and the number of zero-emission or hybrid vehicles, reducing the rate of growth in VMT, supporting high speed rail and other alternative transportation options, and increasing the use of high efficiency appliances, water heaters, and heating, ventilation, and air conditioning (HVAC) systems. The proposed project would support and would not impede implementation of these potential reduction strategies identified by CARB, and it would benefit from statewide and utility-provider efforts towards increasing the portion of electricity provided from renewable resources. The proposed project would also benefit from statewide efforts towards increasing the fuel economy standards of vehicles and reducing the carbon content of fuels. The proposed project would utilize energy efficient appliances and equipment, as required by Title 24, and it would provide EV charging stations to support the current and future use of electric and hybrid-electric vehicles by employees and visitors traveling to and from the site. The proposed project would install EV charging capabilities consistent with the City of Belmont Code and CALGreen Tier 2 standards. The electricity for EV charging at the proposed project would be supplied with 100 percent renewable and/or carbon free energy. For these reasons, the proposed project would be consistent with the objectives of the 2022 Scoping Plan, and impacts would be *less than significant*.

Plan Bay Area 2050

Plan Bay Area 2050 is a 30-year plan that outlines thirty-five integrated strategies across four key issues—housing, the economy, transportation, and the environment—to make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. The Plan Bay Area 2050's strategies chart a course to make the Bay Area more affordable, connected, diverse, healthy, and vibrant for all residents, while also achieving regional GHG reduction targets established by the CARB pursuant to the Sustainable Communities and Climate Protection Act of 2008 (SB 375, Statutes of 2008). The Plan Bay Area 2050 serves as the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) for the Bay Area. MTC and ABAG are required under federal and State law to prepare an RTP/SCS every four years. The Plan covers the Bay Area's nine counties, including San Mateo County. Environmental Strategies EN7, EN8, and EN9 are strategies recommended to reduce climate emissions. A consistency analysis of the proposed project with Plan Bay Area 2050 is presented in Table 4.7-8, *Consistency of Proposed Project with Plan Bay Area 2050*.

TABLE 4.7-8 CONSISTENCY OF PROPOSED PROJECT WITH PLAN BAY AREA 2050

Environmental Strategies	Applicability/Project Consistency
EN3. Fund energy upgrades to enable carbon neutrality in all existing commercial and public buildings. Support electrification and resilient power system upgrades in all public and commercial buildings.	**Consistent.** The project site will source its electricity from 100 percent renewable energy, including for the existing buildings on the project site to be preserved.
EN4. Maintain Urban Growth Boundaries. Using urban growth boundaries and other existing environmental protections, focus new development within the existing urban footprint or areas otherwise suitable for growth, as established by local jurisdictions.	**Consistent.** The project boundaries stay within an existing urban footprint.
EN7. Expand commute trip reduction programs at major employers. Set a sustainable commute target for major employers as part of an expanded Bay Area Commuter Benefits Program, with employers responsible for funding incentives and disincentives to shift auto commuters to any combination of telecommuting, transit, walking and/or bicycling.	**Consistent.** The proposed project's TDM program includes measures including bike paths, ridesharing programs, shuttle services, subsidized transit benefits, and telecommuting (see Appendix J, *Transportation*, of this Draft EIR).
EN8. Expand clean vehicle initiatives. Expand investments in clean vehicles, including more fuel-efficient vehicles and electric vehicle subsidies and chargers.	**Consistent.** The proposed project will offer EV charging stations in a manner proportional to the amount of parking provided in each phase of development and the proposed project will meet CALGreen Tier 2 requirements and City of Belmont building code for electric vehicle charging infrastructure, which would support the use of efficient vehicles.
EN9. Expand transportation demand management initiatives. Expand investments in programs like vanpools, bikeshare, carshare, and parking fees to discourage solo driving.	**Consistent.** The proposed project's TDM program includes measures such as end-of-trip bicycle facilities, bike paths, ridesharing program, first/last mile shuttle program, and subsidized transit benefits (see Appendix J, *Transportation*, of this Draft EIR).

Source: Appendix J, *Transportation*, of this Draft EIR.

As shown in Table 4.7-8, the proposed project features are consistent with these strategies. Therefore, implementation of the proposed project would not obstruct implementation of the Plan Bay Area 2050 to reduce community-wide GHG emissions, and impacts would be *less than significant*.

City of Belmont CAP

The CAP included 23 measures to address the reduction of GHG emissions and climate change. The description of each measure, the measure's applicability to the proposed project, and the consistency of the proposed project's design features with each measure are presented in Table 4.7-9, *Consistency of Proposed Project with City of Belmont Climate Action Plan*.

TABLE 4.7-9 CONSISTENCY OF PROPOSED PROJECT WITH CITY OF BELMONT CLIMATE ACTION PLAN

Measure	Description	Applicability/Consistency
Energy		
EC1	Adopt CALGreen for non-residential buildings triennially. Work to mandate achievement of CALGreen Tier 1 energy performance.	**Partially applicable/Consistent.** This action is directed toward the City and only applies to individual projects through the City's implementation by adopting ordinances and standard conditions. However, the proposed project is committed to meeting CALGreen Tier 2 EV charging requirements by Mitigation Measure GHG-1b.
EC2	Update CALGreen for residential buildings triennially. Work to mandate achievement of CALGreen Tier 1 energy performance.	**Partially applicable/Consistent.** This action is directed toward the City and only applies to individual projects through the City's implementation by adopting ordinances and standard conditions. However, the proposed project is committed to meeting CALGreen Tier 2 EV charging requirements by Mitigation Measure GHG-1b.
EC3	Provide financial incentives for solar photovoltaics and hot water system installation.	**Not applicable.** This action is directed toward the City.
EC4	Provide or encourage residential energy audits and retrofits. Leverage existing rebates/add additional rebates for energy efficient retrofits.	**Not applicable.** This action is directed toward the City.
EC5	Promote and assist with marketing and outreach for Pacific Gas and Energy (PG&E) energy efficiency and demand response programs for the nonresidential sector. Leverage existing rebates/add additional rebates for energy efficient retrofits.	**Not applicable.** This action is directed toward the City and is not applicable to individual developments.
EC6	Continue to be part of the Peninsula Clean Energy (PCE) Community Choice Aggregation Program and continue to opt for the ECO100 option (100 percent renewable energy) for all City facilities.	**Not applicable.** This action is directed toward the City. The proposed project is a private development and will not include any City facilities. However, all electricity used on the project site will be generated from renewable sources, either through the purchase from PCE or through other means.
EM1	Replace street, signal lights, parks and parking lot lighting with efficient lighting (LEDs, induction, etc.).	**Not applicable.** This action is directed toward the City.
EM2	Implement a sustainable purchasing policy that emphasizes recycled materials and Energy Star equipment.	**Partially applicable/Consistent.** This action is directed toward the City and only applies to individual projects through the City's implementation by adopting ordinances and standard conditions. However, large appliances installed in the proposed buildings will be EnergyStar-rated products or equivalent.
EM3	Mandate all new municipal buildings achievement of CALGreen Tier 1 energy performance.	**Not applicable.** This action is directed toward the City and the proposed project will not include any municipal buildings.
EM4	Complete feasibility study on the installation of solar or other renewable energy projects at City facilities and install where feasible. Set a goal for renewable energy purchase if installation is not feasible.	**Not applicable.** This action is directed toward the City. The proposed project will not include any City facilities.
EM5	Participate in San Mateo County Energy Watch and leveraged benchmarking to identify energy efficiency audit and retrofit projects and track energy performance.	**Not applicable.** This action is directed toward the City.

TABLE 4.7-9 CONSISTENCY OF PROPOSED PROJECT WITH CITY OF BELMONT CLIMATE ACTION PLAN

Measure	Description	Applicability/Consistency
EW1	Promote existing and/or new rebates for water efficient appliances and fixtures.	**Partially applicable/Consistent.** This action is directed toward the City and only applies to individual projects through the City's implementation by adopting ordinances and standard conditions. However, the proposed project will install high efficiency plumbing fixtures such as toilets, urinals, showerheads, etc.
EW2	Adopt Bay Area Water Supply and Conservation Agency Ordinances or triennial CALGreen codes that apply to water.	**Not applicable.** This action is directed toward the City.
Transportation and Land Use		
TL1	Establish a Smart Growth Policy that prioritizes infill, higher density, transportation oriented and mixed-use development	**Partially applicable/Consistent.** This action is directed toward the City and only applies to individual projects through the City's implementation by adopting ordinances and standard conditions. The proposed project will increase density of an existing educational site and is therefore consistent with the Smart Growth Policy.
TL2	Remake urban landscape to ensure Complete Streets, with bike lanes, bike parking, traffic calming, beautification, etc. Continue to support Paper Trails and Safe Routes to School to encourage walking.	**Not applicable.** This action is directed toward the City. However, the proposed project will promote connectivity to bicycle network system and pedestrian sidewalk facilities.
TL3	Incentivize City Car Sharing Companies to open pods in town. Explore Bike Share program.	**Not applicable.** This action is directed toward the City. However, the proposed project's TDM program will provide employees with carpool/vanpool matching service. Additionally, carpool/vanpool/rideshare loading zones will be provided (see Appendix J, *Transportation*, of this Draft EIR).
TM1	Prioritize purchase of efficient vehicles and alternative fuel vehicles (including off-road equipment). Maintain existing vehicles for optimum mileage. Encourage staff to drive minimally and efficiently. Establish government operations idling policy.	**Not applicable.** This action is directed toward the City and City-owned equipment. However, the proposed project will meet CALGreen Tier 2 requirements for electric vehicle charging infrastructure with Mitigation Measure GHG-1b, which would support the use of alternative fuel vehicles.
TM2	Establish alternative work schedules to reduce employee commute.	**Not applicable.** This action is directed toward the City. However, the proposed project will allow telecommuting and flexible work schedules to reduce employee commute.
TM4	Target purchase or lease of new or conversion of existing government vehicles to more efficient vehicles.	**Not applicable.** This action is directed toward the City.
Solid Waste		
WC1	Increase participation in recycling programs and ensure weekly collection of recyclables and organic waste.	**Consistent.** The proposed project will implement recycle programs and educate the campus on waste reduction, reuse, recycling and composting.
WC2	Mandate businesses recycle and provide staff or contractor to verify compliance.	**Consistent.** The proposed project is required by the City to provide plans and materials that include details for collecting trash and recycling.

TABLE 4.7-9 CONSISTENCY OF PROPOSED PROJECT WITH CITY OF BELMONT CLIMATE ACTION PLAN

Measure	Description	Applicability/Consistency
WC4	Increase diversion/recycling of yard waste by landscapers and landscape maintenance businesses and food scraps by residents and businesses. Explore a ban on these organics from landfill.	**Consistent.** The City of Belmont is responsible for implementing this measure as well as ensuring compliance with SB 1383, which requires 7 percent of organic waste to be diverted by 2025. The Project Sponsor's Department of Sustainability, Utilities & Infrastructure will work with the City of Belmont to ensure compliance here and with any of the campus's internal goals.
All Sectors		
A1	Establish voluntary program that allows businesses to brand themselves as green by following sustainable practices.	**Partially applicable/Consistent.** This action is directed toward the City and only applies to individual projects through the City's implementation by adopting ordinances and standard conditions. However, the proposed project is committed to a variety of sustainability features and leads by example in sustainability and reducing environmental footprint.

Source: City of Belmont, 2017, *Climate Action Plan*.

The proposed project would be consistent with the City's CAP, as demonstrated above. Therefore, implementation of the proposed project would not obstruct implementation of the City's CAP to reduce community-wide GHG emissions, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

GHG-3 The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative greenhouse gas impacts in the area.

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Therefore, impacts under Impact Discussion GHG-1 are not project-specific impacts to global warming, but are the proposed project's contribution to this cumulative impact. As described under Impact Discussion GHG-1, implementation of the proposed project would implement feasible construction GHG reduction BMPs in subsequent DDP applications. The proposed project could fail to implement all necessary BAAQMD performance standards and could result in potentially significant GHG emissions impacts. Therefore, Mitigation Measures GHG-1.1 and GHG-1.2 would be required to ensure impacts are reduced to less-than-significant levels. With Mitigation Measures GHG-1.1 and GHG-1.2, the proposed project is considered to contribute its fair share of the cumulative GHG reduction required to achieve the State's climate goals. Therefore, project-related GHG emissions and their contribution to global climate change would not be cumulatively considerable, and GHG emissions impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.8 HAZARDS AND HAZARDOUS MATERIALS

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential hazards and hazardous materials impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential hazards and hazardous materials impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

The information and analysis in this section is based in part on the following technical studies:

- *Phase I Environmental Site Assessment, Notre Dame de Namur University: Main Campus & Koret Field/Theatre*, prepared by EBI Consulting, dated May 22, 2020.
- *Phase I Environmental Site Assessment Report, 7.56-acre parcel within the 47.30-acre Notre Dame de Namur University*, prepared by GEM Group, Inc., dated April 10, 2020.
- *Memorandum: Due Diligence Findings and Preliminary Evaluations, Belmont Property*, prepared by GSI Environmental, dated March 17, 2021.

A complete copy of each of these reports is included in Appendix F, *Geology and Soils Data*, of this Draft EIR.

4.8.1 ENVIRONMENTAL SETTING

4.8.1.1 REGULATORY FRAMEWORK

Federal Regulations

United States Environmental Protection Agency

The United States Environmental Protection Agency (USEPA) is the primary federal agency that regulates hazardous materials and waste. In general, the USEPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The agency is responsible for researching and setting national standards for a variety of environmental programs, delegating the responsibility for issuing permits, and monitoring and enforcing compliance to states and Native American tribes. USEPA programs promote handling hazardous waste safely, cleaning up contaminated land, and reducing waste volumes through such strategies as recycling. California falls under the jurisdiction of USEPA Region 9. Under the authority of the Resource Conservation and Recovery Act (RCRA) and in cooperation with State and tribal partners, the USEPA Region 9 Waste Management and Superfund Divisions manage programs for site environmental assessment and cleanup, hazardous and solid waste management, and underground storage tanks.

Hazardous Materials Transportation Act

The United States Department of Transportation regulates the interstate transport of hazardous materials and waste through implementation of the Hazardous Materials Transportation Act. This act specifies

driver-training requirements, load labeling procedures, and container design and safety specifications. Transporters of hazardous wastes must also meet the requirements of additional statutes such as RCRA.

Occupational Health and Safety Administration

The Occupational Safety and Health Administration (OSHA) requires specific training for hazardous materials handlers, provision of information to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets from materials manufacturers. The material safety data sheets describe the risks, as well as proper handling and procedures, related to specific hazardous materials. Employee training must include response and remediation procedures for hazardous materials releases and exposures.

Resource Conservation and Recovery Act

Federal hazardous waste laws are generally promulgated under the RCRA, as amended by the Hazardous and Solid Waste Amendments of 1984. These laws provide for the "cradle to grave" regulation of hazardous waste. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed.

Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1986

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund," on December 11, 1980. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. The Superfund Amendments and Reauthorization Act (SARA) amended the CERCLA on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites; required Superfund actions to consider the standards and requirements found in other State and federal environmental laws and regulations; provided new enforcement authorities and settlement tools; increased State involvement in every phase of the Superfund program; increased the focus on human health problems posed by hazardous waste sites; encouraged greater citizen participation in making decisions on how sites should be cleaned up; and increased the size of the trust fund to $8.5 billion.

State Regulations

California Unified Program Administration

In 1993, Senate Bill 1082 gave the California Environmental Protection Agency (CalEPA) the authority and responsibility to establish a unified hazardous waste and hazardous materials management and regulatory program, commonly referred to as the Unified Program. The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of environmental and emergency response programs. The Unified Program Administration and Advisory Group (UPAAG) was created to foster effective working partnerships between local, State and federal agencies. The UPAAG's goals and objectives are listed in the UPAAG Strategic Plan. The six programs are:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Program
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements

The State agency partners involved in the Unified Program have the responsibility of setting program element standards, working with CalEPA on ensuring program consistency, and providing technical assistance to the certified unified program agencies. The following State agencies are involved with the Unified Program:

- California Environmental Protection Agency. The Secretary of the CalEPA is directly responsible for coordinating the administration of the Unified Program. The Secretary certifies Unified Program Agencies (CUPAs). The Secretary has certified 83 CUPAs to date. These 84 CUPAs carry out the responsibilities previously handled by approximately 1,300 State and local agencies.
- Department of Toxic Substances Control. The Department of Toxic Substances Control (DTSC) provides technical assistance and evaluation for the hazardous waste generator program including onsite treatment (tiered permitting).
- Governor's Office of Emergency Services. The Governor's Office of Emergency Services is responsible for providing technical assistance and evaluation of the Hazardous Material Release Response Plan (Business Plan) Program and the California Accidental Release Response Plan (CalARP) Programs.
- Office of the State Fire Marshal. The Office of the State Fire Marshal is responsible for ensuring the implementation of the Hazardous Material Management Plans and the Hazardous Material Inventory Statement Programs. These programs tie in closely with the Business Plan Program.
- State Water Resources Control Board. The State Water Resources Control Board provides technical assistance and evaluation for the underground storage tank program in addition to handling the oversight and enforcement for the aboveground storage tank program.

Under Division 4.5 of Title 22 of the California Code of Regulations (CCR) and the California Hazardous Waste Control Law (Health and Safety Code Division 20, Chapter 6.5), DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. Both RCRA and the Hazardous Waste Control Law impose "cradle to grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

State law requires county and local agencies to implement the Unified Program. The agency in charge of implementing the program is called the CUPA. The Hazardous Materials Program within the County of San Mateo Division of Environmental Health Services is the designated CUPA for the county.

California Division of Occupational Safety and Health

Like OSHA at the federal level, the California Division of Occupational Safety and Health (Cal/OSHA) is the responsible State-level agency for ensuring workplace safety. Cal/OSHA assumes primary responsibility for

the adoption and enforcement of standards regarding workplace safety and safety practices. In the event that a work site is contaminated, a Site Safety Plan must be crafted and implemented to protect the safety of workers. Site Safety Plans establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from the contaminated site or building.

California Health and Safety Code

California Health and Safety Code Chapter 6.95 and CCR Title 19, Section 2729, set out the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled on site. A business that uses hazardous materials or a mixture containing hazardous materials must establish and implement a management plan if the hazardous material is handled in certain quantities.

Hazardous Materials Transport

State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads.

Waste Disposal Regulations

The disposal of contaminated soil is regulated by the Regional Water Quality Control Boards (RWQCBs) and is regulated based on the concentrations of the chemical constituents that are present. Soils having concentrations of contaminants higher than certain acceptable levels must be handled and disposed as hazardous waste when excavated. CCR Title 22, Section 66261.20-24 contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste.

Accidental Release Prevention Law/Chemical Accident Release Prevention Program

Senate Bill (SB) 1889 required California to implement a federally mandated program governing the accidental airborne release of chemicals listed under Section 112 of the Clean Air Act. CalARP addresses facilities containing specified hazardous materials that, if involved in an accidental release, could result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive. San Mateo Division of Environmental Health Services is responsible for the implementation of Cal ARP in the County and is the assigned CUPA for this site.

State Underground Storage Tank Program

State laws also regulate Underground Storage Tanks (UST) and Aboveground Storage Tanks (AST) containing hazardous substances. These laws are primarily found in the Health and Safety Code, and, combined with CCR Title 23, comprise the requirements of the State UST program. The laws contain requirements for UST permitting, construction, installation, leak detection monitoring, repairs and

corrective actions and closures. In accordance with State laws, the San Mateo County Environmental Health Division implements UST and AST regulations in San Mateo County.

Asbestos-Containing Materials Regulations

State-level agencies, in conjunction with the EPA and OSHA, regulate removal, abatement, and transport procedures for asbestos-containing material (ACM). Releases of asbestos from industrial, demolition, or construction activities are prohibited by these regulations and medical evaluation and monitoring is required for employees performing activities that could expose them to asbestos. Additionally, the regulations include warnings that must be heeded and practices that must be followed to reduce the risk for asbestos emissions and exposure. Finally, federal, state, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos.

Airborne Toxic Control Measures

The California Air Resources Board (CARB) and USEPA identified asbestos as a toxic air contaminant and hazardous air pollutant, respectively. CARB identified asbestos as a toxic air contaminant in 1986. Subsequently, CARB adopted two Airborne Toxic Control Measures (ATCM) to address some of the health concerns associated with exposure to asbestos:

- ATCM for Surfacing Applications (adopted in 1990)
- ATCM for Construction, Grading, Quarrying, and Surface Mining Operations (adopted in 2001)

The two asbestos regulations address minimizing the placement of asbestos-containing materials on unpaved surfaces and requiring work practices to minimize asbestos emissions from such activities where naturally occurring asbestos is found or is likely to be found. The ATCMs were intended to minimize the release of asbestos fibers during activities involving the handling of asbestos.

The USEPA requires specific work practices to control the release of asbestos fibers relating to a renovation and/or demolition activity. The USEPA delegates enforcement authority to state and local agencies for renovation and/or demolition activities that involve the handling of asbestos. CARB and the state's 35 local air districts are delegated the authority to enforce the USEPA's National Emission Standards for Hazardous Air Pollutants regulations for asbestos.

California Health and Safety Code 25250.26

California Health and Safety Code 25250.256 requires that every generator of used oil, other than the owner or operator of a used oil collection center, as defined in Section 48622 of the Public Resources Code (PRC), or a household hazardous waste collection facility, as defined in Health and Safety Code Section 25218.1, that transfers used oil to a recycling facility, shall submit a certification to the transporter that the used oil transferred meets the definition of used oil pursuant to Section 25250.1(a) of the Health and Safety Code. The certification shall specifically state that the used oil does not contain polychlorinated biphenyls (PCBs) at a concentration of 5 parts per million (ppm), or greater, in accordance Health and Safety Code Section 25250.1(iv)(B)(1)(a).

Public Resources Code Section 21151.4

PRC Section 21151.4 regulates hazardous materials near schools. PRC Section 21151.4 prohibits the certification of an EIR for a project involving the construction or alteration of a facility that might reasonably be anticipated to emit hazardous air emissions or handle extremely hazardous air emissions in a quantity greater than a certain threshold, within a quarter mile of a school.

State of California Emergency Plan

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the California Governor's Office of Emergency Services, which coordinates the responses of other agencies, including CalEPA, the California Highway Patrol, the California Department of Fish and Wildlife, and the RWQCBs.

California Fire Code

The California Fire Code (CFC) incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official fire code for the State and all political subdivisions. It is found in CCR Title 24, Part 9, and is revised and published every three years by the California Building Standards Commission. The CFC is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions. The San Mateo Consolidated Fire Department, the City's fire service provider, regularly adopts each new CFC update under the *San Mateo Consolidated Fire Department Fire Code*. Chapter 50 of the CFC contains general requirements for hazardous materials that are intended to be paired with specific requirements for a given hazardous material in Chapter 51 through Chapter 67. These chapters contain more restrictive regulations beyond what is listed in the California Health and Safety Code concerning hazardous materials.

Regional Regulations

Bay Area Air Quality Management District Regulation XI, Rule 11-2

The Bay Area Air Quality Management District (BAAQMD) has primary responsibility for control of air pollution from sources other than motor vehicles and consumer products. The latter are typically the responsibility of CalEPA and CARB. The BAAQMD is responsible for preparation of attainment plans for non-attainment criteria pollutants, control of stationary air pollutant sources, and issuance of permits for activities, including demolition and renovation activities affecting asbestos-containing materials (District Regulation 11, Rule 2) and lead (District Regulation 11, Rule 1).

San Mateo County Multi-Jurisdictional Local Hazard Mitigation Plan

The purpose of hazard mitigation planning is to reduce the loss of life and property by minimizing the impact of disasters. The San Mateo County Multi-Jurisdictional Local Hazard Mitigation Plan (MJHMP), updated in 2021 in accordance with the federal Disaster Mitigation Action of 2000, provides an assessment of natural hazards in the county and a set of short-term mitigation actions to reduce or eliminate the long-term risk to people and property from these hazards. The City of Belmont annex of the

MJHMP can be found in Chapter 3 in Volume 2 and identifies the specific actions the City is taking to mitigate impacts from flooding, earthquakes, wildfires, and other emergency events, as well as climate change adaptation and resiliency strategies.[1]

Airport Land Use Compatibility Plan

The Airport Land Use Compatibility Plan (ALUCP) covering all three public airports in San Mateo County was approved by the City/County Association of Governments of San Mateo County (C/CAG) in December 1996. The C/CAG is the Airport Land Use Commission responsible for promoting land use compatibility around the County's airports in order to minimize public exposure to excessive noise and safety hazards. The C/CAG has since adopted updated ALUCPs for San Francisco International Airport (November 2012), Half Moon Bay Airport (September 2014), and San Carlos Airport (October 2015).[2] The updated ALUCPs describe a series of land use safety and compatibility zones and associated guidelines for development around each airport that are intended to prevent development that is incompatible with airport operations. These regulations include height restrictions based on proximity to the airport and flight patterns. The ALCUPs delineate two Airport Influence Areas (AIA), Area A and Area B, within proximity to each airport. As a requirement for development located in Area A, the presence of existing airports within two miles of the property must be disclosed in the notice of intention to offer the property for sale. For development located within Area B of the AIA, the C/CAG Board shall exercise its statutory duty to review proposed land development proposals, among other plans, ordinances, amendments, and actions.

San Mateo County Hazardous Materials Business Plan

Businesses must complete a Hazardous Materials Business Plan using an electronic reporting system for the safe storage and use of chemicals. Firefighters, health officials, planners, public safety officers, health care providers and others rely on the Business Plan in an emergency. They use it to prevent or lessen damage to the health and safety of people and the environment when a hazardous material is released. The Hazardous Materials Business Plan Program is also known as the Community Right to Know Program, and any citizen has the right to review these plans upon request.

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to hazards and hazardous materials that are relevant to the proposed project are found in the Land Use and Safety Elements and are listed in Table 4.8-1, *City of Belmont 2035 General Plan Policies Relevant to Hazards and Hazardous Materials.*

[1] County of San Mateo, October 2021, *2021 Multijurisdictional Local Hazard Mitigation Plan*, https://www.smcgov.org/ceo/2021-multijurisdictional-lhmp, accessed May 14, 2024.

[2] City/County Association of Governments of San Mateo County, 2023, Airport Land Use, https://ccag.ca.gov/plansreportslibrary-2/airport-land-use/, accessed May 14, 2024.

TABLE 4.8-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO HAZARDS AND HAZARDOUS MATERIALS

Policy Number	Policy Text
Chapter 2, Land Use Element	
Policy 2.16-1	Require new development located in the San Carlos Airport Influence Area (AIA) to comply with applicable land use compatibility provisions of the San Carlos ALUCP through review and approval of a site development plan, or other development permit. Unless otherwise approved by City Council in accordance with the provisions of Public Utilities Code Section 21675.1(d), development proposals must be consistent or conditionally consistent with applicable land use compatibility policies with respect to noise, safety, airspace protection, and overflight notification, as contained in the San Carlos ALUCP. Additionally, development proposals must meet FAA requirements with respect to building height as well as the provision of obstruction lighting when appurtenances are permitted to penetrate the transitional surface (a 7:1 slope from the runway primary surface). Consider C/CAG recommendations in the review of development proposals.
Chapter 6, Safety Element	
Policy 6.3-2	Require applicants for development projects in a potentially contaminated location to perform inspection and cleanup if the site is found to be contaminated with hazardous substances.
Policy 6.3-3	Require project applicants of potentially contaminated sites to have the site inspected by a registered Environmental Assessor. Reports detailing the results must be submitted for City review, and level of remediation and cleanup must be in compliance with federal and State standards.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to noise. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to noises are included in Chapter 8, *Civil Defense and Disaster Relief*. Chapter 8, Article III, *City Organization and Procedures During Emergencies*, provides for the preparation and carrying out of plans for the protection of persons and property within the city in the event of an emergency; the direction of the emergency organization; and the coordination of Belmont's emergency functions with all other public agencies, corporations, organizations, and affected private persons.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.8.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

4.8.1.2 EXISTING CONDITIONS

Historical Use of the Project Site

Multiple buildings on the project site predate current federal and state regulations. The west side of the project site was initially developed with a farmhouse and associated buildings as part of the Canada del Diablo Rancho in the 1850s. It was purchased by William Ralston, who developed the existing Ralston Hall Mansion by expanding the original Cipriani structure in 1868. After Ralston's death, his estate passed to United States Senator William Sharon. After Sharon's death in 1885, the mansion served as a girls' school for three years and then became the Gardner Sanitarium in 1901. In 1922, the Sisters of Notre Dame de Namur purchased the estate and began to update, modernize, and improve the estate that same year. The sisters, who founded the College of Notre Dame in San Jose in 1851, moved their growing school to the Belmont site and occupied and used the mansion and existing buildings for classrooms, residences, and a chapel during the years it was renovated. The campus was expanded through the years to its current configuration with the final addition of new dormitories in 2004.

It was reported that the Ralston estate was self-sufficient with on-site wells, cisterns, oil tanks, and a coal gasification plant, which is consistent with the historical nature of the site. The gasification plant was also reportedly used to provide gas to the small town of Belmont. The reported location of the former gasification plant varies, including accounts that it operated in the current location of the southern adjacent high school and west of Chula Vista Drive, which would be in the current on-site location of the athletic fields and/or theater. The high school was constructed circa 1924, a few years after the time the estate was purchased by the Sisters of Notre Dame de Namur. A review of available historic photographs indicates that the gasification plant and support facilities were located along Ralston Avenue on the south bank of Belmont Creek prior to the intersection of Ralston Avenue with the entrance road to the estate (current Laxague Drive). Oral history summaries place the gasification plant where the high school auditorium is located today, or the remains to the left of the lane to the entrance of Notre Dame, about opposite Chula Vista Drive.[3]

Project Site Hazardous Materials

Asbestos-Containing Materials

Asbestos is a naturally occurring fibrous material once commonly used as a fireproofing and insulating agent in building construction before the EPA banned such uses in the 1970s. Asbestos can also be atmospherically deposited from vehicle brake shoes. Naturally occurring asbestos can be found in serpentinite or other metamorphosed ultramafic rocks such as dunite, peridotite, and pyroxenite. Natural occurrences of asbestos are of concern due to potential exposure to the tiny fibers that can become airborne if asbestos-bearing rocks are disturbed by natural erosion or human activities such as road building, excavations, and other ground-disturbing activities. Overall, 53 of the 58 California counties, including all 9 Bay Area counties, contain reported asbestos occurrences and/or ultramafic rocks such as

[3] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

serpentinite that can contain asbestos fibers. However, in general, natural occurrences of asbestos fibers do not pose a threat unless disturbed and/or introduced into the air as fugitive dust.

The project site does have presence of ACM.[4, 5] According to the Phase I Environmental Site Assessment (ESA) prepared by EBI, there have been past removal projects for ACMs and they may still be present in other buildings that may surface during building activities on the site.[6]

Lead and Lead-Based Paint

The presence of lead in soils above natural background levels can be a common occurrence in areas that were created by fill and in former industrial areas. Lead concentrations can also be elevated in fill materials because the fill can originate from building and industrial rubble containing or affected by sources of lead such as piping, coatings, and other construction materials. CCR Title 22 considers waste soil to be hazardous if its total lead concentration exceeds 1,000 ppm and a soluble concentration exceeds 5 ppm. The limited Phase II ESA indicated that lead-impacted soil remains beneath Ralston Hall, Cuvilly Hall, and Tabard Inn (selected for the age of the building) in concentrations that exceed the residential screening level (SL) for lead of 80 milligrams per kilogram (mg/kg), its commercial/industrial SL of 320 mg/kg, and the construction worker SL of 160 mg/kg.[7]

Tetraethyl lead may be present from aerially deposited lead from historic traffic. Tetraethyl lead was a gasoline additive, and although it is no longer used, it is persistent in surface and shallow soils. Lead-based paints (LBP) are also potentially present at the site in buildings that were built before regulations on LBPs were in place.[8]

Oil-Containing Equipment and Polychlorinated Biphenyls

PCBs are synthetic organic oils that were historically used in many types of electrical equipment, including transformers and capacitors, primarily as electrical insulators. Production and use of PCBs was discontinued in 1977 following the discovery that exposure to PCBs may cause various health effects, including skin conditions and reduced immune system response. The following oil-containing equipment that was identified on the project site includes transformers and fluid-containing electrical equipment, hydraulic equipment, and air compressors.[9] As noted in the Phase I ESA, EBI observed several electrical transformers at the project site. The four pole-mounted transformers, the group of three-cylinder transformers, and one pad-mounted transformer appeared to be older and were not labeled to indicate

[4] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

[5] GEM Group, Inc. April 10, 2020, *Phase I Environmental Site Assessment Report, 7.56-acre parcel within the 47.30-acre Notre Dame de Namur University*.

[6] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

[7] GSI Environmental, March 17, 2021, *Memorandum: Due Diligence Findings and Preliminary Evaluations, Belmont Property*.

[8] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

[9] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre.*

PCB content. The transformers appeared to be in good condition, and no staining or other evidence of a release of dielectric fluid was observed in the vicinity of the transformer units; however, the pavement surrounding the three-cylinder units was densely covered with leaves, thereby limiting the visual inspection of the surrounding area.[10]

The limited Phase II ESA prepared collected samples around and outside the fenced enclosure of the St. Joseph Hall transformer pad. Each of the samples contained PCBs characterized as Aroclor-1260, and one sample also contained PCBs characterized as Aroclor 1254. Concentrations of these samples exceed the residential SL of 240 micrograms per kilogram (µg/kg), its commercial/industrial SL of 600 µg/kg for Aroclor-1260 and 590 µg/kg for Aroclor-1254, and the construction worker SL of 5,500 mg/kg. The limited Phase II ESA also collected soil samples within the footprint of the former pool and found that none of the detected constituents are present at concentrations exceeding SLs.[11]

The Phase I ESA prepared by GEM Group focused on the southern parcel and also identified PCBs in florescent light ballasts. The contents of the PCBs have been determined to be not prohibited.[12] Additionally, electrical transformers on the project site are classified as not PCB contaminated because the transformers were installed after 1979 and contain less than 50 ppm of PCB.[13]

Waste Generation, Storage, and Disposal

The Phase I ESA prepared by EBI identified waste streams generated at the property. These include regulated solid or liquid waste as well as biomedical waste and universal waste. However, no evidence of improper solid waste management or improper disposal of hazardous substances or petroleum products was observed.[14]

Other Hazardous Substances

The Phase I ESA prepared by EBI noted hazardous substances or petroleum products were present at the project site. These include cleaning compounds and janitorial supplies; heating, ventilation, and air conditioning (HVAC) treatment compounds; flammable materials/ petroleum products; latex paints, compressed carbon dioxide; and laboratory reagents. All hazardous substances were located and determined to be in good storage condition. No significant leaks, spills, or improper handling of petroleum or hazardous substances that might impact the environmental condition of the project site were identified.[15]

[10] GSI Environmental, March 17, 2021, *Memorandum: Due Diligence Findings and Preliminary Evaluations, Belmont Property*.

[11] GSI Environmental, March 17, 2021, *Memorandum: Due Diligence Findings and Preliminary Evaluations, Belmont Property*.

[12] GEM Group, Inc. April 10, 2020, *Phase I Environmental Site Assessment Report, 7.56-acre parcel within the 47.30-acre Notre Dame de Namur University*.

[13] GEM Group, Inc. April 10, 2020, *Phase I Environmental Site Assessment Report, 7.56-acre parcel within the 47.30-acre Notre Dame de Namur University*.

[14] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

[15] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

The limited Phase II collected water samples from the irrigation well at Ralston Hall that has reportedly not been used for at least 20 years. The samples were tested for coliform, general water quality analysis, and polycyclic aromatic hydrocarbons (PAHs). Total coliform is reported at a concentration of 365.4 MPN/100 mL (Most Probable Number per 100 milliliters). The presence of e. coli was reported at the reporting limit of 1.0 MPN/100 mL. The results of general water quality constituents were not found to exceed their primary or secondary maximum contaminant levels. No PAHs were detected.[16]

Former Gasification Plant

The general gas works process includes heating of feedstock, such as coal or oil (the Phase I ESA indicated the plant used coal), gas purification by product separation, tar processing, and wastewater treatment (or discharge of untreated wastewater). By-products of the process included tars, oils, sludges, and other materials. While the Phase I ESA concluded that the plant is unlikely to present a concern to the current and continued nonresidential land use and is therefore considered to represent a *de minimis* condition to the project site, according to the limited Phase II ESA, the presence of the former gas works is the most significant environmental issue at the project site.[17, 18]

Depending on its operation, wastes may have been discharged and/or buried, and residual materials could remain within partially buried tanks and/or foundations. The primary chemical impacts from former gas works include petroleum hydrocarbons, polycyclic aromatic hydrocarbons; benzene, toluene, ethylbenzene, and xylenes; and metals. Naphthalene and benzene may be present in soil vapor. There also could be residual impacts in the adjacent creek that include cyanide. Although the plant operated a century ago, buried residuals from the plant are known to persist.

Hazardous Materials Sites

The project site is currently listed on the following databases: FINDS, RCRA NonGen/NLR, ECHO, CIWQS, San Mateo Co Bl., CERS, and HWTS, HAZNET, and EMI, but none of the listings for the project site are related to a hazardous material release. Listings on CIWQS relate to the control of stormwater/surface water during construction activities, and HAZNET and HWTS listings are related to the removal of asbestos, laboratory wastes, and other hazardous chemicals for off-site processing. The RCRA NonGen/NLR listing indicates that the site is not a generator of RCRA hazardous wastes and no RCRA violations have been reported. The FINDs and ECHO listings were duplicates of other federal listings. The San Mateo Co. BI. listings indicate that NDNU participates in the County's stormwater management program. The EMI listing indicates that the site is listed on a State and/or local agency's air emissions database. The EMI data is extracted from permits for air emissions kept by the state or local air resources agency. Identification on these lists does not indicate that a site has impacted the environment. CERS is CalEPA's Regulated Site Portal database and combines data and includes environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental

[16] GSI Environmental, March 17, 2021, *Memorandum: Due Diligence Findings and Preliminary Evaluations, Belmont Property*.

[17] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

[18] GSI Environmental, March 17, 2021, *Memorandum: Due Diligence Findings and Preliminary Evaluations, Belmont Property*.

programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials. A listing on CERS does not indicate an environmental concern.

Two adjacent sites to the project site, the Hanibal Pump Station and the Notre Dame High School, are listed as HIST UST, HWTS, HAZNET, and CERS. A HIST UST is a historical listing that has been closed out. The HWTS and HAZNET listings relate to asbestos removal at the Notre Dame High School, and the CERS listing relates to the Hanibal Pump Station and indicates that the pump station is permitted as a chemical storage facility. Minor violations have been issued for the pump station, which was returned to compliance in 2014. Neither site is listed as a release site.[19]

The databases were searched and compiled by EBI, during the Phase I ESA for the project site in 2020, for properties with reported environmental conditions located within approximate minimum search distances as specified by ASTM Standard E 1527-13. The identified federal, State, and Tribal agency database listings are not considered an environmental concern to the project site based on one or more of the following rationale: absence of reported releases, current regulatory status, distance, presumed hydrogeologic gradient, and/or nature/extent of contamination.

Schools

The project site is a university campus. In addition, the southern and southwestern boundaries of the project site border two schools—Notre Dame Elementary school is at the northwest corner of the project location, and Notre Dame High School Belmont is along Laxague Drive, southwest of the project site. Figure 4.8-1, *Quarter-Mile School Buffer Zone*, shows the quarter-mile buffer zones for the neighboring schools and buffer zones for safety hazards.

Airport Hazards

San Carlos Airport is located approximately 1.5 miles east of the project site. It covers 110 acres and its runway is 2,600 by 75 feet. As shown on Figure 4.8-2, *San Carlos Airport Influence Areas*, the project site is within AIA Area A, and AIA Area B borders the project site's southeastern boundary.

[19] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University - Main Campus & Koret Field/ Theatre*.

Source: Nearmap 2024.

Approximate Project Site (Notre Dame de Nemur University Boundary)

Notre Dame Elementary School and Notre Dame High School Boundary

Quarter-Mile Radius around Notre Dame ES and Notre Dame HS

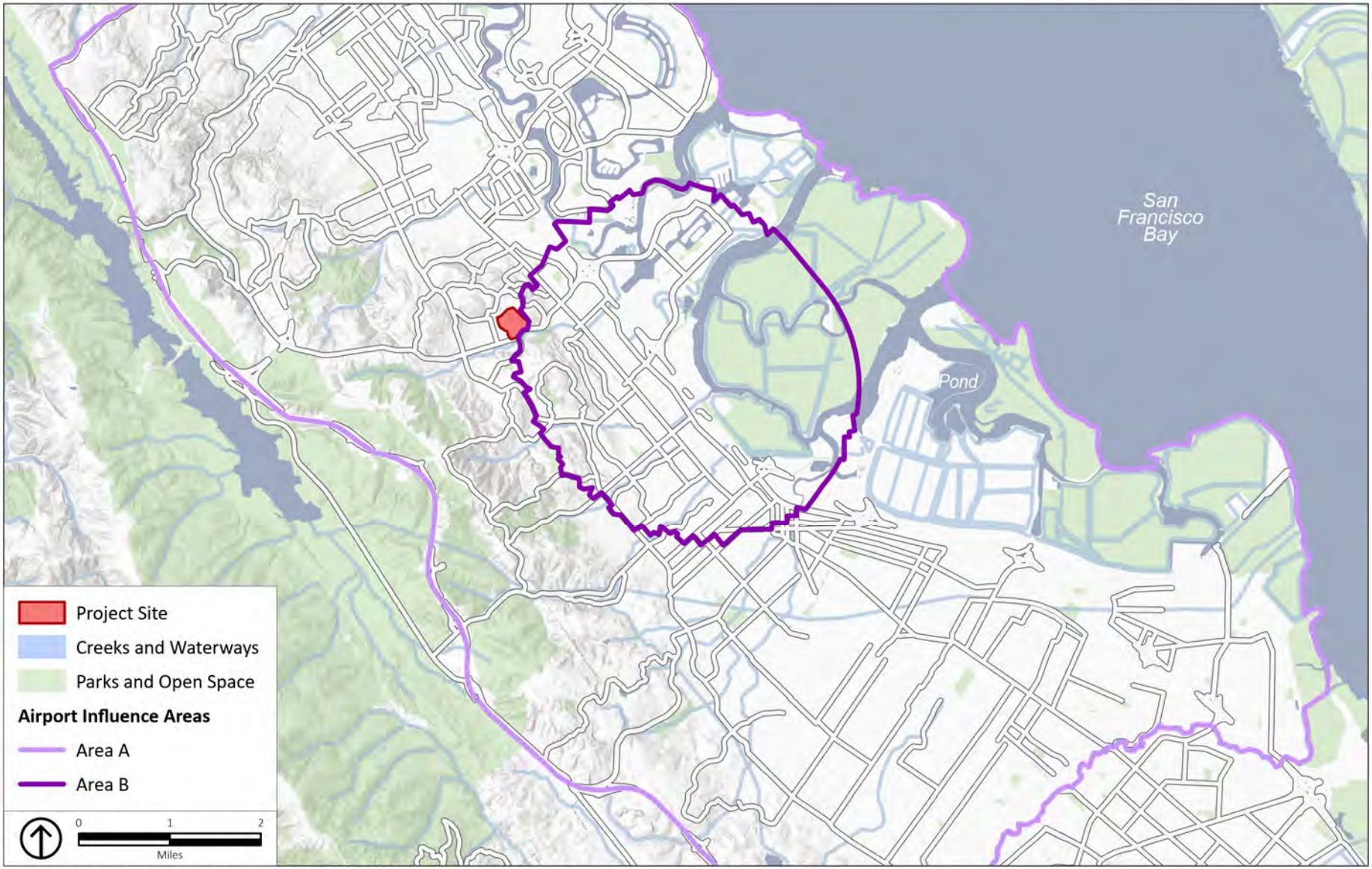
Area of Project Site within the Quarter-Mile Radius of Notre Dame ES and Notre Dame HS

0 2,000

Scale (Feet)

Figure 4.8-1

Quarter-Mile School Buffer Zone



Source: County of San Mateo, 2022; PlaceWorks, 2024.

Figure 4.8-2
San Carlos Airport Influence Areas

4.8.2 STANDARDS OF SIGNIFICANCE

Impacts related to emergency response and evacuation plans as well as wildland fires are fully discussed in Chapter 4.18, *Wildfire*, of this Draft EIR. Therefore, the following standards are not discussed in this chapter:

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

The proposed project would result in a significant hazards and hazardous materials impact if it would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
5. 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 result in a safety hazard or excessive noise for people residing or working in the project area.
6. In combination with past, present, and reasonably foreseeable projects, result in cumulative hazards and hazardous materials impacts in the area.

4.8.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following hazards and hazardous materials analysis is based on the natural environmental setting and therefore utilizes information gathered in 2023.The proposed project would be required to implement the City's following standard condition related to Phase I and Phase II ESAs:

> Submittal of a Phase I ESA for specific projects, and if a Phase I assessment indicates the presence or likely presence of contamination, a Phase II soil/groundwater testing and remediation through the CUPA for the area, the San Mateo County Environmental Health Services- Groundwater Protection Program is required before development may occur. This remediation includes the preparation of

other plans and reports that are reviewed and approved by the CUPA, such as a Soils & Groundwater Management Plan (SGMP), a Health and Safety Plan (HSP), a Dust and Vapor Control Plan (DVCP), and a Vapor Intrusion Mitigation (VIM) Plan.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, City of Belmont Standard Development Requirements and Conditions of Approval, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Two Phase I ESAs and a limited Phase II ESAs have been prepared for the project site and the findings are accordingly used in the following analysis. A full Phase II ESA is still required for the proposed project prior to ground disturbance in identified portions of the project site where the Phase I ESA has indicated the presence or likely presence of contamination.

HAZ-1 The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

The Phase I ESAs did not identify any evidence of recognized environmental conditions as part of the investigation.[20, 21] However, implementation of the proposed project would include land uses that would require the routine use, transport, and disposal of hazardous materials and waste and may increase exposure to risk of hazards. Future construction activities associated with potential future development under the proposed project may also generate hazardous materials and waste, such as fuels and oils from construction equipment and vehicles.

The Phase I ESAs identified waste streams generated at the project site. These included regulated solid or liquid waste as well as biomedical waste. Other notable hazardous substances or petroleum products in connection with identified uses were also observed at the project site. These include cleaning compounds and janitorial supplies, HVAC treatment compounds, flammable materials/ petroleum products, latex paints, compressed carbon dioxide, and laboratory reagents. However, no evidence of significant leaks, spills, or improper handling of petroleum or hazardous substances were identified to impact the environmental conditions of the project site.[22] The Phase I ESAs also noted that based on the original date of construction for many of the on-site buildings, there is the potential that LBP is present at the project site. ACMs are also present in buildings proposed for demolition.

The limited Phase II ESA identified lead in the soil beneath Ralston Hall. Given that the impacted soil is covered by the floor slab, there is no direct contact pathway to project site occupants; however, there

[20] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

[21] GEM Group, Inc. April 10, 2020, *Phase I Environmental Site Assessment Report, 7.56-acre parcel within the 47.30-acre Notre Dame de Namur University*.

[22] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

could be an exposure should construction occur beneath the slab. The detected lead concentrations suggest that the soil could be classified as hazardous waste under RCRA regulations. The limited Phase II ESA also recommends that PCB-impacted soil be removed to below risk-based residential SLs. While the there is no direct exposure to fill in the former pool near the Wilkie, Kane, and Carroll apartments and none of the constituents detected by the limited Phase II ESA are present at concentrations exceeding SLs, results indicated that the fill material is chemically impacted and should be managed under the guidance of a site management plan if disturbed. Furthermore, as noted in the limited Phase II ESA, the presence of the former gas works where Koret Field and the tennis courts are currently located is the most significant environmental issue at the project site.[23] As noted, a full Phase II ESA with recommended mitigation is still required for the proposed project. Submittal of a full Phase II ESA prior to ground disturbance where the former gas works where Koret Field and the tennis courts are currently located would serve to mitigate exposure of hazardous materials.

Federal and State regulations require adherence to specific guidelines regarding the use, transportation, disposal, and accidental release of hazardous materials, as described in Section 4.8.1.1, *Regulatory Framework*. The EPA is responsible for administering the RCRA, which regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. The management of hazardous materials and waste within California is under the jurisdiction of CalEPA, which coordinates the State's Unified Program for permitting, inspecting, and enforcing regulations related to hazards materials. As the CUPA for the area, the County of San Mateo Division of Environmental Health Services is responsible for implementing hazardous waste and materials State standards, including the following programs:

- Hazardous Materials Business Plan Program: Requires businesses to complete a Business Plan for the safe storage and use of chemicals;
- Hazardous Waste Generator Program: Requires businesses that general hazardous waste to properly store, manage, and dispose of the waste;
- CalARP: Requires businesses that handle regulated substances to complete a CalARP Program registration and submit it to the CUPA;
- Tiered Permitting Program: Requires businesses planning to treat hazardous waste on-site to notify the CUPA and obtain authorization;
- Underground Storage Tank Program: Requires inspection of storage tank facilities;
- Aboveground Petroleum Storage Tank Program: Requires inspection of the aboveground tanks and the preparation of a Spill Prevention Control and Countermeasure plan, in certain circumstances.

By requiring specific planning with respect to the use and handling of potentially hazardous materials, establishing standards for the safe handling of such material, and providing oversight of such efforts, the CUPA helps to ensure that the presence of hazardous waste and materials at the project site will not cause a significant environmental impact. Moreover, the United States Department of Transportation, Caltrans, and the California Highway Patrol regulate and manage routine transport of hazardous materials on Highway 101 and State Route 82 by licensing hazardous waste haulers for transportation on public roads. Any project-related demolition activities that have the potential to expose construction workers and/or

[23] GSI Environmental, March 17, 2021, *Memorandum: Due Diligence Findings and Preliminary Evaluations, Belmont Property*.

the public to ACMs or LBP would be conducted in accordance with applicable regulations, including, but not limited to:

- California Health and Safety Code (Section 39650 et seq.)
- California Code of Regulations (Title 8, Section 1529 [asbestos], Title 8, Section 1532.1 [Lead], and Title 24, Part 9 [California Fire Code])
- Code of Federal Regulations (CFR) (Title 40, Part 61 [asbestos], Title 40, Part 763 [asbestos], and Title 29, Part 1926 [asbestos and lead]).
- BAAQMD Regulation XI, Rule 11-2 [asbestos]

Additionally, potential future development under the proposed project would be required to implement the City's following standard conditions related to hazardous materials:

- Submittal of a Phase I ESA for specific projects, and if a Phase I assessment indicates the presence or likely presence of contamination, a Phase II soil/groundwater testing and remediation through the CUPA for the area, the San Mateo County Environmental Health Services- Groundwater Protection Program is required before development may occur. This remediation includes the preparation of other plans and reports that are reviewed and approved by the CUPA, such as a Soils & Groundwater Management Plan (SGMP), a Health and Safety Plan (HSP), a Dust and Vapor Control Plan (DVCP), and a Vapor Intrusion Mitigation (VIM) Plan.
- The applicant must engage the services of a qualified hazardous materials abatement specialist to: a) Conduct a survey for hazardous materials (e.g., lead, PCBs, asbestos, mold, mercury, etc.) in the existing structures, prior to demolition; and b) remove any hazardous materials in compliance with all pertinent regulations regarding handling and disposal of these hazardous materials, including City demolition permit requirements.
- An HSP pursuant to the Occupational Health and Safety Administration Standard "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR 1910.120) and the California Occupational Health and Safety Administration "Hazardous Waste Operations and Emergency Response" guidelines (CCR Title 8, Section 1592), must be submitted to the City Building Division, prior to issuance of any demolition, grading or building permits. A plan sheet must be prepared noting the requirements of the HSP as a part of the demolition, grading and building permit submittal.
- Prior to issuance of a grading permit or building permit, the applicant shall demonstrate that contractor compliance with the SGMP obligations have been specified in the project proponent's contract documentation for the contractors performing subsurface work. Each contractor must require its employees who may directly contact impacted media to perform all activities in accordance with the contractor's HSP. Each construction contractor must ensure that its on-site construction workers will have the appropriate level of health and safety training and Site-specific training and will use the appropriate level of personal protective equipment as determined in the relevant HSP based upon the evaluated job hazards and monitoring results.
- Prior to issuance of grading or building permits, the applicant shall submit a site access control plan, which at minimum shall include perimeter fencing, the closing and locking of gates during non-construction hours, and the posting of "no trespassing" signs in prominent locations that are visible to the general public. Said plan shall be implemented prior to the occurrence of any onsite grading work.

- A qualified environmental consultant (as identified in the project SGMP and a licensed contractor with a Hazardous Substance Removal Certification from the State of California must be on site during demolition, grading and trenching activities to oversee operations. This requirement must be noted on the plans approved for demolition, grading, and construction. No permits will be issued in absence of noting and fulfilling this requirement.
- The project site must be posted with a sign on all sides identifying the name and telephone number of the project sponsor and environmental consultant. Contact information will be provided for the public to report visible dust so that fugitive dust can be promptly addressed. The contact information will allow for a "visible dust alert" hotline that is monitored by the responsible person (or designee) during construction hours and allows for voice messaging at all other times.
- A schedule of the anticipated demolition, grading and construction operations must be prepared that identifies the types of activities and duration of the activities on the project site. The project sponsor shall mail the schedule to the owners and occupants of property within a 300-foot radius of the project site no less than two weeks prior to the start of demolition, grading, or construction. Proof of mailing shall be provided to the Planning Division. The schedule shall be posted on the jobsite visible from all four sides of the project site.
- The soil and groundwater management plan approved by SMCEH's Groundwater Protection Program (SMCEH-GPP), shall be submitted to the City Building Division, prior to issuance of any demolition, grading or building permits. A plan sheet must be prepared noting the requirement to follow the approved soil and groundwater management plan, and all of provisions of the Site Management Plan as a part of the demolition, grading and building permit submittal. Said plan sheet must also include the approval letter from SMCEH-GPP, and any identified conditions of approval. Unless specifically addressed in the SMCEH-GPP conditions of approval or not required by the CUPA due to the specific site/project circumstances, the following standards are required:

    a) All contaminated soil removed for the construction of project shall be disposed off-site at an appropriately licensed landfill. It is the responsibility of the property owner representative, and the lead environmental consultant, to ensure that soil management and disposal procedures are followed.

    b) A temporary construction dewatering plan shall be provided with the application for a grading permit. Said plan shall identify methods to remove, store, characterize, and properly dispose of water from excavations during construction activities. Contained water or groundwater can be disposed of off-site at an appropriate facility, under permit to the local sanitary sewer, or under a National Pollutant Discharge Elimination System permit if sewer discharge cannot be obtained. Prior to discharge to the sewer, the water must be tested and permitted in accordance with the Silicon Valley Clean Water requirements.

    c) It is the responsibility of the property owner representative, and the lead environmental consultant, to inform the CUPA (SMCEH-GPP) with regard to the project schedule and completion.

    d) The project plans submitted for grading and building permits shall include a sheet that identifies any Mitigation Measures for Visible Dust identified in the DVCP. Said measures shall be implemented at all times during construction activities, or as specified in the DVCP. A copy of the plan shall be maintained on site and made available for construction inspectors upon request.

e) A Stormwater Pollution Prevention Program (SWPPP) shall be submitted prior to issuance of grading permit for the project. Said plan shall describe the stormwater pollution prevention measures that contractors will implement during construction. Compliance with the SWPPP must be maintained throughout the duration of the construction work. In addition, the contractor will comply with the San Mateo Countywide Stormwater Pollution Prevention Program requirements and Best Management Practices (BMPs). These requirements and BMPs are available at: https://www.flowstobay.org

f) The project plans submitted for grading and building permits shall include a sheet that identifies the protocols to be followed for Unanticipated Conditions (as identified in the SGMP).

g) A comprehensive report, including results of soil disposal manifests/receipts, groundwater discharge and permits, associated laboratory reports, and soil gas sample results, shall be submitted to the CUPA following completion of site activities.

- A master building wide Hazardous Materials Inventory Statement (HMIS) and a tenant HMIS shall be kept on file with the building management for the lifetime of the use. The building management shall manage all tenant HMIS documents against the Master HMIS such that the total quantity of hazardous materials shall not exceed the Maximum Area Quantities (MAQ's) as defined by the HMIS and CFC Chapter 50. This project shall update their fire sprinkler design density to an Extra Hazard class to 0.4/3,000 square-feet.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

These requirements all serve to limit the environmental impact of the transportation, use, and disposal of hazardous materials. These efforts would help prevent hazardous materials from ending up in the surrounding environment due to mismanagement, improper disposal, handling, or use.

However, the Phase I ESA for the Main Campus and Koret Field/Theater notes that there is no existing Asbestos Operation and Maintenance Plan (O&M) plan in place. Asbestos O&M plans provide the procedures and guidelines that, when used during facility cleaning, maintenance, and general operations, minimize human exposure to asbestos fibers and minimize the release of asbestos fibers to the environment. Since the proposed project would increase the daytime and/or resident population capacity of the project site, without the preparation and implementation of an Asbestos O&M plan, impacts could be potentially *significant*.

Impact HAZ-1: Asbestos-containing material (ACM) in existing buildings may result in an increased exposure to students and staff during routine cleaning, maintenance, and general operations.

Mitigation Measure HAZ-1: Prior to the issuance of building permits for demolition or renovation of existing buildings, the project applicant shall prepare an Asbestos Operation and Maintenance (O&M) Plan in line with the California Code of Regulations Title 8, Section 1529, and Code of Federal

Regulations 1926.1101, unless subject to equally effective requirements in place at the time of Detailed Development Plan application submittal. The primary objective of the Asbestos O&M plan is to control building occupant and employee exposure to asbestos fibers. The procedures in the plan shall minimize any potential hazard posed by ACM/presumed ACM during cleaning, maintenance, and general operation activities.

Significance without Mitigation: Less than significant.

HAZ-2 The proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

The Phase I ESA does not identify any reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.[24] As discussed in impact discussion HAZ-1, the CUPA is responsible for managing the handling of regulated substances at the project site. Businesses that handle regulated substances must complete a CalARP Program registration and submit it to the CUPA. Based on the substance and the threshold quantity, a Risk Management Plan may be required. Furthermore, future development under the proposed project would be required to implement the City's standard conditions related to hazardous materials, as outlined in impact discussion HAZ-1. Implementation of State, regional, and local regulations would ensure that the proposed project would not result in reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

HAZ-3 The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The project site currently includes numerous buildings that predate 1970. Older buildings may have hazardous chemicals or materials that can be exposed when new development occurs on the project site. Materials that may be exposed into the environment include potentially harmful chemicals and building materials that are in a quarter-mile range of existing schools. In addition to being a university campus, as shown on Figure 4.8-1, the project site is completely within the quarter-mile buffer zone of the two existing schools west of the project site.

In addition to the required federal and State regulations and specific guidelines regarding the use, transportation, disposal, and accidental release of hazardous materials, as described in Section 4.8.1.1, *Regulatory Framework*, and impact discussion HAZ-1, potential future development under the proposed

[24] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

project would also be subject to PRC Section 21151.4, which regulates hazardous materials near schools and prohibits the certification of an EIR for a project involving the construction or alteration of a facility that might reasonably be anticipated to emit hazardous air emissions or handle extremely hazardous air emissions in a quantity greater than a certain threshold, within a quarter mile of a school. Furthermore, potential future development under the proposed project would be required to implement the City's following standard condition related to sensitive receptors:

> City of Belmont 2035 General Plan EIR Mitigation Measure AQ-6 requires that all projects proposing development within 1,000 feet of existing sensitive receptors prepare a site-specific health risk assessment (HRA). If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures for adjacent receptors will be less than BAAQMD project-level thresholds, then additional mitigation would be unnecessary. The preparation of a project-specific HRA is an SDR for all large projects that are proposed within 1,000 feet of existing sensitive receptors.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

For an additional discussion about toxic air contamination emissions during construction and operation, please see Impact Discussion AIR-3 in Chapter 4.2*, Air Quality*, of this Draft EIR. Impacts were found to be less than significant with implementation of the City's above standard condition related to sensitive receptors and Mitigation Measure AQ-3.

Adherence to this standard condition and Mitigation Measure AQ-3 would require that future projects under the proposed project prepare an HRA and demonstrate that health risk exposures are below acceptable thresholds. Compliance with PRC Section 21151.4, federal and State regulations, and procedures outlined in impact discussions HAZ-1 and HAZ-2, the City's standard conditions would ensure that neighboring schools' exposure to hazardous materials and substances would be *less than significant*.

Significance without Mitigation: Less than significant.

HAZ-4	The proposed project is located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but would not create a significant hazard to the public or the environment.

As described in Section 4.8.1.2, *Existing Conditions*, under the heading "Hazardous Materials Sites," the Phase I ESA concluded that all the identified federal, State, and Tribal agency database listings in which the project site appears are not considered an environmental concern to the project site based on one or more of the following rationale: absence of reported releases, current regulatory status, distance,

presumed hydrogeologic gradient and/or nature/extent of contamination.[25] Therefore, future development of the project site would not create a significant hazard to the public or environment and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

HAZ-5 The proposed project is located within an airport land use plan but would not result in a safety hazard or excessive noise for people residing or working in the project area.

The project site is located 1.5 miles west of the San Carlos Airport and is within its ALUCP boundaries. As shown in Figure 4.8-2, the project site is located within AIA Area A. Potential future development under the proposed project would be subject to Belmont General Plan Policy 2.16-1, which requires new development located in the AIA to comply with land use compatibility provisions of the ALUCP. Compliance with regulations of the General Plan and the ALUCP would ensure that the proposed project does not result in a safety hazard or excessive noise for people residing or working in the project area. Impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

HAZ-6 The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative hazards and hazardous materials impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, the cumulative setting for hazards and hazardous materials impacts includes the effects of the proposed project together with cumulative development projects in the vicinity of the project site. The proposed project would not create significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The proposed project is located on a hazardous materials site within one-quarter mile of a school and within an ALUCP but would not create a significant hazard to the public or environment, emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste, or result in a safety hazard or excessive noise for people residing or working in the project area. The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials due to the possible presence of ACM, but implementation of Mitigation Measure HAZ-1 would reduce impacts to less-than-significant levels.

Furthermore, future development in the area would be subject to environmental review, as applicable, to mitigate any significant hazards and hazardous materials impacts. Cumulative development projects would be subject to all existing State and federal regulations, including the management of hazardous

[25] EBI Consulting, May 22, 2020, *Phase I Environmental Site Assessment, Notre Dame de Namur University, Main Campus & Koret Field/ Theatre*.

materials and spill response within the respective jurisdictions and the requirements of any ALUCP, as well as the City's standard conditions related to hazardous materials. Therefore, hazards and hazardous materials impacts of the proposed project would not be cumulatively considerable, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

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4.9 HYDROLOGY AND WATER QUALITY

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential hydrology and water quality impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential hydrology and water quality impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

The information and analysis in this chapter is based in part on the *Stanford Belmont Campus, Preliminary Engineering Report,* prepared by BKF in January 2023. This study is included in Appendix H, *Preliminary Engineering Report*, of this Draft EIR.

4.9.1 ENVIRONMENTAL SETTING

4.9.1.1 REGULATORY FRAMEWORK

Federal Regulations

Clean Water Act

The United States Environmental Protection Agency (USEPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) (codified at 33 United States Code Sections 1251 to 1376) of 1972 is the primary federal law that governs and authorizes water quality control activities by the EPA, as well as the states. Various elements of the CWA, which address water quality, are discussed below.

Permits to dredge or fill waters of the United States are administered by the United States Army Corps of Engineers (USACE) under Section 404 of the CWA. “Waters of the United States” are defined as territorial seas and traditional navigable waters, perennial and intermittent tributaries to those waters, lakes and ponds and impoundments of jurisdictional waters, and wetlands adjacent to jurisdictional waters. The regulatory branch of the USACE is responsible for implementing and enforcing Section 404 of the CWA and issuing permits. Any activity that discharges fill material and/or requires excavation in waters of the United States must obtain a Section 404 permit. Before issuing the permit, the USACE requires that an analysis be conducted to demonstrate that the proposed project is the least environmentally damaging practicable alternative. Also, the USACE is required to comply with the National Environmental Policy Act before it may issue an individual Section 404 permit.

Under Section 401 of the CWA, every applicant for a Section 404 permit that may result in a discharge to a water body must first obtain State Water Quality Certification that the proposed activity will comply with State water quality standards. Certifications are issued in conjunction with USACE Section 404 permits for dredge and fill discharges. In addition, an application for Individual Water Quality Certification and/or Waste Discharge Requirements must be submitted for any activity that would result in the placement of dredged or fill material in waters of the State that are not jurisdictional to the USACE, such as isolated wetlands, to ensure that the proposed activity complies with State water quality standards. In California,

the authority to either grant water quality certification or waive the requirement is delegated by the State Water Resources Control Board (SWRCB) to its nine Regional Water Quality Control Boards (RWQCB).

Under federal law, the USEPA has published water quality regulations under Volume 40 of the Code of Federal Regulations. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) criteria that protect the designated uses. Section 304(a) requires the USEPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. In California, the USEPA has delegated authority to the SWRCB and its RWQCBs to identify beneficial uses and adopt applicable water quality objectives.

When water quality does not meet CWA standards and compromises designated beneficial uses of a receiving water body, Section 303(d) of the CWA requires that water body be identified and listed as "impaired". Once a water body has been designated as impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards, with a factor of safety included. Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems (MS4). Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Under the NPDES Program, all facilities that discharge pollutants into waters of the United States are required to obtain a NPDES permit. Requirements for stormwater discharges are also regulated under this program. In California, the NPDES permit program is administered by the SWRCB through the nine RWQCBs. The City of Belmont lies within the jurisdiction of San Francisco Bay RWQCB (Region 2) and is subject to the waste discharge requirements for the Municipal Separate Storm Sewer System (MS4) Permit (Order No. R2-2022-0018 and NPDES Permit No. CAS612008).

Under Provision C.3 of the MS4 Permit, the permittees use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address stormwater runoff pollutant discharges and prevent increases in runoff flows. This goal is accomplished primarily through the implementation of low impact development techniques. In addition, projects that create and/or replace one acre or more of impervious surfaces must comply with the hydromodification requirements specified in the C.3.g provisions of the MS4 permit.

These requirements include implementing stormwater control measures such that post-project runoff must match pre-project runoff from 10 percent of the pre-project 2-year flow rate up to the pre-project 10-year peak flow.

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection is established by FEMA. FEMA's minimum level of flood protection for new development is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

As required by the FEMA regulations, all development constructed within the Special Flood Hazard Zone (as delineated on the FIRM) must be elevated so that the lowest floor is at or above the base flood elevation level. The term "development" is defined by FEMA as any human-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials. Per these regulations, if development in these areas occurs, a hydrologic and hydraulic analysis must be performed prior to the start of development and must demonstrate that the development does not cause any rise in base flood elevation levels, because no rise is permitted within regulatory floodways. Upon completion of any development that changes existing Special Flood Hazard Area boundaries, the National Flood Insurance Program directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision, as soon as practicable, but not later than six months after such data become available.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act provides the basic authority for the United States Fish and Wildlife Service (USFWS) to evaluate impacts to fish and wildlife from proposed water resource development projects. This act requires that all federal agencies consult with the USFWS, the National Marine Fisheries Service, and State wildlife agencies (i.e., the California Department of Fish and Wildlife or CDFW) for activities that affect, control, or modify waters of any stream or bodies of water. Under this act, the USFWS has responsibility for reviewing and commenting on all water resources projects. For example, it would provide consultation to the USACE prior to issuance of a Section 404 permit.

If a project may result in the "incidental take" of a listed species, an incidental take permit is required. An incidental take permit allows a developer to proceed with an activity that is legal in all other respects but that results in the "incidental taking" of a listed species. A habitat conservation plan must also accompany an application for an incidental take permit. The purpose of a habitat conservation plan is to ensure that the effects of the permitted action or listed species are adequately minimized and mitigated.

State Regulations

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act (Water Code sections 13000 et seq.) is the basic water quality control law for California. This act established the SWRCB and divided the state into nine regional basins, each under the jurisdiction of an RWQCB. The SWRCB is the primary State agency responsible for the protection of California's water quality and groundwater supplies. The RWQCBs carry out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a water quality control plan or basin plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems.

The Porter-Cologne Act also authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, or other approvals. Other State agencies with jurisdiction over water quality regulation in California include the California Department of Health Services for drinking water regulations, the CDFW, and the Office of Environmental Health and Hazard Assessment.

Sustainable Groundwater Management Act of 2014

On September 16, 2014, a three-bill legislative package was signed into law collectively known as the Sustainable Groundwater Management Act (SGMA). The Governor's signing message states "a central feature of these bills is the recognition that groundwater management in California is best accomplished locally." Under the roadmap laid out by the legislation, local and regional authorities in medium and high priority groundwater basins must form groundwater sustainability agencies that oversee the preparation and implementation of groundwater sustainability plans.

State Water Resources Control Board

In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the CWA. It also regulates public drinking water systems, NPDES wastewater discharges, water quality monitoring, water recycling programs, landfill disposal, water rights, and implements drought restrictions. As stated previously, the City of Belmont is within the jurisdiction of the San Francisco Bay RWQCB (Region 2), which regulates surface water and groundwater quality in the watershed that encompasses the following counties: Alameda, Contra Costa, San Francisco, Santa Clara (north of Morgan Hill), San Mateo, Marin, Sonoma, Napa and Solano.

SWRCB General Construction Permit

Construction activities that disturb one or more acres of land that could impact hydrologic resources must comply with the requirements of the newly reissued SWRCB Construction General Permit (CGP) (Order WQ 2022-0057-DWQ). Under the terms of the permit, applicants must file Permit Registration Documents (PRD) with the SWRCB prior to the start of construction. The PRDs include a Notice of Intent, risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and a signed

certification statement. The PRDs are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System website.

Applicants must also demonstrate conformance with applicable best management practices (BMP) and prepare a SWPPP containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project site. The SWPPP must list BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a visual monitoring program, a sampling program to ensure compliance with water quality standards, and on-site collection of samples and inspection of BMPs during a qualifying precipitation event.

SWRCB Trash Amendments

On April 7, 2015, the SWRCB adopted an amendment to the *Water Quality Control Plan for Ocean Waters of California* to control trash and Part 1, Trash Provisions, of the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California*. They are collectively referred to as "the Trash Amendments." The Trash Amendments apply to all surface waters of California and include a land-use-based compliance approach to focus trash controls on areas with high trash-generation rates. Areas such as high density residential, industrial, commercial, mixed urban, and public transportation stations are considered priority land uses. There are two compliance tracks for Phase I and Phase II MS4 permittees:

- Track 1: Permittees must install, operate, and maintain a network of certified full capture systems in storm drains that capture runoff from priority land uses.
- Track 2: Permittees must implement a plan with a combination of full capture systems, multi benefit projects, institutional controls, and/or other treatment methods that have the same effectiveness as Track 1 methods.

The Trash Amendments provide a framework for permittees to implement their provisions. Full compliance must occur within 10 years of the permit, and permittees must also meet interim milestones such as average load reductions of 10 percent per year. The amendment mandates that the City needs to install catch basin filters on all City catch basins by December 2, 2030.[1]

California Department of Fish and Wildlife

The CDFW protects streams, water bodies, and riparian corridors through the streambed alteration agreement process under Sections 1601 to 1606 of the California Fish and Game Code. The Fish and Game Code stipulates that it is "unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake" without notifying the CDFW, incorporating necessary mitigation, and obtaining a streambed alteration agreement. CDFW's jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation.

[1] State Water Resources Quality Control Board, September 2023, Storm Water Program: Trash Implementation Program https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html, accessed February 22, 2024.

Water Conservation in Landscaping Act of 2006

The Water Conservation in Landscaping Act (Assembly Bill [AB] 1881) required the Department of Water Resources (DWR) to update the State of California's Model Water Efficient Landscape Ordinance (MWELO). Under AB 1881, cities and counties are required to adopt the State's MWELO or to adopt a different ordinance that is at least as effective in conserving water as the State's MWELO.[2]

The MWELO was revised in July 2015 via Executive Order B-29-15 to address the ongoing drought and to build resiliency for future droughts. The 2015 revisions to the MWELO increased water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, and on-site stormwater capture and by limiting the portion of landscapes that can be covered in turf. Each city and county is required to submit annual reports to DWR that document how the agency is achieving compliance with the State MWELO and how many projects were subject to the ordinance during the annual reporting period.

