

RECIRCULATED  
INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

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REVISED  
OAKMONT MEADOWS RESIDENTIAL DEVELOPMENT PROJECT

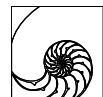
Prepared for:

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**OCTOBER 2018**



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## ATTACHMENTS

Attachments are included on CD affixed to the back cover of printed copies of the document.

**Attachment A:** 2016 Initial Study/Mitigated Negative Declaration

**Attachment B:** Oakmont Meadows Transportation Assessment, Revised Project

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# INTRODUCTION TO THIS DOCUMENT

An Initial Study and Mitigated Negative Declaration (IS/MND) for the proposed Oakmont Meadows Residential Development Project (“2016 Project”) was prepared and released for public review on April 25, 2016, with the review period ending May 24, 2016 (“2016 IS/MND”). Subsequent to the public review period, and prior to adoption of the 2016 IS/MND, the Project applicant changed the number and type of residential units proposed under the Project in order to meet affordable housing requirements (“Revised Project”). Full details of the Revised Project are included in the following Project Information section.

As a result of the Revised Project, a number of changes to the original IS/MND are necessary for a legally complete and adequate evaluation of environmental effect of the proposed project. Accordingly, the City of South San Francisco has decided to incorporate changes to the Project Description and to the original IS/MND and to recirculate the revised IS/MND for a second round of public input and comment.

This document serves as the recirculated Initial Study and Mitigated Negative Declaration (IS/MND) for the Oakmont Meadows Residential Development Project (“2018 Project”). Per CEQA Guidelines (Section 15070), a Mitigated Negative Declaration can be prepared to meet the requirements of CEQA review when the Initial Study identifies potentially significant environmental effects, but revisions in the project would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.

This document is organized in three sections as follows:

- **Introduction and Project Description.** This section introduces the document and discusses the project description including location, setting, and specifics of the lead agency and contacts.
- **Mitigated Negative Declaration.** This section lists the impacts and mitigation measures identified in the Initial Study and proposes findings that would allow adoption of this document as the CEQA review document for the proposed project.
- **Initial Study.** This section discusses the CEQA environmental topics and checklist questions and identifies the potential for impacts and proposed mitigation measures to avoid these impacts.

## PRIOR PROJECT AND ENVIRONMENTAL ANALYSIS

An Initial Study/Mitigated Negative Declaration (Prior MND) for the Oakmont Vistas/Storage USA Project (Prior Project) was adopted in 1999 for construction of a residential and mini-storage facility development on approximately 10 acres at the intersection of Oakmont Drive and Westborough Boulevard in the City of South San Francisco (State Clearinghouse Number 1999072033). The Prior MND is hereby incorporated by reference and is included as Attachment A to the 2016 IS/MND (included in full as an attachment to this document).

Three parcels comprised the Prior Project. The Prior Project proposed residential development on a 5.19-acre portion (Parcels 2 and 3) consisting of 33 single-family homes known as Oakmont Estates. The Oakmont Estates development has since been completed as proposed.

The remainder of the Prior Project, the 4.91-acre Parcel 1, which is the current Project site, was proposed for a five-building mini-storage development (with caretaker's unit), totaling 110,770 square feet. The proposed mini-storage development and associated rezone and General Plan amendment for Parcel 1 was not approved and the parcel has remained undeveloped.

The development concept for Parcel 1 changed after the Prior MND: the mini-storage was not proposed, and instead, residential development consistent with the existing zoning and land use designation has been proposed. The development proposal also incorporated updated fault setbacks, grading plans, and conformance with current stormwater controls.

Due to the time that had passed and the change in the proposal for the Project site, the City of South San Francisco determined that a new Initial Study/Mitigated Negative Declaration was the appropriate environmental document, rather than an addendum or supplemental document to the Prior MND.

## **PUBLIC REVIEW**

The Recirculated Initial Study and Mitigated Negative Declaration will be circulated for a 30-day public review period. Written comments may be submitted to the following address:

Billy Gross, Senior Planner  
City of South San Francisco, Economic & Community Development Department  
315 Maple Avenue  
South San Francisco, CA 94083-0711  
Email: [Billy.Gross@ssf.net](mailto:Billy.Gross@ssf.net)  
Phone: 650.877.8535

Adoption of the Mitigated Negative Declaration does not constitute approval of the project itself, which is a separate action to be taken by the approval body. Approval of the revised Project can take place only after the Mitigated Negative Declaration has been adopted.

# PROJECT INFORMATION

## PROJECT ENTITLEMENTS

Requested approvals from the City of South San Francisco include Planned Development, Tentative Parcel Map, and Design Review.

The Project also requires San Mateo County Airport Land Use Commission review of a project within San Francisco International Airport's Airport Influence Area B.

## LEAD AGENCY

City of South San Francisco  
Economic & Community Development Department  
315 Maple Avenue  
South San Francisco, CA 94083-0711

## CONTACT PERSON

Billy Gross, Senior Planner  
City of South San Francisco, Economic & Community Development Department  
315 Maple Avenue  
South San Francisco, CA 94083-0711  
Phone: 650.877.8535

## PROJECT SPONSOR

Michael Banducci  
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2400 Camino Ramon, Suite 234  
San Ramon, CA 94583  
Phone: 925.866.6700

## PROJECT LOCATION

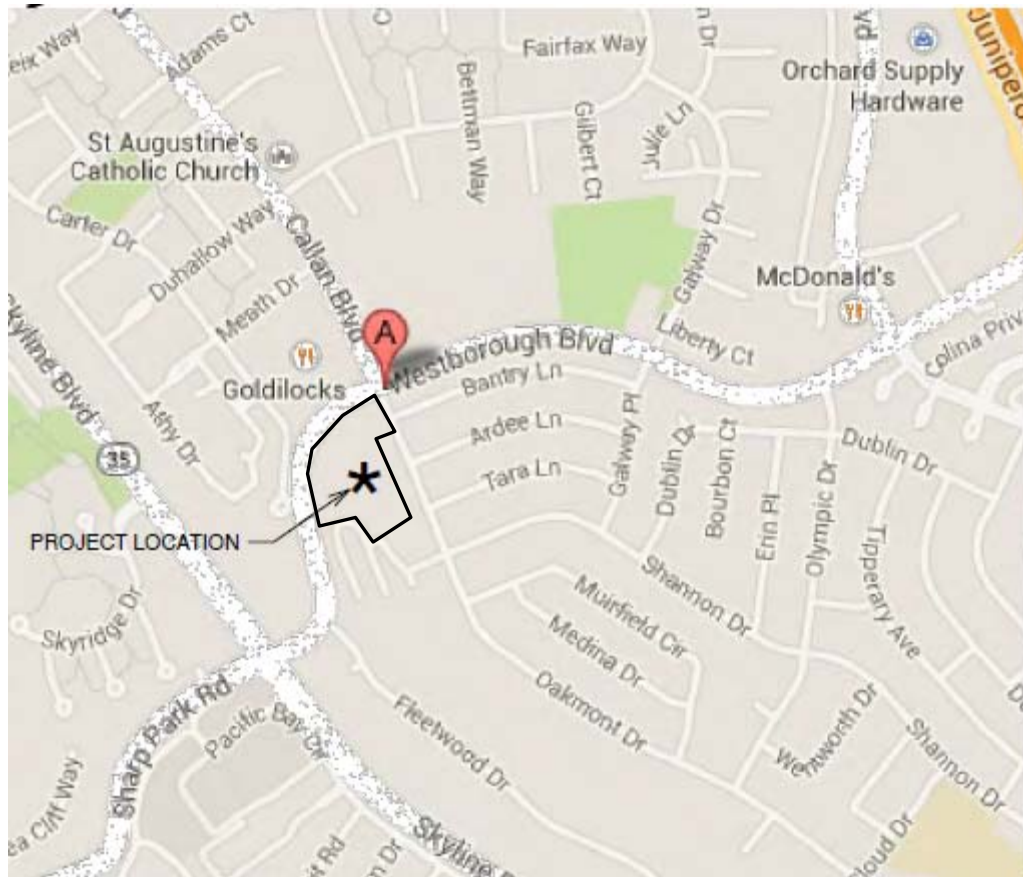
The 4.91-acre Project site is on the southwest side of the intersection of Oakmont Drive and Westborough Boulevard in the City of South San Francisco, California. The assessor's parcel number is 091-151-040. **Figure 1** shows the project location.

## GENERAL PLAN DESIGNATION AND ZONING

General Plan designation of Low Density Residential and Low Density Residential (RL-8)  
Zoning District

## EXISTING USES

The Project Site is currently vacant and is mowed annually for weed control and abatement.



**Figure 1: Project Location**

Source: The Paul Davis Partnership, undated

## **SURROUNDING LAND USES**

Land uses adjacent to the Project site are primarily single-family residential. Surrounding land uses across Westborough Boulevard consist of a commercial shopping center and medium-density residential. Westborough Middle School is located approximately 450 feet to the northeast of the Project site.

## **PROJECT DESCRIPTION AND CHANGES FROM THE 2016 PROJECT**

### **Project Summary**

#### *Project Site*

The 4.91-acre Project site is undeveloped land, adjacent to an existing residential development known as Oakmont Estates, which was developed as part of the Prior Project.

A known constraint on the Project site is the presence across the site of San Andreas fault traces. This has not changed since the 2016 Project. Habitable structures are not permitted within the setback zones from the fault traces, though roadways, open spaces, and detached garages are permitted within the fault zone setback areas. These fault traces and required setback zones have been refined and incorporated into the Project, as discussed in more detail in the Geology checklist Section 6.

The Project site is in the Low Density Residential (RL-8) Zoning District, which is consistent with the site's Low Density Residential designation in the City's General Plan. The proposed subdivision of the parcels to accommodate the fault setback areas would exceed the density allowed under the RL-8 designation. Requested approvals include Planned Development, Tentative Parcel Map, and Design Review. This has not changed since the 2016 Project.

The revised site plan is shown on **Figure 2**. As under the 2016 Project, a large portion of the site serves as a common area portion and would include roadways, guest parking areas, sidewalks, a bocce ball court, a grass play area/open space, a BBQ area with tables, a fire pit with seating, a bioretention basin, and landscaping.

#### *Residential Units*

- The 2016 Project included lot subdivision and development of 7 attached townhomes and 12 single-family detached units for a total of 19 single-family residences.
- The revised Project proposes to increase the number of attached townhomes to 22 and does not propose any single-family detached residences.

#### *Access*

- The 2016 Project proposed to extend the current Shannon Drive terminus at the boundary of the Project site to Oakmont Drive through the site as a private road providing access to all units.

- The revised Project does not propose a through street, but rather proposes access to 14 of the lots from an extension of the current Shannon Drive and access to the remaining 8 lots from a new driveway off Oakmont Drive. The two access points would be connected with an Emergency Vehicle Access (EVA) only.

#### *Development Footprint and Grading*

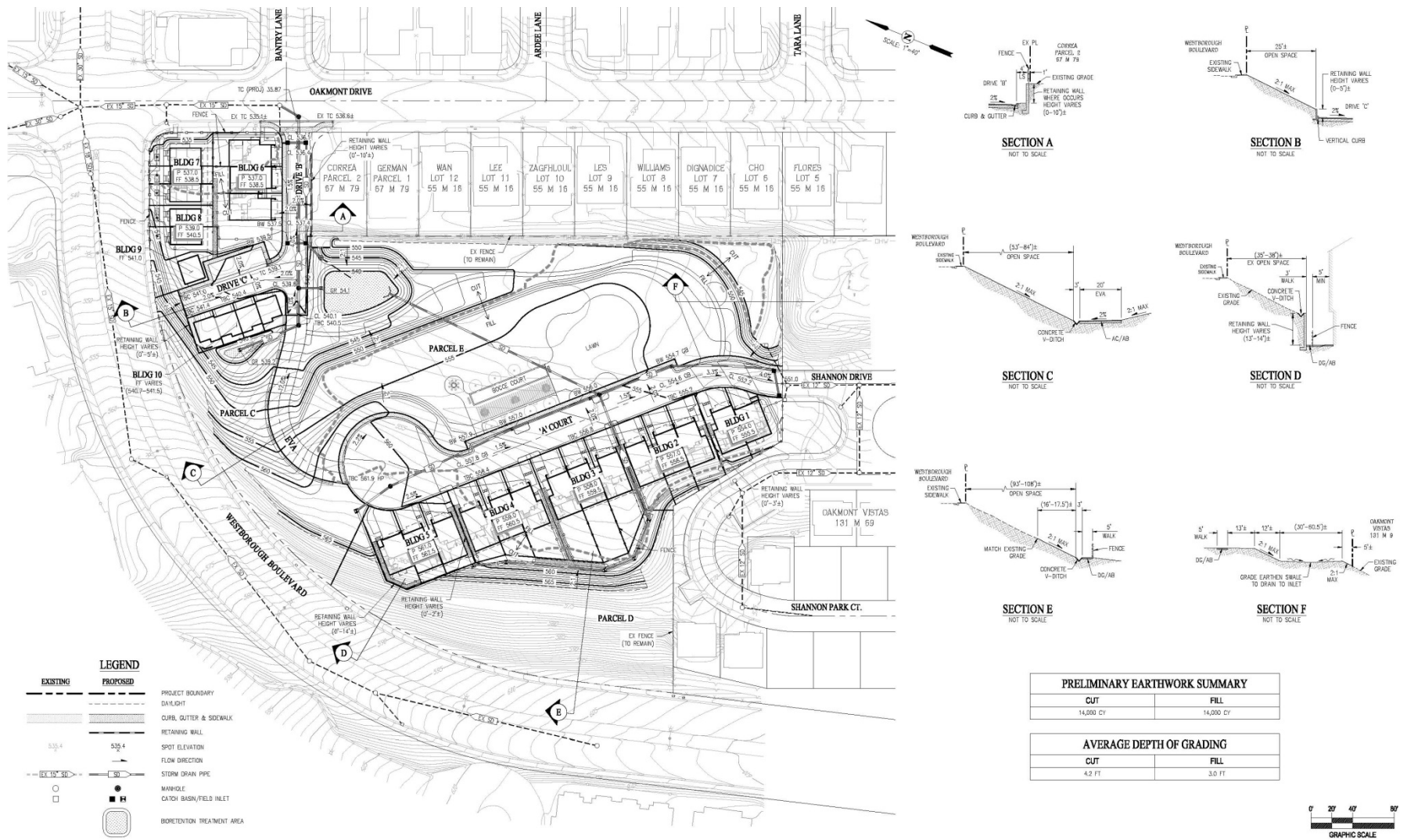
With more residential units, but the space efficiency of attached townhome units, the Project footprint under the revised Project is similar to that under the 2016 Project. The grading plan is shown on **Figure 3**. The revised Project proposes grading to be balanced on site to accommodate the proposed roadway, building sites, open space improvements, and on-site storm drainage system. Approximately 14,000 cubic yards will be moved on site, with no soil intended to be brought to or from the site. The 2016 Project has a similar plan but estimated 10,000 cubic yards would need to be moved on site.



**Figure 2: Illustrative Site Plan**

Source: Applicant, dated 6/25/2018





**Figure 3: Preliminary Grading Plan**

Source: Applicant, dated 6/25/2018



# MITIGATED NEGATIVE DECLARATION

## PROJECT DESCRIPTION, LOCATION, AND SETTING

This Mitigated Negative Declaration has been prepared for the revised Oakmont Meadows Residential Development Project. See the Introduction and Project Information section of this document for details of the Project.

## POTENTIALLY SIGNIFICANT IMPACTS REQUIRING MITIGATION

The following is a list of potential Project impacts and the mitigation measures recommended to reduce these impacts to a less than significant level. Refer to the Initial Study Checklist section of this document for a more detailed discussion.

Potential Impact	Mitigation Measures
<b>Air Quality, Construction Emissions Impact:</b> Construction of the revised Project would result in emissions and fugitive dust. While the Project is below the size at which significant impacts are anticipated, the Bay Area Air Quality Management District (BAAQMD) recommends implementation of construction mitigation measures to reduce construction-related criteria pollutant and fugitive dust emissions for all projects. These basic measures are included in Mitigation Measure Air Quality-1, below and would further reduce construction-period criteria pollutant impacts.	
	<b>Mitigation Measure</b> <b>Air-1: Standard Construction Best Management Practices.</b> The contractor shall implement the following BAAQMD recommended Best Management Practices: <ol style="list-style-type: none"><li>1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</li><li>2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.</li><li>3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.</li><li>4. All vehicle speeds on unpaved roads shall be limited to 15 mph.</li><li>5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible and feasible. Building pads shall be laid as soon as possible and feasible, as well, after grading unless seeding or soil binders are used.</li><li>6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5</li></ol>

Potential Impact	Mitigation Measures
	<p>minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</p> <ol style="list-style-type: none"> <li>7. 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 running in proper condition prior to operation.</li> <li>8. Post a publicly 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 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.</li> </ol>
<p><b>Air Quality, Construction Exposure Impact:</b> Construction activity would use diesel-powered equipment and therefore results in the emission of diesel particulate matter including fine particulate matter, which are considered toxic air contaminants and a potential health risk. While the proposed construction activities would be less than that which generally could result in significant health risks to nearby sensitive receptors, due to the proximity of residences and students to the Project site, potential health risks due to construction-period emissions impacts would be minimized through implementation of construction management practices detailed in Mitigation Measure Air Quality-2.</p>	
	<p><b>Mitigation Measure</b></p> <p><b>Air-2: Construction Emissions Minimization Practices.</b> The project shall demonstrate compliance with the following Construction Emissions Minimization Practices prior to issuance of demolition, building or grading permits:</p> <ol style="list-style-type: none"> <li>1. All off-road equipment greater than 25 horse power (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements: <ol style="list-style-type: none"> <li>a) Where access to alternative sources of power are available, portable diesel engines shall be prohibited;</li> <li>b) All off-road equipment shall have: <ol style="list-style-type: none"> <li>i. Engines that meet or exceed either U.S. Environmental Protection Agency (U.S. EPA) or California Air Resources Board (ARB) Tier 2 off-road emission standards, and</li> <li>ii. Engines that are retrofitted with an ARB Level 3</li> </ol> </li> </ol> </li> </ol>

Potential Impact	Mitigation Measures
	<p>Verified Diesel Emissions Control Strategy (VDECS).</p> <p>c) Exceptions:</p> <ul style="list-style-type: none"> <li>i. Exceptions to 1(a) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the City that an alternative source of power is limited or infeasible at the project site and that the requirements of this exception provision apply.</li> <li>ii. Exceptions to 1(b)(ii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the City that a particular piece of off-road equipment with an ARB Level 3 VDECS is: (1) technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use off-road equipment that are not retrofitted with an ARB Level 3 VDECS and the sponsor has submitted documentation to the City that the requirements of this exception provision apply. If granted an exception to 1(b)(ii), the project sponsor must comply with the requirements of 1(c)(iii).</li> <li>iii. If an exception is granted pursuant to 1(c)(ii), the project sponsor shall provide the next cleanest piece of off-road equipment, including a Tier 2 engine standard and the following emissions control/alternative fuel in order of preference if available: 1) ARB Level 2 VDECS, 2) ARB Level 2 VDECS, or 3) Alternative Fuel.</li> </ul>
	<p><b>Biological Impact:</b> Trees on the Project site or in the vicinity could host the nests of common birds such as house finch, American robin, northern mockingbird, European starling, and/or Brewer’s blackbird. These species are locally and regionally abundant, and Project effects on these species would be minimal or nil. However, nearly all native birds are protected under the federal Migratory Bird Treaty Act and the California Fish and Wildlife Code, so the following mitigation would be applicable to prevent a “take” of these species under these regulations related to disturbance during nesting.</p>
	<p><b>Mitigation Measure</b></p> <p><b>Bio-1: Nesting Birds.</b> If construction occurs during the breeding season (February through August), the site and a surrounding radius of not less than 0.5 miles shall be surveyed by a qualified biologist to verify</p>

Potential Impact	Mitigation Measures
	<p>the presence or absence of nesting birds protected under the federal Migratory Bird Treaty Act and the California Fish and Wildlife Code. Pre-construction surveys shall be conducted within 15 days prior to start of work and shall be submitted to the Building Division. If the survey indicates the potential presences of nesting birds, the applicant shall comply with recommendations of the biologist regarding an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be based to a large extent on the nesting species and its sensitivity to disturbance.</p>
<p><b>Hazardous Materials Impact:</b> The Project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but portions of the site were filled in the 1960s, before there were regulatory requirements for the source and contents of fill material and the potential exists for fill at the site to contain materials which would now be classified as hazardous and could be released during construction activities. To mitigate the potential for upset of hazardous materials during the construction period, the Project shall implement the following measure:</p>	
	<p><b>Mitigation Measure</b>  <b>Haz-1: Halting Work on Encountering Materials Believed to be Hazardous.</b> In the event that materials which are believed to be hazardous are encountered during site preparation or excavation work, all such activity at the project site shall be halted until the material in question has been evaluated by the South San Francisco Fire Department and/or the San Mateo County Environmental Health Department. Prior to the resumption of work at the project site, implementation of appropriate response measures and disposal methods in accordance with applicable state and local regulations and as approved by the Fire Department would reduce the impact to a level of less than significant.</p>
<p><b>Transportation/Traffic Impact:</b> Sight distance at the proposed driveway on Oakmont Drive are inadequate due to on-street parking on west side of Oakmont Drive along the project frontage near the proposed driveway. To mitigate the potential for site hazards related to inadequate sight distances, the Project shall implement the following measure:</p>	
	<p><b>Mitigation Measure</b>  <b>Traffic-1: Sight Distance.</b> To provide adequate sight lines at the project's connection to Oakmont Drive, parking shall be prohibited for at least 60 feet to the north of the project driveway on the west side of Oakmont Drive, and</p>

Potential Impact	Mitigation Measures
	prohibited to the south of the project driveway for at least 20 feet on the west side of Oakmont Drive.

### **SUMMARY OF CHANGES FROM THE 2016 MND**

With a project driveway proposed on Oakmont Drive under the Revised Project that had not been proposed under the 2016 Project, Mitigation Measure Traffic-1 has been added in this Recirculated IS/MND. No other significant impacts or mitigation measures were added or revised in significance.

## PROPOSED FINDINGS

On the basis of this evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures to reduce these impacts will be required of the project. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature  
Sailesh Mehra, Chief Planner

10/11/18

Date

# INITIAL STUDY CHECKLIST

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Environmental factors that may be affected by the Project are listed by topic below. Factors marked with an “X” (☒) were determined to be potentially affected by the Project, involving at least one impact that is a potentially significant impact as indicated by the Checklist on the following pages. Unmarked factors (☐) were determined to not be significantly affected by the Project or reduced to a level of less than significant through mitigation, based on discussion provided in the Checklist.

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Aesthetics                         | <input type="checkbox"/> Agriculture/Forestry Resources | <input type="checkbox"/> Air Quality             |
| <input type="checkbox"/> Biological Resources               | <input type="checkbox"/> Cultural Resources             | <input type="checkbox"/> Geology/Soils           |
| <input type="checkbox"/> Greenhouse Gas Emissions           | <input type="checkbox"/> Hazards/Hazardous Materials    | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning                  | <input type="checkbox"/> Mineral Resources              | <input type="checkbox"/> Noise                   |
| <input type="checkbox"/> Population/Housing                 | <input type="checkbox"/> Public Services                | <input type="checkbox"/> Recreation              |
| <input type="checkbox"/> Transportation/Traffic             | <input type="checkbox"/> Utilities/Service Systems      |  |
| <input type="checkbox"/> Mandatory Findings of Significance |   |  |

## **EVALUATION OF ENVIRONMENTAL EFFECTS**

The Checklist portion of the Initial Study begins on the following page, with explanations of each CEQA issue topic. Four outcomes are possible, as explained below.