Mid-Peninsula Water District adopted a WELO Ordinance (No. 115) in 2015.[3] Mid-Peninsula Water District requires completion of a water efficient landscape application for any new construction with 500 square feet or more of landscape, or rehabilitated landscape of 1,000 square feet or more that requires a building permit, plan check, or design review. In coordination with the City, Mid-Peninsula Water District reviews landscape plans to verify compliance with the code requirements.[4]

Regional Regulations

San Francisco Bay Regional Water Quality Control Board

The City of Belmont is within the jurisdiction of the San Francisco Bay RWQCB (Region 2). The San Francisco Bay RWQCB addresses regionwide water quality issues through the creation and triennial update of the *San Francisco Bay Basin Water Quality Control Plan* (Basin Plan). The Basin Plan was adopted in 1995 and most recently amended in November 2020.[5] This Basin Plan designates beneficial uses of the State waters within Region 2, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the standards established in the Basin Plan. The *Water Quality Control Policy for the Enclosed Bays and Estuaries of California*, as adopted by the SWRCB in 1995 and last amended in 2018, also provides water quality principles and guidelines to prevent water quality degradation and protect the beneficial uses of waters of

[2] California Legislative Information, 2006, Assembly Bill No. 1881, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200520060AB1881, accessed March 11, 2024.

[3] Mid-Peninsula Water District, 2024, MPWD Legislation, https://www.midpeninsulawater.org/legislation, accessed March 11, 2024.

[4] Mid-Peninsula Water District, 2024, MPWD Water Efficient Landscape Ordinance (WELO), https://www.midpeninsulawater.org/article-details.php?id=71, accessed March 11, 2024.

[5] California Regional Water Quality Control Board, San Francisco Bay Region, May 2017, *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*, https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/docs/BP_all_chapters.pdf, accessed February 22, 2024.

enclosed bays and estuaries.[6] The San Francisco Bay RWQCB also administers the MS4 permit for San Mateo County and the municipalities within San Mateo County, including the City of Belmont.

Municipal Regional Stormwater NPDES Permit

Municipal stormwater discharge in the City of Belmont is subject to the Waste Discharge Requirements of the MS4 Permit (Order No. R2-2022-0018 and NPDES Permit No. CAS612008). Provision C.3 of the MRP requirements applies to all new development or redevelopment projects that create or replace 5,000 square feet of impervious surfaces. Provision C.3 of the MS4 Permit also mandates that new development and redevelopment projects must: (1) incorporate site design, source control, and stormwater treatment on-site; (2) minimize the discharge of pollutants in stormwater runoff and non-stormwater discharge; and (3) minimize the rate and volume of stormwater runoff under post-development conditions. Low-impact development (LID) methods are the primary mechanisms for implementing such controls.

New development projects must design and construct stormwater treatment systems that capture a percentage of the flow rate or volume from a specified storm event based on the sizing criteria described in the C.3 provisions of the MRP. The treatment systems use LID measures that include rainwater harvesting and reuse, infiltration, evapotranspiration, and biotreatment/bioretention.

In order to comply with Provision C.3 of the MS4 Permit, regulated projects would be required to submit a Stormwater Control Plan (SCP) and C.3 and C.6 Development Review Checklist with building plans, to be reviewed and approved by the City of Belmont. The SCP must be prepared under the direction of and certified by a licensed and qualified professional, which includes civil engineers, architects, or landscape architects.

San Mateo Countywide Water Pollution Prevention Program

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) is a partnership of the City/County Association of Governments, the County of San Mateo, and 20 incorporated cities within the county, which share a common MS4 permit. This partnership also relies on each of the municipalities to implement local stormwater pollution prevention and control activities for its own local storm drain systems.

Post-construction stormwater quality requirements pursuant to the SMCWPPP are described in the C.3 Regulated Projects Guide (Version 1.0) issued in January 2020.[7] The C.3 Regulated Projects Guide includes instructions for implementing site design measures, source controls, stormwater treatment measures, construction site controls, and low-impact development measures.

[6] State Water Resources Control Board, 1995, *Water Quality Control Policy for the Enclosed Bays and Estuaries of California, as Adopted by Resolution No. 95-84 on November 16, 1995,* https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1995/rs1995_0084.pdf, accessed February 28, 2024.

[7] San Mateo Countywide Water Pollution Prevention Program, January 2020, *C.3 Regulated Projects Guide*, https://www.flowstobay.org/wp-content/uploads/2020/03/SMCWPPP-C.3-Regulated-Project-Guide-High-Res_021220_0.pdf, accessed February 22, 2024.

San Mateo County Multi-Jurisdictional Hazard Mitigation Plan

The purpose of hazard mitigation planning is to reduce the loss of life and property by minimizing the impact of disasters. The *San Mateo County Multi-Jurisdictional Hazard Mitigation Plan* (MJHMP), updated in 2021 in accordance with the federal Disaster Mitigation Action of 2000, provides an assessment of natural hazards in the county and a set of short-term mitigation actions to reduce or eliminate the long-term risk to people and property from these hazards.[8] The Belmont Jurisdictional Annex of the MJHMP provides an assessment of hazards and vulnerabilities, and a set of mitigation actions for Belmont specifically while considering the results from the countywide effort. In the context of an MJHMP, mitigation is an action that reduces or eliminates long-term risk to people and property from hazards, including wildfire. Mitigation actions related to flood, sea level rise, and dam failure in the Belmont Jurisdictional Annex of the MJHMP include participation in mutual aid agreements, continued implementation of floodplain management measures, incorporation of FEMA guidelines into the planning process, assessment and mitigation of urban drainage flooding, and incorporation of San Mateo County's sea level rise vulnerability assessments recommendations into city plans.

The MJHMP must be reviewed and approved by the FEMA every five years to maintain eligibility for disaster relief funding. As part of this process, the California Governor's Office of Emergency Services reviews all local hazard mitigation plans in accordance with Disaster Mitigation Action of 2000 regulations and coordinates with local jurisdictions to ensure compliance with FEMA's Local Mitigation Plan Review Guide.

San Mateo County Storm Water Resources Plan

The San Mateo County Stormwater Resource Plan (SRP) is a comprehensive document that addresses specific stormwater runoff issues in the county with a watershed-based approach. The main goals of the SRP are to identify and prioritize opportunities to better utilize stormwater as a resource in San Mateo County through a detailed analysis of watershed processes, surface and groundwater resources, input from stakeholders and the public, and analysis of multiple benefits that can be achieved through strategically planned stormwater management projects.[9] These projects aim to capture and manage stormwater more sustainably, reduce flooding and pollution associated with runoff, improve biological functioning of plants, soils, and other natural infrastructure, and provide many community benefits, including cleaner air and water and enhanced aesthetic value of local streets and neighborhoods. Senate Bill 985 (Pavley) requires SRPs to be developed to be eligible for funding from future State bond measures for stormwater and dry weather capture projects.[10]

[8] San Mateo County, 2024, 2021 Multijurisdictional LHMP https://www.smcgov.org/ceo/2021-multijurisdictional-lhmp accessed March 21, 2024.

[9] City/County Association of Governments of San Mateo, February 2017, *Stormwater Resource Plan for San Mateo County*, https://ccag.ca.gov/wp-content/uploads/2017/02/SMC-SRP-Report-FINAL-1.pdf, accessed February 22, 2024.

[10] City/County Association of Governments of San Mateo, 2022, San Mateo Storm Water Resources Plan, https://ccag.ca.gov/srp/, accessed February 22, 2024.

Local Regulations

City of Belmont General Plan 2035

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to hydrology and water quality that are relevant to the proposed project are found in the Parks, Recreation and Open Space, Conservation, and Safety Elements and are listed in Table 4.9-1, *City of Belmont 2035 General Plan Policies Relevant to Hydrology and Water Quality.*

TABLE 4.9-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO HYDROLOGY AND WATER QUALITY

Policy Number	Policy Text
Chapter 4, Parks, Recreation, and Open Space Element	
Policy 4.4-1	Continue to designate and protect open space lands for the preservation of scenic areas, natural drainage ways, and plant and wildlife habitats; for outdoor recreation; and for public health and safety.
Policy 4.5-2	Protect Belmont Creek from future encroachment through regulation, development review, conservation easements, or other appropriate actions.
Chapter 5, Conservation Element	
Policy 5.4-2	Preserve, where possible, natural watercourses or provide naturalized drainage channels within the city. Where necessary and feasible, implement restoration and rehabilitation measure.
Policy 5.5-1	Continue to participate in the San Mateo Countywide Water Pollution Prevention Program.
Policy 5.5-2	Encourage residents and businesses to use best management practices (BMPs) to reduce water pollutant loads that result from daily activities, such as using landscaping chemicals and fertilizers and repairing and washing cars outdoors.
Policy 5.5-3	Require development projects to incorporate structural and non-structural best management practices (BMPs) to mitigate or reduce the projected increases in pollutant loads, in accordance with the NPDES permit guidelines.
Policy 5.5-4	Ensure that the design and construction of new infrastructure elements does not contribute to stream bank or hillside erosion or creek or wetland siltation, and incorporates site design and source control BMPs, construction phase BMPs, and treatment control BMPs to minimize impacts to water quality.
Policy 5.5-5	Implement water pollution prevention methods to the maximum extent practicable, supplemented by pollutant source controls and treatment.
Policy 5.6-1	Work with the Mid-Peninsula Water District to meet State targets for reducing per capita urban water use.
Policy 5.6-2	Support the Mid-Peninsula Water District in advocating for reliable and fairly priced water from the San Francisco regional water system.
Policy 5.6-3	Encourage the Mid-Peninsula Water District to continue and expand its water conservation programs.
Policy 5.6-4	Set appropriate conditions of approval for each new development proposal to ensure that the necessary water supply facilities and water resources are in place prior to occupancy.
Policy 5.6-5	Continue the City's Water Conservation Strategy to reduce water use, control water cost, and promote environmental sustainability in municipal buildings, parks, landscaped areas, and athletic fields, as feasible and appropriate.
Policy 5.9-1	Continue to make improvements and upgrades to the drainage system. Priorities should be to provide curbs and gutters to underserved areas (as feasible), improve facilities in areas that are subject to seasonal flooding, increase capacity of the system, and replace damaged lines in the storm drain system.
Chapter 6, Safety Element	
Policy 6.2-1	Continue to pursue and implement flood control programs that reduce flood hazards, such as the City's Grading Ordinance and Flood Plain Management Ordinance.
Policy 6.2-2	Cooperate and coordinate with federal, State, and local jurisdictions and agencies involved in the mitigation of flood hazards from dam inundation, sea level rise, and major flood events.
Policy 6.2-3	Require all proposed drainage facilities to comply with the city's storm drainage facility requirements to ensure they are properly sized to handle 100-year flood conditions.

TABLE 4.9-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO HYDROLOGY AND WATER QUALITY

Policy Number	Policy Text
Policy 6.2-5	Working with the Office of Emergency Services and in partnership with San Mateo County, develop a strategy for addressing sea level rise and its impacts on affected land within Belmont. Utilize the San Mateo County Local Hazard Mitigation Plan update and implementation efforts to map and assess risk and develop appropriate mitigation.
Policy 6.2-10	Continue to comply with the Municipal Regional Stormwater Permit requirements for municipal authorities to address water quality and flow-related impacts of stormwater runoff; continue to enforce NPDES permits in Belmont; and continue to participate in the San Mateo Countywide Water Pollution Prevention Program.
Policy 6.2-13	Continue to collaborate with regional stakeholders and agencies to identify and implement a long-term approach to address ongoing flooding issues, maintenance, and creek improvements for Belmont Creek, particularly in the lower portions of the creek.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to hydrology and water quality. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to hydrology and water quality impacts are included in Chapter 7, *Buildings*, Chapter 9, *Grading*, Chapter 21, *Sewer and Sewage Disposal*, Chapter 25.5, *Water Conservation*, and Chapter 33, *Mandatory Organic Waste Disposal Reduction Regulations*.

- Chapter 7, Article IX, Section 7-220.3, *Floodways*, regulations are established that prohibit new development in floodways unless applicable flood hazard reduction provisions are followed.
- Chapter 9, Article III, *Procedures*, establishes requirements for grading permits, minimum standards for grading and removal of vegetation, and protection of property from erosion, ground movement or flooding from construction activities.
- Chapter 21, Article VI, *Storm Sewer System*, aims to ensure that the city's storm sewer system is used only for drainage of rainwater, landscape and irrigation runoff, regulated discharges and other types of uncontaminated or unpolluted water runoff. As described in Section 21-193, *Unlawful Deposits*, it is illegal for any waste matter that is prohibited by the municipal regional stormwater NPDES permit with the California Regional Water Quality Control Board or any other substance deemed hazardous by federal or state law to be placed or deposited into the city's storm sewer system. Within this article, Section 21-194, *Stormwater charges establish*, describes how the city has established a system of charges for its stormwater drainage system, these charges will all be collected on the official tax assessment roll, together with all regular municipal real property taxes.
- Chapter 21, Article IX, *Floodplain Management Regulations*, outlines the regulations that were created to protect public life and property from flood prone, mudslide or flood related erosion areas.
    - Section 7-214, *Establishment of Development Permit,* requires obtaining a development permit before any construction or development begins if the site is located with special flood hazard area. The standards of construction include provisions for flood risk reduction, including anchoring and flood-resistant materials and construction methods, with the lowest floors elevated above the base flood elevation or higher.

- Section 7-217*, Standards of Construction*, requires potential development projects to obtain a development permit and follow particular standards of construction such as anchoring and using certain construction materials.

- Chapter 21, Article V, Division 6*,* Section 21-180, *Fees*, establishes a schedule of fees imposed upon applicants issuing stormwater connection permits.
- Chapter 25.5, Article II*,* Section 25.5-26, *Landscaping*, encourages water saving concepts to be incorporated into landscape plans.
- Chapter 33, Section 33-11, *Water efficient landscaping ordinance requirements*, complies with California's MWELO and Mid-Peninsula Water District's WELO. New construction projects with a landscape area equal to or greater than 500 square feet or rehabilitated landscape projects with a landscape area equal to or greater than 2,500 square feet must comply with this ordinance.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.9.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Belmont City-Wide Storm Drainage Study

In 2009, the City of Belmont completed a Storm Drain Master Plan entitled Belmont City-Wide Storm Drainage Study identifying deficiencies and constraints in the drainage system.[11] The City uses the Storm Drain Master Plan to address infrastructure issues and to prioritize capital improvement projects. The problem areas requiring drainage replacement and system improvements are detailed in the plan. The City is currently in the process of updating the Storm Drain Master Plan.

Belmont Green Infrastructure Plan

The Belmont Green Infrastructure Plan is intended to direct future infrastructure that would collect stormwater runoff and discharge it directly into storm drains and receiving waters to green infrastructure that slows and filters runoff by dispersing it to vegetated areas, rainwater harvesting, and infiltration and

[11] Belmont, 2009, Belmont City-wide Storm Drainage Study Submittal, https://www.belmont.gov/departments/public-works/infrastructure/storm-drain-system accessed March 19, 2024.

evapotranspiration features.[12] According to the plan, green infrastructure is stormwater infrastructure that uses vegetation, soils, and natural processes to manage water and create healthier urban environments. This plan has been developed to comply with requirements in Provision C.3.j of the Municipal Regional Stormwater NPDES Permit (Order No. R2-2022-0018 and NPDES Permit No. CAS612008).

4.9.1.2 EXISTING CONDITIONS

Regional Drainage

The City of Belmont is within the Belmont Creek Watershed and the Laurel Creek Watershed. The Belmont Creek watershed begins along the hills west of Belmont and flows east for about 3 miles until it drains into Steinberger Slough. Laurel Creek watershed drains approximately 4.6 square miles, and the headwaters originate near Laurelwood Park and Sugarloaf Hill where it drains into Seal Slough.[13] The Belmont Creek Watershed is about 3 square miles and includes parts of San Carlos and unincorporated San Mateo County.[14]

Local Drainage

The total drainage area for the City of Belmont is approximately 4.6 square miles and is divided into four main drainage areas.[15] The largest subarea is Belmont Creek, which has a 2.8-square-mile drainage and conveys approximately 60 percent of the City's storm runoff.[16, 17] The next largest is Laurel Creek, which drains 0.78 square miles of stormwater in the northwestern portion of the city and discharges into the City of San Mateo.[18] The third largest conveyor of storm water is O'Neill Slough, which is connected to the San Francisco Bay, and the final stormwater drainage area is Island Park, which is located east of Highway 101 and drains to a lagoon that connects to Belmont Creek.[19]

[12] City of Belmont, September 2019, Green Infrastructure Plan, https://www.belmont.gov/home/showpublisheddocument/18852/637056120458830000, accessed on March 8, 2024.

[13] Flows to Bay, Watershed Map, https://www.flowstobay.org/data-resources/maps/watershed-map/, accessed on February 29, 2024.

[14] City of Belmont, June 2017, General Plan, Phase I Zoning, Belmont Village Specific Plan, and Climate Action Plan Draft Program Environmental Impact Report, SCH #2016082075, accessed on February 29, 2024.

[15] City of Belmont, Storm Drain System, https://www.belmont.gov/departments/public-works/infrastructure/storm-drain-system, accessed on February 29, 2024.

[16] City of Belmont, March 2009, Belmont Storm Drainage Study, https://www.belmont.gov/home/showpublisheddocument/11972/635630647218170000, accessed on February 29, 2024.

[17] City of Belmont, Storm Drain System, https://www.belmont.gov/departments/public-works/infrastructure/storm-drain-system, accessed on February 29, 2024.

[18] City of Belmont, Storm Drain System, https://www.belmont.gov/departments/public-works/infrastructure/storm-drain-system, accessed on February 29, 2024.

[19] City of Belmont, Storm Drain System, https://www.belmont.gov/departments/public-works/infrastructure/storm-drain-system, accessed on February 29, 2024.

The City's stormwater infrastructure consists of 28 miles of storm drain pipes and two pump stations.[20] Storm drains in the City are constructed of corrugated metal pipe, reinforced concrete pipe, high-density polyethylene pipe, and polyvinyl chloride pipe with diameters ranging from 8 inches to 96 inches.[21]

On-Site Surface Drainage

Surface drainage patterns at the project site flow from north to south and connect into existing storm drains. According to the Preliminary Engineering Report by BKF Engineers, existing on-site storm drains collect water from the site and discharge it directly into Belmont Creek at five locations, and a sixth location ties into the existing 12-inch storm drain in Ralston Avenue, which is then directed to Belmont Creek as well. The existing on-site storm drain lines range in size from 6-inch to 8-inch diameters.

The project site is 45.6 acres, and 28.5 acres are currently made up of pervious area. The remaining 17.1 acres are impervious area, accounting for 37 percent of the project site.[22] As shown on Figure 4.9-1, *Existing Drainage Areas*, there are six drainage areas in total.

Surface Water Quality

Currently, stormwater from the project site drains into Belmont Creek, discharges into Steinberger Slough, then discharges into the Lower San Francisco Bay. The Lower San Francisco Bay is listed on the California 303(d) list as a Category 5 water body, which is defined as "a water segment where standards are not met and a TMDL is required, but not yet completed, for at least one of the pollutants listed."[23] The listed pollutants for the Lower San Francisco Bay are chlordane, DDT, dieldrin, dioxin compounds, furan compounds, invasive species, mercury, PCBs, and trash.[24] Belmont Creek is not a listed impaired water body.

[20] City of Belmont, 2024, Storm Drain System, Belmont's Stormwater Infrastructure, https://www.belmont.gov/departments/public-works/infrastructure/storm-drain-system, accessed on March 19, 2024.

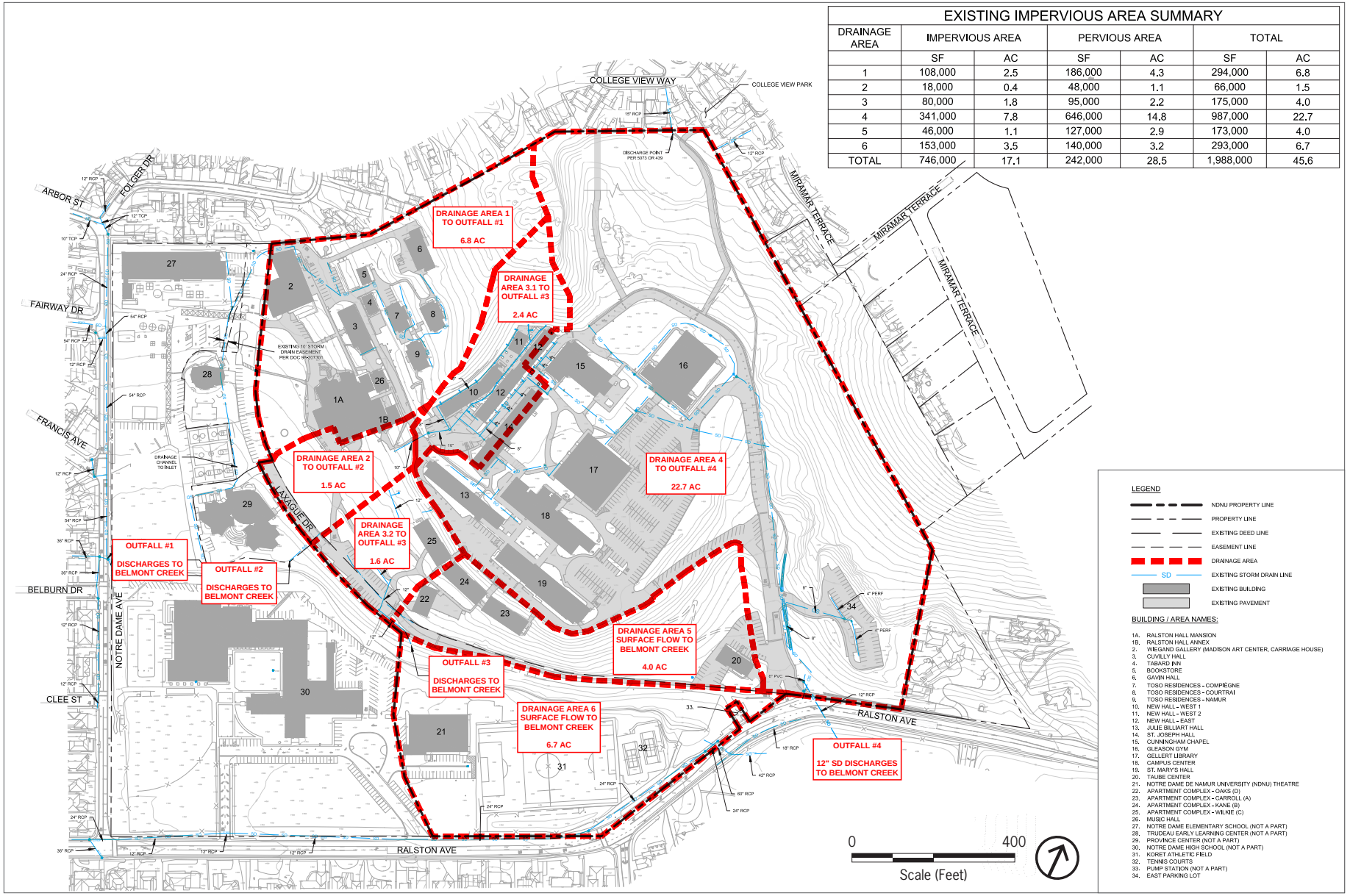
[21] City of Belmont, 2024, Storm Drain System, Belmont's Stormwater Infrastructure, https://www.belmont.gov/departments/public-works/infrastructure/storm-drain-system, accessed on March 19, 2024.

[22] BKF Engineering, January 2023, *Stanford Belmont Campus Preliminary Engineering Report*.

[23] State Water Resources Board, Category 5 2020 California 303(d) List Of Water Quality Limited Segments, https://www.waterboards.ca.gov/water_issues/programs/tmdl/2020_2022state_ir_reports_revised_final/apx-c-catreports/category5_report.shtml, accessed on February 29, 2024.

[24] State Water Resources Board, Final California 2020 Integrated Report, https://www.waterboards.ca.gov/water_issues/programs/tmdl/2020_2022state_ir_reports_revised_final/apx-b/00007.shtml, accessed on February 29, 2024.

EXISTING IMPERVIOUS AREA SUMMARY						
DRAINAGE AREA	IMPERVIOUS AREA		PERVIOUS AREA		TOTAL	
	SF	AC	SF	AC	SF	AC
1	108,000	2.5	186,000	4.3	294,000	6.8
2	18,000	0.4	48,000	1.1	66,000	1.5
3	80,000	1.8	95,000	2.2	175,000	4.0
4	341,000	7.8	646,000	14.8	987,000	22.7
5	46,000	1.1	127,000	2.9	173,000	4.0
6	153,000	3.5	140,000	3.2	293,000	6.7
TOTAL	746,000	17.1	242,000	28.5	1,988,000	45.6



Source: BKF Engineers, Preliminary Engineering Report, 2023.

Figure 4.9-1
Existing Drainage Areas

Groundwater

The project site is located within the Santa Clara Valley Groundwater Basin, within the San Mateo Subbasin, identified as Basin 2-09.03. The San Mateo Subbasin covers 48,100 acres with the San Cruz Mountains on the west and the San Francisco Bay on the east.[25] This basin is prioritized as "very low" on the SGMA Basin Prioritization Dashboard.[26] Due to this, no groundwater sustainability agency is required, and this basin is not regulated under the SMGA. This is because there is very little groundwater use in this basin (less than 2,700 acre-feet/year) and it is mostly due to private well pumping in the subbasin areas south of Belmont (Redwood City and Menlo Park).

Drinking water for the project site is supplied by the Mid-Peninsula Water District, purchased from the San Francisco Public Utilities Commission (SFPUC), which provides water from the Hetch Hetchy Regional Water System as well as regional watersheds along the Peninsula, Alameda, and Upper Tuolumne.[27, 28]

Flood Zones

FEMA identifies floodplain zones to assist cities with mitigating flooding hazards through land use planning. FEMA also outlines specific regulations for any construction within a 100-year floodplain. The 100-year floodplain is defined as an area that has a 1 percent chance of being inundated during a 12-month period. FEMA also prepares maps for 500-year floods, which means that in any given year, the risk of flooding in the designated area is 0.2 percent.

Figure 4.9-2, *FEMA Flood Zones*, depicts the flood zones in the vicinity of the project site. The vast majority of the project site is within Flood Zone Designation X, as per the FEMA FIRM Map No. 06081C0168F.[29] Flood Zone X indicates an area of minimal flood hazard. However, there is a small portion of the site along the eastern corner of the Ralston Development Area and in alignment with Belmont Creek that is within Flood Zone A, which depicts a 100-year flood zone area where no base flood elevation is determined.[30]

[25] City of Belmont, June 2017, General Plan, Phase I Zoning, Belmont Village Specific Plan, and Climate Action Plan Draft Program Environmental Impact Report, SCH #2016082075, accessed on February 29, 2024.

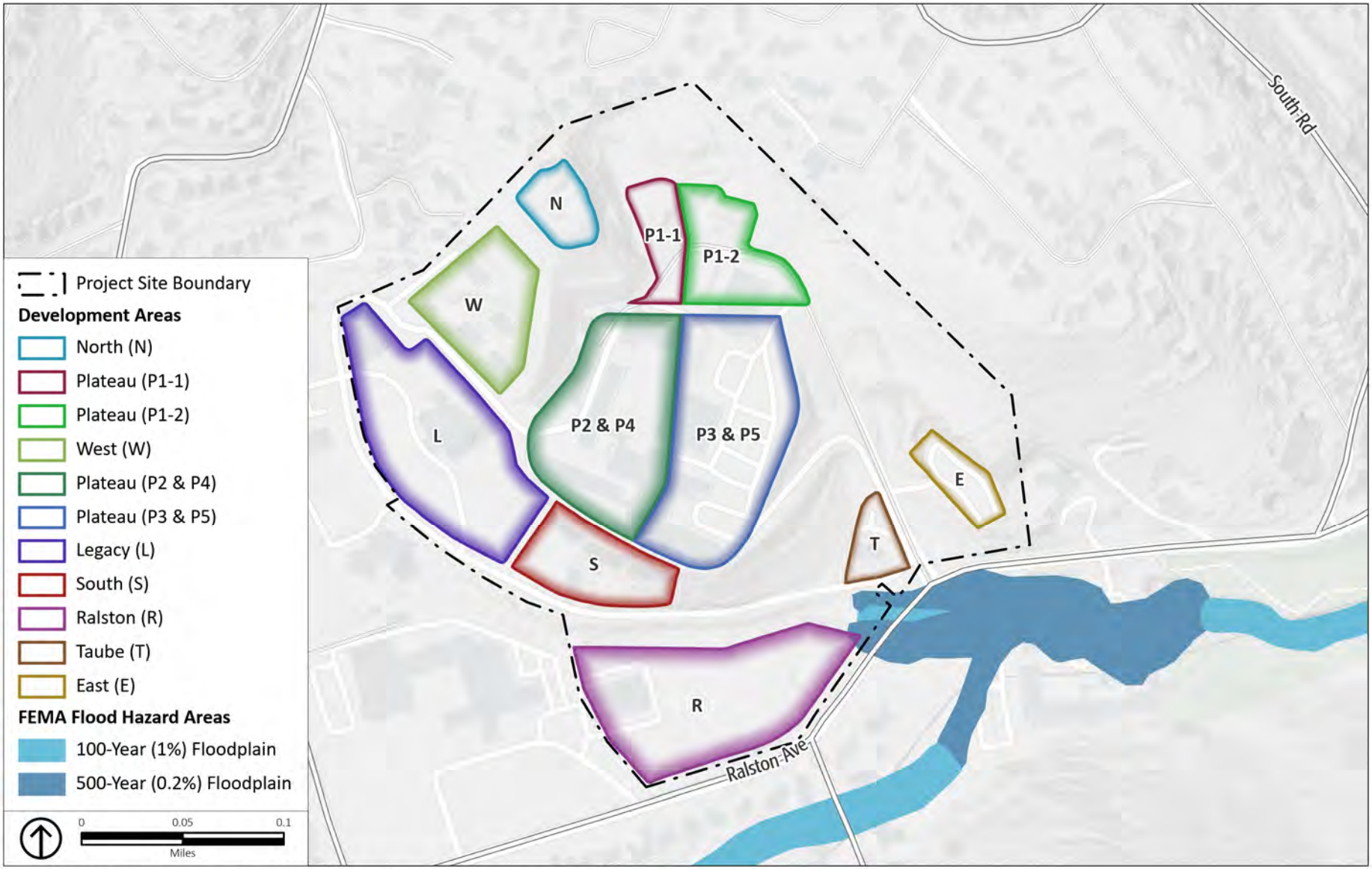
[26] California Department of Water Resources, SGMA Basin Prioritization Dashboard, https://gis.water.ca.gov/app/bp-dashboard/final/, accessed on March 7, 2024.

[27] Mid-Peninsula Water Direct, About MPWD, https://www.midpeninsulawater.org/about, accessed on February 29, 2024.

[28] San Francisco Public Utilities Commission (SFPUC), https://sfpuc.org/programs/water-supply, accessed on February 29, 2024.

[29] Federal Emergency Management Agency (FEMA), July 2025, Flood Insurance Rate Map (FIRM) No. 06081C0168F, https://msc.fema.gov/portal/search?AddressQuery=City%20of%20Belmont, accessed on February 29, 2024.

[30] Federal Emergency Management Agency (FEMA), July 2025, Flood Insurance Rate Map (FIRM) No. 06081C0168F, https://msc.fema.gov/portal/search?AddressQuery=City%20of%20Belmont, accessed on February 29, 2024.



Source: California Department of Water Resources, 2024; PlaceWorks, 2024.

Figure 4.9-2
FEMA Flood Zones

Dam Inundation Zones

The project site is not inside an inundation map area.[31] However, the boundary for the Notre Dame dam inundation area is approximately 150 feet southeast of the project site.[32] The Notre Dame Dam, located approximately 1.5 miles west of the project site, is owned by the Belmont City Department of Public Works and has a high downstream hazard.[33]

Seiches and Tsunamis

A seiche is an oscillation of a body of water in an enclosed or semi enclosed basin such as a reservoir, harbor, lake, or storage tank. The project site is not near any water storage tanks or reservoirs that would be at risk of seiche during seismic activity. The nearest body of water is the Notre Dame Dam, approximately 1.5 miles west of the project site. A seiche at Notre Dame Dam would cover a much smaller area than a catastrophic failure of the dam, and it is highly unlikely that any flood waters would reach the project site.

A tsunami is a great sea wave produced by undersea disturbances such as tectonic displacement or large earthquakes. The project site is approximately 2 miles from the San Francsico Bay and therefore not at risk of flooding from a tsunami. Additionally, according to the Tsunami Inundation Map for Emergency Planning map of the San Mateo Quadrangle, the project site is not within the tsunami inundation area.[34]

4.9.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant hydrology and water quality impact if it would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in a substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage

[31] County of San Mateo, 2024, Multijurisdictional Local Hazard Mitigation Plan Resources, Hazard Mapping Tool, https://www.smcgov.org/ceo/multijurisdictional-local-hazard-mitigation-plan-resources, accessed March 21, 2024.

[32] Department of Water Resources, California Dam Breach Inundation Maps, https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2, accessed on February 29, 2024.

[33] Department of Water Resources, California Dam Breach Inundation Maps, https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2, accessed on February 29, 2024.

[34] California Emergency Management Agency California Geological Survey, July 2009, *Tsunami Inundation Map for Emergency Planning - San Mateo Quadrangle*, https://www.conservation.ca.gov/cgs/Documents/Publications/Tsunami-Maps/Tsunami_Inundation_SanMateo_Quad_SanMateo.pdf, accessed on February 29, 2024.

systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows.

4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.
6. In combination with past, present, and reasonably foreseeable projects, result in cumulative hydrology and water quality impacts in the area.

4.9.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following hydrology and water quality analysis is based on the natural environmental setting and therefore utilizes information gathered in 2023.

HYD-1	The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

Construction

Future development projects under the proposed project would involve soil disturbance, construction, and operation of land uses that could generate pollutants affecting stormwater. Clearing, grading, excavation, and construction activities have the potential to impact water quality through soil erosion and increasing the amount of silt and debris carried in runoff. Additionally, the use of construction materials, such as fuels, solvents, and paints, may present a risk to surface water quality. Finally, the refueling and parking of construction vehicles and other equipment on-site during construction may result in oil, grease, or related pollutant leaks and spills that may discharge into the storm drain system.

To minimize these potential impacts, future development projects under the proposed project that involves the disturbance of one acre or more of land would require compliance with the CGP Order WQ 2022-0057-DWQ, which includes the preparation and implementation of a SWPPP. A SWPPP requires the incorporation of BMPs to control sediment, erosion, and hazardous materials contamination of runoff during construction and prevent contaminants from reaching receiving water bodies. The CGP also requires that prior to the start of construction activities, the project applicant must file PRDs with the SWRCB, which includes a Notice of Intent, risk assessment, site map, annual fee, signed certification statement, and a SWPPP. The construction contractor is required to maintain a copy of the SWPPP at the site and implement all construction BMPs identified in the SWPPP during construction activities. Prior to the issuance of a grading permit, the project applicant is required to provide proof of filing of the PRDs

with the SWRCB. In addition, future development projects under the proposed project would be required to implement the City's following standard conditions to minimize impacts to water quality during construction:

- Applicants are required to provide C3/C6 Checklists, and drainage plans and studies as part of the development review process. Public Works reviews these materials to ensure that they comply or conditionally comply with the City of Belmont 2035 General Plan policies that require: 1) the incorporation of BMPs to reduce construction and operational water pollutant loads; 2) implementation of Urban Design guidelines for LID (as applicable for Special projects[35]); and 3) streetscape and landscape designs that manage stormwater, to ensure that runoff potential does not exceed the storm drain system's capacity.
- Grading shall be performed in accordance with the City Grading Ordinance, Chapter 9 of the BCC. Soil or other construction materials shall not be stockpiled in the public right-of-way unless an encroachment permit is obtained from the Department of Public Works. Grading shall neither be initiated nor continued between November 15 and April 15. Grading shall be done between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday unless otherwise specifically authorized by the Director of Public Works. The SWPPP BMPs for construction shall be implemented to protect water quality.
- Prior to issuance of Grading or Building Permits, the applicant must submit an erosion and sedimentation control plan describing BMPs to be used to prevent soil, dirt, and debris from entering the storm drain system. The plan shall include the following items:
    a) A site plan showing the property lines, existing and proposed topography, and slopes; areas to be disturbed, locations of cut/fill and soil storage/disposal area; areas with existing vegetation to be protected; existing and proposed drainage patterns and structures; watercourses or sensitive areas on-site or immediately downstream of project; and designated construction access routes, staging areas and washout areas.
    b) Erosion and sediment controls to be used during construction, selected as appropriate from the California RWQCB, San Francisco Bay Region Erosion and P.O. Box 791, Oakland, CA 94604-0791.
    c) Methods and procedures to stabilize denuded areas and install and maintain temporary erosion and sediment control continuously until permanent erosion controls have been established.
    d) Provision for preventing erosion and trapping sediment on-site, such as sediment basins or traps, earthen dikes or berms, fiber rolls, silt fence, check dams, storm drain inlet protection, soil blankets or mats, covers for soil stock piles and/or other measures.
    e) Provisions for installing vegetative cover in disturbed areas, including areas to be seeded, planted, and/or mulched, and types of vegetation proposed.

[35] The Municipal Regional Stormwater Permit allows applicants to use alternative means of treatment depending on specific criteria (i.e., non-LID methods) for certain types of smart growth, high density, and below market housing. These types of qualifying projects are known as Special Projects

f) Provision for diverting on-site runoff around exposed areas and diverting off-site runoff around the project site (e.g., swales and dikes).

g) Notes, specifications, and/or attachments describing the construction, operation and maintenance of erosion and sediment control measures, including inspection frequency; methods and schedule for grading, excavation, filling clearing of vegetation and storage and disposal of excavated or cleared material; types of vegetative cover and mulch, including methods and schedules for planting and fertilization; and provisions for temporary and permanent irrigation.

- During grading and building operations, the owner/applicant shall ensure that applicable BMPs from the SMCWPPP are followed to prevent discharge of soil or any construction material into the gutter, stormdrain system or creek.
- The owner/applicant shall ensure that all construction personnel follow standard BMPs for stormwater quality protection during construction of project. These includes, but are not limited to, the following:

  a) Store, handle and dispose of construction materials and waste properly, so as to prevent their contact with stormwater.

  b) Control and prevent the discharge of all potential pollutants, including solid wastes, paints, concrete, petroleum products, chemicals, wash water or sediment, and non- stormwater discharges to storm drains and watercourses.

  c) Use sediment controls, filtration, or settling to remove sediment from dewatering effluent.

  d) Do not clean, fuel, or maintain vehicles on-site, except in a designated area in which runoff is contained and treated.

  e) Delineate clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses with field markers or fencing.

  f) Protect adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching or other measures as appropriate.

  g) Perform clearing and earth moving activities only during dry weather (April 15 through November 14).

  h) Limit and time applications of pesticides and fertilizers to prevent polluted runoff.

  i) Limit construction access routes and stabilize designated access points.

  j) Do not track dirt or other materials off-site; clean off-site paved areas and sidewalks using dry sweeping methods.

- If construction is not complete by the start of the wet season (November 15 through April 15), prior to November 15 the developer shall implement a winterization program to minimize the potential for erosion and sedimentation. As appropriate to the site and status of construction, disturbed soils through temporary or permanent seeding, mulching, matting, tarping or other winterization requirements shall include inspecting/maintaining/cleaning all soil erosion and sedimentation controls prior to, during, and immediately after each storm event; stabilizing physical means; rocking unpaved vehicle access to limit dispersion of mud onto public right-of- way; covering/tarping stored

construction materials, fuels, and other chemicals. Plans are to include proposed measures to prevent erosion and polluted runoff from all site conditions. As site conditions warrant, the Department of Public Works may direct the developer to implement additional winterization requirements.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Categories of potential BMPs that would be implemented for the proposed project are described in Table 4.9-2, *Construction Best Management Practices*.

TABLE 4.9-2 CONSTRUCTION BEST MANAGEMENT PRACTICES

Category	Purpose	Examples
Erosion Controls and Wind Erosion Controls	▪ Use project scheduling and planning to reduce soil or vegetation disturbance (particularly during the rainy season) ▪ Prevent or reduce erosion potential by diverting or controlling drainage ▪ Prepare and stabilize disturbed soil areas	Scheduling, preservation of existing vegetation, hydraulic mulch, hydroseeding, soil binders, straw mulch, geotextile and mats, wood mulching, earth dikes and drainage swales, velocity dissipation devices, slope drains, streambank stabilization, compost blankets, soil preparation/roughening, and non-vegetative stabilization
Sediment Controls	▪ Filter out soil particles that have been detached and transported in water	Silt fence, sediment basin, sediment trap, check dam, fiber rolls, gravel bag berm, street sweeping and vacuuming, sandbag barrier, straw bale barrier, storm drain inlet protection, manufactured linear sediment controls, compost socks and berms, and biofilter bags
Wind Erosion Controls	▪ Apply water or other dust palliatives to prevent or minimize dust nuisance	Dust control soil binders, chemical dust suppressants, covering stockpiles, permanent vegetation, mulching, watering, temporary gravel construction, synthetic covers, and minimization of disturbed area
Tracking Controls	▪ Minimize the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits, and entrance/outlet tire wash
Nonstorm Water Management Controls	▪ Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment ▪ Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges	Water conservation practices, temporary stream crossings, clear water diversions, illicit connection/discharge, potable and irrigation water management, and the proper management of the following operations: paving and grinding, dewatering, vehicle and equipment cleaning, fueling and maintenance, pile driving, concrete curing, concrete finishing, demolition adjacent to water, material over water, and temporary batch plants

TABLE 4.9-2 CONSTRUCTION BEST MANAGEMENT PRACTICES

Category	Purpose	Examples
Waste Management and Controls (i.e., good housekeeping practices)	▪ Manage materials and wastes to avoid contamination of stormwater	Stockpile management, spill prevention and control, solid waste management, hazardous waste management, contaminated soil management, concrete waste management, sanitary/septic waste management, liquid waste management, and management of material delivery storage and use

Source: Compiled by PlaceWorks from information provided in the California Stormwater Quality Association's Construction BMP Handbook.

Submittal of the PRDs and implementation of the SWPPP and the City's standard conditions throughout the construction phase of future development projects under the proposed project will address anticipated and expected pollutants of concern from construction activities. Furthermore, the City would comply with Section C.6, *Construction Site Control*, of the San Francisco MS4 permit and confirm implementation of appropriate BMPs with construction site inspections. As a result, water quality impacts associated with construction activities would be *less than significant*.

Operation

Operation of future development projects under the proposed project may result in long-term impacts to the quality of stormwater and urban runoff, subsequently impacting downstream water quality and/or San Francisco Bay. Developments can potentially create new sources for runoff contamination through changing land uses. As a consequence, development of the project site as a whole may have the potential to increase the post-construction pollutant loadings of certain constituent pollutants associated with the proposed land uses and their associated features, such as landscaping and plaza areas.

To help prevent long-term impacts associated with land use changes and in accordance with the requirements of the MS4 permit (Order No. R2-2022-0018) and the SMCWPPP C.3 Regulated Projects Guide, designated new development and significant redevelopment projects that involve the creation and/or replacement of 5,000 square feet or more of impervious surface must incorporate LID site design, source control, and stormwater treatment measures to address post-construction stormwater runoff. These regulated projects would be required to submit an SCP and C.3 and C.6 Development Review Checklist with building plans, to be reviewed and approved by the City of Belmont. Projects that create and/or replace one acre or more of impervious surfaces and are located in a mapped susceptible area must comply with the hydromodification requirements specified in the C.3.g provisions of the MS4 permit. The hydromodification provisions require that post-project runoff rates and durations must match pre-project runoff rates and durations for 10 percent of the 2-year peak flow up to the pre-project 10-year peak flow. All regulated projects are required to prepare an SCP that demonstrates that the project incorporates site design measures and treatment facilities that will:

- Minimize imperviousness
- Retain or detain stormwater
- Slow runoff rates
- Reduce pollutants in post-development runoff

In particular, the SCP would show that all runoff from impervious areas is either dispersed to landscape or routed to a properly designed LID treatment facility.[36] LID is an approach to land development (or redevelopment) that works with nature to manage stormwater as close to its source as possible. LID employs principles such as preserving and recreating natural landscape features and minimizing effective imperviousness to create functional and appealing site drainage that treat stormwater as a resource rather than a waste product. There are many practices that have been used to adhere to these principles, such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed. Applied on a broad scale, LID can maintain or restore a watershed's hydrologic and ecological functions.

As shown on Figure 3-11*, Proposed Conceptual Strom Drain Line Plan*, in Chapter 3, *Project Description*, of this Draft EIR, the project site would be divided into six drainage areas and connect to the existing storm water drain lines. Bioretention areas would be added on the western and southern perimeter of the project site, as well as along Laxague Drive. Bioretention basins are BMPs that would remove potential pollutants in stormwater runoff and improve the water quality of the discharged runoff. Additionally, on-site storm drain infrastructure would be expanded on-site but stormwater runoff would still discharge to the same Belmont Creek outfalls or to the existing infrastructure beneath Ralston Avenue to the south. Future development projects under the proposed project would be required to prepare SCPs consistent with the guidance in the SMCWPPP C.3 Regulated Guide and the MS4 permit at the time of project application. Each project would undergo review by City personnel to ensure that the regulatory requirements for temporary on-site stormwater runoff retention have been met.

Additionally, as part of the statewide mandate to reduce trash within receiving waters, the proposed project would adhere to the requirements of the California Trash Amendments to install and maintain trash screening devices at all public curb inlets, grate inlets, and catch basin inlets. Future development projects under the proposed project would also be required to comply with the requirements of Chapter 21-193 of the BCC, which prohibits illicit discharge into the storm drain systems. Compliance with the 2035 General Plan policies provided in Table 4.9-1, *City of Belmont 2035 General Plan Policies Relevant to Hydrology and Water Quality*, would also serve to minimize potential adverse impacts on surface and groundwater quality. In addition, future development projects under the proposed project would be required to implement the City's following standard conditions to minimize impacts to water quality during operation:

- Applicants are required to provide C3/C6 Checklists, and drainage plans and studies as part of the development review process. Public Works reviews these materials to ensure that they comply or conditionally comply with the City of Belmont 2035 General Plan policies that require: 1) the incorporation of BMPs to reduce construction and operational water pollutant loads; 2) implementation of Urban Design guidelines for LID (as applicable for Special Projects[37]); and 3)

[36] SMCWPPP, 2020, C.3 Regulated Projects Guide.

[37] The Municipal Regional Stormwater Permit allows applicants to use alternative means of treatment depending on specific criteria (i.e., non-LID methods) for certain types of smart growth, high density, and below market housing. These types of qualifying projects are known as Special Projects.

streetscape and landscape designs that manage stormwater, to ensure that runoff potential does not exceed the storm drain system's capacity.

- All plans shall conform to the requirements of the City NPDES Stormwater Discharge Permit and the SMCWPPP. The project plans shall include permanent storm water quality protection measures. The project plans shall identify BMPs appropriate to the uses to be conducted on-site to effectively prohibit the discharge of pollutants with storm water run-off. A Maintenance and Operation Agreement shall be prepared by applicant incorporating the conditions of this section.
- The property owner shall install, operate, and maintain all permanent stormwater quality protection measures included in the approved project plan using qualified personnel. The property owner/applicant must keep a maintenance and inspection schedule and record to ensure that the treatment control measures continue to operate effectively for the life of the project. Records must be provided to the Department of Public Works, on an annual basis, on or before June 30 of each year.
- A Maintenance Plan for every stormwater treatment control, and/or Hydro Modification measure or applicable site design measure, inclusive of maintenance and inspection checklists and Maintenance Inspection Report Forms, shall be submitted to the City for review and approval prior to issuance of a grading permit. A copy of the final, approved Maintenance Plan(s) shall be made a part of the Maintenance Agreement. A copy of the final, approved Maintenance Plan(s) shall also be on file with the Public Works Department.
- The developer shall provide to the first residents/occupants/tenants practical information materials (as furnished by the City) on good housekeeping for hazardous products, proper use and disposal of hazardous products, and prohibited discharge practices.
- Efficient irrigation systems shall be used throughout all landscaped areas in accordance with the Model Water Efficient Landscape Ordinance.
- All landscaping shall be maintained and shall be designed with efficient irrigation systems to reduce runoff, promote surface filtration, and minimize the use of fertilizers, herbicides, and pesticides.
- The property owner/association shall implement a trash management and litter control program including emptying trash receptacles in common areas, noting trash disposal violations by homeowners or business, and notifying violators.
- The phrase "No Dumping-Drains to Bay" or equal phrase shall be labeled on new storm drain inlets by stenciling, branding, plaque or casting.
- The property owner shall install trash capture devices in storm drain systems that lead directly to the off-site storm drain system or outfall. Devices shall be approved by the Director of Public Works or designee. Trash capture devices are required on site consistent with the State Water Resources Control Board definition of Full Capture System. All on-site trash capture devices shall be cleaned routinely and maintained by the Owner per the Stormwater Treatment Facilities Maintenance Agreement.
- All on-site drain facilities must be inspected twice a year and cleaned immediately prior to the rainy season (prior to October 15) and once again during the rainy season. Results of inspection and cleaning shall be reported to the Department of Public Works on an annual basis on or before June 30 of each year.

- Streets and parking lots must be swept immediately prior to and once during the storm season. Records of street cleaning shall be reported to the Department of Public Works on an annual basis on or before June 30 of each year.
- Trash enclosures and dumpster areas must be covered and protected from roof and surface drainage. Drains within the trash enclosure will be connected to the sanitary sewer system.
- No wastewater (including equipment cleaning wash water, vehicle wash water, cooling water, air conditioner condensate, and floor cleaning wash water) shall be discharged to the storm drain system, the street or gutter.
- New buildings such as food service facilities and/or multi-family residential complexes or subdivisions shall provide a roofed and enclosed area for dumpsters and recycling containers. The area shall be designed to prevent water run-on to the area and runoff from the area and to contain litter and trash, so that it is not dispersed by the wind or runoff during waste removal.
- Interior level parking garage floor drains, and any other interior floor drains, shall be connected to the sanitary sewer system, subject to the local sanitary sewer agency's authority and standards. A permit is required for discharge to the sanitary sewer.
- Swimming pools, hot tubs, spas, and fountains shall have a connection to the sanitary sewer, subject to the local sanitary sewer agency's authority and standards. This connection could be a drain in the pool to the sanitary sewer or a cleanout located close enough to the pool so that a hose can readily direct the pool discharge into the sanitary sewer cleanout.
- Boiler drain lines, roof top equipment with drain lines, and/or equipment for washing and/or steam cleaning activities shall be connected to the sanitary sewer system, subject to the local sanitary sewer agency's authority and standards.
- Roof drains shall drain away from the building and be directed to landscaping or a stormwater treatment measure.
- The property owner/association shall implement a trash management and litter control program including emptying trash receptacles in common areas, noting trash disposal violations by homeowners or business, and notifying violators.
- Outdoor storage areas for oils, fuels, solvents, coolant, and other chemicals shall be designed to provide secondary containment such as berms and roof covers. Process equipment sited outdoors shall be placed on an impermeable surface and covered. Property owners/associations shall implement a regular program of sweeping and litter control at these sites.
- Fire sprinkler test water shall discharge to onsite vegetated areas, or, alternatively shall be discharged to the sanitary sewer system, subject to the local sanitary sewer agency's authority and standards.
- Air conditioning condensate shall drain to landscaping, or alternatively may be connected to the sanitary sewer system, subject to the local sanitary sewer agency's authority and standards.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored

specifically to each development project and the regulatory requirements in place at the time of submittal.

With implementation of the proposed conceptual storm drain line plan, in conjunction with adherence to SMCWPPP, MS4 permit requirements, California Trash Amendments, regulations of the BCC and General Plan, and the City's standard conditions, the proposed project would not violate any water quality standards or waste discharge requirements during the operation, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

HYD-2	The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

The project site is located within Mid-Peninsula Water District's service area. The Mid-Peninsula Water District purchases its entire water supply from SFPUC, which provides water from the Hetch Hetchy Regional Water System as well as regional watersheds along the Peninsula, Alameda, and Upper Tuolumne. Groundwater is not used for municipal water supply. Due to the California Geological Survey not showing a groundwater table in the immediate area of the site or within the adjacent Belmont Creek drainage valley, it is not anticipated that any construction dewatering would be required for the majority of the site.[38] There is a possibility of dewatering needed due to temporary perched groundwater at southern and lower elevation portions of the site, which would be addressed per Statewide requirements provided in the CGP.[39] The project site is also not in a designated groundwater basin and the proposed project would not affect designated recharge areas. Therefore, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, and this impact is therefore *less than significant*.

Significance without Mitigation: Less than significant.

[38] Cornerstone Earth Group, 2021, Due Diligence Report: Geotechnical Feasibility Notre Dame de Namur University.
[39] Cornerstone Earth Group, 2021, Due Diligence Report: Geotechnical Feasibility Notre Dame de Namur University.

HYD-3	The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in a substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows.

Erosion and Siltation

New development or redevelopment within the project site could result in an increase in impervious surfaces. This, in turn, could result in an increase in stormwater runoff, higher peak discharges to storm drains, and the potential to cause erosion or siltation in streams. Increases in tributary flows can exacerbate creek bank erosion or cause destabilizing channel incision.

Future development projects under the proposed project would be required to implement construction-phase BMPs as well as post-construction site design, source control measures, and treatment controls in accordance with the requirements of the CGP, BCC, MS4 Permit, and SMCWPPP C.3 Regulated Projects Guide. Typical construction BMPs include silt fences, fiber rolls, catch basin inlet protection, water trucks, street sweeping, and stabilization of truck entrance/exits. Each new development or redevelopment project that disturbs one or more acre of land would be required to prepare and submit a SWPPP to the SWRCB that describes the measures to control discharges from construction sites.

Once future development projects have been constructed, C.3 requirements in the MS4 permit for new development or redevelopment projects must be implemented and include site design measures, source control measures, LID, and treatment measures that address stormwater runoff and would reduce the potential for erosion and siltation. Site design measures include limits on clearing, grading, and soil compaction; minimizing impervious surfaces; conserving the natural areas of the site as much as possible; complying with stream setback ordinances; and protecting slopes and channels from erosion. LID measures include the use of permeable pavements, directing runoff to pervious areas, and the construction of bioretention areas. The SCPs for future development projects under the proposed project must also include operation and maintenance procedures and an agreement to maintain any stormwater treatment and control facilities for perpetuity. Each project undergoes review by City personnel to ensure that the regulatory requirements for temporary on-site stormwater runoff retention and erosion control have been met.

Adherence to the streambed alteration agreement process under Sections 1601 to 1606 of the California Fish and Game Code would further reduce erosion and siltation impacts that may occur due to streambed alterations. Projects subject to hydromodification must also maintain the pre-project creek erosion potential by implementing various control measures.

Flooding On- or Off-Site

New development and/or redevelopment and changes in land uses could result in an increase in impervious surfaces, which in turn could result in an increase in stormwater runoff, higher peak discharges to drainage channels, and the potential to cause nuisance flooding in areas without adequate drainage facilities. However, all future development projects under the proposed project would be required to comply with the requirements of the MS4 Permit and the SMCWPPP C.3 Regulated Projects Guide. Regulated projects must implement BMPs, including LID BMPs and site design BMPs, which effectively minimize imperviousness, retain or detain stormwater on-site, decrease surface water flows, and slow runoff rates. Projects that create and/or replace one acre of impervious surface must also adhere to the hydromodification requirements of the MS4 permit and the SMCWPPP document to ensure that post-project runoff does not exceed pre-project runoff for 10 percent of the 2-year to 10-year peak flow rates. Adherence to these regulatory requirements would minimize the amount of stormwater runoff from new development and redevelopment within the project site.

Stormwater Drainage System Capacity

An increase in impervious surfaces from new development or redevelopment within the project site could result in increases in stormwater runoff, which in turn could exceed the capacity of existing or planned stormwater drainage systems.

Future development projects under the proposed project would be required to comply with the MS4 permit requirements and follow the SMCWPPP guidance document when designing on-site stormwater treatment facilities. The SCP for each future development projects is subject to City review to verify that the on-site storm drain systems and treatment facilities can accommodate stormwater runoff from the site and would not exceed the capacity of downstream drainage systems at the point of connection. Also, implementation of the C.3 provisions of the MS4 permit for new development, which include LID design and bioretention areas, would minimize increases in peak flow rates or runoff volumes, thus reducing stormwater runoff to the storm drain system.

While future development within the project site would be mainly in development areas that have been previously developed, the North development area, as shown on Figure 3-3, *Proposed Development Areas,* of Chapter 3, *Project Description*, of this Draft EIR, is currently undeveloped. Due to this, the impervious surfaces on the project site would increase. However, with the implementation of the C.3 provisions for new projects within the project site, there should not be a significant increase in impervious surfaces or stormwater runoff to the City's storm drain system.

During the construction phase, future development projects under the proposed project would be required to prepare SWPPPs and implement erosion control plans, thus limiting the discharge of pollutants from the site. During operation, future development would be required to implement BMPs and LID measures that minimize the amount of stormwater runoff and associated pollutants. Along with these measures, bioretention basins would be installed at various locations along the perimeter of the project site, as shown on Figure 3-11, *Proposed Conceptual Strom Drain Line Plan*, in Chapter 3, *Project Description*, of this Draft EIR. These would retain runoff temporarily and reduce the rate of discharge to the existing storm drainage system. On-site storm drain infrastructure would be expanded on-site but

stormwater runoff would still discharge to the same Belmont Creek outfalls or to the existing infrastructure beneath Ralton Avenue to the south. Stanford would provide utility master plans to the City with the submittal of the first DDP, with updated utility master plans as subsequent development phases are submitted to the City for approval.

Redirecting Flood Flows

The project site is largely within Flood Zone Designation X, as per the FEMA FIRM Map No. 06081C0168F.[40] Flood Zone X indicates an area of minimal flood hazard. However, there is a small portion of the site along the eastern corner of the Ralston Development Area and in alignment with Belmont Creek that is within Flood Zone A, which depicts a 100-year flood zone area where no base flood elevation is determined.[41]

The discussion above regarding on- and off-site flooding is also applicable to the analysis of impeding or redirecting flood flows. Since new development projects are required to comply with C.3 provisions of the MS4 Permit and retain stormwater on-site via the use of bioretention facilities, any flood flows would also be retained for a period of time on-site, which would minimize the potential for flooding impacts. Impact discussion HYD-4 discusses the potential for impeding or redirecting flood flows with development in areas within the 100-year floodplain.

Summary

With compliance with the MS4 permit and SMCWPPP requirements, future development projects would not result in substantial erosion or siltation and would not substantially increase the rate of surface runoff which would result in flooding, exceed the capacity of the drainage system or impede or redirect flood flows. In addition, future development projects under the proposed project would be required to comply with the City's following standard conditions related to erosion, runoff, and drainage:

- Applicants are required to provide C3/C6 Checklists, and drainage plans and studies as part of the development review process. Public Works reviews these materials to ensure that they comply or conditionally comply with the City of Belmont 2035 General Plan policies that require: 1) the incorporation of BMPs to reduce construction and operational water pollutant loads; 2) implementation of Urban Design guidelines for LID (as applicable for Special Projects[42]); and 3) streetscape and landscape designs that manage stormwater, to ensure that runoff potential does not exceed the storm drain system's capacity.
- A Maintenance Plan for every stormwater treatment control, and/or Hydro Modification measure or applicable site design measure, inclusive of maintenance and inspection checklists and Maintenance

[40] Federal Emergency Management Agency (FEMA), July 2025, Flood Insurance Rate Map (FIRM) No. 06081C0168F, https://msc.fema.gov/portal/search?AddressQuery=City%20of%20Belmont, accessed on February 29, 2024.

[41] Federal Emergency Management Agency (FEMA), July 2025, Flood Insurance Rate Map (FIRM) No. 06081C0168F, https://msc.fema.gov/portal/search?AddressQuery=City%20of%20Belmont, accessed on February 29, 2024.

[42] The Municipal Regional Stormwater Permit allows applicants to use alternative means of treatment depending on specific criteria (i.e., non-LID methods) for certain types of smart growth, high density, and below market housing. These types of qualifying projects are known as Special Projects.

Inspection Report Forms, shall be submitted to the City for review and approval prior to issuance of a grading permit. A copy of the final, approved Maintenance Plan(s) shall be made a part of the Maintenance Agreement. A copy of the final, approved Maintenance Plan(s) shall also be on file with the Public Works Department.

- Grading shall be performed in accordance with the City Grading Ordinance, Chapter 9 of the BCC. Soil or other construction materials shall not be stockpiled in the public right-of-way unless an encroachment permit is obtained from the Department of Public Works. Grading shall neither be initiated nor continued between November 15 and April 15. Grading shall be done between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday unless otherwise specifically authorized by the Director of Public Works. The SWPPP BMPs for construction shall be implemented to protect water quality.
- Prior to issuance of Grading or Building Permits, the applicant must submit an erosion and sedimentation control plan describing BMPs to be used to prevent soil, dirt, and debris from entering the storm drain system. The plan shall include the following items:
    a) A site plan showing the property lines, existing and proposed topography, and slopes; areas to be disturbed, locations of cut/fill and soil storage/disposal area; areas with existing vegetation to be protected; existing and proposed drainage patterns and structures; watercourses or sensitive areas on-site or immediately downstream of project; and designated construction access routes, staging areas and washout areas.
    b) Erosion and sediment controls to be used during construction, selected as appropriate from the California RWQCB, San Francisco Bay Region Erosion and P.O. Box 791, Oakland, CA 94604-0791.
    c) Methods and procedures to stabilize denuded areas and install and maintain temporary erosion and sediment control continuously until permanent erosion controls have been established.
    d) Provision for preventing erosion and trapping sediment on-site, such as sediment basins or traps, earthen dikes or berms, fiber rolls, silt fence, check dams, storm drain inlet protection, soil blankets or mats, covers for soil stock piles and/or other measures.
    e) Provisions for installing vegetative cover in disturbed areas, including areas to be seeded, planted, and/or mulched, and types of vegetation proposed.
    f) Provision for diverting on-site runoff around exposed areas and diverting off-site runoff around the project site (e.g., swales and dikes).
    g) Notes, specifications, and/or attachments describing the construction, operation and maintenance of erosion and sediment control measures, including inspection frequency; methods and schedule for grading, excavation, filling clearing of vegetation and storage and disposal of excavated or cleared material; types of vegetative cover and mulch, including methods and schedules for planting and fertilization; and provisions for temporary and permanent irrigation.
- During grading and building operations, the owner/applicant shall ensure that applicable BMPs from the SMCWPPP are followed to prevent discharge of soil or any construction material into the gutter, stormdrain system or creek.

- The owner/applicant shall ensure that all construction personnel follow standard BMPs for stormwater quality protection during construction of project. These includes, but are not limited to, the following:
  a) Store, handle and dispose of construction materials and waste properly, so as to prevent their contact with stormwater.
  b) Control and prevent the discharge of all potential pollutants, including solid wastes, paints, concrete, petroleum products, chemicals, wash water or sediment, and non- stormwater discharges to storm drains and watercourses.
  c) Use sediment controls, filtration, or settling to remove sediment from dewatering effluent.
  d) Do not clean, fuel, or maintain vehicles on-site, except in a designated area in which runoff is contained and treated.
  e) Delineate clearing limits, easements, setbacks, sensitive or critical areas, buffer zones, trees, and drainage courses with field markers or fencing.
  f) Protect adjacent properties and undisturbed areas from construction impacts using vegetative buffer strips, sediment barriers or filters, dikes, mulching or other measures as appropriate.
  g) Perform clearing and earth moving activities only during dry weather (April 15 through November 14).
  h) Limit and time applications of pesticides and fertilizers to prevent polluted runoff.
  i) Limit construction access routes and stabilize designated access points.
  j) Do not track dirt or other materials off-site; clean off-site paved areas and sidewalks using dry sweeping methods.
- If construction is not complete by the start of the wet season (November 15 through April 15), prior to November 15 the developer shall implement a winterization program to minimize the potential for erosion and sedimentation. As appropriate to the site and status of construction, disturbed soils through temporary or permanent seeding, mulching, matting, tarping or other winterization requirements shall include inspecting/maintaining/cleaning all soil erosion and sedimentation controls prior to, during, and immediately after each storm event; stabilizing physical means; rocking unpaved vehicle access to limit dispersion of mud onto public right-of- way; covering/tarping stored construction materials, fuels, and other chemicals. Plans are to include proposed measures to prevent erosion and polluted runoff from all site conditions. As site conditions warrant, the Department of Public Works may direct the developer to implement additional winterization requirements.
- All plans shall conform to the requirements of the City NPDES Stormwater Discharge Permit and the SMCWPPP. The project plans shall include permanent storm water quality protection measures. The project plans shall identify BMPs appropriate to the uses to be conducted on-site to effectively prohibit the discharge of pollutants with storm water run-off. A Maintenance and Operation Agreement shall be prepared by applicant incorporating the conditions of this section.
- The property owner shall install, operate, and maintain all permanent stormwater quality protection measures included in the approved project plan using qualified personnel. The property

owner/applicant must keep a maintenance and inspection schedule and record to ensure that the treatment control measures continue to operate effectively for the life of the project. Records must be provided to the Department of Public Works, on an annual basis, on or before June 30 of each year.

- A Maintenance Plan for every stormwater treatment control, and/or Hydro Modification measure or applicable site design measure, inclusive of maintenance and inspection checklists and Maintenance Inspection Report Forms, shall be submitted to the City for review and approval prior to issuance of a grading permit. A copy of the final, approved Maintenance Plan(s) shall be made a part of the Maintenance Agreement. A copy of the final, approved Maintenance Plan(s) shall also be on file with the Public Works Department.
- Efficient irrigation systems shall be used throughout all landscaped areas in accordance with the Model Water Efficient Landscape Ordinance.
- All landscaping shall be maintained and shall be designed with efficient irrigation systems to reduce runoff, promote surface filtration, and minimize the use of fertilizers, herbicides, and pesticides.
- Roof drains shall drain away from the building and be directed to landscaping or a stormwater treatment measure.
- Prior to any grading or clearing being performed on-site, the owner/applicant shall submit a grading plan prepared by a California-registered Civil Engineer in accordance with City Grading Ordinance, Chapter 9, Section 3 of the City Code, with a grading permit application, for approval by the Department of Public Works and Building Division. The plan must incorporate the following restrictions:
  a) All soils stockpiled on the site during construction must be covered or otherwise protected from wind and water erosion.
  b) During construction, erosion and sedimentation control plans must be implemented to retain sediments on-site.
  c) Site grading and finished construction must be designed and executed in such a manner as to avoid diverting runoff onto other properties.
  d) Restrictions and recommendation of the Geologic and Soils report as approved by the City's Geologist.
- Grading shall neither be initiated nor continued between November 15 and April 15. Grading shall be done between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday unless otherwise specifically authorized by the Director of Public Works, or his/her designee. The Stormwater Pollution Prevention Program BMPs for construction shall be implemented to protect water quality.
- The applicant must obtain a General Construction Permit from RWQCB prior to beginning of grading.
- The applicant must submit an erosion and sedimentation control plan describing BMPs to be used to prevent soil, dirt, and debris from entering the storm drain system. The plan shall include the following items:
  a) A site plan showing the property lines, existing and proposed topography, and slopes; areas to be disturbed, locations of cut/fill and soil storage/disposal area; areas with existing vegetation to be

protected; existing and proposed drainage patterns and structures; watercourses or sensitive areas on-site or immediately downstream of project; and designated construction access routes, staging areas and washout areas.

b) Erosion and sediment controls to be used during construction, selected as appropriate from the California RWQCB, San Francisco Bay Region Erosion and P.O. Box 791, Oakland, CA 94604-0791.

c) Methods and procedures to stabilize denuded areas and install and maintain temporary erosion and sediment control continuously until permanent erosion controls have been established.

d) Provision for preventing erosion and trapping sediment on-site, such as sediment basins or traps, earthen dikes or berms, fiber rolls, silt fence, check dams, storm drain inlet protection, soil blankets or mats, covers for soil stockpiles and/or other measures.

e) Provisions for installing vegetative cover in disturbed areas, including areas to be seeded, planted, and/or mulched, and types of vegetation proposed.

f) Provision for diverting on-site runoff around exposed areas and diverting off-site runoff around the project site (e.g., swales and dikes).

g) Notes, specifications, and/or attachments describing the construction, operation and maintenance of erosion and sediment control measures, including inspection frequency; methods and schedule for grading, excavation, filling clearing of vegetation and storage and disposal of excavated or cleared material; types of vegetative cover and mulch, including methods and schedules for planting and fertilization; and provisions for temporary and permanent irrigation.

- Construction activity resulting in a land disturbance of 5,000 SF or more, or less than 5,000 SF but part of a larger development shall obtain the Construction Activities Storm Water General Permit from the SWQCB (http://www.scrcb.ca.gov/stormwtr/construction.html or (916) 341-5537). The State requires a completed Notice of Intent (NOI) to comply package and a SWPPP prepared in accordance with Section A of the General Permit prior to the commencement of soil disturbing activities. The State will issue a Waste Discharge Identification number within 10 business days after it receives a complete NOI package (original signed NOI, vicinity map, and check). Applicant shall also submit copies of the NOI and SWPPP to the City for review and approval. Throughout the project life, the SWPPP shall be revised as necessary to accommodate site changes during construction.
- Construction activity resulting in a land disturbance of one acre or more, or less than one acre but part of a larger development shall obtain the Construction Activities Storm Water General Permit from the SWQCB (http://www.scrcb.ca.gov/stormwtr/construction.html or (916) 341-5537). The State requires a completed NOI to comply package and a SWPPP prepared in accordance with Section A of the General Permit prior to the commencement of soil disturbing activities. The State will issue a Waste Discharge Identification number within 10 business days after it receives a complete NOI package (original signed NOI, vicinity map, and check). Applicant shall also submit copies of the NOI and SWPPP to the City for review and approval. Throughout the project life, the SWPPP shall be revised as necessary to accommodate site changes during construction.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Therefore, with implementation of State, regional, and local regulations and standard conditions, impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

HYD-4 The proposed project would not be in flood hazard, tsunami, or seiche zones, or risk release of pollutants due to project inundation.

The project site is not inside an inundation map area, and there are no water storage tanks or reservoirs near the project site that would result in a seiche during seismic activity. Additionally, the project site is approximately 2 miles from the San Francisco Bay and therefore not at risk of flooding from a tsunami. Therefore, there would be no impact associated with the release of pollutants due to inundation at the project site.

As shown on Figure 4.9-2, the southeast portion of the project site is in a 100-year FEMA flood zone. Due to this, future development projects in the affected proposed development areas would be required to comply with regulations outlined in the BCC would be followed to reduce the risk of flooding in these areas. This includes BCC Section 7-214 and Section 7-217 which requires potential development projects to obtain a development permit and follow particular standards of construction such as anchoring and using certain construction materials. Following these regulations would reduce the risk of flooding to a *less-than-significant* level in these proposed development areas.

Significance without Mitigation: Less than significant.

HYD-5 The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Adherence to the State CGP, the BCC, the MS4 Permit, and the SMCWPPP guidance document would ensure that surface and groundwater quality are not adversely impacted during construction and operation of development pursuant to the proposed project. As a result, future development would not obstruct or conflict with the implementation of the San Francisco Bay Basin Water Quality Control Plan. Additionally, future development projects would be served by Mid-Peninsula Water District, which relies on surface water sources from SFPUC. Groundwater is not currently used or planned to be used as a municipal water supply source, and the groundwater basin that includes the project site is not regulated under the SGMA and is not required to prepare a groundwater sustainability plan. Therefore, the

proposed project would not obstruct or conflict with the RWQCB's Basin Plan or a groundwater management plan, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

HYD-6	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative hydrology and water quality impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, the geographic context used for the cumulative assessment of hydrology and water quality impacts includes the areas within the City of Belmont that discharge stormwater to Belmont Creek and Laural Creek Watersheds, which drain into the San Francisco Bay. The proposed project would not violate water quality standards or waste discharge requirements; impede sustainable groundwater management of the basin; result in erosion or siltation, flooding, exceed capacity of stormwater drainage systems, or impede or redirect flood flows; risk release of pollutants due to project inundation; or conflict with a water quality control plan.

Future development projects have the potential to generate pollutants during project construction and operation. All construction projects that disturb one acre or more of land would be required to prepare and implement SWPPPs and obtain coverage under the Statewide GCP. All projects within the watershed would also be required to prepare and implement stormwater control plans specifying BMPs that would be applied during project design and project operation, including stormwater treatment measures that temporarily detain and treat runoff prior to discharge to the storm drain system or receiving water body.

Additionally, future development projects within the Belmont Creek and Laurel Creek Watersheds could increase impervious areas and increase stormwater runoff rates. However, all projects within the watershed would be required to prepare and implement stormwater control plans that include provisions for the capture and infiltration of runoff or the temporary detention of stormwater runoff in accordance with the NPDES MS4 permit. These BMPs include site design, source control, and treatment control measures that provide both flow control and treatment to runoff before it enters the storm drain system or is discharged into a receiving water body. Some future development in the area would be subject to environmental review to mitigate any significant hydrology and water quality impacts. In addition to the State and regional regulations, cumulative development projects would also be subject to BCC and General Plan regulations as well as the City's standard conditions regarding hydrology and water quality. Therefore, hydrology and water quality impacts of the proposed project would not be cumulatively considerable, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

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4.10 LAND USE AND PLANNING

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential land use and planning impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential land use and planning impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

4.10.1 ENVIRONMENTAL SETTING

4.10.1.1 REGULATORY FRAMEWORK

Regional Regulations

Plan Bay Area

Plan Bay Area lays out a development scenario for the nine-county Bay Area region that works to align transportation and land use planning in order to reduce vehicle miles traveled through modified land use patterns. Plan Bay Area is prepared and regularly updated by the Metropolitan Transportation Commission (MTC) in partnership with the Association of Bay Area Governments (ABAG), Bay Area Air Quality District (BAAQMD), and the Bay Conservation and Development Commission (BCDC). Each of the agencies has a different role in regional governance. ABAG primarily does regional land use planning, housing, environmental quality, and economic development; MTC is tasked with regional transportation planning, coordinating, and financing; BAAQMD is responsible for regional air pollution regulation; and BCDC's focus is to preserve, enhance, and ensure responsible use of the San Francisco Bay. The current Plan Bay Area projects growth and development patterns through 2050 and was adopted in October 2021.

Plan Bay Area 2050 distributes projected future growth across the San Francisco Bay Area in order to meet its GHG emissions reduction, housing, and other performance targets, but it is not intended to override local land use control. Cities and counties, not MTC/ABAG, are ultimately responsible for the manner in which their local communities continue to be built out in the future. For this reason, cities and counties are not required to revise their land use policies and regulations, including general plans, to be consistent with the regional transportation plan or an alternative planning strategy. Rather than increase regional land use control, Plan Bay Area 2050 facilitates implementation by expanding incentives and opportunities available to local jurisdictions to support growth in Priority Development Areas (PDAs). In addition to funding transportation and planning projects in PDAs, Plan Bay Area 2050 sets the stage for cities and counties to increase the efficiency of the development process, if they choose, for projects consistent with Plan Bay Area and other state legislation.

Airport Land Use Compatibility Plan

The Airport Land Use Compatibility Plan (ALUCP) covering all three public airports in San Mateo County was approved by the City/County Association of Governments of San Mateo County (C/CAG) in December 1996. C/CAG is the Airport Land Use Commission (ALUC) responsible for promoting land use compatibility

around the County's airports in order to minimize public exposure to excessive noise and safety hazards. C/CAG has since adopted updated ALUCPs for San Francisco International Airport (November 2012), Half Moon Bay Airport (September 2014), and San Carlos Airport (October 2015). The updated ALUCPs describe a series of land use safety and compatibility zones and associated guidelines for development around each airport that are intended to prevent development that is incompatible with airport operations. These regulations include height restrictions based on proximity to the airport and flight patterns. The ALCUPs delineate two Airport Influence Areas (AIA), Area A and Area B, within proximity to each airport. As a requirement for development in Area A, the presence of existing airports within two miles of the property must be disclosed in the notice of intention to offer the property for sale. For development in Area B of the AIA, the C/CAG Board shall exercise its statutory duty to review proposed land development proposals, among other plans, ordinances, amendments, and actions.

Local Regulations

Land use plans, policies, or regulation adopted for the purpose of avoiding or mitigating an environmental effect are described in the regulatory setting of other environmental topic chapters of this Draft EIR. Specifically, these discussions are in Chapter 4.2, *Air Quality*, Chapter 4.3, *Biological Resources*; Chapter 4.5, *Energy*; Chapter 4.6, *Geology and Soils*, Chapter 4.7, *Greenhouse Gas Emissions*; Chapter 4.9, *Hydrology and Water Quality*; Chapter 4.11, *Noise*; Chapter 4.15, *Transportation*; Chapter 4.17, *Utilities and Service Systems*; and Chapter 4.18, *Wildfire*.

Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to land use planning that are relevant to the proposed project are found in the Land Use Element and are listed in Table 4.10-1, *City of Belmont 2035 General Plan Policies Relevant to Land Use*. This set of policies is not an exhaustive list of all of the General Plan policies applicable to the proposed project; rather, it is a selection of land use policies relevant to the impact discussion in this chapter.

TABLE 4.10-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO THE LAND USE

Policy Number	Policy Text
Chapter 2, Land Use Element	
Policy 2.1-2	Coordinate land use and transportation planning to ensure that land use patterns and intensities can be supported by and are accessible to the transportation network, including pedestrian and bicycle facilities.
Policy 2.3-4	Focus new development in or directly adjacent to already-developed areas, where it can be served by existing public services and infrastructure.
Policy 2.8-1	Enable infill properties to develop with uses and development intensities supporting a cohesive development pattern
Policy 2.9-1	Allow sufficient density and intensity to enable new development to support all required infrastructure, community facilities, and open space.
Policy 2.9-2	Require that new development "pays its way" so as to limit fiscal impacts on the City.
Policy 2.11-1	Support increased collaboration and partnership with Notre Dame de Namur University on key issues such as master planning, land use, enrollment, economic development, circulation, housing, and open space.
Policy 2.13-1	Ensure that new development is balanced with preservation of open space and natural features.

TABLE 4.10-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO THE LAND USE

Policy Number	Policy Text
Policy 2.16-1	Require new development located in the San Carlos Airport Influence Area (AIA) to comply with applicable land use compatibility provisions of the San Carlos ALUCP through review and approval of a site development plan, or other development permit. Unless otherwise approved by City Council in accordance with the provisions of Public Utilities Code Section 21675.1(d), development proposals must be consistent or conditionally consistent with applicable land use compatibility policies with respect to noise, safety, airspace protection, and overflight notification, as contained in the San Carlos ALUCP. Additionally, development proposals must meet FAA requirements with respect to building height as well as the provision of obstruction lighting when appurtenances are permitted to penetrate the transitional surface (a 7:1 slope from the runway primary surface). Consider C/CAG recommendations in the review of development proposals.

Source: City of Belmont, 2017, *2035 General Plan.*

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to land use and planning. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Some of these key municipal codes include:

- Chapter 9, *Grading*, establishes requirements for grading permits, procedures for issuing grading permits, specifies minimum standards for grading and removal of vegetation, including protected trees, and provides for the enforcement of grading requirements.
- Chapter 15, Article VIII, *Noise Control*, outlines the regulations construction activity noise is subject to. All construction and related activities which require a city permit, including the use of powered equipment in connection with such activities, are allowed only during the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday except Holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays. All gasoline-powered construction equipment shall be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to these systems is permitted. Exceptions to such noise limitations apply to deliveries and garbage collection.
- Chapter 17, Article III, *Development Impact Fees*, establishes impact fees that will be imposed upon development projects for the purpose of mitigating the detrimental impacts of development projects upon the need for certain capital improvements. The fees shall be imposed based on specified capital improvement categories, which may include, without limitation, fees for transportation improvements, park land and facilities, police and fire facilities, affordable housing, and other capital improvements.
- Chapter 25, *Trees*, provides guidance on protected trees in order to preserve scenic beauty, among other reasons. If a person wants to remove a protected tree, they must submit an application and pay the applicable fees as established by the City Council. A notice form must also be placed on the tree during the review process. This chapter is also known as the Belmont Tree Ordinance. Protected trees include principal native trees, such as a coast live oak, valley oak, redwood, madrone, bay laurel, or buckeye, having a single main stem or trunk of 10 inches or more diameter at 4.5 feet above grade height (DBH), or up to three of the largest secondary stems totaling 10 inches or more DBH. They also include woody, perennial plants that are 14 inches or more DBH.

Belmont Zoning Ordinance

The purpose of the Belmont Zoning Ordinance is to promote and protect the public health, safety, peace, comfort, convenience and general welfare, and to provide a precise guide for the physical development of the City. According to Section 12, *Planned Unit Development Or "PD" District*, of the Belmont Zoning Ordinance, the Planned Unit Development (PD) zoning district can accommodate various types of development but requires a conceptual design plan (CDP).[1] A Conditional Use Permit is also required for any and all uses, projects, and/or additions in a PD District that require Planning Commission approval and may only be granted if the Planning Commission finds that such use(s) substantially conform to the City of Belmont General Plan and are shown on the approved CDP. A Detailed Development Plan (DDP) and development schedule are also required with the application for a Use Permit. The DDP shall contain certifications that a Design-Professional or group of Design-Professionals have participated in its preparation. Within the DDP, design standards are established and approved by the Planning Commission and become part of the Use Permit. Design standards that could be applied include minimum building height, minimum lot dimensions, maximum building site coverage by buildings and structures, minimum yards, maximum building or structure heights, maximum height of fences and walls, signs, and off-street parking.

4.10.1.2 EXISTING CONDITIONS

Surrounding Land Uses and Context

The project site is in the central portion of the City, among residential neighborhoods and adjacent to an Elementary School and a High School. As shown on Figure 3-2, *Local Vicinity*, in Chapter 3, *Project Description*, of this Draft EIR, the project site is located along Ralston Avenue and nearby El Camino Real. The site and surrounding area are located on a hill with gradients from slight to steep descending primarily to the south.

As shown on Figure 4-1, *Priority Development Areas and Transit Priority Areas*, in Chapter 4, *Environmental Analysis*, of this Draft EIR, the project site is adjacent to the Villages of Belmont PDA. The Belmont 2035 General Plan land use designation and zoning for the project site are Institution and Planned Unit Development, respectively. No set density/intensity standards are defined for these designations; rather, the Planned Development (PD) process defines these on a project-by project basis.[2] The General Plan also identifies the project site to be within the Central Neighborhood of Belmont. The project site is located within the San Carlos Airport AIA in Area A.[3]

[1] City of Belmont Zoning Ordinance, Section 12 – Planned Unit Development or “PD” District, https://www.belmont.gov/home/showpublisheddocument/9234/636637155794700000, accessed on February 28, 2024.

[2] City of Belmont, 2017, *2035 General Plan, Land Use Element*, https://www.belmont.gov/home/showpublisheddocument/16479/636651102860970000, accessed on August 24, 2023.

[3] City/County Association of Governments of San Mateo County, 2015, *Airport Land Use Compatibility Plan San Carlos Airport*, https://ccag.ca.gov/wp-content/uploads/2015/06/Draft-Initial-Study-ALUCP-San-Carlos-Airport-062515.pdf, accessed on August 16, 2023.

Existing Uses on the Project Site

As discussed in Chapter 3, *Project Description*, the 45.65-acre project site is currently developed with 24 buildings and structures totaling 318,156 square feet. The structures vary in height and range from 13 to 43 feet tall.

The project site has been developed most recently under the implementation of the current CDP and consists of academic facilities, associated academic support uses, and housing. Academic uses may include facilities used for teaching, learning, research, collaboration, athletics, recreation, performance, and art. Academic support uses may include all nonacademic uses that facilitate the day-to-day operation of the academic uses. As part of the proposed project, the project site has been categorized into eight development areas: North, West, Plateau, Legacy, South, Ralston, Taube, and East. Figure 3-3, *Proposed Development Areas*, in Chapter 3, *Project Description*, illustrates the location and parameters of these land use areas. Existing uses of these land use areas are as follows:

- North: This area is on the most northern edge of the project site. This area is undeveloped and there are no existing buildings. This area is not in a transit priority area (TPA) or PDA.
- West: This area is on the western edge of the project site and is directly adjacent to existing Belmont homes. It is developed and includes academic and associated academic support uses. Some of the existing buildings in this area include the Bookstore, Cuvilly Hall, Tabard, Gavin Hall, and the Toso Offices. This area is not in a TPA or PDA.
- Plateau: This area in the northern and central part of the project site is the largest flat area on the project site. It is developed with academic facilities, associated academic support uses, and housing. Some of the existing buildings in this area include Gleason Gym, chapel, New Hall, St. Joseph Hall, Julie Billiart Hall, Dining Hall, St. Mary's Hall, and Gellert Library. Approximately half of the Plateau area is in a TPA but not in a PDA, though it is near the Villages of Belmont PDA to the east.
- Legacy: This area is in the western part of the project site. It is developed and includes academic uses. Some of the existing buildings in this area include Ralston Hall Mansion and Madison Art Center. This area is not in a TPA or PDA.
- Ralston: This area is at the southern edge of the project site. The Ralston area is developed and includes academic uses. Some of the existing buildings in this area include the NDNU Theatre, tennis courts, and Koret Athletic Field. This area is not within a PDA but the easternmost portion of this area is in a TPA.
- South: This area is located west of the Plateau area and North of the Ralston area. This area is developed and includes housing uses. Some of the existing buildings in this area include the Wilkie, Kane, and Carroll Apartments. This area is not in a TPA or PDA.
- Taube: This area is in the southeastern part of the project site and is developed. Uses in this area are academic focused, and existing buildings in the area are the Taue Center and parking. The entirety of this area is in a TPA, and it is near the Villages of Belmont PDA.
- East: This area is in the easternmost portion of the project site and includes an existing parking lot. The entirety of this area is in a TPA, and it is near the Villages of Belmont PDA.

4.10.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant land use and planning impact if it would:

1. Physically divide an established community.
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.
3. In combination with past, present, and reasonably foreseeable projects, result in cumulative land use and planning impacts in the area.

4.10.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following land use and planning analysis is based on the natural environmental setting and therefore utilizes information gathered in 2023.

LU-1 The proposed project would not physically divide an established community.

The physical division of an established community typically refers to the construction of a physical feature (such as a wall, airport, interstate highway, or railroad tracks) or the removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community or between a community and outlying areas. It also refers to the placement of a development in such a manner that it physically divides or separates an established community.

The project site is in an already urbanized area. As shown in Table 3-2, *Existing and Proposed Development*, in Chapter 3, *Project Description*, of this Draft EIR, under the proposed project, existing land uses would be modified to allow for increased residential, academic life, campus life, and parking spaces. Potential future development under the proposed project can be realized on the existing location, most of which is are already developed, so the majority of potential development would be infill development and would not be new development on previously undeveloped sites. The proposed project does not propose specific development projects but illustrates a range of development intensities.

As the majority of potential future development under the proposed project would be infill development, the proposed project would not physically divide an established community, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

LU-2	The proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The proposed project would comply with the General Plan policies for land use and planning described in Table 4.10-1. The proposed project includes the proposed CDP, which would undergo City review and allow coordination of land use and transportation planning to ensure that land use patterns and intensities can be supported by and are accessible to the transportation network, including pedestrian and bicycle facilities, as required by Policy 2.1-2. This increased coordination would also support Policy 2.11-1 and Policy 2.16-1. Consistent with Policy 2.3-4 and Policy 2.8-1, a majority of potential future development under the proposed project would be infill development and in already-developed areas, where it can be served by existing public services and infrastructure. Furthermore, the proposed project would be required to pay impact fees as required BCC Section Chapter 17, Article III, in support of Policy 2.9-2 and Policy 2.13-1.

As the project site is in the PD zoning district, a CDP would be required. Because the proposed project includes the proposed CDP, it would be in compliance with the Zoning Ordinance. The proposed CDP would require Planning Commission approval, including approval of the proposed building heights. Upon obtaining approval from the City, the proposed project would not conflict with zoning requirements.

Therefore, the proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and impacts would be *less than significant*.

The proposed project's potential to conflict with other applicable plans and regulations adopted for the purpose of avoiding or mitigating an environmental effect is discussed in detail in the other environmental topic chapters of this Draft EIR. Specifically, these discussions are in Chapter 4.2, *Air Quality*, Chapter 4.3, *Biological Resources*; Chapter 4.5, *Energy*; Chapter 4.6, *Geology and Soils*, Chapter 4.7, *Greenhouse Gas Emissions*; Chapter 4.9, *Hydrology and Water Quality*; Chapter 4.11, *Noise*; Chapter 4.15, *Transportation*; Chapter 4.17, *Utilities and Service Systems*; and Chapter 4.18, *Wildfire*.

Significance without Mitigation: Less than significant.

LU-3	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative land use and planning impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, the cumulative setting for land use and planning impacts includes the effects of the proposed project together with the cumulative development projects in the vicinity of the project site. The proposed project would not physically divide an established community or conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Furthermore, future development in the area would be subject to environmental review, as applicable, to mitigate any significant land use and planning impacts.

Cumulative development projects, including the roundabout recommended at the project site by the Ralston Avenue Corridor Study and Improvement Plan, would be subject to the regulations of the General Plan and the BCC. Therefore, land use and planning impacts of the proposed project would not be cumulatively considerable, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.11 NOISE

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential noise impacts associated with the proposed Conceptual Development Plan (CDP) and Development Agreement (DA) to create the proposed Stanford Belmont Campus. The proposed CDP and DA are herein referred to together as the "proposed project." This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential noise impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

The information and analysis in this chapter is based in part on the *Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR,* prepared by Bollard Acoustical Consultants Inc. (BAC) in March 2024. This study is included in Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR.

4.11.1 ENVIRONMENTAL SETTING

The following are brief definitions of terminology used in this chapter:

- Acoustics. The science of sound.
- Ambient Noise. The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
- Attenuation. The reduction of an acoustic signal.
- A-Weighting. A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
- Decibel or dB. Fundamental unit of sound. A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A decibel is one-tenth of a "bell."
- CNEL. Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7- 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
- Frequency. The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
- IIC. Impact Insulation Class (IIC): A single-number representation of a floor/ceiling partition's impact generated noise insulation performance. The field-measured version of this number is the FIIC.
- Ldn. Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
- Leq. Equivalent or energy-averaged sound level.
- Lmax. The highest root-mean-square (RMS) sound level measured over a given period of time.
- Loudness. A subjective term for the sensation of the magnitude of sound.

- **Masking.** The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.
- **Noise.** Unwanted sound.
- **Peak Noise.** The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.
- **RT_{60}.** The time it takes reverberant sound to decay by 60 dB once the source has been removed.
- **STC.** Sound Transmission Class. A single-number representation of a partition's noise insulation performance. This number is based on laboratory-measured, 16-band (1/3-octave) transmission loss (TL) data of the subject partition. The field-measured version of this number is the FSTC.

Noise and Vibration Fundamentals

Noise

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are designated as sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or Hertz (Hz). Definitions of acoustical terminology are provided in Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure) as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Noise levels associated with common noise sources are provided on Figure 4.11-1, *Noise Associated with Common Noise Sources*.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by filtering the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}). The L_{eq} is the foundation of the day-night average noise descriptor, DNL (or L_{dn}), and shows very good correlation with community response to noise. DNL is based on the average noise level over a 24-hour day, with a +10-decibel weighting applied to noise occurring during nighttime (10:00 pm to 7:00 am) hours. The nighttime penalty

is based on the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because DNL represents a 24-hour average, it tends to disguise short-term variations in the noise environment.

Vibration

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, while vibration is usually associated with transmission through the ground or structures. As with noise, vibration consists of amplitude and frequency. A person's response to vibration will depend on their individual sensitivity as well as the amplitude and frequency of the source.

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of velocity in inches per second peak particle velocity (IPS, PPV) or root-mean-square (VdB, RMS). Standards pertaining to perception as well as damage to structures have been developed for vibration in terms of peak particle velocity as well as RMS velocities. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate. Differences in subsurface geologic conditions and distance from the source of vibration will result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes will decrease with increasing distance.

Human response to vibration is difficult to quantify. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases.

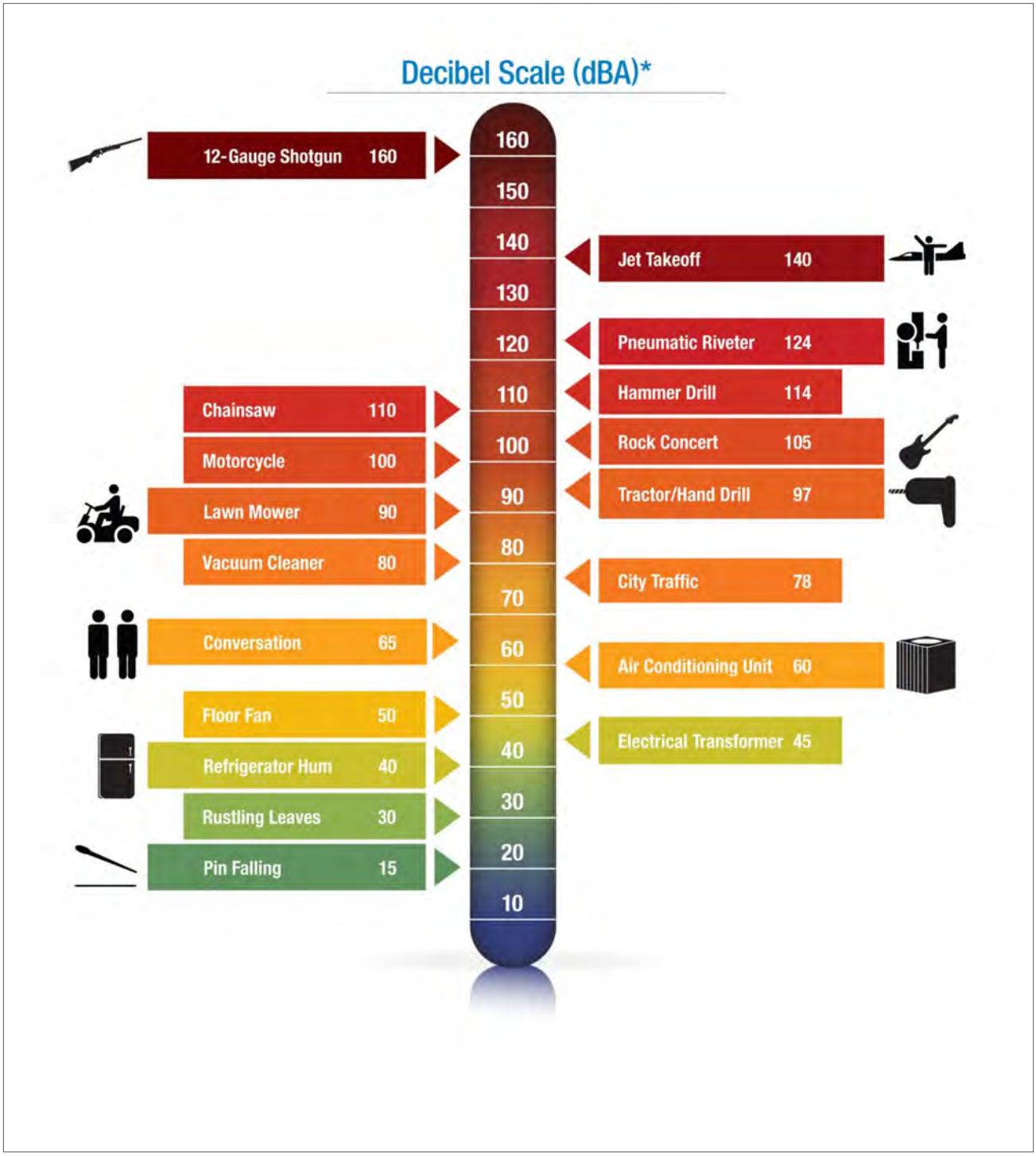
According to the California Department of Transportation's (Caltrans) Transportation and Construction-Induced Vibration Guidance Manual, operation of construction equipment and construction techniques generate ground vibration. Traffic traveling on roadways can also be a source of such vibration.[1] At high enough amplitudes, ground vibration has the potential to damage structures and/or cause cosmetic damage. However, traffic rarely generates vibration amplitudes high enough to cause structural or cosmetic damage.

4.11.1.2 REGULATORY FRAMEWORK

Federal Regulations

The Federal Interagency Commission on Noise (FICON) has developed a graduated scale for use in the assessment of project-related noise level increases. The criteria shown in Table 4.11-1, *Significance of Changes in Cumulative Noise Exposure*, was developed by FICON as a means of developing thresholds for impact identification for project-related noise level increases. The FICON standards have been used extensively in recent years in the preparation of the noise sections of EIRs that have been certified in many California cities and counties.

[1] California Department of Transportation, April 2020, *Transportation and Construction Vibration Guidance Manual*, https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.



Sources: www.cdc.gov/niosh/topics/noice/noisemeter.html
http://e-a-r.com/hearingconservation/faq_main.cfm

Figure 4.11-1
Noise Associated with Common Noise Sources

TABLE 4.11-1 SIGNIFICANCE OF CHANGES IN CUMULATIVE NOISE EXPOSURE

Ambient Noise Level Without Project (DNL)	Change in Ambient Noise Level Due to Project
<60 dB	+5.0 dB or more
60 to 65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise, Bollard Acoustical Consultants, March 2024, *Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR* (see Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR).

State Regulations

Caltrans guidance criteria for building structure and vibration annoyance are presented in Table 4.11-2, *Caltrans Guidance for Building Structure Vibration Criteria*, and Table 4.11-3, *Caltrans Guidance for Vibration Annoyance Potential Criteria*, respectively.

TABLE 4.11-2 CALTRANS GUIDANCE FOR BUILDING STRUCTURE VIBRATION CRITERIA

Structure and Condition	Limiting PPV (in/sec)
Historic and some old buildings	0.5
Residential structures	0.5
New residential structures	1.0
Industrial buildings	2.0
Bridges	2.0

Note: PPV = Peak Particle Velocity
Source: California Department of Transportation, April 2020, *Transportation and Construction Vibration Guidance Manual*, Table 14.

TABLE 4.11-3 CALTRANS GUIDANCE FOR VIBRATION ANNOYANCE POTENTIAL CRITERIA

	Maximum PPV (in/sec)	
Human Response	Transient Sources	Continuous/Frequent Intermittent Sources
Severe/very disturbing	2.0	0.4 to 3.6
Strongly perceptible	0.9	0.1
Distinctly perceptible	0.24	0.035
Barely/slightly perceptible	0.035	0.012

Note: PPV = Peak Particle Velocity. Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent sources include pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers and vibratory compaction equipment.
Source: California Department of Transportation, April 2020, *Transportation and Construction Vibration Guidance Manual*, Tables 4 & 6.

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to noise that are relevant to the proposed project are found in the Noise Element and are listed in Table 4.11-4, *City of Belmont 2035 General Plan Policies Relevant to Noise.*

TABLE 4.11-4 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO NOISE

Policy Number	Policy Text
Chapter 7, Noise Element	
Policy 7.1-2	Use the Community Noise Level Exposure Standards shown in Table 7 (General Plan Table 7-1) as review criteria for new land uses. Require all new development that would be exposed to noise greater than the "normally acceptable" noise level range to reduce interior noise through design, sound insulation, or other measures.
Policy 7.1-3	Require noise-reducing mitigation to meet allowable outdoor and indoor noise exposure standards in Table 8 (General Plan Table 7-2). Noise mitigation measures that may be approved to achieve these noise level targets include but are not limited to the following: ▪ Construct facades with substantial weight and insulation; ▪ Use sound-rated windows for primary sleeping and activity areas; ▪ Use sound-rated doors for all exterior entries at primary sleeping and activity areas; ▪ Use minimum setbacks and exterior barriers; ▪ Use acoustic baffling of vents for chimneys, attic and gable ends; and ▪ Install a mechanical ventilation system that provides fresh air under closed window conditions.
Policy 7.1-8	Continue to enforce applicable Federal and State Noise Insulation Standards (CCR, Title 24) and noise requirements.
Policy 7.1-10	Require developers of new development anticipated to generate a substantial amount of vibration during construction to implement mitigation practices to reduce vibration, which can include: operating heavy equipment as far as practical from residential uses; using smaller bulldozers (operating weight less than 20,000 pounds) when grading must occur within approximately 50 feet of residential uses or other vibration sensitive uses; and using quiet pile driving technology when feasible.
Policy 7.2-1	Use the noise-sensitive land uses and transportation noise sources table and Future Noise Contours map in the General Plan as criteria to determine acceptability of noise-sensitive land uses. Do not permit new noise-sensitive uses—including schools, hospitals, and places of worship— where noise levels are "normally unacceptable" or higher, if alternative locations are available for the uses in the city.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to noise. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to noises are included in Chapter 15, *Offenses – Miscellaneous*. Chapter 15, Article VIII, Section 15-102, *Noise limitations,* outlines the regulations construction activity noise is subject to. All construction and related activities which require a city permit, including the use of powered equipment in connection with such activities, are allowed only during the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday except holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays. All gasoline-powered construction equipment shall be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to these systems is permitted. Exceptions to such noise limitations apply to deliveries and garbage collection.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development

projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.11.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

4.11.1.3 EXISTING CONDITIONS

Surrounding Land Uses

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are generally considered to be sensitive to noise because intrusive noise can be disruptive to these activities. The existing noise-sensitive land uses which would potentially be affected by the project consist of single-family residences, two schools (Notre Dame Elementary School and Notre Dame High School Belmont), a church (Notre Dame de Namur Convent), and a memory care facility (Silverado Belmont Memory Care Community). The locations of the identified existing noise-sensitive uses are shown on Figure 4.11-2, *Noise Monitoring Locations and Sensitive Receptors*.

The project site is located approximately 1.5 miles west of San Carlos Airport, and approximately 8 miles southeast of San Francisco International Airport. Figure 4.11-3, *San Carlos Airport Future Aircraft Noise Contours*, illustrates the proximity of the San Carlos Airport relative to the Stanford Belmont Campus property.

The project site is within the Area A influence area of the San Carlos Land Use Compatibility Plan (ALUCP). Within Area A, State law requires that sellers or lessors of real estate must disclose that the property is located within an airport influence area (California Business and Professional Code Section 11010 and Civil Code Sections 1102.6, 1103.4, and 1353). (Additional information on the ALUCP, including a map of the Influence Areas can be found in Chapter 4.8 *Hazardous Materials* of this Draft EIR.)

The project site is outside of the San Francisco Airport ALUCP, and there are no private air strips within two miles of the site.

Source: Bollard Acoustical Consultants, 2024.

Project Area (Approximate)

Long-Term Ambient Noise & Short-Term Vibration Monitoring Sites (4)

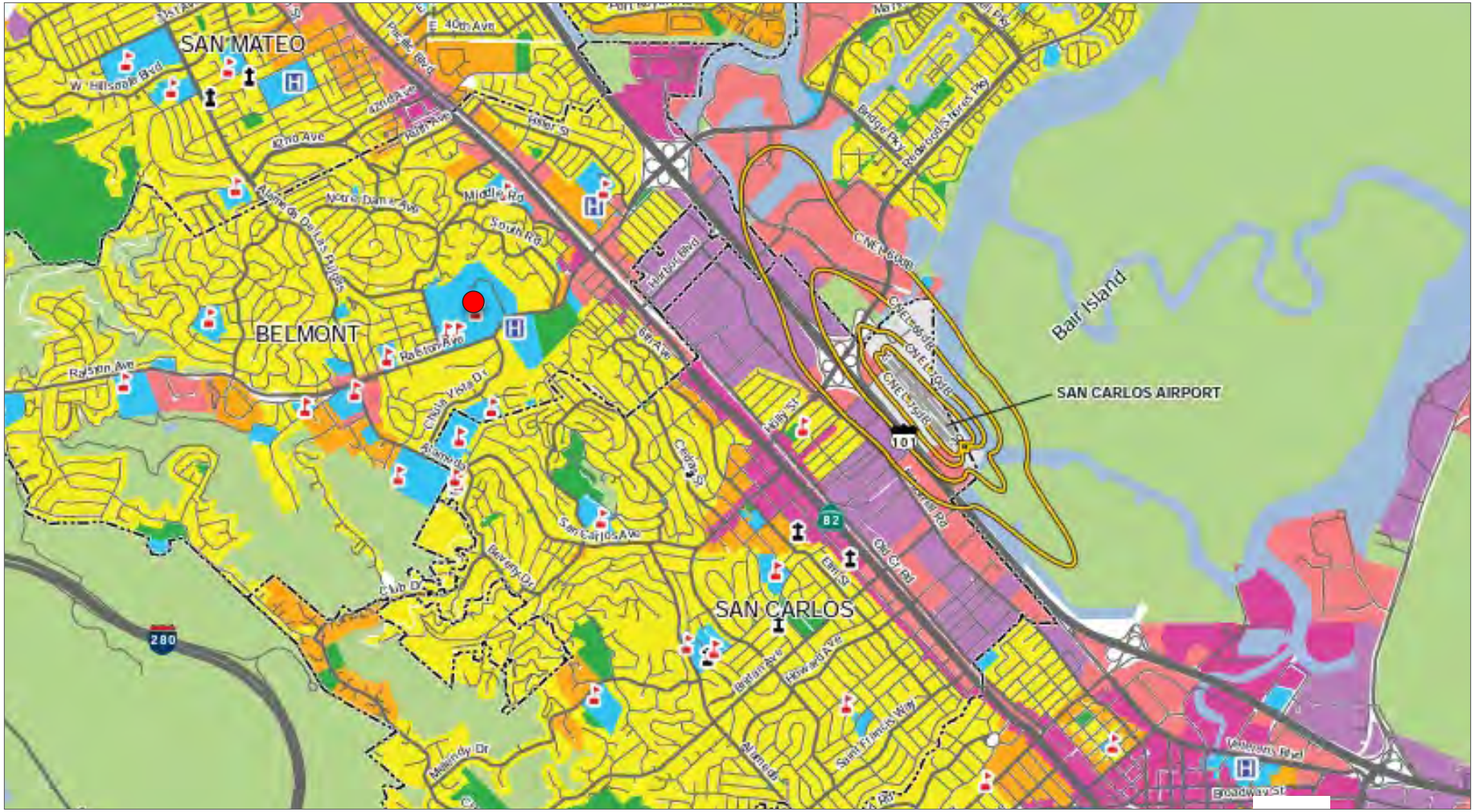
Short-Term Ambient Noise Monitoring Sites (2)

0 500

Scale (Feet)

Figure 4.11-2

Noise Monitoring Locations and Sensitive Receptors



Source: Bollard Acoustical Consultants, 2024.

Stanford Belmont Campus

Figure 4.11-3
San Carlos Airport Future Aircraft Noise Contours

Overall Ambient Noise Environment

The existing ambient noise environment within the project vicinity is defined primarily by traffic on local roadways (including Ralston Avenue), activities at residences (i.e., yard maintenance equipment), and activities at nearby schools (playgrounds, playing fields, parking area movements, etc.). To generally quantify existing ambient noise environment within the project vicinity, long-term (96-hour) ambient noise level measurements were conducted on September 22 to 25, 2023, at four locations—the residential areas northwest and northeast of the project site, the Notre Dame Elementary School playground to the west, and Koret Field to the south. The long-term noise survey locations are shown on Figure 4.11-2, *Noise Monitoring Locations and Sensitive Receptors*.

The results of the long-term ambient noise survey are summarized in Table 4.11-5, *Summary of Long-Term Ambient Noise Survey Results: September 22 to 25, 2023*.

TABLE 4.11-5 SUMMARY OF LONG-TERM AMBIENT NOISE SURVEY RESULTS: SEPTEMBER 22 TO 25, 2023

			Average Measured Hourly Noise Levels (dBA) [b]			
			Daytime		Nighttime	
Survey Location [a]	Date	DNL (dB)	Leq	Lmax	Leq	Lmax
Site 1: Northwest project boundary near residences	Friday, September 22nd	46	45	60	37	50
	Saturday, September 23rd	46	47	61	35	49
	Sunday, September 24th	47	48	58	34	46
	Monday, September 25th	50	50	61	38	54
Site 2: Northeast project boundary near residences	Friday, September 22nd	51	46	61	44	52
	Saturday, September 23rd	51	48	61	44	51
	Sunday, September 24th	52	47	62	45	50
	Monday, September 25th	53	49	60	46	51
Site 3: Southern project boundary along Ralson Ave	Friday, September 22nd	69	68	84	60	80
	Saturday, September 23rd	68	67	85	59	79
	Sunday, September 24th	68	67	84	59	80
	Monday, September 25th	68	67	84	59	78
Site 4: West of project area along Notre Dame Ave	Friday, September 22nd	59	60	78	48	69
	Saturday, September 23rd	57	56	77	48	69
	Sunday, September 24th	54	55	75	44	66
	Monday, September 25th	59	59	77	48	65

Notes:
a. Long-term ambient noise monitoring locations are identified in Figure 4.11-2, *Noise Monitoring Locations and Sensitive Receptors*.
b. Daytime hours: 7:00 AM to 10:00 PM | Nighttime hours: 10:00 PM to 7:00 AM
Source: Bollard Acoustical Consultants, March 2024, *Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR* (see Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR).

As shown in Table 4.11-5, measured day-night average levels (DNL) and average measured hourly noise levels (Leq and Lmax) were generally consistent at each individual site throughout the monitoring period (i.e., relatively small range of measured levels). This data also indicates that measured ambient noise levels were highest at sites 3 and 4, due to traffic on Ralston Avenue and Notre Dame Avenue, as well as outdoor school activities.

Ambient Vibration Environment

On-site vibration level measurement taken during the field visit were below the threshold of perception. Nonetheless, to quantify existing vibration levels within the project vicinity, short-term (15-minute) vibration measurements were taken at the same four survey locations. The results are summarized in Table 4.11-6, *Summary of Short-Term Ambient Vibration Survey Results: September 21, 2023*.

TABLE 4.11-6 SUMMARY OF SHORT-TERM AMBIENT VIBRATION SURVEY RESULTS: SEPTEMBER 21, 2023

Survey Location	Time	Measured Maximum Vibration Level, PPV (in/sec)
Site 1: Northwest project boundary near residences	12:59 p.m.	<0.001
Site 2: Northeast project boundary near residences	12:10 p.m.	<0.001
Site 3: Southern project boundary along Ralson Ave	2:36 p.m.	0.012
Site 4: West of project area along Notre Dame Ave	1:38 p.m.	0.025

Note: PPV = Peak Particle Velocity
Source: Bollard Acoustical Consultants, March 2024, *Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR* (see Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR).

As shown in Table 4.11-6, measured maximum vibration levels within the project vicinity ranged from below 0.001 to 0.025 PPV in/sec. The data in Table 4.11-6 also indicate that the measured maximum vibration levels were highest at sites 3 and 4, which are believed to be attributed to vehicle movement on Ralston Avenue and Notre Dame Avenue.

Traffic Noise Levels Along Roadway Network

The Federal Highway Administration (FHWA) Traffic Noise Model (FHWA-RD-77-108) was used to quantify existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The FHWA Model was also used to quantify the distances to the 60, 65 and 70 dB DNL traffic noise contours for these roadways. Existing traffic data were obtained from the traffic impact analysis prepared by Fehr & Peers (see Appendix J, *Transportation*, of this Draft EIR).

The existing traffic noise levels at the distances representing the nearest noise-sensitive land uses are summarized in Table 4.11-7, *Existing Traffic Noise Levels at Nearest Receptors and Distances to DNL Contours*.

TABLE 4.11-7 EXISTING TRAFFIC NOISE LEVELS AT NEAREST RECEPTORS AND DISTANCES TO DNL CONTOURS

#	Roadway	Segment Description	DNL at Nearest Existing Sensitive Receptor	Distance to Contour (ft)		
				70 dB DNL	65 dB DNL	60 dB DNL
1	Ralston Ave	West of SR 92 WB Ramps	53	17	37	80
2	Ralston Ave	SR 92 WB Ramps to SR 92 EB Ramps	54	29	63	135
3	Ralston Ave	SR 92 EB Ramps to Christian Dr	62	37	80	173
4	Ralston Ave	Christian Dr to Hallmark Dr	62	46	99	213
5	Ralston Ave	Hallmark Dr to Belmont Canyon Rd	68	46	100	215
6	Ralston Ave	Belmont Canyon Rd to Tahoe Dr	68	47	100	216
7	Ralston Ave	Tahoe Dr to RMS Drwy 1	65	47	102	220

TABLE 4.11-7 EXISTING TRAFFIC NOISE LEVELS AT NEAREST RECEPTORS AND DISTANCES TO DNL CONTOURS

#	Roadway	Segment Description	DNL at Nearest Existing Sensitive Receptor	Distance to Contour (ft)		
				70 dB DNL	65 dB DNL	60 dB DNL
8	Ralston Ave	RMS Drwy 1 to RMS Drwy 2	55	22	48	104
9	Ralston Ave	RMS Drwy 2 to Davis Dr	69	51	110	236
10	Ralston Ave	Davis Dr to Cipriani Blvd	67	50	108	233
11	Ralston Ave	Cipriani Blvd to Alameda de las Pulgas	66	41	88	189
12	Ralston Ave	Alameda de las Pulgas to Notre Dame Ave	63	27	58	126
13	Ralston Ave	Notre Dame Ave to NDHS Drwy 1	55	13	27	58
14	Ralston Ave	NDHS Drwy 1 to NDHS Drwy 2	53	13	27	58
15	Ralston Ave	NDHS Drwy 2 to Chula Vista Dr	54	13	28	59
16	Ralston Ave	Chula Vista Dr to NDU Rd	57	15	33	70
17	Ralston Ave	NDU Rd to South Rd	63	33	71	153
18	Ralston Ave	South Rd to 6th Ave	55	12	26	56
19	Ralston Ave	6th Ave to El Camino Real	54	10	22	48
20	Ralston Ave	El Camino Real to Old County Rd	46	12	25	54
21	Ralston Ave	Old County Rd to Elmer St	50	14	30	65
22	Ralston Ave	Elmer St to Hiller St	56	15	33	71
23	Ralston Ave	Hiller St to US 101 SB Ramps	63	38	82	177
24	Ralston Ave	US 101 SB Ramps to US NB Ramps	65	43	93	201
25	Marine Pkwy	East of US NB Ramps	47	16	35	75
26	SR 92 WB Ramps	North of Ralston Ave	56	38	81	174
27	SR 92 EB Ramps	North of Ralston Ave	63	35	74	160
28	Christian Dr	North of Ralston Ave	51	4	9	19
29	Hallmark Dr	South of Ralston Ave	58	14	31	66
30	Belmont Canyon Rd	North of Ralston Ave	52	6	12	26
31	Tahoe Dr	South of Ralston Ave	52	5	10	22
32	RMS Drwy 1	South of Ralston Ave	45	1	2	5
33	Davis Dr	South of Ralston Ave	50	7	14	31
34	Cipriani Blvd	North of Ralston Ave	61	14	29	63
35	Continentals Way	South of Ralston Ave	54	11	23	49
36	Alameda de las Pulgas	North of Ralston Ave	55	12	25	54
37	Alameda de las Pulgas	South of Ralston Ave	58	23	49	106
38	Notre Dame Ave	North of Ralston Ave	56	6	12	26
39	NDHS Drwy 2	North of Ralston Ave	42	3	6	13
40	Chula Vista Dr	South of Ralston Ave	59	10	21	46
41	NDU Rd	North of Ralston Ave	36	2	4	8
42	South Rd	North of Ralston Ave	50	3	8	16

TABLE 4.11-7 EXISTING TRAFFIC NOISE LEVELS AT NEAREST RECEPTORS AND DISTANCES TO DNL CONTOURS

#	Roadway	Segment Description	DNL at Nearest Existing Sensitive Receptor	Distance to Contour (ft)		
				70 dB DNL	65 dB DNL	60 dB DNL
43	6th Ave	North of Ralston Ave	43	2	4	10
44	6th Ave	South of Ralston Ave	52	5	11	24
45	El Camino Real	North of Ralston Ave	56	16	34	73
46	El Camino Real	South of Ralston Ave	62	31	68	146
47	Old County Rd	North of Ralston Ave	55	12	26	56
48	Old County Rd	South of Ralston Ave	52	8	18	38
49	Elmer St	South of Ralston Ave	46	2	5	11
50	Hiller St	North of Ralston Ave	56	11	25	53
51	Hiller St	South of Ralston Ave	42	1	3	7
52	US 101 SB Ramps	South of Ralston Ave	55	8	16	35
53	Island Pkwy	North of Ralston Ave	55	11	23	49
54	US 101 NB Ramps	North of Ralston Ave	64	38	81	174

Source: Bollard Acoustical Consultants, March 2024, *Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR* (see Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR).

4.11.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant noise impact if it would:

1. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
2. Generate excessive groundborne vibration or groundborne noise levels.
3. For a project located within the vicinity of a private airstrip or 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.
4. In combination with past, present, and reasonably foreseeable projects, result in cumulative noise impacts in the area.

The City of Belmont does not currently have policies for assessing impacts associated with increases in ambient noise levels from project-generated noise sources or adopted standards for groundborne vibration. As a result, the FICON and Caltrans guidance criteria, as detailed in Section 4.11.1.2, *Regulatory Framework*, are applied to the proposed project.

The use of the FICON standards is considered conservative relative to thresholds used by other agencies in the State of California. For example, Caltrans requires a project-related traffic noise level increase of 12 dB for a finding of significance, and the California Energy Commission considers project-related noise level increases between 5 to 10 dB significant, depending on local factors. Therefore, the use of the FICON standards, which set the threshold for the finding of significant noise impacts as low as 1.5 dB, provides a

very conservative approach to impact assessment for the proposed project. As shown in Table 4.11-1, a 5 dB increase in noise levels due to a project is required for a finding of significant noise impact where ambient noise levels without the project are less than 60 dB DNL. Where pre-project ambient conditions are between 60 and 65 dB DNL, a 3 dB increase is applied as the standard of significance. Finally, in areas already exposed to higher noise levels, specifically pre-project noise levels in excess of 65 dB DNL, a 1.5 dB increase is considered by FICON as the threshold of significance.

4.11.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following noise analysis is based on the natural environmental setting and therefore utilizes information gathered in 2023.

NOISE-1	The proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Under the proposed project, all structures, with the exception of Taube Center, Ralston Mansion, and Madison Art Center (carriage house), would be removed over time and their square footage would be replaced. The locations and names of the of the proposed development areas are shown on Figure 3-3, *Proposed Development Areas*, in Chapter 3, *Project Description*, of this Draft EIR. The following provides a brief description of each development area and anticipated noise sources within those areas.

- **Plateau Area (P).** This area in the northern and central part of the project site (the academic core) is the largest flat area on the property. Some of the existing buildings in this zone include Gleason Gym, Chapel, New Hall, and Gellert Library, all of which would be removed and replaced over time. The primary noise sources associated with this zone are expected to be on-site traffic circulation on Notre Dame University Road and Laxague Drive, parking area movements, on-site delivery truck circulation, and new building mechanical equipment (heating, ventilation, and air conditioning [HVAC]).
- **Legacy Area (L).** This area is located in the western portion of the project area and includes Ralston Hall Mansion and Madison Art Center (carriage house), both of which would be preserved. The primary noise sources associated with this zone are expected to be on-site traffic circulation on connector roads to Notre Dame University Road and Laxague Drive, parking area movements, on-site delivery truck circulation, and (potential) outdoor event/ceremony-related activities (i.e., amplified music/speech and crowd noise).
- **West Area (W).** This area is located at the western boundary of the project area, directly adjacent to existing Belmont homes. Some of the existing buildings in this zone include Courtai, Namur, Gavin Hall, and the bookstore—all of which would be removed and replaced over time. The primary noise

sources associated with this zone are expected to be on-site traffic circulation on connector roads to Notre Dame University Road and Laxague Drive, parking area movements, on-site delivery truck circulation, and new building mechanical equipment (HVAC).

- North Area (N). This area is located on the most northern edge of the project site. Currently, there are no buildings in this area. The primary noise sources associated with this zone are expected to be on-site traffic circulation on connector roads to Notre Dame University Road and Laxague Drive, parking area movements, and new building mechanical equipment (HVAC).
- Ralston Area (R). This area is located at the southern edge of the project site and currently includes Koret Field, an old theater building, some tennis courts, and parking. The theater building would be removed over time, and Koret Field, tennis courts, and parking could be removed and upgraded over the lifetime of the project. The primary noise sources associated with this zone are expected to be on-site traffic circulation on Laxague Drive, on-site delivery truck circulation, and parking area movements. It should be noted that the proposed project does not include any additional public recreational or open space facilities. As a result, impacts of noise associated with existing recreational activities occurring within this proposed development area are not considered in this assessment.
- South Area (S). This area is located right above the Ralston area and connects the Ralston and Plateau Areas. Some of the existing buildings in this zone include campus apartment buildings and academic/support buildings, such as Wilkie, Kane, Carrol, and Oaks. These buildings would be removed and replaced over time. The primary noise sources associated with this zone are expected to be on-site traffic circulation on Laxague Drive, on-site delivery truck circulation, parking area movements, human speech within the common outdoor area near Laxague Drive, and new building mechanical equipment (HVAC).
- Taube Area (T). This area is located within the southeastern part of the project site, which includes the Taube Center (which would be preserved) and the primary entrance to the campus. The primary noise sources associated with this zone are expected to be on-site traffic circulation on Notre Dame University Road and Laxague Drive, on-site delivery truck circulation, and parking area movements.
- East Area (E). This area is located within the easternmost portion of the project site and includes an existing parking lot. The primary noise sources associated with this zone are expected to be on-site traffic circulation from Notre Dame University Road to the East area parking lot, and parking area movements.

Development of the proposed Stanford Belmont Campus may also require installation of new utility improvements as deemed necessary. Necessary utility layouts would vary with each development area. Preliminary conceptual plans for water lines, sanitary sewer lines, and storm drain lines are provided on Figure 3-9, *Proposed Conceptual Water Line Plan*, Figure 3-10, *Proposed Conceptual Sanitary Sewer Line Plan*, and Figure 3-11, *Proposed Conceptual Storm Drain Line Plan,* in Chapter 3, *Project Description*, of this Draft EIR. The nearest off-site noise-sensitive uses to the on-site water line work area have been identified as existing residential uses to the northwest, which property lines maintain a separation of approximately 40 feet from the area. The closest existing off-site noise-sensitive use to the on-site sanitary sewer line work area has been identified as Sisters of Notre Dame De Namur Church, which property line maintains a separation of approximately 50 feet from the area. Finally, the nearest existing noise-sensitive

use to the project storm drain work area have been identified as existing residential uses to the northwest, which property lines maintain a separation of approximately 40 feet from the area.

However, detailed plans illustrating locations of specific new uses and associated site-specific designs have not yet been developed. It is expected that DDPs for all development areas will be reviewed at a future date as part of the City's project approval process. As a result, the following is a generalized analysis of noise exposure at nearby noise-sensitive uses.

In terms of determining the temporary noise increase due to project on-site operations and construction activities at existing noise-sensitive uses in the vicinity, an impact would occur if those activities would noticeably increase ambient noise levels above background levels at those locations. The threshold of perception of the human ear is approximately 3 to 5 dB—a 5 dB change is considered to be clearly noticeable. For the analysis of project on-site operations and construction activity noise level increases at existing noise-sensitive uses, a noticeable increase in ambient noise levels is assumed to occur where those activities would result in an increase by 5 dB or more over existing ambient noise levels at those locations.

Potential future development under the proposed project would be required to implement the City's following standard conditions related to construction noise, ground borne vibration, and operational noise:

> Applicants are required to submit a noise and vibration assessment that identifies potential impacts and prescribes project-specific measures to address them, including the potential use of temporary noise barriers during construction. These measures become part of the project, and are enforced through the project conditions of approval.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Construction

During project demolition and construction, heavy equipment would be used for grading excavation, paving, and structure demolition/construction, which would increase ambient noise levels when in use. Noise levels would vary depending on the type of equipment used, how it is operated, and how well it is maintained. Noise exposure at any single point outside the project work area would also vary depending upon the proximity of equipment activities to that point.

Table 4.11-8, *Reference and Projected Noise Levels for Typical Construction Equipment*, includes the range of maximum (L_{max}) noise levels for equipment commonly used in general construction projects at full-power operation at a distance of 50 feet. It should be noted that not all of these construction activities would be required for potential future development under the proposed project. Table 4.11-8 also includes predicted maximum equipment noise levels at the nearest identified existing noise-sensitive uses

to a utility systems construction work area, which assumes a standard spherical spreading loss of 6 dB per doubling of distance.

TABLE 4.11-8 REFERENCE AND PROJECTED NOISE LEVELS FOR TYPICAL CONSTRUCTION EQUIPMENT

Equipment	Typical Maximum Noise Level at 50 Feet (dB)	Predicted Maximum Noise Levels Nearest Receptors (dB)		
		Water Line 40 ft	Sewer Line 50 ft	Storm Drain 40 ft
Backhoe	80	82	80	82
Compactor	82	84	82	84
Concrete mixer truck	85	87	85	87
Concrete pump	82	84	82	84
Concrete vibrator	76	78	76	78
Crane, mobile	83	85	83	85
Dozer	85	87	85	87
Dump truck	82	84	82	84
Flatbed truck	84	86	85	86
Front end loader	80	82	80	82
Paver	85	87	85	87
Pump	77	79	77	79
Saw	76	78	76	78
Shovel	82	84	82	84
Pickup truck	84	86	84	86
	Low	78	76	78
	High	87	85	87
	Average	83	82	83

Source: Bollard Acoustical Consultants, March 2024, Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR (see Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR).

Pursuant to BCC Section 15-102, all construction and related activities which require a permit, including the use of powered equipment in connection with such activities, are allowed only during the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday except Holidays, and 10:00 a.m. to 5:00 p.m. on Saturdays. Section 15-102 also states that all gasoline-powered construction equipment shall be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to these systems is permitted. All project construction activities under the proposed project would be required to comply with BCC Section 15-102.

Site-specific development plans for future locations (and configurations) of new buildings within the development areas are not currently known. Based on the proximity to nearby off-site noise-sensitive uses, it is possible that noise level exposure from demolition of existing structures and/or construction of future buildings within the project area could potentially exceed existing ambient conditions at nearby noise-sensitive uses. As shown in Table 4.11-8, worst-case construction equipment maximum noise levels are projected to range from 76 to 87 dB at the property lines of nearby existing noise-sensitive uses. Table 4.11-5 contains the results from the BAC long-term ambient noise surveys, which are believed to be generally representative of the existing ambient noise environments at nearby existing noise-sensitive uses. Using the highest average measured hourly maximum noise levels during construction hours

required by BCC Section 15-102, and the highest predicted construction equipment maximum noise levels shown in Table 4.11-8, ambient plus construction noise level increases were calculated at the closest existing noise-sensitive uses. The results of those calculations indicate that increases in ambient maximum noise levels from the project sewer line construction activities would be approximately 2.0 dB Lmax at the closest noise-sensitive use to the work area (Sisters of Notre Dame de Namur Church). However, increases in ambient maximum noise levels from project water line, sewer line, and storm drain construction activities are calculated to be as high as 14.8 dB Lmax at the closest residential uses to the northwest. The calculated ambient maximum noise level increase of 14.8 dB Lmax would exceed the applied increase significance criterion of 5 dB.

In addition to the City' standard condition related to related to a Noise and Vibration study for construction noise, groundborne vibration, and operational noise, potential future development under the proposed project would be required to implement the City's following standard conditions related to construction noise:

- Noise Control Plan. The applicant must prepare and implement a noise control plan. Said plan must incorporate the noise reduction measures identified in the Noise and Vibration study prepared for the project, and the City standard construction noise conditions of approval required for all projects.
- Noise Coordinator. Prior to construction activities, the project applicant or contactor shall designate a "Construction Noise Coordinator" who would be responsible for responding to any local complaints about construction noise. The Construction Noise Coordinator shall determine the cause of the complaint and shall require that reasonable measures warranted to correct the problem be implemented. The telephone number for the Construction Noise Coordinator must be conspicuously posted at the construction site. Prior to construction activities, the project applicant or contactor shall notify adjacent residents of the construction schedule in writing and provide them with the contact information of the Construction Noise Coordinator.
- Notice. The applicant shall notify property owners within 300 feet of the project site two weeks prior to the initiation of construction activities on site. A schedule of construction activities, contact phone number for the Noise Coordinator, and a copy of the noise control plan shall be included with this notice.
- Grading & Building Noise. The applicant must ensure that the following preventative and monitoring measures are enforced during grading and building operations:
    a) Limit construction activity to the hours listed in the City Noise Ordinance. (8:00 am to 5:00 pm on weekdays, 10:00 am to 5:00 pm on Saturdays, no construction activity on Sundays and holidays). Exceptions to these hours may be approved by the Building Official though the standard City process.
    b) Schedule highest noise-generating activity and construction activity away from noise-sensitive land uses.
    c) Equip internal combustion engine-driven equipment with original factory (or equivalent) intake and exhaust mufflers which are maintained in good condition.
    d) Prohibit and post signs prohibiting unnecessary idling of internal combustion engines.

e) Locate all stationary noise-generating equipment such as air compressors and portable generators as far as practicable from noise-sensitive land uses.

f) Utilize "quiet" air compressors and other stationary equipment where feasible and available.

- Noise Barrier Standards. When noise barriers are required or proposed, their design and placement must be reviewed and approved by the project noise consultant, prior to issuance of grading or building permits. These barriers must be installed prior to grading and excavation activities, and must be inspected by the project noise consultant to ensure that it has been properly constructed/installed. The barrier must remain in place for the duration of grading and excavation activities, unless approved for removal by the noise consultant to allow work at that location.
- Engine Noise. Prior to issuance of grading or building permits, the applicant must demonstrate that a condition of contract of all contractors and subcontractors requires the use of internal combustion engine-driven equipment with original factory (or equivalent) intake and exhaust mufflers, which are maintained in good condition.
- Equipment Noise. Prior to issuance of grading or building permits, the applicant must demonstrate that a condition of contract of all contractors and subcontractors requires the use of "quiet" air compressors and other stationary equipment. If the applicant demonstrates that the use of quiet air compressors and other stationary equipment is not feasible, moveable sound barriers or portable sound huts must be used for noise mitigation.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Implementation of the City's standard conditions would ensure that noise level exposure from demolition of existing structures and/or construction of future buildings or utilities improvements under the proposed project would not exceed existing ambient conditions at nearby noise-sensitive uses. As a result, this impact is *less than significant*.

Operation

Traffic Noise from Roadway Network

The FHWA Traffic Noise Model (FHWA-RD-77-108) was used to quantify increases in existing traffic noise levels at the existing sensitive land uses nearest to the project area roadway network. The FHWA Model predicts hourly L_{eq} values for free-flowing traffic conditions. Estimates of the hourly distribution of traffic for a typical 24-hour period were used to develop DNL values from L_{eq} values. Traffic data in the form of peak hour intersection turning movements were obtained from the traffic impact analysis prepared by Fehr & Peers (see Appendix J, *Transportation*, of this Draft EIR). The data was converted to ADT segment volumes by applying a factor of 5 to the sum of AM and midday peak hour conditions. Other inputs were obtained from BAC observations and noise measurement data. Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR contains the FHWA Model inputs used for this analysis. The existing and

existing plus project conditions traffic noise levels at the distances representing the nearest noise-sensitive land uses to the project area roadways are summarized in Table 4.11-9, *Predicted Traffic Noise Level Increases at Existing Noise-Sensitive Receptors: Existing vs. Existing Plus Project*. Table 4.11-9 also shows the thresholds for determination of a significant traffic noise increase, whether the roadway segment contains sensitive uses, and whether or not significant noise impacts are identified for each segment.

Based on the analysis in Table 4.11-9, project-generated traffic noise level increases associated with existing vs. existing plus project conditions would not result in significant noise impacts at existing noise-sensitive receptors located along the project area roadway network. In addition, potential future development under the proposed project would be required to implement the City's standard condition related to a Noise and Vibration study for construction noise, groundborne vibration, and operational noise. As a result, impacts would be *less than significant*.

Noise Impacts at Existing Sensitive Uses

As noted in Section 4.11.1.2, *Regulatory Framework*, the City of Belmont General Plan establishes exterior noise level limits for noise-sensitive uses affected by non-transportation (stationary) noise sources, such as those that would occur within the project area on private property/roads. The hourly equivalent sound level (Leq) during the daytime is 50 dBA and during the nighttime is 45 dBA. The maximum sound level (Lmax) during the daytime is 70 dBA and during the nighttime is 65 dBA. Daytime is defined as the period from 8 am to sunset Mondays through Friday and 10 am to sunset on Saturday, Sunday, and holidays. The noise level standards are to be applied at the property lines of noise-sensitive uses, which are defined by the General Plan as residences, schools, churches, and hospitals. The closest off-site noise-sensitive uses to the project area have been identified as residential (existing and proposed future), school (elementary and high school), and a memory care facility. Table 4.11-5 contains the results from the BAC long-term ambient noise surveys, which are believed to be generally representative of the existing ambient noise environments at the closest off-site noise-sensitive uses (identified on Figure 4.11-1).

Vehicle Circulation Noise

To quantify on-site traffic circulation noise levels at nearby existing residential uses, BAC utilized the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) with trip generation data in the transportation impact analysis prepared by Fehr & Peers (see Appendix J, *Transportation*, of this Draft EIR). According to that data, the proposed project is estimated to generate a total of 1,891 daily trips, with 182 AM peak hour trips, 154 midday peak hour trips, and 182 PM peak hour trips. For the purposes of computing hourly average (L_{eq}) noise levels from project on-site vehicle circulation, worst-case estimated peak hour trips were used during daytime hours (182) and 50 percent of worst-case estimated peak hour trips were assumed during nighttime hours (91).

TABLE 4.11-9 PREDICTED TRAFFIC NOISE LEVEL INCREASES AT EXISTING NOISE-SENSITIVE RECEPTORS: EXISTING VS. EXISTING PLUS PROJECT

			Predicted DNL (dB)						
#	Roadway	Segment Description	Existing	Existing Plus Project with Signal	Increase	Significance Threshold [a]	Threshold Exceeded?	Sensitive Receptors Present? [b]	Significant Impact Identified? [c]
1	Ralston Ave	West of SR 92 WB Ramps	53.2	53.2	0.0	5.0	No	Yes	No
2	Ralston Ave	SR 92 WB Ramps to SR 92 EB Ramps	53.8	53.8	0.0	5.0	No	Yes	No
3	Ralston Ave	SR 92 EB Ramps to Christian Dr	61.9	61.9	0.0	3.0	No	Yes	No
4	Ralston Ave	Christian Dr to Hallmark Dr	62.3	62.3	0.0	3.0	No	Yes	No
5	Ralston Ave	Hallmark Dr to Belmont Canyon Rd	68.3	68.3	0.0	1.5	No	Yes	No
6	Ralston Ave	Belmont Canyon Rd to Tahoe Dr	68.3	68.4	0.1	1.5	No	Yes	No
7	Ralston Ave	Tahoe Dr to RMS Drwy 1	65.1	65.2	0.1	1.5	No	Yes	No
8	Ralston Ave	RMS Drwy 1 to RMS Drwy 2	55.1	55.2	0.1	5.0	No	Yes	No
9	Ralston Ave	RMS Drwy 2 to Davis Dr	68.9	69.0	0.1	1.5	No	Yes	No
10	Ralston Ave	Davis Dr to Cipriani Blvd	67.4	67.4	0.0	1.5	No	Yes	No
11	Ralston Ave	Cipriani Blvd to Alameda de las Pulgas	66.0	66.6	0.6	1.5	No	Yes	No
12	Ralston Ave	Alameda de las Pulgas to Notre Dame Ave	62.9	63.0	0.1	3.0	No	Yes	No
13	Ralston Ave	Notre Dame Ave to NDHS Drwy 1	54.8	54.8	0.0	5.0	No	Yes	No
14	Ralston Ave	NDHS Drwy 1 to NDHS Drwy 2	53.4	53.5	0.1	5.0	No	Yes	No
15	Ralston Ave	NDHS Drwy 2 to Chula Vista Dr	54.4	54.5	0.1	5.0	No	Yes	No
16	Ralston Ave	Chula Vista Dr to NDU Rd	56.8	56.8	0.0	5.0	No	Yes	No
17	Ralston Ave	NDU Rd to South Rd	62.8	62.9	0.1	3.0	No	Yes	No
18	Ralston Ave	South Rd to 6th Ave	55.1	55.2	0.1	5.0	No	Yes	No
19	Ralston Ave	6th Ave to El Camino Real	53.8	53.9	0.1	5.0	No	Yes	No
20	Ralston Ave	El Camino Real to Old County Rd	45.5	45.6	0.1	5.0	No	Yes	No
21	Ralston Ave	Old County Rd to Elmer St	50.0	50.1	0.1	5.0	No	Yes	No
22	Ralston Ave	Elmer St to Hiller St	56.3	56.4	0.1	5.0	No	Yes	No
23	Ralston Ave	Hiller St to US 101 SB Ramps	62.8	62.9	0.1	3.0	No	Yes	No

TABLE 4.11-9 PREDICTED TRAFFIC NOISE LEVEL INCREASES AT EXISTING NOISE-SENSITIVE RECEPTORS: EXISTING VS. EXISTING PLUS PROJECT

			Predicted DNL (dB)						
#	Roadway	Segment Description	Existing	Existing Plus Project with Signal	Increase	Significance Threshold [a]	Threshold Exceeded?	Sensitive Receptors Present? [b]	Significant Impact Identified? [c]
24	Ralston Ave	US 101 SB Ramps to US NB Ramps	64.6	64.6	0.0	3.0	No	Yes	No
25	Marine Pkwy	East of US NB Ramps	47.0	47.0	0.0	5.0	No	Yes	No
26	SR 92 WB Ramps	North of Ralston Ave	56.5	56.5	0.0	5.0	No	Yes	No
27	SR 92 EB Ramps	North of Ralston Ave	63.1	63.1	0.0	3.0	No	Yes	No
28	Christian Dr	North of Ralston Ave	51.0	51.0	0.0	5.0	No	Yes	No
29	Hallmark Dr	South of Ralston Ave	58.0	58.0	0.0	5.0	No	Yes	No
30	Belmont Canyon Rd	North of Ralston Ave	52.0	52.0	0.0	5.0	No	Yes	No
31	Tahoe Dr	South of Ralston Ave	51.9	51.9	0.0	5.0	No	Yes	No
32	RMS Drwy 1	South of Ralston Ave	44.8	44.8	0.0	5.0	No	Yes	No
33	Davis Dr	South of Ralston Ave	50.2	50.2	0.0	5.0	No	Yes	No
34	Cipriani Blvd	North of Ralston Ave	61.5	61.5	0.0	3.0	No	Yes	No
35	Continentals Way	South of Ralston Ave	53.9	53.9	0.0	5.0	No	Yes	No
36	Alameda de las Pulgas	North of Ralston Ave	54.6	54.7	0.1	5.0	No	Yes	No
37	Alameda de las Pulgas	South of Ralston Ave	57.7	57.4	-0.3	5.0	No	Yes	No
38	Notre Dame Ave	North of Ralston Ave	55.8	55.8	0.0	5.0	No	Yes	No
39	NDHS Drwy 2	North of Ralston Ave	42.4	42.4	0.0	5.0	No	Yes	No
40	Chula Vista Dr	South of Ralston Ave	59.4	59.4	0.1	5.0	No	Yes	No
41	NDU Rd	North of Ralston Ave	35.7	38.5	2.8	5.0	No	Yes	No
42	South Rd	North of Ralston Ave	49.6	49.6	0.0	5.0	No	Yes	No
43	6th Ave	North of Ralston Ave	42.7	42.7	0.0	5.0	No	Yes	No
44	6th Ave	South of Ralston Ave	52.2	52.2	0.0	5.0	No	Yes	No
45	El Camino Real	North of Ralston Ave	56.0	56.0	0.0	5.0	No	Yes	No
46	El Camino Real	South of Ralston Ave	62.5	62.5	0.0	3.0	No	No	No
47	Old County Rd	North of Ralston Ave	55.3	55.4	0.0	5.0	No	Yes	No

TABLE 4.11-9 PREDICTED TRAFFIC NOISE LEVEL INCREASES AT EXISTING NOISE-SENSITIVE RECEPTORS: EXISTING VS. EXISTING PLUS PROJECT

			Predicted DNL (dB)						
#	Roadway	Segment Description	Existing	Existing Plus Project with Signal	Increase	Significance Threshold [a]	Threshold Exceeded?	Sensitive Receptors Present? [b]	Significant Impact Identified? [c]
48	Old County Rd	South of Ralston Ave	52.3	52.3	0.0	5.0	No	Yes	No
49	Elmer St	South of Ralston Ave	45.6	45.6	0.0	5.0	No	Yes	No
50	Hiller St	North of Ralston Ave	55.9	55.9	0.0	5.0	No	Yes	No
51	Hiller St	South of Ralston Ave	42.2	42.2	0.0	5.0	No	Yes	No
52	US 101 SB Ramps	South of Ralston Ave	55.0	55.0	0.0	5.0	No	Yes	No
53	Island Pkwy	North of Ralston Ave	55.3	55.3	0.0	5.0	No	No	No
54	US 101 NB Ramps	North of Ralston Ave	63.6	63.7	0.1	3.0	No	No	No

Notes:
a. Significance threshold as determined by Federal Interagency Committee on Noise.
b. Sensitive receptors identified in this analysis as single-family residence backyards, multi-family residence common outdoor areas, and school outdoor play areas.
c. A significant impact is identified only along segments where project-related traffic noise level increases would exceed threshold AND where sensitive receptors are present.
Source: Bollard Acoustical Consultants, March 2024, *Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR* (see Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR).

Based on the proposed on-site vehicle circulation route (see Figure 3-5, *Proposed Private Streets and Parking Locations*, in Chapter 3, *Project Description*, of this Draft EIR), the hourly trip generation data and assumptions above, and assuming an on-site vehicle speed of 15 mph (existing posted speed limit), project on-site passenger vehicle circulation noise exposure at nearby off-site noise-sensitive uses was calculated and the results of those calculations are presented in Table 4.11-10, *Predicted On-Site Passenger Vehicle Noise Levels at Off-Site Noise-Sensitive Uses*.

TABLE 4.11-10 PREDICTED ON-SITE PASSENGER VEHICLE NOISE LEVELS AT OFF-SITE NOISE-SENSITIVE USES

	Predicted Noise Level, Leq (dB) [b,c]		City Noise Standard, Leq (dB)	
Receiver [a]	Daytime	Nighttime	Daytime	Nighttime [d]
Residential – North	33	30	50	45
Residential – Northeast (Existing)	34	31	50	45
Residential – Northeast (Proposed)	34	31	50	45
Residential – East	32	29	50	45
Residential – South	34	31	50	45
Residential – West	30	27	50	45
Residential – Northwest	31	28	50	45
Memory Care Facility	34	31	50	45
High School	40	37	50	--
Church	43	40	50	--
Elementary School	43	40	50	--

Notes:
a. Receiver locations are shown in Figure 4.11-2, *Noise Monitoring Locations and Sensitive Receptors*.
b. Predicted daytime and nighttime hourly Leq based on 182 and 91 vehicle trips per hour, respectively.
c. Predicted noise levels projected from nearest proposed on-site circulation route to property line of receiver.
d. City nighttime noise level standards not applied at uses that aren't normally occupied during nighttime hours.
Source: Bollard Acoustical Consultants, March 2024, *Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR* (see Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR).

It is reasonably assumed that on-site passenger vehicle circulation currently occurs on the project property (i.e., an existing noise source). However, on-site passenger vehicle circulation volumes from potential future development under the proposed project would increase relative to existing conditions. As a result, project-generated on-site passenger vehicle circulation noise level exposure at existing off-site noise-sensitive uses was appropriately assessed relative to the City of Belmont General Plan hourly average (Leq) noise level criteria rather than the maximum (Lmax) noise level standard, as the maximum noise level (or highest instantaneous noise level) from a project-generated vehicle would be equivalent to that associated with an existing vehicle. As indicated in Table 4.11-10, worst-case peak hour project on-site passenger vehicle circulation noise level exposure is predicted to satisfy the applicable General Plan daytime and nighttime hourly average (Leq) noise level standards at the identified nearby off-site noise-sensitive uses.

Using the lowest average measured hourly daytime and nighttime noise levels at each site during the 96-hour monitoring period (Table 4.11-5), and the results presented in Table 4.11-10, ambient plus project on-site passenger vehicle circulation noise level increases were calculated at the closest existing noise-sensitive uses. According to the results, project-generated increases in ambient daytime hourly average

noise levels are calculated to range from less than 0.1 to 0.3 dB Leq at the nearest existing noise-sensitives uses. Additionally, project-generated increases in ambient nighttime hourly average noise levels are calculated to range from less than 0.1 to 1.4 dB Leq at the closest existing noise-sensitive uses. The calculated increases in ambient noise levels above are well below the applied increase significance criterion of 5 dB.