1. A “no impact” response indicates that no action that would have an adverse effect on the environment would occur due to the Project.
2. A “less than significant” response indicates that while there may be potential for an environmental impact, there are standard procedures or regulations in place, or other features of the Project as proposed, which would limit the extent of this impact to a level of “less than significant.”
3. Responses that indicate that the impact of the Project would be “less than significant with mitigation” indicate that mitigation measures, identified in the subsequent discussion, will be required as a condition of Project approval in order to effectively reduce potential Project-related environmental effects to a level of “less than significant.”
4. A “potentially significant impact” response indicates that further analysis is required to determine the extent of the potential impact and identify any appropriate mitigation. If any topics are indicated with a “potentially significant impact,” these topics would need to be analyzed in an Environmental Impact Report.

Note that this document does not indicate that any environmental topics would be considered to be “potentially significant” after application of mitigation measures identified in this document.

## **SUMMARY OF CHANGES FROM THE 2016 IS/MND**

With a project driveway proposed on Oakmont Drive under the Revised Project that had not been proposed under the 2016 Project, Mitigation Measure Traffic-1 has been added in this Recirculated IS/MND to address the potential for sight distance hazards.

Minor revisions were made throughout the document to update the specifics of the site development plan and number of units and related emissions, population, and traffic. However, no other significant impacts or mitigation measures were added or revised in significance.



1. AESTHETICS  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			<input checked="" type="checkbox"/>	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			<input checked="" type="checkbox"/>	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			<input checked="" type="checkbox"/>	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			<input checked="" type="checkbox"/>	

a-c) Scenic Vistas, Resources, Visual Character. Both I-280 and CA-1 are designated or eligible State Scenic Highways through South San Francisco. However, the Project site is located approximately 3,600 feet and 7,700 feet from these highways and would not generally be visible in views from these highways due to intervening topography and trees/structures. The City's General Plan does not further identify scenic roadways or scenic vistas.<sup>1, 2</sup>

The revised Project would be visible from nearby properties and those at higher vantage points, but a residential use as proposed is consistent with the existing and planned character of the neighborhood. (Such a determination under CEQA does not preclude the City from considering specifics of design during design review.)

Again due to the Project location and relative topography and existing trees/structures in the vicinity, the revised Project would not substantially change the views of nearby properties toward regional features such as the Pacific Ocean or San Francisco Bay, or the local landmark of Sign Hill. A change to private views would not generally be considered an environmental impact under CEQA in any case.

Therefore, the revised Project would have a *less than significant* impact in relation to scenic vistas, scenic resources, and visual character.

<sup>1</sup> California Department of Transportation, State Scenic Highway Mapping System, [http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm)

<sup>2</sup> City of South San Francisco, prepared by Dyett and Bhatia, South San Francisco General Plan, adopted October 1999, as amended.

- d) Light and Glare. The revised Project proposes residential development generally consistent with surrounding properties and would comply with City regulations regarding lighting that will ensure glare is minimized and light levels are limited to those expected in residential developments and existing in the surrounding developed area.<sup>3</sup> The Project's impact related to light and glare is *less than significant*.

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<sup>3</sup> City of South San Francisco, South San Francisco Municipal Code, including sections 20.300.008.

<b>2. AGRICULTURE AND FORESTRY RESOURCES</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production(as defined by Government Code section 51104(g))?				<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?				<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				<input checked="" type="checkbox"/>

a-e) Agriculture and Forestry Resources. The Project site is located in an urban area on a lot designated for residential development. No part of the site is zoned for or currently being used for agricultural or forestry purposes or is subject to the Williamson Act. There would be *no impact* to agricultural and forestry resources as a result of this Project.

<b>3. AIR QUALITY</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			<input checked="" type="checkbox"/>	
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			<input checked="" type="checkbox"/>	
d) Expose sensitive receptors to substantial pollutant concentrations?		<input checked="" type="checkbox"/>		
e) Create objectionable odors affecting a substantial number of people?			<input checked="" type="checkbox"/>	

- a) Air Quality Plan. The Project site is subject to the Bay Area Clean Air Plan, first adopted by the Bay Area Air Quality Management District (BAAQMD) (in association with the Metropolitan Transportation Commission and the Association of Bay Area Governments) in 1991 and last updated in April 2017, called the Bay Area 2017 Clean Air Plan. The plan is meant to demonstrate progress toward meeting ozone standards, but also includes other elements related to particulate matter, toxic air contaminants, and greenhouse gases.<sup>4</sup>

BAAQMD recommends analyzing a project's consistency with current air quality plan primary goals and control measures. The impact would be significant if the Project would conflict with or obstruct attainment of the primary goals or implementation of the control measures.

The primary goals of the 2017 Clean Air Plan are:

- Attain all state and national air quality standards
- Eliminate disparities among Bay Area communities in cancer health risk from toxic air contaminants
- Reduce Bay Area GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050. [This standard is addressed in Section 7: Greenhouse Gas Emissions.]

<sup>4</sup> BAAQMD, April 2017, *Final 2017 Clean Air Plan: Spare the Air – Cool the Climate, A Blueprint for Clean Air and Climate Protection in the Bay Area*.

The Project would be consistent with all applicable rules and regulations related to emissions and health risk and would not result in a new substantial source of emissions or toxic air contaminants or otherwise conflict with the primary goals of the 2017 Clean Air Plan.

Many of the Clean Air Plan's control measures are targeted to area-wide improvements, large stationary source reductions, or large employers and these are not applicable to the proposed Project. However, the Project would be consistent with all rules and regulations related to construction activities and the proposed development would meet current standards of energy and water efficiency (Energy Control Measure EN1 and Water Control Measure WR2) and recycling and green waste requirements (Waste Management Control Measures WA3 and WA4) and does not conflict with applicable control measures aimed at improving access/connectivity for bicycles and pedestrians (Transportation Control Measure TR9) or any other control measures.

Therefore, there would be *no impact* in relation to inconsistency with the Clean Air Plan.

- b-c) Air Quality Standards/Criteria Pollutants. Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation and include ozone precursors (NO<sub>x</sub> and ROG), carbon monoxide (CO), and suspended particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The Bay Area is considered "attainment" for all of the national standards, with the exception of ozone. It is considered "nonattainment" for State standards for ozone and particulate matter.

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.<sup>5</sup> Emissions from operation of the Project could cumulatively contribute to air pollutant levels in the region.

The Project is located in the San Francisco Bay Area Air Basin and therefore under the jurisdiction of BAAQMD. BAAQMD publishes a document titled *California Environmental Quality Act Air Quality Guidelines* ("BAAQMD Guidelines"), which provides guidance for consideration by lead agencies, consultants, and other parties evaluating air quality impacts in the San Francisco Bay Area Air Basin conducted pursuant to CEQA. The document provides guidance on evaluating air quality impacts of development projects and local

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<sup>5</sup> BAAQMD, May 2017, *California Environmental Quality Act Air Quality Guidelines*, p. 2-1.

plans, determining whether an impact is significant, and mitigating significant air quality impacts.

BAAQMD updated these Guidelines in coordination with adoption of new thresholds of significance on June 2, 2010.<sup>6</sup> The most recent version of the Guidelines are dated May 2017. The relevant analysis in this document is based upon guidance from the current BAAQMD Guidelines.

### ***Construction Emissions***

BAAQMD presents screening criteria in their Guidelines that identify project sizes by type that could have the potential to result in emissions over criteria levels. The Project is well below BAAQMD's construction-period criteria pollutant screening size of 114 single-family dwelling units and therefore is not anticipated to result in emissions of criteria pollutants over threshold levels during construction.<sup>7</sup> The impact related to construction-period air quality emissions is *less than significant*.

However, BAAQMD recommends implementation of construction mitigation measures to reduce construction-related criteria pollutant and fugitive dust emissions for all projects, regardless of the significance level of construction-period impacts. These basic measures are included in Mitigation Measure Air-1, below and would further reduce construction-period criteria pollutant impacts.

### **Mitigation Measure**

- Air-1:**           **Basic Construction Management Practices.** The Project shall demonstrate proposed compliance with all applicable regulations and operating procedures prior to issuance of demolition, building or grading permits, including implementation of the following BAAQMD "Basic Construction Mitigation Measures".
- i) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
  - ii) All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
  - iii) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

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<sup>6</sup> Bay Area Air Quality Management District. June 2, 2010. News Release [http://www.baaqmd.gov/~media/Files/Communications%20and%20Outreach/Publications/News%20Releases/2010/ceqa\\_100602.ashx](http://www.baaqmd.gov/~media/Files/Communications%20and%20Outreach/Publications/News%20Releases/2010/ceqa_100602.ashx).

<sup>7</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, Table 3-1.

- iv) All vehicle speeds on unpaved roads shall be limited to 15 mph.
- v) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- vi) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- vii) 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 running in proper condition prior to operation.
- viii) Post a publicly 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 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure Air-1 would further reduce *less than significant* construction-period criteria pollutant impacts. Because construction-period emissions do not exceed applicable criteria pollutant significance thresholds, additional construction mitigation measures would not be required to mitigate impacts.

### ***Operational Emissions***

Similar to the analysis for construction-period impacts above, the Project was compared to BAAQMD screening criteria for operational pollutants. The Project is well below BAAQMD's operational criteria pollutant screening size of 325 single-family dwelling units and therefore not anticipated to result in emissions of criteria pollutants over threshold levels during operations.<sup>8</sup> Therefore, operation of the Project would have a *less-than-significant* impact on regional air quality.

Additionally, because carbon monoxide hot spots can occur near heavily traveled and delayed intersections, BAAQMD presents traffic-based criteria as screening criteria for carbon monoxide impacts. As operation of the proposed Project would not result in any significantly affected intersections (see section 15 Transportation and Traffic for additional details), the Project would be below carbon monoxide threshold levels.

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<sup>8</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, Table 3-1.

Therefore, the Project impact related to operational pollutant emissions would be *less than significant*.

- d) Sensitive Receptors. For the purpose of assessing impacts of a proposed Project on exposure of sensitive receptors to risks and hazards, the threshold of significance is exceeded when the Project-specific cancer risk exceeds 10 in one million, the non-cancer risk exceeds a Hazard Index of 1.0 (or cumulative risk of 100 in one million or a Hazard Index of 10.0 respectively is exceeded), and/or the annual average PM<sub>2.5</sub> concentration would exceed 0.3 µg/m<sup>3</sup> (or 0.8 µg/m<sup>3</sup> cumulatively). Examples of sensitive receptors are places where people live, play or convalesce and include schools, hospitals, residential areas and recreation facilities.

### ***Construction-Period Health Risks***

The Project site is located adjacent to existing residential uses and approximately 450 feet southwest of the Westborough Middle School. Residents and students are considered sensitive uses. Construction-period TAC emissions could contribute to increased health risks to nearby residents and students from TACs. While BAAQMD does not provide a screening level to determine projects that are small enough that they can be assumed to be below significance thresholds, significant impacts in this regard are not usually seen unless residential projects include about 200 dwelling units or more. Additionally, the modeling to quantify health risks was not originally intended for emissions periods spanning less than 7 years and is not recommended by any agency for use for less than a 2 year period.

Therefore, due to the small size of the Project and relatively low potential for impacts to nearby sensitive users, similar to the approach for construction-period criteria pollutants, potential health risks due to construction-period emissions impacts shall be minimized through implementation of construction management practices.

### **Mitigation Measure**

- Air-2:**                    **Construction Emissions Minimization Practices.** The project shall demonstrate compliance with the following Construction Emissions Minimization Practices prior to issuance of demolition, building or grading permits:
1. All off-road equipment greater than 25 horse power (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:
    - a) Where access to alternative sources of power are available, portable diesel engines shall be prohibited;
    - b) All off-road equipment shall have:
      - i. Engines that meet or exceed either U.S. Environmental Protection Agency (U.S. EPA) or California Air Resources Board (ARB) Tier 2 off-road emission standards, and



- ii. Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS).

c) Exceptions:

- i. Exceptions to 1(a) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the City that an alternative source of power is limited or infeasible at the project site and that the requirements of this exception provision apply.
- ii. Exceptions to 1(b)(ii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the City that a particular piece of off-road equipment with an ARB Level 3 VDECS is: (1) technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use off-road equipment that are not retrofitted with an ARB Level 3 VDECS and the sponsor has submitted documentation to the City that the requirements of this exception provision apply. If granted an exception to 1(b)(ii), the project sponsor must comply with the requirements of 1(c)(iii).
- iii. If an exception is granted pursuant to 1(c)(ii), the project sponsor shall provide the next cleanest piece of off-road equipment, including a Tier 2 engine standard and the following emissions control/alternative fuel in order of preference if available: 1) ARB Level 2 VDECS, 2) ARB Level 2 VDECS, or 3) Alternative Fuel.

Mitigation measure Air-2 would ensure construction-period health risk impacts remain at a level of *less than significant with mitigation*.

### ***Operational Health Risks***

The Project, as a residential development, would not be considered a significant source of operational TACs.

While the future residents of the proposed Project would be considered sensitive receptors, the effects of the environment on a project are not considered a CEQA impact (which is focused to the effects of a project on the environment, and not the reverse).<sup>9</sup> The following is included for informational purposes:

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<sup>9</sup> California Building Industry Assn. v. Bay Area Air Quality Management Dist., (2015) 62 Cal.4th 369, Case No. S213478.

BAAQMD recommends consulting screening tools to identify whether any substantial TAC sources are located within 1,000 feet of the project.

- BAAQMD's county-specific Google Earth Stationary Source Screening Analysis Tool indicates there are no stationary sources of TACs within 1,000 feet of the Project site.
- BAAQMD's county-specific Google Earth Highway Screening Analysis Tool indicates there is one highway within 1,000 feet of the Project site:
  - CA-35 (Skyline Boulevard), at over 500 feet from the Project site, has a screening level cancer risk of 0.83 in one million, a Hazard Index of 0.001 to 0.002, and an annual average PM<sub>2.5</sub> concentration of 0.014 µg/m<sup>3</sup>. These are well below BAAQMD's indicated threshold levels.

There are no substantial sources of TACs within 1,000 feet of the Project, so it can be assumed future residents would not be subjected to levels of TACs above screening levels. As noted above, this is presented as an informational item.

- e) Objectionable Odors. As a residential development, operation of the Project would not be a source of objectionable odors. During construction, diesel-powered vehicles and equipment would create odors that some may find objectionable. However, these odors would be temporary and not likely to be noticeable much beyond the Project site's boundaries. Therefore, the potential for objectionable odor impacts is considered *less than significant*.

4. BIOLOGICAL RESOURCES  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		<input checked="" type="checkbox"/>		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?			<input checked="" type="checkbox"/>	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				<input checked="" type="checkbox"/>
d) 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?			<input checked="" type="checkbox"/>	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				<input checked="" type="checkbox"/>

a, b) Special Status Species and Habitat. The Project site was fully assessed for biological resources and habitat under the Prior MND, which found no special-status species or habitat at the Project site except for a small patch of remnant native grassland surrounded by non-native grassland, that was not considered a substantial community or significant impact for its removal. Since that time, the site has been maintained as a vacant lot with non-native grassland and landscaping maintained and weeded regularly to avoid invasive species. Additionally, the City's General Plan does not include the Project site on maps or lists or locations with biological resources.<sup>10</sup> The revised Project would result in the

<sup>10</sup> City of South San Francisco, prepared by Dyett and Bhatia, South San Francisco General Plan, adopted October 1999, as amended, Section 7.1. Habitat and Biological Resources.

removal of non-native grasslands and landscaping, which are not a special status species or habitat.

Existing trees at the Project site, which are not special-status, are potentially covered under the City's Tree Preservation Ordinance (Municipal Code Chapter 13.30), depending on size and type of tree. While the revised Project proposes retention of most trees at the site as well as additional trees to be planted per the landscaping plan, any trees to be removed would require issuance by the City of a Tree Removal Permit. Compliance with this process will ensure the Project does not result in conflict with the Tree Preservation Ordinance.

Additionally, trees on the Project site or in the vicinity could host the nests of common birds such as house finch, American robin, northern mockingbird, European starling, and/or Brewer's blackbird. These species are locally and regionally abundant, and Project effects on these species would be minimal or nil. However, nearly all native birds are protected under the federal Migratory Bird Treaty Act and the California Fish and Wildlife Code, so the following mitigation would be applicable to prevent a "take" of these species under these regulations related to disturbance during nesting.

#### **Mitigation Measure**

**Bio-1:**           **Nesting Birds.** If construction occurs during the breeding season (February through August), the site and a surrounding radius of not less than 0.5 miles shall be surveyed by a qualified biologist to verify the presence or absence of nesting birds protected under the federal Migratory Bird Treaty Act and the California Fish and Wildlife Code. Pre-construction surveys shall be conducted within 15 days prior to start of work and shall be submitted to the Building Division. If the survey indicates the potential presences of nesting birds, the applicant shall comply with recommendations of the biologist regarding an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be based to a large extent on the nesting species and its sensitivity to disturbance.

As noted above, there are no other special-status species with the potential to be significantly impacted by the revised Project. With implementation of Mitigation Measure Bio-1, the impact related to special-status species and habitats would be *less than significant with mitigation*.

- c) Wetlands. The Project site was fully assessed for biological resources and habitat under the Prior MND, which found no wetlands at the Project site. Since that time, the site has been maintained as a vacant lot with non-native grassland and landscaping maintained and weeded regularly so conditions related to wetlands would not have changed and the revised Project would have *no impact* related to wetlands.

- d) Wildlife Corridors. The Project site is surrounded by roadways and other developed areas and does not have the potential to act as a substantial wildlife corridor. The revised Project would have a *less than significant* impact related to movement of wildlife.
- e, f) Local Policies and Ordinances and Conservation Plans. The Project site is not subject to any habitat conservation or natural community conservation plans and thus would not conflict with any approved local, regional, or state habitat conservation plan. As noted under items “a, b” above, the Project would comply with the City’s Tree Preservation Ordinance and therefore not cause a conflict with local policies. There are no other local policies applicable to the revised Project. There would be *no impact*.

5. CULTURAL RESOURCES  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in Public Resources Section 15064.5?				<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Public Resources Section 15064.5?			<input checked="" type="checkbox"/>	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			<input checked="" type="checkbox"/>	
d) Disturb any human remains, including those interred outside of formal cemeteries?			<input checked="" type="checkbox"/>	

a) Historic Resources. There are no existing structures at the site. The revised Project would have ***no impact*** related to historic resources.

b, c) Archaeological/Paleontological Resources/Human Remains. The Project site was fully assessed for cultural resources under the Prior MND, which found no known cultural, Native American, or archaeological resources at the site but recommended measures to address the unexpected discovery of such resources during ground-disturbing construction activities. These measures are covered under current regulations, as outlined below.

If Native American, archaeological, or paleontological resources are discovered on site, these resources shall be handled according to CEQA Section 15064.5(c), which calls on lead agencies to refer to the provisions of Section 21083.2 of the Public Resources Code, or Section 21084.1 if the archaeological site is determined to be a historical resource. This is standard procedure for any project in California, so the impact is considered ***less than significant***.

d) Human Remains. There are no known human remains that would be disturbed by the proposed Project. If human remains are found during construction activities at the Project site, they will be handled according to Section 7050.5 of the Health and Safety Code or, if the remains are Native American, Section 5097.98 of the Public Resources Code as per CEQA Section 15064.5(d). This is standard procedure for any project in California, so the impact is considered ***less than significant***.

<b>6. GEOLOGY AND SOILS</b>  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> <li>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? (Refer to Division of Mines and Geology Special Publication 42)</li> <li>ii) Strong seismic ground shaking?</li> <li>iii) Seismic-related ground failure, including liquefaction?</li> <li>iv) Landslides?</li> </ul>			<input checked="" type="checkbox"/>	
b) Result in substantial soil erosion or the loss of topsoil?			<input checked="" type="checkbox"/>	
c) 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?			<input checked="" type="checkbox"/>	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			<input checked="" type="checkbox"/>	
e) 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?				<input checked="" type="checkbox"/>

a- d) Geologic Hazards. According to the currently-adopted CEQA Guidelines, exposure of people or structures to major geological hazards is considered a significant adverse impact. Per the California Supreme Court *CBIA vs BAAQMD* decision (Case No. S213478, decided December 17, 2015), the scope of CEQA analyses should be limited to the effect of the environment on a project (as opposed to the effect of a project on the environment). Therefore, thresholds related to geological and seismic risks are limited to whether or not a project will exacerbate existing seismic risks. "Induced seismicity" is the term for earthquakes caused by human activity, and while the mechanisms have been scientifically proven, all suspected forms of induced seismicity involve substantial increase or loss of mass in an area, such as through the creation of artificial lakes through dam construction, large-scale removal of coal from mining, large-scale extraction of oil deposits or groundwater reserves, or large-scale liquid injection for waste disposal or hydraulic

fracturing. The revised Project is a substantially smaller scale than these types of projects and would not have the potential to result in induced seismicity.

The revised Project's potential geological hazards impacts under CEQA therefore are focused to those that could impact biological or hydrological resources or nearby properties (such as through erosion, creation of unstable slopes, or inadequate septic systems), and not those that could affect future residents or structures at the Project site. Additional discussion of non-CEQA topics are also included below as informational items.

Note that information in this section is based on a series of geotechnical reports and fault evaluations, as fully detailed in the sources section at the end of this document, including the most recent Berlogar Geotechnical Consultants report in 2008.

### ***Unstable Soil/Seismically-Induced Landslides***

The preliminary grading plan for the revised Project includes cut slopes across much of the site which would expose fill materials, and fill slopes which would have a height of approximately nine feet near the southeastern corner of the site. As a result, the geotechnical report contains specific recommendations for the grading plan to ensure support along cut and fill slopes where grading could remove existing toe support or affect the stability of the planned fill slopes. The final detailed project plans are required to incorporate the recommendations in the geotechnical report to avoid or reduce the potential impacts related to slope instability on the site. Per standard procedures, compliance with design-level recommendations will be verified during the construction permitting process.

The report concluded that grading in accordance with the recommendation would reduce the risk of seismically induced landslides to low. Therefore, the revised Project's potential to result in unstable soils that could impact existing people and structures is *less than significant*.

### ***Erosion***

Grading and construction activities will expose soil to the elements, which would be subject to erosion during storm events. Implementation of a construction-period stormwater plan will mitigate the potential for erosion and loss of top soil.

In accordance with the Clean Water Act and the State Water Resources Control Board (SWRCB), the Applicant is required to file a Storm Water Pollution Prevention Plan (SWPPP) prior to the start of construction. The SWPPP shall include specific best management practices to reduce soil erosion. This is required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ). Per standard procedures, compliance with SWPPP requirements will be verified during the construction permitting process. Therefore, the revised Project's potential to result in soil erosion or loss of topsoil is *less than significant* through compliance with SWPPP requirements.



### *Informational Items*

As noted above, CEQA does not require an agency to consider the impact of existing conditions on future project users. Therefore, the following discussion is included for informational purposes and is not related to CEQA impacts.

The site is situated within an Alquist-Priolo Earthquake Fault Zone and three active traces of the San Andreas Fault are on the site. The main trace lies beneath the fill in the center of the site; two other traces lie on either side of the main trace. The location of fault traces on the site have been explored in a series of technical studies and earthquake setback zones incorporated into the revised Project per applicable regulations. Within the fault zone, surface rupture could result in displacement of more than 10 feet. The risk of major faulting-induced displacement outside of the setback zones is considered low. All habitable structures are located outside of the setback zone. As allowable under applicable regulations, non-habitable detached garages, park and open space areas, and infrastructure including roadways, are located within the setback zone.

The San Francisco Bay Area is a seismically active region and the revised Project, along with the region as a whole, is likely to experience strong seismic ground shaking during its lifetime. A moderate to major earthquake on the San Andreas fault or a major earthquake on other regional faults including the Hayward, Calaveras, or Seal Cove faults would likely cause severe ground shaking on the Project site that could damage structures and infrastructure.