Project-generated on-site passenger vehicle circulation noise level exposure is predicted to satisfy the applicable City of Belmont General Plan daytime and nighttime noise level criteria at nearby off-site noise-sensitive uses, and predicted noise levels from those activities are not calculated to result in a significant increase in ambient noise levels at nearby existing noise-sensitive uses. In addition, potential future development under the proposed project would be required to implement the City's standard condition related to a Noise and Vibration study for construction noise, ground borne vibration, and operational noise. Therefore, impacts would be *less than significant*.

Delivery Truck Circulation Noise

The proposed project would include on-site service routes throughout the campus for vehicles associated with loading, package deliveries, garbage and trash collection, and parking for maintenance and service. The proposed project service routes are illustrated on Figure 3-7, *Proposed Service Routes*, in Chapter 3, *Project Description*, of this Draft EIR. It is reasonably assumed the proposed service routes would primarily accommodate medium-duty delivery trucks (and vans), as circulation on the proposed routes with heavy-duty larger semi-trucks does not appear feasible given site constraints. To quantify noise levels generated by proposed project's on-site delivery truck circulation, BAC utilized file data obtained from measurements conducted by BAC of medium duty truck pass-bys. According to BAC file data, single-event medium truck pass-by noise levels are approximately 76 dB SEL at a reference distance of 50 feet.

For a conservative assessment of daily truck delivery noise levels at the project site, it was assumed that 8 medium duty trucks/vans could deliver products within the proposed Standford Belmont Campus on a typical busy day. To calculate hourly average (L_{eq}) noise level exposure from on-site truck circulation, it was assumed that the proposed project could have 4 truck deliveries during the same worst-case busy daytime hour, and that 50 percent of those deliveries could occur during nighttime hours (2 deliveries). Based on the proposed service route, the cited reference truck pass-by sound level data, and hourly delivery assumptions above, the proposed project's on-site delivery truck circulation noise exposure at nearby off-site noise-sensitive uses was calculated, and the results of those calculations are presented in Table 4.11-11, *Predicted On-Site Truck Circulation Noise Levels at Off-Site Noise-Sensitive Uses*.

TABLE 4.11-11 PREDICTED ON-SITE TRUCK CIRCULATION NOISE LEVELS AT OFF-SITE NOISE-SENSITIVE USES

	Predicted Noise Level, Leq (dB) [b,c]		City Noise Standard, Leq (dB)	
Receiver [a]	Daytime	Nighttime	Daytime	Nighttime [d]
Residential – N	28	25	50	45
Residential – NE (Existing)	34	31	50	45
Residential – NE (Proposed)	34	31	50	45
Residential – E	31	28	50	45
Residential – South	38	35	50	45
Residential – West	29	26	50	45
Residential – Northwest	37	34	50	45
Memory Care Facility	34	31	50	45
High School	46	43	50	--
Church	46	43	50	--
Elementary School	46	43	50	--

Notes:
a. Receiver locations are shown in Figure 4.11-2, *Noise Monitoring Locations and Sensitive Receptors*.
b. Predicted daytime and nighttime hourly Leq based on 182 and 91 vehicle trips per hour, respectively.
c. Predicted noise levels projected from nearest proposed on-site circulation route to property line of receiver.
d. City nighttime noise level standards not applied at uses that aren't normally occupied during nighttime hours.
Source: Bollard Acoustical Consultants, March 2024, *Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR* (see Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR).

It is reasonably assumed that on-site delivery truck circulation currently occurs on the project site (i.e., an existing noise source). However, with development of the proposed project, the number of truck deliveries are expected to increase relative to existing conditions. As a result, project-generated on-site delivery truck circulation noise level exposure at existing off-site noise-sensitive uses was appropriately assessed relative to the City of Belmont General Plan hourly average (Leq) noise level criteria rather than the maximum (Lmax) noise level standard, as the maximum noise level (or highest instantaneous noise level) from a project-generated delivery truck would be equivalent to that associated with an existing delivery truck. The results presented in Table 4.11-11 indicate that project on-site delivery truck circulation noise level exposure is predicted to satisfy the applicable General Plan daytime and nighttime hourly average (Leq) noise level standards at the identified nearby off-site noise-sensitive uses.

Using the lowest average measured hourly daytime and nighttime noise levels at each site during the 96-hour monitoring period (Table 4.11-5) and the results presented in Table 4.11-11, ambient plus project delivery truck circulation noise level increases were calculated at the closest existing noise-sensitive uses. According to the results, project-generated increases in ambient daytime hourly average noise levels are calculated to range from less than 0.1 to 0.6 dB Leq at the nearest existing noise-sensitives uses. Additionally, project-generated increases in ambient nighttime hourly average noise levels are calculated to range from less than 0.1 to 3.0 dB Leq at the closest existing noise-sensitive uses. The calculated increases in ambient noise levels above would be below the applied increase significance criterion of 5 dB.

Project-generated on-site delivery truck circulation noise level exposure is predicted to satisfy the applicable City of Belmont General Plan daytime and nighttime noise level criteria at nearby off-site noise-sensitive uses, and predicted noise levels from those activities are not calculated to result in a significant

increase in ambient noise levels at nearby existing noise-sensitive uses. In addition, potential future development under the proposed project would be required to implement the City's standard condition related to a Noise and Vibration study for construction noise, ground borne vibration, and operational noise. Therefore, impacts would be *less than significant*.

Parking Noise

The proposed project would include between 950 to 1,350 parking spaces, based on the amount of maximum building square footage proposed. With each phase of development, Stanford would coordinate with the City of Belmont to determine the number of parking spaces needed. With each DDP application, Stanford would propose vehicular and bicycle parking, including electric vehicle charging, proportional to the amount and type of development proposed. Figure 3-5, *Private Streets and Parking Locations*, in Chapter 3, *Project Description*, of this Draft EIR illustrates the potential parking locations and the vehicular circulation of the campus. Currently, it is not yet known whether the proposed parking will be in "above grade" or "below-grade" parking structures. Where appropriate, existing surface lots may continue to be utilized until such time that the development area of the surface lot is redeveloped.

According to BAC file data, individual parking lot movements generate an average sound exposure level (SEL) of approximately 65 dB at a distance of 50 feet. The data include individual measurements of multiple vehicle types arriving and departing a parking area, including starting and stopping, car doors opening and closing, and person conversing as they entered and exited the vehicles. To compute hourly average (L_{eq}) noise levels generated by parking activities, the approximate number of hourly operations in any given area and distance to the effective noise center of those activities must be known or assumed. Based on an SEL of 65 dB, given a parking area containing 100 vehicle stalls, and assuming all of those stalls could fill or empty during a given peak hour, an hourly average of 49 dB L_{eq} can be calculated at a distance of 50 feet.

Because site-specific development plans for future configurations of parking areas (including any parking structures) within the project area are currently not known, and based on the proximity to nearby off-site noise-sensitive uses, it is possible that project-generated parking area noise exposure could exceed the applicable City of Belmont General Plan noise level criteria at nearby off-site noise-sensitive uses. Further, noise levels from those parking areas could potentially exceed existing ambient conditions at nearby noise-sensitive uses. However, potential future development under the proposed project would be required to implement the City's standard condition related to a Noise and Vibration study for construction noise, ground borne vibration, and operational noise to ensure that noise levels from proposed parking areas would not exceed existing ambient conditions at nearby noise-sensitive uses. As a result, impacts would be *less than significant*.

Noise from HVAC Equipment

The HVAC systems of potential future development under the proposed project will likely consist of packaged rooftop air conditioning systems. Such rooftop-mounted HVAC units typically stand about 4 to 5 feet tall. It is the experience of BAC that rooftop HVAC units frequently generate a noise level of approximately 55 to 60 dB L_{eq} at a reference distance of 100 feet from the building facade. Shielding of

the equipment by building rooftop parapets is estimated to provide approximately 10 dB of noise level reduction, which would reduce the noise level to approximately 45 to 50 dB L_{eq} at 100 feet.

In addition to the City's standard condition related to a Noise and Vibration study for construction noise, groundborne vibration, and operational noise, potential future development under the proposed project would be required to implement the City's following standard condition related to operational noise:

> The Project Noise Consultant shall conduct an acoustic analysis of all mechanical and HVAC equipment proposed with the final building permit plans. The results of the analysis and design recommendations to ensure compliance with the City's Noise Ordinance shall be summarized by the Consultant in a letter submitted with the building permit plans. The consultant's recommendations shall be incorporated into the building plans, prior to issuance of a building permit.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Implementation of the City's standard conditions would ensure noise level exposure from HVAC systems of potential future development under the proposed project would not exceed the applicable City noise level criteria at nearby off-site noise-sensitive uses or exceed existing ambient conditions at nearby noise-sensitive uses. As a result, impacts would be *less than significant*.

Outdoor Event Noise

The Ralston Mansion (located within the Legacy Area) would be renovated and used to host a variety of activities, including events and ceremonies. However, it is unclear whether such events and ceremonies could also be held within a nearby outdoor area. Typical noise sources associated with outdoor events include amplified music/speech and crowd noise. The noise level exposure associated with an event sound system setup is highly dependent on variables that include quality of sound system, volume level, distance to receiver, location of equipment and intervening screening, and speaker directionality. Further, noise level exposure associated with event crowd noise is highly dependent on the number of people in attendance and location of the crowd relative to the receiver. Due to the variability in the above noise sources, it is difficult to quantify event sound system and crowd noise levels with a reasonable degree of precision. Due to insufficient information on outdoor events at the Ralson Mansion, and based on the proximity to nearby off-site noise-sensitive uses, it is possible that noise level exposure from outdoor events (should they be proposed) could exceed the applicable City of Belmont General Plan noise level criteria at nearby off-site noise-sensitive uses. Further, noise levels from those events could potentially exceed existing ambient conditions at nearby noise-sensitive uses.

However, potential future development under the proposed project would be required to implement the City's standard condition related to a Noise and Vibration study for construction noise, ground borne vibration, and operational noise. Implementation of the City's standard conditions would ensure that noise level exposure from outdoor events (should they be proposed) would not exceed applicable City

noise level criteria at nearby off-site noise-sensitive uses. As a result, impacts would be *less than significant.*

Combined Noise Levels

The calculated combined noise levels from analyzed project on-site operations at nearby off-site noise-sensitive uses (residential) are presented in Table 4.11-12, *Combined Project Operation Noise Levels*. It should be noted that due to the logarithmic nature of the decibel scale, the sum of two noise values which differ by 10 dB equates to an overall increase in noise levels of 0.4 dB. When the noise sources are equivalent, the sum would result in an overall increase in noise levels of 3 dB.

TABLE 4.11-12 COMBINED PROJECT OPERATIONAL NOISE LEVELS

	Predicted Combined Noise Level, Leq (dB) [b]		City Noise Standard, Leq (dB)	
Receiver [a]	Daytime	Nighttime	Daytime	Nighttime [c]
Residential – North	34	31	50	45
Residential – Northeast (Existing)	37	34	50	45
Residential – Northeast (Proposed)	37	34	50	45
Residential – East	34	31	50	45
Residential – South	40	37	50	45
Residential – West	32	29	50	45
Residential – Northwest	38	35	50	45
Memory Care Facility	37	34	50	45
High School	47	44	50	--
Church	48	45	50	--
Elementary School	48	45	50	--

Notes:
a. Receiver locations shown in Figure 4.11-2, *Noise Monitoring Locations and Sensitive Receptors*.
b. Combined noise levels calculated using noise levels from vehicle and delivery truck circulation (see Table 4.11-10, *Predicted On-Site Passenger Vehicle Noise Levels at Off-Site Noise-Sensitive Uses*, and Table 4.11-11, *Predicted On-Site Truck Circulation Noise Levels at Off-Site Noise-Sensitive Uses*) Noise levels for parking areas, HVAC, and event music/crowds were unable to be quantified at the current time.
c. City nighttime noise level standards not applied at uses which aren't normally occupied during nighttime hours.
Source: Bollard Acoustical Consultants, March 2024, *Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR* (see Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR).

As indicated in Table 4.11-12, combined noise level exposure from analyzed project on-site operations is predicted to satisfy the applicable General Plan daytime and nighttime hourly average (Leq) noise level standards at the identified nearby off-site noise-sensitive uses.

Using the lowest average measured hourly daytime and nighttime noise levels at each site during the 96-hour monitoring period (Table 4.11-5), and the results presented in Table 4.11-12, ambient plus cumulative project noise level increases were calculated at the closest existing noise-sensitive uses. According to the results from that exercise, combined project-generated increases in ambient daytime hourly average noise levels are calculated to range from less than 0.1 to 0.8 dB Leq at the nearest existing noise-sensitives uses. Additionally, combined project-generated increases in ambient nighttime hourly average noise levels are calculated to range from less than 0.1 to 3.6 dB Leq at the closest existing noise-

sensitive uses. The calculated combined increases in ambient noise levels above would be below the applied increase significance criterion of 5 dB.

Combined noise level exposure from analyzed project on-site operations is calculated to satisfy the applicable City of Belmont General Plan daytime and nighttime noise level criteria at nearby off-site noise-sensitive uses. Further, combined noise levels from analyzed project on-site operations are not calculated to result in a significant increase in ambient noise levels at nearby existing noise-sensitive uses. However, depending on noise level exposure from the noise sources not quantified in this report (i.e., parking activities, HVAC equipment and outdoor amplified event music/speech), combined noise level exposure from project on-site operations could potentially exceed applicable City of Belmont General Plan noise level criteria at nearby off-site noise-sensitive uses. Further, the combined contribution of noise including the identified unquantified on-site operations could potentially result in significant increases in ambient noise levels at nearby existing noise-sensitive uses.

In addition to the City's standard condition related to a Noise and Vibration study for construction noise, ground borne vibration, and operational noise, potential future development under the proposed project would be required to implement the City's following standard condition related to a Noise and Vibration study for construction noise, ground borne vibration, and operational noise (including mechanical and HVAC equipment). Implementation of the City's standard conditions would ensure that noise level exposure from project on-site operations could exceed applicable City noise level criteria at nearby off-site noise-sensitive uses and could result in a significant increase in ambient conditions at those sensitive uses. As a result, this impact would be *less than significant*.

Significance without Mitigation: Less than significant.

NOISE-2 The proposed project would not generate excessive groundborne vibration or groundborne noise levels.

Heavy equipment used for grading, excavation, paving, and building demolition/construction activities would generate localized vibration in the immediate vicinity of the work areas. Table 4.11-13, *Reference and Projected Construction Equipment Vibration Source Amplitudes*, includes the range of vibration levels for equipment commonly used in general construction projects at a distance of 25 feet. Table 4.11-13 also includes projected equipment vibration levels at the closest existing off-site sensitive structures to proposed development areas (i.e., residences, church buildings, school buildings, and memory care buildings) and utility systems work areas (residences).

As shown in Table 4.11-13, vibration levels generated from project on-site demolition/construction at the nearest existing off-site structures are predicted to be well below the strictest Caltrans thresholds for damage to buildings of 0.5 in/sec PPV shown in Table 4.11-2 (building structure vibration criteria). The projected equipment vibration levels also range from well below perceptible to barely/slightly perceptible human response as defined by Caltrans in Table 4.11-3 (vibration annoyance potential threshold criteria).

TABLE 4.11-13 REFERENCE AND PROJECTED CONSTRUCTION EQUIPMENT VIBRATION SOURCE AMPLITUDES

		Projected Maximum Vibration Level, PPV (in/sec)										
Equipment	Reference PPV at 25 feet (in/sec)	North Area 150 ft [a]	South Area 230 ft [b]	East Area 100 ft [a]	West Area 75 ft [a]	Legacy Area 100 ft [c]	Ralston Area 130 ft [b]	Taube Area 320 ft [d]	Plateau Area 200 ft [a]	Water Line 50 ft	Sewer Line 100 ft	Storm Drain 50 ft
Vibratory Roller	0.210	0.014	0.008	0.026	0.040	0.026	0.018	0.005	0.009	0.074	0.026	0.074
Hoe Ram	0.089	0.006	0.003	0.011	0.017	0.011	0.008	0.004	0.004	0.031	0.011	0.031
Large bulldozer	0.089	0.006	0.003	0.011	0.017	0.011	0.008	0.004	0.004	0.031	0.011	0.031
Caisson drilling	0.089	0.006	0.003	0.011	0.017	0.011	0.008	0.004	0.004	0.031	0.011	0.031
Loaded trucks	0.076	0.005	0.002	0.010	0.015	0.010	0.006	0.002	0.003	0.027	0.010	0.027
Jackhammer	0.035	0.002	0.001	0.001	0.007	0.001	0.003	<0.001	0.002	0.012	0.004	0.012
Small bulldozer	0.003	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001

Notes: PPV = Peak Particle Velocity (inch/second)
a. Closest off-site sensitive structure identified as a residence.
b. Closest off-site sensitive structure identified as a high school building.
c. Closest off-site sensitive structure identified as a church building.
d. Closest off-site sensitive structure identified as memory care facility building.
Source: Bollard Acoustical Consultants, March 2024, *Environmental Noise & Vibrational Assessment, Stanford University Belmont Campus DEIR* (see Appendix I, *Noise and Vibrational Assessment*, of this Draft EIR).

Policy 7.1-10 of the City of Belmont General Plan requires developers of new development anticipated to generate a substantial amount of vibration during construction to implement mitigation practices to reduce vibration, which can include: operating heavy equipment as far as practical from residential uses; using smaller bulldozers (operating weight less than 20,000 pounds) when grading must occur within approximately 50 feet of residential uses or other vibration sensitive uses; and using quiet pile driving technology when feasible. In addition, potential future development under the proposed project would be required to implement the City's following standard conditions related to construction vibration:

- Applicants are required to submit a noise and vibration assessment that identifies potential impacts and prescribes project-specific measures to address them, including the potential use of temporary noise barriers during construction. These measures become part of the project, and are enforced through the project conditions of approval.
- After obtaining permission from the subject property owners, the applicant must conduct preconstruction photo surveys of foundation/building wall cracks in adjacent structures, and install vibration monitors at any sensitive receptor sites identified in the project Vibration Assessment. The applicant must submit a copy of the photo survey and written confirmation from the Project Acoustic Consultant to the Planning and Building Departments that all required monitors have been installed and inspected, and that they meet the consultant's specifications, prior to issuance of grading or building permits.
- The applicant must designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.
- Neighboring property owners within 300 feet of the project site must be noticed of the construction activities and construction schedule (including estimated dates of various construction phases) at least two weeks prior to the start of construction.
- The applicant must ensure that the preventative and monitoring measures identified in the Vibration Assessment are enforced during grading and building operations. The applicant must demonstrate that all project construction personnel have been made aware of these measures, prior to issuance of a grading or building permits. On-site identification of any buffer distances between construction (i.e., vibratory rollers, excavators, backhoes, etc.) and adjacent structures that are specified in the Vibration Assessment must occur prior to grading operations.
- Vibration monitors shall be placed at the sensitive receptors to monitor construction activities and make sure the project thresholds are met. Real-time alerts must be sent to the Contractor in case of near threshold vibration levels or in case of threshold exceedances. In case of exceedances, work must stop, and the source of the exceedance must be identified, and the required mitigation measure should be incorporated.
- Building structures near the project must be periodically checked for cracks, and any cracks must be monitored. If minor cracks are reported or existing cracks propagate, vibration project action levels must be restricted.
- Whenever possible, construction or equipment activity generating relatively high levels of vibration must not occur at the same time and shall be spaced as far apart in time as possible from one another. In general, the most severe activities must be reserved for the middle of the day (noon). If

activities must occur simultaneously, they shall be performed as far away from one another as possible within the construction zone.

- All deliveries of material and equipment must occur during daytime hours, including queueing of construction vehicles outside the site. Vehicles delivering materials and equipment must be operated in strict conformance with regulations established by the United States Department of Transportation and all State and Local requirements. All materials and equipment must be stored on-site and within the confines of the construction barricades.
- Stationary and portable construction equipment must be located at positions where the noise/vibration impact to nearby noise/vibration-sensitive receptors is minimal. At times where the equipment cannot be positioned at a minimal noise/vibration impacting location, mitigation devices shall be implemented, as determined by the Project Acoustic Consultant or designated Vibration Monitor.
- After construction activities are complete, the applicant must conduct a post-construction photo survey of previously surveyed buildings for foundation /building wall cracks. The post construction survey, and a summary letter of any resulting actions taken (repairs or restitutions) must be provided to the Community Development Department, prior to final building permit inspection.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Therefore, compliance with General Plan Policy 7.1-10 and implementation of the City's standard conditions would ensure that demolition/construction activities under the proposed project are not expected to result in excessive groundborne vibration levels at nearby existing off-site structures. Impacts would be *less than significant.*

Significance without Mitigation: Less than significant.

NOISE-3	The proposed project would not for a project located within the vicinity of a private airstrip or 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.

As discussed in Section 4.11.1.3, *Existing Conditions,* the project site is within Area A of the San Carlos ALUCP. As shown on Figure 4.11-3, the project site is located well outside of the 60 dB CNEL airport noise contours.

Potential future development under the proposed project would be subject to Belmont General Plan Policy 2.16-1, which requires new development located in the AIA to comply with land use compatibility provisions of the ALUCP. Additionally, after consideration of the exterior to interior noise level reduction

achieved within standard building construction (at least 25 dB with windows closed and approximately 15 dB with windows open), noise generated from normal aircraft operations at the San Carlos Airport and San Francisco International Airport are not expected to exceed applicable General Plan or California Building Standards Code exterior or interior noise level criteria at the proposed residential or school uses within the project area. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

NOISE-4	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative noise impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, cumulative setting for noise impacts includes the effects of the proposed project together with the cumulative development projects in the vicinity of the project site. The project site is not located within the vicinity of a private airstrip or airport land use plan. Because detailed plans illustrating locations of specific new uses and associated site-specific designs have not yet been developed, construction and operation of the proposed project could result in substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the City of Belmont General Plan or noise ordinance. However, implementation of the City's standard conditions, including the requirement for a Noise and Vibration study for construction noise, ground borne vibration, and operational noise, would ensure that construction and operation of potential future development under the proposed project would not exceed applicable City noise level criteria.

The Ralson Avenue Corridor Study and Improvement Plan recommends installation of a single-lane modern roundabout at the project site to provide traffic calming benefits along Ralston Avenue by moderating travel speed. While the specific location and design of the proposed roundabout has not been determined, a preliminary operational noise analysis found that operation of the roundabout at the entrance to the project site would not result in significant noise impacts at existing noise-sensitive receptors located along the project area roadway network. (The detailed roundabout analysis can be found in Appendix I, *Noise and Vibration Assessment*, in this Draft EIR.)

Furthermore, any other future development in the area would be subject to environmental review, as applicable, to mitigate any significant noise impacts. Cumulative development projects would be subject to the General Plan and BCC regulations regarding noise levels. Therefore, noise impacts of the proposed project would not be cumulatively considerable, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.12 PARKS AND RECREATION

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential parks and recreation impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential parks and recreation impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

4.12.1 ENVIRONMENTAL SETTING

4.12.1.1 REGULATORY FRAMEWORK

State Regulations

The 1975 Quimby Act (California Government Code Section 66477) authorizes cities and counties to adopt ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for operation and maintenance of park facilities. A 1982 amendment (Assembly Bill [AB] 1600) requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or parkland and the type of development project upon which the fee is imposed. Cities with a high ratio of park space to inhabitants can set a standard of up to 5 acres per 1,000 persons for new development. Cities with a lower ratio can only require the provision of up to 3 acres of park space per 1,000 persons.[1] The calculation of a city's park space to population ratio is based on a comparison of the population count of the last federal census to the amount of City-owned parkland.

Local Regulations

Belmont General Plan 2035

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to parks and recreation that are relevant to the proposed project are found in the Parks, Recreation, and Open Space Element and are listed in Table 4.12-1, *City of Belmont 2035 General Plan Policies Relevant to Parks and Recreation.*

[1] California Legislative Information, 2015, Assembly Bill No. 1191, Chapter 276, accessed February 11, 2022, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1191.

TABLE 4.12-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO PARKS AND RECREATION

Policy Number	Policy Text
Chapter 4, Parks, Recreation, and Open Space Element	
Policy 4.1-2	Strive to achieve and maintain a citywide standard of at least 5.0 acres of mini, neighborhood, and community parks per 1,000 residents, targeting a breakdown of 3.0 acres/1,000 residents for community parks and 2.0 acres/1,000 residents for neighborhood parks.
Policy 4.1-3	Ensure that all development projects comply with the City's parkland dedication requirements, in accordance with the Quimby Act, to provide adequate land for parks, open space, landscaping, and trails in appropriate locations through the dedication of land or otherwise providing for mini parks, planned trails, and other recreational space.
Policy 4.2-3	Continue joint use agreements with other agencies, institutions, and private organizations for public use of recreational facilities not owned by the City, especially in neighborhoods deficient in recreational facilities, if the joint use agreements can help meet the city's recreational needs and if the terms are favorable to the City.
Policy 4.7-1	Ensure that residential and nonresidential development projects contribute to the City's park, recreation, and open space resources commensurate with their impacts, through the Quimby Act and establishment and collection of park impact fees.

Source: City of Belmont, 2017, *2035 General Plan.*

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to parks and recreation. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to parks and recreation are included in Chapter 17, *Planning*.

- Chapter 17, Article III, *Development Impact Fees*, establishes impact fees that will be imposed upon development projects for the purpose of mitigating the detrimental impacts of development projects upon the need for certain capital improvements. The fees shall be imposed based on specified capital improvement categories, which may include, without limitation, fees for transportation improvements, parkland and facilities, police and fire facilities, affordable housing, and other capital improvements.
- Chapter 17, Article IV, Section 17-104, *Standards and formula for dedication of parkland*, notes that while the General Plan establishes a standard goal of 5 acres of parkland per 1,000 residents, under the Quimby Act, the City's maximum dedication requirement is its existing ratio of neighborhood and community parks per 1,000 residents. Therefore, this section adopts a parkland dedication standard of 3.44 acres of parkland for every 1,000 persons.
- Chapter 17, Article IV, Section 17-105, *Formula for fees in-lieu of parkland dedication*, establishes that when a fee is required to be paid in-lieu of parkland dedication, the amount of the fee is based upon the amount of land to be dedicated. The city council is to establish a fee amount per acre of land required to be dedicated based on the estimated fair market value of land in the city by resolution which may be amended from time to time. All in-lieu fees collected are to be used only for the purpose of developing new or rehabilitating existing neighborhood or community park or recreational facilities to serve the subdivision.

  For residential buildings constructed under the proposed project, Stanford University will be required to pay parkland impact fees based on the City's fee requirement for multi-family housing units. For non-residential buildings constructed under the proposed project, Stanford University has agreed, as

part of the Development Agreement (DA), to pay fees based on the City's requirement for office development.

4.12.1.2 EXISTING CONDITIONS

Project Site Parks and Recreation Resources

Notre Dame de Namur University (NDNU) provides a variety of active and passive recreational facilities for it for its students, staff, faculty, and visitors. This includes open spaces, gymnasiums, and sports fields. These resources are located throughout the proposed Plateau, Legacy, Ralston, and South development areas.

Open Space

NDNU's open spaces include natural and green spaces, such as woodland areas, riparian areas, and legacy landscape, as well as lawns, sidewalks, paths, and plazas, which provide for passive recreational use. The primary open spaces are listed as follows:

- Lawn area near Gleason Gym
- Lawn area between St. Joseph Hall and Library
- Lawn area in front of Ralston Hall
- Lawn area in front of Cuvilly Hall

Formal Athletics and Recreational Facilities

The project site has formal athletics and recreational spaces. This includes a gym of approximately 19,000 square feet, Koret Field, and two tennis courts. However, the two tennis courts were damaged in the January 2023 storms and, at the time of preparing this Draft EIR, remain unusable.

Belmont Parks and Recreation

The City of Belmont maintains 15 developed and 2 undeveloped parks totaling approximately 70 acres and over 300 acres of open space within the city. The closest parks and recreational facilities to the project site include College View Park, Twin Pines Park, Patricia Wharton Park, and Barrett Multi-Use Field, Twin Pines Park buildings (e.g., Senior and Community Center, Manor, Lodge and Cottage), and Barrett Community Center.

Currently, Belmont provides 3.5 acres of parkland per 1,000 residents.[2] This includes 0.9 acres of neighborhood parkland and 1.7 acres of community parkland.[3] The City has identified the need to expand existing parks and has recently finalized a Parks, Recreation and Open Space Master Plan that identifies areas for park improvements and ways to expand the City's network of parks.

[2] City of Belmont, March 2024, Parks Recreation Open Space Master Plan, accessed on June 12, 2024, https://belmontprosplan.com/resources.

[3] City of Belmont, March 2024, Parks Recreation Open Space Master Plan, accessed on June 12, 2024, https://belmontprosplan.com/resources.

San Mateo County Parks Department

The San Mateo County Parks Department operates 24 parks and over 16,000 acres within San Mateo County.[4] Out of the 24 parks, the closest to the project site are the Coyote Point Recreation Area, Edgewood Park and Natural Preserve, and Huddart Park.

4.12.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant parks and recreation impact if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered parks or recreation facilities, need for new or physically altered parks or recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks or recreation facilities.
2. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
3. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.
4. In combination with past, present, and reasonably foreseeable projects, result in cumulative parks and recreation impacts in the area.

4.12.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the NDNU was at full capacity. The following parks and recreation analysis is based on demographics and therefore utilizes information gathered in 2013.

[4] County of San Mateo, About the County of San Mateo Parks Department, https://www.smcgov.org/parks/about-san-mateo-county-parks-department, accessed on February 20, 2024.

REC-1	The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered parks or recreation facilities, need for new or physically altered parks or recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for parks or recreation facilities.

The proposed project does not include any additional public recreational or open space facilities. As part of a community benefits package in the proposed DA, the existing Koret Field would remain a recreation field for the duration of the DA and would become available for public use through the execution of a joint-use agreement or other similar arrangement with the City. The analysis herein focuses on whether the population increase projected for the proposed project would result in the need for new or physically altered parks or recreation facilities such that the construction of additional facilities would be required in order to maintain acceptable service ratios or other performance objectives for parks or recreation facilities.

The proposed project's population projections are shown in Table 3-3, *Population Projections*, in Chapter 3, *Project Description*, of this Draft EIR. Compared to the 2013 baseline, the proposed project would result in an estimated increase in residential population of 67, for a total of 508.[5] The City of Belmont currently provides approximately 3.5 acres of parkland per 1,000 residents, meeting the BCC standard of 3.44 acres of parkland per 1,000 residents. Based on the 2035 General Plan goal of providing 5 acres per 1,000 residents, the proposed project would generate the need for approximately 0.34 acres of additional parkland.[6] However, under the Quimby Act, the City's maximum dedication requirement is its existing ratio of neighborhood and community parks per 1,000 residents; therefore, based on the BCC parkland dedication standard of 3.44 acres of parkland for every 1,000 persons, the proposed project would generate the need for approximately 0.23 acres of additional parkland.[7]

The proposed project's population estimate represents a small increase in comparison to the 26,793 residents currently served by local facilities and, as noted in Chapter 4.13, *Population and Housing*, of this Draft EIR, the estimated population growth associated with proposed project would not represent an unplanned level of growth. In addition, the proposed outdoor spaces (including walking trails, recreation areas, and open spaces) included in the proposed project would provide on-site passive recreational space for future population at the project site and would generally be open to the public during normal business hours, reducing demands for City-owned and-maintained parks and recreational uses. Therefore, impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

[5] For a conservative analysis, the maximum residential population was assumed.
[6] Increase of 67 residents * 5 acres/1000 residents = 0.34 acres.
[7] Increase of 67 residents * 3.44 acres/1000 residents = 0.23 acres.

REC-2	The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

The proposed project would have a significant physical impact on existing parks and recreational facilities if it would significantly increase the demand for and use of those facilities such that the conditions of the facilities would deteriorate. Such an increase in demand is typically generated by development that supports new users, such as new residential development.

As discussed in impact discussion REC-1, the proposed project's population estimate represents a small increase and would not represent an unplanned level of growth. The proposed project would also provide outdoor amenities that would offset the proposed project's usage of the City's park and recreational facilities.

While it would be speculative to predict which of the City's parks and recreational facilities may be most heavily used by future population at the project site, it is expected that project occupants would utilize a variety of park and recreational facilities, and that the number of project residents visiting these facilities would be nominal relative to the existing population that already uses these facilities. Therefore, the project's additional demands for these facilities would not be substantial enough to result in the physical deterioration of parks and recreational facilities, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

REC-3	The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

While the proposed project does not include any new public recreational or open space facilities, it would include passive recreational amenities such as on-site walking trails. As part of a community benefits package in the proposed DA, the existing Koret Field would remain a recreation field for the duration of the DA and would become available for public use through the execution of a joint-use agreement or other similar arrangement with the City. As described under impact discussion REC-1, the proposed project's population estimate represents a small increase and would not represent an unplanned level of growth, and outdoor amenities would offset the proposed project's usage of City facilities. Therefore, the proposed project would not result in the physical deterioration of the City's facilities or result in the need for new or physically altered recreational facilities, and impacts would be less than significant.

Significance without Mitigation: Less than significant.

REC-4	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative parks and recreation impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, cumulative parks and recreation impacts are considered in the context of potential future development under the proposed project combined with the cumulative development projects evaluated under the 2035 General Plan buildout. The proposed project would not provide or need new or physically altered parks or recreation facilities in order to maintain acceptable service ratios or other performance objectives for parks or recreation facilities or increase the use of existing neighborhood and regional parks or other recreational facilities resulting in substantial physical deterioration of the facility.

Future development in the area would be subject to environmental review, as applicable, to mitigate any significant parks and recreation impacts. Identified cumulative development projects in Table 4-1 of Chapter 4, *Environmental Analysis*, would be subject to applicable development impact fees and parkland dedication or in-lieu fees to mitigate the impacts of the development project upon the need for certain capital improvements, including, but not limited to, parkland and facilities. Projections of future development projects, considered in total, would be evaluated in relation to the City's parkland dedication standard. Therefore, cumulative impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

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4.13 POPULATION AND HOUSING

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential population and housing impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential population and housing impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

4.13.1 ENVIRONMENTAL SETTING

4.13.1.1 REGULATORY FRAMEWORK

State Regulations

California Housing Element Law

California Housing Element Law (Government Code Sections 65580 through 65589.8) includes provisions related to the requirements for housing elements of local government General Plans. Among these requirements, some of the necessary parts include an assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs. Additionally, in order to assure that counties and cities recognize their responsibilities in contributing to the attainment of the State housing goals, this section of the Government Code calls for local jurisdictions to plan for and allow the construction of a share of the region's projected housing needs, known as the Regional Housing Needs Allocation (RHNA).

Housing Crisis Act of 2019 (as Amended)

The Housing Crisis Act of 2019 (enacted as Senate Bill [SB] 330) amended Title 7, Planning and Land Use, of the California Government Code to preserve existing affordable housing, protect housing occupants, and increase certainty in the development review process. Among other requirements, the Housing Crisis Act prohibits an "affected" city or county from approving a housing development project that would require the demolition of one or more housing units, unless the project creates at least as many units as would be demolished. Pursuant to the act's definitions, the City of Belmont is considered an "affected" city.

The act also prohibits an affected city or county from approving a housing development project that would require the demolition of occupied or vacant "protected" units, unless specified conditions are met. Protected units include those that were rented by low or very-low income households in the past five years, subject to rent or price control within the past five years, or withdrawn from rent in the past ten years. The act requires a project that would demolish occupied or vacant protected units to, among other things: 1) replace all existing or demolished protected units, 2) include a minimum amount of residential units, 3) allow existing occupants to occupy their units until 6 months before the start of construction activities, and 4) provide relocation benefits to the existing occupants of protected, lower-income household units.

Assembly Bill (AB) 1218 (2023) expanded these provisions to prohibit an affected city or county from approving any development project (i.e., not only housing development projects) that would require the demolition of occupied or vacant protected units, or that is located on a site where protected units were demolished in the previous five years, unless certain conditions are met. AB 1218 also requires a project proponent to ensure that the required replacement housing is developed prior to, or concurrently with, the development project, if the project is not a housing development project. Housing development projects are defined in Government Code Section 65589.5(h)(2) as projects consisting of either: 1) residential units only; 2) mixed-use development consistent of residential and non-residential uses, with at least two-thirds of the square footage designated for residential use; or 3) transitional or supportive housing.

Regional Regulations

Plan Bay Area 2050

Plan Bay Area lays out a development scenario for the nine-county Bay Area region that works to align transportation and land use planning in order to reduce vehicle miles traveled through modified land use patterns. Plan Bay Area is prepared and regularly updated by the Metropolitan Transportation Commission (MTC) in partnership with the Association of Bay Area Governments (ABAG), Bay Area Air Quality District (BAAQMD), and the Bay Conservation and Development Commission (BCDC). Each of the agencies has a different role in regional governance. ABAG primarily does regional land use planning, housing, environmental quality, and economic development; MTC is tasked with regional transportation planning, coordinating, and financing; BAAQMD is responsible for regional air pollution regulation; and BCDC's focus is to preserve, enhance, and ensure responsible use of the San Francisco Bay. The current Plan Bay Area projects growth and development patterns through 2050 and was recently adopted in October 2021.

Plan Bay Area 2050 distributes projected future growth across the San Francisco Bay Area region in order to meet its GHG emissions reduction, housing, and other performance targets, but it is not intended to override local land use control. Cities and counties, not MTC/ABAG, are ultimately responsible for the manner in which their local communities continue to be built out in the future. For this reason, cities and counties are not required to revise their land use policies and regulations, including general plans, to be consistent with the regional transportation plan or an alternative planning strategy. Rather than increase regional land use control, Plan Bay Area 2050 facilitates implementation by expanding incentives and opportunities available to local jurisdictions to support growth in Priority Development Areas (PDAs). In addition to funding transportation and planning projects in PDAs, Plan Bay Area 2050 sets the stage for cities and counties to increase the efficiency of the development process, if they choose, for projects consistent with Plan Bay Area and other state legislation.

Regional Housing Needs Allocation

Housing Element law requires local jurisdictions to plan for and allow the construction of the RHNA. State law mandates that each jurisdiction provides sufficient land to accommodate a variety of housing opportunities for all economic segments of the community to meet or exceed the RHNA. As the regional planning agency, ABAG is responsible for taking the overall RHNA provided by the State and preparing a

formula for allocating housing needs by income level across its jurisdiction. ABAG calculates the RHNA for individual jurisdictions within San Mateo County, including Belmont.

Local Regulations

2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to transportation that are relevant to the proposed project are found in the Land Use Element and are listed in Table 4.13-1, *City of Belmont 2035 General Plan Policies Relevant to Population and Housing.*

TABLE 4.13-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO POPULATION AND HOUSING

Policy Number	Policy Text
Chapter 2, Land Use Element	
Policy 2.3-2	Encourage higher density residential uses located in close proximity to commercial services, employment opportunities, and major transportation corridors and facilities.
Policy 2.3-4	Focus new development in or directly adjacent to already-developed areas, where it can be served by existing public services and infrastructure.
Policy 2.8-1	Enable infill properties to develop with uses and development intensities supporting a cohesive development pattern.
Policy 2.9-1	Allow sufficient density and intensity to enable new development to support all required infrastructure, community facilities, and open space.

Source: City of Belmont, 2017, *2035 General Plan*.

2023-2031 Housing Element Update

The draft 2023-2031 Housing Element Update was updated in May 2024 and submitted to the California Department of Housing and Community Development for review on May 28, 2024, with plans for City approval in fall 2024.

4.13.1.2 EXISTING CONDITIONS

Population

In 2013, the population of San Mateo County was 747,550 and the population of Belmont was 26,624 according to the California Department of Finance.[1] During this time, Belmont had an average household

[1] California Department of Finance, 2021, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark*, https://dof.ca.gov/forecasting/demographics/estimates/estimates-e5-2010-2020/, accessed August 28, 2023.

size of 2.48 persons, compared to 2.86 persons at the county level.[2] The project site had an existing population that lived and worked on the site. The project site had an overall population of approximately 2,451 during the day.[3]

In 2023, the population of San Mateo County is 737,644 and the population of Belmont is 26,793, according to the California Department of Finance.[4] During this time, Belmont had an average household size of 2.46 persons, compared to 2.67 persons at the county level.[5] Due to the underutilization of the project site, the current population is mainly made up of a charter school with an approximate daytime population of 332 persons per day.

Based on data from the US Department of Housing and Urban Development Comprehensive Housing Affordability Strategy database,[6] one third of Belmont households are considered either extremely low, very low, or low income (defined as earning less than or equal to 30 percent, 50 percent, or 80 percent of area median family income, respectively). Among renters, approximately half of Belmont's households are considered either extremely low, very low, or low income.

Housing

In 2013, there were 11,037 housing units in the City of Belmont and 272,477 housing units in San Mateo County.[7] In Belmont, approximately 64 precent of housing units were single-family detached and attached units, compared to 66 percent in San Mateo County.[8] At this time, there were 441 residents that lived on the project site in campus housing.

In 2023, there are 11,220 housing units in the City of Belmont and 287,967 housing units in San Mateo County.[9] In Belmont, approximately 64 precent of housing units are single-family detached units, which is

[2] California Department of Finance, 2021, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark*, https://dof.ca.gov/forecasting/demographics/estimates/estimates-e5-2010-2020/, accessed August 28, 2023.

[3] 2,030 enrollment + 246 teaching faculty + 175 total staff = 2,451 persons

[4] California Department of Finance, 2021, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2023*, https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/, accessed August 28, 2023.

[5] California Department of Finance, 2021, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2023*, https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/, accessed August 28, 2023.

[6] Data accessed July 29, 2024 from https://www.huduser.gov/portal/datasets/cp.html.

[7] California Department of Finance, 2021, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark*, https://dof.ca.gov/forecasting/demographics/estimates/estimates-e5-2010-2020/, accessed August 28, 2023.

[8] California Department of Finance, 2021, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2021 with 2010 Census Benchmark*, https://dof.ca.gov/forecasting/demographics/estimates/estimates-e5-2010-2020/, accessed August 28, 2023.

[9] California Department of Finance, 2021, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2023*, https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/, accessed August 28, 2023.

the same percentage in San Mateo County.[10] Currently, the project site contains 38 housing units, and 11 residents currently live on the project site.

Projections

ABAG projections are released periodically for regional growth planning purposes. Plan Bay Area 2050 was adopted on October 21, 2021, and provides a regional growth pattern but does not provide projections data at the local level. Therefore, the data in this analysis is from ABAG Projections 2040, which was released in 2018.[11] As shown in Table 4.13-2, *ABAG 2040 Projections for the City of Belmont and San Mateo County*, ABAG predicts that the population in Belmont is projected to grow to a total of 30,085 by 2040, which represents an increase of approximately 15 percent between 2010 and 2040. The population of the county in 2040 is forecast to increase to 916,590, representing a greater rate of growth of approximately 27 percent between 2010 and 2040.[12]

TABLE 4.13-2 ABAG 2040 PROJECTIONS FOR THE CITY OF BELMONT AND SAN MATEO COUNTY

	2010	2040	Total Change	Percent Change
Belmont				
Population	26,215	30,085	3,870	15%
Housing Units	10,575	11,620	1,045	10%
Jobs	7,925	9,430	1,505	19%
San Mateo County				
Population	721,195	916,590	195,395	27%
Housing Units	257,835	317,965	60,130	23%
Jobs	343,335	472,045	128,710	37%

Source: Association of Bay Area Governments and Metropolitan Transportation Commission, updated May 1, 2019, Projections 2040 by Jurisdiction, https://data.bayareametro.gov/Demography/Projections-2040-by-Jurisdiction/grqz-amra, accessed February 21, 2024.

The Belmont 2035 General Plan, adopted in 2017, estimates a citywide population of 30,500 people, 12,400 housing units, and 13,400 jobs by 2035.[13]

4.13.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant population and housing impact if it would:

[10] California Department of Finance, 2021, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2023*, https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/, accessed August 28, 2023.

[11] Association of Bay Area Governments and Metropolitan Transportation Commission, 2018, *Plan Bay Area Projections 2040*, http://mtcmedia.s3.amazonaws.com/files/Projections_2040-ABAG-MTC-web.pdf, accessed August 29, 2023.

[12] Association of Bay Area Governments and Metropolitan Transportation Commission, 2018, *Plan Bay Area Projections 2040*, http://mtcmedia.s3.amazonaws.com/files/Projections_2040-ABAG-MTC-web.pdf, accessed August 29, 2023.

[13] City of Belmont, 2017, *General Plan, Phase I Zoning, Belmont Village Specific Plan and Climate Action Plan Draft Environmental Impact Report*, SCH #2016082075, accessed August 29, 2023.

1. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.
3. In combination with past, present, and reasonably foreseeable projects, result in cumulative population and housing impacts in the area.

4.13.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following population and housing analysis is based on demographics and therefore utilizes information gathered in 2013.

POP-1	**The proposed project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).**

As described in Section 4.13.1.2, *Existing Conditions*, ABAG and the City of Belmont 2035 General Plan estimate future population and housing growth for the City of Belmont. The proposed project would be considered to induce substantial growth if the proposed project would lead to growth that exceeds ABAG's and the General Plan's projections.

The proposed project's population projections are shown in Table 3-3, *Population Projections*, in Chapter 3, *Project Description*, of this Draft EIR. Compared to the 2013 baseline, the proposed project would result in an estimated increase in residential population of 67, for a total of 508,[14] and an estimated increase in total daytime population of 58 people for a total of 2,509. This would increase the total estimated population of the project site and surrounding area by 125 people.

As described in Table 4.13-2, ABAG predicts the population in Belmont to increase by 3,870 residents in 2040. The proposed project would represent approximately 3 percent of the expected increase in population foreseen by ABAG. Meanwhile, the City's General Plan predicts that the population of Belmont

[14] As shown in Table 3-3, *Population Projections*, in Chapter 3, *Project Description*, of this Draft EIR, the residential population under the proposed project is expected to be between 127 (a decrease from 2013 baseline conditions) and 508 persons. For a conservative (i.e., "worst case") analysis, the maximum residential population was assumed.

will grow by 3,707 people by 2035.[15] Similarly, the proposed project would represent approximately 3 percent of the expected increase in population foreseen by the 2035 General Plan.

As the proposed project would account for a small percentage of the growth projections of ABAG and the General Plan, the estimated population growth induced from the proposed project is not unaccounted for and is not substantial enough to create direct substantial unplanned population growth.

Regarding potential indirect effects of unplanned population growth, the project site is in an established urban environment that is served by existing infrastructure. Therefore, although the project would include on-site utility improvements, the proposed project would not require or create new demand for an extension of infrastructure to previously unserved areas.

While the proposed project would create population growth at the local level, it will not be at an amount that is substantial enough to cause direct or indirect unplanned population growth in the area. Therefore, there would be a *less-than-significant* impact.

Significance without Mitigation: Less than significant.

POP-2 The proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The proposed project would result in a significant impact if it would displace a substantial number of people or housing such that it would necessitate the construction of replacement housing elsewhere.

Under 2013 baseline conditions, the residential population of the project site was 441 residents. The majority of the residential population formerly living on the project site lived in dormitory-style housing. Under the proposed project, the residential population of the project site is estimated to range between 127 and 508 residents. Therefore, the project has the potential to increase the on-site residential population, or it could result in a net decrease in the on-site residential population when compared to the historical maximum capacity of the project site. Due to the conceptual nature of the proposed project, the precise residential population and mix of housing types (e.g., dormitory versus housing unit) is not yet known; nevertheless, the potential exists for some on-site housing to be displaced.

In approving the CDP, the City of Belmont would be required to comply with Government Code provisions that prohibit the City from approving any development project that demolishes occupied or vacant protected units, or that is located on a site where protected units were demolished in the previous five years, unless certain conditions are met. Pursuant to State law, the City will therefore require the project sponsor to provide replacement housing units for any protected housing demolished as part of future DDPs. Calculation of the number of replacement units required would be based on the number of then-current protected housing units on the project site. Under current (2024) conditions, the project site

[15] 30,500 people predicted in 2025 – 26,793 people currently living in Belmont (according to California Department of Finance) = 3,707 new residents by 2035.

contains 38 housing units. Based on data from the US Department of Housing and Urban Development Comprehensive Housing Affordability Strategy database, approximately half of Belmont's households are considered either extremely low, very low, or low income.[16] Therefore, it is estimated that the project sponsor would be required to provide replacement housing for half of the existing project site housing units, or 19 units, unless the project sponsor can provide more specific information regarding the income status of housing occupants indicating that a different number of units is considered "protected" under State law.

Replacement units required under State law may be provided on-site or, for development projects that are not housing projects, they may be provided off-site. Because the proposed CDP involves housing development components, it is anticipated that replacement housing would be provided on-site, as part of the proposed project evaluated in this EIR. Alternatively, replacement housing may be provided off-site but, as the location and number of such units is currently unknown, it would be speculative for this EIR to assess the potential physical impacts of potential future off-site replacement housing construction.[17]

Under both baseline and proposed project conditions, as an institutional site, the campus provides housing for persons affiliated with the university, with the specific occupants living on the campus for temporary periods of time based on educational and employment status. Under historical conditions, the campus residential population has fluctuated, with a maximum residential population of 441 persons in 2013 and 11 persons under current (2024) conditions. Under proposed project conditions, the residential population is expected to fluctuate between 179 persons and 508 persons. Overall, the proposed project would house similar levels of university-affiliated housing as under historical conditions. In addition, the proposed project would provide replacement housing pursuant to State law. Therefore, the proposed project would not displace a substantial number of people such that additional new housing would need to be constructed elsewhere. Therefore, impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

POP-3 The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative population and housing impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, impacts from cumulative growth are considered in the context of potential future development under the proposed project combined with the cumulative development projects evaluated under the 2035 General Plan buildout. The proposed project would not induce substantial unplanned population growth in an area or displace substantial numbers of existing people or housing. Furthermore, future development in the area would be subject to environmental review as applicable to mitigate any significant population and housing impacts. Projections of cumulative development projects would be taken into consideration against the ABAG and

[16] Data accessed July 29, 2024 from https://www.huduser.gov/portal/datasets/cp.html.

[17] Pursuant to CEQA Guidelines 15145, this EIR is not required to include analysis of potential impacts that are too speculative for evaluation.

General Plan projections. Therefore, population and housing impacts of the proposed project would not be cumulatively considerable, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

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4.14 PUBLIC SERVICES

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential impacts on public services associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential impacts on public services, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts. Public services covered in this chapter are fire protection services, police services, schools, and libraries.

4.14.1 FIRE PROTECTION SERVICES

4.14.1.1 ENVIRONMENTAL SETTING

This section describes regulations, resources, facilities, equipment, and response times for fire protection services. Information was provided through correspondence between PlaceWorks and the San Mateo Consolidated Fire Department in May 2024.

Regulatory Framework

State Regulations

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Office of the State Fire Marshal supports CAL FIRE's mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education.

California Building Code

The State of California provides a minimum standard for all building design except detached one- and two-family residential dwellings and townhouses not more than three stories above grade plane, through Title 24, Part 2, of the California Code of Regulations (CCR), commonly referred to as the "California Building Code" (CBC). The CBC incorporates, by adoption, the International Building Code of the International Code Council, with California amendments, and is updated every three years, with supplements published in intervening years. It is adopted by the State, and can be modified on a jurisdiction-by-jurisdiction basis, based on local geologic, climatic, and topographic conditions. Typical fire safety requirements of the CBC include the installation of sprinklers in most new buildings, including all high-rise buildings, all residential buildings and other facilities; fire resistant rated construction and construction in designated wildland fire hazard severity zones; fire alarm systems and exiting requirements; and fire safety requirements during construction. The CBC also establishes structural stability, and seismic safety for buildings and structures.

California Fire Code

The California Fire Code (CFC) incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. The CFC is the official fire code for the State and all political subdivisions. It is found in CCR Title 24, Part 9, and, like the CBC, it is revised and published every three years by the California Building Standards Commission. Also like the CBC, the CFC is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions.

The CFC is a model code that regulates minimum fire safety regulations for new and existing buildings, facilities, storage, and processes, including emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Typical fire safety requirements include the installation of sprinklers in most new buildings, including all high-rise buildings, all residential buildings, and other facilities; fire resistant rated construction; construction in designated wildland fire hazard severity zones; fire alarm systems and exiting requirements; fire safety requirements during construction; the regulation of hazardous materials not covered by the unified program (described below); and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to fire protection services that are relevant to the proposed project are found in the Land Use and Safety Elements and are listed in Table 4.14-1, *City of Belmont 2035 General Plan Policies Relevant to Fire Protection Services*.

TABLE 4.14-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO FIRE PROTECTION SERVICES

Policy Number	Policy Text
Chapter 2, Land Use Element	
Policy 2.3-4	Focus new development in or directly adjacent to already-developed areas, where it can be served by existing public services and infrastructure.
Policy 2.9-1	Allow sufficient density and intensity to enable new development to support all required infrastructure, community facilities, and open space.
Policy 2.9-2	Require that new development "pays its way" so as to limit fiscal impacts on the City.
Chapter 6, Safety Element	
Policy 6.1-1	Continue to maintain and enforce appropriate standards to ensure new development is designed to meet current safety codes and requirements associated with seismic activity. Require public and private development to be located, designed, and constructed to minimize the risk of loss of life and injury in the event of a major earthquake or other natural disaster.
Policy 6.5-2	Require new development to underground service lines and utilities, and continue to pursue and implement projects to underground existing overhead utility lines.
Policy 6.6-3	Continue to review development proposals to ensure that they incorporate appropriate fire-mitigation measures, including adequate provisions for evacuation and access by emergency responders.
Policy 6.6-4	Continue the Belmont Fire Protection District's participation in plan review of new buildings in potentially fire prone areas.
Policy 6.6-5	Continue to require a fire prevention inspection of all buildings used as commercial businesses, places of assembly, multi-family residences, and hotels within the Belmont Fire Protection District's boundaries.

TABLE 4.14-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO FIRE PROTECTION SERVICES

Policy Number	Policy Text
Policy 6.6-10	Continue to require development located within the Wildland Urban Interface (WUI) to follow the code requirements in Chapter 7A of the California Building Code, and require buildings to be constructed of ignition resistant materials and methods.
Policy 6.8-2	Continue to respond without delay to all calls for fire and emergency medical assistance as soon as possible consistent with normal safety precautions and vehicle laws. Periodically review procedures and response times to ensure equitable service across the district.

Source: City of Belmont, 2017, *2035 General Plan.*

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to fire prevention and protection services. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to fire prevention and protection impacts are included in Chapter 7, *Buildings.* Chapter 7, Article IV, Division 7, *Fire Code*, includes the ratification of San Mateo Consolidated Fire Department (SMC Fire) Fire Code that adopts the 2021 International Fire Code with the 2022 CFC Amendments and the 2021 International WUI Code with modifications. This division also notes the SMC Fire as the designated fire authority for the City of Belmont.

Existing Conditions

Notre Dame de Namur University

In the event of a fire incident, the Notre Dame de Namur University (NDNU) Department of Public Safety would coordinate with the Belmont Fire and Police Department to investigate. The project site does not have its own fire department or firefighting capabilities; however, the project site does have a University Fire Prevention Program. The goal of this program was to recognize hazards and take appropriate action, this was done by conducting periodic fire safety inspections and audits.[1] During these inspections, the buildings' fire and life safety features were analyzed to assess whether they were following all applicable standards of the National Fire Protection Association (NFPA) and the local authority having jurisdiction.

San Mateo Consolidated Fire Department

The City of Belmont, including the project site, is served by the San Mateo Consolidated Fire Department (SMC Fire). The department was formed by the establishment of a Joint Powers Authority and represents the merger of fire departments in the cities of Belmont, Foster City, and San Mateo.[2] SMC Fire is responsible for protecting lives, property, and the environment from fire and hazardous materials exposure, providing emergency medical care, offering programs that prepare citizens for emergency, and providing nonemergency services, including fire prevention and emergency preparedness. SMC Fire's commercial inspection program inspects commercial occupancies to ensure fire safety and checks all

[1] Notre Dame De Namur University, *Annual Security and Fire Safety Report 2023*, https://www.ndnu.edu/wp-content/uploads/NDNU-2022-2023-Annual-Security-Fire-Safety-Report.pdf, accessed on February 20, 2024.

[2] San Mateo Consolidated Fire Department, 2023, History, https://www.smcfire.org/about-us/history/, accessed August 22, 2023.

newly constructed and remodeled buildings for Fire and Building Code compliance. SMC Fire also provides fire investigation services to determine the cause of fires.

SMC Fire serves nearly 161,000 residents with a daytime population of around 230,000. The department has 161 full-time employees assigned to administration, fire prevention, training, emergency preparedness, fire operations, and emergency medical services.[3] Each fire station has one fire engine staffed by one fire captain and two firefighters/engineers.[4] SMC Fire staffs two 100-foot tractor-drawn aerial ladder trucks, one out of Station 21 and the other out of Station 23, that respond to all major incidents in the community.[5] Out of the nine fire stations that SMC Fire operates, two of the stations are in Belmont—Station 14, 0.6 miles northwest of the project site at 911 Granada Street, and Station 15, 1.2 miles west of the project site at 2701 Cipriani Boulevard. A replacement fire station for Station 15 is currently being planned at 2 Davis Drive, approximately 1.25 miles west of the project site.

The goal for SMC Fire is to respond to 90 percent of all Priority 1 emergency calls in 6 minutes 59 seconds or less.[6] In 2023, SMC Fire met this goal with an average response time of 5 minutes 27 seconds. A majority of incidents were for emergency medical services.[7]

The 2023 estimated population is 26,793 for Belmont, 32,703 for Foster City, and 103,318 for San Mateo, for a combined total population of 162,814.[8] This results in an average of one firefighter for every 1,011 persons.[9]

4.14.1.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant fire protection service impact if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.
- In combination with past, present, and reasonably foreseeable projects, result in cumulative fire protection service impacts in the area.

[3] San Mateo Consolidated Fire Department, 2022, *Annual Report: 2022 Edition*, https://www.smcfire.org/wp-content/uploads/2022/03/Annual-Report-2021.pdf, accessed August 22, 2023.

[4] San Mateo Consolidated Fire Department, 2023, Stations & Apparatus, https://www.smcfire.org/about-us/station-locations/, accessed August 22, 2023.

[5] San Mateo Consolidated Fire Department, 2023, Stations & Apparatus, https://www.smcfire.org/about-us/station-locations/, accessed August 22, 2023.

[6] San Mateo Consolidated Fire Department, 2023, Field Operations, https://www.smcfire.org/divisions/field-operations/, accessed August 22, 2023.

[7] San Mateo Consolidated Fire Department, 2023, *Annual Report: 2023 Edition*, https://www.smcfire.org/wp-content/uploads/2024/02/2023-ANNUAL-REPORT.pdf, accessed April 1, 2024.

[8] California Department of Finance, 2021, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2023, https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/, accessed on August 28, 2023.

[9] 162,814 overall population/161 full time employees = 1,011 persons per firefighter.

4.14.1.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the NDNU was at full capacity. The following fire protection services analysis is based on demographics and therefore utilizes information gathered in 2013.

PS-1	The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.

Potential future development under the proposed project would occur on a project site that is already developed and currently served by SMC Fire. The proposed project would occur within the project site boundary and would not expand SMC Fire's service area. Buildout of the proposed project is projected to occur over an approximately 30-year horizon and any increases in demand for fire protection services would be incremental.

While the proposed project would not require expansion of SMC Fire's service area and would occur incrementally over time, SMC Fire does not meet the NFPA recommended standard of one firefighter for every 1,000 population. The proposed project would result in an increase in the project site staff, faculty, and resident population that is served by the SMC Fire. However, as described in impact discussion POP-1 in Chapter 4.13, *Population and Housing*, of this Draft EIR, the proposed project would be within the growth projections of the 2035 General Plan, meaning that the estimated population growth induced from the proposed project is not unaccounted for and is not substantial enough to create direct substantial unplanned population growth. Therefore, the projected increase in population on the project site would not necessitate the need for new or physically altered fire protection facilities. Furthermore, correspondence with the SMC Fire Deputy Chief confirmed that there is no need to construct additional facilities related to fire protection services to accommodate the proposed project.[10]

Furthermore, potential future development under the proposed project would be required to comply with applicable codes, such as the CFC and CBC, pertaining to fire prevention. Compliance with such regulations ensures that buildings incorporate fire mitigation components to reduce risks and contribute to capital improvements, which in turn reduces pressure on local fire protection resources.

[10] Robert Marshall (deputy fire chief), May 13, 2024, Email correspondence with PlaceWorks, San Mateo Consolidated Fire Department.

Therefore, as the proposed project would not increase the service area of SMC Fire or the population that they currently serve above an unplanned level, and would comply with applicable regulations to reduce risks and reduce pressure of local fire protection resources, the proposed project would not necessitate the need for new or physically altered fire protection facilities and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

PS-2	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative fire protection service impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, cumulative impacts to fire protection services are considered in the context of the growth from the proposed project combined with the estimated growth in SMC Fire's service area. One of the cumulative development projects included in Table 4-1, *Cumulative Development Projects*, is the project at 2 Davis Drive that would result in the demolition of an existing warehouse and surface parking lot and would redevelop the site with a four-story office/research and development building as well as a new fire station to replace the existing SMC Fire Station 15.

The proposed project would not create a need for new or physically altered facilities in order for SMC Fire to maintain acceptable service ratios, response times, or other performance objectives for fire protection services. As described in Chapter 4.13, *Population and Housing*, of this Draft EIR, the growth resulting from the proposed project would fit well within the growth anticipated under the 2035 General Plan. Furthermore, as applicable, future development in the area would be subject to environmental review to mitigate any significant impacts to fire protection services. Similar to the proposed project, cumulative development projects would be subject to the CBC and CFC for fire safety. Therefore, the proposed project's impacts to fire protection services would not be cumulatively considerable and would be *less than significant*.

Significance without Mitigation: Less than significant.

4.14.2 POLICE SERVICES

4.14.2.1 ENVIRONMENTAL SETTING

This section describes regulations, resources, facilities, equipment, and response times for police protection services. Information was provided through correspondence between PlaceWorks and the City of Belmont Police Department in March 2024.

Regulatory Framework

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to police services that are relevant to the proposed project are found in the Land Use and Safety Elements and are listed in Table 4.14-2, *City of Belmont 2035 General Plan Polices Relevant to Police Services*.

TABLE 4.14-2 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO POLICE SERVICES

Policy Number	Policy Text
Chapter 2, Land Use Element	
Policy 2.3-4	Focus new development in or directly adjacent to already-developed areas, where it can be served by existing public services and infrastructure.
Policy 2.9-1	Allow sufficient density and intensity to enable new development to support all required infrastructure, community facilities, and open space.
Policy 2.9-2	Require that new development "pays its way" so as to limit fiscal impacts on the City.
Chapter 6, Safety Element	
Policy 6.6-3	Continue to review development proposals to ensure that they incorporate appropriate fire-mitigation measures, including adequate provisions for evacuation and access by emergency responders.
Policy 6.8-1	Continue to respond without delay to all calls for police assistance as soon as possible consistent with normal safety precautions and vehicle laws. Establish and periodically review procedures and response times to ensure equitable service across the community.

Source: City of Belmont, 2017, *2035 General Plan.*

Belmont City Code

The BCC includes various directives pertaining to police services. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to fire prevention and protection impacts are included in Chapter 18, *Police*. This chapter expresses the desire of the city to qualify to receive aid from the state, as well as outlines the police reserve system, unclaimed personal property, alarm systems, alarm businesses, the direct connect police alarm board.

Existing Conditions

Notre Dame de Namur University

NDNU currently contracts with Allied Universal Security Services to provide safety and security services. Allied Universal Security Services operates from 1:30 pm to 10:00 pm Monday through Friday and from 9:00 am to 5:00 pm on Saturdays and Sundays.[11] The project site is patrolled on foot, by car, and through

[11] Notre Dame De Namur University, *Annual Security and Fire Safety Report 2023*, https://www.ndnu.edu/wp-content/uploads/NDNU-2022-2023-Annual-Security-Fire-Safety-Report.pdf, accessed on February 20, 2024.

video surveillance. Any incident that occurs gets reported to the Department of Public Safety Staff who then reports it to the Director of Facilities, who reports it directly to the President.

The Public Safety Officers on the project site are not sworn police officers, but they are registered with the California Department of Justice, Bureau of Security and Investigative Services, and maintain Security Guard licensure. The Public Safety Officers at the project site work closely with the Belmont Police Department (BPD) and maintain a cooperative relationship with the BPD and federal law enforcement/public safety agencies.

City of Belmont

The City of Belmont, including the project site, is served by the BPD, operating out of the office at 1 Twin Pines Lane. The BPD participates in the San Mateo County Sheriff's SWAT Team and Crisis Negotiation Unit, by providing both SWAT Operators and Crisis Negotiators.[12] The BPD is organized into three divisions and nine specialty units. The three divisions are the administration division, operations division, and the support services division; the nine specialty units include Patrol, Traffic, K9, Investigations, Youth Services, Dispatch, Records, Code Enforcement, SWAT, CNU and a Volunteer Program.[13] Within the three main divisions are approximately 50 full-time employees. In addition to full-time staff, the Police Department also receives support from Reserve Police Officers and Community Volunteers.[14] Other law enforcement services in the project area are the California Highway Patrol and the San Mateo County Sheriff's Office.

Through correspondence with the BPD, it was identified that BPD has an approximate response of 4 minutes to Priority 1 calls, which is a normal expectation for the department. The BPD's goal for emergency responses is 4 minutes or less, depending on response type. The BPD has a service ratio of 1.2 sworn officers per 1,000 residents. Staffing was identified as becoming difficult and time consuming, but this was something not unique to Belmont and occurring across the State of California.

4.14.2.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant police service impact if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police services.
- In combination with past, present, and reasonably foreseeable projects, result in cumulative police service impacts in the area.

[12] City of Belmont, 2017, 2035 General Plan, Safety Element, https://www.belmont.gov/home/showpublisheddocument/16487/636651107453770000, accessed on August 22, 2023.

[13] City of Belmont, 2023, Departmental Units, https://www.belmont.gov/departments/police/police-units, accessed on August 22, 2023.

[14] City of Belmont, 2017, 2035 General Plan, Safety Element, https://www.belmont.gov/home/showpublisheddocument/16487/636651107453770000, accessed on August 22, 2023.

4.14.2.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the NDNU was at full capacity. The following police services analysis is based on demographics and therefore utilizes information gathered in 2013.

PS-3	The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police services.

Potential future development under the proposed project would occur on a project site that is already developed and currently served by BPD and Allied Universal Security Services. The proposed project would occur within the project site boundary and would not expand BPD's service area. Buildout of the proposed project is projected to occur over an approximate 30-year horizon and any increases in demand for police services would be incremental.

Through the proposed project, security would be hired similar in nature to the project applicant's Palo Alto and Redwood City locations. It is not expected to be a full police squad but several community service officers. Through correspondence with the BPD, it was identified that private or campus security could reduce the demand for full police protective services on campus and that the proposed project would likely cause an increase in staffing of two officers over the horizon of the project.

Additionally, as described in impact discussion POP-1 in Chapter 4.13, *Population and Housing*, of this Draft EIR, the proposed project would be within the growth projections of the 2035 General Plan, meaning that the estimated population growth induced from the proposed project is not unaccounted for and is not substantial enough to create direct substantial unplanned population growth. The proposed project would be compatible with the surrounding residential neighborhoods and would not generally create a notable difference in the types of service calls or overall need for service in the project vicinity, such that BPD would need to provide new facilities or upgrades to existing facilities. Furthermore, correspondence with the Belmont Police Chief confirmed that there is no need to construct additional police facilities related to police services to accommodate the proposed project.[15]

Because the proposed project would not increase the service area of the BPD or the population that it serves above an unplanned level, and because the project would comply with applicable regulations to

[15] Kenneth Stenquist (police chief), March 17 and March 19, 2024, Email correspondence with PlaceWorks, City of Belmont Police Department.

reduce risks and reduce demands on local police resources, the proposed project would not necessitate the need for new or physically altered police facilities. Impacts would therefore be *less than significant*.

Significance without Mitigation: Less than significant.

PS-4	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative police service impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, cumulative impacts to police services are considered in the context of the growth from the proposed project combined with the estimated growth in BPD's service area. The proposed project would not create a need for new or physically altered facilities in order for the BPD to maintain acceptable service ratios, response times, or other performance objectives for fire protection services. As described in Chapter 4.13, *Population and Housing*, of this Draft EIR, the growth resulting from the proposed project would fit well within the growth anticipated under the 2035 General Plan. Furthermore, as applicable, future development in the area would be subject to environmental review to mitigate any significant impacts to police services. Therefore, the proposed project's impacts to fire protection services would not be cumulatively considerable and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

4.14.3 SCHOOLS

4.14.3.1 ENVIRONMENTAL SETTING

This section describes the existing regulations and conditions with regard to schools serving Belmont, as well as the proposed project's potential impacts to schools. Information was provided through correspondence between PlaceWorks and the Superintendent of Belmont-Redwood Shores School District in March 2024.

Regulatory Framework

State Regulations

Senate Bill 50

Senate Bill (SB) 50 (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. In setting the fees, school districts must prepare nexus studies to demonstrate a reasonable connection between new development and the need for school improvements. The fees may only be used to finance the construction or modernization of school facilities. The fee application level depends on whether State

funding is available, whether the school district is eligible for State funding, and whether the school district meets certain additional criteria involving bonding capacity, year-round school, and the percentage of moveable classrooms in use.

California Government Code, Section 65995 and Education Code Section 17620

SB 50 amended California Government Code Section 65995, which contains limitations on Education Code Section 17620, the statute that authorizes school districts to assess development fees within school district boundaries. Government Code Section 65995(b)(3) requires the maximum square footage assessment for development to be increased every two years, according to inflation adjustments. According to California Government Code Section 65995(3)(h), the payment of statutory fees is "deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization...on the provision of adequate school facilities." The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Mitigation Fee Act (California Government Code 66000–66008)

AB 1600, the Mitigation Fee Act, requires a local agency establishing, increasing, or imposing an impact fee as a condition of development to identify the purpose of the fee and the use to which the fee is to be put. The agency must also demonstrate a reasonable relationship between the fee and the purpose for which it is charged, and between the fee and the type of development project on which it is to be levied. This act became enforceable on January 1, 1989.

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to school services that are relevant to the proposed project are found in the Land Use Element and are listed in Table 4.14-3, *City of Belmont 2035 General Plan Policies Relevant to School Services*.

TABLE 4.14-3 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO SCHOOL SERVICES

Policy Number	Policy Text
Chapter 2, Land Use Element	
Policy 2.10-3	Continue to coordinate and collaborate with the public school districts that serve the Belmont community on school facilities and planning land use, and circulation issues to support high quality educational opportunities in Belmont, including access to schools, facility expansion and modernization, and strategies to address school enrollment and space needs or constraints, in order to ensure that school facilities will be adequate to accommodate student growth.
Policy 2.11-1	Support increased collaboration and partnership with Notre Dame de Namur University on key issues such as master planning, land use, enrollment, economic development, circulation, housing, and open space.

Source: City of Belmont, 2017, *Belmont 2035 General Plan.*

Belmont Zoning Ordinance

Within the Belmont Zoning Ordinance, the Schools and Compatible Multiple Uses District (SC) is established. These districts are established to provide for the location of schools and certain other compatible uses within or adjacent to school buildings and structures. This district implements sections of the California Education Code which permit joint occupancy of schools and authorize the use of vacant school property and buildings for certain uses and users which are of a scale and intensity compatible with the public school and its neighborhood (i.e. school attendance area).

Existing Conditions

The City of Belmont is served by two school districts: the Belmont-Redwood Shores School District (BRSSD) and the Sequoia Union High School District (SUHSD).

Belmont-Redwood Shores School District

The BRSSD provides elementary through eighth grade schooling for the City of Belmont and operates five schools within the city limit. In total there are 43 teachers and staff and approximately 3,970 students. Three local funding sources provide almost $7 million annually to the district; these funding sources include School Force, Measure R and K, Sequoia Healthcare District, and Oracle.[16] Additionally, BRSSD collects developer fees through Sequoia Union High School District, 60 percent of the fees are collected by the elementary school district and 40 percent goes to the Sequoia Union High School District.[17]

Currently BRSSD has entered the construction phase of its clean energy program, where lighting across all schools sites is being upgraded to energy-efficient LED fixtures and four sites will have on-site solar photovoltaic canopies.[18] A facilities master plan is also being prepared for BRSSD that will include all seven of their schools as well as the District Office; it is planned to be completed in June 2024.[19] Through correspondence with the BRSSD Superintendent, it was identified that the BRSSD does not exceed student capacity and no expansion of facilities is expected.