A geotechnical report was prepared for the Project that contains specific recommendations to the seismic parameters for design of the proposed structures (e.g., related to foundations and soft-story conditions) and utilities. The report concluded that the risk of liquefaction, ground subsidence, and landslides at the site is low. Based on site soil analysis, this report included specific recommendations for construction of structures and infrastructure. These recommendations will be updated to reflect the current Project plans as recommendations were made based on a previous version. In addition to designing the revised Project in accordance with the current standards set forth in the California Building Code, the revised Project design and construction shall incorporate the recommendations in the geotechnical report to avoid or reduce the geotechnical hazards to structures and utilities on the site. Per standard procedures, compliance with design-level recommendations will be verified during the construction permitting process.

- e) Septic Tanks. The revised Project would not include the use of septic tanks and associated disposal facilities. Therefore, the Project would have *no impact* in this regard.

7. GREENHOUSE GAS EMISSIONS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			<input checked="" type="checkbox"/>	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				<input checked="" type="checkbox"/>

- a) Greenhouse Gas Emissions. BAAQMD has determined that greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. BAAQMD adopted a threshold of significance for operational GHGs of 1,100 metric tons carbon dioxide equivalent (CO<sub>2</sub>e) per year or, if the project is too large to meet that threshold, an efficiency threshold of 4.6 metric tons CO<sub>2</sub>e per service population per year.

Similar to the analysis for Air Quality impacts (Section 3 of this document), the Project was compared to BAAQMD screening criteria that identify project sizes by type that could have the potential to result in emissions over criteria levels. As it relates to greenhouse gas emissions, this table includes screening levels of 56 single family dwelling units.<sup>11</sup> At 22 units, the Project would be below the screening size for a project of this type, and would therefore be below threshold levels. The impact related to GHG emissions is *less than significant*.

- b) Greenhouse Gas Reduction Plans. The City adopted a qualified GHG reduction plan in 2014, the City of South San Francisco Climate Action Plan. This plan estimated community-wide GHG emissions of 548,600 metric tons CO<sub>2</sub>e in 2005 and a target reduction of 15% below the 2005 baseline levels.

Many of the Climate Action Plan's reduction measures are targeted to city-wide strategies that are not directly applicable to the proposed Project. As a small infill residential project located in an otherwise developed area, the Project would not substantially contribute to bicycle and pedestrian connectivity or support of public transit or automobile dependence (Measures 1.1 through 1.3), but would not conflict with these measures either. The Project would meet current standards of energy and water efficiency (Measures 3.1 and 6.1), and residents would participate in recycling for waste reduction (Measure 5.1). A discussion of the Project in relation to the Clean Air Plan is included in Section 3: Air Quality.

<sup>11</sup> BAAQMD, May 2017, *California Environmental Quality Act Air Quality Guidelines*, pp. 3-2 to 3-3.

Additionally, GHG emissions associated with the proposed Project were analyzed per the BAAQMD Guidelines. BAAQMD's thresholds and methodologies take into account implementation of state-wide regulations and plans, such as the AB 32 Scoping Plan and adopted state regulations such as Pavley and the low carbon fuel standard. Therefore, there would be *no impact* in relation to consistency with GHG reduction plans.

8. HAZARDS AND HAZARDOUS MATERIALS  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			<input checked="" type="checkbox"/>	
b) 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?		<input checked="" type="checkbox"/>		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		<input checked="" type="checkbox"/>		
d) 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?			<input checked="" type="checkbox"/>	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			<input checked="" type="checkbox"/>	

a-d) Hazardous Materials. The Project site was fully assessed for hazardous materials under the Prior MND, which found that the site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but that portions of the site were filled in the 1960s, before there were regulatory requirements for the source and contents of fill material and the potential exists for fill at the site to contain materials which would now be classified as hazardous and could be released during construction activities. Since that time, the site has been maintained as a vacant lot so conditions related to hazardous materials would not have changed. The Project site is located approximately 450 feet southwest of the Westborough Middle School, so is within the vicinity of a school. To

mitigate the potential for upset of hazardous materials during the construction period, the revised Project shall implement the following measure:

### **Mitigation Measure**

**Haz-1: Halting Work on Encountering Materials Believed to be Hazardous.** In the event that materials which are believed to be hazardous are encountered during site preparation or excavation work, all such activity at the project site shall be halted until the material in question has been evaluated by the South San Francisco Fire Department and/or the San Mateo County Environmental Health Department. Prior to the resumption of work at the project site, implementation of appropriate response measures and disposal methods in accordance with applicable state and local regulations and as approved by the Fire Department would reduce the impact to a level of less than significant.

Additionally, it is likely that equipment used at the site during construction activities could utilize substances considered by regulatory bodies as hazardous, such as diesel fuel and gasoline. However, all construction activities would be required to conform with Title 49 of the Code of Federal Regulations, US Department of Transportation (DOT), State of California, and local laws, ordinances and procedures, which would minimize the potential for accidental release.

Potential impacts are confined to the temporary construction period. Once operational, residential uses would not be considered a potential source for hazardous material use or release. With implementation of Mitigation Measure Haz-1 and conformance with applicable regulations, the impact related to hazardous materials would be *less than significant with mitigation*.

- e, f) Airport Hazards. The closest airport is the San Francisco International Airport, located approximately 4 miles from the Project site. The Project site is within Airport Influence Areas A and B of the October 2012 Airport Land Use Compatibility Plan for the Environs for the San Francisco International Airport (ALUCP).<sup>12</sup> The Project site is outside the constraints related to heights and would not contain other incompatible flight hazards as described in the ALUCP.<sup>13</sup> There are no other airports, either public or private within the vicinity of the Project. There would be *no impact* related to airport hazards.
- g) Emergency Response Plan. The revised Project would not substantially alter traffic patterns and would not impair implementation of any adopted emergency response plan or emergency evacuation plan. Therefore, the revised Project would have *no impact* in this regard.

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<sup>12</sup> City/County Association of Governments of San Mateo County, November 2012, Comprehensive Airport Land Use Compatibility for the Environs of San Francisco International Airport, Exhibits IV-1 and IV-2.

<sup>13</sup> Ibid, pages IV-59 to IV-60.

- h) Wildland Fire. The Project site is identified in the City's General Plan (Figure 8-4) as a Low Priority Management Unit, which requires vegetation management to reduce potential fuel for wildfires. Once developed, the site will likely be removed from the designation as a Management Unit. At that point, the potential for wildfire would be considered low, as the site is surrounded by other development and roadways, although the Fire Department can establish additional conditions during their review prior to the issuance of construction permits. Therefore, the revised Project would have a *less than significant* impact related to wildland fire.

9. HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?			<input checked="" type="checkbox"/>	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			<input checked="" type="checkbox"/>	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			<input checked="" type="checkbox"/>	
d) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			<input checked="" type="checkbox"/>	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems due to changes in runoff flow rates or volumes?			<input checked="" type="checkbox"/>	
f) Otherwise substantially degrade water quality?			<input checked="" type="checkbox"/>	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?				<input checked="" type="checkbox"/>

a, e) Water Discharge Quality and Capacity

*Construction Period*

As noted in Section 6: Geology and Soils, the Applicant is required to file a SWPPP prior to the start of construction to detail measures to control the level and quality of stormwater during the construction period. Per standard procedures, compliance with SWPPP

requirements will be verified during the construction permitting process. Therefore, the revised Project's potential to result in construction-period impacts to runoff volume or quality would be *less than significant*.

#### *Operational Period*

Federal Clean Water Act regulations require municipalities to obtain NPDES permits that outline programs and activities to control surface stormwater pollution. Municipalities, such as the City of South San Francisco, must eliminate or reduce "non-point" pollution, consisting of all types of substances generated as a result of urbanization (e.g. pesticides, fertilizers, automobile fluids, sewage, litter, etc.), to the "maximum extent practicable" (as required by Clean Water Act Section 402(p)(3)(B)(iii)). Clean Water Act Section 402(p) and U.S. EPA regulations (40 CFR 122.26) specify a municipal program of "best management practices" to control stormwater pollutants. Best Management Practices (BMP) refers to any kind of procedure or device designed to minimize the quantity of pollutants that enter the storm drain system. To comply with these regulations, each incorporated city and town in San Mateo County joined with the County of San Mateo to form the San Mateo County Water Pollution Prevention Program (SMCWPPP) in applying for a regional NPDES permit.<sup>14</sup>

The Regional Water Quality Control Board (RWQCB) adopted a Municipal Regional Permit (MRP) on October 14, 2009 as the NPDES permit for all Bay Area municipalities, which includes Provision C.3. The C.3 requirements are intended to protect water quality by minimizing pollutants in runoff, and to prevent downstream erosion by: designing each project site to minimize imperviousness, detain runoff, and infiltrate runoff where feasible; treating runoff prior to discharge from the site; ensuring runoff does not exceed pre-project peaks and durations; and maintaining treatment facilities. Project applicants must prepare and implement a Stormwater Control Plan containing treatment and source control measures that meet the "maximum extent practicable" standard as specified in the NPDES permit and the SMCWPPP C.3 Guidebook. Project applicants must also prepare a Stormwater Facility Operation and Maintenance Plan and execute agreements to ensure the stormwater treatment and flow-control facilities are maintained in perpetuity.

The site is currently entirely pervious surfaces (100% of the site). The revised Project would reduce the pervious surfaces by approximately 1.45 acres, resulting in pervious surfaces on approximately 70% of the site. Runoff generated at the site will be directed to bioretention areas where water will be naturally slowed and filtered prior to entering the storm drainage system. The revised Project will be required to submit preliminary stormwater treatment plans and C.3 worksheets demonstrating the change in impervious area at the site and appropriateness of stormwater system elements.

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<sup>14</sup> Regional Water Board, 2007, Order No. R2-2007-0027, NPDES Permit No. CAS0029921.



Through compliance with post-construction requirements related to implementation of the NPDES permit C.3 requirements, including Project preparation and implementation of a Stormwater Control Plan and Stormwater Facility Operation and Maintenance Plan, the long-term volume of water and water quality impacts from Project operation would be *less than significant*.

- b) Groundwater Recharge and Supplies. The Project site and surrounding area are connected to the municipal water supply and groundwater at the site is not used directly by this or other properties as a water supply. Additionally, the revised Project would comply with stormwater drainage requirements (see item “a, e” above), including permeable bioretention areas. The revised Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, and would have a *less than significant* impact related to groundwater.
- c, d) Drainage Pattern Alteration. As discussed under item “a, e” above, the revised Project will increase impervious site area and slow and treat runoff with bioretention areas prior to discharge into the storm drainage system. Through compliance with applicable regulations, the runoff from the site will be the same or reduced from that existing and will not cause erosion, siltation, or flooding. Project impacts related to alteration of drainage patterns would be *less than significant*.
- f) Otherwise Substantially Degrade Water Quality. Construction-related and post-construction water quality are discussed under item “a, e” above and the revised Project does not otherwise degrade water quality (*less than significant*).
- g-j) Flooding and Inundation. The revised Project is not located in a 100-year flood zone<sup>15</sup> so would have *no impact* related to flood zones.

The Project site is located at elevations of over 500 feet and is not located downhill from a dam or large body of water and is therefore not considered to have substantial risk for inundation from tsunami, seiche, levee or dam failure or mudflow.<sup>16</sup> Therefore, there would be *no impact* related to inundation.

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<sup>15</sup> Federal Emergency Management Agency (FEMA), October 15, 2012, Flood Insurance Rate Map (FIRM), Countywide map, Panel 06081C0039E (unprinted), accessed at <https://msc.fema.gov/portal>.

<sup>16</sup> City of South San Francisco, prepared by Dyett and Bhatia, South San Francisco General Plan, adopted October 1999, as amended, page 250.

10. LAND USE AND PLANNING  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				<input checked="" type="checkbox"/>

- a) Physical Division of a Community. The revised Project involves residential development of an infill residential lot surrounded by existing development and roadways and would not have the potential to divide the established community. (*No Impact*)
- b) Conflict with Land Use Plan. Development of the revised Project would be generally compatible with existing surrounding land uses. The development would exceed the allowable density for the existing RL-8 zoning designation without averaging among the site's parcels, therefore the Project applicant is requesting a Planned Development designation. With approval of the Planned Development designation, the revised Project would be consistent with the zoning and General Plan designation at the site. The potential for the revised Project as proposed to result in environmental impacts is assessed throughout this document. While the City will make determinations regarding consistency with all their policies and regulations, the revised Project would have *no impact* with regard to land use plan conflicts related to environmental effects.
- c) Conflict with Conservation Plan. The revised Project site is not subject to a conservation plan. It is an infill site surrounded by urban development and roadways. The revised Project would, therefore, have *no impact* under this item.

11. MINERAL RESOURCES  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				<input checked="" type="checkbox"/>

a, b) Mineral Resources. No known mineral resources are located on the site according to the United States Geological Survey (USGS) Mineral Resources Data System.<sup>17</sup> The City's General Plan does not identify mineral resources within City limits. The revised Project would have *no impact* with regard to mineral resources.

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<sup>17</sup> US Geological Survey, Mineral Resources Data System, publication date 2005, edition 20120127, accessed at <http://mrdata.usgs.gov/mrds/>.

<b>12. NOISE</b>  Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			<input checked="" type="checkbox"/>	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			<input checked="" type="checkbox"/>	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			<input checked="" type="checkbox"/>	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			<input checked="" type="checkbox"/>	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels?				<input checked="" type="checkbox"/>
f) For a project in the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels?				<input checked="" type="checkbox"/>

a-d) Excessive Noise or Vibration.

***Construction Noise***

Construction activities generate noise. Ambient and maximum intermittent noise levels would increase throughout the period when the Project builds out. The South San Francisco Noise Ordinance (Chapter 8.32 of the Municipal Code, Section 8.32.050) restricts construction activities to the hours of 8:00 a.m. to 8:00 p.m. on weekdays, 9:00 a.m. to 8:00 p.m. on Saturdays, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. This ordinance also limits noise generation of any individual piece of equipment to 90 dBA at 25 feet or at the property line. Construction activities will comply with the Noise Ordinance. Additionally, the revised Project is relatively small, and construction activities involving noisy machinery are not expected to span more than one construction season.

Groundborne noise and vibration can result from heavy construction practices utilizing pile drivers or hoe-rams. No such activities are planned for construction of the revised Project. Construction truck traffic traveling at low speed (25 mph or less) would access the site via Oakmont Drive, Shannon Drive, and Shannon Court Park, where residential structures are within about 25 feet of the roadways. Groundborne vibration from a loaded truck at low speed would be less than 0.08 in/sec Peak Particle Velocity (PPV) at a distance of 25 feet

(Transit Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006). Vibration levels may be intermittently perceptible, but would be well below a level of 0.30 in/sec PPV that could cause damage to normal structures.

With standard construction practices and hours, consistent with City regulations, impacts from noise and vibration generated by construction of the revised Project would be *less than significant*.

### ***Operational Noise***

Operation of residential properties does not produce substantial levels of vibration or noise. Traffic-related noise impacts generally occur with at least a doubling of traffic volumes on roadways adjacent to areas already at or above acceptable noise conditions. As detailed in the Transportation Assessment (Attachment B), the net new traffic would be well below a doubling of volumes on area roadways. Therefore, impacts related to noise and vibration during operation would be *less than significant*.

While the future residents of the revised Project would be considered sensitive receptors for noise, the effects of the environment on a project are not considered a CEQA impact (which is focused to the effects of a project on the environment, and not the reverse).<sup>18</sup> The following is included for informational purposes:

The ambient noise environment at the Project site is primarily affected by traffic noise and is anticipated to be approximately 60 to 65 dBA, which is considered acceptable for residential uses.<sup>19</sup>

- e, f) Airport Noise. The revised Project is unrelated to airport operation and would not result in changes or increases in airport noise that could affect others. The revised Project would have *no impact* related to airport noise.

As noted above, the effects of the environment on a project are not considered environmental impacts under CEQA, and the following is included for informational purposes. The closest airport is the San Francisco International Airport, located approximately 4 miles from the Project site. The Project site is within Airport Influence Areas A and B of the October 2012 ALUCP for the Environs for the San Francisco International Airport, but is not within the area impacted by airplane flyover noise.<sup>20</sup> There are no other airports, either public or private within the vicinity of the Project.

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<sup>18</sup> California Building Industry Assn. v. Bay Area Air Quality Management Dist., (2015) 62 Cal.4th 369, Case No. S213478.

<sup>19</sup> City of South San Francisco, prepared by Dyett and Bhatia, South San Francisco General Plan, adopted October 1999, as amended, Table 9.2-1 and Figure 9-2.

<sup>20</sup> City/County Association of Governments of San Mateo County, November 2012, Comprehensive Airport Land Use Compatibility for the Environs of San Francisco International Airport, Exhibit IV-6.

13. POPULATION AND HOUSING  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial 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)?			<input checked="" type="checkbox"/>	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				<input checked="" type="checkbox"/>

a) Substantial Population Growth. The revised Project would increase the number of previously proposed housing units from 19 to 22, with a correlated increase in population from approximately 59 to 70 residents.<sup>21</sup> With approval of the Planned Development designation, the proposed development is consistent with site zoning and the site's land use designation and would be within the population growth assumed in the General Plan. As an infill project surrounded by developed properties and roadways, the revised Project would not indirectly induce additional population growth. Therefore, the impact in relation to inducement of substantial population growth would be a *less than significant*.

b-c) Displacement of People or Housing. There is no housing or residents at the existing Project site, which is currently vacant. The revised Project would displace neither existing housing nor people. (*No impact*)

<sup>21</sup> State Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2018, indicates an average household size of 3.16 persons in South San Francisco in 2018.

<b>14. PUBLIC SERVICES</b> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services?	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Fire protection.			<input checked="" type="checkbox"/>	
b) Police protection.			<input checked="" type="checkbox"/>	
c) Schools.			<input checked="" type="checkbox"/>	
d) Parks.			<input checked="" type="checkbox"/>	
e) Other public facilities.			<input checked="" type="checkbox"/>	

a-e) Public Services. The revised Project is located on a developed site within South San Francisco that is already served by public services. The revised Project would add population consistent with development assumptions under the General Plan, but the minimal increases in demand for services expected with the population growth (see section 13), would be offset through payment of development fees and annual taxes, a portion of which go toward ongoing provision of and improvements to public services. The revised Project is not large enough to require the need for new or physically altered facilities to address Project demand, and such demand is consistent with and would have been assumed under the General Plan. Therefore, the impact to public services would be *less than significant*.

15. RECREATION  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) 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.			<input checked="" type="checkbox"/>	
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.			<input checked="" type="checkbox"/>	

a-b) Recreation. Development of the revised Project would result in an increase in the number of previously proposed housing units from 19 to 22, with a correlated increase in additional residents, from approximately 59 to 70 residents. The City's Quimby Act Park dedication ordinance requires three acres of park dedication for every 1,000 persons, which would equate to 0.21 acres of park required for the revised Project. The revised Project includes a private 1.79-acre open space area to provide recreational opportunities to Project residents, which greatly exceeds the Quimby Act park dedication ratio. A development impact fee would additionally be assessed for the Project unless the on-site open space area is dedicated to the City as public park to meet the 0.21-acre public park requirement. Increased recreational demand of Project residents would be largely met through on-site provisions and contribution to public parks through in-lieu fees, but in any case, would not be large enough to substantially physically deteriorate existing parks or require the need for new or physically expanded facilities to address Project demand. The construction of the on-site open space has been included in the environmental analysis of the revised Project. The impact related to recreation would be considered *less than significant*.



<b>16. TRANSPORTATION AND TRAFFIC</b>  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			<input checked="" type="checkbox"/>	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			<input checked="" type="checkbox"/>	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?		<input checked="" type="checkbox"/>		
e) Result in inadequate emergency access?				<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			<input checked="" type="checkbox"/>	

a, b) Vehicle Circulation and Congestion. A revised transportation assessment was prepared by W-Trans (2018) to assess the potential for transportation impacts resulting from development of the revised Project. The transportation assessment was used to complete this section and is included as Attachment B to this document.

The revised Project would generate an average of 128 new trips daily, which is 27 fewer than under the 2016 Project, with 10 new trips during the a.m. peak hour and 11 new trips during the p.m. peak hour (was 12 and 16 respectively under the 2016 Project). The reduced amount of projected trips compared to the 2016 Project is due to lower trip generation of townhouse units compared to single-family detached units.

The City of South San Francisco has established the minimally acceptable LOS standard of D or better at all intersections in the City. The Westborough Boulevard/Skyline Boulevard

intersection is located on State Route 35, Skyline Boulevard, which is a facility in the County's Management Program (CMP) and included in the traffic assessment for this Project. All study intersections were operating between LOS A and LOS D during the a.m. and p.m. peak hours and would continue to do so with the addition of Project traffic (see Table 5 in the traffic study included as Attachment A). The transportation assessment therefore determined that, based on the addition of the revised Project generation trips to current conditions, the intersections would continue to operate at acceptable LOS and impacts would be *less than significant*.

Alternate modes (pedestrian, bicycle, and transit) are discussed under item "f" below.

- c) Air Traffic Patterns. The revised Project would not contain any features or characteristics that would result in a change in air traffic patterns nor would any feature be of sufficient height to affect air traffic. (*No Impact*.)
- d) Hazards. At unsignalized intersections, a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross, turn left, or turn right, without requiring the through traffic to radically alter their speed.

Although sight distance requirements are not technically applicable to urban driveways, sight distance along Oakmont Drive at the project driveway was evaluated based on sight distance criteria contained in the Highway Design Manual published by Caltrans. The recommended sight distance at a driveway is based on stopping sight distance, which uses the approach travel speeds as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a following driver to stop, if there is a vehicle waiting to turn into a driveway, is evaluated based on stopping sight distance criterion and the approach speed on the major street.

Based on a posted speed limit of 25 mph, the minimum stopping sight distance needed is 150 feet. Sight distance at the proposed driveway was field measured, and in both directions there is not a clear line of sight due to on-street parking on west side of Oakmont Drive along the project frontage near the proposed driveway.

The design of the project would be required to meet all local design and construction standards, and as such, would not otherwise have the potential to substantially increase hazards due to a design feature.

### **Mitigation Measure**

- Traffic-1:**        **Sight Distance.** To provide adequate sight lines at the project's connection to Oakmont Drive, parking shall be prohibited for at least 60 feet to the north of the project driveway on the west side of Oakmont Drive and prohibited to the south of the project driveway for at least 20 feet on the west side of Oakmont Drive.

With the proposed parking prohibitions on Oakmont Drive specified in Mitigation Measure Traffic-1, stopping site distances would be consistent with design safety standards, and the impact related to site hazards would be *less than significant with mitigation*.

- e) Inadequate Emergency Access. For the residential units, access would be split between an extension of Shannon Drive and via a new driveway on Oakmont Drive. Internally, there would be a road connecting these two areas and access points though it would only serve as an emergency vehicle access road. Emergency vehicles would be able to enter the site and maneuver in the designated cul-de-sac or turnaround areas or could proceed through the site along the emergency vehicle access road. The project would result in adequate emergency access (*no impact*).
- f) Alternative Modes. The assessment found that bicycle trips generated by the revised Project would be adequately served by the existing dedicated Class II bicycle lanes along the northern project frontage and Class III bicycle route on the west side of the Project frontage on Oakmont Drive. The revised Project would also be adequately served by existing transit facilities and would adhere to the General Plan's Guiding Policy that alternative modes should be encouraged. The site plan has a pedestrian path to and from the site to Oakmont Drive near an existing SamTrans bus stop. Sidewalks are planned along the private roadway, providing direct routes in and out of the development. As onsite roadways would not be public streets, they would not be required to meet City of South San Francisco standards requiring sidewalks on both sides of a minor street's right-of way although this is recommended. The inclusion (or not) of additional sidewalks would not be an environmental impact and would be negotiated between the City and the Applicant. The revised Project would have a *less than significant* impact with regard to alternative modes.

17. UTILITIES AND SERVICE SYSTEMS Would the project	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			<input checked="" type="checkbox"/>	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			<input checked="" type="checkbox"/>	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			<input checked="" type="checkbox"/>	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			<input checked="" type="checkbox"/>	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			<input checked="" type="checkbox"/>	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			<input checked="" type="checkbox"/>	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			<input checked="" type="checkbox"/>	

a-g) Utilities. Development of the revised Project would add approximately 70 people to the Project area (11 more than with the 2016 Project), resulting in a slightly increased demand for utilities at the site. The increases would be incremental and remain a very small fraction of city or area-wide utility demand that is not expected to substantially contribute to any exceedances of available capacity or requirement for new or expanded facilities. As infill development generally consistent with site zoning and land use designation, the demand for utilities at the site would have been accounted for in the General Plan and utility planning. The impact on utilities and service systems would be *less than significant*.

18. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		<input checked="" type="checkbox"/>		
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a 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.)		<input checked="" type="checkbox"/>		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		<input checked="" type="checkbox"/>		

- a) Environmental Quality. Environmental Quality. With the implementation of mitigation measure Bio-1 to protect nesting birds during construction, the revised Project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community. The revised Project would not impact rare or endangered wildlife species, or eliminate important examples of the major periods of California history or prehistory.
- b) Cumulative Impacts. The revised Project would not result in adverse impacts that are individually limited but cumulatively considerable, including effects for which project-level mitigation were identified to reduce impacts to less than significant levels. All of these potential effects would be less than significant with implementation of mitigation measures identified in this document, including mitigation measures Air-1 and Air-2 to address construction period dust and emissions, and would not contribute in considerable levels to cumulative impacts.
- c) Adverse Effects on Human Beings. The revised Project would not result in substantial adverse effects on human beings, either directly or indirectly. Mitigation measures Air-1, Air-2, Haz-1, and Traffic-1 will minimize the potential for safety impacts related to construction-period emissions, disturbance of potentially hazardous undocumented fill, and sight distance hazards, and the potential adverse effects on human beings would be less than significant.

## **DOCUMENT PREPARERS**

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### **City of South San Francisco**

This document was prepared in consultation with Billy Gross, Senior Planner, City of South San Francisco.

## **SOURCES**

The following document sources are included as attachments with this document:

1. South San Francisco, prepared by Lamphier-Gregory, Oakmont Meadows Residential Development Project, Initial Study and Mitigated Negative Declaration, April 2016. (Attachment A)
2. W-Trans, Oakmont Meadows Transportation Assessment, September 27, 2018. (Attachment B)

The document sources listed below are available for review at the City of South San Francisco.

3. Berlogar Geotechnical Consultants, June 2008. Responses to Geotechnical Peer Review Comments, Oakmont Meadows Development, Westborough Unit 5, Parcel One, Southwest Corner of Oakmont Drive and Westborough Boulevard, South San Francisco, California.
4. Berlogar Geotechnical Consultants, April 2008. Supplemental Geotechnical Investigation, Oakmont Meadows, Oakmont Drive and Westborough Boulevard, South San Francisco, California.
5. Smith-Emery Company, February 2007. Report of Geotechnical Investigation, Westborough Unit 5, Parcel 1, Proposed Oakmont Meadows, South San Francisco, California.
6. Earth Systems Consultants, December 2003. Supplemental Geologic Fault Study, Westborough Unit 5, Parcel 1, "Proposed Oakmont Village," Westborough Boulevard at Oakmont Drive, South San Francisco, California.
7. Earth Systems Consultants, December 2000. Geologic Fault Study, Westborough Unit 5, Parcel One, Proposed Oakmont Village, Westborough Boulevard & Oakmont Drive, South San Francisco, California.
8. City of South San Francisco, prepared by PMC, February 2014. City of South San Francisco Climate Action Plan.
9. City of South San Francisco, prepared by Dyett and Bhatia, South San Francisco General Plan, adopted October 1999, as amended.

APPENDIX A:  
2016 INITIAL STUDY/MITIGATED NEGATIVE  
DECLARATION

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Attachment to the October 2018 Recirculated IS/MND for the Revised  
Oakmont Meadows Residential Development Project





# INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

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## OAKMONT MEADOWS RESIDENTIAL DEVELOPMENT PROJECT

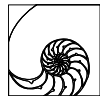
Prepared for:

City of South San Francisco  
ECONOMIC & COMMUNITY DEVELOPMENT DEPARTMENT  
315 MAPLE AVENUE  
SOUTH SAN FRANCISCO, CA 94083-0711



PREPARED BY:

LAMPHIER – GREGORY  
1944 EMBARCADERO  
OAKLAND, CA 94606



**APRIL 2016**



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## ATTACHMENTS

Attachments are included on CD affixed to the back cover of printed copies of the document.

**Attachment A:** Oakmont Vistas/Storage USA Project, Initial Study and Mitigated Negative Declaration

**Attachment B:** Oakmont Meadows Transportation Assessment

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# INTRODUCTION TO THIS DOCUMENT

This document serves as the Initial Study and Mitigated Negative Declaration (IS/MND) for the Oakmont Meadows Residential Development Project (“Project”). Per CEQA Guidelines (Section 15070), a Mitigated Negative Declaration can be prepared to meet the requirements of CEQA review when the Initial Study identifies potentially significant environmental effects, but revisions in the project would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur.

This document is organized in three sections as follows:

- **Introduction and Project Description.** This section introduces the document and discusses the project description including location, setting, and specifics of the lead agency and contacts.
- **Mitigated Negative Declaration.** This section lists the impacts and mitigation measures identified in the Initial Study and proposes findings that would allow adoption of this document as the CEQA review document for the proposed project.
- **Initial Study.** This section discusses the CEQA environmental topics and checklist questions and identifies the potential for impacts and proposed mitigation measures to avoid these impacts.

## PRIOR PROJECT AND ENVIRONMENTAL ANALYSIS

An Initial Study/Mitigated Negative Declaration (Prior MND) for the Oakmont Vistas/Storage USA Project (Prior Project) was adopted in 1999 for construction of a residential and mini-storage facility development on approximately 10 acres at the intersection of Oakmont Drive and Westborough Boulevard in the City of South San Francisco (State Clearinghouse Number 1999072033). The Prior MND is hereby incorporated by reference and is included as Attachment A to this document.

Three parcels comprised the Prior Project. The Prior Project proposed residential development on a 5.19-acre portion (Parcels 2 and 3) consisting of 33 single-family homes known as Oakmont Estates. The Oakmont Estates development has since been completed as proposed.

The remainder of the Prior Project, the 4.91-acre Parcel 1, which is the current Project site, was proposed for a five-building mini-storage development (with caretaker’s unit), totaling 110,770 square feet. The proposed mini-storage development and associated rezone and General Plan amendment for Parcel 1 was not approved and the parcel has remained undeveloped.

The development concept for Parcel 1 has changed since the Prior MND: mini-storage is no longer proposed, and instead, a 19-unit residential development consistent with the existing zoning and land use designation is currently proposed. The development proposal for the current Project also incorporates updated fault setbacks, grading plans, and conformance with

current storm water controls as described in greater detail in the following pages are addressed in this document.

Due to the time that has passed and the change in the proposal for the Project site, the City of South San Francisco has determined that a new Initial Study/Mitigated Negative Declaration is the appropriate environmental document, rather than an addendum or supplemental document to the Prior MND.

## **PUBLIC REVIEW**

The Initial Study and Proposed Mitigated Negative Declaration will be circulated for a 30-day public review period. Written comments may be submitted to the following address:

Billy Gross, Senior Planner  
City of South San Francisco, Economic & Community Development Department  
315 Maple Avenue  
South San Francisco, CA 94083-0711  
Email: [Billy.Gross@ssf.net](mailto:Billy.Gross@ssf.net)  
Phone: 650.877.8535

Adoption of the Mitigated Negative Declaration does not constitute approval of the project itself, which is a separate action to be taken by the approval body. Approval of the Project can take place only after the Mitigated Negative Declaration has been adopted.

# PROJECT INFORMATION

## PROJECT ENTITLEMENTS

Requested approvals include Planned Development, Tentative Parcel Map, and Design Review.

## LEAD AGENCY

City of South San Francisco  
Economic & Community Development Department  
315 Maple Avenue  
South San Francisco, CA 94083-0711

## CONTACT PERSON

Billy Gross, Senior Planner  
City of South San Francisco, Economic & Community Development Department  
315 Maple Avenue  
South San Francisco, CA 94083-0711  
Phone: 650.877.8535

## PROJECT SPONSOR

John R. Hansen  
Pacific States Capital Corp.  
PO Box 7602  
Menlo Park, CA 94026  
Phone: 800.393.9781

## PROJECT LOCATION

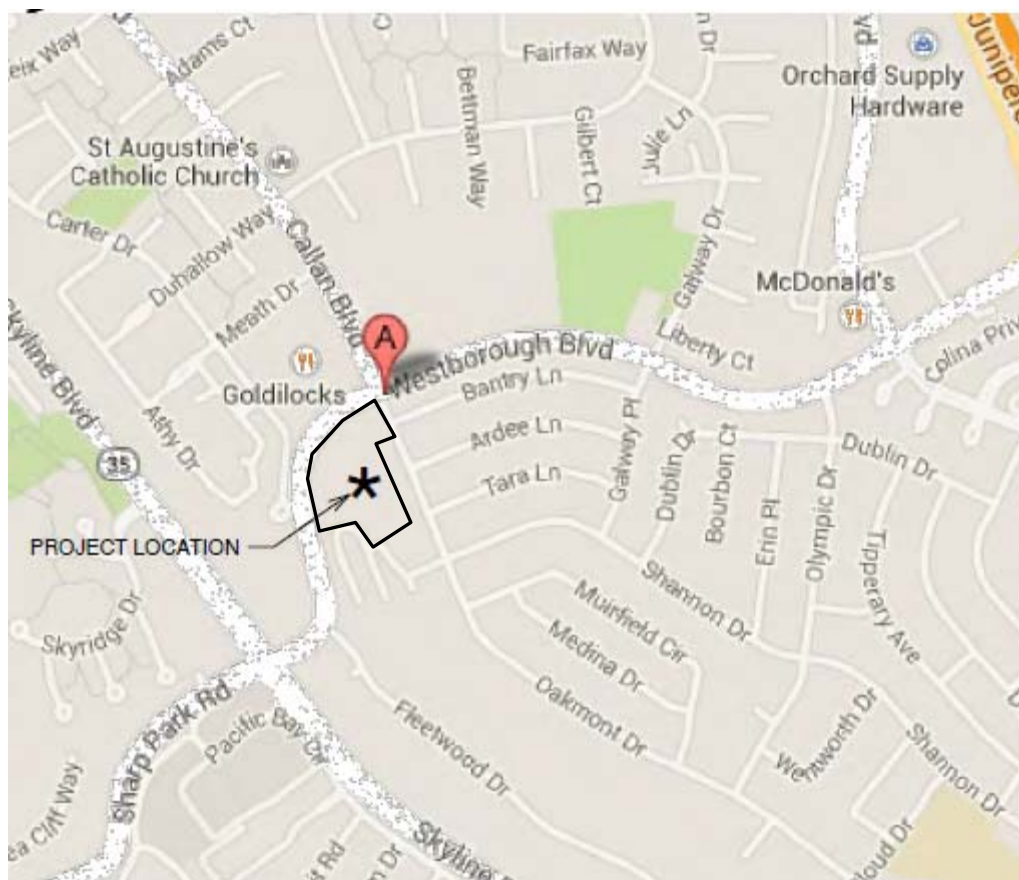
The 4.91-acre Project site is on the southwest side of the intersection of Oakmont Drive and Westborough Boulevard in the City of South San Francisco, California. The assessor's parcel number is 091-151-040. **Figure 1** shows the project location.

## GENERAL PLAN DESIGNATION AND ZONING

General Plan designation of Low Density Residential and Low Density Residential (RL-8)  
Zoning District

## EXISTING USES

The Project Site is currently vacant and is mowed annually for weed control and abatement.



**Figure 1: Project Location**

Source: The Paul Davis Partnership, undated



## **SURROUNDING LAND USES**

Land uses adjacent to the Project site are primarily single-family residential. Surrounding land uses across Westborough Blvd consist of a commercial shopping center and medium-density residential. Westborough Middle School is located approximately 450 feet to the northeast of the Project site.

## **PROJECT DESCRIPTION**

### **Project Summary**

The 4.91-acre Project site is undeveloped land, adjacent to an existing residential development known as Oakmont Estates, which was developed as part of the Prior Project.

The proposal includes lot subdivision and development of 7 attached townhomes and 12 single-family lots for single-family residences. The current Shannon Park Court terminus at the boundary of the Project site would be extended as a private road, Shannon Place, to provide access to the 19 proposed dwelling units. The site plan is shown on **Figure 2**.

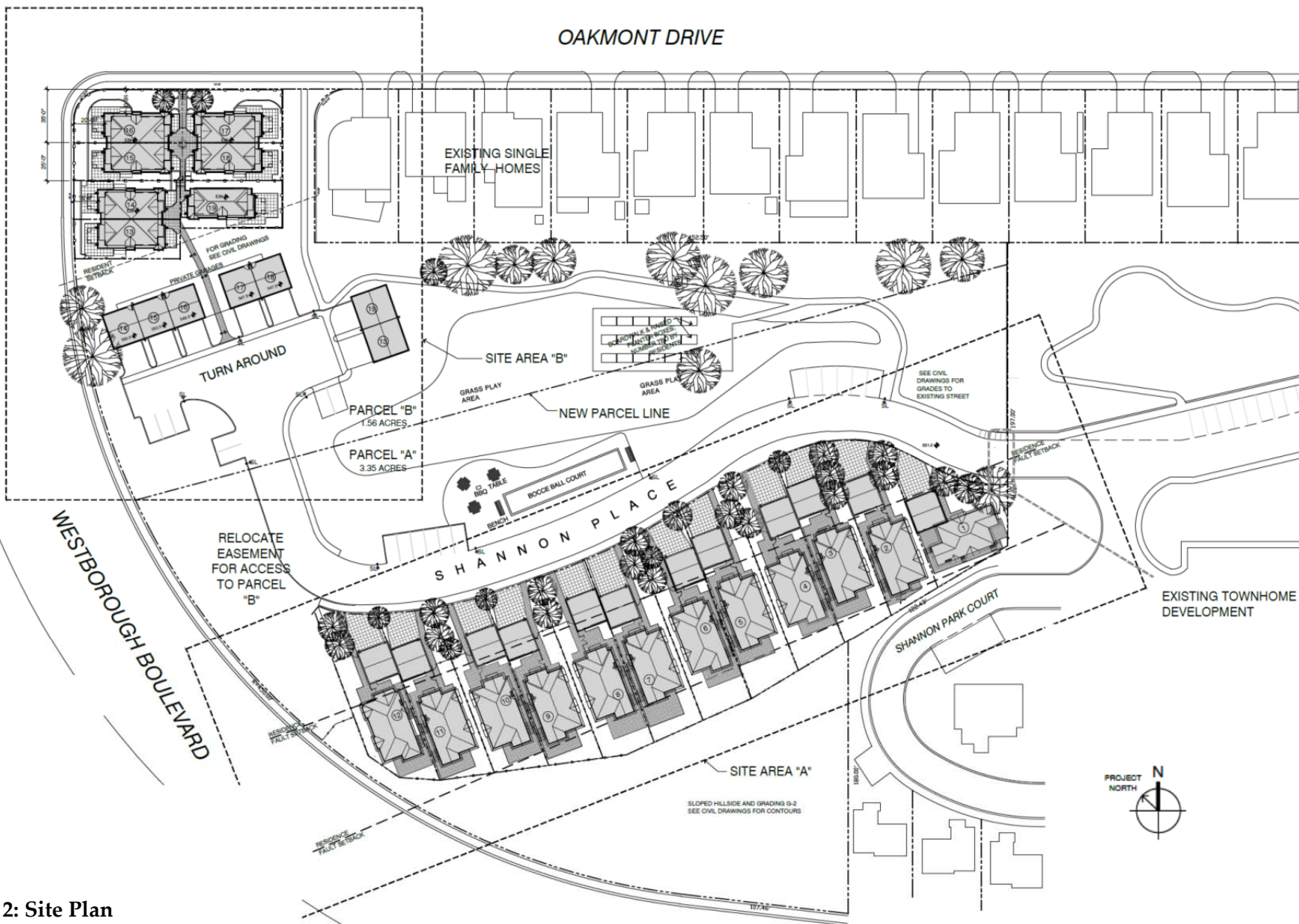
The Project proposes grading to be balanced on site to accommodate the proposed roadway, building sites, and on-site storm drainage system. Approximately 10,000 cubic yards will be moved on site, with no soil intended to be brought to or from the site. The grading plan is shown on **Figure 3**.

The Project site is in the Low Density Residential (RL-8) Zoning District, which is consistent with the site's Low Density Residential designation in the City's General Plan. Requested approvals include Planned Development, Tentative Parcel Map, and Design Review.

A known constraint on the Project site is the presence across the site of San Andreas fault traces. Habitable structures are not permitted within the setback zones from the fault traces, though roadways, open spaces, and detached garages are permitted within the fault zone setback areas. These fault traces and required setback zones have been refined and incorporated into the Project, as discussed in more detail in the Geology checklist Section 6.

A large portion of the site (3.41 acres) serves as a common area portion and would include Shannon Place, guest parking areas, sidewalks, a private bocce ball court, a private grass play area/open space, planted storm basins, and landscaping.

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**Figure 2: Site Plan**

Source: The Paul Davis Partnership, dated 3/3/2015



# MITIGATED NEGATIVE DECLARATION

## PROJECT DESCRIPTION, LOCATION, AND SETTING

This Mitigated Negative Declaration has been prepared for the Oakmont Meadows Residential Development Project. See the Introduction and Project Information section of this document for details of the Project.

## POTENTIALLY SIGNIFICANT IMPACTS REQUIRING MITIGATION

The following is a list of potential Project impacts and the mitigation measures recommended to reduce these impacts to a less than significant level. Refer to the Initial Study Checklist section of this document for a more detailed discussion.

Potential Impact	Mitigation Measures
<b>Air Quality, Construction Emissions Impact:</b> Construction of the Project would result in emissions and fugitive dust. While the Project is below the size at which significant impacts are anticipated, the Bay Area Air Quality Management District (BAAQMD) recommends implementation of construction mitigation measures to reduce construction-related criteria pollutant and fugitive dust emissions for all projects. These basic measures are included in Mitigation Measure Air Quality-1, below and would further reduce construction-period criteria pollutant impacts.	
	<b>Mitigation Measure</b> <b>Air-1: Standard Construction Best Management Practices.</b> The contractor shall implement the following BAAQMD recommended Best Management Practices: <ol style="list-style-type: none"><li>1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.</li><li>2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.</li><li>3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.</li><li>4. All vehicle speeds on unpaved roads shall be limited to 15 mph.</li><li>5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible and feasible. Building pads shall be laid as soon as possible and feasible, as well, after grading unless seeding or soil binders are used.</li><li>6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5</li></ol>

Potential Impact	Mitigation Measures
	<p>minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.</p> <ol style="list-style-type: none"> <li>7. 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 running in proper condition prior to operation.</li> <li>8. Post a publicly 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 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.</li> </ol>
<p><b>Air Quality, Construction Exposure Impact:</b> Construction activity would use diesel-powered equipment and therefore results in the emission of diesel particulate matter including fine particulate matter, which are considered toxic air contaminants and a potential health risk. While the proposed construction activities would be less than that which generally could result in significant health risks to nearby sensitive receptors, due to the proximity of residences and students to the Project site, potential health risks due to construction-period emissions impacts would be minimized through implementation of construction management practices detailed in Mitigation Measure Air Quality-2.</p>	
	<p><b>Mitigation Measure</b></p> <p><b>Air-2: Construction Emissions Minimization Practices.</b> The project shall demonstrate compliance with the following Construction Emissions Minimization Practices prior to issuance of demolition, building or grading permits:</p> <ol style="list-style-type: none"> <li>1. All off-road equipment greater than 25 horse power (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements: <ol style="list-style-type: none"> <li>a) Where access to alternative sources of power are available, portable diesel engines shall be prohibited;</li> <li>b) All off-road equipment shall have: <ol style="list-style-type: none"> <li>i. Engines that meet or exceed either U.S. Environmental Protection Agency (U.S. EPA) or California Air Resources Board (ARB) Tier 2 off-road emission standards, and</li> <li>ii. Engines that are retrofitted with an ARB Level 3</li> </ol> </li> </ol> </li> </ol>

Potential Impact	Mitigation Measures
	<p>Verified Diesel Emissions Control Strategy (VDECS).</p> <p>c) Exceptions:</p> <ul style="list-style-type: none"> <li>i. Exceptions to 1(a) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the City that an alternative source of power is limited or infeasible at the project site and that the requirements of this exception provision apply.</li> <li>ii. Exceptions to 1(b)(ii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the City that a particular piece of off-road equipment with an ARB Level 3 VDECS is: (1) technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use off-road equipment that are not retrofitted with an ARB Level 3 VDECS and the sponsor has submitted documentation to the City that the requirements of this exception provision apply. If granted an exception to 1(b)(ii), the project sponsor must comply with the requirements of 1(c)(iii).</li> <li>iii. If an exception is granted pursuant to 1(c)(ii), the project sponsor shall provide the next cleanest piece of off-road equipment, including a Tier 2 engine standard and the following emissions control/alternative fuel in order of preference if available: 1) ARB Level 2 VDECS, 2) ARB Level 2 VDECS, or 3) Alternative Fuel.</li> </ul>
	<p><b>Biological Impact:</b> Trees on the Project site or in the vicinity could host the nests of common birds such as house finch, American robin, northern mockingbird, European starling, and/or Brewer’s blackbird. These species are locally and regionally abundant, and Project effects on these species would be minimal or nil. However, nearly all native birds are protected under the federal Migratory Bird Treaty Act and the California Fish and Wildlife Code, so the following mitigation would be applicable to prevent a “take” of these species under these regulations related to disturbance during nesting.</p>
	<p><b>Mitigation Measure</b></p> <p><b>Bio-1: Nesting Birds.</b> If construction occurs during the breeding season (February through August), the site and a surrounding radius of not less than 0.5 miles shall be surveyed by a qualified biologist to verify</p>

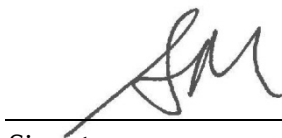
Potential Impact	Mitigation Measures
	<p>the presence or absence of nesting birds protected under the federal Migratory Bird Treaty Act and the California Fish and Wildlife Code. Pre-construction surveys shall be conducted within 15 days prior to start of work and shall be submitted to the Building Division. If the survey indicates the potential presences of nesting birds, the applicant shall comply with recommendations of the biologist regarding an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be based to a large extent on the nesting species and its sensitivity to disturbance.</p>
<p><b>Hazardous Materials Impact:</b> The Project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but portions of the site were filled in the 1960s, before there were regulatory requirements for the source and contents of fill material and the potential exists for fill at the site to contain materials which would now be classified as hazardous and could be released during construction activities. To mitigate the potential for upset of hazardous materials during the construction period, the Project shall implement the following measure:</p>	
	<p><b>Mitigation Measure</b></p> <p><b>Haz-1: Halting Work on Encountering Materials Believed to be Hazardous.</b> In the event that materials which are believed to be hazardous are encountered during site preparation or excavation work, all such activity at the project site shall be halted until the material in question has been evaluated by the South San Francisco Fire Department and/or the San Mateo County Environmental Health Department. Prior to the resumption of work at the project site, implementation of appropriate response measures and disposal methods in accordance with applicable state and local regulations and as approved by the Fire Department would reduce the impact to a level of less than significant.</p>



## PROPOSED FINDINGS

On the basis of this evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures to reduce these impacts will be required of the project. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

  
\_\_\_\_\_  
Signature  
Sailesh Mehra, Chief Planner

April 25, 2016

\_\_\_\_\_  
Date

# INITIAL STUDY CHECKLIST

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

Environmental factors that may be affected by the Project are listed by topic below. Factors marked with an “X” (☒) were determined to be potentially affected by the Project, involving at least one impact that is a potentially significant impact as indicated by the Checklist on the following pages. Unmarked factors (☐) were determined to not be significantly affected by the Project or reduced to a level of less than significant through mitigation, based on discussion provided in the Checklist.