[16] Belmont-Redwood Shores School District, *Winter 2022 District Update*, https://static1.squarespace.com/static/5939b9f6579fb3b8ed971502/t/61f1af387ac6ed341be962ab/1643228986005/Community+Mailer+1.2022_FINAL_eVersion.pdf, accessed on February 28, 2024.

[17] Sequia Union High School District, School Impact/Developer Fees, https://www.seq.org/Departments/Administrative-Services/Maintenance--Operations/School-Impact--Developer-Fees/index.html, accessed March 22, 2024.

[18] Belmont-Redwood Shores School District, Solar Project Overview, https://www.brssd.org/district-construction, accessed on February 28, 2024.

[19] Belmont-Redwood Shores School District, Solar Project Overview, https://www.brssd.org/district-construction, accessed on February 28, 2024.

Sequoia Union High School District

The SUHSD serves San Carlos, Belmont, and Redwood City high school students. Overall, the SUHSD serves approximately 9,802 students on the Midpeninsula with seven schools.[20] Students residing in Belmont attend Carlmont High School.

Funding for the SUHSD comes from Local Control Funding Formula Sources and federal, State and local sources.[21] SUHSD also collects development impact fees, which fund improvements and new facilities to mitigate impacts from new development. As of January 2024, the SUHSD collects $4.08 per square foot for residential construction.[22]

SUHSD has a Facilities Master plan that was completed in 2023 and sets a vision for the next ten years of future facility improvements.[23] Among the various school improvements that are outlined in the plan, Carlmont High School was identified in five areas for improvement, including new construction, renovation, site/sports projects, and infrastructure.[24]

4.14.3.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant schools impact if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered schools, need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.
- In combination with past, present, and reasonably foreseeable projects, result in cumulative school impacts in the area.

4.14.3.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a

[20] California Department of Education, 2020-21 Enrollment By Ethnicity: Sequoia Union High Report (41-69062), https://dq.cde.ca.gov/dataquest/dqcensus/EnrEthGrd.aspx?cds=4169062&agglevel=district&year=2020-21, accessed February 11, 2022.

[21] Sequioa Union High School District, *Approval and Certification of 2022-23 Second Interim Fiscal Report*, https://www.seq.org/documents/Accounting/22-23-Second-interim-narrative-22-23.pdf, accessed on March 5, 2024.

[22] Sequoia Union High School District, Maintenance & Operations, Developer Fees, https://www.seq.org/DEPARTMENTS/Administrative-Services/Maintenance--Operations/School-Impact--Developer-Fees/index.html, accessed March 4, 2024.

[23] Sequoia Union High School District, September 2023, Facilities Master Plan, https://drive.google.com/file/d/14TDfrmql5JL_hyY5rvijXM0bR7_9yC6A/view, accessed on March 4, 2024.

[24] Sequoia Union High School District, September 2023, Facilities Master Plan, https://drive.google.com/file/d/14TDfrmql5JL_hyY5rvijXM0bR7_9yC6A/view, accessed on March 4, 2024.

baseline year of 2013 is used, as it is the most recent year that the NDNU was at full capacity. The following schools services analysis is based on demographics and therefore utilizes information gathered in 2013.

PS-5	The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered schools, need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for schools.

The proposed project would guide renovations and revitalization on the project site to develop the Stanford Belmont Campus in a phased manner over a 30-year time frame. As the proposed project establishes the Stanford Belmont Campus for the operation of some combination of academic facilities, associated academic support uses, and housing, it would be able to accommodate Stanford University students. However, housing included in the proposed project could involve family units that add to the student body attending the local school districts and would therefore represent a slight increase in demand for school services provided by BRSSD and SUHSD. As described in impact discussion POP-1 in Chapter 4.13, *Population and Housing*, of this Draft EIR, the proposed project would be within the growth projections of the Belmont General Plan, meaning that the estimated population growth associated with the proposed project is not unaccounted for and is not enough to create substantial unplanned population growth. Therefore, the proposed project would not require the need for new or physically altered schools.

Additionally, potential future development under the proposed project would be required to pay school impact fees, pursuant to SB 50, to reduce impacts to the school system. The school districts collect these fees at the time of issuance of building permits. Planned improvements to school facilities would be subject to separate project-level environmental review to identify potential environmental impacts and mitigation measures as needed. Thus, impacts in this regard would be *less than significant*.

Significance without Mitigation: Less than significant.

PS-6	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative school impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, cumulative impacts to school services are considered in the context of the growth from the proposed project combined with the estimated growth in BRSSD and SUHSD's service areas. The proposed project would not create a need for new or physically altered facilities in order for the BRSSD and SUHSD to maintain acceptable service ratios or other performance objectives for school services. As described in Chapter 4.13, *Population and Housing*, of this Draft EIR, the growth resulting from the proposed project would fit well within the growth anticipated under the 2035 General Plan. Furthermore, as applicable, future development in the area

would be subject to environmental review to mitigate any significant impacts to school services. Similar to the proposed project, cumulative development projects would be required to pay school impact fees, pursuant to SB 50, to reduce impacts to the school system. Therefore, the proposed project's impacts to school services would not be cumulatively considerable and would be *less than significant*.

Significance without Mitigation: Less than significant.

4.14.4 LIBRARIES

4.14.4.1 ENVIRONMENTAL SETTING

This section describes the existing regulations and conditions with regard to libraries serving Belmont, as well as the proposed project's potential impacts to libraries. Information was provided through correspondence between PlaceWorks and San Mateo County Libraries in May 2024.

Regulatory Framework

State Regulations

The Mello-Roos Community Facilities Act, Government Code Section 53311 et seq., provides an alternative method of financing certain public capital facilities and services through special taxes. This State law empowers local agencies to establish Community Facilities Districts (CFD) to levy special taxes for facilities such as libraries. The City of San Carlos does not have any CFDs in place at this time.

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to library services that are relevant to the proposed project are found in the Land Use Element and are listed in Table 4.14-4, *City of Belmont 2035 General Plan Policies Relevant to Library Services*.

TABLE 4.14-4 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO LIBRARY SERVICES

Policy Number	Policy Text
Chapter 2, Land Use Element	
Policy 2.10-2	Support continued improvements to the Belmont Library, including sustainability and "green" building enhancements, to meet the diverse needs of the Belmont community, including children, teens, and seniors.
Policy 2.11-1	Support increased collaboration and partnership with Notre Dame de Namur University on key issues such as master planning, land use, enrollment, economic development, circulation, housing, and open space.

Source: City of Belmont, 2017, *Belmont 2035 General Plan.*

San Mateo County Libraries Strategic Plan

The San Mateo County Libraries Strategic Plan sets forth a vision, mission, and goals for the libraries to encourage growth, strengthen the community, support discovery, and enrich lives.[25] The Strategic Plan lays out internal goals, including building and updating facilities, creating opportunities to deliver services beyond buildings, and providing an accessible online experience.

Existing Conditions

The San Mateo County Libraries network offers 13 libraires to residents in San Mateo County. Across San Mateo County Libraries, there were 1.5 million library visitors in FY 2023-24.[26] The primary source of funding for the San Mateo County Libraries comes from dedicated property taxes which covers staffing, collections, programs, and services, furniture, fixtures and equipment as well as other basic operational costs of the libraries.[27] Meanwhile, one-time funds support the programming that is offered throughout the library system.

As a member of the San Mateo County Libraries network, the City of Belmont has one library at 1110 Alameda de las Pulgas, approximately 1 mile southwest from the project site. Within the Belmont Library, some of the programs that are offered include bilingual story time, trivia night, and power-up afternoons that target school-aged youth.[28]

Minimum service levels are calculated based on library service population through the Library Joint Powers Authority Agreement. Base library services shall be 40 hours per week for libraries servicing less than 6,500 people, and 60 hours per week for library service populations over 6,500 people. Belmont has a library service population of 27,203, is open 60 hours per week, and has a 9.75 full-time staff equivalent.[29]

4.14.4.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant library impact if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered libraries, need for new or physically altered libraries, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for libraries.

[25] San Mateo County Libraries, 2022, Strategic Plan, https://smcl.org/strategic-plan/, accessed February 11, 2022.

[26] San Mateo County Libraries, *Open for Exploration Annual Report 2022-2023*, https://smcl.org/wp-content/uploads/sites/22/2023/09/2022-2023-Annual_Report.pdf, accessed on February 28, 2024.

[27] Foundation for San Mateo County Libraries, Mission, https://investinsmcl.org/about/, accessed on February 28, 2024.

[28] San Mateo County Libraries, Events, https://smcl.bibliocommons.com/v2/events?programs=6348363e3e38fd2f0086328b&locations=1B, accessed on February 28,2024.

[29] Rachel McDonnell (library project manager), May 13, 2024, Email correspondence with PlaceWorks, San Mateo County Libraries.

- In combination with past, present, and reasonably foreseeable projects, result in cumulative library impacts in the area.

4.14.4.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the NDNU was at full capacity. The following libraries analysis is based on demographics and therefore utilizes information gathered in 2013.

PS-7	The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered libraries, need for new or physically altered libraries, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for libraries.

The proposed project would guide renovations and revitalization on the project site to develop the Stanford Belmont Campus in a phased manner during a 30-year time frame. As the proposed project establishes the Stanford Belmont Campus for the operation of some combination of academic facilities, associated academic support uses, and housing, and it would include an expansion of on-site library services. However, housing included in the proposed project could involve family units that add to the population and would represent a slight increase in demand for library services provided at the Belmont Library. In correspondence with San Mateo County Libraries, it was noted that library staffing would need to be increased to accommodate a population increase, and that self-service library models are being explored in addition to the full-service library models.[30] However, as described in impact discussion POP-1 in Chapter 4.13, *Population and Housing*, of this Draft EIR, the proposed project would be within the growth projections of the 2035 General Plan, meaning that the estimated population growth induced from the proposed project is not unaccounted for and is not substantial enough to create direct substantial unplanned population growth. In correspondence with San Mateo County Libraries, it was identified that there are no plans to add additional library facilities in Belmont.[31] Any future planned improvements to library facilities would be subject to separate project-level environmental review to identify potential environmental impacts and mitigation measures as needed. Thus, impacts in this regard would be *less than significant*.

Significance without Mitigation: Less than significant.

[30] Rachel McDonnell (library project manager), May 13, 2024, Email correspondence with PlaceWorks, San Mateo County Libraries.

[31] Rachel McDonnell (library project manager), May 13, 2024, Email correspondence with PlaceWorks, San Mateo County Libraries.

PS-8	The proposed project would not in combination with past, present, and reasonably foreseeable projects, result in cumulative library impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, cumulative impacts to library services are considered in the context of the growth from the proposed project combined with the estimated growth in Belmont Library's service area. The proposed project would not create a need for new or physically altered facilities in order for the Belmont Library to maintain acceptable service ratios or other performance objectives for library services. As described in Chapter 4.13, *Population and Housing*, of this Draft EIR, the growth resulting from the proposed project would fit well within the growth anticipated under the 2035 General Plan. Furthermore, as applicable, future development in the area would be subject to environmental review to mitigate any significant impacts to library services. Therefore, the proposed project's impacts to library services would not be cumulatively considerable and would be *less than significant*.

Significance without Mitigation: Less than significant.

4.15 TRANSPORTATION

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential transportation impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential transportation impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

The information and analysis in this chapter is based in part on the following technical reports:

- *Stanford Belmont Campus, Conceptual Transportation Demand Management Plan*, prepared by Fehr and Peers, dated July 2023.
- *Stanford Belmont Campus, Transportation Impact Analysis*, prepared by Fehr and Peers, dated April 2024.

A complete copy of each of these reports is included in Appendix J, *Transportation*, of this Draft EIR.

4.15.1 ENVIRONMENTAL SETTING

4.15.1.1 REGULATORY FRAMEWORK

Federal Regulations

Federal Highway Administration

The Federal Highway Administration is the agency of the U.S. Department of Transportation responsible for the federally funded roadway system, including the interstate highway network and portions of the primary State highway network.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the United States Access Board, an independent federal agency created in 1973 to ensure accessibility for people with disabilities, has created accessibility guidelines for public rights-of-way. While these guidelines have not been formally adopted, they are widely followed by jurisdictions and agencies nationwide. These guidelines, last revised in July 2011, address various issues, including roadway design practices; slope and terrain issues; and pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, public transit, and other components of public rights-of-way.

State Regulations

California Complete Streets Act of 2008

Originally passed in 2008, California's Complete Streets Act (Assembly Bill [AB] 1358) took effect in 2011 and requires local jurisdictions to plan for land use transportation policies that reflect a "complete streets" approach to mobility. "Complete streets" comprises a suite of policies and street design guidelines that provide for the needs of all road users, including pedestrians, bicyclists, transit operators and riders, children, the elderly, and the disabled. From 2011 onward, any local jurisdiction—county or city—that undertakes a substantive update of the circulation element of its general plan must consider complete streets and incorporate corresponding policies and programs.

Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law.[1] The Legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the State had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas emissions (GHG), as required by the California Global Warming Solutions Act of 2006 (AB 32). Additionally, AB 1358, described above, requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users. To further the State's commitment to the goals of SB 375, AB 32, AB 1358, and SB 743 added Chapter 2.7, *Modernization of Transportation Analysis for Transit-Oriented Infill Projects*, to Division 13 (Section 21099) of the Public Resources Code.

Title 24

The State of California provides a minimum standard for building design through the California Building Code (CBC), which is Part 2 of Title 24 of the California Code of Regulations. The CBC is based on the International Building Code but has been modified for California conditions. The CBC provides fire and emergency equipment access standards in Part 9, Appendix D. These standards include specific width, grading, design, and other specifications for roads, which provide access for fire apparatuses; the CBC also indicates which areas are subject to requirements for such access. The CBC also incorporates by reference the standards of the International Fire Code. The California Fire Code (CFC) contains provisions related to emergency vehicle access, including requirements for roadway design, fire hydrants, and other relevant design features.

[1] An act to amend Sections 65088.1 and 65088.4 of the Government Code and to amend Public Resources Code Sections 21181, 21183, 21186, 21187, 21189.1, and 21189.3; add Section 21155.4; add Chapter 2.7 (commencing with Section 21099) to Division 13; add and repeal Section 21168.6.6; and repeal and add Section 21185.

Regional Regulations

Metropolitan Transportation Commission

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county Bay Area, including San Mateo County. It also functions as the federally mandated metropolitan planning organization (MPO) for the region. It is responsible for regularly updating the Regional Transportation Plan (RTP), a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities.

As previously stated, with the passage of AB 32, the State of California committed itself to reducing statewide GHG emissions. Subsequent to the adoption of AB 32, the State adopted SB 375 as the means for achieving regional transportation-related GHG targets. Among the requirements of SB 375 is the creation of a Sustainable Communities Strategy (SCS) that provides a plan for meeting regional targets. The SCS and the RTP must be consistent with one other, including action items and financing decisions. MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission.

MTC and the Association of Bay Area Governments' (ABAG) *Plan Bay Area 2050* is the Bay Area's RTP/SCS. *Plan Bay Area 2050* was prepared by MTC in partnership with ABAG, the Bay Area Air Quality Management District, and the San Francisco Bay Conservation and Development Commission, and was adopted on October 21, 2021.[2] The SCS sets a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce greenhouse gas emissions from transportation (excluding goods movement) beyond the per capita reduction targets identified by California Air Resources Board. An overarching goal of *Plan Bay Area 2050* is to concentrate development in areas where there are existing services and infrastructure rather than allocate new growth to outlying areas where substantial transportation investments would be necessary to achieve the per capita passenger VMT reductions and associated GHG reductions.

MTC has established its policy on complete streets in the Bay Area. The policy states that projects funded all or in part with regional funds must consider the accommodation of bicycle and pedestrian facilities, as described in Caltrans Deputy Directive 64. These recommendations do not replace locally adopted policies regarding transportation planning, design, and construction. Instead, these recommendations facilitate the accommodation of pedestrians, including wheelchair users, and bicyclists into all projects where bicycle and pedestrian travel is consistent with current adopted regional and local plans.

City/County Association of Governments of San Mateo County

The City/County Association of Governments (C/CAG) of San Mateo County is responsible for providing countywide transportation planning. C/CAG is also the county's designated Congestion Management Agency and is responsible for implementing the Congestion Management Program (CMP). Each CMP must

[2] Association of Bay Area Governments and the Metropolitan Transportation Commission, October 2021, *Plan Bay Area 2050*, https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf, accessed May 7, 2024.

contain several components, including traffic level-of-service standards for freeway segments and standards for CMP Monitoring Intersections on principal arterials.

The CMP requires any new project that is projected to generate at least 100 average daily trips on the CMP roadway network and that is subject to CEQA review to follow the CMP policy and guidelines. Additionally, the CMP requires most new developments that are projected to generate at least 100 average daily trips to the CMP roadway network to implement transportation demand management (TDM) measures that would reduce project impacts by reducing trips by a minimum of 35 percent. Developments categorized as Small Residential (Multi-Family) or Transit Oriented Development are subject to a lower vehicle trip reduction target of 25 percent.[3]

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to transportation that are relevant to the proposed project are found in the Circulation Element and are listed in Table 4.15-1, *City of Belmont 2035 General Plan Policies Relevant to Transportation.*

TABLE 4.15-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO TRANSPORTATION

Policy Number	Policy Text
Chapter 3, Circulation Element	
Policy 3.1-2	Make Complete Streets practices a part of Belmont's planning, design, and operation of its circulation network, acknowledging that a flexible and context sensitive approach to design will result in each roadway serving most users and the roadway network as a whole serving all users.
Policy 3.1-5	Require new development and redevelopment projects to construct or pay their fair share toward improvements for all travel modes to provide and enhance connectivity to existing transportation facilities.
Policy 3.2-3	Maintain and expand transit and active transportation networks that connect neighborhoods with key destinations to encourage travel by non-automobile modes while also improving public health.
Policy 3.2-4	Support thoughtful and appropriate land use locations and densities with development or redevelopment in Belmont that promote alternatives to travel via single-occupant vehicles.
Policy 3.2-5	Comply with the adopted Complete Streets Policy of the City of Belmont.
Policy 3.4-5	Design new roads and improvements to existing roads to minimize visual and environmental impacts.
Policy 3.4-7	Consider various means of traffic control and monitoring programs to ensure safe use of a roadway or intersection by automobiles, pedestrians, and bicyclists.
Policy 3.5-15	Ensure that new development projects provide bicycle and pedestrian improvements to facilitate the implementation of adopted Safe Routes to School plans.
Policy 3.6-2	Encourage (or require, for large employment centers with high projected trip generation rates) businesses to implement Transportation Demand Management Programs with an emphasis on connecting and sharing the service with other businesses in the city and region, such as commuter buses, carpools, and other forms of private transit, especially in conjunction with major new industrial or commercial development.

[3] City/County Association of Governments of San Mateo County, 2021, *Transportation Demand Management Policy Update Approach*, https://ccag.ca.gov/wp-content/uploads/2021/03/CCAG_TDM-Policy-Update-Approach-Document_Draft_Abridged_3-24-2021_v10b.pdf, accessed March 17, 2022.

TABLE 4.15-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO TRANSPORTATION

Policy Number	Policy Text
Policy 3.6-4	Ensure that major new development is adequately served by transit.
Policy 3.7-4	Design streets and rights-of-way to accommodate and support safe and efficient bus operations.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to transportation. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to transportation are included in Chapter 17, *Planning*. Chapter 17, Article III, Division 1, *General Provisions and Definitions*, of the BCC establishes impact fees imposed upon development projects for the purpose of mitigating the detrimental impacts of development projects upon the need for certain capital improvements. The fees shall be imposed based on specified capital improvement categories, which may include, without limitation, fees for transportation improvements, park land and facilities, police and fire facilities, affordable housing, and other capital improvements.

For residential buildings constructed under the proposed project, Stanford University will be required to pay transportation impact fees based on the City's fee requirement for multi-family housing units. For non-residential buildings constructed under the proposed project, Stanford University has agreed, as part of the Development Agreement (DA), to pay fees based on the City's requirement for office development.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.15.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

City of Belmont VMT Policy

The City of Belmont adopted a policy in February 2021 to comply with SB 743 and CEQA requirements to establish VMT as the metric used to determine the CEQA-related transportation impacts of new development and transportation projects. The policy establishes the VMT threshold for new development to be 15 percent below the countywide average. Before or after mitigation measures such as TDM tools, projects that generate a level of VMT that is 15 percent below the San Mateo County average are considered to have no transportation impact under CEQA.

Transportation Demand Management Program

The City of Belmont's TDM Program is intended to help address the transportation-related impacts of new development by requiring projects to provide features and amenities that will foster a better pedestrian/bicycle environment, support transit, and make it easier and more appealing for residents, employees, and visitors to use alternatives to driving or driving alone.[4] All proposed development projects must demonstrate compliance with the City's TDM program by submitting a completed TDM application form along with all other applicable development or building permit forms. The City uses a point-based system to evaluate TDM applications; TDM measures must be shown to achieve a 15 percent reduction in per capita VMT using the City's TDM program guidelines. TDM submissions are subject to review and approval by the Department of Public Works.

Complete Streets Policy

The City of Belmont adopted the Complete Streets Policy in January 2013, expressing its commitment to creating and maintaining complete streets that provide safe, comfortable, and convenient travel along and across streets.[5] The Complete Streets Policy supports a comprehensive, integrated transportation network that serves all categories of users.

Comprehensive Pedestrian and Bicycle Plan

Prepared in November 2016 and consistent with the City's Complete Streets Policy, the goal of the City of Belmont's Comprehensive Pedestrian and Bicycle Plan is to create a safe, comfortable, and pedestrian-friendly environment that will encourage people of all ages to bike or walk. The plan was prepared in order to support adopted citywide, regional, and State goals related to the provision of complete streets; assess pedestrian and bicycle conditions on a citywide basis; identify key deficiencies and prioritize projects where safety and mode switch are encouraged; guide the City's future investments in pedestrian and bicycle facilities; provide the City with a strategic resource that aids in developing citywide pedestrian and bicycle networks; and employ a strategic approach for improving nonmotorized transportation in Belmont.

Ralston Avenue Corridor Study and Improvement Plan

The goal of the Ralston Avenue Corridor Study Project is to determine the adequacy of the corridor for multimodal use by evaluating the ability to accommodate pedestrians, bicyclists, transit riders, and motorists under existing and projected future conditions and to develop context-sensitive transportation alternatives to improve conditions for all users along the corridor. As a key community corridor, each segment of Ralston Avenue was reviewed for improvement to the walking, bicycling, and driving environment. Potential alternatives were presented to the community for review and determination of preference and specific improvements are recommended. The Ralston Avenue Corridor Study and

[4] City of Belmont, *Transportation Demand Management Program Report and Guidebook*, https://www.belmont.gov/home/showdocument?id=20121, accessed March 21, 2024.

[5] City of Belmont, January 8, 2013, *Resolution of the City Council Adopting a Complete Streets Policy*, https://belmont-ca.granicus.com/MetaViewer.php?view_id=1&clip_id=367&meta_id=20835, accessed March 21, 2024.

Improvement Plan includes two recommended improvement measures near the project site that have not yet been implemented: a roundabout at the Ralston Avenue/Laxague Drive/Entry Drive intersection, and a traffic signal at the Ralston Avenue/Notre Dame Avenue intersection. The Ralston Avenue Corridor Study and Improvement Plan also identifies that if a roundabout is not constructed at the Ralston Avenue/Laxague Drive/Entry Drive intersection, other traffic control measures in the vicinity may be needed.

Final designs for a future roundabout have not yet been prepared, and its precise location has not been determined. Preliminary plans developed by the City following the Ralston Avenue Corridor Study and Improvement Plan indicate that, if constructed, the roundabout would be located at either the Ralston Avenue/Chula Vista Drive intersection or the Ralston Avenue/Laxague Drive/Entry Drive intersection.

City of Belmont Local Roadway Safety Plan

Drafted in March 2024, the City of Belmont Local Roadway Safety Plan has a vision to eliminate all traffic fatalities and reduce the number of nonfatal crashes by 50 percent by 2040. To accomplish this vision, the City has developed policies, plans, guidelines, and standards and identified emphasis areas. Out of the priority locations analyzed, the intersection at Notre Dame Ave and Ralston Ave was ranked 35th.[6]

4.15.1.2 EXISTING CONDITIONS

Roadway Network

Regional Access

The following roadways provide regional access in the vicinity of the project site:

- U.S. Highway 101 (Highway 101) is a ten-lane, north-south freeway that provides the primary connection between San Francisco, San Jose, and Peninsula communities. Highway 101 is the nearest freeway to the project site, and access is provided approximately 1 mile northeast via Ralston Avenue.
- Interstate 280 (I-280) is a ten-lane, north-south freeway that connects San Francisco and San Jose. I-280 functions as an alternative route to Highway 101 while providing access to the Peninsula's western foothill communities. Access to I-280 is provided approximately 3.3 miles south of the project site via Edgewood Road.
- State Route 92 (SR 92) is a four- to six-lane, east-west freeway that connects Belmont and San Mateo with Foster City, Half Moon Bay, and the East Bay, via the San Mateo Bridge. Access to and from SR 92 is provided approximately 2.4 miles west of the project site via Ralston Avenue.
- El Camino Real / State Route 82 (SR 82) is a four-lane arterial that runs north-south through Belmont, providing connections to San Mateo, San Carlos, and other cities throughout the Peninsula. SR 82 is the nearest freeway to the project site, and access is provided approximately 0.5 miles northeast via Ralston Avenue.

[6] City of Belmont, Draft 2024, *Local Roadway Safety Plan*, https://ccag.ca.gov/wp-content/uploads/2024/04/28717_CCAG-Countywide-LRSP-Belmont-Chapter.pdf, accessed June 19, 2024.

Local Access

The project site is located along Ralston Avenue, the primary east-west arterial within Belmont. Ralston Avenue connects Highway 101 and SR 92 via a span of approximately 3.8 miles. Ralston Avenue has four travel lanes west of Alameda de las Pulgas and east of South Road but is reduced to two travel lanes and a center left turn lane adjacent to the project site due to right-of-way and topography constraints. Access to the project site is provided via Entry Drive at Ralston Avenue. The intersection of Ralston Avenue/Entry Drive is a side-street stop-controlled intersection. Entry Drive immediately intersects Laxague Drive to the north of the Ralston Avenue/Entry Drive intersection; Entry Drive continues uphill to the main campus area, while Laxague Drive circles the southern edge of the campus area. Laxague Drive has an indirect connection to Notre Dame Avenue via the Notre Dame Elementary School parking lot, but this driveway is primarily used for elementary school travel due to its narrow width and circuitous approach to the project site.

Ralston Avenue serves about 22,000 vehicles per day in the vicinity of the project site with balanced eastbound and westbound volumes, based on counts conducted in January 2023. Traffic volumes are highest in both directions in the morning when school drop-offs and commuting overlap. During the morning peak hour between 7:30 am and 8:30 am, Ralston Avenue serves about 1,200 westbound and 1,100 eastbound vehicles near the project entrance. A second extended peak period occurs in the afternoon and evening between approximately 2:00 pm and 6:30 pm, with the highest volumes occurring between 3:00 PM and 4:00 PM (about 1,100 westbound and 1,000 eastbound vehicles).

The following are other roadways in the vicinity of the project site:

- South Road is a two-lane street immediately to the east of the project site entrance that provides connections to residential land uses. The intersection of Ralston Avenue/South Road is the closest traffic signal to the project site.
- Notre Dame Avenue is a two-lane street immediately to the west of the project site entrance, and has a side-street controlled intersection with Ralston Avenue. Notre Dame Avenue is the primary access point to Notre Dame Elementary School.
- Alameda de las Pulgas is a two- to four-lane, north-south arterial west of the project site that provides connections to neighboring cities. Alameda de las Pulgas is signalized at Ralston Avenue.
- Chula Vista Drive is a two-lane, east-west collector that connects Ralston Avenue and Alameda de las Pulgas for vehicles traveling to the south of the project site. Chula Vista Drive is a side-street controlled intersection with Ralston Avenue.

Transit Service

Rail Service

Caltrain provides passenger rail service on the Peninsula between San Francisco and San Jose, and limited service to Morgan Hill and Gilroy during weekday commute periods. The Belmont Caltrain Station is located approximately 0.5 miles to the east of the project site. On weekdays, the station is served by local and limited trains from around 5:15 am to 12:45 am, with approximately 30-minute frequencies during

peak periods and 60-minute frequencies during off-peak periods. Caltrain provides connections to Stanford University's main campus near Palo Alto Station and its Redwood City campus near Redwood City Station. Caltrain also connects to other transit providers such as Bay Area Rapid Transit (BART), San Francisco Municipal Transportation Agency (Muni), and Santa Clara Valley Transportation Authority (VTA). In 2024, Caltrain expects to complete its electrification project to enable the operation of faster and more frequent rail service on the Peninsula.

Bus Service

SamTrans is the bus service provider in San Mateo County. Seven SamTrans routes operate near the project site:

- Route ECR connects Daly City and Palo Alto via South San Francisco, San Bruno, Millbrae, Burlingame, San Mateo, Belmont, San Carlos, Redwood City, Atherton, and Menlo Park. Route ECR provides service every 15 minutes throughout most of the day on weekdays; frequencies are 30 minutes after 8:00 pm and 20 minutes on weekends. Route ECR operates on El Camino Real and stops at the El Camino Real/Ralston Avenue intersection about 0.5 miles from the project site.
- Route 260 connects the College of San Mateo and San Carlos Caltrain Station via Belmont, the Belmont Caltrain Station, and Redwood Shores. Route 260 provides hourly weekday service approximately between the hours of 6:30 am and 6:30 pm near the project site, and hourly Saturday service approximately between the hours of 9:00 am and 8:00 pm. Route 260 operates on Ralston Avenue and stops near the project site entrance.
- Route 295 connects San Mateo and Redwood City via Alameda de las Pulgas, passing through Belmont and San Carlos. Route 295 operates every two hours approximately between the hours of 6:30 am and 6:30 pm near the project site. Route 295 stops at the intersection of Alameda de las Pulgas and Ralston Avenue about 0.75 miles from the project site.
- Routes 60, 62, 67, and 68 are school-oriented routes that operate on the Ralston Avenue corridor. These services are tailored to serving Ralston Middle School, Carlmont High School, and several private schools, including Norte Dame High School. Service hours are limited and directly connected to school hours with one or three trips in each peak period.

Bicycle and Pedestrian Network

Ralston Avenue includes Class II bike lanes and sidewalks on either side of the street that are approximately five feet wide. The City recently completed various bicycle and pedestrian improvements identified in the Ralston Avenue Corridor Study and Improvement Plan, including bike lane and sidewalk gap closures, crosswalk improvements, and other traffic calming measures. Additionally, the City of Belmont completed a Capital Improvement Program (CIP) for fiscal year 2025. Projects nearby the project site within the CIP include the Ralston Avenue Adaptive Signalization project, the Ralston Corridor Study Improvements Segments 3 and 4, and Ralston Circulation and Safety project.[7]

[7] City of Belmont, *Capital Improvement Program*, https://legistarweb-production.s3.amazonaws.com/uploads/attachment/pdf/2650464/2_-_FY25_COB_CIP.pdf, accessed June 20, 2024.

To access the Belmont Caltrain Station and other destinations to the east, bicyclists from the project site start on Ralston Avenue and switch to Emmett Avenue via a short Class I trail connecting to Ralston Avenue. The Emmet Avenue bikeway continues across El Camino Real via a pedestrian hybrid beacon signal, meanders through the Caltrain Station, and then connects to Masonic Way and a bicycle and pedestrian bridge across Highway 101. This route provides connections to Redwood Shores, Foster City, eastern San Mateo, and the Bay Trail, while bicyclists may also turn onto other north-south routes to access other Peninsula destinations.

Ralston Avenue provides continuous sidewalks on both sides of the street near the project site. The nearest marked crosswalks are located 500 feet to the east and 600 feet to the west, both of which include rapid-rectangular flashing beacons. There are presently no marked crosswalks at the project site entrance. Beyond Ralston Avenue, Notre Dame Avenue includes Class III sharrows and a sidewalk, and Alameda de las Pulgas includes Class II bike lanes between Carlmont High School and Carlmont Village Shopping Center.

Emergency Vehicle Access

The street network serving the project area accommodates the movement of emergency vehicles to the project site. In the event of an emergency, emergency vehicles can access the project site via Ralston Avenue.

4.15.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant transportation impact if it would:

1. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
2. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b).
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
4. Result in inadequate emergency access.
5. In combination with past, present, and reasonably foreseeable projects, result in cumulative transportation impacts in the area.

4.15.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the NDNU was at full capacity. The following transportation analysis is based on occupancy and therefore utilizes information gathered in 2013.

TRAN-1	The proposed project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Transportation Demand Management

The CMP addresses management of the transportation system, and TDMs would serve to reduce impacts to the transportation system. Therefore, the proposed project would not result in a significant impact if it does not conflict with the C/CAG CMP and the City's TDM program. The C/CAG CMP requires new developments that are projected to add at least 100 average daily trips to the roadway network to implement TDM measures that would reduce project impacts by reducing trips by a minimum of 35 percent. Developments categorized as Small Residential (Multi-Family) or Transit Oriented Development are subject to a lower vehicle trip reduction target of 25 percent. The City also requires all proposed development projects to demonstrate compliance with the City's TDM program by submitting a completed TDM application form along with all other applicable development or building permit forms. The proposed project would be required to implement the City's following standard condition related to TDM:

- The applicant shall demonstrate compliance with both the C/CAG and the City of Belmont's TDM programs by submitting a completed TDM application form (available on the City website) which will be subject to review and approval by the Department of Public Works. The applicant shall implement the TDM program as described in the approved TDM Plan. The applicant shall submit an annual TDM compliance report and pay a TDM review fee, as specified in the City's Master Fee Schedule. In addition, the following is required:

  a) The Applicant, using the adopted TDM program, shall provide a tally of how many points and under which categories the project will be achieving TDM measures.

  b) The Applicant shall implement the TDM measures identified in the final approved Traffic Impact Analysis. The applicant shall submit an annual TDM compliance report and pay a TDM review fee, as specified in the City's Master Fee Schedule.

  c) The TDM program shall be evaluated annually to assess the actual level of trip reduction achieved at the site and to identify any adjustments to the program necessary to ensure the TDM measures are successful. Consistent with common traffic engineering data collection principles, trip generation shall be monitored annually by means of AM and PM commute hour driveway counts. The counts shall be conducted between 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM one day per year on a typical weekday (Tuesday, Wednesday, or Thursday) during the fall when school is in session. Mechanical tube counts, hand counts, or video counts may be used. The peak 60-minute period should be calculated for each two-hour traffic count period.

  d) An annual resident survey should be conducted to determine transportation mode choice (i.e., drive alone, carpool, bus, Caltrain, etc.). The site TDM coordinator shall work with an independent consultant to obtain traffic count data, implement the annual commuter surveys and document the results in a TDM monitoring report.

e) The annual monitoring report shall be submitted to the Public Works Director or citywide Transportation Management Association by the TDM coordinator. The data shall be reviewed by the City to assess whether the goal of a 15 percent trip reduction is being met.

f) In addition to the annual monitoring reports, a five-year review shall be conducted to evaluate the overall effectiveness of the TDM measures. If the city determines that the trip reduction goal is not being achieved, additional TDM measures may be implemented. Modifications to the TDM plan may include additional programs or services listed in the City of Belmont's TDM program or otherwise available for achieving vehicle trip reductions.

g) The annual TDM monitoring report shall describe any planned modifications to the TDM program intended to ensure compliance with the trip reduction targets established for this project.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal, and would also be required to demonstrate TDM program compliance.

The proposed project would implement a TDM program (see Appendix J, *Transportation*, of this Draft EIR) that meets the requirements required by the C/CAG and the City. The TDM plan details the proposed project's implementation and monitoring approach for a range of TDM measures for commuters and residents, including:

- A pedestrian-oriented campus design that provides a walkable environment within the campus
- End-of-trip bicycle facilities including secure bicycle parking, showers, and lockers
- A ridesharing program to promote carpooling and vanpooling
- A first/last-mile shuttle service connecting the project site to the Belmont Caltrain station during peak commute train service[8]
- A trip reduction marketing program that includes a TDM coordinator, pre-tax and subsidized transit benefits, and participation in Commute.org, a carpool/vanpool program
- Encouraging telecommuting

These TDM measures would achieve a 40-percent trip reduction under C/CAG's CMP guidelines (exceeding the minimum of 35 percent) and 36.5 points under the City's TDM program (exceeding the minimum of 18 points). Using the California Air Pollution Control Officers Association's (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, the proposed TDM measures are expected to achieve a VMT reduction of 19.2 percent for home-based work VMT per employee compared to the proposed project's VMT if no TDM measures were incorporated. The proposed project would be required to submit annual compliance surveys for the first five years; if it is found to be in compliance during this period, the City may determine that the proposed project can switch to biennial compliance reporting. If the proposed project is found to

[8] The first/last mile shuttle service would be implemented after the campus reaches a total population of 750 students, faculty, and staff (the approximate point at which ridership demand would warrant a shuttle). The project would rely on SamTrans Route 260 to provide first/last mile connections until this population threshold is reached.

be out of compliance, the TDM program would have to be adjusted. Through compliance with the C/CAG and City TDM requirements, the proposed project would not conflict with a program, plan, or policy addressing the roadway network.

Transit Service

General Plan Policy 3.2-3, Policy 3.6-4, and Policy 3.7-4 require major new development to be adequately and safely served by transit to encourage travel by non-automobile modes. The proposed TDM program includes a first- and last-mile shuttle service that would commence once the proposed Stanford Belmont Campus has reached an on-site population of 750 students, faculty, and staff. Shuttles exiting the project site would connect with the Belmont Caltrain Station, enabling first- and last-mile travel between the Belmont Caltrain station and the campus. Through these measures, the proposed project would not conflict with a program, plan, or policy addressing the transit facilities.

Bicycle and Pedestrian Facilities

The City of Belmont's Comprehensive Pedestrian and Bicycle Plan and General Plan Policy 3.4-7 and Policy 3.5-15 encourage a safe, comfortable, and pedestrian-friendly environment to encourage people of all ages to bike or walk. The proposed TDM Plan supports a pedestrian- and bicycle-friendly campus through a pedestrian-oriented campus design and end-of-trip bicycle facilities, including secure bicycle parking, showers, and lockers. As illustrated in Figure 3-6, *Proposed Bicycle and Pedestrian Circulation*, in Chapter 3, *Project Description*, of this Draft EIR, the proposed project includes two pedestrian corridors that would provide north-south and east-west connections as well as bicycle routes along internal streets and service routes around the perimeter of the project site. The proposed bicycle circulation would provide connection to the Class II bike lane on Ralston Avenue, but the proposed pedestrian circulation would not provide any new pedestrian facilities or access points to improve connectivity with off-site sidewalks. While the pedestrian connectivity at the northern end of the project site is not feasible due to terrain, pedestrian connectivity to Ralston Avenue should be established to encourage people to walk to and from the project site, pursuant to City plans and policies. Therefore, the proposed project would conflict with the Comprehensive Pedestrian and Bicycle Plan and General Plan Policy 3.4-7 and Policy 3.5-15 and result in a *significant* impact.

Summary

The proposed project would not conflict with the City's transportation plans for Ralston Avenue and the surrounding street network. The proposed project's TDM program to reduce trips by 40 percent, exceeding the requirements of the C/CAG's CMP, and includes a first/last-mile shuttle service. The proposed project does not include any features that would hinder or prevent implementation of the alternatives identified in the Ralston Avenue Corridor Study for potential improvements to the Ralston Avenue/Entry Drive intersection, or otherwise exhibit inconsistencies with the City's transportation plans. The proposed project would provide multimodal circulation improvements within the proposed Stanford Belmont Campus, consistent with goals and policies identified in the General Plan and Comprehensive Bicycle and Pedestrian Plan, and seeks to improve connections to existing walkable connections to the project site. Stanford will work with the City and commit to contributing to improvements to the Ralston Avenue/campus entrance intersection to improve existing congestion on Ralston Avenue at the first phase

of new development. However, the proposed CDP does not specify the concepts to improve connectivity with off-site pedestrian facilities to encourage people to walk to and from the proposed Stanford Belmont Campus. Therefore, the proposed project would not be consistent with programs, plans, ordinances, and policies addressing pedestrian systems, and impacts would be *significant*.

Impact TRAN-1: The proposed project would conflict with General Plan Policy 3.2-3 and the goal of the Comprehensive Bicycle and Pedestrian Plan to provide a continuous network of pedestrian facilities that connects neighborhoods with key destinations and transit stops.

> Mitigation Measure TRAN-1: Prior to the issuance of building permits for new or expanded buildings, the bicycle and pedestrian circulation plan shall be revised to provide pedestrian facilities that enhance connectivity from key points on the proposed Stanford Belmont Campus to Ralston Avenue. The revised plan shall be submitted to the City of Belmont for review and approval.
>
> Significance with Mitigation: Less than significant.

TRAN-2 The proposed project would not conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b).

This discussion analyzes the proposed project's VMT using the C/CAG Travel Demand Model and considers whether the project would achieve a 15 percent reduction from the countywide average VMT, as required by the City's VMT policy. C/CAG's model is a four-step travel demand model optimized for San Mateo County. For this analysis, the base year model was updated to reflect the 2013 full occupancy condition for Notre Dame de Namur University within the applicable transportation analysis zone (TAZ), including updates to the population, employment, and college student enrollment. The proposed project was analyzed by updating these characteristics to reflect the project description. After subtracting VMT associated with residents of the TAZ affiliated with neither Notre Dame de Namur University nor the proposed project, the difference between the base year and proposed project model runs was used to identify change in VMT. A 19.2 percent VMT reduction was applied to the project to reflect the effects of its TDM program using CAPCOA's *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*.

Table 4.15-2, *Proposed Project VMT Analysis*, illustrates the proposed project's effects on VMT in relation to the countywide average. Three metrics are presented: home-based VMT per resident, which measures VMT associated with estimated project residents; home-based work VMT per employee, which measures VMT associated with estimated project employee commute travel, and VMT per service population, which measures VMT generated by the proposed project's estimated total population of residents, employees, and nonresident student commuters.

TABLE 4.15-2 PROPOSED PROJECT VMT ANALYSIS

Scenario	Home-Based VMT per Resident	Home-Based Work VMT per Employee	VMT per Service Population
Project VMT [a]	4.4	11.5	12.0
Countywide Average	12.6	16.3	28.9
Threshold of Significance (15 percent below Countywide Average)	10.7	13.8	24.5
Exceeds Threshold?	**No**	**No**	**No**

Notes: VMT = vehicle miles traveled; TDM = transportation demand management
a. Project VMT takes into account implementation of the proposed TDM program.
Source: Fehr and Peers, 2023; C/CAG-VTA Bi-County Transportation Demand Model, 2023.

As illustrated in Table 4.15-2, the proposed project inclusive of its TDM program would generate 12.0 VMT per service population, 4.4 home-based VMT per resident, and 11.5 home-based work VMT per employee. Under each metric, VMT generated by the proposed project would be more than 15 percent below the countywide average. Therefore, the proposed project would result in a *less-than-significant* impact related to VMT.

Significance without Mitigation: Less than significant.

TRAN-3 The proposed project could substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

As shown in Figure 3-5, *Proposed Private Street and Parking Locations*, in Chapter 3, *Project Description*, of this Draft EIR, vehicle access would be provided via Entry Drive at Ralston Avenue. Entry Drive would connect to the main academic areas at the campus plateau as well as on-campus parking areas. A realigned Laxague Drive would intersect Entry Drive approximately 220 feet to the north of its existing connection to correct an existing inefficiency at the intersection. Pass-through traffic associated with Notre Dame Elementary School and Sisters of Notre Dame Province Center would be maintained.

Bicycle and pedestrian access would primarily occur via Entry Drive from Ralston Avenue, as illustrated on Figure 3-6, *Proposed Bicycle and Pedestrian Circulation*, in Chapter 3, *Project Description*, of this Draft EIR. The conceptual site plan includes two pedestrian corridors that would provide north-south and east-west connections and bicycle routes along internal streets and service routes around the campus perimeter.

Service routes would be provided around the periphery of the project site (see Figure 3-7, *Proposed Service Routes*, in Chapter 3, *Project Description*, of this Draft EIR). Restricted, limited-use service access would be provided within the main academic campus. All service vehicles would use Entry Drive to access the campus.

Although the site circulation plans prepared for the proposed project are conceptual at this stage, future vehicle, bicycle, and pedestrian circulation facility improvements would be designed to applicable

engineering standards and City permitting review procedures. In addition, the proposed project would be required to implement the City's following standard condition related to hazardous design features:

> Submittal of a Traffic Impact Analysis (TIA), which is peer reviewed by a consultant working for the City, in consultation with the Department of Public Works. The TIA/Peer Review includes a circulation and safety evaluation of the street improvements (line of sight, curve radii, etc.), and the internal circulation of any proposed parking areas/garages and driveway areas. This evaluation also includes the circulation patterns for loading zones and trash and recycling pickups.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Therefore, future vehicle, bicycle, and pedestrian circulation facility improvements can be expected not to substantially increase hazards and the impact is *less than significant*.

Significance without Mitigation: Less than significant.

TRAN-4 The proposed project could result in inadequate emergency access.

Emergency vehicle access would be provided for all campus buildings consistent with the CFC. Existing access routes to the project site would not be removed. However, construction activities under the proposed project may result in temporary road closures. Potential future development under the proposed project would be required to implement the City's following standard condition related to traffic control during construction and emergency access:

- Prior to issuance of a building or grading permit, the Applicant shall prepare a construction management plan (CMP) for review and approval by the Public Works Department in consultation with the Community Development Department and Police Department. For properties located at or in close proximity to the City borders, the plan shall be routed to adjacent jurisdictions. The CMP shall include a response to construction-related conditions and requirements identified by reviewing City departments, and outside agencies for inclusion in the Plan. The plan shall include at least the following items:

  a) Schedule: A project construction schedule shall be provided that includes the approximate date and expected time frame for each stage of construction. At minimum, the schedule shall include:

     - Excavation & Shoring (as applicable)
     - Below Grade & Foundation Construction
     - Above Grade Construction & Framing
     - Exterior & Interior Finish Work
     - Public Frontage Improvements
     - Offsite & Utility Improvements

b) Site & Logistics Plan: Site and logistics plan(s) shall be provided for each phase of project construction. Said plan(s) shall include:

- Location of Construction Fencing & Access Control for The Site
- Proposed Circulation Pattern, including Access & Egress, for Each Phase of Construction
- Location of Dewatering Tanks, Construction Trailer, Temporary Power Pole, & Restrooms
- Erosion & Dust Control Plans
- Security & Lighting Plans
- Location of Construction Staging Areas for Materials, Equipment, & Vehicles
- Crane Plane (Location, Height, & Radius), as applicable
- Construction Worker Parking

c) Traffic Control Plan: Routes for construction-related traffic (hauling, deliveries, works, etc.) shall be identified in consultation with the Department of Public Works. Grading, hauling, and construction delivery traffic shall be timed to avoid peak hour school and work commute traffic. The CMP shall identify the maximum size of construction equipment/trucks during construction, expected temporary street closure, the use of flag personnel during construction, and the location of construction worker parking/car-pooling. Comprehensive traffic control measures shall be identified, including: any required detour signage, lane closures, and sidewalk closures. A 24 Hour Written notice must be given to the Public Works and Police Departments prior to lane closures. Trained flag persons shall be positioned at both ends of blocked traffic lanes to ensure safe movement of vehicles, and pedestrians. The proposed traffic control plan may require review by a traffic engineer, to ensure an adequate intersection/driveway turning radius would be provided for large vehicles, and/or when other large projects are in construction at the same time.

d) Noticing: The CMP shall include notice to property owners within 300 feet of the project site two weeks prior to grading, and identification of haul route(s) and staging area for the project. The notice shall also include a process for responding to, and tracking, complaints pertaining to construction activity, including identification of an on-site complaint manager. 24-hour advance written notice shall also be provided to adjacent property owners, adjacent businesses, and Public Works and Police Department personnel prior to all major deliveries, detours, and lane closures.

e) Road Conditions: Documentation of road pavement conditions shall be provided to the Public Works Department for all routes that will be used by construction vehicles, both before and after project construction. Roads found to have been damaged by construction vehicles shall be repaired as required by current City pavement restoration standards, or as otherwise directed by the City Engineer.

f) Response to CMP Conditions: A response shall be provided to CMP conditions from other City departments, and outside agencies.

- Street widening, improvements, and dedications shall be in accordance with City Standards and specifications as required by the Department of Public Works.
- Streets, sidewalks, and curbs in need of repair within and bordering the project shall be repaired and/or removed and replaced in accordance with the Department of Public Works approved standards. Photographs or video of before condition are recommended.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

As shown on Figure 3-8, *Proposed Emergency Access*, in Chapter 3, *Project Description*, of this Draft EIR, emergency vehicle access would be provided via Ralston Avenue, with secondary access locations to be determined via access agreements with neighboring property owners. As new development occurs, Stanford University would seek to establish secondary emergency vehicle access routes through neighboring properties via Notre Dame Avenue and/or Folger Drive to connect to Laxague Drive and the campus plateau. Access agreements with neighboring property owners would be developed to facilitate improved emergency vehicle access compared to existing conditions. However, because access agreements are not already established and not guaranteed, the proposed project has the potential to result in *significant* impacts to emergency access.

Impact TRAN-4: The proposed project could result in inadequate emergency access if secondary emergency access is not provided.

> Mitigation Measure TRAN-4: Prior to the issuance of building permits for new or expanded buildings, the San Mateo Consolidated Fire Department shall confirm that adequate emergency access and egress exists and that site plans comply with applicable State and local codes in effect at the time of permit application submittal.
>
> Significance with Mitigation: Less than significant.

TRAN-5 The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative transportation impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, the analysis of the proposed project addresses cumulative impacts to the transportation network in the context of the region. The proposed project would not conflict CEQA Guidelines § 15064.3, subdivision (b) or increase hazards due to geometric design features or incompatible uses. With implementation of Mitigation Measure TRAN-1 and Mitigation Measure TRAN-4, the proposed project would also not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, or result in inadequate emergency access, respectively.

The City is considering the installation of a modern roundabout at either the Ralston Avenue/Laxague Drive/Entry Drive intersection or the Ralston Avenue/Chula Vista Drive intersection. The Ralston Avenue Corridor Study and Improvement Plan also identifies that if a roundabout is not constructed, other traffic control measures in the vicinity may be needed. Final designs for a future roundabout have not yet been prepared, and its precise location has not been determined. Due to the unknown location and design of a potential future roundabout at or near the project site, it would be speculative to assess the potential

geometric hazards that could be associated with the final design. However, any future roadway improvements implemented by the City or implemented on the project site for connectivity to future Ralston Avenue corridor improvements would be subject to applicable engineering standards and City permitting review procedures.

Furthermore, any other future development in the area would be subject to environmental review, as applicable, to mitigate any significant transportation impacts. Cumulative development projects would be subject to the General Plan regulations regarding vehicle trip reduction and alternative modes of transportation, as well as applicable impact fees for transportation improvements required by the BCC. Therefore, transportation impacts of the proposed project would not be cumulatively considerable, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

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4.16 TRIBAL CULTURAL RESOURCES

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential tribal cultural resources impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential tribal cultural resource impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

The analysis in this section is based in part on the following technical studies:

- *Cultural Resources Services: CEQA Level Archaeological Resources Assessment Belmont Notre Dame de Namur Campus*, Basin Research Associates, May 2023
- *Appendix to Archaeological Assessment Report, Notre Dame de Namur University Campus*, Stanford University Heritage Services, revised May 2024

Due to the confidentiality of some of the data in the above reports, these studies have been redacted in Appendix E, *Cultural and Tribal Resources*. The full cultural resources studies are available for review by qualified professionals at the City of Belmont Community Development Department.

4.16.1 ENVIRONMENTAL SETTING

4.16.1.1 REGULATORY FRAMEWORK

Federal Regulations

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (United States Code, Title 16, Sections 470aa–mm) became law on October 31, 1979, and has been amended four times. It regulates the protection of archaeological resources and sites that are on federal and Indian lands.

Native American Graves Protection and Repatriation Act

Native American Graves Protection and Repatriation Act, Title 25, United States Code (1990), defines "cultural items," "sacred objects," and "objects of cultural patrimony"; establishes an ownership hierarchy; provides for review; allows excavation of human remains; stipulates return of the remains according to ownership; sets penalties for violations; calls for inventories; and provides for return of specified cultural items.

State Regulations

California Public Resources Code

Archaeological resources are protected pursuant to a wide variety of State policies and regulations enumerated under the California Public Resources Code. Cultural resources are recognized as a

nonrenewable resource and therefore receive protection under the California Public Resources Code (PRC) and CEQA.

PRC Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the Native American Heritage Commission (NAHC); require that descendants be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.

California Health and Safety Code

The discovery of human remains is regulated by California Health and Safety Code Section 7050.5, which states that:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation…until the coroner…has determined…that the remains are not subject to…provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible…. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and…has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

California Senate Bill 18

California Government Code Sections 65352.3 through 65352.5, formerly known as Senate Bill (SB) 18, states that, prior to the adoption or amendment of a city or county's general plan, or specific plans, the city or county shall consult with California Native American tribes that are on the contact list maintained by the NAHC. The intent of this legislation is to preserve or mitigate impacts on places, features, and objects, as defined in PRC 5097.9 and PRC 5097.993, that are within the city or county's jurisdiction. The bill also states that the city or county shall protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects identified by Native American consultation. Government Code 65362.3 to 65352.5 applies to all general and specific plans and amendments proposed after March 1, 2005.

Assembly Bill 52

Assembly Bill (AB) 52, the Native American Historic Resource Protection Act, sets forth a proactive approach intended to reduce the potential for delay and conflicts between Native American and development interests. Projects subject to AB 52 are those that file a notice of preparation for an EIR or notice of intent to adopt a negative or mitigated negative declaration on or after July 1, 2016. AB 52 adds tribal cultural resources to the specific cultural resources protected under CEQA. Under AB 52, a tribal cultural resource is defined as a site, feature, place, cultural landscape (must be geographically defined in terms of size and scope), sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register or included in a local register of

historical resources. A Native American Tribe or the lead agency, supported by substantial evidence, may choose at its discretion to treat a resource as a tribal cultural resource. AB 52 also mandates lead agencies to consult with tribes, if requested by the tribe, and sets the principles for conducting and concluding consultation.

Government Code Section 65092

When there is a public hearing, a notice will be sent 10 days in advance to any Native American tribes who are on the contact list and filed a written request for notice. The contact list is maintained by the Native American Heritage Commission.

Local Regulations

City of Belmont 2035 General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to tribal cultural resources that are relevant to the proposed project are found in the Conservation Element and are listed in Table 4.16-1, *City of Belmont 2035 General Plan Policies Relevant to Tribal Cultural Resources*.

TABLE 4.16-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO TRIBAL CULTURAL RESOURCES

Policy Number	Policy Text
Chapter 5, Conservation Element	
Goal 5.12	Preserve and protect areas and sites of prehistoric, cultural, and archaeological significance.
Policy 5.12-1	Ensure that development avoids potential impacts to sites suspected of being archeologically, paleontologically, or culturally significant, tribal or otherwise, or of concern by requiring appropriate and feasible mitigation.
Action 5.12-1a	Establish guidelines and mitigation programs when sites of archaeological, paleontological, and/or cultural concern, tribal or otherwise, would be disturbed by development, including: ▪ Requiring a records review for development proposed in areas that are considered archaeologically or paleontologically sensitive; ▪ Determining the potential effects of development and construction on archaeological or paleontological resources (as required by CEQA); ▪ Requiring pre-construction surveys and monitoring during any ground disturbance for all development in areas of historical and archaeological sensitivity; and, ▪ Implementing appropriate measures to avoid the identified impacts, as conditions of project approval.
Policy 5.12-2	If cultural, archaeological, paleontological, or cultural resources, tribal or otherwise, are discovered during construction, grading activity in the immediate area shall cease and materials and their surroundings shall not be altered or collected until evaluation by a qualified professional is completed. ▪ A qualified archaeologist or paleontologist must make an immediate evaluation and avoidance measures or appropriate mitigation should be completed, according to CEQA Guidelines. ▪ Use the State Office of Historic Preservation's recommendations for the preparation of Archaeological Resource Management Reports as guidelines.

Source: City of Belmont, 2017, *2035 General Plan*.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.16.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

4.16.1.2 EXISTING CONDITIONS

The aboriginal inhabitants of the project area belonged to a group known as the Costanoan, a name derived from the Spanish word Costanos ("coast people" or "coastal dwellers"), who occupied the central California coast as far east as the Diablo Range. Their territory covered 6,000 to 7,000 square miles extending along the Pacific Coast from south of Monterey Bay north to the San Francisco Peninsula and inland 20 to 45 miles into the Coast Ranges, including the east shore of San Francisco Bay from the Carquinez Straits south. The descendants of the Costanoan in the great San Francisco Bay Area now generally prefer to be known as Ohlone.[1]

A sacred lands file search conducted by the NAHC for the project area did not identify any sacred lands on the project site.[2]

The NAHC has identified local Native American representatives from the following tribes as potentially having local knowledge:

- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Costanoan Rumsen Carmel Tribe
- Indian Canyon Mutsun Band of Costanoan
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- The Ohlone Indian Tribe
- Wuksache Indian Tribe/Eshom Valley Band

[1] Basin Research Associates, May 2023, Cultural Resources Services: CEQA Level Archaeological Resources Assessment Belmont Notre Dame de Namur Campus.

[2] Basin Research Associates, May 2023, Cultural Resources Services: CEQA Level Archaeological Resources Assessment Belmont Notre Dame de Namur Campus, page 5.

The City has notified all tribal representatives about the proposed project and asked for information about potential resources at or near the project site.

As of the date of publication of this Draft EIR, no known or recorded prehistoric or historic archaeological resources are located within the project site. One recorded prehistoric resource is within the 0.25-mile search area. Additionally, a focused archaeological inventory was conducted by Basin Research Associates on areas of the project site that have not been developed, and no indications of prehistoric uses were found.[3]

4.16.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant tribal cultural resources impact if it would:

1. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.
2. In combination with past, present, and reasonably foreseeable projects, result in cumulative tribal cultural resources impacts in the area.

4.16.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following tribal cultural resources analysis is based on the natural environmental setting and therefore utilizes information gathered in 2023.

[3] Basin Research Associates, May 2023, Cultural Resources Services: CEQA Level Archaeological Resources Assessment Belmont Notre Dame de Namur Campus.

TCR-1 The project would not cause a substantial adverse change in the significance of a tribal cultural resource.

The proposed project would result in a substantial adverse change in the significance of a tribal cultural resource if it altered resources listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources or a resource determined to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

The City began the consultation process under Government Code Section 21084.3(c) (commonly known as AB 52) by contacting the NAHC to inform them about the proposed project. Pursuant to AB 52, the NAHC provided a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the proposed project. With the list of tribes, the City contacted local tribal representatives by letter, inviting them to initiate consultation. The purpose of the letter was to inform nearby tribes of the proposed project. The letter provided a description of the proposed project, as well as figures detailing the project location and site plan. As of publication of this Draft Environmental Impact Report, no responses have been received from the tribes.

No unique archaeological resources were identified in the Archaeological Assessment Report. The sole prehistoric archaeological site identified in the Archaeological Assessment Report is not located on the project site, but rather is nearly 0.25 miles away.[4] However, it remains possible that a currently unknown tribal cultural resource could be encountered during construction activities. Without appropriate procedures, unearthing tribal cultural resources could result in a significant impact. However, potential future development under the proposed project would be required to implement the City's following standard conditions governing tribal cultural resources:

- Prior to issuance of building permits, the applicant shall demonstrate that construction crews have proper training for the discovery, handling and retention methods for paleontological, archeological and/or cultural resources found at the project site. Project personnel should not collect cultural resources. Prehistoric resources include: chert, or obsidian flakes, projectile points, mortars and pestles, dark, friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include: stone or adobe foundations or walls, structures and remains with square nails, and refuse deposits or bottle dumps.
- In the event that paleontological, archaeological, and/or cultural resources are encountered during construction activities, all construction activity in the area of the find shall be halted, and the Community Development Director shall be notified; an archaeologist shall examine the find and make appropriate recommendations. A plan for the mitigation of impacts to the resources will be prepared and submitted to the City of Belmont for approval. Additional CEQA review may be required depending upon the evaluation of the find.

[4] Stanford University Heritage Services, May 2024, Appendix to Archaeological Assessment Report, Notre Dame de Namur University Campus, Appendix E.

- If any human remains are discovered or recognized in any location on a project site or within the public right-of-way, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
  - The San Mateo County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and
  - If the remains are of Native American origin:
    a) The descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98; or
    b) The Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission.

Additionally, the following standard condition of approval is required for all projects in areas with a medium to high archaeological sensitivity:

- All earthmoving activities for the project, both on site and within the public right-of-way, shall be monitored by a qualified professional archaeologist who meets the Secretary of the Interior's Standards for Archaeology. A report on the results of the monitoring shall be submitted to the Community Development Department, prior to the construction of the building foundation.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

The proposed project would be required to comply with the City's standard conditions. Adherence to these standard conditions would ensure that appropriate procedures are followed in the event that tribal cultural resources are discovered during construction. Therefore, the proposed project would not conflict with the significance of a tribal cultural resource and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

TCR-2	The project would not, in combination with past, present, and reasonably foreseeable projects, result in cumulative tribal cultural resources impacts in the area.

Cumulative impacts to tribal cultural resources occur when a series of actions leads to adverse effects on local Native American tribes or tribal lands. No tribal cultural resources have been identified on the project site or within the immediate vicinity. Further, in association with CEQA review, future AB 52

consultations with Native American tribes to identify tribal cultural resources would be required for projects that have the potential to cause significant impacts to tribal cultural resources.

The City's standard conditions would ensure that any tribal cultural resource, if encountered during the construction of cumulative projects, would be properly handled. Additionally, the existing federal, State, and local regulations and policies described throughout this chapter serve to protect any as-yet-undiscovered cultural and tribal cultural resources. Continued compliance with these regulations and implementation of existing policies and requirements would preclude cumulative impacts to the maximum extent practicable. Therefore, in combination with past, present, and reasonably foreseeable projects, the proposed project would result in a less-than-significant cumulative impact with respect to all cultural and tribal cultural resources.

Significance without Mitigation: Less than significant.

4.17 UTILITIES AND SERVICE SYSTEMS

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential utilities and service systems impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential utilities and service systems impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts. This includes impacts on utilities and service systems, including water supply and demand, wastewater (sewage) conveyance and treatment, solid waste collection and disposal systems, storm drainage systems, and other utilities.

The information and analysis in this chapter is based in part on the *Stanford Belmont Campus, Preliminary Engineering Report,* prepared by BKF in January 2023. This study is included in Appendix H, *Preliminary Engineering Report*, of this Draft EIR.

4.17.1 WATER

4.17.1.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

Safe Drinking Water Act

The Safe Drinking Water Act, the principal federal law intended to ensure safe drinking water to the public, was enacted in 1974 and has been amended several times. The Safe Drinking Water Act authorizes the Unites States Environmental Protection Agency (EPA) to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally occurring and human-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Water Resources Control Board (SWRCB) Division of Drinking Water regulates public drinking water systems. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.

America's Water Infrastructure Act of 2018

America's Water Infrastructure Act was signed into law on October 23, 2018, and authorizes federal funding for water infrastructure projects; expands water storage capabilities; assists local communities in complying with the Safe Drinking Water Act and Clean Water Act (CWA); reduces flooding risks for rural, western, and coastal communities; and addresses significant water infrastructure needs in tribal communities.[1] Additionally, the act requires that drinking water systems that serve more than 3,300

[1] John Barasso, 2018, Congress Passes America's Water Infrastructure Act, accessed March 11, 2024, https://www.barrasso.senate.gov/public/index.cfm/2018/10/congress-passes-america-s-water-infrastructure-act.

people develop or update risk assessments and emergency response plans. Risk assessments and emergency response plans must be certified by the EPA within the deadline specified by the act.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.) was passed in 1969 and amended in 2013. It is the basic water quality control law for California. Under this act, the SWRCB has authority over State water rights and water quality policy. The act divided the state into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB), to oversee water quality on a day-to-day basis at the local and regional levels. RWQCBs engage in various water quality functions in their respective regions and regulate all pollutant or nuisance discharges that may affect either surface water or groundwater.

Urban Water Management Planning Act

The California Urban Water Management Planning Act and Section 10620 of the Water Code require that all urban water suppliers in California that provide water to more than 3,000 customers or supply more than 3,000 acre-feet per year (AFY)[2] prepare and adopt an Urban Water Management Plan (UWMP) and update it every five years. The act is intended to support efficient use of urban water supplies. It requires the UWMP to compare water supply and demand over the next 20 years for normal years, single dry years, and multiple dry years and to determine current and potential recycled water uses.

Sustainable Groundwater Management Act of 2014

On September 16, 2014, a three-bill legislative package was signed into law collectively known as the Sustainable Groundwater Management Act (SGMA). The Governor's signing message states "a central feature of these bills is the recognition that groundwater management in California is best accomplished locally." Under the roadmap laid out by the legislation, local and regional authorities in medium and high priority groundwater basins must form groundwater sustainability agencies (GSA) that oversee the preparation and implementation of groundwater sustainability plans (GSP).

Water Conservation Act of 2009 (Senate Bill X7 7)

Requirements for increasing water use efficiency, per State law (Senate Bill [SB] X7 7), mandate the reduction of per capita water use and agricultural water use throughout the State by 20 percent by 2020. Effective in 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for State water grants or loans. SB X7-7 requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified standards. Demonstration of compliance with this regulation is a required component of each water provider's 2020 UWMP.

[2] One acre-foot is the amount of water required to cover one acre of ground (43,560 square feet) to a depth of one foot.

2018 Water Conservation Legislation

In 2018, the California Legislature enacted two policy bills (SB 606 and Assembly Bill [AB] 1668) to establish long-term improvements in water conservation and drought planning to adapt to climate change and longer and more intense droughts in California.[3] The Department of Water Resources (DWR) and the SWRCB will develop new standards for:

- Indoor residential water use
- Outdoor residential water use
- Commercial, industrial, and institutional water use for landscape irrigation with dedicated meters
- Water loss

Urban water suppliers are required to stay within annual water budgets based on their standards for their service areas, and to calculate and report their urban water use objectives in an annual water use report. Based on recent legislation (SB 1157), the California Water Code defines a 55-gallon-per-person daily standard for indoor residential use until 2025, at which time it decreases to 47 gallons, and further decreases to 42 gallons by 2030.

The legislation also includes changes to UWMP preparation requirements. These changes include additional requirements for Water Shortage Contingency Plans (WSCP), expansion of dry year supply reliability assessments to a five-year drought period, establishment of annual drought risk assessment procedures and reporting, and new conservation targets referred to "annual water use objectives," which require retailers to continue to reduce water use beyond the 2020 SB X7-7 targets.

Water Conservation in Landscaping Act of 2006

The Water Conservation in Landscaping Act (AB 1881) required the DWR to update the State of California's Model Water Efficient Landscape Ordinance (MWELO). Under AB 1881, cities and counties are required to adopt the State's MWELO or to adopt a different ordinance that is at least as effective in conserving water as the State's MWELO.[4]

The MWELO was revised in July 2015 via Executive Order B-29-15 to address the ongoing drought and to build resiliency for future droughts. The 2015 revisions to the MWELO increased water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, and on-site stormwater capture and by limiting the portion of landscapes that can be covered in turf. Each city and county is required to submit annual reports to DWR that document how the agency is achieving compliance with the State MWELO and how many projects were subject to the ordinance during the annual reporting period.

[3] California Department of Water Resources, 2024, 2018 Water Conservation Legislation, accessed March 11, 2024, https://water.ca.gov/Programs/Water-Use-And-Efficiency/2018-Water-Conservation-Legislation.

[4] California Legislative Information, 2006, Assembly Bill No. 1881, accessed March 11, 2024, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=200520060AB1881.

California Building Code: CALGreen

The California Building Standards Commission adopted the nation's first green building standards in July 2008, the California Green Building Standards Code, also known as CALGreen. CALGreen applies to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure in California. The code establishes planning and design standards for sustainable site development, including water efficiency and water conservation measures that typically reduce water consumption by 20 percent. CALGreen is updated every three years to allow for consideration and possible incorporation of new low flow plumbing fixtures and water efficient appliances. The mandatory provisions of CALGreen became effective January 1, 2011, and the latest version, the 2022 California Green Building Standards Code, became effective on January 1, 2023.[5] The building efficiency standards are enforced through the local building permit process.

California Plumbing Code

The latest version of the California Plumbing Code was issued in 2022 and became effective as of January 1, 2023. It is updated on a three-year cycle and specifies technical standards for the design, materials, workmanship, and maintenance of plumbing systems. One of the purposes of the plumbing code is to prevent conflicting plumbing codes within local jurisdictions. Among many topics covered in the code are water fixtures, potable and non-potable water systems, and recycled water systems.

California Water Code

The California Water Code states that the water resources of the State must be put to beneficial use and that waste or unreasonable use of water should be prevented. The code is divided into several sections that include provisions regarding water quality, formation of irrigation districts and water districts, safe drinking water, and water supply and infrastructure improvements.

Sections 10910 through 10915 of the California Water Code require water supply assessments (WSAs) for certain types of projects, as defined by Section 10912, that are subject to the California Environmental Quality Act (CEQA). Projects required to prepare a WSA are the following:

- Residential development of more than 500 dwelling units.
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor area.
- Hotel or motel, or both, having more than 500 rooms.
- Industrial, manufacturing, or processing plant, or industrial park planned to employ more than 1,000 persons, occupy more than 40 acres of land, or have more than 650,000 square feet of floor area.
- Mixed-use project that includes one or more of the projects specified above.

[5] Department of General Services, 2018, CALGreen, accessed March 11, 2024, https://www.dgs.ca.gov/BSC/CALGreen#codes.

- Project that would demand an amount of water equivalent to, or greater than, the amount of water required for 500 dwelling units.

Buildout of the proposed CDP would result in up to 200 housing units as well as academic facilities and academic support uses. Therefore, the proposed project is not considered a "project," as defined by Water Code Section 10912, and does not require preparation of a WSA.

Mandatory Water Conservation

Following the declaration of a state of emergency on July 15, 2014, due to drought conditions, the SWRCB adopted Resolution No. 2014-0038 for emergency regulation of Statewide water conservation efforts.[6] These regulations, which went into effect on August 1, 2014, were intended to reduce outdoor urban water use and persuade all California households to voluntarily reduce their water consumption by 20 percent. Water companies with 3,000 or more service connections were required to report monthly water consumption to the SWRCB. The SWRCB readopted the regulations several times, most recently requiring local water agencies to implement Level 2 drought contingency plans. In March 2023, Governor Newsom announced the lifting of some of the drought restrictions following a wet winter, including the Level 2 demand reduction actions.

However, there are portions of the water conservation emergency regulations that remain in effect. These include wasteful water use practices that are still in effect: 1) the application of potable water to outdoor landscapes in a manner that causes excess runoff; 2) the washing of vehicles without an automatic shut-off nozzle; 3) the application of potable water to driveways and sidewalks; 4) the use of potable water in nonrecirculating ornamental fountains; and 5) the application of potable water to outdoor landscapes during and within 48 hours after at least 0.25 inch of rainfall. In addition, watering decorative grass in commercial, industrial, and institutional areas, including common areas of homeowners' associations is currently prohibited but this restriction may be lifted in the future. Urban water suppliers are still required to submit monthly water monitoring reports to the SWRCB.

Regional Regulations

Mid-Peninsula Water District: Urban Water Management Plan

The Mid-Peninsula Water District (MPWD) is the water purveyor for the City of Belmont and portions of the City of San Carlos, Redwood City and parts of unincorporated San Mateo County. MPWD adopted its current 2020 UWMP in September 2021 in compliance with the Urban Water Management Planning Act, the Water Conservation Act of 2009, and Sections 10610 to 10656 of the California Water Code.[7] All urban water suppliers are required to prepare, adopt, and file a UWMP with DWR every five years.

[6] Water Resources Control Board, 2014, *Resolution No. 2014-0038*, accessed March 11, 2024, https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2014/rs2014_0038_regs.pdf.

[7] Mid-Peninsula Water District, September 2021, *2020 Urban Water Management Plan,* https://www.midpeninsulawater.org/documents, accessed March 7, 2024.