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Aesthetics                         | <input type="checkbox"/> Agriculture/Forestry Resources | <input type="checkbox"/> Air Quality             |
| <input type="checkbox"/> Biological Resources               | <input type="checkbox"/> Cultural Resources             | <input type="checkbox"/> Geology/Soils           |
| <input type="checkbox"/> Greenhouse Gas Emissions           | <input type="checkbox"/> Hazards/Hazardous Materials    | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning                  | <input type="checkbox"/> Mineral Resources              | <input type="checkbox"/> Noise                   |
| <input type="checkbox"/> Population/Housing                 | <input type="checkbox"/> Public Services                | <input type="checkbox"/> Recreation              |
| <input type="checkbox"/> Transportation/Traffic             | <input type="checkbox"/> Utilities/Service Systems      |  |
| <input type="checkbox"/> Mandatory Findings of Significance |   |  |

## **EVALUATION OF ENVIRONMENTAL EFFECTS**

The Checklist portion of the Initial Study begins on the following page, with explanations of each CEQA issue topic. Four outcomes are possible, as explained below.

1. A “no impact” response indicates that no action that would have an adverse effect on the environment would occur due to the Project.
2. A “less than significant” response indicates that while there may be potential for an environmental impact, there are standard procedures or regulations in place, or other features of the Project as proposed, which would limit the extent of this impact to a level of “less than significant.”
3. Responses that indicate that the impact of the Project would be “less than significant with mitigation” indicate that mitigation measures, identified in the subsequent discussion, will be required as a condition of Project approval in order to effectively reduce potential Project-related environmental effects to a level of “less than significant.”
4. A “potentially significant impact” response indicates that further analysis is required to determine the extent of the potential impact and identify any appropriate mitigation. If any topics are indicated with a “potentially significant impact,” these topics would need to be analyzed in an Environmental Impact Report.

Note that this document does not indicate that any environmental topics would be considered to be “potentially significant” after application of mitigation measures identified in this document.

1. AESTHETICS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?			<input checked="" type="checkbox"/>	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			<input checked="" type="checkbox"/>	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			<input checked="" type="checkbox"/>	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			<input checked="" type="checkbox"/>	

a-c) Scenic Vistas, Resources, Visual Character. Both I-280 and CA-1 are designated or eligible State Scenic Highways through South San Francisco. However, the Project site is located approximately 3,600 feet and 7,700 feet from these highways and would not generally be visible in views from these highways due to intervening topography and trees/structures. The City's General Plan does not further identify scenic roadways or scenic vistas.<sup>1, 2</sup>

The Project would be visible from nearby properties and those at higher vantage points, but a residential use as proposed is consistent with the existing and planned character of the neighborhood. (Such a determination under CEQA does not preclude the City from considering specifics of design during design review.)

Again due to the Project location and relative topography and existing trees/structures in the vicinity, the Project would not substantially change the views of nearby properties toward regional features such as the Pacific Ocean or San Francisco Bay, or the local landmark of Sign Hill. A change to private views would not generally be considered an environmental impact under CEQA in any case.

Therefore, the Project would have a *less than significant* impact in relation to scenic vistas, scenic resources, and visual character.

<sup>1</sup> California Department of Transportation, State Scenic Highway Mapping System, [http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/index.htm](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm)

<sup>2</sup> City of South San Francisco, prepared by Dyett and Bhatia, South San Francisco General Plan, adopted October 1999, as amended.

- d) Light and Glare. The Project proposes residential development generally consistent with surrounding properties and would comply with City regulations regarding lighting that will ensure glare is minimized and light levels are limited to those expected in residential developments and existing in the surrounding developed area.<sup>3</sup> The Project's impact related to light and glare is *less than significant*.

---

<sup>3</sup> City of South San Francisco, South San Francisco Municipal Code, including sections 20.300.008.

<b>2. AGRICULTURE AND FORESTRY RESOURCES</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production(as defined by Government Code section 51104(g))?				<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?				<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				<input checked="" type="checkbox"/>

a-e) Agriculture and Forestry Resources. The Project site is located in an urban area on a lot designated for residential development. No part of the site is zoned for or currently being used for agricultural or forestry purposes or is subject to the Williamson Act. There would be *no impact* to agricultural and forestry resources as a result of this Project.

<b>3. AIR QUALITY</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?				<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			<input checked="" type="checkbox"/>	
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			<input checked="" type="checkbox"/>	
d) Expose sensitive receptors to substantial pollutant concentrations?		<input checked="" type="checkbox"/>		
e) Create objectionable odors affecting a substantial number of people?			<input checked="" type="checkbox"/>	

- a) Air Quality Plan. The Project site is subject to the Bay Area Clean Air Plan, first adopted by the Bay Area Air Quality Management District (BAAQMD) (in association with the Metropolitan Transportation Commission and the Association of Bay Area Governments) in 1991 and last updated in September 2010, called the Bay Area 2010 Clean Air Plan. The plan is meant to demonstrate progress toward meeting ozone standards, but also As a project consistent with local land use designations and zoning, the Project would be consistent with growth and vehicle miles assumptions in the Clean Air Plan.

BAAQMD additionally recommends analyzing a project's consistency with current air quality plan control measures. The impact would be significant if the Project would conflict with or obstruct implementation of the regional air quality plan, in this case, the 2010 Clean Air Plan.

Many of the Clean Air Plan's control measures are targeted to area-wide improvements, large stationary source reductions, or large employers, and these are not directly applicable to the proposed Project. However, the Project would meet current standards of energy efficiency (Energy and Climate Measure 1) and does not conflict with applicable control measures aimed at improving access/connectivity for bicycles and pedestrians (Transportation Control Measures D-1 and D-2) though, being a small infill residential project located in an otherwise developed area, does not substantially contribute to connectivity either.

Therefore, there would be *no impact* in relation to inconsistency with the Clean Air Plan.

b-c) Air Quality Standards/Criteria Pollutants. Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation and include ozone precursors (NO<sub>x</sub> and ROG), carbon monoxide (CO), and suspended particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The Bay Area is considered “attainment” for all of the national standards, with the exception of ozone. It is considered “nonattainment” for State standards for ozone and particulate matter.

Past, present and future development projects contribute to the region’s adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project’s individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project’s contribution to the cumulative impact is considerable, then the project’s impact on air quality would be considered significant.<sup>4</sup> Emissions from operation of the Project could cumulatively contribute to air pollutant levels in the region.

The Project is located in the San Francisco Bay Area Air Basin and therefore under the jurisdiction of BAAQMD. BAAQMD publishes a document titled *California Environmental Quality Act Air Quality Guidelines* (“BAAQMD Guidelines”), which provides guidance for consideration by lead agencies, consultants, and other parties evaluating air quality impacts in the San Francisco Bay Area Air Basin conducted pursuant to CEQA. The document provides guidance on evaluating air quality impacts of development projects and local plans, determining whether an impact is significant, and mitigating significant air quality impacts.

BAAQMD updated these Guidelines in coordination with adoption of new thresholds of significance on June 2, 2010.<sup>5</sup> The most recent version of the Guidelines are dated May 2012 (though the May 2011 version includes the updated thresholds and screening levels).

The BAAQMD CEQA Guidelines were the subject of a court case ultimately decided by the California Supreme Court (*CBIA vs BAAQMD*, Case No. S213478, filed December 17, 2015). The decision is expected to lead to revision or removal of thresholds that are based on the effect of the environment on a project (as opposed to the effect of a project on the environment). BAAQMD has yet to revise/reissue updated thresholds or guidelines following this decision.

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<sup>4</sup> BAAQMD, May 2011, *California Environmental Quality Act Air Quality Guidelines*, p. 2-1.

<sup>5</sup> Bay Area Air Quality Management District. June 2, 2010. News Release [http://www.baaqmd.gov/~media/Files/Communications%20and%20Outreach/Publications/News%20Releases/2010/ceqa\\_100602.ashx](http://www.baaqmd.gov/~media/Files/Communications%20and%20Outreach/Publications/News%20Releases/2010/ceqa_100602.ashx) .



Consistent with what is being done in many other jurisdictions, the analysis in this document is based upon guidance from the updated BAAQMD Guidelines (as opposed to the previous 1999 version), as the newer thresholds are more conservative and based upon current regulations, scientific understanding and methodologies and therefore considered the most appropriate for a conservative CEQA analysis.

### ***Construction Emissions***

BAAQMD presents screening criteria in their Guidelines that identify project sizes by type that could have the potential to result in emissions over criteria levels. The Project is well below BAAQMD's construction-period criteria pollutant screening size of 114 single-family dwelling units and therefore is not anticipated to result in emissions of criteria pollutants over threshold levels during construction.<sup>6</sup> The impact related to construction-period air quality emissions is *less than significant*.

However, BAAQMD recommends implementation of construction mitigation measures to reduce construction-related criteria pollutant and fugitive dust emissions for all projects, regardless of the significance level of construction-period impacts. These basic measures are included in Mitigation Measure Air-1, below and would further reduce construction-period criteria pollutant impacts.

### **Mitigation Measure**

- Air-1:**                    **Basic Construction Management Practices.** The Project shall demonstrate proposed compliance with all applicable regulations and operating procedures prior to issuance of demolition, building or grading permits, including implementation of the following BAAQMD "Basic Construction Mitigation Measures".
- i) All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
  - ii) All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
  - iii) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
  - iv) All vehicle speeds on unpaved roads shall be limited to 15 mph.
  - v) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

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<sup>6</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2011, Table 3-1.

- vi) Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- vii) 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 running in proper condition prior to operation.
- viii) Post a publicly 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 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure Air-1 would further reduce *less than significant* construction-period criteria pollutant impacts. Because construction-period emissions do not exceed applicable criteria pollutant significance thresholds, additional construction mitigation measures would not be required to mitigate impacts.

### ***Operational Emissions***

Similar to the analysis for construction-period impacts above, the Project was compared to BAAQMD screening criteria for operational pollutants. The Project is well below BAAQMD's operational criteria pollutant screening size of 325 single-family dwelling units and therefore not anticipated to result in emissions of criteria pollutants over threshold levels during operations.<sup>7</sup> Therefore, operation of the Project would have a *less-than-significant* impact on regional air quality.

Additionally, because carbon monoxide hot spots can occur near heavily traveled and delayed intersections, BAAQMD presents traffic-based criteria as screening criteria for carbon monoxide impacts. As operation of the proposed Project would not result in any significantly affected intersections (see section 15 Transportation and Traffic for additional details), the Project would be below carbon monoxide threshold levels.

Therefore, the Project impact related to operational pollutant emissions would be *less than significant*.

- d) Sensitive Receptors. For the purpose of assessing impacts of a proposed Project on exposure of sensitive receptors to risks and hazards, the threshold of significance is exceeded when the Project-specific cancer risk exceeds 10 in one million, the non-cancer risk exceeds a

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<sup>7</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2011, Table 3-1.

Hazard Index of 1.0 (or cumulative risk of 100 in one million or a Hazard Index of 10.0 respectively is exceeded), and/or the annual average PM<sub>2.5</sub> concentration would exceed 0.3 µg/m<sup>3</sup> (or 0.8 µg/m<sup>3</sup> cumulatively). Examples of sensitive receptors are places where people live, play or convalesce and include schools, hospitals, residential areas and recreation facilities.

### ***Construction-Period Health Risks***

The Project site is located adjacent to existing residential uses and approximately 450 feet southwest of the Westborough Middle School. Residents and students are considered sensitive uses. Construction-period TAC emissions could contribute to increased health risks to nearby residents and students from TACs. While BAAQMD does not provide a screening level to determine projects that are small enough that they can be assumed to be below significance thresholds, significant impacts in this regard are not usually seen unless residential projects include about 200 dwelling units or more. Additionally, the modeling to quantify health risks was not originally intended for emissions periods spanning less than 7 years and is not recommended by any agency for use for less than a 2 year period.

Therefore, due to the small size of the Project and relatively low potential for impacts to nearby sensitive users, similar to the approach for construction-period criteria pollutants, potential health risks due to construction-period emissions impacts shall be minimized through implementation of construction management practices.

### **Mitigation Measure**

**Air-2:**                   **Construction Emissions Minimization Practices.** The project shall demonstrate compliance with the following Construction Emissions Minimization Practices prior to issuance of demolition, building or grading permits:

1. All off-road equipment greater than 25 horse power (hp) and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:
  - a) Where access to alternative sources of power are available, portable diesel engines shall be prohibited;
  - b) All off-road equipment shall have:
    - i. Engines that meet or exceed either U.S. Environmental Protection Agency (U.S. EPA) or California Air Resources Board (ARB) Tier 2 off-road emission standards, and
    - ii. Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS).
  - c) Exceptions:

- i. Exceptions to 1(a) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the City that an alternative source of power is limited or infeasible at the project site and that the requirements of this exception provision apply.
- ii. Exceptions to 1(b)(ii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the City that a particular piece of off-road equipment with an ARB Level 3 VDECS is: (1) technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use off-road equipment that are not retrofitted with an ARB Level 3 VDECS and the sponsor has submitted documentation to the City that the requirements of this exception provision apply. If granted an exception to 1(b)(ii), the project sponsor must comply with the requirements of 1(c)(iii).
- iii. If an exception is granted pursuant to 1(c)(ii), the project sponsor shall provide the next cleanest piece of off-road equipment, including a Tier 2 engine standard and the following emissions control/alternative fuel in order of preference if available: 1) ARB Level 2 VDECS, 2) ARB Level 2 VDECS, or 3) Alternative Fuel.

Mitigation measure Air-2 would ensure construction-period health risk impacts remain at a level of *less than significant with mitigation*.

### ***Operational Health Risks***

The Project, as a residential development, would not be considered a significant source of operational TACs.

While the future residents of the proposed Project would be considered sensitive receptors, the effects of the environment on a project are not considered a CEQA impact (which is focused to the effects of a project on the environment, and not the reverse).<sup>8</sup> The following is included for informational purposes:

BAAQMD's recommends consulting screening tools to identify whether any substantial TAC sources are located within 1,000 feet of the project.

- BAAQMD's county-specific Google Earth Stationary Source Screening Analysis Tool indicates there are no stationary sources of TACs within 1,000 feet of the Project site.

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<sup>8</sup> California Building Industry Assn. v. Bay Area Air Quality Management Dist., (2015) 62 Cal.4th 369, Case No. S213478.

- BAAQMD's county-specific Google Earth Highway Screening Analysis Tool indicates there is one highway within 1,000 feet of the Project site:
  - CA-35 (Skyline Boulevard), at over 500 feet from the Project site, has a screening level cancer risk of 0.83 in one million, a Hazard Index of 0.001 to 0.002, and an annual average PM<sub>2.5</sub> concentration of 0.014 µg/m<sup>3</sup>. These are well below BAAQMD's indicated threshold levels.

There are no substantial sources of TACs within 1,000 feet of the Project, so it can be assumed future residents would not be subjected to levels of TACs above screening levels. As noted above, this is presented as an informational item.

- e) Objectionable Odors. As a residential development, operation of the Project would not be a source of objectionable odors. During construction, diesel-powered vehicles and equipment would create odors that some may find objectionable. However, these odors would be temporary and not likely to be noticeable much beyond the Project site's boundaries. Therefore, the potential for objectionable odor impacts is considered *less than significant*.

4. BIOLOGICAL RESOURCES  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		<input checked="" type="checkbox"/>		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?			<input checked="" type="checkbox"/>	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				<input checked="" type="checkbox"/>
d) 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?			<input checked="" type="checkbox"/>	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				<input checked="" type="checkbox"/>

a, b) Special Status Species and Habitat. The Project site was fully assessed for biological resources and habitat under the Prior MND, which found no special-status species or habitat at the Project site except for a small patch of remnant native grassland surrounded by non-native grassland, that was not considered a substantial community or significant impact for its removal. Since that time, the site has been maintained as a vacant lot with non-native grassland and landscaping maintained and weeded regularly to avoid invasive species. Additionally, the City's General Plan does not include the Project site on maps or

lists or locations with biological resources.<sup>9</sup> The Project would result in the removal of non-native grasslands and landscaping, which are not a special status species or habitat.

Existing trees at the Project site, which are not special-status, are potentially covered under the City's Tree Preservation Ordinance (Municipal Code Chapter 13.30), depending on size and type of tree. While the Project proposes retention of most trees at the site as well as additional trees to be planted per the landscaping plan, any trees to be removed would require issuance by the City of a Tree Removal Permit. Compliance with this process will ensure the Project does not result in conflict with the Tree Preservation Ordinance.

Additionally, trees on the Project site or in the vicinity could host the nests of common birds such as house finch, American robin, northern mockingbird, European starling, and/or Brewer's blackbird. These species are locally and regionally abundant, and Project effects on these species would be minimal or nil. However, nearly all native birds are protected under the federal Migratory Bird Treaty Act and the California Fish and Wildlife Code, so the following mitigation would be applicable to prevent a "take" of these species under these regulations related to disturbance during nesting.

### Mitigation Measure

**Bio-1:**                    **Nesting Birds.** If construction occurs during the breeding season (February through August), the site and a surrounding radius of not less than 0.5 miles shall be surveyed by a qualified biologist to verify the presence or absence of nesting birds protected under the federal Migratory Bird Treaty Act and the California Fish and Wildlife Code. Pre-construction surveys shall be conducted within 15 days prior to start of work and shall be submitted to the Building Division. If the survey indicates the potential presences of nesting birds, the applicant shall comply with recommendations of the biologist regarding an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be based to a large extent on the nesting species and its sensitivity to disturbance.

As noted above, there are no other special-status species with the potential to be significantly impacted by the Project. With implementation of Mitigation Measure Bio-1, the impact related to special-status species and habitats would be *less than significant with mitigation*.

- c) Wetlands. The Project site was fully assessed for biological resources and habitat under the Prior MND, which found no wetlands at the Project site. Since that time, the site has been maintained as a vacant lot with non-native grassland and landscaping maintained and weeded regularly so conditions related to wetlands would not have changed and the Project would have *no impact* related to wetlands.

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<sup>9</sup> City of South San Francisco, prepared by Dyett and Bhatia, South San Francisco General Plan, adopted October 1999, as amended, Section 7.1. Habitat and Biological Resources.

- d) Wildlife Corridors. The Project site is surrounded by roadways and other developed areas and does not have the potential to act as a substantial wildlife corridor. The Project would have a *less than significant* impact related to movement of wildlife.
- e, f) Local Policies and Ordinances and Conservation Plans. The Project site is not subject to any habitat conservation or natural community conservation plans and thus would not conflict with any approved local, regional, or state habitat conservation plan. As noted under items “a, b” above, the Project would comply with the City’s Tree Preservation Ordinance and therefore not cause a conflict with local policies. There are no other local policies applicable to the proposed Project. There would be *no impact*.



5. CULTURAL RESOURCES	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Public Resources Section 15064.5?				<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Public Resources Section 15064.5?			<input checked="" type="checkbox"/>	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			<input checked="" type="checkbox"/>	
d) Disturb any human remains, including those interred outside of formal cemeteries?			<input checked="" type="checkbox"/>	

- a) Historic Resources. There are no existing structures at the site. The Project would have *no impact* related to historic resources.
- b, c) Archaeological/Paleontological Resources/Human Remains. The Project site was fully assessed for cultural resources under the Prior MND, which found no known cultural, Native American, or archaeological resources at the site but recommended measures to address the unexpected discovery of such resources during ground-disturbing construction activities. These measures are covered under current regulations, as outlined below.
- If Native American, archaeological, or paleontological resources are discovered on site, these resources shall be handled according to CEQA Section 15064.5(c), which calls on lead agencies to refer to the provisions of Section 21083.2 of the Public Resources Code, or Section 21084.1 if the archaeological site is determined to be a historical resource. This is standard procedure for any project in California, so the impact is considered *less than significant*.
- d) Human Remains. There are no known human remains that would be disturbed by the proposed Project. If human remains are found during construction activities at the Project site, they will be handled according to Section 7050.5 of the Health and Safety Code or, if the remains are Native American, Section 5097.98 of the Public Resources Code as per CEQA Section 15064.5(d). This is standard procedure for any project in California, so the impact is considered *less than significant*.

6. GEOLOGY AND SOILS	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> <li>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? (Refer to Division of Mines and Geology Special Publication 42)</li> <li>ii) Strong seismic ground shaking?</li> <li>iii) Seismic-related ground failure, including liquefaction?</li> <li>iv) Landslides?</li> </ul>			<input checked="" type="checkbox"/>	
b) Result in substantial soil erosion or the loss of topsoil?			<input checked="" type="checkbox"/>	
c) 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?			<input checked="" type="checkbox"/>	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			<input checked="" type="checkbox"/>	
e) 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?				<input checked="" type="checkbox"/>

a- d) Geologic Hazards. According to the currently-adopted CEQA Guidelines, exposure of people or structures to major geological hazards is considered a significant adverse impact. Per the California Supreme Court *CBIA vs BAAQMD* decision (Case No. S213478, decided December 17, 2015), the scope of CEQA analyses should be limited to the effect of the environment on a project (as opposed to the effect of a project on the environment). Therefore, thresholds related to geological and seismic risks are limited to whether or not a project will exacerbate existing seismic risks. "Induced seismicity" is the term for earthquakes caused by human activity, and while the mechanisms have been scientifically proven, all suspected forms of induced seismicity involve substantial increase or loss of mass in an area, such as through the creation of artificial lakes through dam construction, large-scale removal of coal from mining, large-scale extraction of oil deposits or groundwater reserves, or large-scale liquid injection for waste disposal or hydraulic

fracturing. The Project is a substantially smaller scale than these types of projects and would not have the potential to result in induced seismicity.

The Project's potential geological hazards impacts under CEQA therefore are focused to those that could impact biological or hydrological resources or nearby properties (such as through erosion, creation of unstable slopes, or inadequate septic systems), and not those that could affect future residents or structures at the Project site. Additional discussion of non-CEQA topics are also included below as informational items.

Note that information in this section is based on a series of geotechnical reports and fault evaluations, as fully detailed in the sources section at the end of this document, including the most recent Berlogar Geotechnical Consultants report in 2008.

### ***Unstable Soil/Seismically-Induced Landslides***

The preliminary grading plan for the Project includes cut slopes across much of the site which would expose fill materials, and fill slopes which would have a height of approximately nine feet near the southeastern corner of the site. As a result, the geotechnical report contains specific recommendations for the grading plan to ensure support along cut and fill slopes where grading could remove existing toe support or affect the stability of the planned fill slopes. The final detailed project plans are required to incorporate the recommendations in the geotechnical report to avoid or reduce the potential impacts related to slope instability on the site. Per standard procedures, compliance with design-level recommendations will be verified during the construction permitting process.

The report concluded that grading in accordance with the recommendation would reduce the risk of seismically induced landslides to low. Therefore, the Project's potential to result in unstable soils that could impact existing people and structures is *less than significant*.

### ***Erosion***

Grading and construction activities will expose soil to the elements, which would be subject to erosion during storm events. Implementation of a construction-period stormwater plan will mitigate the potential for erosion and loss of top soil.