The Water Conservation Act of 2009, also known as SBX7-7, requires that urban water suppliers reduce per capita water use by 20 percent by 2020. As reported in the UWMP, MPWD met this goal in 2020 with a per capita water demand of 97 gallons per capita per day (gpcd) as compared to the target goal of 121 gpcd.[8]

The 2020 UWMP describes water demands, water supply sources, and supply reliability for its service area in five-year increments for normal years, single dry years, and multiple dry years. The UWMP also provides water supply contingency planning in case of shortage emergencies, demand management measures to increase water use efficiency, and current and planned water conservation efforts. The UWMP states that there will be sufficient supplies to meet existing and future demands through 2045 for normal years, but that there could be a shortage of water supplies in single-dry years and multiple-dry years with adoption of the Bay Delta Plan Amendment, as discussed below.

Mid-Peninsula Water District: Water Shortage Contingency Plan

The MPWD 2020 UWMP includes the WSCP which outlines stages of response to water shortages caused by drought or supply interruptions.[9] The primary objective of the WSCP is to ensure that the District has in place the necessary resources and management responses to protect health, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions.

Water shortage levels range from 1 to 6, with goals to reduce water demand by 10 percent to over 50 percent, respectively. Level 1 measures include: 1) limiting landscape irrigation to specific times, 2) all nonessential water use for public entities should cease, 3) restaurants may only serve water upon request, and 4) new irrigation systems must be equipped with rain sensors that shut off the system when it rains. Stage 5, designated as an emergency shortage, requires net zero demand increase on new water service connections and all landscape irrigation is prohibited. During Stage 6, which is classified as an extreme shortage, MPWD may discontinue service to consumers violating conservation provisions, prohibits decorate turf on all new construction, requires removal and replacement of all decorate turf with drought-tolerant planting up sale of property.

Mid-Peninsula Water District: Water Efficient Landscape Ordinance

MPWD adopted a Water Efficient Landscape Ordinance (WELO) Ordinance (No. 115) in 2015.[10] MPWD requires completion of a water efficient landscape application for any new construction with 500 square feet or more of landscape, or rehabilitated landscape of 1,000 square feet or more that requires a building

[8] Mid-Peninsula Water District, September 2021, *2020 Urban Water Management Plan,* https://www.midpeninsulawater.org/documents, accessed March 7, 2024.

[9] Mid-Peninsula Water District, September 2021, *2020 Water Shortage Contingency Plan*, https://www.midpeninsulawater.org/water-conservation-overview.php, accessed March 11, 2024.

[10] Mid-Peninsula Water District, 2024, MPWD Legislation, https://www.midpeninsulawater.org/legislation, accessed March 11, 2024.

permit, plan check, or design review. In coordination with the City, MPWD reviews landscape plans to verify compliance with the code requirements.[11]

Bay Delta Plan Amendment

The reliability of water supplies for MPWD is impacted if and when the Bay Delta Amendment is enacted, because the sole source of MPWD's water supplies is from the San Francisco Public Utilities Commission's (SFPUC) Regional Water System (RWS). In December 2018, the SWRCB adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, known as the Bay-Delta Plan Amendment, to establish water quality objectives to maintain the health of the Bay-Delta ecosystem and increasing salmonid populations. The Bay-Delta Amendments requires the release of 30 to 50 percent of "unimpaired flow" on three San Joaquin River tributaries (the Stanislaus, Merced, and Tuolumne Rivers) from February through June during normal years and drought conditions.

If the Bay-Delta Plan Amendment is implemented, the SFPUC would be able to meet projected water demands for their retail customers in normal years but would experience supply shortages in single dry years and multiple dry years. This impacts the water supplies of MPWD, as documented in the 2020 UWMP for single dry years and multiple dry years. The SFPUC has initiated an Alternative Water Supply Planning Program to meet its retail and wholesale customer needs and limit rationing to a maximum 20 percent system wide.

Since adoption of the Bay-Delta Plan Amendment, over a dozen lawsuits have been filed, in both State and federal courts, challenging the SWRCB's adoption of the amendment. This litigation is in the early stages and there have been no court rulings as of this date. SFPUC is also in negotiations with the SWRCB to provide an "alternative" for a future amendment to the Bay-Delta Plan. Nevertheless, the MPWD 2020 UWMP conservatively assume that the Bay-Delta Plan would be implemented in quantifying future water supplies and reliability.

San Francisco Public Utilities Commission Water System Improvement Plan

The SFPUC's Water System Improvement Plan (WSIP) is expected to mitigate the impacts of the Bay Delta Plan Amendment by undertaking a number of water supply projects to meet dry year demands with no greater than 20 percent system-wide rationing. These projects include the following:

- Calaveras Dam Replacement Project. The SFPUC constructed a new dam of equal height downstream of the existing dam to address seismic vulnerabilities. The project was completed in 2019.
- Alameda Creek Recapture Project. As part of the regulatory requirements, the SFPUC must implement bypass and instream flow releases for Alameda Creek. This project will recapture a portion of the water yield lost by these restrictions and return this yield to the RWS through facilities in Sunol Valley. Water that infiltrates from Alameda Creek will be recaptures into an existing quarry pond and pumped to the Sunol Valley Water Treatment Plant or to San Antonio Reservoir.

[11] Mid-Peninsula Water District, 2024, MPWD Water Efficient Landscape Ordinance (WELO), https://www.midpeninsulawater.org/article-details.php?id=71, accessed March 11, 2024.

- **Lower Crystal Springs Dam Improvements.** Improvements to Lower Crystal Springs Dam and the joint San Mateo/SFPUC Bridge Replacement Project have been completed so that the reservoir elevation can now be raised. However, the raising of the reservoir elevation is being delayed with the discovery of the endangered species, the Fountain Thistle. New plant populations must be restored before the reservoir elevation is raised.
- **Regional Groundwater Storage and Recovery Project.** SFPUC, Cal Water, Daly City, and San Bruno entered into a strategic partnership to conjunctively operate the south Westside Groundwater Basin. During years of normal or heavy rainfall, the project provides additional surface water to the partner agencies in San Mateo County in lieu of groundwater pumping. Reduced pumping results in water storage through natural recharge of up to 20 billion gallons of new supply that is available during dry years. Phase I, which consists of the construction of 13 wells, is complete. Phase 2, which involves three additional groundwater test wells and completion of the South San Francisco Main well and pipeline, was scheduled for completion in 2023.[12]

Local Regulations

City of Belmont General Plan 2035

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to water that are relevant to the proposed project are found in the Conservation and Safety Elements and are listed in Table 4.17-1, *City of Belmont 2035 General Plan Policies Relevant to Water Resources.*

TABLE 4.17-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO WATER RESOURCES

Policy Number	Policy Text
Chapter 5, Conservation	
Policy 5.6-1	Work with the Mid-Peninsula Water District to meet State targets for reducing per capita urban water use.
Policy 5.6-2	Support the Mid-Peninsula Water District in advocating for reliable and fairly priced water from the San Francisco regional water system.
Policy 5.6-3	Encourage the Mid-Peninsula Water District to continue and expand its water conservation programs.
Policy 5.6-4	Set appropriate conditions of approval for each new development proposal to ensure that the necessary water supply facilities and water resources are in place prior to occupancy.
Policy 5.6-5	Continue the City's Water Conservation Strategy to reduce water use, control water cost, and promote environmental sustainability in municipal buildings, parks, landscaped areas, and athletic fields, as feasible and appropriate.
Chapter 6, Safety	
Policy 6.6-2	Work with the Mid-Peninsula Water District to maintain adequate water supply for firefighting, including capacity for peak load under a reasonable worst case wildland fire scenario, to be determined by the Belmont Fire Protection District. In evaluating sites for new water storage facilities, place a priority on locations least subject to impacts from seismic activity and landsliding.

[12] San Francisco Public Utilities Commission, 2024, Regional Groundwater Storage Project, 2024, https://sfpuc.org/construction-contracts/construction-projects/regional-groundwater-storage, accessed on March 11.

TABLE 4.17-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO WATER RESOURCES

Policy Number	Policy Text
Policy 6.7-6	Work with the Mid-Peninsula Water District to ensure that it has a plan and infrastructure for providing adequate water service and storage, including peak load water supply requirements, during and immediately after an emergency, including a major seismic event.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to water. The BCC is organized by chapters, articles, and sections and, in some cases, divisions. Most provisions related to water are included in Chapter 7, *Buildings*, Chapter 25.5, *Water Conservation*, and Chapter 33, *Mandatory Organic Waste Disposal Reduction Regulations.*

- Chapter 7, Article IV, *Construction Regulations,* adopts the CBC and CFC with local amendments.
  - Chapter 7, Article IV, Division 6, *Plumbing Code*, adopts the 2022 California Plumbing Code, California Code of Regulations, Title 25, Part 5.
  - Chapter 7, Article IV, Division 10, *Green Building Standards Code*, adopts the California Green Building Standards Code, 2022 Edition, Title 24, Part 11 of the California Code of Regulations.
- Chapter 25.5, *Water Conservation*, promotes water conservation in San Mateo County and implements provisions of the conservation element of the Comprehensive Water Resources Management Plan for the County.
- Chapter 33, Section 33-11, *Water efficient landscaping ordinance requirements*, complies with California's MWELO and MPWD's WELO. New construction projects with a landscape area equal to or greater than 500 square feet or rehabilitated landscape projects with a landscape area equal to or greater than 2,500 square feet must comply with this ordinance.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.17.1.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Existing Conditions

Potable Water System

MPWD purchases its entire water supply from the SFPUC, whose main source of water is surface water from the Hetch Hetchy Watershed in the Sierra Nevada mountains. The MPWD has a total of 20 pump stations, 11 water tanks, 13 regulating valves, 813 hydrants and 94 miles of water mains.[13] One pump (Hannibal Pump Station) is near the intersection of Laxague Drive and Ralston Avenue, just southeast of the Taube Center.

As shown on Figure 3-9, *Proposed Conceptual Water Line Plan,* the existing site has one point of connection (POC) to the MPWD water distribution system at the intersection of Laxague Drive and Ralston Avenue. The existing water distribution on the project site contains approximately 10,300 feet of water pipelines, 13 fire hydrants, and two different pressure zones, which both connect to the Hannibal Pump Station. According to the Preliminary Engineering Report for the proposed project, the total existing water demand is 139.2 acre-feet per year (AFY), including both indoor water demand and outdoor landscaping demand, and there is currently adequate water pressure to the project site.

For large development projects, MPWD requires the owner to enter a Water Service Agreement that includes water utility system improvements, construction inspections, fees for system connection, plan check fees, and overall acceptance by MPWD.

Groundwater and Recycled Water

Portions of the City of Belmont are within the San Mateo Plain Subbasin of the Santa Clara Valley Groundwater Basin, including the areas adjacent to Belmont Creek and northeast of El Camino Real.[14] The San Mateo Plain Subbasin is designated as a very low priority basin and therefore is not regulated under SGMA. The little groundwater use in this basin (less than 2,700 acre-feet/year [AFY]) is mostly due to private well pumping in the subbasin areas south of the City (Redwood City and Menlo Park).

The southern portion of the project site, including the Taube Center and areas south of Laxague Drive, are located within the San Mateo Plain Subbasin.[15] However, MPWD does not use groundwater, recycled water, or desalinated water. MPWD does not have an available, cost-effective supply of recycled water and does not have a conveyance system for accessing recycled water.[16] Currently, there is no recycled water infrastructure in the vicinity of the project site.

[13] Mid-Peninsula Water District, September 2021, *2020 Urban Water Management Plan,* https://www.midpeninsulawater.org/documents, accessed March 7, 2024.

[14] San Mateo County, 2024, San Mateo County GIS Open Data, San Mateo Plain Subbasin, https://data-smcmaps.opendata.arcgis.com/datasets/san-mateo-plain-subbasin/explore?location=37.529784%2C-122.220423%2C11.96, accessed on March 11, 2024.

[15] San Mateo County, 2024, San Mateo County GIS Open Data, San Mateo Plain Subbasin, https://data-smcmaps.opendata.arcgis.com/datasets/san-mateo-plain-subbasin/explore?location=37.529784%2C-122.220423%2C11.96, accessed on March 11, 2024.

[16] Mid-Peninsula Water District, September 2021, *2020 Urban Water Management Plan,* https://www.midpeninsulawater.org/documents, accessed March 7, 2024.

Water Supply

The MPWD 2020 UWMP includes a water supply reliability assessment for normal, single dry years, and multiple dry years. The results are provided in Table 4.17-2, *MPWD Supply and Demand Comparison: 2025 to 2040 (AFY).*

TABLE 4.17-2 MPWD SUPPLY AND DEMAND COMPARISON: 2025 TO 2040 (AFY)

	2025	2030	2035	2040
Normal Year				
Supply Totals	1,044	1,037	1,051	1.055
Demand Totals	1,044	1,037	1,051	1.055
Difference	0	0	0	0
Single Dry Year				
Supply Totals	668	661	668	672
Demand Totals	1,044	1,037	1,051	1.055
Difference	(376)	(376)	(383)	(383)
Multiple Dry Years				
First Year				
Supply Totals	668	661	668	672
Demand Totals	1,044	1,037	1,051	1.055
Difference	(376)	(376)	(383)	(383)
Second Year				
Supply Totals	573	566	573	577
Demand Totals	1,044	1,037	1,051	1,055
Difference	(471)	(471)	(478)	(478)
Third Year				
Supply Totals	573	566	573	577
Demand Totals	1,044	1,037	1,051	1,055
Difference	(471)	(471)	(478)	(478)
Fourth Year				
Supply Totals	573	566	573	507
Demand Totals	1,044	1,037	1,051	1,055
Difference	(471)	(471)	(478)	(548)
Fifth Year				
Supply Totals	573	566	526	507
Demand Totals	1,044	1,037	1,051	1,055
Difference	(471)	(471)	(526)	(548)

Source: Mid-Peninsula Water District, 2021, Tables 7.3, 7-4, and 7.6 of *2020 Urban Water Management Plan*. Assumes implementation of the Bay Delta Plan.

With implementation of the Bay Delta Plan, leading to a reduction in water allocations to SFPUC, MPWD predicts a water supply shortage in single- and multiple-dry year scenarios. There are numerous uncertainties regarding implementation of the Bay Delta Plan Amendment, and these water supply

projections are a worst-case scenario. It assumes that the SFPUC and SWRCB do not reach a voluntary agreement and that the SFPUC's Alternative Water Supply Program is not implemented. As stated in the 2020 UWMP, if the Bay Delta Plan Amendment is not implemented, SFPUC would be able to supply 100 percent of the projected RWS demands through 2040 during normal, single dry, and multiple dry years. [17]

4.17.1.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant water supply impact if it would:

- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple-dry years.
- Require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.
- In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to water supply.

4.17.1.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following water analysis is based on the natural environmental setting based on recent water supply data and therefore utilizes information gathered in 2023.

UTIL-1	The proposed project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple-dry years.

The current and projected water demands from MPWD's 2020 UWMP is provided in Table 4.17-2. The water purveyor's service area extends beyond the City of Belmont, and therefore the projections in Table 4.17-2 include the demand for portions of San Carlos and unincorporated portions of San Mateo County. The analysis and discussion below provide a preliminary estimate of the water demand associated with implementation of the proposed project as compared to existing conditions, in the context of MPWD's service area.

The Preliminary Engineering Report for the proposed project determined the projected water demand, assuming the project implements water-efficient fixtures per CALGreen requirements and meets the City and MPWD's WELO requirements for landscaping. The total projected water demand was estimated to be

[17] Mid-Peninsula Water District, September 2021, *2020 Urban Water Management Plan,* https://www.midpeninsulawater.org/documents, accessed March 7, 2024.

131 AFY, which is 8 AFY less than the existing water demand of 139 AFY. Therefore, the project would result in a net decrease in potable water demand from MPWD.

As discussed in Chapter 3, *Project Description*, of this Draft EIR, buildout of the proposed project would occur in a phased manner during a 30-year timeframe. Stanford would provide utility master plans to the City with the submittal of the first DDPs, with updated utility master plans as subsequent development phases are submitted to the City and MPWD for approval. These approvals include MPWD's review of project plans. New construction would comply with the more stringent requirements of CALGreen, California Plumbing Code, and the City and MPWD's WELO. As described in Section 4.17.1.1, Environmental Setting, under the "California Water Code" subheading, the proposed CDP is not considered a "project" requiring preparation of a water supply assessment (WSA). However, with each DPP application the City would consider whether a WSA is required based on the specific development proposal and the WSA preparation regulations in place at the time of DDP application submittal.

However, as shown in Table 4.17-2, there is a projected shortage of water supplies to meet the entire MPWD service area demand for normal years and single and multiple dry years. One way to offset the shortage of water supplies during single dry and multiple dry years would be to continue implementing water conservation measures as described in MPWD's WSCP, with water restrictions ranging from 10 to more than 50 percent. MPWD coordinates on an ongoing basis with SFPUC, Bay Area Water Supply and Conservation Agency (BAWSCA), City of Belmont, San Mateo County, and other public and private entities to optimize the use of regional water supplies. There also is the potential for water right transfers within the SFPUC Regional Water System. The Water Shortage Allocation Plan adopted by all BAWSCA agencies and the SFPUC provides the basis for voluntary transfers of water among BAWSCA agencies during periods when mandatory rationing is in place. Also, MPWD has two emergency interconnections—with California Water Company-Mid-Peninsula District and Estero Municipal Improvement District—that would enable the short-term transfer of water due to disruptions in normal supply resulting from an earthquake or other emergency.[18]

As provided in Table 4.17-1, the Conservation and Safety Elements of the Belmont General Plan contains policies that require planning and development decisions to minimize potential adverse impacts to water supplies with future development. Compliance with the Belmont General Plan policies, MPWD's evaluation and required approval for each phase of the development, and compliance with existing water conservation regulations would reduce water demand with respect to water supplies. In addition, MPWD and SFPUC have plans to implement alternative water supply programs by 2040. The Bay Delta Plan Amendment may not be enacted in its current structure, making more water available than anticipated in the most recent UWMPs.[19] The SFPUC has indicated that there will be sufficient supplies available to meet all demands of their water purveyors in both normal and drought conditions through the year 2040 if the Bay-Delta Plan is not implemented. In addition, potential future development under the proposed project would be required to implement the City's following standard conditions related to water service:

[18] Mid-Peninsula Water District, September 2021, *2020 Urban Water Management Plan,* https://www.midpeninsulawater.org/documents, accessed March 7, 2024.

[19] San Francisco Public Utilities Commission, 2021, *2020 Urban Water Management Plan*.

- Applicants for development projects are required to secure verification that water service can be provided (an Intent to Serve letter from MPWD), and pay water connection fees.
- The applicant shall demonstrate that the final landscape plan has been reviewed and approved by MPWD, and is consistent with MPWD's WELO, prior to installation of landscaping. A post installation certification from MPWD is also required prior to final building permit inspection.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

The preliminary water demand calculations show that buildout of the proposed project would result in a reduction in water demand as compared to existing conditions. With the implementation of continued water conservation measures and water supply projects in SFPUC's WSIP and the City's standard conditions, this impact is considered to be *less than significant*.

Significance without Mitigation: Less than significant.

UTIL-2	The proposed project would not require or result in the relocation or construction of new or expanded water facilities, the construction or relocation of which could cause significant environmental effects.

The proposed project would have a significant impact if it would result in the construction of new water treatment facilities or the expansion of existing facilities that would have a significant effect on the environment. As shown in Figure 3-9, *Proposed Conceptual Water Line Plan*, the project includes modifying the existing on-site water infrastructure by installing new water mains beneath internal streets that connect to the existing water system. Potential POCs to the existing MPWD pressure zones include one POC at the western corner of the site near Notre Dame Elementary School and the one existing POC at the intersection of Laxague Drive and Ralston Avenue.

As part of the review process for future DDPs, potential future development under the proposed project would be required to prepare a water demand analysis, which MPWD would review and determine whether further evaluation would be required. Additionally, the Preliminary Engineering Report for the proposed project projected a net decrease in water demand due to the implementation of water-efficient fixtures per CALGreen requirements and meeting the City and MPWD's WELO requirements for landscaping.

As described in impact discussion UTIL-1, MPWD has sufficient water supplies available from SFPUC under normal years and would implement their WSCP under single-year and multiple-year dry conditions. The WSCP contains water demand mitigation measures that would be implemented at each of the six water shortage levels, and MPWD is required to submit an annual report to DWR to assess whether there will be a water shortage in the coming year and what water demand reduction measures will be adopted to address the shortages. It also should be noted that the 2020 UWMP assumes full implementation of the

Bay Delta Plan Amendment, which is in a state of flux and most likely would not result in the severe water restrictions that are currently projected. In addition, MPWD, BAWSCA and SFPUC are working on alternative water supplies to address potential future water shortages. With the implementation of water supply projects in SFPUC's WSIP, SFPUC expects to meet dry year demands with no greater than 20 percent systemwide rationing. MPWD has an existing water distribution infrastructure that can supply the city without the need to expand its infrastructure facilities. In addition, potential future development under the proposed project would be required to implement the City's following standard condition related to water service:

> Applicants for development projects are required to secure verification that water service can be provided (an Intent to Serve letter from MPWD), and pay water connection fees.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

In summary, no new water treatment facilities would be needed with implementation of the proposed project. In addition, compliance with the City and MPWD's requirements for new construction and water-efficient landscaping would result in *less-than-significant* impacts with respect to the need for new and/or expanded water facilities.

Significance without Mitigation: Less than significant.

UTIL-3	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to water supply.

The area considered for cumulative water supply impacts is the service area of MWPD. Other future projects within this service area would result in increases in water demand. However, cumulative water demands are not anticipated to require building new water treatment facilities or expansion of existing facilities beyond what is currently planned by SFPUC in their WSIP. The City and the water purveyor would review such projects for adequacy of water supply, and MPWD would update the UWMP every five years to ensure that there are adequate water supplies and contingency plans for future residents and customers. All new development under the proposed project would require implementing water efficiency and water conservation measures, as per the CALGreen and the WELO irrigation requirements. Water supply deficits in dry years would be met by implementing the WSCP and other water conservation efforts.

All cumulative projects would require compliance with federal and State regulatory requirements, as well as the requirements of the BCC, General Plan, and the City's standard conditions. These regulations would result in a reduction in per capita water use over time, which would ensure that cumulative impacts with respect to water supply would be *less than significant*.

Significance without Mitigation: Less than significant.

4.17.2 WASTEWATER

4.17.2.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

Clean Water Act

The Clean Water Act regulates the discharge of pollutants into watersheds throughout the nation. Under the CWA, the EPA implements pollution control programs, sets wastewater standards, and makes it unlawful to discharge pollutants from a point source into any navigable waters without obtaining a permit. Point sources include any conveyances, such as pipes and man-made drainage channels, from which pollutants may be discharged.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

State Regulations

On May 2, 2006, the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) and a monitoring and reporting program (Order No. WQ-2013-0058-EXEC) for all publicly owned sanitary sewer collection systems in California with more than one mile of sewer pipes. The order provides a consistent statewide approach to reducing sanitary sewer overflows (SSO) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sewer System Management Plan (SSMP). The General Waste Discharge Requirement also requires that SSOs be reported to the SWRCB using an online reporting system. The SWRCB has delegated authority to the nine RWQCBs to enforce these requirements within their regions.

The SSMP evaluates existing sewer collection systems and provides a framework for minimizing the frequency and impact of SSOs. The SSMP includes an overflow emergency response plan; a fats, oil, and grease control program; scheduled inspections and condition assessment; design and construction standards; capacity assessment and management; and a monitoring program.

Regional Regulations

The San Francisco Bay RWQCB (Region 2) was created as a result of the California Porter-Cologne Act. The RWQCB issues and enforces NPDES permits within the City, which includes permits for wastewater treatment plants (WWTPs) and industrial waste discharges. NPDES permits allow the RWQCB to regulate where and how waste is disposed, including the discharge volume and effluent limits of waste and the monitoring and reporting responsibilities of the discharger. The RWQCB is also charged with conducting inspections of permitted discharges and monitoring permit compliance.

Local Regulations

City of Belmont Sewer System Management Plan

The latest Sewer System Management Plan is dated October 2020.[20] The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system in order to minimize the number of SSOs and mitigate any SSOs that do occur. As required by law, the SSMP must be updated every five years and must be developed in compliance with the requirements of the SWRCB Waste Discharge Requirements Order No. 2006-003-DWQ, Amended Monitoring and Reporting Program (MRP) Order No. WQ 2008-002-EXEC, and Order No. WQ 2013-0058-EXEC.

City of Belmont General Plan 2035

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to wastewater that are relevant to the proposed project are found in the Conservation and Safety Elements and are listed in Table 4.17-3, *City of Belmont 2035 General Plan Policies Relevant to Wastewater Infrastructure.*

TABLE 4.17-3 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO WASTEWATER INFRASTRUCTURE

Policy Number	Policy Text
Chapter 5, Conservation	
Policy 5.7-1	Continue to make improvements and upgrades to the wastewater system, consistent with the City's Sanitary Sewer System Capacity Analysis and the Silicon Valley Clean Water Conveyance System Master Plan.
Policy 5.7-2	Periodically review and update development impact fees, wastewater connection charges, and monthly service charges to ensure that adequate funds are collected to operate and maintain existing facilities and to construct new facilities.
Policy 5.7-3	Partner with Silicon Valley Clean Water to develop and implement a local purified/recycled water (treated wastewater) program for Belmont, as technology and infrastructure allow.
Chapter 6, Safety	
Policy 6.5-6	Require all new development to be connected to the City's sewer system.

Source: City of Belmont, 2017, *2035 General Plan*.

[20] City of Belmont, 2020, *Sewer System Management Plan*, https://www.belmont.gov/departments/public-works/infrastructure/sewer-system/sewer-system-management-plan, accessed March 12, 2024.

Belmont City Code

The BCC includes various directives pertaining to wastewater. The BCC is organized by chapter, article, section, and in some cases, divisions. Most provisions related to wastewater impacts are included in Chapter 7, *Buildings*, and Chapter 21, *Sewers and Sewage Disposal.*

- Chapter 7, Article IV, Division 6, *Plumbing Code*, adopts the 2022 California Plumbing Code, California Code of Regulations, Title 25, Part 5.
- Chapter 21, Article II, *Connection Permits, Fees and Expansion Fund*, describes sewer connection permit requirements, connection fees, and the establishment of a sewer expansion fund into which all connection fees are deposited.
- Chapter 21, Article VII, *Sewer Laterals*, includes property owner requirements for installation and maintenance of sewer laterals. A sewer lateral certificate issuance is issued by the city manager once the lateral is determined in good condition.
- Chapter 21, Article V, Division 6*,* Section 21-180, *Fees*, establishes a schedule of fees imposed upon applicants issuing stormwater connection permits.

City of Belmont Standard Conditions

The City of Belmont has identified standard conditions for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.17.2.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Existing Conditions

Wastewater Treatment

Silicon Valley Clean Water (SVCW), formerly South Bayside System Authority, provides wastewater treatment for the City of Belmont, San Carlos, Redwood City, and parts of Menlo Park. The SVCW WWTP is in Redwood City and serves more than 220,000 residents and businesses in its service area.[21] The volume of wastewater collected from the City of Belmont and treated by SVCW was 522 million gallons (MG) in 2020 (or approximately 1.4 million gallons per day [MGD]).[22] The design capacity for the SVCW WWTP is

[21] Mid-Peninsula Water District, September 2021, *2020 Urban Water Management Plan,* https://www.midpeninsulawater.org/documents, accessed March 7, 2024.

[22] Mid-Peninsula Water District, September 2021, *2020 Urban Water Management Plan,* https://www.midpeninsulawater.org/documents, accessed March 7, 2024.

29 MGD (dry weather flow), and the total of all wastewater flows to the SVCW in 2020 was 12.6 MGD.[23] SVCW's projections estimate that the total wastewater flow in 2040 will be 17.9 MGD, with the City of Belmont contributing approximately 2.1 MGD.[24]

Wastewater Collection

The City of Belmont operates its own wastewater collection system, which covers approximately 8.7 square miles, serves approximately 7,700 connections, and consists of 75 miles of gravity sewer lines, 5 miles of force mains, and 10 pump stations.[25] This system is maintained by the City's Public Works Department, and the wastewater flows are conveyed to SVCW's WWTP.

As shown on Figure 3-10, *Proposed Conceptual Sanitary Sewer Line Plan,* there is an existing wastewater collection system on the project site with pipelines beneath Laxague Drive that connect to the City's 21-inch diameter sewer main beneath Ralton Avenue to the south and a 12-inch sewer main beneath Notre Dame Avenue to the west. According to the Preliminary Engineering Report for the proposed project, the existing wastewater flow from the project site is 0.11 MGD (average dry weather flow), assuming that wastewater generation is 95 percent of the total water demand.[26]

4.17.2.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant wastewater service impact if it would:

- Require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment provider which serves or may serve the proposed project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to wastewater.

4.17.2.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was

[23] Mid-Peninsula Water District, September 2021, *2020 Urban Water Management Plan,* https://www.midpeninsulawater.org/documents, accessed March 7, 2024.

[24] Mid-Peninsula Water District, September 2021, *2020 Urban Water Management Plan,* https://www.midpeninsulawater.org/documents, accessed March 7, 2024.

[25] City of Belmont, 2020, *Sewer System Management Plan*, https://www.belmont.gov/departments/public-works/infrastructure/sewer-system/sewer-system-management-plan, accessed March 12, 2024.

[26] Total Existing Water Demand x 0.95 = Total Existing Wastewater Generation; 139.2 AFY x 0.95 = 132.2 AFY = 0.11 MGD

at full capacity. The following wastewater analysis is based on the built environment and recent wastewater utilities and therefore utilizes information gathered in 2023.

UTIL-4	The proposed project would not require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects.

The proposed project would have a significant impact if it would result in the construction of new wastewater treatment facilities or the expansion of existing facilities that would have a significant effect on the environment. The Preliminary Engineering Report for the proposed project determined the existing wastewater generation rate at the project site to be approximately 0.11 MGD, which assumes that 95 percent of the indoor water demand becomes wastewater. The projected wastewater generation rate with implementation of the proposed project was estimated to be 0.10 MGD, which is slightly less than the existing wastewater generation rate of 0.11 MGD. This is equivalent to a reduction of about 12,000 gallons per day. Therefore, the project would result in a net decrease in wastewater generation compared to existing conditions.

The SVCW WWTF has a design capacity of 29 MGD and a projected total wastewater flow of 17.9 MGD in 2040. Therefore, there is a residual projected treatment capacity of 11.1 MGD. As the proposed project is projected to result in a net decrease in wastewater generation, the proposed project would not significantly impact the existing wastewater treatment facility.

As discussed in Chapter 3, *Project Description*, of this Draft EIR, buildout of the proposed project would occur in a phased manner during a 30-year time frame. Stanford would provide utility master plans to the City with the submittal of the first DDPs, with updated utility master plans as subsequent development phases are submitted to the City for approval. New construction would comply with the more stringent requirements of CALGreen and California Plumbing Code and the City and MPWD's WELO. Additionally, as provided in Table 4.17-3, the Conservation and Safety Elements of the Belmont General Plan contain policies that require planning and development decisions to minimize potential adverse impacts to the City's sewer system with future development. In addition, potential future development under the proposed project would be required to implement the City's following standard conditions related to wastewater service:

- Applicants for development projects are required to secure verification that sewer service can be provided, and pay appropriate fees to ensure that new waste water facilities are constructed to meet performance standards, and to allow for future maintenance.
- The owner/applicant shall analyze the existing sewer system from the property boundary to the nearest pump station or main trunk line to determine its capacity to handle increased sewer flows from this development. Should any deficiency in this system be found, the owner/applicant shall improve the downstream system or contribute a proportionate share of the cost for improvements as determined by the Public Works Department.

- Applicant shall install the sanitary sewer connection in accordance with Department of Public Works approved standards and pay the applicable sewer connection fee. Sanitary sewer to include a back flow prevention device.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Implementation of the proposed project would not require the construction or expansion of the SVCW WWTP or sewer collection system beyond what is already planned or under construction. Adherence to state and local regulations, including the City and MPWD's WELO, the BCC, the General Plan, and the City's standard conditions would reduce wastewater generation rates over time, and therefore impacts associated with the sewer collection and treatment systems would be *less than significant.*

Significance without Mitigation: Less than significant.

UTIL-5	The project would not result in a determination by the wastewater treatment provider which serves or may serve the proposed project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

As described in impact discussion UTIL-4, the SVCW WWTP is currently designed to treat up to 29 MGD. Total wastewater flows to the SVCW WWTP are estimated to increase from 12.6 MGD in 2020 to 17.9 MGD in 2040. Therefore, there is still a residual treatment capacity of 11.1 MGD in 2040. As the proposed project is projected to result in a net decrease in wastewater generation, the WWTP would have adequate capacity to serve the project.

With continued compliance with applicable regulations, wastewater generated by the proposed project would not exceed the capacity of the SVCW WWTP. Compliance with the Belmont General Plan policies listed in Table 4.17-3 would ensure that potential future development would minimize impacts to wastewater collection and treatment capacity. In addition, potential future development under the proposed project would be required to implement the City's following standard conditions related to wastewater service:

- Applicants for development projects are required to secure verification that sewer service can be provided, and pay appropriate fees to ensure that new wastewater facilities are constructed to meet performance standards, and to allow for future maintenance.
- The owner/applicant shall analyze the existing sewer system from the property boundary to the nearest pump station or main trunk line to determine its capacity to handle increased sewer flows from this development. Should any deficiency in this system be found, the owner/applicant shall improve the downstream system or contribute a proportionate share of the cost for improvements as determined by the Public Works Department.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Therefore, the proposed project would not result in a determination by the wastewater treatment provider that there is not adequate capacity to serve the project's projected demand in addition to the demands of other wastewater dischargers. Impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

UTIL-6	The project would not, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to wastewater.

The context used for the cumulative assessment is the service area of the SVCW WWTP. In addition to wastewater discharged to the WWTP by the City, there are other dischargers, including Redwood City, San Carlo, Menlo Park, Emerald Hills, Woodside, and the West Bay Sanitary District area.[27] As discussed in impact discussion UTIL-4, average annual dry weather treatment capacity for the SVCW WWTP is 29 MGD with a projected residual capacity of 11.1 MGD in 2040.

Future development within the city would require compliance with all applicable regulations and ordinances. Project applicants would have to pay wastewater capacity charges, and property owners are required to pay an annual sewer service charge, which funds continued improvements to the wastewater collection and treatment system. The other dischargers to the WWTP have similar sewer collection system fees and capital improvement programs.

Therefore, with continued compliance with applicable regulations and future reductions in wastewater demands with water conservative efforts, cumulative development would not exceed wastewater collection or treatment capacities. Accordingly, the proposed project would not result in a cumulatively considerable impact related to wastewater, and cumulative impacts would be *less than significant.*

Significance without Mitigation: Less than significant.

[27] Silicon Valley Clean Water, 2024, About Us, https://svcw.org/about/, accessed March 12, 2024.

4.17.3 SOLID WASTE

4.17.3.1 ENVIRONMENTAL SETTING

Regulatory Framework

The Resource Conservation and Recovery Act of 1976 (Title 40 of the Code of Federal Regulations), Part 258, contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design (liners, leachate collection, run-off control, etc.), groundwater monitoring, and closure of landfills.

State Regulations

Integrated Waste Management Act

California's Integrated Waste Management Act of 1989 (AB 939) requires that cities and counties divert 50 percent of all solid waste from landfills as of January 1, 2000 through source reduction, recycling, and composting. This act requires that each city and county prepare a Source Reduction and Recycling Element to be submitted to the Department of Resources Recycling and Recovery (CalRecycle), a department within the California Natural Resources Agency. AB 939 also establishes a goal for all California counties to provide at least 15 years of ongoing landfill capacity.

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is calculated as a jurisdiction's reported total disposal of solid waste divided by a jurisdiction's population. CalRecycle sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate.

Mandatory Commercial Recycling Act (AB 341)

Assembly Bill 341 (Chapter 476) increases the statewide waste diversion goal to 75 percent by 2020, and mandates recycling for businesses producing four or more cubic yards of solid waste per week or multi-family residential dwellings of five or more units. AB 341 is designed to reduce greenhouse gas (GHG) emissions in the state by 5 million metric tons of carbon dioxide equivalents.

Mandatory Organics Recycling Act (AB 1826)

AB 1826, which was enacted in 2014, mandates organic waste recycling for businesses and multifamily dwellings with five or more units. Starting January 1, 2020, all generators of 2 cubic yards or more of garbage, recycling, and compost combined per week must recycle organic waste. Organic waste includes food scraps, food-soiled paper waste, yard trimmings, and landscape materials. Organic waste can be recycled through composting, mulching, and anaerobic digestion which produces renewable energy and fuel. In addition to recycling food scraps, donating surplus food to local food banks can be part of the AB

1826 compliance effort. Multifamily dwellings do not need to have food-waste recycling on-site but must recycle yard and landscape materials.

California Short-Lived Climate Pollutants Act (Senate Bill 1383)

SB 1383 focuses on the elimination of methane gas created by organic materials in landfills and set targets to achieve a 50 percent reduction in the statewide disposal of organic waste by 2020 and a 75 percent reduction by 2025. Organic waste makes up half of what Californians send to landfills. SB 1383 requires all businesses and residents to divert organic materials (including food waste, yard waste, and soiled paper products) from the landfill. The regulation took effect on January 1, 2022, and requires that organics collection service be provided to all residents and businesses. Also, an edible food recovery program must be established by 2025 with the goal of recovering edible food for human consumption.[28]

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act requires development projects to set aside areas for collecting and loading recyclable materials. The Act required CalRecycle to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model, or an ordinance of their own, governing adequate areas in development projects for collection and loading of recyclable materials.

CALGreen Standards

The latest 2022 CALGreen Code became effective on January 1, 2023. Section 5.408, *Construction Waste Reduction Disposal and Recycling*, mandates that, in the absence of a more stringent local ordinance, a minimum of 65 percent of nonhazardous construction and demolition debris must be recycled or salvaged. The Code requires applicants to prepare and submit a Construction and Demolition Recycling & Waste Reduction Plan which is submitted to the City for approval. for on-site sorting of construction debris, which is submitted to the City for approval. The plan must:

- Identify the materials to be diverted from disposal by recycling, reuse on the project, or salvage for future use or sale.
- Specify if materials will be sorted on-site or mixed for transportation to a diversion facility.
- Identify the diversion facility where the material collected will be taken.
- Supply weight tags for the entire period of the project for compliance review.

[28] CalRecycle, 2024, SB 1383 Education and Outreach Resources, https://www.calrecycle.ca.gov/organics/slcp/education, accessed March 15, 2024.

Regional Regulations

San Mateo County Environmental Health Division

San Mateo County Environmental Health Division (SMCEHD) is the State-certified local enforcement agency for solid waste in San Mateo County. The Solid Waste Program under the SMCEHD ensures that businesses, garbage collection and disposal companies, and residents follow the federal, State, and local standards and permitting requirements for solid waste. Inspectors from the Solid Waste Program issue permits and inspect four transfer/material recovery facilities and one anaerobic digestion facility, as well as one active landfill, Ox Mountain, in Half Moon Bay.[29] These facilities are monitored for compliance with State standards for the proper handling and disposal of solid waste. Seventeen closed landfills in different locations throughout the county are also monitored.

San Mateo County Office of Sustainability: Solid Waste Management

San Mateo County Office of Sustainability: Solid Waste Management administers and implements the solid waste management and resource conservation programs and policies throughout the County. The Waste Reduction Program's mission is to advance environmental sustainability by working with residents, businesses, and institutions throughout San Mateo County to encourage environmental stewardship, implement resource conservation programs and policies, and ensure compliance with the California solid waste regulations.[30]

RethinkWaste (South Bayside Waste Management Authority)

RethinkWaste, also known as the South Bayside Waste Management Authority, is a joint powers authority formed by 11 local jurisdictions within San Mateo County, including the City of Belmont. RethinkWaste owns and manages the Shoreway Environmental Center in San Carlos, which receives all the recyclables, green waste, and garbage collected from the Member Agencies. RethinkWaste also provides oversight and management of service providers that collect, process, recycle, and dispose of materials and educates residents and businesses through waste reduction, recycling, and solid waste programs. South Bay Recycling operates the Shoreway Environmental Center on behalf of RethinkWaste.

Local Regulations

City of Belmont General Plan 2035

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to solid waste that are relevant to the proposed project are found in the Conservation and Safety Elements and are listed in Table 4.17-4, *City of Belmont 2035 General Plan Policies Relevant to Solid Waste.*

[29] San Mateo County Health, 2024, Solid Waste Program, https://www.smchealth.org/solidwaste, accessed March 15, 2024.

[30] San Mateo County Office of Sustainability, 2024. Solid Waste Management, https://performance.smcgov.org/stories/s/Office-of-Sustainability-Solid-Waste-Management-40/nm65-ibfd/, accessed March 15, 2024.

TABLE 4.17-4 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO SOLID WASTE

Policy Number	Policy Text
Chapter 5, Conservation	
Policy 5.8-1	Promote solid waste reduction, recycling, and composting to Belmont residents and businesses as an important way to conserve limited natural resources and reduce greenhouse gas emissions.
Policy 5.8-2	Solicit the use of recycled products in City procurement documents.
Chapter 6, Safety	
Policy 6.4-1	Continue to support the hazardous waste collection, management, and inspection efforts of San Mateo County, the State, and the Water Resources Control Board.
Policy 6.4-2	Educate residents and businesses about household hazardous wastes, less toxic materials that can be used in place of toxic materials, and proper household and business hazardous waste disposal methods.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The BCC includes various directives pertaining to solid waste. The BCC is organized by chapter, article, section, and in some cases, divisions. Most provisions related to solid waste impacts are included in Chapter 11, *Health and Sanitation*, Chapter 31, *Waste Reduction*, and Chapter 33, *Mandatory Organic Waste Disposal Reduction Regulations.*

- Chapter 11, Article III, *Garbage and Rubbish*, establishes prohibitions on unlawful deposits, receptacle requirements, collection rates, and burning or burying restrictions.
- Chapter 31, *Waste Reduction*, adopts San Mateo County Ordinance Title 4, Chapter 4.114, entitled "Reusable Bags" and Chapter 4.107, entitled "Regulating the Use of Disposable Food Service Ware" as enacted by County of San Mateo Ordinance No. 4860, Section 2.
- Chapter 33, Section 33-10, *Compliance with CALGreen recycling requirements*, describes compliance with all applicable CALGreen requirements, including diversion of organic waste in construction and demolition debris from disposal.

City of Belmont Standard Conditions

The City of Belmont has identified standard conditions for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.17.3.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Existing Conditions

Solid Waste Collection

Recology San Mateo County (Recology) is the franchise waste hauler for the City of Belmont and provides residential and commercial solid waste collection, composting, and recycling services. Recology provides the following services to residents and businesses in the city:

- Weekly curbside collection of waste in three containers: landfill waste in a black container, recyclables in a blue container, and organics (including yard and food waste) in a green container.
- Free compost for pickup at the Shoreway Environmental Center for residents, schools and community groups. Limit two bags of three cubic feet each per visit and up to two visits per week.
- Recycling of construction and demolition debris at the Shoreway Environmental Center.
- Disposal of used motor oil and filters, antifreeze, paint, electronics, fluorescent lighting tubes, batteries, medicines and pharmaceuticals, mattresses, automobile batteries, and small appliances at the Shoreway Environmental Center.

All waste collected from residents and businesses is transferred to Shoreway Environmental Center in San Carlos, which is a materials transfer and processing facility. Recyclable materials are separated from landfill waste and shipped to various markets for processing. Organic waste is sent to Newby Island in San Jose and Blossom Valley Organics in Vernalis for composting; the finished product is shipped back to the Shoreway Environmental Center where residents and businesses can pick it up at no cost. Construction and demolition waste and other types of construction materials are sent to Zanker Road recycling facility in San Jose. The Shoreway Environmental Center has a permitted daily capacity of 3,000 tons.[31]

Landfills

In 2019, solid waste generated by Belmont was delivered to 15 facilities and landfills in the Bay Area for a total disposal rate of 14,744 tons. However, 90 percent of the solid waste was delivered to Corinda Los Trancos (Ox Mountain) Landfill.[32] The Ox Mountain Landfill is located in Half Moon Bay and is owned and operated by Browning Ferris Industries of CA, Inc. The Ox Mountain landfill is permitted to receive up to 3,598 tons of waste per day, has a remaining capacity of 22 million cubic yards, and is estimated to close by 2034.[33]

After solid waste is collected and sorted at the San Carlos Transfer Station, it is transported to the Los Trancos Canyon (Ox Mountain) landfill in Half Moon Bay. Table 4.17-5, *Landfill Capacity*, provides more

[31] CalRecycle, 2024, SWIS Facility/Site Activity Details: Shoreway Environmental Center (41-AA-0016), https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1575?siteID=3236, accessed March 19, 2024.

[32] CalRecycle, 2024, Jurisdictional Disposal and Alternative Daily Cover (ADC) Tons by Facility, https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility accessed March 15, 2024.

[33] CalRecycle, 2024, SWIS Facility/Site Activity Details: Corinda Los Trancos Landfill (Ox Mtn)(41-AA-0002), https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223, accessed March 19, 2024.

information on the landfill capacity and closing date for the primary landfill that receives solid waste from the City of Belmont.

TABLE 4.17-5 LANDFILL CAPACITY

Landfill Name and Location	Maximum Permitted Throughput, tons/day [a]	Average Disposal, tons/day [b]	Residual Disposal Capacity, tons/day	Remaining Capacity, cubic yards	Estimated Closing Year
Ox Mountain Landfill (Corinda Los Trancos) Half Moon Bay, CA 94019	3,598	1,667	1,931	22,180,000	2034

Sources:
a. CalRecycle 2024, SWIS Facility/Site Activity Details: Corinda Los Trancos Landfill (Ox Mtn)(41-AA-0002), https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/1561?siteID=3223, accessed March 19, 2024.
b. CalRecycle 2024, Landfill Tonnage Reports for 2022, https://www2.calrecycle.ca.gov/LandfillTipFees accessed on March 19, 2024.

Solid Waste Diversion and Recycling

Compliance with AB 939 is measured by comparing the CalRecycle target disposal rates for residents and employees to actual disposal rates. The CalRecycle target disposal rates for Belmont were 5.3 pounds per day (ppd) for residents and 20.2 ppd for employees. The actual disposal rates in 2022 were 2.4 ppd for residents and 10.6 ppd for employees.[34] Therefore, the solid waste diversion goals for Belmont have been met.

4.17.3.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant solid waste impact if it would:

- Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Be out of compliance with federal, State, and local management and reduction statutes and regulations related to solid waste.
- In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to solid waste.

4.17.3.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following solid waste analysis is based on campus population and occupancy and therefore utilizes information gathered in 2013.

[34] CalRecycle, 2019, *Jurisdiction Diversion/Disposal Rate Summary,* https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006, accessed March 15, 2024.

UTIL-7	The proposed project would not generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Buildout of the proposed project is anticipated to result in an estimated increase of 67 residents and 58 daytime population of staff and students compared to the 2013 baseline. As shown in Table 4.17-6, *Proposed Project Solid Waste Generation Rates,* this level of growth would result in an increase in solid waste of approximately 0.39 tons per day, or 141 tons per year. These numbers are conservative because, with continued recycling and waste reduction programs implemented by the City and ReThinkWaste, the waste generation rates would be reduced over time.

TABLE 4.17-6 PROPOSED PROJECT SOLID WASTE GENERATION RATES

Category	Increase in Residents or Staff + Enrollment	Solid Waste Generation Rate (ppd)	Increase in Solid Waste (tons/day)	Increase in Solid Waste (tons/year)
Residents	67	2.4	0.08	29
Staff + Students	58	10.6	0.31	112
Total			**0.39**	**141**

Source: CalRecycle, 2019; PlaceWorks, 2024.

As shown in Table 4.17-6, an increase of 0.39 tons/day from the proposed project would be about 0.02 percent of the current residual capacity of 1,931 tons/day at Ox Mountain Landfill. In addition, some of the solid waste from the City of Belmont is transported to other landfills in the Bay Area, and the majority of the waste generated in the city is diverted from landfill disposal through recycling and composting. This estimate conservatively assumes that all of the generated waste is landfilled. The results in Table 4.17-6 show that the proposed project would not generate solid waste in excess of the capacity of the landfills that serve the City.

Furthermore, potential future development under the proposed project would require compliance with Division 4.4 of CALGreen, which requires that at least 65 percent of nonhazardous construction and demolition waste from residential and nonresidential construction operations be recycled and/or salvaged for reuse. New development and redevelopment would also need to comply with the requirements of AB 341 that mandates recycling for commercial and multifamily residential land uses. Therefore, solid waste facilities would be able to accommodate project-generated solid waste, and impacts would be less than significant.

As provided in Table 4.17-4, the Conservation and Safety Elements of the Belmont General Plan contain policies that require local planning and development decisions to reduce solid waste generation and increase recycling efforts and would serve to minimize potential adverse impacts on the solid waste infrastructure and landfill capacities. In addition, potential future development under the proposed project would be required to implement the City's following standard condition related to solid waste:

> Applicants are required to provide plans and materials that include details for collecting trash and recycling for proposed development projects (i.e., location of facilities, and proposed access for collection). The City's trash and recycling hauler (Recology) reviews the plans and determines the appropriate levels service for the projects. Recology and Public Works staff also determine if there is

adequate access/circulation for their vehicles to pick up materials from the site. A letter shall be provided from Recology stating that service is available to the project as designed. Public Works will review the proposed service for impacts to the right-of-way.

The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

With continued compliance with the applicable regulations, leading to increased recycling and waste diversion, and adherence to the General Plan policies and the City's standard conditions, anticipated rates of solid waste disposal from the proposed project would be less than significant with respect to permitted landfill capacity. In addition, the City is well below the CalRecycle target disposal rates and meets the regulatory requirements of AB 939. Therefore, implementation of the proposed project would not generate solid waste in excess of State and local standards, or in excess of the capacity of the landfills, or otherwise impair the attainment of solid waste reduction goals and the impact is *less than significant.*

Significance without Mitigation: Less than significant.

UTIL-8	The proposed project would not be out of compliance with federal, State, and local management and reduction statutes and regulations related to solid waste.

As discussed in impact discussion UTIL-7, Recology San Mateo County, which serves the City, complies with all State requirements to reduce the volume of solid waste through recycling and organic waste diversion. The City's per capita disposal rates of 2.4 ppd per resident and 10.6 ppd per employee are well below the CalRecycle targets of 5.3 ppd for residents and 20.2 ppd for employees. In addition, all potential future development pursuant to the proposed project would comply with Division 4.4, *Material Conservation and Resource Efficiency,* of CALGreen, which requires that at least 65 percent of nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

Potential future development under the proposed project would also be required to comply with AB 341, which mandates recycling for commercial and multifamily residential land uses as well as schools and school districts. Additionally, future businesses under the proposed project that generate organic waste are required to recycle organic matter in accordance with SB 1383. Therefore, the City and Recology would comply with all applicable federal, State, and local solid waste regulations, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

UTIL-9	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to solid waste.

The area considered for cumulative impacts to solid waste disposal facilities is San Mateo County, which is serviced by Recology San Mateo County. As reported by ABAG, the total population of San Mateo County is expected to increase from 796,925 to 916,590 by 2040.[35] Assuming that solid waste generation increases at the same rate as the population (15 percent), the increase in the amount of waste generated in the County by 2040 would be about 250 tons per day.[36] Conservatively assuming that all of this waste is landfilled, although the 2022 diversion rate by ReThinkWaste is about 65 percent[37], the additional waste generated by San Mateo County, including the waste generated by the proposed project, would still be only about 13 percent of the daily residual capacity of Ox Mountain Landfill.

In addition, future development in the city would be required to comply with Belmont General Plan policies and the City's standard conditions, as well as with Division 4.4 of CALGreen, which requires that at least 65 percent of nonhazardous construction and demolition waste from residential and nonresidential construction operations be recycled and/or salvaged for reuse. This would also reduce the volume of solid waste transported to the landfills. Continued compliance with the applicable regulations and an increase in recycling and landfill diversion rates would ensure that solid waste cumulative impacts would be *less than significant.*

Significance without Mitigation: Less than significant.

4.17.4 STORMWATER INFRASTRUCTURE

4.17.4.1 ENVIRONMENTAL SETTING

Regulatory Framework

The regulatory framework for stormwater is described in detail in Chapter 4.9, *Hydrology and Water Quality*, of this Draft EIR. The regulatory requirements that pertain solely to storm drain systems are repeated below.

Federal Regulations

The NPDES permit program was established by the Clean Water Act to regulate municipal and industrial discharges to surface waters of the United States from their municipal separate storm water systems (MS4). Under the NPDES program, all facilities that discharge pollutants into waters of the United States are required to obtain an NPDES permit. Requirements for stormwater discharges are also regulated

[35] Association of Bay Area Governments, 2018, *Plan Bay Area Projections 2040.*

[36] 2022 Average Disposal to Ox Mountain Landfill x 0.15 = 1,667 tons/day x 0.15 = 250 tons/day.

[37] ReThinkWaste, 2022, *Annual Report 2022*, https://rethinkwaste.org/wp-content/uploads/2023/05/2022-Annual-Report.pdf, accessed March 21, 2024.

under this program. The City is within the jurisdiction of the San Francisco Bay RWQCB (Region 2) and is subject to the waste discharge requirements of the Municipal Separate Storm Sewer System (MS4) Permit (Order No. R2-2022-0018), which became effective on July 1, 2022.[38]

Under Provision C.3 of the MS4 Permit, the permittees use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address stormwater runoff pollutant discharges and prevent increases in runoff flows. This goal is accomplished primarily through the implementation of low impact development (LID) techniques.

State Regulations

On April 7, 2015, the SWQCB adopted an amendment to the Water Quality Control Plan for Ocean Waters of California to control trash. In addition, the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California added the section: Part 1, Trash Provisions. Together, they are collectively referred to as "the Trash Amendments." The purpose of the Trash Amendments is to provide statewide consistency for the RWQCBs in their regulatory approach to protect aquatic life and public health beneficial uses, reduce environmental issues associated with trash in State waters, and focus limited resources on high-trash-generating areas.[39]

The Trash Amendments apply to all Phase I and II permittees under the NPDES MS4 permits. Compliance with the Trash Amendment requires municipalities to install certified trash treatment control systems on all catch basins no later than December 2, 2030.[40]

Regional Regulations

San Mateo Countywide Water Pollution Prevention Program

The San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) is a partnership of the City/County Association of Governments (C/CAG), 20 incorporated cities within the county, and the County of San Mateo, which share a common MS4 permit. This partnership also relies on each of the municipalities to implement local stormwater pollution prevention and control activities for its own local storm drain systems.

[38] California Regional Water Quality Control Board, San Francisco Bay Region, May 2022, *Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, NPDES Permit No. CAS612008,* https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/stormwater/MRP/mrp5-22/R2-2022-0018.pdf, accessed March 19, 2024.

[39] State Water Resources Control Board, April 7, 2015, *Amendment to the Water Quality Control Plan for the Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California*, https://www.waterboards.ca.gov/water_issues/programs/trash_control/documentation.html, accessed March 19, 2024.

[40] State Water Resources Control Board, 2023, *Storm Water Program: Trash Implementation Program.* https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html, accessed March 19, 2024.

Post-construction stormwater quality requirements pursuant to the SMCWPPP are described in the C.3 Regulated Projects Guide (Version 1.0) issued in January 2020.[41] The C.3 Regulated Projects Guide includes instructions for implementing site design measures, source controls, stormwater treatment measures, construction site controls, and low-impact development measures.

San Mateo County Stormwater Resource Plan

The San Mateo County Stormwater Resource Plan (SRP) is a comprehensive document that addresses specific stormwater runoff issues in the County with a watershed-based approach. The main goals of the SRP are to identify and prioritize opportunities to better utilize stormwater as a resource in San Mateo County through a detailed analysis of watershed processes, surface and groundwater resources, input from stakeholders and the public, and analysis of multiple benefits that can be achieved through strategically planned stormwater management projects.[42] These projects aim to capture and manage stormwater more sustainably, reduce flooding and pollution associated with runoff, improve biological functioning of plants, soils, and other natural infrastructure, and provide many community benefits, including cleaner air and water and enhanced aesthetic value of local streets and neighborhoods. SB 985 (Pavley) requires SRPs to be developed to be eligible for funding from future State bond measures for stormwater and dry weather capture projects.[43]

Local Regulations

City of Belmont General Plan 2035

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to stormwater that are relevant to the proposed project are found in the Parks, Recreation, and Open Space; Conservation; and Safety Elements and are listed in Table 4.17-7, *City of Belmont 2035 General Plan Policies Relevant to Stormwater Infrastructure.*

TABLE 4.17-7 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO STORMWATER INFRASTRUCTURE

Policy Number	Policy Text
Chapter 4, Parks, Recreation, and Open Space	
Policy 4.4-1	Continue to designate and protect open space lands for the preservation of scenic areas, natural drainage ways, and plant and wildlife habitats; for outdoor recreation; and for public health and safety.
Policy 4.5-2	Protect Belmont Creek from future encroachment through regulation, development review, conservation easements, or other appropriate actions.
Chapter 5, Conservation	
Policy 5.4-2	Preserve, where possible, natural watercourses or provide naturalized drainage channels within the city. Where necessary and feasible, implement restoration and rehabilitation measure.

[41] San Mateo Countywide Water Pollution Prevention Program, January 2020, *C.3 Regulated Projects Guide*, https://www.flowstobay.org/wp-content/uploads/2020/03/SMCWPPP-C.3-Regulated-Project-Guide-High-Res_021220_0.pdf, accessed March 19, 2024.

[42] City/County Association of Governments of San Mateo, February 2017, *Stormwater Resource Plan for San Mateo County*, https://ccag.ca.gov/wp-content/uploads/2017/02/SMC-SRP-Report-FINAL-1.pdf, accessed March 19, 2024.

[43] City/County Association of Governments of San Mateo, 2022, San Mateo Storm Water Resources Plan, https://ccag.ca.gov/srp/, accessed March 19, 2024.

TABLE 4.17-7 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO STORMWATER INFRASTRUCTURE

Policy Number	Policy Text
Policy 5.9-1	Continue to make improvements and upgrades to the drainage system. Priorities should be to provide curbs and gutters to underserved areas (as feasible), improve facilities in areas that are subject to seasonal flooding, increase capacity of the system, and replace damaged lines in the storm drain system.
Chapter 6, Safety	
Policy 6.2-3	Require all proposed drainage facilities to comply with the city's storm drainage facility requirements to ensure they are properly sized to handle 100-year flood conditions.
Policy 6.2-10	Continue to comply with the Municipal Regional Stormwater Permit requirements for municipal authorities to address water quality and flow-related impacts of stormwater runoff; continue to enforce NPDES permits in Belmont; and continue to participate in the San Mateo Countywide Water Pollution Prevention Program.
Policy 6.2-13	Continue to collaborate with regional stakeholders and agencies to identify and implement a long-term approach to address ongoing flooding issues, maintenance, and creek improvements for Belmont Creek, particularly in the lower portions of the creek.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The BCC includes various directives pertaining to stormwater. The BCC is organized by chapter, article, section, and in some cases, divisions. Most provisions related to stormwater impacts are included in Chapter 7, *Buildings*, Chapter 21, *Sewer and Sewage Disposal*, and Chapter 25.5, *Water Conservation*.

- Chapter 21, Article VI, *Storm Sewer System*. The purpose of this article is to ensure that the city's storm sewer system is used only for drainage of rainwater, landscape and irrigation runoff, regulated discharges and other types of uncontaminated or unpolluted water runoff. As described in Section 21-193, *Unlawful Deposits*, it is illegal for any waste matter that is prohibited by the municipal regional stormwater NPDES permit with the California Regional Water Quality Control Board or any other substance deemed hazardous by federal or state law to be placed or deposited into the city's storm sewer system. Within this article, Section 21-194, *Stormwater charges establish*, describes how the city has established a system of charges for its stormwater drainage system, these charges will all be collected on the official tax assessment roll, together with all regular municipal real property taxes.
- Chapter 21, Article V, Division 6, Section 21-180, *Fees*, establishes a schedule of fees imposed upon applicants issuing stormwater connection permits.

City of Belmont Standard Conditions

The City of Belmont has identified standard conditions for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.17.4.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Belmont City-Wide Storm Drainage Study

In 2009, the City of Belmont completed a Storm Drain Master Plan entitled Belmont City-Wide Storm Drainage Study identifying deficiencies and constraints in the drainage system.[44] The City uses the Storm Drain Master Plan to address infrastructure issues and to prioritize capital improvement projects. The problem areas requiring drainage replacement and system improvements are detailed in the plan. The City is currently in the process of updating the Storm Drain Master Plan.

Belmont Green Infrastructure Plan

The Belmont Green Infrastructure Plan is intended to direct future infrastructure that would collect stormwater runoff and discharge it directly into storm drains and receiving waters to green infrastructure that slows and filters runoff by dispersing it to vegetated areas, rainwater harvesting, and infiltration and evapotranspiration features.[45] According to the plan, green infrastructure is stormwater infrastructure that uses vegetation, soils, and natural processes to manage water and create healthier urban environments. This plan has been developed to comply with requirements in Provision C.3.j of the Municipal Regional Stormwater NPDES Permit (Order No. R2-2022-0018 and NPDES Permit No. CAS612008).

Existing Conditions

The City's stormwater infrastructure consists of 28 miles of storm drain pipes and two pump stations.[46] Storm drains within the City are constructed of corrugated metal pipe, reinforced concrete pipe, high-density polyethylene pipe, and polyvinyl chloride pipe with diameters ranging from 8 inches to 96 inches.[47]

Surface drainage patterns at the project site flow from north to south and connect into existing storms drains. According to the Preliminary Engineering Report prepared for the proposed project, existing on-site storm drains collect water from the site and discharge it directly into Belmont Creek at five locations; a sixth location ties into the existing 12-inch storm drain located in Ralston Avenue, which is then directed to Belmont Creek as well. The existing on-site storm drains lines range in size from 6 inches to 8 inches.

[44] Belmont, 2009, Belmont City-wide Storm Drainage Study Submittal, https://www.belmont.gov/departments/public-works/infrastructure/storm-drain-system accessed March 19, 2024.

[45] City of Belmont, September 2019, Green Infrastructure Plan, https://www.belmont.gov/home/showpublisheddocument/18852/637056120458830000, accessed on March 8, 2024.

[46] Belmont, 2024, Storm Drain System, Belmont's Stormwater Infrastructure, https://www.belmont.gov/departments/public-works/infrastructure/storm-drain-system, accessed on March 19, 2024.

[47] Belmont, 2024, Storm Drain System, Belmont's Stormwater Infrastructure, https://www.belmont.gov/departments/public-works/infrastructure/storm-drain-system, accessed on March 19, 2024.

4.17.4.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant stormwater infrastructure impact if it would:

- Require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.
- In combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to stormwater infrastructure.

4.17.4.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following stormwater infrastructure analysis is based on the built environmental setting and available infrastructure and therefore utilizes information gathered in 2023.

UTIL-10	The proposed project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects.

New development or redevelopment within the project site could result in an increase in impervious surfaces, which in turn could result in an increase in stormwater runoff, higher peak discharges to drainage channels, and the potential to cause nuisance flooding in areas without adequate drainage facilities. However, potential future development under the proposed project must comply with the requirements of the MS4 Permit and the SMCWPPP C.3 Regulated Projects Guide. Regulated projects must implement best management practices (BMP), including LID BMPs and site design BMPs, which effectively minimize imperviousness, retain or detain stormwater on-site, decrease surface water flows, and slow runoff rates. Projects that create and/or replace one acre of impervious surface must also adhere to the hydromodification requirements of the MS4 permit and the SMCWPPP document to ensure that post-project runoff does not exceed pre-project runoff for 10 percent of the 2-year to 10-year peak flow rates. Each project undergoes review by City personnel to ensure that the regulatory requirements for temporary on-site stormwater runoff retention have been met.

As discussed in Chapter 3, *Project Description*, of this Draft EIR, buildout of the proposed project would occur in a phased manner during a 30-year time frame. Figure 3-11, *Proposed Conceptual Storm Drain Line Plan,* in Chapter 3 of this Draft EIR, shows that on-site storm drain infrastructure would be expanded on-site but stormwater runoff would still discharge to the same Belmont Creek outfalls or to the existing infrastructure beneath Ralton Avenue to the south. Stanford would provide utility master plans to the City with the submittal of the first DDPs, with updated utility master plans as subsequent development phases are submitted to the City for approval. New construction would comply with the SMCWPPP C.3

requirements and include bioretention areas to collect and reduce post-development peak flows and meet the SMCWPPP hydromodification requirements. With the implementation of these provisions on the project site, there should not be significant increases in stormwater runoff to the City's storm drain system.

The Parks, Recreation and Open Space; Conservation; and Safety Elements of the Belmont General Plan contain policies that require local planning and development decisions to consider impacts to storm drain infrastructure. The General Plan policies provided in Table 4.17-7 would serve to minimize potential adverse impacts on stormwater discharge. In addition, potential future development under the proposed project would be required to comply with the City's following standard conditions related to stormwater:

- Applicants are required to submit a preliminary C.3 and C.6 Checklist that identifies methods to reduce stormwater run-off using LID methods.
- The owner/applicant shall analyze the existing storm drain system from the property boundary to the outfall. On-site and off-site drainage facilities such as catch basins and storm drain pipes shall be designed to collect runoff from a storm of 10-year return frequency. Should any deficiency in this system be found that would be affected by increased runoff from the project site, the owner/applicant shall improve the downstream system or contribute a proportionate share of the cost for improvements as determined by the Public Works Department.
- Prior to issuance of a building permit, the applicant shall submit a final C.3 and C.6 Development Review Checklist, documenting the LID treatment reduction credit, a narrative of LID Feasibility/Infeasibility and a Storm Water Treatment Plan showing a minimum of 100% LID treatment unless demonstrated to be infeasible is incorporated into the storm water treatment design as shown on the City approved Preliminary Stormwater Management Plan for review and approval by the City Engineer.
- The Property Owner shall enter into a Maintenance Agreement with the municipality to ensure long-term maintenance and servicing by the Property Owner of stormwater site design and treatment control [and/or Hydro Modification measures according to the approved Maintenance Plan(s). The Maintenance Agreement shall be recorded for the property and/or made part of the Covenants, Conditions and Restrictions (CC&Rs).
- The developer shall be responsible for ___% of the total cost of upgrading the existing drainage pipes. The costs will include design, permitting, construction, construction management, inspection, and closeout activities. The ___% contribution for the upgrade of the existing drainage pipes shall be paid to the City before the issuance of the building permit.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal. Additionally, any required fair share costs required by these conditions would be calculated based on then-current cost information.

Compliance with the General Plan policies and the City's standard conditions in addition to the regulatory provisions in the MS4 permit that limit runoff from new development would ensure that the implementation of the proposed project would not result in significant increases in runoff and would not contribute to the construction of new storm drain facilities or expansion of existing facilities that would cause significant environmental impacts. In addition, the City would continue to repair, rehabilitate, and upgrade the storm drain system through implementation of their capital improvement program. Therefore, impacts with respect to stormwater infrastructure would be *less than significant.*

Significance without Mitigation: Less than significant.

UTIL-11	The project would not, in combination with past, present, and reasonably foreseeable projects, result in significant cumulative impacts with respect to stormwater infrastructure.

The analysis of cumulative storm drainage impacts considers future development within the Belmont Creek Watershed. Cumulative projects could result in an incremental increase in impervious surfaces that could increase stormwater runoff and impact existing storm drain facilities. However, all cumulative projects would be required to comply with City and County ordinances and Belmont General Plan policies, as well as the MS4 permit, which would minimize stormwater runoff.

Potential future development under the proposed project would require conformance with State and City policies that would reduce hydrology and infrastructure construction impacts to less than significant levels. Any new development in the City would be subject to the proposed General Plan goal and policies listed in impact discussion UTIL-10 and any other applicable City requirements that reduce impacts related to hydrology and stormwater drainage facilities. More specifically, potential changes related to stormwater flows, drainage, impervious surfaces, and flooding would be minimized by the implementation of stormwater control measures, retention, infiltration, and LID measures and review by the City's Public Works Department to integrate measures to reduce potential stormwater drainage and flooding impacts.

All cumulative projects in unincorporated San Mateo County land within the watershed area would be subject to similar permit requirements and would be required to comply with various municipal codes, policies and County ordinances, as well as numerous water quality regulations that control construction-related and operational discharge of pollutants in stormwater. The water quality regulations implemented by the San Francisco Bay RWQCB take a basin wide approach and consider water quality impairment in a regional context. For example, the NPDES Construction Permit ties receiving water limitations and basin plan objectives to terms and conditions of the permit, and the MS4 Permit also applies to San Mateo County to manage stormwater systems and be collectively protective of water quality. For these reasons, impacts from future development within the Belmont Creek Watershed related to stormwater infrastructure construction are not cumulatively considerable.

Therefore, in combination with past, present, and reasonably foreseeable projects, the proposed project would not result in a cumulatively considerable impact to stormwater infrastructure, and cumulative impacts would be *less than significant.*

Significance without Mitigation: Less than significant.

4.17.5 ENERGY INFRASTRUCTURE

4.17.5.1 ENVIRONMENTAL SETTING

Regulatory Framework

Federal Regulations

National Energy Policy

Established in 2001 by the National Energy Policy Development Group, the National Energy Policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future. Key issues addressed by the energy policy are energy conservation, repair and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This Act includes tax incentives for energy conservation improvements in commercial and residential buildings, fossil fuel production and clean coal facilities, and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

Energy Independence and Security Act of 2007

Signed into law in December 2007, the Energy Independence and Security Act contains provisions designed to increase energy efficiency and the availability of renewable energy. The Act contains provisions for increasing fuel economy standards for cars and light trucks, while establishing new minimum efficiency standards for lighting as well as residential and commercial appliance equipment.

National Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the United States Department of Transportation to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as the transportation and storage of liquefied natural gas. The Pipeline and Hazardous Materials Safety Administration within the Department of Transportation develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6-million-mile pipeline transportation system. The regulations enacted under this act have been updated several times. The latest revision is dated May 2023 and includes additional safety regulations for gas transmission pipelines, including repair criteria, integrity management improvements, cathodic protection, and other inspection and maintenance procedures. The regulations are encoded in 49 Code of Federal Regulations, Part 192.

State Regulations

Warren-Alquist Act

Established in 1974, the Warren-Alquist Act created the California Energy Commission (CEC) in response to the energy crisis of the early 1970s and the state's unsustainable growing demand for energy resources. The CEC's core responsibilities include advancing State energy policy, encouraging energy efficiency, certifying thermal power plants, investing in energy innovation, developing renewable energy, transforming transportation, and preparing for energy emergencies. The Warren-Alquist Act is updated annually to address current energy needs and issues, and its latest revision is dated January 2022.

California Public Utilities Commission Long Term Energy Efficiency Strategic Plan

Adopted in September 2008 and updated in January 2011, the California Public Utilities Commission (CPUC) Long Term Energy Efficiency Strategic Plan provides a framework for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision, as well as goals for each economic sector, identifying specific near-, mid-, and long-term strategies to assist in achieving these goals. The plan sets forth the following four goals, known as "Big Bold Energy Efficiency Strategies," to achieve significant reductions in energy demand:

- All new residential construction in California will be zero net energy by 2020.
- All new commercial construction in California will be zero net energy by 2030.
- Heating, ventilation, and air conditioning will be transformed to ensure that its energy performance is optimal for California's climate.
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

The CPUC and CEC have adopted the following goals to achieve zero net energy levels by 2030 in the commercial sector:

- Goal 1: New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.
- Goal 2: 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.
- Goal 3: Transform the commercial lighting market through technological advancement and innovative utility initiatives.

California Energy Code

The State of California provides a minimum standard for energy conservation through Title 24, Part 6 California Code of Regulations, commonly referred to as the California Energy Code. The California Energy Code was first adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977. The standards are updated on a three-year cycle to allow for consideration and possible incorporation of new energy efficiency technologies and methods. In August 2021, the CEC

adopted the 2022 California Energy Code, which went into effect on January 1, 2023. The 2022 standards require mixed-fuel single-family homes to be electric ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic systems and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers.[48]

CALGreen Standards

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. CALGreen (24 California Code of Regulations, Part 11) was adopted as part of the California Building Standards Code. It includes mandatory requirements for new residential and nonresidential buildings throughout California. CALGreen is intended to (1) reduce greenhouse gas (GHG) emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the governor. The latest 2022 CALGreen code became effective on January 1, 2023.

The CALGreen code includes provisions to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impact during and after construction. CALGreen contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, etc. The code provides for design options, allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.[49]

2016 Appliance Efficiency Regulations

The 2016 Appliance Efficiency Regulations (Title 20, California Code of Regulations Sections 1601 through 1608), combined with federal standards, set minimum efficiency levels for energy and water consumption in products, such as consumer electronics, household appliances, and plumbing equipment. Twenty-three categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state, and those designed and sold exclusively for use in recreational vehicles or other mobile equipment. These regulations exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

[48] California Energy Commission, 2021, Amendments to the Building Energy Efficiency Standards (2022 Energy Code) Draft Environmental Report, CEC-400-2021-077-D.

[49] California Building Standards Commission, 2024, 2022 California Code of Regulations Title 24, Part 11, https://codes.iccsafe.org/content/CAGBC2022P1, accessed March 18, 2024.

California Energy Benchmarking and Disclosure

The Building Energy Benchmarking Program is mandated under AB 802 and requires owners of large commercial and multifamily buildings to report energy use to the CEC by June 1 annually. This program applies to all buildings with more than 50,000 square feet of gross floor area and owners of multifamily residential buildings with more than 50,000 square feet and 17 or more utility accounts. The bill requires each utility, upon the request and authorization of the owner, owner's agent, or operator of a building covered under the regulation, to deliver or provide aggregated energy usage data for a covered building. The required energy usage shall be reported to the CEC through the Energy Star Portfolio Manager.

California Renewable Portfolio Standards

A major component of California's Renewable Energy Program is the renewables portfolio standard established under SB 1078 (Sher) and SB 107 (Simitian). The standard requires that a specified percentage of the electricity that utilities provide comes from renewable resources. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. SB 1020, signed into law on September 16, 2022, requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent by 2040. Additionally, SB 1020 requires all State agencies to procure 100 percent of electricity from renewable energy and zero-carbon resources by 2035.

CPUC Natural Gas Regulations

The CPUC regulates natural gas utility rates and services as well as the transportation of natural gas over the extensive transmission and distribution pipeline systems. The CPUC also regulates gas storage facilities. The Gas Safety and Reliability Branch of the CPUC ensures that natural gas pipeline systems are designed, constructed, operated, and maintained according to the safety standards set by the CPUC and the federal government. The regulations are provided in the CPUC General Order No. 112-E and the Natural Gas Pipeline Safety Act of 2011.

Local Regulations

City of Belmont General Plan 2035

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to stormwater that are relevant to the proposed project are found in the Land Use and Safety Elements and are listed in Table 4.17-8, *City of Belmont 2035 General Plan Policies Relevant to Energy Infrastructure.*

TABLE 4.17-8 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO ENERGY INFRASTRUCTURE

Policy Number	Policy Text
Chapter 2, Land Use	
Policy 2.13-7	Require energy and telecommunication devices (such as solar panels) that are added to the exteriors of buildings, or otherwise visible on a site, to be designed to minimize impacts on scenic views and vistas from the public realm to the maximum extent feasible without interfering with their function.
Chapter 6, Safety	
Policy 6.5-1	Facilitate the upgrading of utility facilities and services, including projects to improve utility safety. Support the development of infrastructure necessary for improved and emerging technologies that all residents may use and benefit from in Belmont, including communication technologies such as fiber optics.
Policy 6.5-2	Require new development to underground service lines and utilities, and continue to pursue and implement projects to underground existing overhead utility lines.
Policy 6.5-3	Facilitate approval of telecommunication utility projects consistent with State and federal law, while ensuring that these projects have minimal negative impacts on the Belmont community.
Policy 6.5-4	Approve new freestanding telecommunication towers only when no feasible alternatives exist.

Source: City of Belmont, 2017, *2035 General Plan*.

Belmont City Code

The BCC includes various directives pertaining to energy. The BCC is organized by chapter, article, section, and in some cases, divisions. Most provisions related to energy impacts are included in Chapter 7, *Buildings.*

- Chapter 7, Article IV, Division 3, *Electrical Code*, adopts the California Electrical Code, 2022 Edition, Title 24, Part 3 of the California Code of Regulations.
- Chapter 7, Article IV, Division 9, *Expedited Permitting Process for Electric Vehicle Charging Stations*, provides streamlined permitting process to achieve timely and cost-effective installations of electric vehicle charging stations.
- Chapter 7, Article IV, Division 10, *Green Building Standards Code*, adopts the California Green Building Standards Code, 2022 Edition, Title 24, Part 11 of the California Code of Regulations.

City of Belmont Reach Codes

In January 2023, the City adopted local reach codes for building electrification and electric vehicle readiness.[50] The City of Belmont Reach Code overrides certain sections of the CALGreen regarding the installation of EV chargers for all residential and commercial projects due to its more stringent application of the code. The City of Belmont Reach Code related to building electrification is currently suspended given recent court rulings on the topic.

Existing Conditions

Electricity

Two electricity providers, Peninsula Clean Energy (PCE) and Pacific Gas and Electric Company (PG&E), serve the project site.

PCE was launched by San Mateo County and all twenty of its cities, including Belmont, to meet local climate action goals. PCE is the default electricity provider for all communities and cities in San Mateo County and offers two electricity options, each with a different percentage of sustainable energy.[50] Residents and businesses in Belmont are automatically enrolled in PCE's ECOplus service, which is distributed to customers through PG&E's existing grid infrastructure. County customers can choose to purchase ECO100, which is 100 percent renewable electricity.[51]

PCE also offers rebates of up to $3,000 for heat pump water heaters; up to $3,500 for heat pump heating, ventilation, and air conditioning (HVAC) systems; and no-cost electric appliance, energy efficiency upgrade, and home repairs to income-qualified residents of San Mateo County.

Customers have the option to opt-out of PCE renewable energy sources and receive their energy service from PG&E. PG&E is responsible for maintaining transmission lines, handling customer billing, and responding to new service requests and emergencies within the PCE service area.

PG&E is a publicly traded utility company that generates, purchases, and transmits energy under contract with the CPUC. PG&E's service territory is 70,000 square miles, roughly extending north to south from Eureka to Bakersfield, and east to west from the Sierra Nevada to the Pacific Ocean. PG&E's electricity distribution system consists of 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines with approximately 5.5 million electric customer accounts.[52]

The electricity is generated by a combination of sources such as natural gas-fired power plants, nuclear power plants, and hydro-electric dams as well as newer sources of energy such as wind turbines and photovoltaic plants, also known as solar farms. The electric grid is a network of high-voltage transmission lines that link power plants with the PG&E system. The distribution system, composed of lower voltage secondary lines, is at the street and neighborhood level and consists of overhead or underground distribution lines, transformers, and individual service "drops" that connect to the individual customer.

The power mix PG&E provided to customers in 2021 consisted of renewable resources (48 percent), nuclear (39 percent), natural gas plants (9 percent), and large hydroelectric facilities (4 percent).[53] The renewable resources include wind, geothermal, biomass, solar, and small hydro. PG&E also has 360 megawatts of battery storage capacity already connected to the electric grid and has contracts for an additional 3,300 megawatts of capacity by 2024.[54]

[50] Belmont, 2024, Peninsula Clean Energy Program, https://www.belmont.gov/residents/programs-activities/peninsula-clean-energy-program accessed on March 18, 2024.

[51] Peninsula Clean Energy, 2024, Home Page, https://www.peninsulacleanenergy.com/, accessed March 18, 2024.

[52] Pacific Gas and Electric Company, 2024, Company Profile, https://www.pge.com/en/about/company-information/company-profile.html accessed on March 18https://www.pge.com/en/about/company-information/company-profile.html, 2024.

[53] Pacific Gas and Electric Company, 2024, *PG&E's 2022 Corporate Sustainability Report*, https://www.pgecorp.com/content/dam/pgecorp/language-masters/en/sustainability/corporate-responsibility-sustainability/reports/2022/assets/PGE_CSR_2022_Executive_Summary.pdf, accessed March 18, 2024.

[54] Pacific Gas and Electric Company, 2024, *PG&E's 2022 Corporate Sustainability Report*, https://www.pgecorp.com/content/dam/pgecorp/language-masters/en/sustainability/corporate-responsibility-sustainability/reports/2022/assets/PGE_CSR_2022_Executive_Summary.pdf, accessed March 18, 2024.

PG&E's projected average annual electricity demand growth (mid-demand forecast) between 2019 and 2035 is approximately 1.5 percent. Total mid-electricity consumption in PG&E's service area was 106,617 gigawatt-hours per year in 2019 and is forecast to increase to 133,893 gigawatt-hours in 2035.[55]

Natural Gas

PG&E is also the natural gas service provider for the City of Belmont. The natural gas system includes approximately 50,000 miles of natural gas pipelines, including 6,700 miles of transmission pipelines and 42,000 miles of distribution pipelines.[56] The transmission pipelines move natural gas from compressor stations and storage facilities to regulator stations. At the regulator station, the pressure in the pipeline is reduced before gas enters the distribution system, which consists of smaller diameter pipelines that deliver gas to residences and businesses. PG&E has approximately 4.5 million natural gas customer accounts.

Natural gas demand statewide is projected to decline an average of 1.1 percent per year through 2035.[57] This is primarily due to the goal of reducing greenhouse gas emissions and the ordinances of some cities for new construction to be all electric. Gas demand is expected to decrease from 5,298 million cubic feet of gas per day in 2022 to 4,857 million cubic feet per day by 2035. California's gas storage facilities supplement pipeline gas supply during high demand periods and also provide supply reliability. The supplies of natural gas would meet the demand through year 2035.[58]

Telecommunications and Internet Providers

Telecommunications services include wireless internet, cell phone and land line telephone, cable television, and satellite television. There are numerous telecommunication and internet providers that serve the EIR Study Area. Telecommunication providers include AT&T, Comcast, and others. Internet providers include Spectrum, Xfinity, AT&T, T-Mobile, Earthlink, and others. Multiple choices give Belmont residents and businesses a variety of options when choosing telecommunication providers.

The wireless networks consist of fiber-optic cables that connect major internet hubs over long distances. In San Mateo County, these cables typically run north to south throughout the county. The networks can be expanded by using small cell facilities, which are small antennae placed on existing utility poles or streetlights along with small pole-mounted radios and other accessory equipment. In this manner, the fiber-optic network can be easily expanded to meet the demand for wireless services. The current

[55] California Energy Commission, 2024, California Energy Demand Forecast, 2021-2035, https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report/2021-1, accessed March 18, 2024.

[56] Pacific Gas and Electric Company, 2024, Gas Systems, https://www.pge.com/en/about/pge-systems/gas-systems.html#tabs-fc6b80548f-item-94036063d6-tab accessed March 18, 2024.

[57] California Public Utilities Commission, 2022, *2022 California Gas Report*, https://www.socalgas.com/sites/default/files/Joint_Utility_Biennial_Comprehensive_California_Gas_Report_2022.pdf, accessed March 18, 2024.

[58] California Public Utilities Commission, 2022, *2022 California Gas Report*, https://www.socalgas.com/sites/default/files/Joint_Utility_Biennial_Comprehensive_California_Gas_Report_2022.pdf, accessed March 18, 2024.

infrastructure is in place and sufficient to serve existing and future customers in Belmont and the surrounding area.

4.17.5.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant energy infrastructure impact if it would:

- Require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- In combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to electric power, natural gas, or telecommunications facilities.

4.17.5.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following energy infrastructure analysis is based on demographics and therefore utilizes information gathered in 2013.

UTIL-12	The proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Electrical service to the project site would be provided by PCE and PG&E through connections to existing off-site electrical lines and new on-site infrastructure. As shown in Table 4.17-9, *Forecast Electricity Consumption,* electricity use at the Stanford Belmont Location would increase by 6,201 megawatt-hours (MWh) per year.

TABLE 4.17-9 FORECAST ELECTRICITY CONSUMPTION

	Electricity Usage (MWh/year)		
Land Use	Existing Conditions	Proposed Project	Net Change
Building Energy Use	1,771	7,971	6,201

Note: MWh = megawatt-hour
Source: See Appendix C, *Air Quality and Greenhouse Gases*, of this Draft EIR.

The increase of 6,201 MWh/year (or 6.2 gigawatt-hours per year) is approximately 0.05 percent of the total electricity forecasted for PG&E in 2035 of 133,893 gigawatt-hours.[59]The proposed buildings would be all-electric, with no natural gas hook-ups proposed at this time. Natural gas hook-ups may be necessary for laboratory uses; however, the design and energy needs of future laboratory uses are currently unknown, and it would be speculative to quantify the natural gas consumption associated with these future potential uses. Such natural gas use would be ancillary to the primary academic purpose of proposed buildings and would be limited to natural gas burners in laboratory spaces. The proposed project is assumed to not include natural gas appliances or natural gas for heating and cooling. It is expected that the natural gas consumption of the proposed project would be reduced from its current consumption of 16,409 metric million British thermal units per year and that natural gas infrastructure would not be expanded. PG&E also states that there would be sufficient electrical and natural gas supplies to cover its service area in 2035.

Potential future development under the proposed project would be required to comply with the current and future updates to the California Energy Code and CALGreen, which would contribute to reducing energy demands. New buildings would also use new energy-efficient appliances and equipment, pursuant to the Appliance Efficiency Regulations, which would ensure the use of efficient electricity consumption. New and replacement buildings in compliance with these standards would generally have greater energy efficiency than existing buildings.

The Land Use and Safety Elements of the Belmont General Plan contains policies that require local planning and development decisions to address efficient use of energy and energy conservation and would further limit wasteful and unnecessary energy consumption. The General Plan policies listed in Table 4.17-8 will contribute to minimizing building-related energy demands and demands on nonrenewable sources of energy.

Compliance with federal, State, and local regulations (e.g., Building Energy Efficiency Standards, CALGreen, and Renewables Portfolio Standards) would increase building energy efficiency and reduce building energy demands. Additionally, implementation of the General Plan policies and compliance with the City's Reach Code would ensure that energy demand associated with growth under the proposed project would not be inefficient, wasteful, or unnecessary, therefore avoiding the need for new or expanded electric power and natural gas facilities. In addition, the energy providers and telecommunications providers that serve the City indicate that they have the capability to serve future increases in population within their service areas without significant changes to the existing infrastructure.

Although the electrical and telecommunications infrastructure would be reconfigured at the project site, the construction or relocation of these facilities would not cause significant environmental effects, and impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

[59] PG&E's projected energy supplies for electricity and natural gas do not extend beyond 2035.

UTIL-13	The proposed project would not, in combination with past, present, and reasonably foreseeable projects, result in a cumulative impact with respect to electric power, natural gas, or telecommunications facilities.

The area considered for cumulative impacts are the service areas of PCE and PG&E for electricity and PG&E for natural gas. Other projects within the service areas would increase electricity and natural gas demands.

The CPUC has identified the Integrated Energy Policy Report as "the appropriate venue for considering issues of load forecasting, resource assessment, and scenario analyses, to determine the appropriate level and ranges of resource needs for load serving entities in California."[60] The 2019 report shows that California's electricity sector is leading efforts to reduce GHG emissions and there has been an increase in electricity consumption of only 10 percent while California's economy grew by 54 percent between 2000 and 2018.[61] Natural gas consumption is expected to level out between 2020 and 2030 with no significant increase due to energy savings from new building standards and the implementation of city and county ordinances that require new construction to have all-electric appliances and heating.

In addition, all future projects developed within the PCE and PG&E service areas would implement the requirements of the California Energy Code and CALGreen. New buildings would also use new energy-efficient appliances and equipment, pursuant to the Appliance Efficiency Regulations. Counties and cities review project design plans against these codes and ensure compliance before issuing construction permits. These measures would reduce the overall consumption of electricity and natural gas.

The utility infrastructure at the project site is already in place, and the telecommunications providers that serve the City indicate that they have the capability to serve future increases in population within their service areas without significant changes to the existing infrastructure. In addition, the Belmont General Plan includes policies that would contribute to minimizing inefficient, wasteful, or unnecessary energy consumption and ensure compliance with State, regional, or local plans for renewable energy, therefore avoiding the need for new or expanded electric power and natural gas facilities. Therefore, the proposed project would not result in a cumulatively considerable impact to electric power, natural gas, or telecommunication facilities and cumulative impacts would be *less than significant*.

Significance without Mitigation: Less than significant.

[60] California Energy Commission, 2020, *Final 2019 Integrated Energy Policy Report, Commission Report*.
[61] California Energy Commission, 2020, *Final 2019 Integrated Energy Policy Report, Commission Report*.

4.18 WILDFIRE

This chapter of the Draft Environmental Impact Report (EIR) evaluates the potential wildfire impacts associated with the proposed project. This chapter describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential wildfire impacts, and identifies feasible mitigation measures, if required, that could mitigate any potentially significant impacts.

4.18.1 ENVIRONMENTAL SETTING

4.18.1.1 REGULATORY FRAMEWORK

Federal Regulations

National Cohesive Wildfire Management Strategy

In the Federal Land Assistance, Management, and Enhancement Act of 2009, Congress mandated the development of a National Cohesive Wildland Fire Management Strategy for all lands in the United States. Wildfire management is guided by the National Cohesive Wildland Fire Management Strategy, which has three primary goals:

- Resilient landscapes
- Fire adapted communities
- Safe and effective wildfire response[1]

These three goals enable land managers to manage vegetation and fuels; protect homes, communities, and other values at risk; manage human-caused ignitions; and effectively and efficiently respond to wildfires. California is part of the Western Regional Strategy Committee, chartered to support and facilitate the implementation of the National Cohesive Wildland Fire Strategy.

State Regulations

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. CAL FIRE provides fire assessment and firefighting services for land in State Responsibility Areas (SRA), conducts educational and training programs, provides fire planning guidance and mapping, and reviews general plan safety elements to ensure compliance with State fire safety requirements. CAL FIRE staff or a designee also reviews building permit applications, parcel maps, and use permits for construction or development in SRAs and Local

[1] United States Department of the Interior and United States Department of Agriculture, April 2014, *National Cohesive Wildland Fire Management Strategy*, accessed February 29, 2024, https://www.forestsandrangelands.gov/documents/strategy/strategy/CSPhaseIIINationalStrategyApr2014.pdf.

Responsibility Areas (LRA). San Mateo Consolidated Fire Department (SMC Fire) is the designee for the City of Belmont.

The Board of Forestry and Fire Protection is a government-appointed approval body within CAL FIRE. It is responsible for developing the general forest policy of the State, determining the guidance policies of CAL FIRE, and representing the State's interest in federal forestland in California. The Board of Forestry and Fire Protection also promulgates regulations and approves general plan safety elements that are adopted by local governments for compliance with State statutes.

The California Office of the State Fire Marshal supports the mission of CAL FIRE by focusing on fire prevention. These responsibilities include regulating buildings in which people live, congregate, or are confined; controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire; providing statewide direction for fire prevention within wildland areas; regulating hazardous liquid pipelines; developing and renewing regulations and building standards; and providing training and education in fire protection methods and responsibilities. These are accomplished through major programs including engineering, education, enforcement, and support from the Board of Forestry and Fire Protection. For jurisdictions in SRAs or very high fire hazard severity zones (FHSZ), the Land Use Planning Program division of the Office of State Fire Marshal reviews safety elements during the update process to ensure consistency with California Government Code, Section 65302(g)(3).

Together, the Board of Forestry and Fire Protection, Office of State Fire Marshal, and CAL FIRE protect and enhance the forest resources of all wildland areas of California that are not under federal jurisdiction.

Fire Hazard Severity Zones and Responsibility Areas

CAL FIRE designates FHSZs as authorized under California Government Code Sections 51175 et seq. FHSZs may be designated Very High, High, or Moderate. CAL FIRE considers many factors when designating fire severity zones, including fire history, existing and potential vegetation fuel, flame length, blowing embers, terrain, and weather patterns for the area. CAL FIRE designates FHSZs in two types of areas depending on which level of government is financially responsible for fire protection:

- **Local Responsibility Area (LRA):** Incorporated communities are financially responsible for wildfire protection.
- **State Responsibility Area (SRA):** CAL FIRE and contracted counties are financially responsible for wildfire protection.

CAL FIRE Strategic Fire Plan

CAL FIRE produced the 2018 *Strategic Fire Plan for California*, which contains goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments.[2] The 2018 *Strategic Fire Plan for California* focuses on fire prevention and suppression activities to protect lives,

[2] California State Board of Forestry and Fire Protection, 2018, *2018 Strategic Fire Plan for California*, accessed February 29, 2024, https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-plan/2018-strategic-fire-plan-approved-08_22_18.pdf?rev=89f7720028dd461fbcfbaaf78539d31d&hash=8B75D9062842BAB9046EB4A6C2850DA7.

property, and ecosystems in addition to providing natural resource management to maintain State forests as a resilient carbon sink to meet California's climate change goals. A key component of the 2018 *Strategic Fire Plan for California* is the collaboration between communities to ensure fire suppression and natural resource management is successful.[3]

California Fire Safe Regulations

California Code of Regulations (CCR) Title 14, Division 1.5, Chapter 7, Subchapter 2, *SRA/VHFHSZ Fire Safe Regulations*, establishes minimum wildfire protection standards for construction and development within the SRA and Very High FHSZ and requires CAL FIRE to review development proposals and enact recommendations that serve as conditions of approval in these zones. These regulations apply to all residential, commercial, and industrial buildings in the Very High FHSZ and all tentative and parcel maps. These standards include basic emergency access and perimeter wildfire protection measures, signing and building numbering, private water supply resources for emergency fire use, and vegetation modification. Fire Safe Regulations also include a minimum setback of 30 feet for all buildings from property lines and/or the center of a road. Section 1273.08, *Dead-End Roads,* of these standards provide regulations for the maximum lengths of single-access roadways requiring the following:

- Parcels zoned for less than 1 acre: 800 feet
- Parcels zoned for 1 to 4.99 acres: 1,320 feet
- Parcels zoned for 5 to 19.99 acres: 2,640 feet
- Parcels zoned for 20 acres or larger: 5,280 feet

Fire Safe Regulations, Section 1299.03, *Fire Hazard Reduction Around Buildings and Structure Requirements*, provides defensible space requirements for areas within 30 feet of a structure (Zone 1) and between 30 and 100 feet from a structure (Zone 2). In Zone 1, all dead and dying plants must be removed as must any flammable vegetation that could catch fire. In Zone 2, horizontal and vertical spacing among shrubs and trees must be created and maintained.

California Building Code

Building Design Standards

The State of California provides a minimum standard for building design through CCR Title 24, Part 2, commonly referred to as the "California Building Code" (CBC). The CBC is updated every three years. It is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions under specific amendment rules prescribed by the State Building Standards Commission. The City of Belmont regularly adopts each new CBC update under the Belmont Code of Ordinances Chapter 7, Article IV, Division 1, *Building Code.* Buildings are plan-checked by local City building officials for compliance with the CBC and any applicable local amendments. Typical fire safety requirements of the CBC include the installation of sprinklers in all buildings and other facilities; the establishment of fire-resistance standards

[3] California State Board of Forestry and Fire Protection, 2018, *2018 Strategic Fire Plan for California*, accessed February 29, 2024, https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-plan/2018-strategic-fire-plan-approved-08_22_18.pdf?rev=89f7720028dd461fbcfbaaf78539d31d&hash=8B75D9062842BAB9046EB4A6C2850DA7.

for fire doors, building materials, and particular types of construction in high FHSZs; requirements for smoke-detection systems; exiting requirements; and the clearance of debris.

Materials and Methods for Exterior Wildfire Exposure

Chapter 7A, *Materials and Methods for Exterior Wildfire Exposure*, of the CBC prescribes building materials and construction methods for new buildings in a FHSZ or Wildland Urban Interface (WUI) Fire Area. Chapter 7A contains requirements for roofing; attic ventilation; exterior walls; exterior windows and glazing; exterior doors; decking; protection of underfloor, appendages, and floor projections; and ancillary structures. Other requirements include vegetation management compliance, as prescribed in CFC Section 4906.

California Fire Code

The CFC incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official fire code for the State and all political subdivisions. It is found in CCR Title 24, Part 9, and, like the CBC, it is revised and published every three years by the California Building Standards Commission. Also like the CBC, the CFC is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions. The CFC is a model code that regulates minimum fire safety regulations for new and existing buildings; facilities; storage; processes, including emergency planning and preparedness; fire service features; fire protection systems; hazardous materials; fire flow requirements; and fire hydrant locations and distribution. Typical fire safety requirements include installation of sprinklers in all buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

Fire Safety During Construction and Demolition

Chapter 33 of the CFC, *Fire Safety During Construction and Demolition*, provides requirements for fire safety precautions during construction and demolition of a development project. The purpose of this chapter is to provide reasonable safety to life and property from fire during construction and demolition operations, including those in underground locations. Specific requirements include a prohibition of smoking on-site, except for in approved areas; management of combustible materials and debris; cutting and welding; electrical wiring; and cooking. Additional requirements include the preparation of site safety plans prior to building permit issuance, providing fire watch during nonworking hours, and maintaining water supply for fire protection as soon as combustible materials arrive on a project site.

Wildland-Urban Interface Fire Areas

Chapter 49, *Requirements for Wildland-Urban Interface Fire Areas*, of the CFC applies to any geographical area identified as a FHSZ by CAL FIRE or by a local agency. It defines FHSZs, connects to the SRA/Very High FHSZ Fire Safe Regulation requirements for defensible space, and parallels requirements for wildfire protection buildings construction and hazardous vegetation fuel management in other sections of the CCR and the Public Resources Code (PRC). Chapter 49 of the CFC includes a definition for the WUI and

provides requirements for fire protection plans, landscape plans, long-term vegetation management, and creation and maintenance of defensible space for all new development within the WUI.

California Public Utilities Commission

In 2007, wildfires in southern California were ignited by overhead utility power lines and aerial communication facilities near power lines. In response, the California Public Utilities Commission (CPUC) began considering and adopting regulations to protect the public from fire hazards due to overhead power lines and nearby aerial communication facilities. The CPUC published a Fire Threat Map under Rulemaking 15-05-006, following procedures in Decision 17-01-009, revised by Decision 17-06-024, which adopted a work plan for the development of a utility High Fire Threat District where enhanced fire safety regulations in Decision 17-12-024 apply.[4] The fire regulations require electric utilities to:

- Prioritize the correction of safety hazards.
- Correct nonimmediate fire risks in "Tier 2" (elevated fire threat) areas on the CPUC High Fire-Threat District within 12 months, and in "Tier 3" (extreme fire threat) areas within 6 months.
- Maintain increased clearances between vegetation and power lines within the High Fire Threat District.
- Maintain stricter wire-to-wire clearances for new and reconstructed facilities in Tier 3 areas.
- Conduct annual inspections of overhead distribution facilities in rural areas of Tier 2 and Tier 3 areas.
- Prepare a fire prevention plan annually if overhead facilities exist in the High Fire Threat District.[5]

California Environmental Quality Act

In November 2022 the California Attorney General issued the Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects Under the California Environmental Quality Act. This guidance document was designed to help lead agencies comply with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) when considering whether to approve projects in wildfire-prone areas. These areas are often in the WUI area—i.e., the area where the built environment meets or intermingles with the natural environment. This guidance provides suggestions for how best to comply with CEQA when analyzing and mitigating a proposed project's impacts on wildfire ignition risk, emergency access, and evacuation. The guidance is aimed at proposed development projects. The extent to which it applies varies by project based on project design and location. It does not impose additional requirements on local governments or alter any applicable laws or regulations but is intended to provide guidance on some of the issues, alternatives, and mitigation measures that should be considered during the environmental review process.

[4] California Public Utilities Commission, revised August 19, 2021, CPUC Fire-Threat Map, https://files.cpuc.ca.gov/safety/fire-threat_map/2021/CPUC%20Fire%20Threat%20Map_v.3_08.19.2021.Poster%20Size.pdf, accessed February 29, 2024.

[5] California Public Utilities Commission, December 14, 2017, *Press Release: CPUC Adopts New Fire-Safety Regulations*, http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M201/K352/201352402.PDF, accessed February 29, 2024.

Regional Regulations

San Mateo–Santa Cruz Unit Strategic Fire Plan

CAL FIRE developed the San Mateo–Santa Cruz Unit 2023 Strategic Fire Plan, adopted in 2023, which covers an approximately 894-square-mile area and protects 572,160 acres of the SRA in both San Mateo and Santa Cruz Counties.[6] The goal of this plan is to outline resource needs in the area by creating a list of all the initial attack resources in the unit and expanding these resources in at-risk communities. There is also an education section in the plan that encourages teaching the community at formal events and meetings.

Santa Cruz San Mateo County Community Wildfire Protection Plan

The Santa Cruz San Mateo County Community Wildfire Protection Plan identifies the risks created by wildfire across the landscape and provides strategies to mitigate wildfire risks and restore healthier, more resilient ecosystems and communities. The 2022 Santa Cruz San Mateo County Community Wildfire Protection Plan was developed through a collaborative effort with CAL FIRE's San Mateo and Santa Cruz Unit, the Resource Conservation District for San Mateo County and Santa Cruz County, the San Mateo Resource Conservation District, and the United States Fish and Wildlife Service. The primary strategy for fire prevention in this plan is reducing structural ignitability through construction methods and materials, education, and defensible space. Additional methods include fuel reduction projects, shaded fuel breaks, and closing the gap on data needs for future vegetation management programs.

San Mateo County Multi-Jurisdictional Hazard Mitigation Plan

The purpose of hazard mitigation planning is to reduce the loss of life and property by minimizing the impact of disasters. The San Mateo County Multi-Jurisdictional Local Hazard Mitigation Plan (MJHMP), updated in 2021 in accordance with the federal Disaster Mitigation Action of 2000, provides an assessment of natural hazards in the county and a set of short-term mitigation actions to reduce or eliminate the long-term risk to people and property from these hazards. The City of Belmont annex of the MJHMP can be found in Chapter 3 of Volume 2 and identifies the specific actions the City is taking to mitigate impacts from flooding, earthquakes, wildfires, and other emergency events as well as climate change adaptation and resiliency strategies.[7]

[6] California Department of Forestry and Fire Protection, updated May 2023, *San Mateo–Santa Cruz Unit: 2023 Strategic Fire Plan*, https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-plan/2023/2023-san-mateo-santa-cruz-unit-fire-plan.pdf?rev=f89a0764ea194b9fa9d26351c16d0f83&hash=1326CA209869D0FC23AE079668D6D146, accessed February 29, 2024.

[7] County of San Mateo, October 2021, *2021 Multijurisdictional Local Hazard Mitigation Plan*, https://www.smcgov.org/ceo/2021-multijurisdictional-lhmp, accessed May 14, 2024.

Local Regulations

City of Belmont General Plan

The 2035 General Plan is a policy document that lays the foundation for future development in the city. The policies related to wildfire that are relevant to the proposed project are found in the Safety Element and are listed in Table 4.18-1, *City of Belmont 2035 General Plan Policies Relevant to Wildfire*.

TABLE 4.18-1 CITY OF BELMONT 2035 GENERAL PLAN POLICIES RELEVANT TO WILDFIRE

Policy Number	Policy Text
Chapter 6, Safety Element	
Policy 6.1-2	Continue to regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards on sites having a history or threat of seismic dangers, erosion, landslides, or shrink swell.
Policy 6.1-4	Continue to require geotechnical site analysis for proposed development on sites as specified in the Municipal Code, prior to allowing site development.
Policy 6.1-5	Geotechnical studies shall identify any geologic hazards affecting the proposed project site, any necessary mitigation measures, and a statement of the site's suitability for the proposed development and whether or not it will be safe from geologic hazard for its expected life. The study shall identify net developable areas, if any, based on landslide or ground shaking potential or erosion risk. Impacts from the development, such as those resulting from increased water runoff, shall also be determined. Such studies must be signed by a licensed Certified Engineering Geologist or Geotechnical Engineer and are subject to review and approval by City staff and/or contracted employees.
Policy 6.5-2	Require new development to underground service lines and utilities, and continue to pursue and implement projects to underground existing overhead utility lines.
Policy 6.6-3	Continue to review development proposals to ensure that they incorporate appropriate fire-mitigation measures, including adequate provisions for evacuation and access by emergency responders.
Policy 6.6-4	Continue the Belmont Fire Protection District's participation in plan review of new buildings in potentially fire prone areas.
Policy 6.6-5	Continue to require a fire prevention inspection of all buildings used as commercial businesses, places of assembly, multi-family residences, and hotels within the Belmont Fire Protection District's boundaries.
Policy 6.6-6	Promote and support the Belmont Fire Protection District's Vegetation Management Program to reduce fire hazards, particularly in areas in the Wildland Urban Interface.
Policy 6.6-9	Continue to require development located within the VHFHSZ to maintain 100 feet of defensible space consistent with California Government Code section 51182. See also Policy 2.14-3 in the Land Use Element regarding defensible space.
Policy 6.6-10	Continue to require development located within the Wildland Urban Interface (WUI) to follow the code requirements in Chapter 7A of the California Building Code, and require buildings to be constructed of ignition-resistant materials and methods.
Policy 6.6-11	Lessen the risk of wildfire and maintain clear and safe access and evacuation routes in areas of high and very high fire hazard severity by continuing to enforce Belmont Municipal Code section 7-401, which classifies nuisances as, in part, overgrown vegetation; dead, decayed, diseased, or hazardous trees, firewood; weeds and other vegetation that may be a fire hazard.

Source: City of Belmont, 2017, *2035 General Plan.*

Belmont City Code

The Belmont City Code (BCC) includes various directives pertaining to wildfire and evacuation. The BCC is organized by chapter, article, section, and, in some cases, divisions. Provisions related to wildfire impacts are included in Chapter 7, *Buildings*; Chapter 9, *Grading*; and Chapter 15.5, *Overhead Utility Facilities*.

- Chapter 7, Article IV, *Construction Regulations,* adopts the CBC and CFC with local amendments.
  - Chapter 7, Article IV, Division 1, *Building Code*, adopts the 2022 CBC with amendments and is referred to as the City of Belmont Building Code.
  - Chapter 7, Article IV, Division 7, *Fire Code*, includes the ratification of SMC Fire's Fire Code that adopts the 2021 International Fire Code with the 2022 CFC Amendments and the 2021 International WUI Code with modifications. This division also notes the SMC Fire as the designated fire authority for the City of Belmont.
- Chapter 7, Article IX, *Floodplain Management Regulations,* applies to all areas of the special flood hazard zones within the city. This chapter contains requirements for construction, elevation, and floodproofing of buildings within special flood hazard areas identified by FEMA.
- Chapter 7, Article XI, Section-401, *Classification of nuisances,* classifies nuisances as, in part, overgrown vegetation; dead, decayed, diseased, or hazardous trees, firewood; weeds and other vegetation that may be a fire hazard.
- Chapter 9, *Grading,* establishes requirements for grading permits, procedures for issuing grading permits, specifies minimum standards for grading and removal of vegetation, including protected trees, and provides for the enforcement of grading requirements.
- Chapter 15.5, *Overhead Utility Facilities,* allows the City Council to call public hearings to decide whether designated areas of the city require the removal of existing poles, overhead wires, and associated overhead structures related to utility lines. If approved, these areas become Underground Utility Districts and the utility and property owners shall work together to underground existing utilities.

City of Belmont Emergency Operations Basic Plan

SMC Fire is responsible for coordinating agency response to disasters or other large-scale emergencies in the City of Belmont. The City of Belmont Emergency Operations Basic Plan (EOP) establishes policy direction for emergency planning, mitigation, response, and recovery activities within the city. The EOP addresses interagency coordination, procedures to maintain communications with regional and State emergency response teams, and methods to assess the extent of damage and management of volunteers, as well as identifies the location of Emergency Operations Centers. The EOP uses the Standardized Emergency Management System as required by California Government Code Section 8607(a) for managing responses to multiagency and multi-jurisdictional emergencies in California, including those related to hazardous materials.

City of Belmont Standard Conditions

The City of Belmont has identified standard development requirements (SDRs) and standard conditions of approval (COAs) (collectively referred to in this EIR as the City's "standard conditions") for large and complex projects. The City's standard conditions are applied on a project-by-project basis as part of the application process in order to avoid or reduce the significant environmental impacts of development projects in the city. A comprehensive list of the City's standard conditions is provided in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. Applicable

standard conditions are identified and assessed for their ability to avoid or reduce adverse physical impacts later in this chapter under Section 4.18.3, *Impact Discussion*. The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B of this Draft EIR. However, development projects under the future Detailed Development Plans (DDP) will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

4.18.1.2 EXISTING CONDITIONS

Wildfire Background

The term "wildfire" refers to fires that usually result from the ignition of dry grass, brush, or timber. Historically, wildfires commonly occurred in steep or heavily vegetated areas, which makes suppression of the fire difficult. More recently, wildfires have been encroaching into more urban areas, that is, the WUI, threatening homes, businesses, and essential infrastructure. Though wildfires play an important role in the ecology of many natural habitats, risks to human safety and property increase as urban development moves into areas susceptible to wildfire hazards.

Types of Wildfire

There are three basic types of wildland fires:[8]

- Crown fires burn trees to their tops; these are the most intense and dangerous wildland fires.
- Surface fires burn surface litter and duff. These are the easiest fires to extinguish and cause the least damage to the forest. Brush and small trees enable surface fires to reach treetops and are thus referred to as *ladder fuels*.
- Underground fires occur underground in deep accumulations of dead vegetation. These fires move very slowly but can be difficult to extinguish.

Wildfires burn in many types of vegetation—forest, woodland, scrub (including chaparral and sage scrub), and grassland. Many species of native California plants are adapted to fire and habitats such as woodlands, chaparral, and grasslands can recover from fire. For example, some species of chaparral plants, such as ceanothus, require intense heat for germination and therefore have flammable resins on leaves and roots that can quickly sprouts up in burned areas.[9] Between 2010 and 2017, wildfires in California burned about 265,000 acres of forest land, 207,000 acres of scrub vegetation, 99,000 acres of grassland, 18,000 acres of desert vegetation, and 14,000 acres of other vegetation types.[10] Wildfires have

[8] Natural Resources Canada, 2021, Fire Behavior, https://www.nrcan.gc.ca/forests/fire-insects-disturbances/fire/13145, accessed March 1, 2024.

[9] National Park Service, 2018, "Wildland Fire in Chaparral: California and Southwestern United States," https://www.nps.gov/articles/wildland-fire-in-chaparral.htm, accessed March 1, 2024.

[10] California State Board of Forestry and Fire Protection, 2018, *2018 Strategic Fire Plan for California*, https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-plan/2018-strategic-fire-plan-approved-08_22_18.pdf?rev=89f7720028dd461fbcfbaaf78539d31d&hash=8B75D9062842BAB9046EB4A6C2850DA7, accessed March 1, 2024.

been observed to be more frequent and growing in intensity over the past several years, with 4,304,379 acres and 2,569,386 acres burning in 2020 and 2021, respectively.[11]

Wildfire Causes

Although the term *wildfire* suggests natural origins, a 2017 study that evaluated 1.5 million wildfires in the United States between 1992 and 2012 found that humans were responsible for igniting 84 percent of wildfires, accounting for 44 percent of acreage burned.[12] The three most common types of causes of human-caused wildfires are debris burning (logging slash, farm fields, trash, etc.); arson; and equipment use.[13,14] Lightning is a major natural cause of wildfire in the United States, with more than 40 percent of wildfires in the western United State caused by lightning between 1992 and 2015.[15,16]

Power lines can ignite wildfires several ways, including:

- Downed lines: Downed power lines can produce arcing that can cause the powerlines to spark and ignite vegetation.
- Vegetation contact: A branch contacting two conductors for a sufficient duration may ignite the branch; a tree falling on a line can cause a downed line.
- High winds and severe weather: Conductors can slap together during high winds and severe weather, creating arcing of the powerlines and ejecting hot metal particles that can ignite flammable matter on the ground.
- Equipment failures: As circuit components deteriorate, they can arc and spark and thus ignite nearby flammable matter.[17]

An analysis of United States Forest Service wildfire data from 1986 to 1996 determined that 95 percent of human-caused wildfires, and 90 percent of all wildfires, occurred within 0.5 mile of a road; and that about 61 percent of all wildfires and 55 percent of human-caused wildfires occurred within approximately 650

[11] CAL FIRE, "Acres Burned vs Structures Destroyed," https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/calfire-website/images---misc/acres-burned-vs-structures-destroyed2022.jpg?rev=f043785e8027411caa4a6c8b176a4e26&hash=DDC50776FEF6C19D8619CA6337CF2481 , accessed March 1, 2024.

[12] Jennifer Balch, Bethany Bradley, John Abatzoglou, et al., January 2017, *Human-Started Wildfires Expand the Fire Niche Across the United States*, https://www.pnas.org/content/pnas/114/11/2946.full.pdf, accessed March 1, 2024.

[13] Pacific Biodiversity Institute, May 2007, *Roads and Wildfires,* http://www.pacificbio.org/publications/wildfire_studies/Roads_And_Wildfires_2007.pdf, accessed March 1, 2024.

[14] Miscellaneous human activities (unspecified) are ranked above equipment use in percentage of wildfires caused.

[15] Jennifer Balch, Bethany Bradley, John Abatzoglou, et al., January 2017, *Human-Started Wildfires Expand the Fire Niche Across the United States*, https://www.pnas.org/content/pnas/114/11/2946.full.pdf, accessed March 1, 2024.

[16] Julie Cart, 2023, "Lightning could spark more California fire as world warms," *CAL MATTERS*, https://calmatters.org/environment/2021/09/california-fires-lightning/, accessed March 1, 2024.

[17] Texas Wildfire Mitigation Project, 2014, How Do Power Lines Cause Wildfires? https://wildfiremitigation.tees.tamus.edu/faqs/how-power-lines-cause-wildfires, accessed March 1, 2024.

feet (200 meters) of a road.[18] The study concluded that the increase in human-caused ignition from new roads greatly outweighs the benefits of increased access for firefighters.

Wildfires ignite structures in three ways: burning embers landing on the structure or flammable material next to the structure, direct flame contact, and radiant heat from fire close to the structure. Embers are the most common cause of home ignition. Embers ignite structures by entering through attic vents, igniting flammable materials around the home (litter in the roof gutter, wood stacks, or wood fencing), or finding their way under roofing materials.[19]

CAL FIRE estimated in 2010 that there were about three million housing units in California in FHSZs and potentially at risk from wildland fire—that is, just over 20 percent of the total housing units in the state.[20] According to CAL FIRE data, approximately 95 percent of structures seriously damaged in California wildfires from 2013 to 2020 took place in FHSZs in the SRA or LRA or on federal lands.[21]

Wildland-Urban Interface Fire Areas

A WUI is any area where structures and other human developments meet or intermingle with wildland vegetative fuels—shrubs, trees, and grasses. Development in the WUI exacerbates fire occurrence and fire spread in several ways:

- More people near and in wildland areas, creating more frequent human-caused wildfires.
- Wildfires become harder to fight due to simultaneous evacuation, and firefighting resources are diverted from containing the wildfire to protecting lives and homes.
- Letting natural fires burn becomes impossible, leading to buildup of fuel in brush and forested areas and overgrowth of grasslands, further increasing wildfire hazard.[22]

Secondary Effects of Wildfire

Secondary effects of wildfire include additional hazards such as landslides, poor air quality, and power outages. Post-fire landslide hazards include fast-moving, highly destructive debris flows that can occur in the years immediately after wildfires in response to high-intensity rainfall events, and flows that are generated over longer time periods that are accompanied by root decay and loss of soil strength. Post-fire debris flows are particularly hazardous because they can occur with little warning, exert great impulsive

[18] Pacific Biodiversity Institute, May 2007, *Roads and Wildfires,* http://www.pacificbio.org/publications/wildfire_studies/Roads_And_Wildfires_2007.pdf, accessed March 1, 2024.

[19] California Chaparral Institute, Protecting Your Home from Fire, https://www.californiachaparral.org/fire/protecting-your-home/, accessed March 1, 2024.

[20] California State Board of Forestry and Fire Protection, 2018, *2018 Strategic Fire Plan for California*, https://34c031f8-c9fd-4018-8c5a-4159cdff6b0d-cdn-endpoint.azureedge.net/-/media/osfm-website/what-we-do/community-wildfire-preparedness-and-mitigation/fire-plan/2018-strategic-fire-plan-approved-08_22_18.pdf?rev=89f7720028dd461fbcfbaaf78539d31d&hash=8B75D9062842BAB9046EB4A6C2850DA7, accessed March 1, 2024.

[21] CapRadio, December 2021, After years of delays, CalFire says updated and expanded wildfire hazard maps are on their way, https://www.capradio.org/articles/2021/12/20/after-years-of-delays-calfire-says-updated-and-expanded-wildfire-hazard-maps-are-on-their-way/, accessed March 1, 2024.

[22] Volker Radeloff, David Helmers, H. Kramer, et al., February 2018, *Rapid Growth of the US Wildland-Urban Interface Raises Wildfire Risk*, https://www.pnas.org/content/pnas/115/13/3314.full.pdf, accessed March 1, 2024.

loads on objects in their paths, strip vegetation, block drainage ways, damage structures, and endanger human life. Debris flows differ from mudflows in that debris flows are composed of larger particles.

Fires increase the potential for debris flows in two ways:

- Fires may bake soil into a hard crust that repels water.
- Fires destroy vegetation that would slow and absorb rainfall and whose roots would help stabilize soil.[23]

Post-fire debris flows are most common in the two years after a fire; they are usually triggered by heavy rainfall. It takes much less rainfall to trigger debris flows from burned basins than from unburned areas. In southern California, as little as 0.3 inches of rainfall in 30 minutes has triggered debris flows, and any storm that has intensities greater than about 0.4 inches per hour can produce debris flows.[24] The burning of vegetation and soil on slopes more than doubles the rate that water will run off into watercourses.

In addition to damaging natural environments, wildfires can injure and kill residents and firefighters as well as damage or destroy structures and personal property. Wildfires also deplete water reserves, down power lines, disrupt communication services, and block evacuation routes, which can isolate neighborhoods. Wildfires can also indirectly cause flooding if flood control facilities become inadequate to handle increases in stormwater runoff, sediment, and debris that are likely to be generated from burn scars.

Regionally, smoke from wildfires creates poor air quality that can last for days or weeks, depending on the scale of the wildfire and wind patterns. Smoke itself is made up of a complex mixture of gases and fine particles produced when wood and other organic materials burn. Health risks from smoke inhalation are largely from microscopic particles ($PM_{2.5}$) that can penetrate the lungs and cause a range of health problems, including chronic heart and lung diseases. Exposure to particulate pollution is even linked to premature death. There are some populations that are more sensitive than others to smoke—for instance, people with heart or lung diseases, seniors, children, people with diabetes, people with compromised immune systems, and pregnant women.[25] Through observations of wildfires, experts have determined that wildfires which produce large plumes of smoke can result in that smoke and ash being carried thousands of miles from the burn area of the wildfire. Therefore, air pollution is a major secondary risk from wildfires in the region.[26]

[23] United States Geological Survey, November 2018, New post-wildfire resource guide now available to help communities cope with flood and debris flow danger, https://www.usgs.gov/center-news/post-wildfire-playbook?qt-news_science_products=1#qt-news_science_products, accessed March 1, 2024.

[24] United States Geological Survey, California Water Science Center, October 2018, Post-Fire Flooding and Debris Flow, https://ca.water.usgs.gov/wildfires/wildfires-debris-flow.html, accessed March 1, 2024.

[25] Environmental Protection Agency, 2021, How Smoke Fires Can Affect Your Health, https://www.airnow.gov/sites/default/files/2021-08/how-smoke-from-fire-can-affect-your-health-2021-v1-d1.pdf, accessed on March 1, 2024.

[26] Nasa Earth Observatory, August 2018, Smoky Skies in North America, https://earthobservatory.nasa.gov/images/92612/smoky-skies-in-north-america, accessed on March 1, 2024.

Wildfire in the Project Area

Wildfire History

According to the CAL FIRE historic wildfire perimeter database, the project site vicinity has not experienced a large fire in the past.[27] According to Volume II of the San Mateo County MJHMP, a wildfire occurred within the city limit on September 21, 2020. The fire was contained to approximately 2 acres and 40 homes were evacuated.[28] However, this fire was outside of the project site.

Wildfire Hazards

The geography, weather patterns, and vegetation in the project site and surrounding areas provide ideal conditions for recurring wildfires. As shown on Figure 4.18-1, *Fire Hazard Severity Zones*, the project site is outside of a Very High Fire Hazard Severity Zone. According to CAL FIRE, the project site is not within the WUI.[29] However, as shown on Figure 4.18-2, *Wildland-Urban Interface Area*, SMC Fire designates the project site within the WUI. SMC Fire has separated WUI areas into "interface" risk and "wildland" risk categories. The interface risk zone contains dense housing or other structures next to vegetation but has little wildland vegetation that can burn in a wildfire. The wildland risk zones have higher concentrations of wildland vegetation with fewer structures and may have limited access and/or steeper terrain that makes controlling wildfires more difficult. As shown on Figure 4.18-2, the majority of the project site is within a moderate interface risk zone, with the northeastern portion of the campus in a low wildland risk zone.

Prometheus Fire Consulting and Panorama Environmental performed fire behavior modeling for the project and determined that it is unlikely that rapid or extreme fire behavior spread is likely to occur at the project site (see Appendix K, *Vegetation Management Plan,* of this Draft EIR). The fire behavior modeling demonstrated that areas of natural vegetation on the project site lack sufficient fuel density and volume to support rapid fire spread, and that the predicted rate of spread, even under extreme fire conditions, is predominantly in the lowest range of 0 to 2 chains per hour, with increased rate of spread aligning with areas containing dense vegetation, eucalyptus, or grassy understory. A lack of significant understory vegetation is likely to result in a lack of crown fire initiation, and tree stand density is not sufficient to allow for crown fire propagation.[30]

[27] California Department of Forestry and Fire Protection, 2023, "CAL FIRE Wildfire Perimeters and Prescribed Burns." https://calfire-forestry.maps.arcgis.com/apps/mapviewer/index.html?layers=e3802d2abf8741a187e73a9db49d68fe, accessed March 6, 2024.
jUJYIo9tSA7EHvfZ/arcgis/rest/services/California_Fire_Perimeters/FeatureServer.

[28] San Mateo County, 2021, *San Mateo County Multi-Jurisdictional Hazard Mitigation Plan, Volume II*, https://www.smcgov.org/media/53476/download?inline=, accessed March 6, 2024.

[29] California Department o Forestry and Fire Protection, updated December 2, 2022, Wildland-Urban Interface Fire Threat, https://www.arcgis.com/apps/mapviewer/index.html?layers=d45bf08448354073a26675776f2d09cb, accessed July 2, 2024.

[30] See Appendix K, *Vegetation Management Plan,* of this Draft EIR.

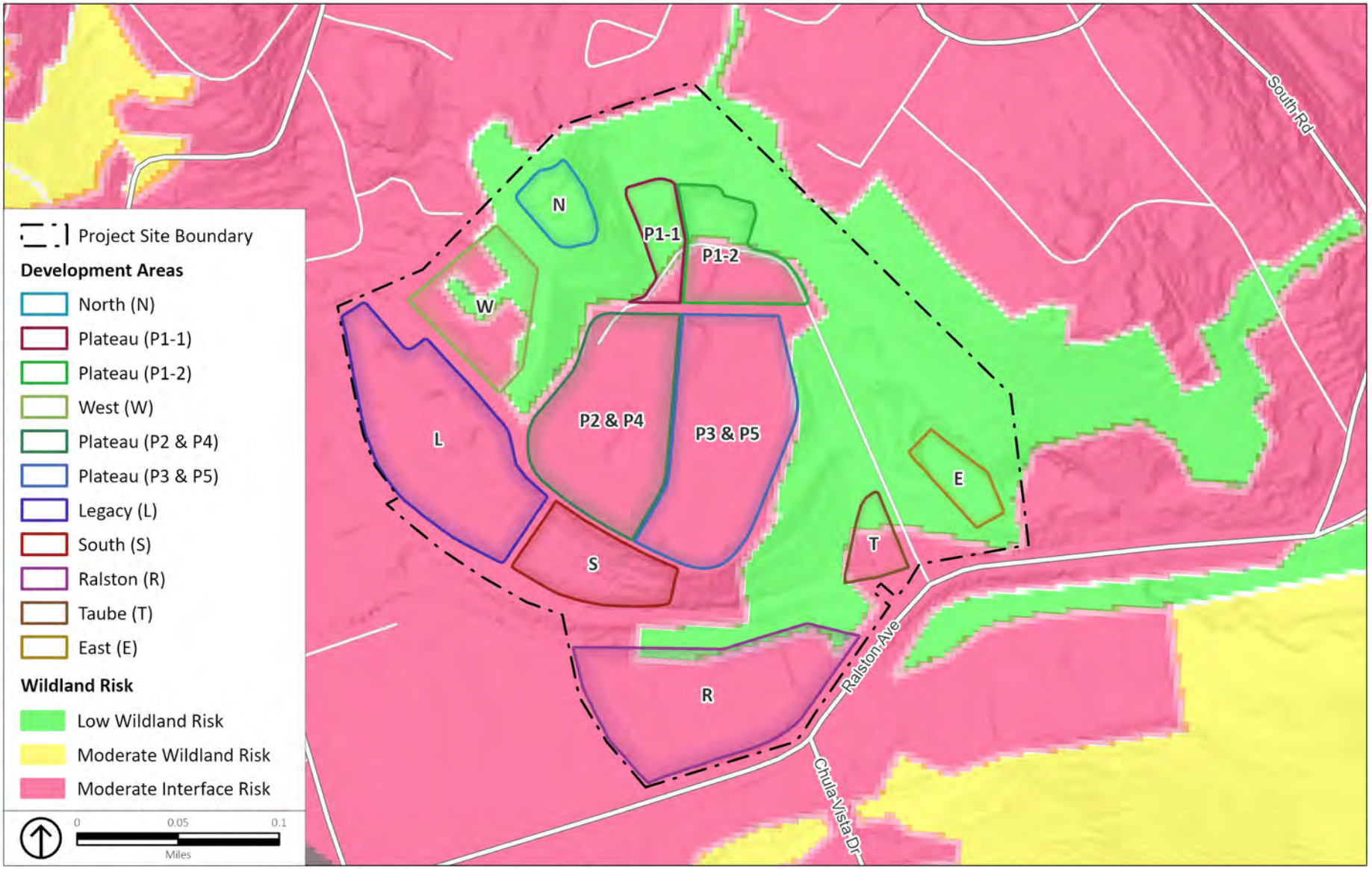
Source: Stanford University, December 2023, Notre Dame De Namur University Campus Vegetation Management Plan.

Legend
Scale = 1:15,000
Created: 12/13/2023

Fire Hazard Severity Zones
Very High
Project Site

Feet
0 500 1,000

Figure 4.18-1
Fire Hazard Severity Zones



Source: San Mateo Consolidated Fire Department, 2024; PlaceWorks, 2024.

Figure 4.18-2
Wildland-Urban Interface Areas

Factors Influencing Wildfire

Several factors influence wildfire conditions and facilitate the spread of wildfires, including weather, conditions, fuels, topography, and climate change. Human actions are also the leading cause of wildfires in California, increasing the risk of wildfire devastating natural lands and communities.

Weather

The climate in the project area is generally referred to as "Mediterranean," with hot, dry summers and cool, wet winters. Warm summers and cold winters with rainfall are common in the city. Due to the proximity of the Pacific Ocean and San Francisco Bay, fog and overcast conditions are common in the morning and evening.[31] The City of Belmont receives an average of approximately 22.5 inches of precipitation annually.[32] Because the summer months are generally hot and dry, the risk of wildfires has historically been greatest in summer and fall. Relative humidity is also an important fire-related weather factor. As humidity levels drop, the dry air causes vegetation moisture levels to decrease, thereby increasing the likelihood that plant material will readily ignite and burn; the risk of wildfire increases when lightning strikes during dry periods.

Wind is a major weather factor of wildfire behavior. Average wind speeds in Belmont vary only slightly throughout the year, with the windier part of the year occurring from February to July with average wind speeds of 8.8 miles per hour and the calmer part of the year occurring from July to February with average wind speeds of 7.5 miles per hour.[33] Wind is most commonly from the west from February to November, with winds from the north from November to February.[34]

Diablo winds, which are a type of downslope, warm, northerly to northeasterly wind, flow over the Diablo Mountain range and have had reported speeds of up to 100 miles per hour.[35] As wind speeds increase, the rate of fire spread, intensity, and ember spread potential also increases. Gusty and erratic wind conditions can cause a wildfire to spread irregularly, making it difficult to predict its path and effectively deploy fire suppression forces. Winds from the northeast in the late summer and fall compound with lower relative humidity, creating "red flag" conditions.[36] Diablo winds and low humidity are especially dangerous because low humidity can dry out trees and other fuel that may also be weakened by the winds. This can increase wildfire conditions in and near the project site. Wind shifts can also occur

[31] California Department of Forestry and Fire Protection, updated May 2022, *San Mateo – Santa Cruz Unit: 2022 Strategic Fire Plan*, https://osfm.fire.ca.gov/media/lznihvwb/2022-san-mateo-santa-cruz-san-fransisco-unit-fire-plan.pdf, accessed March 6, 2024.

[32] Cal-Adapt, 2024, Annual Averages, Cal-Adapt Website, developed by Geospatial Innovation Facility, University of California, Berkeley, funding and advisory oversight by California Energy Commission and the California Strategic Growth Council. https://cal-adapt.org/tools/annual-averages.

[33] Weatherspark, "Climate and Average Weather Year Round in Belmont," https://weatherspark.com/y/488/Average-Weather-in-Belmont-California-United-States-Year-Round, access March 7, 2024.

[34] Weatherspark, "Climate and Average Weather Year Round in Belmont," https://weatherspark.com/y/488/Average-Weather-in-Belmont-California-United-States-Year-Round, accessed March 7, 2024.

[35] Y C. Liu, P. Di,, S. H. Chen et al., November 28, 2020, *Climatology of Diablo Winds in Northern California and Their Relationships with Large-Scale Climate Variabilities*, https://doi.org/10.1007/s00382-020-05535-5, accessed March 7, 2024.

[36] The National Weather Service issues "red flag" weather day warnings when certain weather elements such as low relative humidity and strong winds could lead to increased wildfire risk.

suddenly due to temperature changes and interactions with steep slopes or hillsides, causing fires to spread unpredictably. Fall has historically been one of the most dangerous times for wildfire risk; periods of very high temperatures, low humidity, and strong wind increases cause "red flag" warnings and extreme fire danger.

Fuel

The qualities of vegetation that directly influence fire risk include fuel type and size, loading, arrangement, chemical composition, and dead and live fuel moisture, which contribute to the flammability characteristics of the vegetation. As described in the *Standard University Notre Dame De Namur University Campus Vegetation Management Plan*, prepared by Prometheus Fire Consulting and Panorama Environmental in December 2023 (see Appendix K, *Vegetation Management Plan,* of this Draft EIR), vegetation in the campus core of the project site consists of plants that were installed as part of landscaping of the campus. In the remaining areas, vegetation is divided into stands of blue gum eucalyptus, areas of dense vegetation, live oak stands with grassy understory, and riparian corridor, as shown on Figure 3, *Vegetation Cover Types Across the NDNU Campus,* in Appendix K of this Draft EIR. Grasslands and woodlands are highly flammable, particularly leaf litter that is left to accumulate, ultimately dries, and provides fuel for potential fires. The fire risk in grassland and woodland vegetation communities can be reduced through several tactics, primarily controlled burns and annual grazing.[37]

Topography

Slope is a measure of land steepness, and wildfire intensity and rate of spread increase as slope increases due to the tendency of heat from a fire to rise via convection. For example, as slope increases from 20 to 40 percent, flame heights can double and rates of fire spread can increase fourfold; from 40 to 60 percent, flame heights can become three times higher, and rates of spread can increase eightfold. The arrangement of vegetation throughout a hillside can also contribute to increased fire activity on slopes. As noted in the *Standard University Notre Dame De Namur University Campus Vegetation Management Plan*, prepared by Prometheus Fire Consulting and Panorama Environmental in December 2023 (see Appendix K, *Vegetation Management Plan,* of this Draft EIR), 75 percent of the project site has slopes under 10 percent, and all slopes are under 50 percent. As discussed in Chapter 4.6 of this Draft EIR, *Geology and Soils,* and shown on Figure 4.6-6, *Areas Susceptible to Landslide*, the project site is within a mapped landslide area with few landslides. At-risk areas include 1) the steep, southwesterly facing slope along the uphill side of Laxague Drive, 2) the excavated bluff adjacent to the west edge of the former quarry, and 3) the steep cut slope adjacent to the northwest side of the New Hall Complex.

Climate Change

Climate change is likely to increase annual average temperatures in Belmont and the project site from a historical 68.1 degrees Fahrenheit (°F), to 72.3°F by 2050 and 75.5°F by 2100.[38] This will likely create warmer temperatures earlier and later in the year. Precipitation levels are projected to vary over the

[37] The Nature Conservancy, Restoring Fire to Native Grasslands, https://www.nature.org/en-us/about-us/where-we-work/united-states/minnesota/stories-in-minnesota/restoring-fire-to-native-grasslands/, accessed March 7, 2024.

[38] Cal-Adapt, 2023, Annual Averages, https://cal-adapt.org/tools/annual-averages/, accessed March 7, 2024.

course of the century, changing from a historical annual average of 22.5 inches per year, to an annual average of 25.1 inches by 2050 and an annual average of 27.6 inches by 2099.[39] Variations in precipitation patterns will also lead to an increase in frequency and intensity of heavy precipitation events as well as prolonged periods of drought. The combination of extreme heat and droughts can cause soils and vegetation to dry out, creating more fuel for wildfires. These factors are expected to increase wildfire conditions, creating a risk of more frequent and intense wildfires. Because wildfires burn the trees and other vegetation that help stabilize a hillside and absorb water, more areas burned by fire may also lead to an increase in landslides and floods. Historically, an average of 82 acres have burned annually in the City of Belmont.[40] Annual wildfire averages are projected to result in 72 acres burned by 2050 and an annual average of 189 acres burned by 2100.[41]

Human Actions

Most wildfires are ignited by human action, the result of arson, carelessness, or accidents. Many fires originate in populated areas along roads and around homes and are often the result of the careless disposal of cigarettes, mowing of dead grass, electricity equipment malfunction, use of equipment, or burning of debris. Recreation areas with increased human activity that are in fire-prone areas also increase the potential for wildfires.

Fire Protection Resources

SMC Fire was formed by the establishment of a Joint Powers Authority and represents the merger of fire departments in the cities of Belmont, Foster City, and San Mateo.[42] SMC Fire is responsible for protecting lives, property, and the environment from fire and hazardous materials exposure, providing emergency medical care, offering programs that prepare citizens for emergency, and providing non-emergency services, including fire prevention and emergency preparedness.

Out of the nine fire stations that SMC Fire operates, two are in Belmont: Station 14 at 911 Granada Street and Station 15 at 2701 Cipriani Boulevard. SMC Fire staffs two 100-foot tractor-drawn aerial ladder trucks—one out of Station 21 and the other out of Station 23—that respond to all major incidents in the community.[43]

SMC Fire's Commercial Inspection Program inspects commercial occupancies to ensure fire safety and checks all newly constructed and remodeled buildings for Fire and Building Code compliance. SMC Fire also provides fire investigation services to determine the cause of fires.

[39] Cal-Adapt, 2023, Annual Averages, https://cal-adapt.org/tools/annual-averages/, accessed March 7, 2024.
[40] Cal-Adapt, 2023, Wildfire, https://cal-adapt.org/tools/wildfire, accessed March 7, 2024.
[41] Cal-Adapt, 2023, Wildfire, https://cal-adapt.org/tools/wildfire, accessed March 7, 2024.
[42] San Mateo Consolidated Fire Department, 2023, History, https://www.smcfire.org/about-us/history/, accessed March 7, 2024.
[43] San Mateo Consolidated Fire Department, 2023, Stations and Apparatus, https://www.smcfire.org/about-us/station-locations/, accessed March 7, 2024.

Evacuation and Access

Evacuation routes are designated roadways that allow many people to quickly leave an area due to a potential or imminent disaster. These routes should have sufficient capacity to accommodate the needs of the community, be safely and easily accessible, and allow people to travel far enough away to be safe from emergency conditions. The primary ingress and egress route to and from the project site is Ralston Avenue. From Ralston Avenue, Laxague Drive and Entry Drive serve as internal access routes.

4.18.2 STANDARDS OF SIGNIFICANCE

The proposed project would result in a significant wildfire impact if it would:

1. Substantially impair an adopted emergency response plan or emergency evacuation plan.
2. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
3. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
4. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.
5. In combination with past, present, and reasonably foreseeable projects, result in cumulative wildfire impacts in the area.

4.18.3 IMPACT DISCUSSION

As discussed in Chapter 4, *Environmental Analysis*, of this Draft EIR, this EIR uses two baseline conditions, as allowed under CEQA Guidelines Section 15125(a)(1). For analyses based on the physical environmental setting pertaining to the built or natural environment, the conditions at the time the Notice of Preparation was issued (May 23, 2023) are used. For analyses based on existing occupancy and demographics, a baseline year of 2013 is used, as it is the most recent year that the Notre Dame de Namur University was at full capacity. The following wildfire analysis is based on the natural environmental setting and therefore utilizes information gathered in 2023.

WILD-1 The proposed project could substantially impair an adopted emergency response plan or emergency evacuation plan.

The proposed project would involve construction projects at the project site, increase the residential and daytime population of the project site, and make changes to ingress and egress routes and access points at the project site. These changes could affect emergency access and evacuation to and from the project site. Adopted emergency response plans and emergency evacuation plans include those discussed under Section 4.18.1.1, *Regulatory Framework*, such as the City of Belmont EOP. The City of Belmont EOP refers to the potential need to evacuate threatened populations to safe areas in order to protect life in the event

of a disaster.[44] The EOP does not provide specific procedures for evacuation events or designate evacuation routes throughout the city because the details for specific evacuation events would vary depending on the location, magnitude, and nature of the emergency. Therefore, this analysis focuses on whether construction or operation of the proposed project could generally interfere with or impede safe and orderly evacuation in the city.

Future development projects could potentially interfere with emergency response and evacuation through construction-related road closures. A temporary impact to emergency response and evacuation under the proposed project could occur from construction of future development projects if they were to result in temporary lane closures that could potentially alter evacuation routes. These effects would be limited to the duration of the construction period, and the direct impacts of construction would be evaluated during the permit review process by SMC Fire. However, a temporary impact could still occur on Ralston Avenue or internal access routes where there is limited ingress and egress.

Potential future development projects under the proposed project would be required to integrate applicable emergency operation and evacuation requirements, as required by SMC Fire and the Belmont Police Department, as necessary to continue evacuation of both daytime and residential populations in the project site. Future development, regardless of whether it includes new development or redevelopment, is required to comply with adopted local, regional, and State plans and regulations addressing emergency access, response, and evacuation. Specifically, development projects on the project site would be required to comply with the CBC, the CFC, and the BCC, which have requirements for minimum widths of roadways, access for emergency vehicles, safety measures during construction, and vegetation fuel management around roadways. Furthermore, potential future development under the proposed project would be required to comply with regulations of the Belmont General Plan to prepare for and facilitate evacuations caused by wildfires and other hazards. General Plan Policy 6.6-3 and Policy 6.6-4 would require plan review for appropriate fire mitigation and evacuation and emergency access. General Plan Policy 6.6-11 enforces BCC Section 7-401, which classifies overgrown, dead, decayed, diseased, or hazardous trees, firewood; weeds and other vegetation that may be a fire hazard as a nuisance. In addition, future development under the proposed project would be required to implement the City's following standard conditions related to traffic control during construction and emergency access:

- Prior to issuance of a building or grading permit, the Applicant shall prepare a construction management plan (CMP) for review and approval by the Public Works Department in consultation with the Community Development Department and Police Department. For properties located at or in close proximity to the City borders, the plan shall be routed to adjacent jurisdictions. The CMP shall include a response to construction-related conditions and requirements identified by reviewing City departments, and outside agencies for inclusion in the Plan. The plan shall include at least the following items:

    a) Schedule: A project construction schedule shall be provided that includes the approximate date and expected time frame for each stage of construction. At minimum, the schedule shall include:

[44] City of Belmont and Belmont Fire Protection District, 2017, Emergency Operations Basic Plan, page 3.

- Excavation & Shoring (as applicable)
- Below Grade & Foundation Construction
- Above Grade Construction & Framing
- Exterior & Interior Finish Work
- Public Frontage Improvements
- Offsite & Utility Improvements

b) Site & Logistics Plan: Site and logistics plan(s) shall be provided for each phase of project construction. Said plan(s) shall include:

- Location of Construction Fencing & Access Control for The Site
- Proposed Circulation Pattern, including Access & Egress, for Each Phase of Construction
- Location of Dewatering Tanks, Construction Trailer, Temporary Power Pole, & Restrooms
- Erosion & Dust Control Plans
- Security & Lighting Plans
- Location of Construction Staging Areas for Materials, Equipment, & Vehicles
- Crane Plane (Location, Height, & Radius), as applicable
- Construction Worker Parking

c) Traffic Control Plan: Routes for construction-related traffic (hauling, deliveries, works, etc.) shall be identified in consultation with the Department of Public Works. Grading, hauling, and construction delivery traffic shall be timed to avoid peak hour school and work commute traffic. The CMP shall identify the maximum size of construction equipment/trucks during construction, expected temporary street closure, the use of flag personnel during construction, and the location of construction worker parking/car-pooling. Comprehensive traffic control measures shall be identified, including: any required detour signage, lane closures, and sidewalk closures. A 24 Hour Written notice must be given to the Public Works and Police Departments prior to lane closures. Trained flag persons shall be positioned at both ends of blocked traffic lanes to ensure safe movement of vehicles, and pedestrians. The proposed traffic control plan may require review by a traffic engineer, to ensure an adequate intersection/driveway turning radius would be provided for large vehicles, and/or when other large projects are in construction at the same time.

d) Noticing: The CMP shall include notice to property owners within 300 feet of the project site two weeks prior to grading, and identification of haul route(s) and staging area for the project. The notice shall also include a process for responding to, and tracking, complaints pertaining to construction activity, including identification of an on-site complaint manager. 24-hour advance written notice shall also be provided to adjacent property owners, adjacent businesses, and Public Works and Police Department personnel prior to all major deliveries, detours, and lane closures.

e) Road Conditions: Documentation of road pavement conditions shall be provided to the Public Works Department for all routes that will be used by construction vehicles, both before and after project construction. Roads found to have been damaged by construction vehicles shall be repaired as required by current City pavement restoration standards, or as otherwise directed by the City Engineer.

f) Response to CMP Conditions: A response shall be provided to CMP conditions from other City departments, and outside agencies.

- Street widening, improvements, and dedications shall be in accordance with City Standards and specifications as required by the Department of Public Works.
- Streets, sidewalks, and curbs in need of repair within and bordering the project shall be repaired and/or removed and replaced in accordance with the Department of Public Works approved standards. Photographs or video of before condition are recommended.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

While this standard condition would prevent construction-related interference with emergency evacuation, it would not address potential interference with implementation of the City of Belmont EOP during operation. As discussed in Chapter 3, *Project Description*, of this Draft EIR, development under the proposed project would occur throughout the project site, which, as described in Section 4.18.1.2, *Existing Conditions*, is in areas designated by SMC Fire as the moderate risk interface zone and low wildland risk zone. Future development under the proposed project would be served by an existing roadway network; however, the proposed project would involve some circulation changes. As shown in Figure 3.8, *Proposed Emergency Access*, in Chapter 3, *Project Description*, of the Draft EIR, the proposed project would provide additional emergency access on the western side of the project site, providing alternative vehicular egress routes in case of an emergency or evacuation. While the addition of these vehicular access routes would expand access to and from the project site, it would not cause a substantial change to the circulation pattern surrounding in the project site and would increase emergency response access to the project site and surrounding properties.

In the event of an event requiring evacuation of the project site, vehicles exiting the project site would ultimately use Ralston Avenue. During full occupancy of the project site, up to 1,350 vehicles (i.e., the number of vehicles accommodated by proposed parking stalls) and the estimated daytime population of approximately 2,500 people would need to evacuate the project site. Should evacuation from the western part of Belmont for wildfire be needed, Ralston Avenue would likely serve as a major evacuation route for residents traveling eastward towards El Camino Real or Highway 101. Without an evacuation plan in place, it is possible that evacuation of the project site could occur in an unphased and unorganized manner. Given the size of the project site and the single egress route from the project site via Ralston Avenue, the project would have the potential to impede evacuation in the project site vicinity, which would be a *significant* impact.

Impact WILD-1: The proposed project could slow or impede evacuation in the project site vicinity during a wildfire evacuation event.