In accordance with the Clean Water Act and the State Water Resources Control Board (SWRCB), the Applicant is required to file a Storm Water Pollution Prevention Plan (SWPPP) prior to the start of construction. The SWPPP shall include specific best management practices to reduce soil erosion. This is required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ). Per standard procedures, compliance with SWPPP requirements will be verified during the construction permitting process. Therefore, the Project's potential to result in soil erosion or loss of topsoil is *less than significant* through compliance with SWPPP requirements.

### *Informational Items*

As noted above, CEQA does not require an agency to consider the impact of existing conditions on future project users. Therefore, the following discussion is included for informational purposes and is not related to CEQA impacts.

The site is situated within an Alquist-Priolo Earthquake Fault Zone and three active traces of the San Andreas Fault are on the site. The main trace lies beneath the fill in the center of the site; two other traces lie on either side of the main trace. The location of fault traces on the site have been explored in a series of technical studies and earthquake setback zones incorporated into the Project per applicable regulations. Within the fault zone, surface rupture could result in displacement of more than 10 feet. The risk of major faulting-induced displacement outside of the setback zones is considered low. All habitable structures are located outside of the setback zone. As allowable under applicable regulations, non-habitable detached garages, park and open space areas, and infrastructure including roadways, are located within the setback zone.

The San Francisco Bay Area is a seismically active region and the Project, along with the region as a whole, is likely to experience strong seismic ground shaking during its lifetime. A moderate to major earthquake on the San Andreas fault or a major earthquake on other regional faults including the Hayward, Calaveras, or Seal Cove faults would likely cause severe ground shaking on the Project site that could damage structures and infrastructure.

A geotechnical report was prepared for the proposed Project that contains specific recommendations to the seismic parameters for design of the proposed structures (e.g., related to foundations and soft-story conditions) and utilities. The report concluded that the risk of liquefaction, ground subsidence, landslides at the site is are low. Based on site soil analysis, this report included specific recommendations for construction of structures and infrastructure. These recommendations will be updated to reflect the current Project plans as recommendations were made based on a previous version. In addition to designing the Project in accordance with the current standards set forth in the California Building Code, the Project design and construction shall incorporate the recommendations in the geotechnical report to avoid or reduce the geotechnical hazards to structures and utilities on the site. Per standard procedures, compliance with design-level recommendations will be verified during the construction permitting process.

- e) Septic Tanks. The Project would not include the use of septic tanks and associated disposal facilities. Therefore, the Project would have *no impact* in this regard.

7. GREENHOUSE GAS EMISSIONS  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			<input checked="" type="checkbox"/>	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				<input checked="" type="checkbox"/>

- a) Greenhouse Gas Emissions. BAAQMD has determined that greenhouse gas (GHG) emissions and global climate change represent cumulative impacts. BAAQMD adopted a threshold of significance for operational GHGs of 1,100 metric tons carbon dioxide equivalent (CO<sub>2</sub>e) per year or, if the project is too large to meet that threshold, an efficiency threshold of 4.6 metric tons CO<sub>2</sub>e per service population per year.

Similar to the analysis for Air Quality impacts (Section 3 of this document), the Project was compared to BAAQMD screening criteria that identify project sizes by type that could have the potential to result in emissions over criteria levels. As it relates to greenhouse gas emissions, this table includes screening levels of 56 single family dwelling units.<sup>10</sup> At 19 units, the Project would be below the screening size for a project of this type, and would therefore be below threshold levels. The impact related to GHG emissions is *less than significant*.

- b) Greenhouse Gas Reduction Plans. The City adopted a qualified GHG reduction plan in 2014, the City of South San Francisco Climate Action Plan. This plan estimated community-wide GHG emissions of 548,600 metric tons CO<sub>2</sub>e in 2005 and a target reduction of 15% below the 2005 baseline levels.

Many of the Climate Action Plan's reduction measures are targeted to city-wide strategies that are not directly applicable to the proposed Project. As a small infill residential project located in an otherwise developed area, the Project would not substantially contribute to bicycle and pedestrian connectivity or support of public transit or automobile dependence (Measures 1.1 through 1.3), but would not conflict with these measures either. The Project would meet current standards of energy and water efficiency (Measures 3.1 and 6.1), and residents would participate in recycling for waste reduction (Measure 5.1). A discussion of the Project in relation to the Clean Air Plan is included in Section 3: Air Quality.

<sup>10</sup> BAAQMD, May 2011, *California Environmental Quality Act Air Quality Guidelines*, pp. 3-2 to 3-3.

Additionally, GHG emissions associated with the proposed Project were analyzed per the BAAQMD Guidelines. BAAQMD's thresholds and methodologies take into account implementation of state-wide regulations and plans, such as the AB 32 Scoping Plan and adopted state regulations such as Pavley and the low carbon fuel standard. Therefore, there would be *no impact* in relation to consistency with GHG reduction plans.

8. HAZARDS AND HAZARDOUS MATERIALS  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			<input checked="" type="checkbox"/>	
b) 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?		<input checked="" type="checkbox"/>		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		<input checked="" type="checkbox"/>		
d) 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?			<input checked="" type="checkbox"/>	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			<input checked="" type="checkbox"/>	

a-d) Hazardous Materials. The Project site was fully assessed for hazardous materials under the Prior MND, which found that the site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 but that portions of the site were filled in the 1960s, before there were regulatory requirements for the source and contents of fill material and the potential exists for fill at the site to contain materials which would now be classified as hazardous and could be released during construction activities. Since that time, the site has been maintained as a vacant lot so conditions related to hazardous materials would not have changed. The Project site is located approximately 450 feet southwest of the Westborough Middle School, so is within the vicinity of a school. To

mitigate the potential for upset of hazardous materials during the construction period, the Project shall implement the following measure:

### **Mitigation Measure**

**Haz-1: Halting Work on Encountering Materials Believed to be Hazardous.** In the event that materials which are believed to be hazardous are encountered during site preparation or excavation work, all such activity at the project site shall be halted until the material in question has been evaluated by the South San Francisco Fire Department and/or the San Mateo County Environmental Health Department. Prior to the resumption of work at the project site, implementation of appropriate response measures and disposal methods in accordance with applicable state and local regulations and as approved by the Fire Department would reduce the impact to a level of less than significant.

Additionally, it is likely that equipment used at the site during construction activities could utilize substances considered by regulatory bodies as hazardous, such as diesel fuel and gasoline. However, all construction activities would be required to conform with Title 49 of the Code of Federal Regulations, US Department of Transportation (DOT), State of California, and local laws, ordinances and procedures, which would minimize the potential for accidental release.

Potential impacts are confined to the temporary construction period. Once operational, residential uses would not be considered a potential source for hazardous material use or release. With implementation of Mitigation Measure Haz-1 and conformance with applicable regulations, the impact related to hazardous materials would be *less than significant with mitigation*.

- e, f) Airport Hazards. The closest airport is the San Francisco International Airport, located approximately 4 miles from the Project site. The Project site is not within the airport land use plan area (generally 2 miles) or the constraints related to heights and airplane safety. There are no other airports, either public or private within the vicinity of the Project. There would be *no impact* related to airport hazards.
- g) Emergency Response Plan. The Project would not substantially alter traffic patterns and would not impair implementation of any adopted emergency response plan or emergency evacuation plan. Therefore, the Project would have *no impact* in this regard.
- h) Wildland Fire. The Project site is identified in the City's General Plan (Figure 8-4) as a Low Priority Management Unit, which requires vegetation management to reduce potential fuel for wildfires. Once developed, the site will likely be removed from the designation as a Management Unit. At that point, the potential for wildlife fire would be considered low, as the site is surrounded by other development and roadways, although the Fire Department can establish additional conditions during their review prior to the issuance of construction permits. Therefore, the Project would have a *less than significant* impact related to wildland fire.



9. HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?			<input checked="" type="checkbox"/>	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			<input checked="" type="checkbox"/>	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			<input checked="" type="checkbox"/>	
d) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			<input checked="" type="checkbox"/>	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems due to changes in runoff flow rates or volumes?			<input checked="" type="checkbox"/>	
f) Otherwise substantially degrade water quality?			<input checked="" type="checkbox"/>	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?				<input checked="" type="checkbox"/>

a, e) Water Discharge Quality and Capacity

*Construction Period*

As noted in Section 6: Geology and Soils, the Applicant is required to file a SWPPP prior to the start of construction to detail measures to control the level and quality of stormwater

during the construction period. Per standard procedures, compliance with SWPPP requirements will be verified during the construction permitting process. Therefore, the Project's potential to result in construction-period impacts to runoff volume or quality would be *less than significant*.

#### *Operational Period*

Federal Clean Water Act regulations require municipalities to obtain NPDES permits that outline programs and activities to control surface stormwater pollution. Municipalities, such as the City of South San Francisco, must eliminate or reduce "non-point" pollution, consisting of all types of substances generated as a result of urbanization (e.g. pesticides, fertilizers, automobile fluids, sewage, litter, etc.), to the "maximum extent practicable" (as required by Clean Water Act Section 402(p)(3)(B)(iii)). Clean Water Act Section 402(p) and U.S. EPA regulations (40 CFR 122.26) specify a municipal program of "best management practices" to control stormwater pollutants. Best Management Practices (BMP) refers to any kind of procedure or device designed to minimize the quantity of pollutants that enter the storm drain system. To comply with these regulations, Each incorporated city and town in San Mateo County joined with the County of San Mateo to form the San Mateo County Water Pollution Prevention Program (SMCWPPP) in applying for a regional NPDES permit.<sup>11</sup>

The Regional Water Quality Control Board (RWQCB) adopted a Municipal Regional Permit (MRP) on October 14, 2009 as the NPDES permit for all Bay Area municipalities, which includes Provision C.3. The C.3 requirements are intended to protect water quality by minimizing pollutants in runoff, and to prevent downstream erosion by: designing each project site to minimize imperviousness, detain runoff, and infiltrate runoff where feasible; treating runoff prior to discharge from the site; ensuring runoff does not exceed pre-project peaks and durations; and maintaining treatment facilities. Project applicants must prepare and implement a Stormwater Control Plan containing treatment and source control measures that meet the "maximum extent practicable" standard as specified in the NPDES permit and the SMCWPPP C.3 Guidebook. Project applicants must also prepare a Stormwater Facility Operation and Maintenance Plan and execute agreements to ensure the stormwater treatment and flow-control facilities are maintained in perpetuity.

The site is currently entirely pervious surfaces (100% of the site). The proposed Project would reduce the pervious surfaces by approximately 1.73 acres, resulting in pervious surfaces on approximately 65% of the site. Runoff generated at the site will be directed to bioretention areas where water will be naturally slowed and filtered prior to entering the stormdrainage system. The Project will be required to submit preliminary stormwater treatment plans and C.3 worksheets demonstrating the change in impervious area at the site and appropriateness of stormwater system elements.

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<sup>11</sup> Regional Water Board, 2007, Order No. R2-2007-0027, NPDES Permit No. CAS0029921.

Through compliance with post-construction requirements related to implementation of the NPDES permit C.3 requirements, including Project preparation and implementation of a Stormwater Control Plan and Stormwater Facility Operation and Maintenance Plan, the long-term volume of water and water quality impacts from Project operation would be *less than significant*.

- b) Groundwater Recharge and Supplies. The Project site and surrounding area are connected to the municipal water supply and groundwater at the site is not used directly by this or other properties as a water supply. Additionally, the Project would comply with stormwater drainage requirements (see item “a, e” above), including permeable bioretention areas. The Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, and would have a *less than significant* impact related to groundwater.
- c, d) Drainage Pattern Alteration. As discussed under item “a, e” above, the Project will increase impervious site area and slow and treat runoff with bioretention areas prior to discharge into the stormdrainage system. Through compliance with applicable regulations, the runoff from the site will be the same or reduced from that existing and will not cause erosion, siltation, or flooding. Project impacts related to alteration of drainage patterns would be *less than significant*.
- f) Otherwise Substantially Degrade Water Quality. Construction-related and post-construction water quality are discussed under item “a, e” above and the Project does not otherwise degrade water quality (*less than significant*).
- g-j) Flooding and Inundation. The Project is not located in a 100-year flood zone<sup>12</sup> so would have *no impact* related to flood zones.

The Project site is located at elevations of over 500 feet and is not located downhill from a dam or large body of water and is therefore not considered to have substantial risk for inundation from tsunami, seiche, levee or dam failure or mudflow.<sup>13</sup> Therefore, there would be *no impact* related to inundation.

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<sup>12</sup> Federal Emergency Management Agency (FEMA), October 15, 2012, Flood Insurance Rate Map (FIRM), Countywide map, Panel 06081C0039E (unprinted), accessed at <https://msc.fema.gov/portal>.

<sup>13</sup> City of South San Francisco, prepared by Dyett and Bhatia, South San Francisco General Plan, adopted October 1999, as amended, page 250.

10. LAND USE AND PLANNING  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				<input checked="" type="checkbox"/>

- a) Physical Division of a Community. The Project involves residential development of an infill residential lot surrounded by existing development and roadways and would not have the potential to divide the established community. (*No Impact*)
- b) Conflict with Land Use Plan. Development of the proposed Project would be generally compatible with existing surrounding land uses and the existing residential zoning (RL-8) and General Plan designation (Low Density Residential) at the site. The potential for the Project as proposed to result in environmental impacts is assessed throughout this document. While the City will make determinations regarding Project consistency with all their policies and regulations, the Project would have *no impact* with regard to land use plan conflicts related to environmental effects.
- c) Conflict with Conservation Plan. The Project site is not subject to a conservation plan. It is an infill site surrounded by urban development and roadways. The Project would, therefore, have *no impact* under this item.

<b>11. MINERAL RESOURCES</b>  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				<input checked="" type="checkbox"/>

a, b) Mineral Resources. No known mineral resources are located on the site according to the United States Geological Survey (USGS) Mineral Resources Data System.<sup>14</sup> The City's General Plan does not identify mineral resources within City limits. The Project would have *no impact* with regard to mineral resources.

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<sup>14</sup> US Geological Survey, Mineral Resources Data System, publication date 2005, edition 20120127, accessed at <http://mrdata.usgs.gov/mrds/>.

<b>12. NOISE</b>  Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			<input checked="" type="checkbox"/>	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			<input checked="" type="checkbox"/>	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			<input checked="" type="checkbox"/>	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			<input checked="" type="checkbox"/>	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels?				<input checked="" type="checkbox"/>
f) For a project in the vicinity of a private airstrip, exposure of people residing or working in the project area to excessive noise levels?				<input checked="" type="checkbox"/>

a-d) Excessive Noise or Vibration.

***Construction Noise***

Construction activities generate noise. Ambient and maximum intermittent noise levels would increase throughout the period when the Project builds out. The South San Francisco Noise Ordinance (Chapter 8.32 of the Municipal Code, Section 8.32.050) restricts construction activities to the hours of 8:00 a.m. to 8:00 p.m. on weekdays, 9:00 a.m. to 8:00 p.m. on Saturdays, and 10:00 a.m. to 6:00 p.m. on Sundays and holidays. This ordinance also limits noise generation of any individual piece of equipment to 90 dBA at 25 feet or at the property line. Construction activities will comply with the Noise Ordinance. Additionally, the Project is relatively small, and construction activities involving noisy machinery are not expected to span more than one construction season.

Groundborne noise and vibration can result from heavy construction practices utilizing pile drivers or hoe-rams. No such activities are planned for Project construction. Construction truck traffic traveling at low speed (25 mph or less) would access the site via Oakmont Drive, Shannon Drive, and Shannon Court Park, where residential structures are within about 25 feet of the roadways. Groundborne vibration from a loaded truck at low speed would be less than 0.08 in/sec Peak Particle Velocity (PPV) at a distance of 25 feet (Transit

Noise and Vibration Impact Assessment, United States Department of Transportation, Office of Planning and Environment, Federal Transit Administration, May 2006). Vibration levels may be intermittently perceptible, but would be well below a level of 0.30 in/sec PPV that could cause damage to normal structures.

With standard construction practices and hours, consistent with City regulations, impacts from noise and vibration generated by construction of the Project would be *less than significant*.

### ***Operational Noise***

Operation of residential properties does not produce substantial levels of vibration or noise. Traffic-related noise impacts generally occur with at least a doubling of traffic volumes on roadways adjacent to areas already at or above acceptable noise conditions. As detailed in the Transportation Assessment (Attachment B), the net new traffic would be well below a doubling of volumes on area roadways. Therefore, impacts related to noise and vibration during operation would be *less than significant*.

While the future residents of the proposed Project would be considered sensitive receptors for noise, the effects of the environment on a project are not considered a CEQA impact (which is focused to the effects of a project on the environment, and not the reverse).<sup>15</sup> The following is included for informational purposes:

The ambient noise environment at the Project site is primarily affected by traffic noise and is anticipated to be approximately 60 to 65 dBA, which is considered acceptable for residential uses.<sup>16</sup>

- e, f) Airport Noise. The Project is unrelated to airport operation and would not result in changes or increases in airport noise that could affect others. The Project would have *no impact* related to airport noise.

As noted above, the effects of the environment on a project are not considered environmental impacts under CEQA, and the following is included for informational purposes. The closest airport is the San Francisco International Airport, located approximately 4 miles from the Project site. The Project site is not within the airport land use plan area (generally 2 miles) and is not within the area impacted by airplane flyover noise.<sup>17</sup> There are no other airports, either public or private within the vicinity of the Project.

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<sup>15</sup> California Building Industry Assn. v. Bay Area Air Quality Management Dist., (2015) 62 Cal.4th 369, Case No. S213478.

<sup>16</sup> City of South San Francisco, prepared by Dyett and Bhatia, South San Francisco General Plan, adopted October 1999, as amended, Table 9.2-1 and Figure 9-2.

<sup>17</sup> City/County Association of Governments of San Mateo County, November 2012, Comprehensive Airport Land Use Compatibility for the Environs of San Francisco International Airport, Exhibit IV-6.

13. POPULATION AND HOUSING  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial 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)?			<input checked="" type="checkbox"/>	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				<input checked="" type="checkbox"/>

a) Substantial Population Growth. The proposed Project would result in 19 housing units with a population of approximately 59 residents.<sup>18</sup> The proposed development is consistent with site zoning and the site's land use designation and would be within the population growth assumed in the General Plan. As an infill project surrounded by developed properties and roadways, the Project would not indirectly induce additional population growth. Therefore, the impact in relation to inducement of substantial population growth would be a *less than significant*.

b-c) Displacement of People or Housing. There is no housing or residents at the existing Project site, which is currently vacant. The Project would displace neither existing housing nor people. (*No impact*)

<sup>18</sup> State Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2015, indicates an average household size of 3.12 persons in South San Francisco in 2015.



<b>14. PUBLIC SERVICES</b> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services?	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Fire protection.			<input checked="" type="checkbox"/>	
b) Police protection.			<input checked="" type="checkbox"/>	
c) Schools.			<input checked="" type="checkbox"/>	
d) Parks.			<input checked="" type="checkbox"/>	
e) Other public facilities.			<input checked="" type="checkbox"/>	

a-e) Public Services. The proposed Project is located on a developed site within South San Francisco that is already served by public services. The Project would add population consistent with development assumptions under the General Plan, but the minimal increases in demand for services expected with the population growth (see section 13), would be offset through payment of development fees and annual taxes, a portion of which go toward ongoing provision of and improvements to public services. The Project is not large enough to require the need for new or physically altered facilities to address Project demand, and such demand is consistent with and would have been assumed under the General Plan. Therefore, the impact to public services would be *less than significant*.

15. RECREATION  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) 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.			<input checked="" type="checkbox"/>	
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.			<input checked="" type="checkbox"/>	

a-b) Recreation. Project development would result in the construction of 19 single-family residences and would result in approximately 59 additional residents. The City's Quimby Act Park dedication ordinance requires three acres of park dedication for every 1,000 persons, which would equate to 0.177 acres of park required for this Project. The Project includes a private 2.6-acre open space area to provide recreational opportunities to Project residents, which greatly exceeds the Quimby Act park dedication ratio. A development impact fee would additionally be assessed for the Project unless the on-site open space area is dedicated to the City as public park to meet the 0.177 acre public park requirement. Increased recreational demand of Project residents would be largely met through on-site provisions and contribution to public parks through in-lieu fees, but in any case, would not be large enough to substantially physically deteriorate existing parks or require the need for new or physically expanded facilities to address Project demand. The construction of the on-site open space has been included in the environmental analysis of this Project. Therefore, the Project impact related to recreation would be considered *less than significant*.

<b>16. TRANSPORTATION AND TRAFFIC</b>  Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			<input checked="" type="checkbox"/>	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			<input checked="" type="checkbox"/>	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			<input checked="" type="checkbox"/>	
e) Result in inadequate emergency access?				<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			<input checked="" type="checkbox"/>	

a, b) Vehicle Circulation and Congestion. A transportation assessment was prepared by W-Trans (2016) to assess the potential for transportation impacts resulting from development of the proposed Project. The transportation assessment was used to complete this section and is included as Attachment A to this document.

The proposed Project would generate an average of 155 new trips daily, with 12 new trips during the a.m. peak hour and 16 new trips during the p.m. peak hour. The City of South San Francisco has established the minimally acceptable LOS standard of D or better at all intersections in the City. The Westborough Boulevard/Skyline Boulevard intersection is located on State Route 35, Skyline Boulevard, which is a facility in the County's Management Program (CMP) and included in the traffic assessment for this Project. All study intersections were operating between LOS A and LOS D during the a.m. and p.m. peak hours and would continue to do so with the addition of Project traffic (see Table 5 in

the traffic study included as Attachment B). The transportation assessment therefore determined that, based on the addition of the Project generation trips to current conditions, the intersections would continue to operate at acceptable LOS and impacts would be *less than significant*.

Alternate modes (pedestrian, bicycle and transit) are discussed under item “f” below.

- c) Air Traffic Patterns. The Project would not contain any features or characteristics that would result in a change in air traffic patterns nor would any feature be of sufficient height to affect air traffic. (*No Impact*.)
- d) Hazards. The design of the Project would be required to meet all local design and construction standards, and as such, would not substantially increase hazards due to a design feature. The proposed Project would have one ingress/egress with a designated turnaround at the north end of the site. Per City standards, once the intersection is completed, adequate signage should be installed to promote safety. The Project would have a *less than significant* impact related to site hazards.
- e) Inadequate Emergency Access. The proposed Project would have one access road for all ingress and egress. Emergency vehicles would be able to enter the site and maneuver in the designated turnaround area located at the north end of the site near the townhomes to turn around and exit the site. The site’s road, which is designed to meet City standards, would be of adequate width, and the turnaround would be of adequate size. The Project would have *no impact* with regard to inadequate emergency access.
- f) Alternative Modes. The assessment found that bicycle trips generated by the Project would be adequately served by the existing dedicated Class II bicycle lanes along the northern project frontage and Class III bicycle route on the west side of the Project frontage on Oakmont Drive. The Project would also be adequately served by existing transit facilities and would adhere to the General Plan’s Guiding Policy that alternative modes should be encouraged. The site plan has a pedestrian path to and from the site to Oakmont Drive near an existing SamTrans bus stop. Sidewalks are planned along the private roadway, Shannon Place, providing direct routes in and out of the development. As Shannon Place would not be a public street, it would not be required to meet City of South San Francisco standards requiring sidewalks on both sides of a minor street’s right-of way although this is recommended by W-Trans. The inclusion (or not) of additional sidewalks would not be an environmental impact and would be negotiated between the City and the Applicant. The Project would have a *less than significant* impact with regard to alternative modes.