> Mitigation Measure WILD-1: Prior to the issuance of the first building permit for a new or expanded building, a Wildfire Evacuation Plan shall be prepared in coordination with the City of Belmont's Police Department Office of Emergency Services and the San Mateo Consolidated Fire Department (SMC Fire). Unless subject to equally effective requirements in place at the time of Detailed Development Plan (DDP) application submittal, the Wildfire Evacuation Plan shall identify:

- Key contacts between Stanford University and the City in the event of a wildfire emergency
- Protocols to follow to manage the campus' evacuation process
- Evacuation route options
- An early warning system to require early evacuation and cancelled programming in order to minimize the project's congestion effects on Ralston Avenue
- Proof of compliance with applicable local and State codes and requirements related to wildfire and evacuation in effect at the time of permit application submittal
- Benchmarks for the Wildfire Evacuation Plan to be updated as the campus grows

The Wildfire Evacuation Plan shall be submitted to the City of Belmont's Police Department Office of Emergency Services and SMC Fire for review and approval prior to initiation of construction activities.

Significance with Mitigation: Less than significant. Mitigation Measure WILD-1 would require a Wildfire Evacuation Plan developed with and approved by the City of Belmont Police Department and SMC Fire, ensuring that the proposed project includes measures to ensure orderly evacuation of the project site during an emergency event.

WILD-2	The proposed project could, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

As discussed in Section 4.18.1.2, *Existing Conditions*, the project site is subject to Diablo winds, which coincide with periods of low humidity in late summer and fall. These winds create dangerous conditions for starting and spreading wildfires during the drier months of the year, and they also spread wildfire smoke hazards, as can prevailing winds. Potential future development under the proposed project that increase the population capacity and use areas of the project site could exacerbate wildfire risks by adding people to wildfire-prone areas in the project site and exposing people in surrounding areas to pollutant concentrations from a wildfire. A wildfire combined with Diablo winds could expose residents in the area to the uncontrolled spread of wildfire.

As discussed in Section 4.18.1.2, *Existing Conditions*, the topography of the project site is hilly, with moderate to steep slopes. Construction of future development projects and activities under the proposed project in these areas may require grading and site preparation activities that could change the slope of the project site. Though the project site is not in a Very High FHSZ, development and redevelopment on the project site could occur where topography is steeper. The addition of construction and development projects within steeply sloped areas of the project site could exacerbate risks because wildfires are able to spread more quickly up steep slopes. In addition, impacts such as loose debris from wildfires could impact areas downslope.

Section 4.18.1.1, *Regulatory Framework*, describes relevant plans, policies, regulations, and procedures that help to reduce wildfire risks. The San Mateo County MJHMP, Santa Cruz San Mateo County Community Wildfire Protection Plan, and San Mateo–Santa Cruz Unit Strategic Fire Plan are intended to reduce wildfire hazards and coordinate response to these hazards on a statewide and regional scale. In

addition, the Bay Area Air Quality Management District provides air quality alerts, advisories, and an interactive online map to view current air quality conditions in the region. Existing regulatory requirements and policies that reduce wildfire risks overall would minimize the exposure of people to air pollutants from wildfires due to prevailing winds.

All potential future development under the proposed project would be required to comply with the CBC, CFC, and BCC slope and grading requirements, which include standards to minimize the ignition and spread of wildfire due to slopes. Additionally, future development on the project site would be required to be consistent with the policies of the Belmont General Plan. This includes Policy 6.6-3 and Policy 6.6-4, which require plan review for appropriate fire mitigation and evacuation and emergency access; Policy 6.6-5 and Policy 6.6-6, in support of the Belmont Fire Protection District's efforts for fire prevention inspection and reduction of fire hazards; Policy 6.6-10, which enforces Chapter 7A of the CBC; and Policy 6.6-11, which enforces BCC Section 7-401, which classifies overgrown, dead, decayed, diseased, or hazardous trees, firewood; weeds and other vegetation that may be a fire hazard as a nuisance. Compliance with these existing requirements and policies would ensure that future development under the proposed project would not exacerbate the risk of the spread of wildfire due to slopes.

Other factors, such as vegetation, have the potential to exacerbate wildfire risks. Vegetation conditions within the project site—such as the areas of dense vegetation, blue gum eucalyptus stands, live oak stands with grassy understory, and riparian corridor—could be easily ignited, especially during late summer and fall when temperatures and winds are high and relative humidity is low. During these conditions, woodland vegetation can dry out, particularly in areas with unirrigated vegetation, becoming extremely flammable and increasing wildfire risks.

Implementation of the proposed project would increase population, buildings, and infrastructure in the WUI of Belmont, which could expose people to the uncontrolled spread of wildfire or pollutant concentrations due to factors such as vegetation. The introduction of additional humans (through new development and redevelopment) and human activities (including the use of construction equipment) to fire-prone areas inherently exacerbates existing fire hazards.

As described in Section 4.18.1.1, *Regulatory Framework*, the San Mateo County MJHMP and Santa Cruz–San Mateo County Community Wildfire Protection Plan contain several vegetation management, fuel reduction, and fuel break projects to reduce the uncontrolled spread of wildfire due to vegetation. Additionally, as stated above, all potential future development under the proposed project would be required to comply with the CFC, and the BCC. These regulations have specific requirements for new and existing development to create defensible space and extensive fuel reduction within 100 feet of a structure, an ember-resistant zone within 5 feet of a structure, and the overall maintenance of properties to reduce the risk of uncontrolled fires or the spread of fires to other properties. The General Plan policies listed above would also serve to reduce wildfire risks associated with vegetation. These policies would ensure that fire hazard reduction measures occur and are maintained, and that redevelopment and new development in areas would incorporate vegetation management measures. In addition, the proposed project would be required to implement the City's following standard conditions related to vegetation management:

- Buildings on the project site are located within a WUI, (High or Very High FHSZ) requiring a Vegetation Management Plan (VMP), which has been reviewed/approved by the Fire Marshal. A VMP maintenance plan shall be submitted for review and approval by the Fire Protection District, prior to final building permit inspection. Said plan must include annual or more frequent inspections of work in the interface environment.
- All dead trees shall be required to be removed prior to any combustible construction on the site. The tree removal and maintenance shall be incorporated into the VMP which will include annual inspections.

The standard conditions identified are presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Adherence to the above building practices, fire safety regulations, and vegetation fuel management requirements would reduce the potential for exacerbating wildfire risks. The proposed VMP (see Appendix K, *Vegetation Management Plan,* of this Draft EIR) includes measures to provide defensible space around buildings. However, the proposed vegetation management plan has not yet been approved by the City of Belmont and SMC Fire. Therefore, due to the presence of highly flammable vegetation and proposed increase in residential and daytime populations and activities, impacts are considered potentially *significant.*

Impact WILD-2: Implementation of the proposed project would increase population, buildings, and infrastructure in wildfire-prone areas, thereby exacerbating wildfire risks due to the presence of highly flammable vegetation.

> Mitigation Measure WILD-2: Prior to issuance of building permits, the applicant shall submit a final vegetation management plan to the City of Belmont and SMC Fire for review and approval. The final vegetation management plan shall require defensible space to be maintained within 100 feet from each side of a structure and an ember resistant zone within 5 feet of a structure.
>
> Unless subject to equally effective requirements in place at the time of Detailed Development Plan (DDP) application submittal, the final vegetation management plan shall also include provisions for initial treatment and maintenance of vegetation in the project site using mechanical, manual, and/or prescribed herbivory strategies. These strategies shall include, but are not limited to, use of motorized equipment to cut, uproot, crush/compact, or chop existing vegetation; use of hand tools and hand-operated power tools to cut, clear, or prune herbaceous or woody species; and use of domestic livestock to reduce a target plant population, thereby reducing fire fuels or competition with desired plant species. Unless subject to an equally effective requirement at the time of DDP application submittal, vegetation management activities shall comply with Public Resources Code Section 4442, which requires that engines that use hydrocarbon fuels be equipped with a spark arrester, and that these engines be maintained in effective working order to help prevent fire.

Significance with Mitigation: Less than significant. With implementation of Mitigation Measure WILD-2, the City would review and approve the final vegetation management plan for the proposed project. Implementation of the approved vegetation management plan would ensure that defensible space is created and maintained, and that potential wildfire risks are minimized through vegetation management.

WILD-3 The proposed project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

The proposed project would result in a significant impact if it would involve the installation or maintenance of infrastructure that has the potential to exacerbate wildfire risks (such as roads, power lines, and gas lines) or if it would involve the installation or maintenance of risk-reduction infrastructure (such as fuel breaks or emergency water sources) that could create an impact to the environment.

Buildout and implementation of the proposed project would include construction of infrastructure on-site to support the proposed project, including the installation of new roadways, fuel breaks, emergency water sources, power lines, and other utilities. Construction and maintenance of these facilities would introduce new people and equipment to the project site, which could increase the risk of fire hazard. The following discussion evaluates the potential for each of these components to exacerbate fire risk.

- **Roadways.** The proposed project would provide new emergency access and egress points on the western side of the project site. Construction activities associated with the roadways and ongoing use of these roadways could increase fire risks. Paved areas create an opportunity for vehicles to create accidental wildfires because dragging chains, dragging vehicle parts, worn brakes, and exposed wheel rims have the potential to create sparks on the roadway. General Plan Safety Element Policy 6.6-11 requires development to maintain clear and safe access and evacuation routes in areas of high and very high fire hazard severity through compliance with BCC Section 7-401, which classifies nuisances, in part, as overgrown vegetation; dead, decayed, diseased, or hazardous trees; firewood; and weeds and other vegetation that may be a fire hazard. The City also has standard conditions related to emergency access, as outlined in impact discussion WILD-1. Through compliance with the BCC requirements and the City standard conditions, project roadways would not be expected to increase fire hazards.[45]
- **Fuel Breaks**. As discussed in impact discussion WILD-2, City has standard conditions related to preparation of a VMP. The perimeter of the project site has a fuel break approximately 10 to 30 feet wide, and ongoing maintenance of this fuel break is important to delay fire spread in the event of a fire event. As vegetation types and terrain around the perimeter of the project site vary, it is expected that maintenance activities will include a range of mechanical, manual, and prescribed herbivory

[45] Prometheus Fire Consulting and Panorama Environmental, December 2023, *Standard University Notre Dame De Namur University Campus Vegetation Management Plan*, page 1-4.

treatments. Use of certain maintenance equipment would have the potential to increase wildfire hazards.

- Power Lines. Potential future development under the proposed project would primarily connect to existing electricity utility lines in the project site. However, new development and extensive redevelopment would be required to comply with General Plan Safety Element Policy 6.5-2, which requires new development to underground service lines and utilities, and to continue undergrounding existing overhead utility lines. Additionally, the CPUC requires maintenance of vegetation around power lines, strict wire-to-wire clearances, annual inspections of aboveground power lines, and the preparation of fire prevention plans for aboveground power lines in high fire-threat districts. These measures would reduce the wildfire risks associated with the installation and maintenance of power lines.
- Emergency Water Sources and Other Utilities. Implementation of the proposed project could also require the upgrade and maintenance of water systems, sewer systems, internet infrastructure, and stormwater systems in the WUI. These types of improvements would involve temporary construction and result in changes to the existing built environment. Future development and redevelopment under the proposed project would be required to comply with CFC Appendices C and CC, which provide requirements for the location and distribution of fire hydrants for emergency water. Additionally, potential future development under the proposed project would be required to implement the City's following standard condition related to water systems:

  > Fire access and water supply shall be in accordance with California Fire Code and SMC ORD 2019-002 Chapter 5, Appendices B, C, and D. A fire flow reduction of up to 50% shall be permitted. The fire access and water supply information shall be supplied to the fire department for review before submittal of foundation permits.

  The standard condition identified is presented verbatim as listed in the comprehensive list in Appendix B, *City of Belmont Standard Development Requirements and Conditions of Approval*, of this Draft EIR. However, development projects under the future DDPs will be subject to standard conditions tailored specifically to each development project and the regulatory requirements in place at the time of submittal.

Construction and maintenance activities associated with these facilities would be required to comply with building and design standards in the CBC and CFC, which include provisions for fire-resistant building materials, the clearance of debris, and fire safety requirements during demolition and construction activities. These measures, along with the other applicable local and State discussed above, would reduce wildfire risks associated with the installation and maintenance of infrastructure. However, because the specific locations of future construction activities are not yet known and could occur in heavily vegetated areas, and because the project would involve maintenance activities in vegetated areas, the impact would have the potential to be *significant*.

Impact WILD-3: Construction of utilities and maintenance of fuel breaks could exacerbate wildfire risks in vegetated areas of the project site.

Mitigation Measure WILD-3: Implement Mitigation Measure WILD-2.

Significance with Mitigation: Less than significant. Mitigation Measure WILD-2 requires City approval of the vegetation management plan for the proposed project, and requires the use of spark arresters and well-maintained equipment. These measures would minimize the potential for a wildfire to be initiated as part of on-site construction and maintenance activities.

WILD-4	The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Wildfires can create favorable conditions for other hazards, such as flooding and landslides during the rainy season. Wildfires on hillsides can burn the vegetation that stabilizes the slope and create hydrophobic conditions that prevent the ground from absorbing water. This can lead to landslides, debris flows, and flooding. Development under the proposed project would result in a significant impact if—due to slopes, drainage patterns, or postfire slope instability—it would expose people or structures to significant risks from landsides, debris flows, or flooding.

As discussed in Chapter 4.9, *Hydrology and Water Quality*, of this Draft EIR, parts of the project site are in the 100- and 500-year floodplains. Floodplains in the project site are located south of Laxague Drive along Ralston Avenue and the parcel for Koret Field. The floodplains closely align with Belmont Creek. As discussed in Chapter 4.8, *Geology and Soils*, of this Draft EIR, landslide hazard areas are scattered across the steep areas of the project site. These areas are considered susceptible to landslides from precipitation and other causes.

As discussed in Chapter 4.9, *Hydrology and Water Quality*, potential future development under the proposed project would be required to implement stormwater best management practices that include low-impact development measures, which effectively minimize imperviousness, retain or detain stormwater on-site, decrease surface water flows, and slow runoff rates. Adherence to regulatory requirements would minimize the amount of stormwater runoff from new development and redevelopment within the project site, and minimize flooding downstream.

As discussed in Chapter 4.8, *Geology and Soils*, potential future development under the proposed project in sloped areas would be required to comply with the CBC and BCC, which would minimize the potential for slope instability to occur. Additionally, future potential development would be subject to BCC Chapter 9, *Grading*, which specifies minimum standards for grading and removal of vegetation, including protected trees, and provides for the enforcement of grading requirements. Further, General Plan Safety Element Policies 6.1-2, 6.1-4, and 6.1-5 require a geotechnical site analysis for new development and redevelopment to minimize the potential of landslides from proposed projects.

Future potential development complying with the BCC, General Plan Safety Element policies, and the CBC would not expose people or structures to downslope landslides or downstream flooding due to postfire hazards. Furthermore, as identified in impact discussions of WILD-1 and WILD-2, future potential development under the proposed project must also comply with best practices regarding wildfire prevention, action, and recovery as outlined in the California Fire Safe Regulations, the CBC, the CFC, the

San Mateo County MJHMP, the Santa Cruz San Mateo County Community Wildfire Protection Plan, and the San Mateo – Santa Cruz Unit Strategic Fire Plan. All future development is required to comply with adopted local, regional, and State plans and regulations addressing wildfire prevention, which would minimize risks of postfire hazards. Compliance with these policies and regulatory requirements would ensure that impacts from postfire instability would be *less than significant*.

Significance without Mitigation: Less than significant.

WILD-5 The proposed project could, in combination with past, present, and reasonably foreseeable projects, result in cumulative wildfire impacts in the area.

As described in Chapter 4, *Environmental Analysis*, of this Draft EIR, the cumulative setting for wildfire impacts includes the effects of the proposed project together with cumulative development projects in the vicinity of the project site. The proposed project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in impacts to the environment, or exposure people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The proposed project could potentially impair evacuation, but implementation of Mitigation Measure WILD-1 would reduce impacts to a less-than-significant level.

Furthermore, future development in the area would be subject to environmental review as applicable to mitigate any significant wildfire impacts. Cumulative development projects would be subject to the requirements of the CBC, the CFC, the PRC, the BCC, the Belmont General Plan, and the City's standard conditions regulations regarding wildfire hazards. Therefore, wildfire impacts of the proposed project would not be cumulatively considerable, and impacts would be *less than significant*.

The cumulative setting includes foreseeable development proposed in the City of Belmont, as listed in Table 4-1, *Cumulative Development Projects*. As described in impact discussion WILD-4, future development under the proposed project would not cause downslope or downstream post-fire flooding or landslide hazards. Cumulative development would be subject to the same local, regional, and State regulations applicable to future development under the proposed project.

However, the proposed project would result in significant impacts without mitigation, where it could substantially impair an adopted emergency response plan or emergency evacuation plan, potentially exacerbate wildfire hazards due to vegetation conditions, and exacerbate wildfire risks due to the installation or maintenance of infrastructure, as described in impact discussions WILD-1, WILD-2, and WILD-3, respectively.

All but one of the cumulative development projects listed in Table 4-1 are located in downtown or eastern Belmont. Only one cumulative development project is located to the west of the project site, at 2 Davis Drive. The 2 Davis Drive project would result in the demolition of the existing warehouse and surface parking lot and would redevelop the site with a four-story office/research and development building as

well as a new fire station to replace the existing SMC Fire Station 15. This cumulative development site does not share sloped conditions and high fuel loads that would combine with the impacts of the proposed project to create a cumulative wildfire impact. However, because this cumulative project is located to the west of the project site and would, like the proposed project, increase the daytime population of western Belmont, the proposed project would have potential to contribute to a *significant* cumulative impact associated with emergency evacuation along Ralston Avenue.

Impact WILD-5: Potential development under the proposed project could, in combination with other surrounding projects in western Belmont, result in cumulative impacts associated with impairing an emergency response or evacuation plan.

Mitigation Measure WILD-5: Implement Mitigation Measure WILD-1.

Significance with Mitigation: Less than significant. With implementation of Mitigation Measure WILD-1, the proposed project would involve procedures and protocols, developed with and approved by the San Mateo Consolidated Fire Department and City of Belmont Police Department, to ensure it would not contribute to cumulative impacts associated with emergency access and evacuation.

5. Alternatives

The following discussion is intended to inform the public and decision makers of feasible alternatives to the proposed project that would avoid or substantially lessen any of the significant effects of the proposed project. The California Environmental Quality Act (CEQA) Guidelines set forth the intent and extent of alternatives analysis to be provided in an environmental impact report (EIR). Section 15126.6(a) of the CEQA Guidelines states that:

> *An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives, which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason*.

5.1 INTRODUCTION

The alternatives evaluated in this Draft EIR were developed consistent with Section 15126.6(b) of the CEQA Guidelines, which states:

> *Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.*

Section 15126.6(c) of the CEQA Guidelines states:

> *The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.*

5.2 PROJECT OBJECTIVES

As stated previously, the range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the proposed project. As listed in Chapter 3, *Project Description*, of this Draft EIR, the objectives for the proposed project include:

- Authorize use and redevelopment of the Stanford Belmont Campus to provide high-quality academic opportunities over a 30-year development period.
- Provide flexibility to develop the Stanford Belmont Campus within a framework that enables Stanford to support evolving academic needs, while minimizing potential negative effects on the surrounding community.
- Enable development that welcomes the community through both physical connections and community-accessible programs and activities.
- Fulfill Stanford's academic mission by creating a new cohesive, walkable project with state-of-the-art buildings tailored to their academic programs.
- Foster collaboration and learning through on-site housing for occupancy by faculty, staff, postdoctoral scholars, medical residents, visiting scholars, graduate students, undergraduate students, and academic program attendees.
- Use the redevelopment of the Stanford Belmont Campus as a catalyst to re-energize and activate the site as a more attractive and community-oriented space for Belmont residents.

5.3 SIGNIFICANT IMPACTS

All of the potential environmental impacts associated with implementation of the proposed project were found to be either less than significant without mitigation or less than significant with mitigation. No significant and unavoidable impacts were identified as a result of construction and operation of the proposed project. A full list of the proposed project's significant impacts is provided in Table 1-1, *Summary of Significant Impacts and Mitigation Measures*, in Chapter 1, *Executive Summary*, of this Draft EIR.

5.4 ALTERNATIVES CONSIDERED AND REJECTED

Section 15126.6(c) of the CEQA Guidelines states:

> *The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to*

eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

According to the CEQA Guidelines, Section 15364, feasibility is defined as:

[The capability] of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

As described, Section 15126.6(c) of the CEQA Guidelines requires EIRs to identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process, and briefly explain the reasons underlying the lead agency's determination. Section 15126.6(c) provides that among the factors that may be used to eliminate alternatives from detailed consideration in the EIR are (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

- Alternative Land Use Mix. The City considered an alternative that would involve the same amount of overall development as the proposed project, but with either a different ratio of the project's proposed land uses or new land uses not proposed. However, because the significant impacts identified for the project do not pertain to specific proposed land uses, such an alternative was rejected due to its inability to avoid significant environmental impacts. Additionally, an alternative that would not include the same amount of academic land use as proposed for the project would not fulfill the project's basic project objectives.
- Increased Building Retention. The City considered an alternative that would entail increased building reuse rather than demolition of existing buildings and construction of new buildings. This alternative would be intended to (1) reduce construction waste; (2) reduce the number of new buildings that could be built on-site near existing historic resources (i.e., Ralston Hall and Taube Center), thereby potentially impairing their ability to convey their historic significance; and (3) retain buildings on the campus that may have the potential to be identified as historic resources in the future. Because building sizes and their exteriors would be retained, this alternative could impair the ability of Stanford University to develop state-of-the-art buildings tailored to their academic programs, thereby resulting in a failure to meet a basic project objective.
- Increased Housing. The City considered an alternative that would involve an increased residential component beyond what was analyzed in the proposed project. Such an alternative would be intended to reduce vehicle trips due to the reduced number of campus users who would need to commute from off-campus housing. However, such an alternative would increase the overall amount of development on the project site, thereby increasing the project footprint and potentially increasing the project's significant-but-mitigable air quality, biological resource, cultural resource, and geology and soils impacts.
- Reduced Development. The City considered additional alternatives that would reduce the amount of proposed development at the project site. However, because the two alternatives selected for analysis (i.e., the No Project Alternative and Current Conceptual Development Plan Buildout Alternative) both involve continued academic use on the project site with reduced buildout, such an alternative would not add to the reasonable range of alternatives considered for analysis. Therefore, additional reduced development alternatives were rejected.

- Increased Site Access. The City considered an alternative under which an additional main access point would be provided to the project site apart from the existing main entrance at Ralston Avenue, Laxague Drive, and Entry Drive. Such an alternative would be intended to increase options for accessing and exiting the project site, and to increase connectivity between nearby roadways and destinations on the campus. This alternative would reduce the project's significant-but-mitigable impacts associated with pedestrian access (Impact TRAN-1) and emergency evacuation (Impact TRAN-4). This alternative was rejected as infeasible due to site constraints that prevent the creation of an additional main access point. Adjacent land surrounding the project site is built out and owned by other entities, and would therefore require access easements. The steep terrain to the north of the project site makes connection points to the north infeasible. A connection point from Ralston Avenue connecting to Laxague Drive would require crossing the creek, which is considered highly likely to contain archaeological resources. Therefore, this alternative would increase the project's cultural resource impacts.
- Alternate Locations. The City considered whether alternate sites exist in the city that provide a suitable location for the proposed project. Due to the magnitude of the proposed buildout of the project, and the basic project objective to create a campus framework, no suitable alternate locations were identified that could accommodate the proposed project. The city does not contain any other sites large enough to accommodate the proposed project, with the exception of open space lands. Therefore, this alternative was rejected as infeasible.

5.5 OVERVIEW OF PROJECT ALTERNATIVES

In accordance with the CEQA Guidelines, two project alternatives and the comparative merits of the alternatives are discussed below.

All of the potential environmental impacts associated with the proposed project were found to be either less than significant without mitigation or less than significant with mitigation. The alternatives were selected because of their potential to further reduce potentially significant effects of the project.

The alternatives to be analyzed in comparison to the proposed project are described below. The first alternative is the CEQA-required "No Project Alternative."

- No Project Alternative. Under the No Project Alternative, the project site would continue to be operated as an educational campus under the existing Conceptual Development Plan (CDP). Under this alternative, no physical changes would occur to the existing buildings, and the site would be occupied at its full capacity, as analyzed within applicable sections of this EIR based on 2013 occupancy conditions.
- Current Conceptual Development Plan Buildout Alternative. Under this alternative, the project site would be redeveloped to the maximum extent allowable under the current CDP but which maximum allowable square footage never got built.

5.5.1 ASSUMPTIONS AND METHODOLOGY

The alternatives analysis is presented as a comparative analysis to the proposed project. The development intensity for the alternatives varies from the proposed project. The estimated growth under each alternative, as well as the proposed project, is provided in Table 5-1, *Project Characteristics for the Proposed Project and Project Alternatives*.

TABLE 5-1 PROJECT CHARACTERISTICS FOR THE PROPOSED PROJECT AND PROJECT ALTERNATIVES

	Proposed Project	No Project Alternative	Current CDP Buildout Alternative
Total Building Area (Square Feet)	700,000	318,156	442,336
Proposed New Building Area (Square Feet)	381,844	0	124,180
Parking Stalls	1,350	624	734
Building Heights (Feet)	up to 75	up to 43	up to 43
Site Floor-Area Ratio	0.35	0.16	0.22
Daytime Population [a]	2,509	2,451	3,408
Residential Population [b]	up to 508	441	500

Note: CDP = Conceptual Development Plan
a. Daytime population refers to the number of people that would use the project site, including people who would not live on the project site.
b. Residential population refers to the number of people that would live on the project site.
Source: PlaceWorks, 2024.

5.5.2 SUMMARY OF ALTERNATIVES EVALUATION

The following discussion compares the environmental impacts of the alternatives with those of the proposed project for each of the environmental topics analyzed in detail in Chapter 4, *Environmental Analysis*, of this Draft EIR. The impacts of each alternative are classified as less than (<), similar or comparable to (=), or greater than (>) the level of impacts associated with the proposed project. Table 5-2, *Comparison of Impacts of the Proposed Project and Project Alternatives*, summarizes the relative impacts of each of the alternatives compared to the proposed project.

TABLE 5-2 COMPARISON OF IMPACTS OF THE PROPOSED PROJECT AND PROJECT ALTERNATIVES

Topic	Proposed Project [a]	No Project Alternative	Current CDP Buildout Alternative
Aesthetics	LTS/M	<	=
Air Quality	LTS/M	<	<
Biological Resources	LTS/M	<	=
Cultural Resources	LTS/M	<	=
Energy	LTS	=	<
Geology and Soils	LTS/M	<	=
Greenhouse Gas Emissions	LTS/M	<	<
Hazards and Hazardous Materials	LTS/M	>	=
Hydrology and Water Quality	LTS	=	=
Land Use and Planning	LTS	=	=
Noise	LTS	=	=
Parks and Recreation	LTS	<	>
Population and Housing	LTS	=	=
Public Services	LTS	<	>
Transportation	LTS/M	=	=
Tribal Cultural Resources	LTS	<	=
Utilities and Service Systems	LTS	=	=
Wildfire	LTS/M	=	=

Notes:
a. The impacts listed in this column represent the highest significance determination for each respective environmental topic.
LTS Less than Significant
LTS/M Less than Significant with Mitigation
< Lessened impact in comparison to the proposed project
= Similar impact in comparison to the proposed project
> Greater impact in comparison to the proposed project

Source: PlaceWorks, 2024.

5.6 NO PROJECT ALTERNATIVE

5.6.1 DESCRIPTION

Pursuant to CEQA Guidelines Section 15126.6(e)(1), the No Project Alternative is required as part of the "reasonable range of alternatives" to allow decision makers to compare the impacts of approving the proposed project with the impacts of taking no action or not approving the proposed project. Consistent with CEQA Guidelines Section 15126.6(e)(3)(A), when the project is the revision of a plan, as in this case, the no project alternative will be the continuation of the existing plan(s). In this case, the No Project Alternative assumes that the project site would continue to be operated as an educational campus under the existing CDP.

Under this alternative, no physical changes would occur to the existing buildings on the project site, apart from maintenance and repairs. That is, buildings would not be expanded and no new buildings would be constructed on the project site. The site would be occupied at its full historical capacity, as analyzed as the baseline condition within applicable sections of this EIR based on 2013 occupancy levels. This alternative

assumes that an educational entity other than Stanford University and Notre Dame de Namur University would operate the uses on the project site.

As shown in Table 5-1, *Project Characteristics for the Proposed Project and Project Alternatives*, this alternative would involve an estimated daytime campus population of 2,451 people, approximately 2 percent lower than the projected daytime campus population of the proposed project of 2,509, and an estimated residential population of 441, approximately 9 percent lower than that of the proposed project.

5.6.2 IMPACT DISCUSSION

5.6.2.1 AESTHETICS

As described in Chapter 4.1, *Aesthetics*, of this Draft EIR, the proposed project would not result in significant aesthetic impacts after mitigation. The proposed project would result in a significant-but-mitigable impact associated with potential glare from solar panels.

Unlike the proposed project, no new development or redevelopment would occur under the No Project Alternative. Due to this, there would be no visual change on the project site as it pertains to building area or building height. There are no officially designated scenic view corridors, vistas, or State-designated scenic highways within, or in the vicinity of, the project site. Therefore, like the proposed project, the No Project Alternative would not damage existing scenic resources associated with scenic view corridors, vistas, or State-designated scenic highways and impacts would be similar.

Similar to the proposed project, the No Project Alternative would be required to comply with best management practices in the California Building Code (CBC), CALGreen, and the General Plan, as well as following the City's standard conditions related to lighting when performing repairs and maintenance activities requiring building permits. However, unlike the proposed project, no development would occur under the No Project Alternative. Due to this, it is assumed that no solar photovoltaic panels would be installed on the site. Therefore, the No Project Alternative would avoid the proposed project's significant-but-mitigable impact associated with potential glare. As such, impacts related to aesthetics would be slightly *lessened* when compared to the proposed project.

5.6.2.2 AIR QUALITY

As described in Chapter 4.2, *Air Quality*, of this Draft EIR, the proposed project would not result in significant air quality impacts after mitigation. The proposed project would result in a significant-but-mitigable impact associated with exposure of sensitive receptors to pollutant concentrations; all other impacts would be less than significant without mitigation.

The No Project Alternative would not result in any new development or redevelopment on the project site; there would be no construction activities on the project site beyond repairs and maintenance of the existing buildings. Therefore, the No Project Alternative would reduce construction emissions at the project site when compared to the proposed project, and air quality impacts would be *lessened* when compared to the proposed project.

5.6.2.3 BIOLOGICAL RESOURCES

As described in Chapter 4.3, *Biological Resources*, of this Draft EIR, the proposed project would not result in significant biological resource impacts after mitigation. The proposed project would result in significant-but-mitigable impacts associated with potential impacts to bird nests, bat roosts, California red-legged frogs (*Rana draytonii*), special-status plants, wetlands, and wildlife movement.

The project site is not within any local, regional, or State Habitat Conservation Plan areas. Therefore, neither the proposed project nor the No Project Alterative would conflict with the conservation strategy in any Habitat Conservation Plan or Natural Community Conservation Plan and impacts would be similar.

The No Project Alternative would not result in any new development or redevelopment. Unlike the proposed project, the No Project Alternative would not involve vegetation removal or building demolition that could affect active bird nests, roosting habitat for special-status bats, or special-status plants. In addition, the No Project Alternative would not involve new building projects that could affect California red-legged frogs, wetlands, or wildlife movement. Therefore, the No Project Alternative would result in *lessened* impacts when compared to the proposed project.

5.6.2.4 CULTURAL RESOURCES

As described in Chapter 4.4, *Cultural Resources*, of this Draft EIR, the proposed project would result in a significant-but-mitigable impact to historic resources through the alteration or rehabilitation of historical resources or their immediate surroundings. The proposed project would also result in significant-but-mitigable impacts to archaeological resources. Potential impacts associated with disturbance of human remains and archaeological resources would be less than significant with mitigation.

The No Project Alternative would not result in any new development or redevelopment on the project site. Existing buildings would remain on the project site. Therefore, unlike the proposed project, the No Project Alternative would not alter historic resources or their immediate surroundings. In addition, the No Project Alternative would not involve construction activities that would have the potential to affect subsurface archaeological resources. Therefore, the No Project Alternative would avoid the proposed project's significant-but-mitigable cultural resource impacts, and impacts would be *lessened*.

5.6.2.5 ENERGY

As described in Chapter 4.5, *Energy*, of this Draft EIR, the proposed project would not result in any significant impacts related to energy and no mitigation measures are required. The proposed project would use energy for construction and operation, but it would not be in a wasteful, inefficient, or unnecessary manner, and would not conflict with a State or local plan for renewable energy or energy efficiency.

The project site has existing uses that generate energy demand. Under the No Project Alternative, these uses would remain, and no building expansions or new development projects would be undertaken. The proposed project's building area is larger than that of the No Project Alternative; therefore, the proposed project could consume more energy during construction and operation. However, the new buildings from

the proposed project would be designed to be more energy-efficient when compared to the existing school buildings that would remain under the No Project Alternative. Therefore, overall energy impacts under the No Project Alternative would be *similar* when compared to the proposed project.

5.6.2.6 GEOLOGY AND SOILS

As discussed in Chapter 4.6, *Geology and Soils*, the proposed project would result in significant geology and soils impacts that would be less than significant following mitigation requiring adherence to the City-reviewed final design-level geotechnical report.

Unlike the proposed project, the No Project Alternative would not involve construction projects that require ground disturbance or the development of new buildings. Therefore, the proposed project's significant-but-mitigable impacts would be avoided. Any repairs or maintenance occurring under the No Project Alternative would be required to adhere to applicable regulations and procedures to prevent erosion.

Therefore, the No Project Alternative would result in *lessened* impacts to geology, soils, and seismicity compared to the proposed project.

5.6.2.7 GREENHOUSE GAS EMISSIONS

As described in Chapter 4.7, *Greenhouse Gas Emissions*, of this Draft EIR, the proposed project would result in a significant impact associated with the potential use of natural gas; this impact would be less than significant following mitigation on-site or off-site that fully offsets annual greenhouse gas (GHG) emissions associated with natural gas for laboratory use. Additionally, the proposed project would result in a significant impact associated with meeting the electric vehicle (EV) charging standards specified in the latest version of Part 11 of Title 24 (CALGreen). This impact would be less than significant following mitigation of demonstration that future off-street parking improvements are designed to comply with the CALGreen Voluntary Tier 2 EV charging standards. All other GHG impacts would be less than significant.

Unlike the proposed project, the No Project Alternative would not involve emissions from new development or redevelopment projects. In addition, no new natural gas would be installed for laboratory uses. Therefore, the No Project Alternative would avoid one of the proposed project's significant-but-mitigable impacts. However, the No Project Alternative would not be improved to comply with updated charging standards, which would result in greater impacts to GHG emissions when compared to the proposed project.

Overall, due to the reduced campus buildout and daytime campus population under the No Project Alternative, the No Project Alternative would result in *lessened* GHG emissions impacts compared to the proposed project.

5.6.2.8 HAZARDS AND HAZARDOUS MATERIALS

As discussed in Chapter 4.8, *Hazards and Hazardous Materials*, the proposed project would result in a significant-but-mitigable impact associated with asbestos-containing material in existing buildings.

Currently, there is no existing Asbestos Operation and Maintenance (O&M) Plan in place that would provide procedures and guidelines that, when used during facility cleaning, maintenance, and general operations, would minimize human exposure to asbestos fibers and minimize the release of asbestos fibers to the environment. This impact would be mitigated to a less-than-significant level with the preparation of an O&M Plan. All other hazards and hazardous materials impacts would be less than significant.

The No Project Alternative would use the existing buildings on site and continue to operate them. Due to this, the O&M Plan would still be necessary but, unlike the proposed project, would not be implemented through mitigation. Therefore, impacts associated with asbestos-containing material would be greater than under the proposed project.

Similar to the proposed project, the No Project Alternative would not interfere with an emergency operations plan or expose people or structures to the accidental release of hazardous materials, in addition to having less-than-significant impacts to any hazardous materials found on the project site. While the project site is within the Airport Land Use Compatibility Plan (ALUCP) boundaries for the San Carlos Airport, compliance with regulations of the General Plan and the ALUCP would ensure that the proposed project and No Project Alternative would not result in a safety hazard or excessive noise for people residing or working in the project area.

Overall, the No Project Alternative would result in *greater* impacts to hazards and hazardous materials when compared to the proposed project.

5.6.2.9 HYDROLOGY AND WATER QUALITY

As discussed in Chapter 4.9, *Hydrology and Water Quality*, the proposed project would result in less-than-significant hydrologic impacts and no mitigation measures are required. The proposed project would not violate any water quality standards or substantially decrease groundwater supplies. The existing drainage pattern would not be substantially altered by the proposed project in a manner that would result in substantial erosion or siltation, substantially increase the rate or amount of surface runoff in a manner that would result in flooding, exceed the capacity of stormwater drainage systems, or implode or redirect flood flows. The project site is within the Federal Emergency Management Act (FEMA) flood zones X and A, but project construction would comply with applicable stormwater provisions and retain stormwater on-site via the use of bioretention facilities; any flood flows would also be retained for a period of time on-site, which would minimize the potential for flooding impacts. The site is not at risk of flooding due to dam failure, tsunamis, or seiches. The proposed project would also not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Due to the No Project Alternative not including any new development or redevelopment projects, the No Project Alternative would not alter any drainage patterns or increase impervious surface area on the project site. Like the proposed project, the No Project Alternative would not be at risk of flooding or conflict with a water quality control plan or sustainable groundwater management plan. Unlike the proposed project, the No Project Alternative would not include any construction best management practices (BMPs) or new post-construction site design measures that would address stormwater runoff and reduce erosion and siltation impacts.

Overall, neither the proposed project nor the No Project Alternative would result in significant hydrology and water quality impacts, and impacts would be *similar* when compared to the proposed project.

5.6.2.10 LAND USE AND PLANNING

As discussed in Chapter 4.10, *Land Use and Planning*, the proposed project would result in less-than-significant impacts to land use and planning and no mitigation measures are required. It would not physically divide an established community, or conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The No Project Alternative would be consistent with zoning regulations and would not involve any development that would divide an established community or conflict with land use policies or a habitat conservation plan. Therefore, the land use and planning impacts would be less than significant, as under the proposed project.

Overall, the No Project Alternative would result in *similar* impacts to land use and planning compared to the proposed project.

5.6.2.11 NOISE

As described in Chapter 4.11, *Noise*, the proposed project would result in less-than-significant noise impacts and no mitigation measures are required. The proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project, nor would it create excessive groundborne vibrations or noise levels. In addition, the project site is not within a 60-decibel airport noise contour.

Because the No Project Alternative would not involve new development or redevelopment projects, it would expose people to lesser levels of construction-related noise and vibration. In comparison to the proposed project, the No Project Alternative would involve a slightly smaller daytime campus population, but would not involve the project's transportation demand management (TDM) strategies to reduce vehicle trips. Therefore, the No Project Alternative would not lessen the project's contribution to roadway noise.

Overall, the No Project Alternative would result in *similar* noise impacts when compared to the proposed project.

5.6.2.12 PARKS AND RECREATION

As discussed in Chapter 4.12, *Parks and Recreation*, of this Draft EIR, the proposed project would not result in any significant impacts related to parks and recreation, and no mitigation measures are required.

The No Project Alternative would result in a lower residential population on the project site and, therefore, would result in a lower level of demand for the parks and recreation areas that serve the project site.

Overall, impacts under the No Project Alternative would be slightly *lessened* when compared to those of the proposed project.

5.6.2.13 POPULATION AND HOUSING

As described in Chapter 4.13, *Population and Housing*, of this Draft EIR, the proposed project would not result in any significant impacts related to population and housing, and no mitigation measures are required.

Chapter 4.13 compares the 2013 baseline, the proposed project's population, the Association of Bay Area Government's (ABAG's) 2040 projections, and buildout projections under the City of Belmont 2035 General Plan. Due to the No Project Alternative assuming the project site would continue to be operated as an educational campus under the existing CDP, the existing campus would be occupied at its full capacity, as analyzed in this EIR based on 2013 occupancy conditions where applicable.

As shown in Table 5-1, *Project Characteristics for the Proposed Project and Project Alternatives*, the No Project Alternative is assumed to have an estimated daytime population of 2,451 and an estimated residential population of 441. In comparison, the proposed project estimates a daytime population of 2,509 and a residential population of 508. The difference between the proposed project and No Project Alternative is 2 percent and 13 percent, respectively. As described in Chapter 4.13, *Population and Housing*, the proposed project's population projections would represent approximately 3 percent of the expected increase in population foreseen by ABAG and the 2035 General Plan. In comparison, the No Project Alternative would represent a smaller percentage of the expected population increase foreseen by ABAG and the 2035 General Plan.

Unlike the proposed project, the No Project Alternative would not involve the demolition of any existing housing units or require replacement housing on- or off-site pursuant to State law. However, similar to the proposed project, the No Project Alternative would not displace substantial numbers of existing people or housing such that additional replacement housing would need to be constructed elsewhere.

Overall, neither the proposed project nor the No Project Alternative would result in significant population and housing impacts, and impacts would be *similar* when compared to the proposed project.

5.6.2.14 PUBLIC SERVICES

As described in Chapter 4.14, *Public Services*, of this Draft EIR, impacts under the proposed project to public services were found to be less than significant, and no mitigation measures are required.

In comparison to the proposed project, the No Project Alternative would result in a lower daytime campus population and residential population and would therefore result in a lower level of demand for public service providers that serve the project site. Additionally, the No Project Alternative would not change the occupancy from historical occupancy levels, thereby resulting in no increased demand for public services when compared to previous conditions on the site.

Although neither the proposed project nor the No Project Alternative would result in significant public services impacts, overall, impacts under the No Project Alternative would be slightly *lessened* when compared to the proposed project.

5.6.2.15 TRANSPORTATION

As discussed in Chapter 4.15, *Transportation*, the proposed project would result in less-than-significant impacts with mitigation. The proposed project would result in significant-but-mitigable impacts regarding emergency access and evacuation, as well as consistency with policies promoting pedestrian connectivity.

In comparison to the proposed project, the No Project Alternative would not expand the development of the existing buildings and would rely on the existing infrastructure of the project site. The No Project Alternative would not make changes or improvements to the campus circulation network. The No Project Alternative would therefore not include the bicycle and pedestrian circulation improvements included in the proposed project, nor would this alternative involve the project's TDM strategies to reduce vehicle trips. Therefore, the No Project Alternative would not avoid the proposed project's significant-mitigable impact associated with policy consistency.

For emergency access, the No Project Alternative would rely on the existing circulation network. Because the No Project Alternative would not increase the daytime or residential population capacity of the project site, it would not have the potential to require additional emergency access. Therefore, the No Project Alternative would avoid the proposed project's significant-mitigable impact associated with emergency access.

In comparison to the proposed project, the No Project Alternative would involve a slightly smaller daytime campus population, but, because it would involve the project's TDM strategies to reduce vehicle trips, it would not be expected to lessen the project's vehicle miles traveled.

In summary, overall impacts from transportation under the No Project Alternative would be expected to be *similar* when compared to the proposed project.

5.6.2.16 TRIBAL CULTURAL RESOURCES

As described in Chapter 4.16, *Tribal Cultural Resources*, of this Draft EIR, the proposed project would result in less-than-significant impacts to tribal cultural resources and no mitigation measures are required.

Unlike the proposed project, the No Project Alternative would not involve construction projects requiring ground-disturbance activities that could potentially damage unknown tribal cultural resources. Because no new development would occur under the No Project Alternative, the potential to impact these resources during construction would be *lessened* when compared to the proposed project.

5.6.2.17 UTILITIES AND SERVICE SYSTEMS

As discussed in Chapter 4.17, *Utilities and Service Systems*, the proposed project would result in less-than-significant impacts associated with water, wastewater, solid waste, stormwater infrastructure, and other utilities. The proposed project would not result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities. There would be sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years. The project-serving

wastewater treatment provider would have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. The proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

In comparison to the proposed project, the No Project Alternative would use existing infrastructure and there would be no change in occupancy from historical occupancy levels. Due to the lower occupancy level, there would be an overall lower level of utility demands. However, the new buildings from the proposed project would be designed to be more efficient when compared to the existing school buildings that would remain under the No Project Alternative. Therefore, this alternative would not involve high-efficiency fixtures that would be installed under the proposed project.

Overall, neither the proposed project nor the No Project Alternative would result in significant utilities impacts, and impacts would be *similar* when compared to the proposed project.

5.6.2.18 WILDFIRE

As discussed in Chapter 4.18, *Wildfire*, the proposed project would result in less-than-significant impacts with mitigation related to evacuation and vegetation conditions on the project site.

In comparison to the proposed project, the No Project Alternative would utilize existing infrastructure and there would be no change in occupancy from historical occupancy levels. Because of this, there would be no increase in the level of congestion on Ralston Avenue that could slow or impede evacuation in the event of a wildfire evacuation.

The No Project Alternative would not increase population, buildings, and infrastructure in wildfire-prone areas. Therefore, it is expected that the No Project Alternative would result in lessened impacts when compared to the proposed project. Furthermore, because the No Project Alternative does not include developing the site, the cumulative wildfire impact from potential development under the proposed project would be reduced.

Because the No Project Alternative would not involve a new vegetation management plan, it would not construct fuel breaks or create new areas of defensible space, instead utilizing existing infrastructure on the project site. In this regard, the No Project Alternative could result in increased wildfire risks when compared to the proposed project.

Overall, while the No Project Alternative would not result in increased baseline population or development, it would not construct fuel breaks or create new areas of defensible space. Implementation of the No Project Alternative would have *similar* impacts when compared to the proposed project.

5.6.3 RELATIONSHIP OF THE ALTERNATIVES TO THE OBJECTIVES

The No Project Alternative would meet some of the project objectives, but it would not meet the objectives specific to the project becoming more developed. Through housing, the No Project Alternative would have the potential to meet the following objective:

- Foster collaboration and learning through on-site housing for occupancy by faculty, staff, postdoctoral scholars, medical residents, visiting scholars, graduate students, undergraduate students, and academic program attendees.

However, the No Project Alternative would not meet the following objectives:

- Authorize use and redevelopment of the Stanford Belmont Campus to provide high-quality academic opportunities over a 30-year development period.
- Provide flexibility to develop the Stanford Belmont Campus within a framework that enables Stanford to support evolving academic needs, while minimizing potential negative effects on the surrounding community.
- Enable development that welcomes the community through both physical connections and community-accessible programs and activities.
- Fulfill Stanford's academic mission by creating a new cohesive, walkable project with state-of-the-art buildings tailored to their academic programs.
- Use the redevelopment of the Stanford Belmont Campus as a catalyst to re-energize and activate the site as a more attractive and community-oriented space for Belmont residents.

5.7 CURRENT CONCEPTUAL DEVELOPMENT PLAN BUILDOUT ALTERNATIVE

5.7.1 DESCRIPTION

Under the Current CDP Buildout Alternative, the project site would be redeveloped to the maximum extent allowable under the current CDP issued in 2000 for NDNU. As shown in Table 5-1, *Project Characteristics for the Proposed Project and Project Alternatives*, this alternative would involve 124,180 square feet of net new development over existing conditions. The total building square footage would be approximately 63 percent of the proposed project. The estimated daytime campus population would be 3,408, approximately 36 percent higher than the proposed project, while the estimated residential population would be roughly the same as under the proposed project. In contrast to the proposed project, maximum building heights would not increase compared to current conditions.

5.7.2 IMPACT DISCUSSION

5.7.2.1 AESTHETICS

As discussed in Section 5.6.2.1, the proposed project would result in a significant-but-mitigable impact associated with potential glare from solar panels. All other aesthetics impacts would be less than significant.

Like the proposed project, the Current CDP Buildout Alternative would involve redevelopment activities and new buildings, resulting in a new increase when compared to existing conditions. However, in

comparison to the proposed project, it would involve lower building heights and would have a reduced, overall development potential. Like the proposed project, it is possible that solar panels would be installed on the project site in the future, which would require the same mitigation measure as the proposed project.

Overall, the Current CDP Buildout Alternative would result in *similar* impacts to aesthetic resources compared to the proposed project.

5.7.2.2 AIR QUALITY

As described in Section 5.6.2.2, the proposed project would result in a significant-but-mitigable impact associated with exposure of sensitive receptors to pollutant concentrations; all other impacts would be less than significant without mitigation.

Like the proposed project, the Current CDP Buildout Alternative would involve redevelopment activities and new buildings, resulting in a new increase when compared to existing conditions. However, in comparison to the proposed project, it would involve a reduced development potential. Therefore, the Current CDP Buildout Alternative would result in slightly *lessened* air quality impacts compared to the proposed project.

5.7.2.3 BIOLOGICAL RESOURCES

As described in Section 5.6.2.3, the proposed project would result in significant-but-mitigable impacts on biological resources.

Similar to the proposed project, new development and redevelopment under the Current CDP Buildout Alternative would involve vegetation removal, building demolition, and new building projects that could affect biological resources, thereby requiring the same mitigation measures required for the proposed project. Due to this, the Current CDP Buildout Alternative would result in *similar* impacts to biological resources compared to the proposed project.

5.7.2.4 CULTURAL RESOURCES

As discussed in Section 5.6.2.4, the proposed project would result in significant-but-mitigable impacts to cultural resources.

Like the proposed project, the Current CDP Buildout Alternative would result in new development and redevelopment on the project site. Therefore, this alternative would have the potential to alter historic resources or their immediate surroundings and would involve construction activities that would have the potential to affect subsurface archaeological resources. Therefore, the Current CDP Buildout Alternative would not avoid the proposed project's significant-but-mitigable cultural resource impacts, and impacts would be *similar*.

5.7.2.5 ENERGY

As discussed in Section 5.6.2.5, the proposed project would result in less-than-significant energy impacts.

Like the proposed project, the Current CDP Buildout Alternative would use energy for construction and operation. Similar to the proposed project, the Current CDP Buildout Alternative would require energy usage but, as under the proposed project, it is expected that the Current CDP Buildout Alternative would be designed to avoid wasteful, inefficient, or unnecessary use of energy. Although the proposed project would involve more modern, energy-efficient buildings than the Current CDP Buildout Alternative, given that the proposed project is larger than the Current CDP Buildout Alternative, the proposed project would consume more energy during construction and operation. Therefore, the Current CDP Buildout Alternative would result in slightly *lessened* energy impacts when compared to the proposed project.

5.7.2.6 GEOLOGY AND SOILS

As detailed in Section 5.6.2.6, the proposed project would result in significant-but-mitigable impacts related to geology and soils.

Like the proposed project, the Current CDP Buildout Alternative would result in a similar level of ground disturbance and would be required to adhere to applicable regulations and procedures to prevent erosion. Similar to the proposed project, it is expected that campus development under the Current CDP Buildout Alternative would be required to adhere to applicable measures in a project-specific geotechnical report that would prescribe building methods and practices to reduce potential geologic and seismic hazards.

As under the proposed project, it is expected that impacts under the Current CDP Buildout Alternative would be less than significant with mitigation. Therefore, the Current CDP Buildout Alternative would result in *similar* impacts to geology, soils, and seismicity compared to the proposed project.

5.7.2.7 GREENHOUSE GAS EMISSIONS

As detailed in Section 5.6.2.7, impacts of the proposed project to GHG emissions would be significant but mitigable.

Compared to the proposed project, the Current CDP Buildout Alternative would involve reduced building construction due to its smaller size, which would slightly reduce construction GHG emissions. The reduced building space would also generate reduced operational GHG emissions when compared to the proposed project.

It is expected that, similar to the proposed project, the Current CDP Buildout Alternative would be designed so as to not conflict with the City of Belmont's standard conditions and the Current CDP Buildout Alternative might include natural gas appliances or natural gas hook-ups for laboratory uses. The Current CDP Buildout Alternative would also include an increase in parking stalls that would be expected to comply with Voluntary Tier 2 EV charging standards.

Overall, the Current CDP Buildout Alternative would result in *lessened* GHG emission impacts compared to the proposed project.

5.7.2.8 HAZARDS AND HAZARDOUS MATERIALS

As detailed in Section 5.6.2.8, the proposed project would result in significant-but-mitigable impacts to hazards and hazardous materials.

Similar to the proposed project, the development of the Current CDP Buildout Alternative would involve working with existing buildings that potentially have asbestos-containing material. Therefore, it is expected that this alternative would result in the same significant-but-mitigable impact associated with potential asbestos-containing material.

Similar to the proposed project, the Current CDP Buildout Alternative would not interfere with an emergency operations plan or expose people or structures to the accidental release of hazardous materials, in addition to having less-than-significant impacts to any hazardous materials found on the project site.

Overall, the Current CDP Buildout Alternative would result in *similar* impacts to hazards and hazardous materials compared to the proposed project.

5.7.2.9 HYDROLOGY AND WATER QUALITY

As described in Section 5.6.2.9, impacts of the proposed project to hydrology and water quality would be less than significant.

Like the proposed project, the Current CDP Buildout Alternative would involve some changes in building layout and site configuration. Like the proposed project, the existing drainage pattern would not be considerably altered in a way that would result in substantial erosion or siltation, substantially increase the rate or amount of surface runoff in a manner that would result in flooding, exceed the capacity of stormwater drainage systems, or impede or redirect flood flows. The project site is within the FEMA flood zones X and A, but project construction under both the proposed project and Current CDP Buildout Alternative would comply with applicable stormwater provisions and retain stormwater on-site via the use of bioretention facilities; any flood flows would also be retained for a period of time on-site, which would minimize the potential for flooding impacts. These measures would effectively minimize imperviousness, retain or detain stormwater on-site, decrease surface water flows, and slow runoff rates. The site is not at risk of flooding due to dam failure, tsunamis, or seiches.

Like the proposed project, the Current CDP Buildout Alternative would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, violate any water quality standards, or substantially decrease groundwater supplies. Thus, this alternative would result in *similar* impacts to hydrology and water quality when compared to the proposed project.

5.7.2.10 LAND USE AND PLANNING

As described in Section 5.6.2.10, the proposed project would not result in significant impacts to land use and planning.

Under the Current CDP Buildout Alternative, as under the proposed project, the project would not result in physical division of an established community or conflict with any land use plan, policy, or regulation. Therefore, the Current CDP Buildout Alternative would result in less-than-significant land use and planning impacts and impacts would be *similar* when compared to those of the proposed project.

5.7.2.11 NOISE

As described in Section 5.6.2.11, the proposed project would not result in significant impacts to noise.

Similar to the proposed project, the Current CDP Buildout Alternative would not expose people to excessive groundborne vibrations or noise levels, substantially increase permanent ambient noise levels in the project vicinity or create cumulative impacts with surrounding development projects. In comparison to the proposed project, the Current CDP Buildout Alternative would involve a slightly reduced buildout potential, which would involve a reduced construction duration when compared to the proposed project. Therefore, the impact from construction noise would be lessened although not entirely avoided.

In comparison to the proposed project, the Current CDP Buildout Alternative would involve a larger daytime campus population, but would not involve the project's TDM strategies to reduce vehicle trips. Therefore, this alternative is expected to increase the project's contribution to roadway noise.

Overall, due to the Current CDP Buildout Alternative resulting in a lessened construction noise impact but an increased roadway noise impact compared to the proposed project, the Current CDP Buildout Alternative would result in *similar* impacts to noise compared to the proposed project.

5.7.2.12 PARKS AND RECREATION

As described in Section 5.6.2.12, the proposed project would not result in significant impacts to parks and recreation.

Under the Current CDP Buildout Alternative, much of the project characteristics would remain the same but the daytime population would increase. This would in turn require a larger demand for parks and recreation services that serve the project site.

Therefore, the Current CDP Buildout Alternative would result in slightly *greater* impacts to parks and recreation compared to the proposed project.

5.7.2.13 POPULATION AND HOUSING

As described in Section 5.6.2.13, the proposed project would not result in significant impacts to population and housing.

As under the proposed project, the Current CDP Buildout Alternative would be required to provide replacement housing for demolishing protected housing units, as required under State law. However, similar to the proposed project, the Current CDP Buildout Alternative would not displace substantial numbers of existing people or housing such that additional replacement housing would need to be constructed elsewhere.

As shown in Table 5-1, *Project Characteristics for the Proposed Project and Project Alternatives*, the Current CDP Buildout Alternative is assumed to have an estimated daytime population of 3,408 and an estimated residential population of 500. In comparison, the proposed project projects a daytime population of 2,509 and a residential population of 508. The percentage change between the daytime campus population under the proposed project and Current CDP Buildout Alternative is 26 percent, while the residential population is roughly equivalent. As described in Chapter 4.13, *Population and Housing*, the proposed project residential population projections would represent approximately 3 percent of the expected increase in population foreseen by ABAG and the 2035 General Plan. Population increase is expected to be similar under the proposed project and Current CDP Buildout Alternative. Therefore, the Current CDP Buildout Alternative would result in *similar* impacts to population and housing compared to the proposed project.

5.7.2.14 PUBLIC SERVICES

As described in Section 5.6.2.14, the proposed project would not result in significant impacts to public services.

Under the Current CDP Buildout Alternative, much of the project characteristics would remain the same but the daytime population would increase. This would in turn require a larger demand for public services that serve the project site.

Therefore, the Current CDP Buildout Alternative would result in *greater* impacts to public services compared to the proposed project.

5.7.2.15 TRANSPORTATION

As detailed in Section 5.6.2.15, the proposed project would result in less-than-significant impacts with mitigation regarding policy consistency and emergency access.

Like the proposed project, the Current CDP Buildout Alternative would be expected to result in the same significant-but-mitigable impacts. This alternative would have the potential to conflict with goals and policies identified in the General Plan and Comprehensive Bicycle and Pedestrian Plan related to pedestrian connectivity. However, through implementation of the mitigation measure outlined in the proposed project, impacts would be less-than significant. Additionally, like the proposed project, the Current CDP Buildout Alternative could result in inadequate emergency access, similarly, through implementation of the mitigation measure outlined in the proposed project adequate emergency access and egress exists shall be confirmed.

Therefore, the Current CDP Buildout Alternative would result in *similar* impacts to transportation compared to the proposed project.

5.7.2.16 TRIBAL CULTURAL RESOURCES

As described in Section 5.6.2.16, tribal cultural resource impacts of the proposed project would be less than significant without mitigation.

As under the proposed project, under the Current CDP Buildout Alternative, there would be ground-disturbing activities that could impact tribal cultural resources that may be buried in site soils, but impacts would be less than significant by following the City of Belmont's standard conditions. Therefore, under the Current CDP Buildout Alternative, impacts to tribal cultural resources would be *similar* when compared to the proposed project.

5.7.2.17 UTILITIES AND SERVICE SYSTEMS

As discussed in Section 5.6.2.17, the proposed project would result in less-than-significant impacts associated with water, wastewater, solid waste, stormwater infrastructure, and other utilities.

Because the daytime and residential population of the Current CDP Buildout Alternative would be greater than the proposed project, utility demands would be increased. Like the proposed project, this alternative would involve high-efficiency fixtures in new and redeveloped buildings.

Overall, neither the proposed project nor the Current CDP Buildout Alternative would result in significant utilities impacts, and impacts would be *similar* when compared to the proposed project.

5.7.2.18 WILDFIRE

As stated in Section 5.6.2.18, the proposed project would result in less-than-significant impacts with mitigation regarding wildfire.

Under the Current CDP Buildout Alternative, the project would involve development of the project site and increasing the residential and daytime population capacity from existing conditions. Like the proposed project, the Current CDP Buildout Alternative could add congestion on Ralston Avenue that would slow or impede evacuation in the event of a wildfire evacuation event, increase development in wildfire-prone areas, construct utilities and maintain fuel breaks in wildfire-prone areas, and create cumulative impacts associated with impairing an emergency response or evacuation plan. However, impacts would remain less than significant with mitigation. Therefore, impacts of the Current CDP Buildout Alternative to wildfire would be *similar* when compared to the proposed project.

5.7.3 RELATIONSHIP OF THE ALTERNATIVES TO THE OBJECTIVES

This alternative would allow for redevelopment of the project site and would partially fulfill the project objectives. However, because the Current CDP Buildout Alternative would not allow for a customized development framework for the project applicant, the following objectives would not be met:

- Provide flexibility to develop the Stanford Belmont Campus within a framework that enables Stanford to support evolving academic needs, while minimizing potential negative effects on the surrounding community.
- Use the redevelopment of the Stanford Belmont Campus as a catalyst to re-energize and activate the site as a more attractive and community-oriented space for Belmont residents.

5.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The environmentally superior alternative is the alternative that would be expected to generate the least amount of significant impacts. In addition to the discussion and comparison of impacts of the project and the alternatives, Section 15126.6 of the CEQA Guidelines requires that an "environmentally superior" alternative be identified. Identification of the environmentally superior alternative is an informational procedure and the alternative identified may not be the alternative that best meets the goals or needs of the project applicant or the City of Belmont.

As shown in Table 5-2, the No Project Alternative would result in similar or lessened impacts when compared to the proposed project, with the exception of hazards and hazardous materials impacts. Although the No Project Alternative would not meet the objectives of the proposed project, it is considered the environmentally superior alternative.

In accordance with CEQA Guidelines Section 15126.6(e)(2), if the environmentally superior alternative is the No Project Alternative, the Draft EIR shall also identify an environmentally superior alternative among the other alternatives. In the case of this analysis, the Current CDP Buildout Alternative would be the next environmentally superior alternative. In comparison to the proposed project, this alternative would result in an overall lower level of impact compared to the proposed project for the environmental topic areas of air quality, energy, and GHG emissions.

6. CEQA-Mandated Assessment Conclusions

This chapter provides an overview of the impacts of the proposed project based on the analyses in Chapter 4, *Environmental Analysis*, and its subchapters 4.1 through 4.18 of this Draft Environmental Impact Report (EIR). The topics covered in this chapter include significant and unavoidable impacts, impacts found not to be significant, growth-inducing impacts, and significant irreversible changes to the environment. For a more detailed analysis of the proposed project's environmental effects and the proposed mitigation measures to minimize significant impacts, see Chapter 4 and its subchapters 4.1 through 4.18 of this Draft EIR.

6.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Based on the analysis in Chapter 4 of this Draft EIR, the proposed project would not result in any significant and unavoidable impacts.

6.2 IMPACTS FOUND NOT TO BE SIGNIFICANT

Section 15128 of the State CEQA Guidelines states:

> An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.

Development of the proposed project would not result in significant environmental impacts to the environmental impact topics listed below and therefore are not discussed in detail in Chapters 4.1 through 4.18 of this Draft EIR.

6.2.1 AGRICULTURE AND FORESTRY RESOURCES

According to the Belmont General Plan Land Use Map, the proposed project site is designated as Institution, which applies no set density/intensity standards. The General Plan, General Plan land use map, and zoning map do not identify any agriculture or forestry resources in the city. In addition, maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency categorize most land in Belmont as Urban and Built-Up Land.[1] There are no agricultural lands classified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in the City of Belmont. The

[1] California Department of Conservation, 2022, California Important Farmland Finder, accessed March 8, 2024, https://maps.conservation.ca.gov/dlrp/ciff/.

project site is not under a Williamson Act Contract, and there are no agricultural land uses adjoining the site.[2] Therefore, approval and implementation of the proposed project would not conflict with lands under Williamson Act contract. For these reasons, there would be no impacts to agricultural or forestry resources under CEQA, and no mitigation would be required.

6.2.2 MINERAL RESOURCES

The California Department of Conservation, Geological Survey classifies lands into Aggregate and Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act of 1974. These MRZs identify whether known or inferred significant mineral resources are present. Lead agencies are required to incorporate identified MRZs delineated by the State into their General Plans.[3] The Belmont General Plan EIR states that there is a lack of mineral resources in the planning area, which includes the project site.[4] Therefore, the EIR analysis does not include a discussion of mineral resources. No impact would occur, and no mitigation would be required.

6.3 GROWTH INDUCEMENT

Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Typical growth-inducing factors might be the extension of urban services or transportation infrastructure to a previously unserved or under-served area, or the removal of major barriers to development.

This section evaluates the proposed project's potential to create such growth inducements. As CEQA Guidelines Section 15126.2(d) requires, "[it] must not be assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment." In other words, negative impacts associated with growth inducement occur only where the projected growth would cause significant adverse environmental impacts.

Growth-inducing impacts fall into two general categories: direct or indirect. Direct growth-inducing impacts are generally associated with providing urban services to an undeveloped area. Indirect, or secondary growth-inducing impacts consist of growth induced in the region by additional demands for housing, goods, and services associated with the population increase caused by, or attracted to, a new project.

[2] County of San Mateo, December 2023, Williamson Act Parcels, accessed March 8, 2024, https://data.smcgov.org/Housing-Development/Williamson-Act-Parcels/sq6e-7j5j.

[3] Public Resources Code, Division 2, Geology, Mines and Mining, Chapter 9, Surface Mining and Reclamation Act of 1975, Article 4, State Policy for the Reclamation of Mined Lands, Section 2762(a)(1).

[4] City of Belmont, June 2017, General Plan, Phase I Zoning, Belmont Village Specific Plan, and Climate Action Plan, Draft Environmental Impact Report SCH #2016082075, accessed on March 8, 2024, https://www.belmont.gov/departments/community-development/2035-general-plan-update/draft-environmental-impact-report.

Further, while implementation of the proposed project would induce growth, as discussed in detail in Chapter 4.13, *Population and Housing*, of this Draft EIR, the proposed project would be consistent with the regional planning objectives established for the Bay Area. The proposed project would be within the current population and household forecasts as projected by the Association of Bay Area Governments (ABAG) and the Belmont 2035 General Plan.

6.3.1 DIRECT IMPACTS

The proposed project is a plan-level document and does not propose any specific development; however, implementation of the proposed project would induce growth by increasing the development potential in the project site, as shown in Table 3-2, *Existing and Proposed Development*, in Chapter 3, *Project Description*. As shown in Table 3-3, *Population Projections*, the estimated residential population of the proposed project would increase to up to 508 residents, and the estimated total daytime population would increase to up to 2,509 people from baseline conditions of 441 residents and 2,451 daytime population.

6.3.2 INDIRECT IMPACTS

The proposed project could be considered growth inducing because it plans for population growth on the project site. Potential future development in the project site boundary could consist of infill development on areas that have already been developed, as well as areas that have not been developed before. However, infrastructure is already in place in these areas, and growth would be required to comply with the City's General Plan, zoning regulations, standards for public services and utilities, and standard conditions. Secondary effects associated with this growth do not represent a new significant environmental impact that has not already been addressed in the individual resource chapters of this EIR. Additionally, population and employment growth would occur incrementally over a period of approximately 30 years and would be consistent with the regional planning objectives established for the Bay Area.

6.4 SIGNIFICANT AND IRREVERSIBLE CHANGES

Section 15126.2(d) of the CEQA Guidelines requires an EIR to discuss the extent to which the proposed project would commit nonrenewable resources to uses that future generations would probably be unable to reverse. The three CEQA-required categories of irreversible changes are discussed herein.

6.4.1 CHANGES IN LAND USE THAT COMMIT FUTURE GENERATIONS

As described in detail in Chapter 3, *Project Description*, of this Draft EIR, the proposed project is an overarching plan to guide long-term development of the proposed Stanford Belmont Campus. The project site was used as the Notre Dame de Namur University (NDNU) campus, which offered graduate, credential, and undergraduate degree completion programs. Because the site is currently zoned for Planned Unit Development that included institutional uses, construction of the proposed project would

not result in a land use change that would commit future generations to uses that are not already present on the project site.

6.4.2 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Irreversible changes to the physical environment could occur from accidental release of hazardous materials associated with development activities; however, as described in Chapter 4.8, *Hazards and Hazardous Materials*, compliance with the applicable regulations, the City of Belmont's standards conditions, and General Plan goals, policies, and actions would prevent a significant impact associated with the accidental release of hazardous materials. Therefore, irreversible damage is not expected to result from the adoption and implementation of the proposed project.

6.4.3 LARGE COMMITMENT OF NONRENEWABLE RESOURCES

Implementation of development allowed under the proposed project would result in the commitment of limited, renewable resources, such as lumber and water. In addition, development allowed by the proposed project would irretrievably commit nonrenewable resources for the construction of buildings, infrastructure, and roadway improvements. These nonrenewable resources include mined minerals, such as sand, gravel, steel, lead, copper, and other metals. Future buildout under implementation of the proposed project also represents a long-term commitment to the consumption of fossil fuels, natural gas, and gasoline. Increased energy demands would be used for construction, lighting, heating, and cooling of buildings, and transportation of people within, to, and from the Stanford Belmont Campus. However, as shown in Chapter 4.5, *Energy,* and in Section 4.17.1, *Water*, and Section 4.17.3, *Solid Waste*, of Chapter 4.17, *Utilities and Service Systems*, of this Draft EIR, several regulatory measures, City of Belmont standard conditions, and General Plan policies encourage energy and water conservation, waste reduction, and alternatives to automotive transportation. Future development under the proposed project would be required to comply with all applicable building and design requirements, including those set forth in Title 24 relating to energy conservation. In compliance with CALGreen, the State's Green Building Standards Code, future development would be required to reduce water consumption by 20 percent, divert 65 percent of construction waste from landfills, and install low pollutant-emitting materials. Therefore, while the construction and operation of future development would involve the use of nonrenewable resources, compliance with applicable standards and regulations would reduce the use of nonrenewable resources to the maximum extent practicable. Therefore, the proposed project would not represent a large commitment of nonrenewable resources.

7. Organizations and Persons Consulted

This Draft Environmental Impact Report (EIR) was prepared by the contributors listed herein and includes content and information provided by individuals with the lead agency, other agencies, service providers, consultants, and other contributors.

7.1 LEAD AGENCY

CITY OF BELMONT

The City of Belmont had numerous other staff that provided input and supported those specifically listed.

Carlos de Melo ..... Community Development Director
Laura Russell..... Deputy Community Development Director
Afshin Oskoui..... City Manager
Ken Stenquist ..... Chief of Police
Brigitte Shearer ..... Parks and Recreation Director
Grace Castaneda ..... Finance Director
Scott Rennie ..... City Attorney
Peter Brown..... Former Public Works Director
Bozhena Palatnik ..... Senior Civil Engineer
Jason Eggers ..... Information Technology Manager
Barbara Kautz ..... Legal Counsel
Gabrielle Janssens ..... Legal Counsel

GOOD CITY COMPANY

Stephanie Bertollo-Davis..... Principal Planner
Jacob Garcia ..... Senior Planner

7.2 PERSONS CONSULTED

SAN MATEO CONSOLIDATED FIRE DEPARTMENT

Robert Marshall..... Deputy Fire Chief

SAN MATEO COUNTY LIBRARIES

Anne-Marie Despain ..... Director of Library Services

BELMONT-REDWOOD SHORES SCHOOL DISTRICT (BRSSD)

Dan Deguara ..... Superintendent

7.3 CONSULTANTS

PLACEWORKS (ENVIRONMENTAL PRIME CONSULTANT)

Alexis Mena ..... Associate Principal, EIR Principal in Charge
Vivian Kha ..... Associate, EIR Project Manager
Steve Noack ..... Principal, Senior Advisor
Madeline Miller ..... Project Planner, EIR Author
Dina El Chammas ..... Senior Engineer/Planner; Hazardous and Hazardous Materials
Lance Park ..... Senior Associate; Air Quality, Energy, and Greenhouse Gas Emissions
Steve Bush ..... Senior Engineer
Jacqueline Protsman Rohr ..... Senior Associate; Wildfire
Emily Parks ..... Associate; Air Quality, Energy, and Greenhouse Gas Emissions
Isabel Vega ..... Scientist
Grant Reddy ..... Graphics Designer, Graphics

EVANS AND DE SHAZO INC. (ARCHAEOLOGICAL RESOURCES)

Sally Evans ..... Principal Archaeologist

ENVIRONMENTAL COLLABORATIVE (BIOLOGICAL RESOURCES)

James Martin ..... Principal

FORGET ME NOT HISTORY (HISTORIC RESOURCES)

Erica Schultz ..... Principal

BOLLARD ACOUSTICAL CONSULTANTS (NOISE)

Dario Gotchet ..... Principal Consultant

W-TRANS (TRANSPORTATION)

Mark Spencer ..... Senior Principal
Kenneth Jeong ..... Senior Traffic Engineer

CITY OF
BELMONT
CALIFORNIA

PLACEWORKS

2040 Bancroft Way, Suite 400
Berkeley, California 94704
t 510.848.3815

PLACEWORKS.com

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