17. UTILITIES AND SERVICE SYSTEMS Would the project	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			<input checked="" type="checkbox"/>	
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			<input checked="" type="checkbox"/>	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			<input checked="" type="checkbox"/>	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			<input checked="" type="checkbox"/>	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			<input checked="" type="checkbox"/>	
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			<input checked="" type="checkbox"/>	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			<input checked="" type="checkbox"/>	

a-g) Utilities. Development of the Project would add approximately 59 people to the Project area, resulting in a slight increase demand for utilities at the site. The increases would be incremental and remain a very small fraction of City or area-wide utility demand that is not expected to substantially contribute to any exceedances of available capacity or requirement for new or expanded facilities. As infill development consistent with site zoning and land use designation, the demand for utilities at the site would have been accounted for in the General Plan and utility planning. The impact on utilities and service systems would be *less than significant*.

18. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		<input checked="" type="checkbox"/>		
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a 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.)		<input checked="" type="checkbox"/>		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		<input checked="" type="checkbox"/>		

- a) Environmental Quality. Environmental Quality. With the implementation of mitigation measure Bio-1 to protect nesting birds during construction, the Project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate a plant or animal community. The Project would not impact rare or endangered wildlife species, or eliminate important examples of the major periods of California history or prehistory.
- b) Cumulative Impacts. The Project would not result in adverse impacts that are individually limited but cumulatively considerable, including effects for which project-level mitigation were identified to reduce impacts to less than significant levels. All of these potential effects would be less than significant with implementation of mitigation measures identified in this document, including mitigation measures Air-1 and Air-2 to address construction period dust and emissions, and would not contribute in considerable levels to cumulative impacts.
- c) Adverse Effects on Human Beings. The Project would not result in substantial adverse effects on human beings, either directly or indirectly. Mitigation measures Air-1, Air-2, and Haz-1 will minimize the potential for safety impacts related to construction-period emissions and disturbance of potentially hazardous undocumented fill and the potential adverse effects on human beings would be less than significant.

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### **City of South San Francisco**

This document was prepared in consultation with Billy Gross, Senior Planner, City of South San Francisco.

## **SOURCES**

The following document sources are included as attachments with this document:

1. W-Trans, Oakmont Meadows Transportation Assessment, February 12, 2016. (Attachment B)
2. South San Francisco, prepared by Lamphier & Associates, Oakmont Vistas/Storage USA Project, Initial Study and Mitigated Negative Declaration, October 1999. (Attachment A)

The document sources listed below are available for review at the City of South San Francisco.

3. Berlogar Geotechnical Consultants, June 2008. Responses to Geotechnical Peer Review Comments, Oakmont Meadows Development, Westborough Unit 5, Parcel One, Southwest Corner of Oakmont Drive and Westborough Boulevard, South San Francisco, California.
4. Berlogar Geotechnical Consultants, April 2008. Supplemental Geotechnical Investigation, Oakmont Meadows, Oakmont Drive and Westborough Boulevard, South San Francisco, California.
5. Smith-Emery Company, February 2007. Report of Geotechnical Investigation, Westborough Unit 5, Parcel 1, Proposed Oakmont Meadows, South San Francisco, California.
6. Earth Systems Consultants, December 2003. Supplemental Geologic Fault Study, Westborough Unit 5, Parcel 1, "Proposed Oakmont Village," Westborough Boulevard at Oakmont Drive, South San Francisco, California.
7. Earth Systems Consultants, December 2000. Geologic Fault Study, Westborough Unit 5, Parcel One, Proposed Oakmont Village, Westborough Boulevard & Oakmont Drive, South San Francisco, California.
8. City of South San Francisco, prepared by PMC, February 2014. City of South San Francisco Climate Action Plan.
9. City of South San Francisco, prepared by Dyett and Bhatia, South San Francisco General Plan, adopted October 1999, as amended.

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ATTACHMENT A:

OAKMONT VISTAS/STORAGE USA PROJECT, INITIAL STUDY  
AND MITIGATED NEGATIVE DECLARATION

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ATTACHMENT TO THE  
APRIL 2016  
OAKMONT MEADOWS RESIDENTIAL DEVELOPMENT PROJECT  
INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION



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INITIAL STUDY AND  
MITIGATED NEGATIVE DECLARATION

OAKMONT VISTAS/  
STORAGE USA PROJECT  
South San Francisco

Prepared by Lamphier & Associates  
1944 Embarcadero  
Oakland, CA 94606

October 1999

CENTRAL RECORDS

FILE NO. 5089

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# MITIGATED NEGATIVE DECLARATION

## Introduction

This Initial Study and Mitigated Negative Declaration evaluates the potential environmental effects of the proposed Oakmont Vistas/Storage USA Project in the City of South San Francisco, which would involve the construction of a residential and mini-storage facility development on a 10-acre vacant parcel located on the southwestern edge of the city limits. This development proposal, referred to as "the Project" throughout this document, is to construct on half of the site, a 33-unit single family residential subdivision and on the remaining 4.9 acre portion of the site, a mini-storage facility with a resident caretaker's unit. The proposed development would also provide associated access, parking and utilities to be located on an existing vacant 10-acre site located at the intersection of Oakmont Drive and Westborough Boulevard. A third portion of the project site, (0.173-acres at the highest point at the project site along Westborough Boulevard) would be established as a single-family residential lot, although no development is currently proposed in this area. Since the entire project site is currently zoned "R-1-E-P" (single-family residential), and since the proposed mini-storage use is not allowed in an "R-1" area, the development of the proposed mini-storage facility will require the adoption of a General Plan Amendment and a rezoning of the property.

This Initial Study and Mitigated Negative Declaration has been prepared pursuant to the California Environmental Quality Act (CEQA) as amended (commencing with Section 21000 of the California Public Resources Code), and the CEQA Guidelines. The Lead Agency for the Project, as defined by CEQA, is the City of South San Francisco, which has planning jurisdiction over the site. Responsible Agencies for the Project, also as defined by CEQA, may include the City of San Bruno and the State Regional Water Quality Control Board.

The basic purposes of CEQA are to: 1) inform governmental decision-makers and the public about the environmental effects of proposed activities; 2) involve the public in the decision-making process; 3) identify ways that damage to the environment can be avoided or significantly reduced; and 4) prevent environmental damage by requiring changes in the project through the use of alternatives and/or mitigation measures.

This Initial Study and Mitigated Negative Declaration is intended to "identify the significant effects of the Project on the environment and to indicate the manner in which those significant effects can be mitigated or avoided." (*CEQA, 1970, as amended, Section 21002.1(a)*) The document is intended to provide an objective, impartial source of information to be used by the Lead and Responsible Agencies, as well as the public, in their considerations regarding the Project. The Initial Study and Mitigated Negative Declaration itself will not determine whether or not the Project will be approved, but only serves as an information document in the local planning and decision-making process.

The City of South San Francisco Planning Division has determined that the proposed project is subject to environmental assessment. Planning staff determined that this project must have an independent environmental assessment through a comprehensive Initial Study, including technical studies in the areas of traffic and circulation, biology and hydrology. Early identification of potential environmental impacts provides the basis for project revisions and their incorporation into the actual project design. Thus, the analysis in this document concentrates on the aspects of the Project that are likely to have a significant effect on the environment, and identifies feasible measures to mitigate (i.e., reduce or avoid) these effects. The CEQA Guidelines define "significant effect on the environment" as a "substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project...." (*CEQA, 1970, as amended, Section 15382*). The comprehensive Initial Study also is the mechanism to confirm the preliminary determination by the South San Francisco Planning Division that a Mitigated Negative Declaration document is appropriate. The determination is based on the Initial Study Checklist, project analysis and technical studies that, combined, indicate that potential environmental impacts are mitigated through avoidance, project design or reduction by feasible mitigation measures. Under CEQA, Public Resources Code Section 21064.5 and CEQA Guidelines Section 15070, if an impact remains significant, a Mitigated Negative Declaration is not appropriate and an EIR is required.

A major difference between EIR's and Mitigated Negative Declarations is that CEQA requires the analysis of project alternatives in EIR's but does not require the evaluation of project alternatives in Initial Study/Mitigated Negative Declarations. In this document, the project is evaluated against several alternatives, including existing

conditions or the "No Project" case, which consists of existing zoning (Single Family Residential). The No Project would consist of no development on the site, and continued deterioration of project site conditions. In addition to the No Project, other alternatives include 1) a High Residential Density Option which would involve the development of up to 80 units on 5 acres (Parcel 2). This option allows the full development of 8 units per acre that is permitted under existing zoning (R-1) for the site; 2) Limited Residential (for that area currently proposed for the mini-warehouse caretaker's unit on Parcel 1) and 33 Residential units (Parcel 2); and 3) Neighborhood Recreation and one residence (for that area currently proposed for mini-storage uses) and 33 Residential units (Parcel 2). All alternatives retain the one single family dwelling unit proposed for Parcel 3.

## Report Organization

The Initial Study and Mitigated Negative Declaration consist of the following major sections:

- **Mitigated Negative Declaration** - summarizing the project description, outlining the purpose, organization and scope of the document and important information regarding the CEQA public review and approval process, purpose of the Initial Study/Mitigated Negative Declaration, discretionary reviews and Mitigated Negative Declaration findings, and a summary of the potential impacts of the Project.
- **Initial Study** - providing detailed information about the Project including the Project site and its surroundings, the Project concept, the Project objectives, and which agencies will be required to approve the project.
- **Initial Study Checklist** - providing specific environmental topic chapters which address, for example, land use, transportation, air quality, noise, hydrology, public services, visual resources, geology and all other characteristics of the environment which may be affected by the Project. Within the specific analytical study areas defined at the outset of each topic, these sections describe:
  - The environmental setting or conditions which may effect or be affected by the Project;



- The potential environmental effects and level of significance likely to result from the Project as proposed; and
  - The mitigation measures that can be implemented to eliminate or substantially reduce the identified significant environmental effects, and level of significance following implementation.
- **Appendices** - providing more background, methodology, and detailed analysis of technical issues such as traffic and circulation impacts of the project that are summarized in the Initial Study Checklist. The Mitigation Measures are also included under Appendix A.
  - **References** - identifying the authors of the environmental document and supporting studies, the agencies and organizations which were contacted during preparation, and the bibliography of reports and other published materials used in this document.

Following public review (explained under Public Review, below) the Initial Study and Proposed Mitigated Negative Declaration will incorporate comments on the public review document, comprising comment letters, notices, transcripts or other documents related to the Public Hearing on the Initial Study and Proposed Mitigated Negative Declaration, and individual responses to each comment.

## **Application**

This Mitigated Negative Declaration is for:

- Adoption of a General Plan Amendment, Zoning Amendment, Rezoning and Use Permit to allow the development of a 4.9-acre mini-storage facility with a resident caretaker's unit;
- Tentative Subdivision Map and Planned Unit Development permit for approval of a 33-unit single-family residential development on a private street, with exceptions to standard lot size, setback requirements and driveway apron lengths;
- Tentative Parcel Map to create three individual parcels at the project site: a 5+-acre site for the residential subdivision, a 4.9+-acre site for the mini-storage facility, and a 0.173-acre single-family residential lot.

- A grading permit, which would enable foundation excavation, the clearing of vegetation and topsoil on the site, as well as earth movement associated with preparing the site for residential and mini-storage unit development on the 10 acre parcel.

## Project Objective

The objective for the Oakmont Vistas/Storage USA Project is to develop a low-density residential neighborhood that is consistent with the South San Francisco General Plan. The project will also provide a non-habitable use on that portion of the site that contains a trace fault of the San Andreas. The project applicant believes that the proposed project would bring the community the following benefits:

- Construction job opportunities to the local workforce.
- One full-time job opportunity for the resident caretaker unit of the storage facility.
- Redevelopment and relandscaping of the site which would eliminate a vacant and neglected 10 acre parcel in a visible area of South San Francisco.
- Enhancement of site with new drainage facilities that will rechannel existing water run-off from the site and within the boundaries of the project site.
- Enhancement of an existing vacant lot with a building design that complements the architectural style of the community and a landscape plan that strives to screen and reduce the visibility of the proposed storage units from adjacent residential development.
- Economic benefits to local merchants at restaurants, commercial establishments and for the acquisition of groceries, supplies, meals and other support services.
- A project that is financially feasible and that provides new property tax and sales tax revenues (from new residents' spending) to the City.

## Location

As shown in **Figures 1 and 2**, the project site is located in the southwestern edge of South San Francisco at the intersection of Oakmont and Westborough Boulevard, and

in close proximity to the city limits of San Bruno, and Pacifica, to the south and west, respectively.

## **Applicant**

The project applicant is John Hansen, PSC, Inc.

## **Potentially Significant Impacts Requiring Mitigation**

The project has been determined to have the following potentially significant impacts which would require mitigation to ensure that significant impacts to the environment are avoided or reduced to a "less than significant" level:

- The proposed five building mini-storage complex on Parcel 1 is inconsistent with the Land Use Element of the General Plan and would not be considered a compatible land use on the project site unless certain special conditions of approval were attached to avoid objectionable aesthetic (i.e. warehouse use) characteristics and to render the architectural, height and landscaping features of the development to be compatible with surrounding residential development.
- A moderate to major earthquake on the San Andreas fault or a major earthquake on the Hayward, Calaveras, or Seal Cove faults is expected to cause severe (violent to very strong) ground shaking on the project site during the economic life-span of any construction. Seismic shaking could damage structures and infrastructure at the site. This represents a potentially significant impact related to the proposed development and residential population of the project site.
- The potential for secondary seismic ground failures on the project site is considered high for lateral spreading on steep slopes overlain by fill and over the ancient landslide deposit. Likewise, lurch cracking could occur within the deep fills of the central portion of the site, or in the vacant lot in the northeastern corner of the site. This is a potentially significant impact, particularly in areas of shallow groundwater and during seismic loading.
- Plasticity testing of soil borings by Earth Systems Consultants indicate that expansive soils are present on the site. Where expansive soils are present or used in fills, there is a potential for heaving of soil when the moisture content increases and shrinkage of the soil when its moisture content decreases. Differential movement of expansive soils can cause structural damage to

buildings including cracking of foundations and concrete slabs. This represents a potentially significant impact.

- From a geotechnical perspective, the proposed grading and earthmoving activities could result in significant impacts related to cut slope stability, fill settlement and stability, and erosion. Grading at the project site would be extensive and include foundation excavation, the clearing of vegetation and topsoil, cutting and filling activities and recontouring of site to prepare for development of residential and mini-storage development. These grading and earthmoving activities could entail potentially significant environmental effects, particularly related to erosion.
- Development of the project site will increase the peak runoff rates for the 10- and 100-year recurrence interval storm events. This represents a potentially significant impact associated with the project.
- The soils at the project site are susceptible to erosion during construction activities because: 1) grading of exposed soils will occur on moderate to steep slopes (2 to 20 percent); and 2) the soils on the site are moderately susceptible to erosion. This is a potentially significant (although temporary) impact associated with the proposed development of the project site.
- Under the existing site and grading plans, no water quality protection measures are designated. The development of a residential subdivision and self-storage units on the project site will involve the construction of roads and parking areas, landscaped areas, and residences and storage buildings. These facilities will contribute non-point source pollutants to the landscape which will be washed into the local drainage system Colma Creek and ultimately the San Francisco Bay, representing a potentially significant impact.
- The existing site and grading plans include no specifications for dealing with on-site groundwater drainage. The presence of a seasonally perched groundwater table, seasonal springs, and associated wet zones (particularly at the base of the western slope by Westborough Boulevard), represents a potentially significant impact on site stability.
- Clearing, grading, earthmoving and construction activities at the project site as proposed would be expected to result in the generation of dust and exhaust from construction equipment during construction, which would represent a potentially significant environmental impact on local air quality.

- The caretaker apartment unit on top of the entry office is required by City code to have a garage. Since no garage is shown on the site plan for this unit, this is considered a significant impact.
- Grading associated with project implementation would require removal of existing vegetation and associated wildlife habitat from most of the site. Loss of non-native grassland, ornamental trees, and limited areas of native vegetation would generally not be considered significant. However, grading may contribute to the spread of undesirable species, which would be significant if not adequately controlled. This is considered a potentially significant impact.
- Due to the unknown character of fill materials previously placed at the project site, it is possible that such fill may contain hazardous materials which, if exposed during the course of site preparation and excavation work, could represent a potentially significant adverse environmental impact associated with the proposed project.
- Construction at the project site could result in a temporary increase in existing noise levels, although these noise levels would not be regarded as severe. This would represent a potentially significant impact associated with project development.
- Development of single family homes and the introduction of new residents to the project site could result in periodic, but temporary increases in existing and future noise levels (single event noise) from aircraft overflights, although these noise levels would not be regarded as severe. This would represent a potentially significant impact associated with project development.
- The development of the project site as proposed would result in a significant alteration in the visual characteristics of what is currently an undeveloped lot characterized by a number of large trees and an abundance of vegetation. A major aesthetic impact would result from extensive site grading during project construction. Because the proposed development would be visible to residents of an established neighborhood, and also occur along a well traveled arterial, this would represent a potentially significant temporary impact associated with the proposed project.
- The development of the proposed storage facilities as proposed would not be a compatible use with the surrounding residential development. The proposed development on Parcel 1 will result in a significant alteration in the visual

characteristics of what is currently an undeveloped lot surrounded by single family residences. This would represent a potentially significant impact.

- Although there is no evidence to date of any archaeological materials at the project site, development of the proposed project could possibly impact archaeological resources. This represents a potentially significant impact associated with the proposed project

Figure 1

## Regional Location

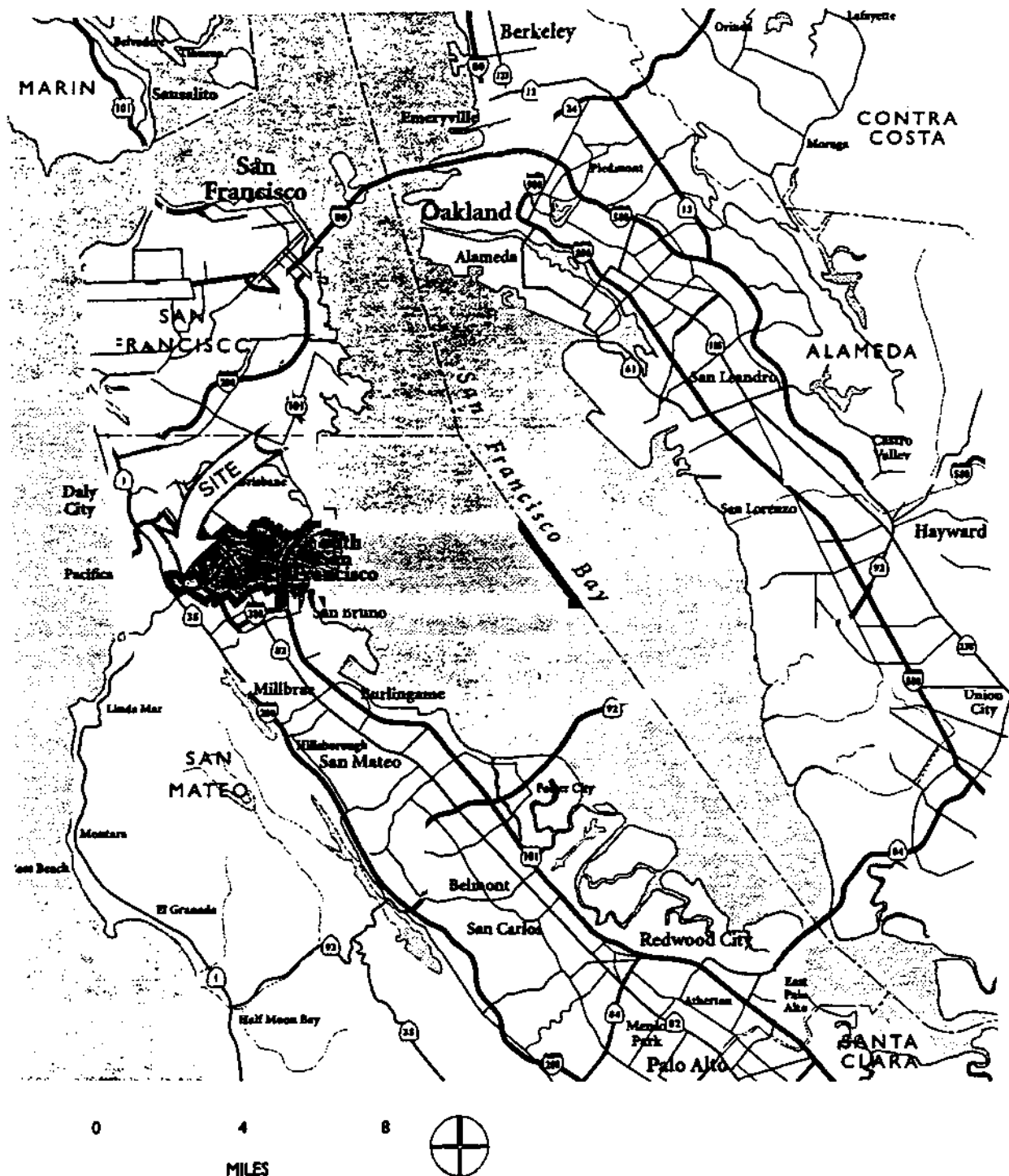
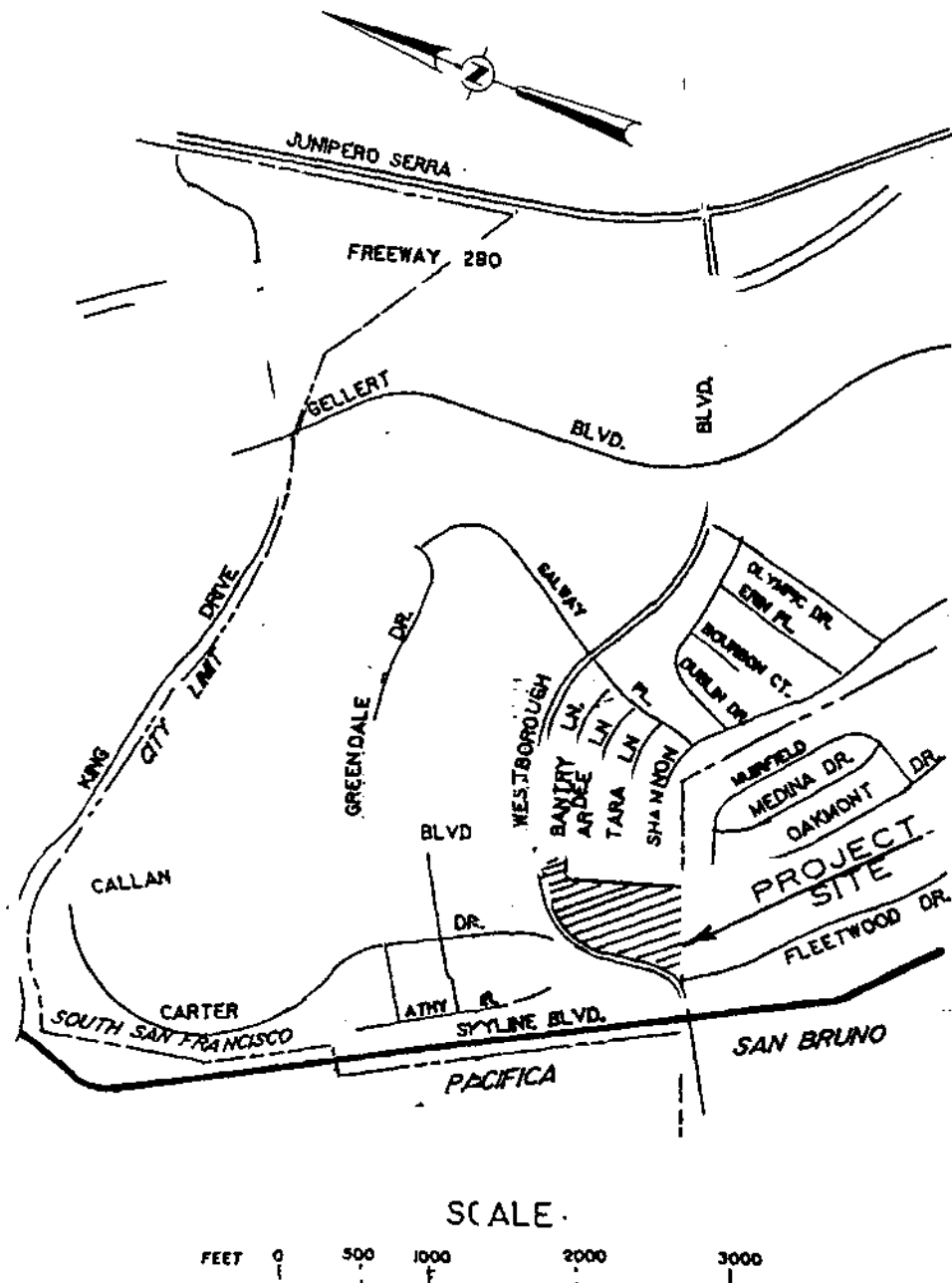


Figure 2

Project Location





## Chief Planner's Decision

After due consideration, the Chief Planner of the City of South San Francisco has found that with the implementation of mitigation measures identified in this Mitigated Negative Declaration (listed separately in **Appendix A** of this document) the proposed project will not have a significant effect on the environment. Therefore, the project will not require the preparation of an Environmental Impact Report, and the requirements of the California Environmental Quality Act (CEQA) will be met by the preparation of this Mitigated Negative Declaration. This decision is supported by the following findings:

- a. The project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or pre-history because: there is no identified area at the project site which is habitat for rare or endangered species, or which represents unique examples of California history or prehistory; the project is within the scope of use contemplated in the General Plan; and the project does not have any significant, unavoidable adverse impacts. Implementation of specified mitigation measures will avoid or reduce the effects of the project on the environment and thereby avoid any significant impacts.
- b. The project would not promote short-term environmental goals, to the disadvantage of long-term environmental goals, because the project will promote the long-term residential and economic development of the project site, will promote the long-term goals of the General Plan, and will not have any significant adverse impacts which cannot be mitigated.
- c. The project does not involve impacts which are individually limited but cumulatively considerable, because the described project will incorporate both project-specific mitigation measures and town-wide mitigation measures to avoid significant impacts of the project in the context of continued growth and development in South San Francisco.
- d. The project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly, because all adverse effects of the project will be mitigated to a level of less than significant.

## **Public Review**

Prior to circulation, several public workshops were conducted in the neighborhood and the community to solicit and scope the City of South San Francisco's and public's concerns about environmental issues to be addressed in the environmental assessment document. In addition, a public scoping meeting was held on October 26, 1998.

The Initial Study and Proposed Mitigated Negative Declaration will be circulated for a 30-day public review period, pursuant to Public Resources Code (CEQA) Section 21091 (b). Written comments can be submitted to the City of South San Francisco Planning Division. Contact: Susy Kalkin, Senior Planner, Telephone (650) 877-8535, Fax (650) 829-6639. The address of the Planning Division is 315 Maple Avenue, P.O. Box 711, South San Francisco, California, 94083.

A written response to all written and oral comments received during the 30-day public review period will be prepared for incorporation into the Final Mitigated Negative Declaration and will be presented for approval by the City of South San Francisco. Following publication of a "Notice of Availability for Public Review" by the City of South San Francisco, the Planning Commission will hold a Public Hearing on the Proposed Mitigated Negative Declaration. This noticed Public Hearing will enable attendees to express their views on the project and the environmental document.

Adoption of the Final Mitigated Negative Declaration does not constitute approval of the project itself or the granting of a Conditional Use Permit or other entitlements, which are separate actions to be taken by the Planning Commission. Approval or denial of the project can take place only after the Final Mitigated Negative Declaration has been adopted.

## **Lead Agency**


The Lead Agency for this Mitigated Negative Declaration is the City of South San Francisco.

**Determination**

On the basis of the evaluation in this Proposed Mitigated Negative Declaration and Initial Study:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in **Appendix A** have been added to the project. A **NEGATIVE DECLARATION** has been prepared.
- ☐ I find the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

10/22/99  
Date

  
City of South San Francisco  
Chief Planner

## INITIAL STUDY

### **SOUTH SAN FRANCISCO**

Planning Division

400 Grand Avenue

South San Francisco, CA 94930

### **FINDING:**

Negative Declaration

Mitigated Impacts/Negative Declaration

EIR Required

—

X

—

### **General Information**

Applicant: John Hansen, Hansen PSC, Inc.

### **Project Name**

Oakmont Vistas/Storage USA Project, South San Francisco

### **Project Site Description**

#### **Location and Setting**

As shown in the Regional and Project Location maps in **Figures 1 and 2**, the project site is located on a hillside at the intersection of Oakmont Drive and Westborough Boulevard on the southwestern edge of South San Francisco. The irregular shaped property is bounded on the north and west by a curved stretch of Westborough Boulevard and on the east by homes along Oakmont Drive. The project site's southern boundary is the South San Francisco-San Bruno city limit, and the City of Pacifica is located approximately 500 feet west of the site. Residential development is located immediately east and south of the project site and a neighborhood commercial shopping center is located to the north of the project site across from Westborough Boulevard. Skyline Boulevard (State Route 35), which runs in a north-south direction along the San Francisco peninsula, is in close proximity to the project site on the east.

I-280 runs parallel to Skyline Boulevard approximately three-quarter's of a mile east of the project.

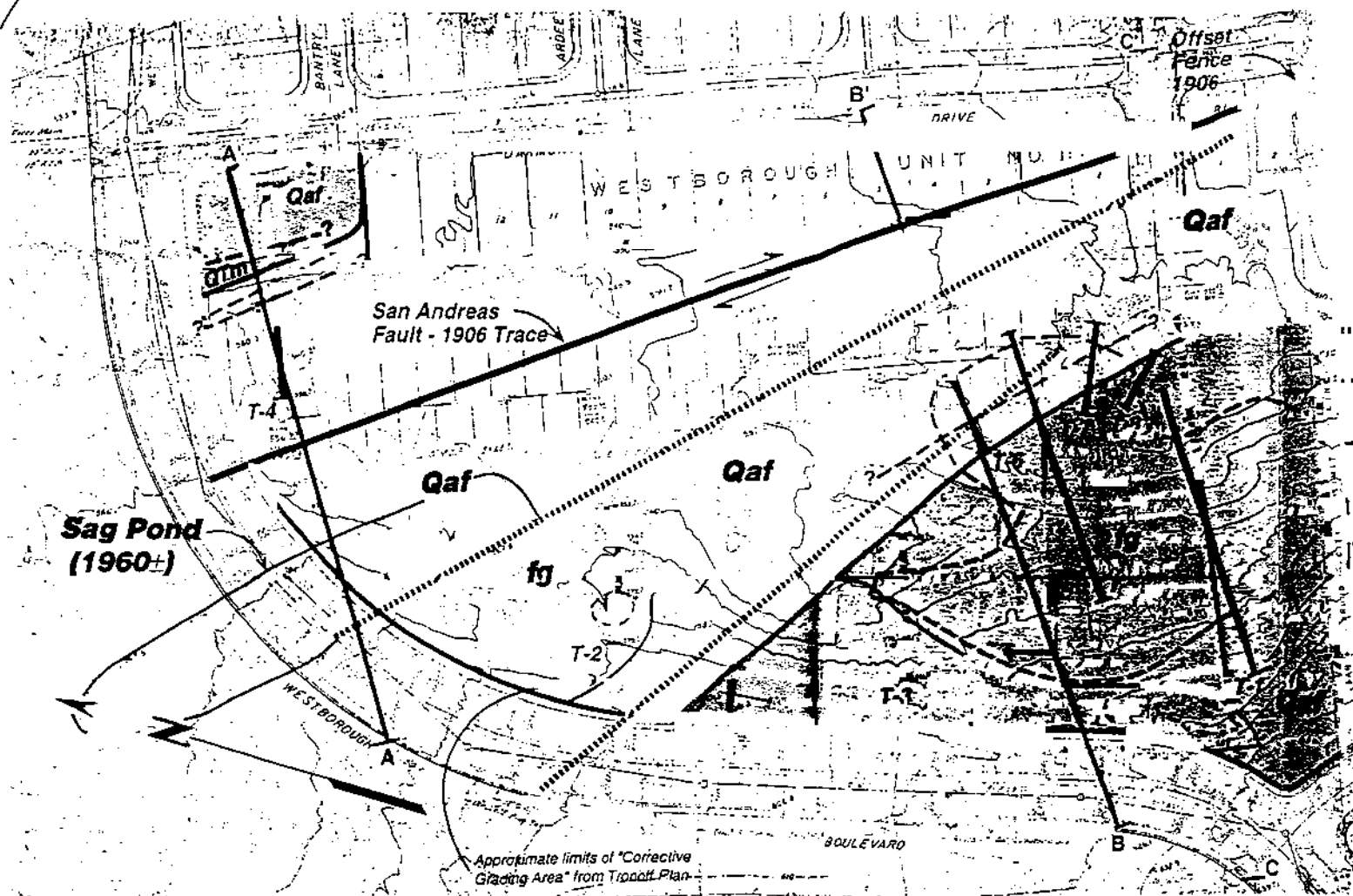
### Project Site

The project site is rectangular in shape, except where it curves along Westborough Boulevard on the northwest and west. The site consists of approximately 10 acres (or 435,600 square feet) in size. Primary access to the site is provided by Westborough Boulevard and Oakmont Drive. Although extensive grading and filling were conducted on the site during the 1960's as a part of overall development of the Westborough area, the site has remained undeveloped and currently no structures exist on the site. Since the Project area consists substantially of imported fill compacted on the site, the site no longer retains its natural condition, with the exception of the southwestern portion. Limited improvements such as an unknown number of subdrains, storm drains and an abandoned sanitary sewer line are located underneath the property in the central (previously filled) portion of the property. The majority of the present topography consists of a relatively level area that covers the central portion of the site. A moderate to steep slope extends along the southwestern edge of the site. The central, level portion of the site becomes a linear ridge which separates the site, along the eastern edge, from the existing row of houses on Oakmont Drive. The northeastern corner of the site is a flat vacant lot at the corner of Westborough and Oakmont, with a steep slope connecting this corner lot to the remainder of the site to the west.

The site is presently covered by dense vegetation consisting of grasses, scrub brush and weeds. Over most of the site, trees are limited although several mature ornamental trees and clumps of willows and other large bushes are concentrated on the slopes in the southwestern portion of the site. With the exception of this steep hillside situated on the southwestern edge of the site, most of the site is available for development, with certain conditions as discussed below.

The site and future development is physically constrained by a number of factors including the presence of more than one trace of the active San Andreas fault, the presence of deep to shallow fills, some of which are unengineered, and the presence of at least one ancient landslide deposit. For these reasons, and based on the results of extensive geotechnical studies performed on the site (discussed under **Section 6. Geologic Problems**, of the Initial Study Checklist), the site is divided into three parcels for development.

Two areas of the site are designated as acceptable for residential development, with certain conditions: the vacant lot in the northwestern corner (at the intersection of



# LEGEND

- Qaf Artificial Fill
- QTm Quaternary Merced Formation
- fg Franciscan Greenstone
- San Andreas Fault - 1906 Trace U.S.G.S. (1971)
- Photo Lineaments
- Approximate Geological Contact
- Fault Traces From ESCNC 1996 Trenches
- T-1, T-2, T-3, T-4 ESCNC 1996 Geological Trenches
- C Geological Cross Section
- Approximate Limits of Area Suitable for Habitable Structures (Includes 25± Feet Setback from Faults)



**Earth Systems Consultants**

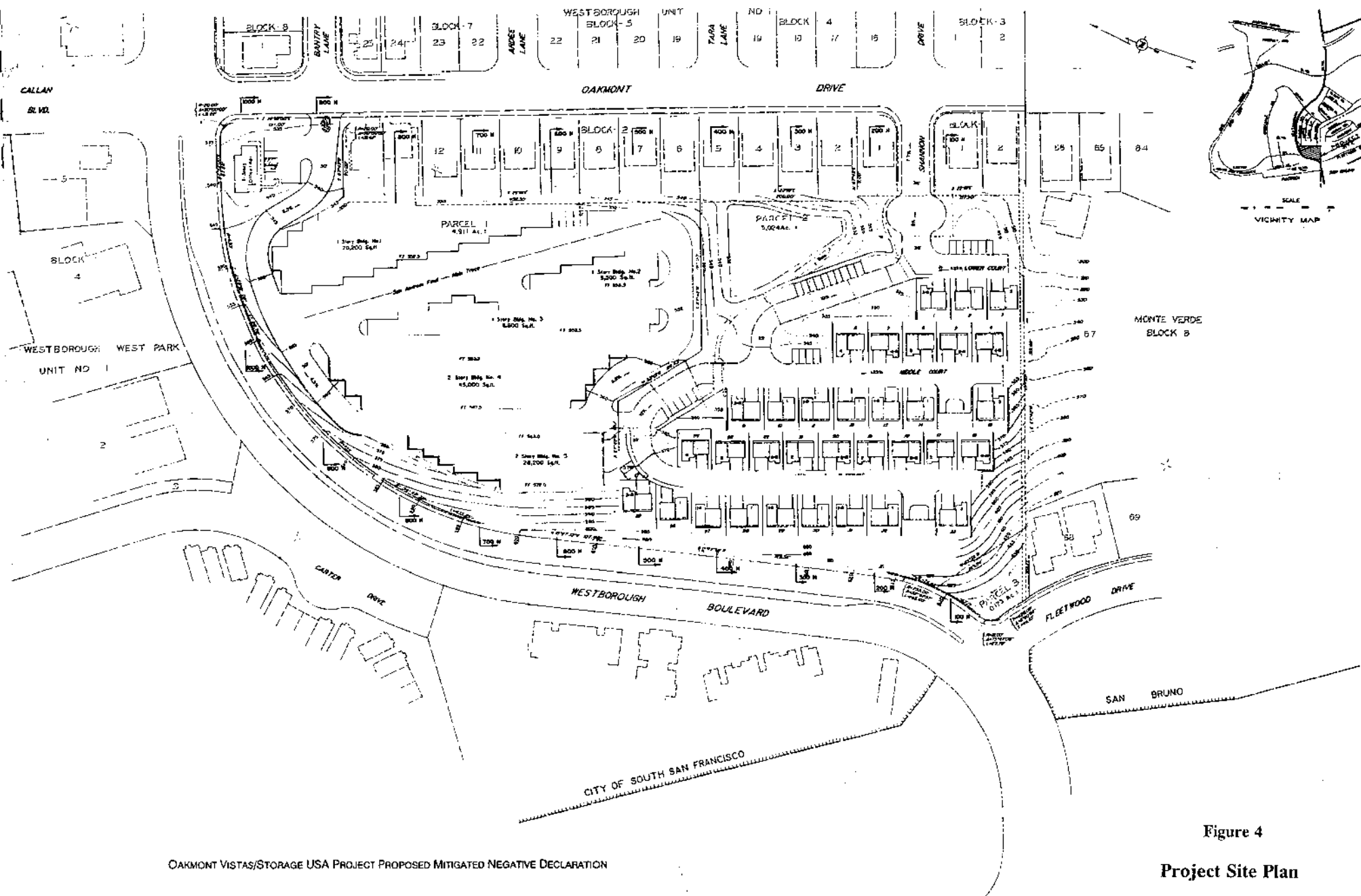
Northern California

Westborough Unit 5, Parcel 2  
South San Francisco,  
California

## SITE GEOLOGY

Date: July, 1997  
File No: NAS-2884-03

Figure 3



OAKMONT VISTAS/STORAGE USA PROJECT PROPOSED MITIGATED NEGATIVE DECLARATION

Figure 4  
Project Site Plan

Oakmont and Westborough Boulevard) and the approximately 5 acre parcel in the southwestern corner of the site. These areas are shown in **Figure 3**. These two sites have been determined from geotechnical studies to be free of active faults. The remainder of the project site is determined to consist of active traces of the San Andreas fault and therefore may be developed only for non-habitable structures or open space. For this reason, the mini-storage use is designated for this 4.9 acre portion of the site, as well as parking and open space (common area) in support of the 33 residential units to be located on Parcel 2.

### **Circulation Characteristics**

Primary access to the site is provided by Westborough Boulevard and Oakmont Drive, as well as via Shannon Drive (off Oakmont), which presently forms a dead-end stub at the southeast corner of the project area. Access to the project site developed for mini-storage use would be provided via a new driveway which would be constructed approximately 125 feet south from the intersection of Oakmont and Westborough Boulevard. This access driveway would be shared by the combined caretaker residence/office unit and the proposed mini-storage project. For the proposed residential project, a new private road, extending from Shannon Drive, will provide access to the 33 residential units, parking and common area facilities. The project site plan includes two emergency vehicle turnaround areas, one on Upper Court and one on Middle Court. The new roadways will be built according to City of South San Francisco standards. Access to the single family residence on Parcel 3 would be provided from Fleetwood Drive in San Bruno.

### **Zoning**

The project site is zoned "R-1-E-P" (Single Family Residential). The purpose of this district is to permit only residential uses in the R-1 zone at a density of not more than eight units for each net acre of land (Chapter 20.16 and Chapter 20.69, South San Francisco Zoning Ordinance). Since storage use is not allowed in an R-1 area, the development of the mini-storage facility will require the adoption of a General Plan Amendment, Zoning Amendment, Rezoning and Use Permit to allow the development of a 4.9-acre mini-storage facility with a resident caretaker's unit.

### **Site Ownership**

A purchase agreement for the project site has been executed by the project applicants, conditioned on the issuance of certain discretionary approvals for the project. These approvals, or project entitlements, include a General Plan Amendment, Zoning Amendment, Rezoning and Use Permit to allow the development of a 4.9-acre mini-



storage facility with a resident caretaker's unit; a Tentative Subdivision Map and Plannec Unit Development permit for approval of a 33-unit single-family residential development; a Tentative Parcel Map to create three individual parcels at the project site; and a grading permit, which would enable foundation excavation, the clearing of vegetation and topsoil on the site, as well as earth movement associated with preparing the site for residential and mini-storage unit development on the 10 acre parcel (among other conditions).

## **Project Description and General Site Plan**

The project site can be viewed as three distinct sections defined by the geotechnical constraints of this vacant hillside. As proposed and shown in **Figure 4**, development of the project site would entail the construction of three separate projects on the 10 acre site. Parcel 1, on approximately 4.9 acres, is designated for the proposed mini-storage facility. In addition, a caretaker residence/office unit is proposed as a component of Parcel 1, located at the northeastern corner of the project site. Parcel 2, on approximately 5.02 acres, is designated for the proposed 33-unit single family residential development, and associated parking, street access and common (open space) area. A third parcel (Parcel 3) located on the southwestern corner of the project site (corner of Fleetwood and Westborough Boulevard), consists of a 0.173 acre lot designated for one single family residence.

### **Parcel 1**

Based on recent geotechnical studies, the development potential for Parcel 1 under the existing R-1 zoning is very limited. The main trace of the San Andreas fault bisects this parcel, which constrains the types of uses that are allowed for this site. Even though this site is zoned R-1, residential or any habitable use for this site would be limited to a very small portion of the site (northwest corner). The proposed storage facility or "Storage USA" project, is proposed as a suitable "non-habitable" use and located to avoid the fault traces that are identified on civil engineering maps by recent geotechnical and seismic studies.

According to the applicants, the self-storage project will be designed to be sensitive to the existing single family homes surrounding the site. The site and grading plan were developed with the following objectives:

- The storage buildings are arranged and designed to not be obtrusive to the surrounding neighborhood and motorists that enter South San Francisco traveling from the west on Westborough Boulevard. The buildings will be developed on lowered grades and a 6 foot high

masonry wall with landscaping will be constructed along the project perimeter, along Westborough Boulevard.

- Three of the proposed five storage buildings, situated closest to Oakmont Drive, will be one story in height. The remaining two storage buildings will be two stories in height, but stepped into the hillside so that they appear to be one story in height when viewed from the west.

A small portion of the site (level northeast corner) is determined to be suitable for residential purposes since it is situated outside the fault zone. This corner site is proposed for a two story caretaker residence/office unit. Since this building will be located closest to the entrance to the storage facility, the unit will be architecturally designed as a residence in order to be compatible with the adjacent Oakmont neighborhood. Signage and a map of the storage facility will be designed onto a plaque that will be placed on a decorative masonry wall in front of the caretaker property. The designated number for each building, and a number for each storage unit will be indicated on the map on the office as well as on each roll-up door of the storage buildings. Landscaping is proposed to screen the gated entrance to the facility as well as the first storage building along Oakmont Drive. A 25 foot sliding security gate, accessed by electronic key, will be constructed near the entrance. The proposed storage buildings will not provide any heating, ventilation or air conditioning (HVAC) within the individual units; therefore, no HVAC equipment will be necessary on building rooftops. Gate (by security code) access to the facility will be between 6 a.m. and 9 p.m., 7 days a week. Office hours will be primarily weekdays, between 8 a.m. and 6 p.m.

A total of 11 parking spaces will be provided on Parcel 1 - 6 will be located adjacent to the caretaker/office unit and an additional 5 spaces will be located at the south end of storage building number 1. Spaces will be provided for vehicles (trucks or cars) to park in front of individual storage units in order for renters to conduct loading or unloading activities. For the two-story storage buildings to the west of the site, interior access to the upper storage units will be provided by elevator and stairways.

The storage buildings are further described in the following Table 1, and shown (artist perspective) with the caretaker's apartment/office, in **Figure 5**.

**TABLE 1**  
**PROPOSED MINI-STORAGE FACILITY, PARCEL 1**

Building Number	Square Feet	Number of Stories	Number of Units
One	20,200 sq.ft.	one	
Two	5,500 sq.ft.	one	
Three	11,800 sq.ft.	one	
Four	45,000 sq.ft.	two	
Five	28,200 sq.ft.	two	
Total	110,700 sq.ft.	-----	927

## **Parcel 2**

Parcel 2, consisting of 5.02 acres, is designated as an acceptable site for residential development. A Planned Unit Development consisting of a 33-lot, detached single family residential subdivision is proposed for this area in addition to associated parking, landscaping and a pooled common area for recreation uses. Proposed as a "gated community", the development would be accessed by a private street that will extend into Parcel 2 from Shannon Drive. The proposed residential development would be designed with superior architectural features and materials to blend in and be compatible with the surrounding neighborhood of Oakmont as well as San Bruno homes along Fleetwood and Oakmont Drives. Lot sizes of 2,500 square feet are proposed and are sized to conform to the project's geotechnical and hillside constraints to afford more clustered development and to create more common areas, maximize Bay views, view corridors and homogeneous landscaping throughout the project site. The development consists of four different housing styles that will step up or down into the hillside to minimize grading and conform with the steep slopes on the southwestern portion of Parcel 2. The four different housing plans are described in the following Table 2, below. The proposed Oakmont Vistas housing development (artist perspective) is shown in **Figure 6**.

**TABLE 2**  
**PROPOSED OAKMONT VISTAS RESIDENTIAL PUD/PARCEL 2**

House Plan Number	Square Feet	Bedrooms	Lots
1 (Uphill)	2,358 sq.ft.	4	14
2 (Downhill)	2,270 sq.ft.	5	8
3 (Corner Uphill)	2,455 sq.ft.	4	6
4 (Corner Downhill)	2,295 sq.ft.	5	5

The residential subdivision is divided among three courts which rise in elevation from Oakmont Drive, as shown on the site plan. Private streets (25 feet in width) will provide access to these three levels of singly family housing as well as parking and common areas. Three units are situated on Lower Court, twelve units on Middle Court, and eighteen units on Upper Court. Each unit will have a two car garage, plus an 18 foot driveway apron that will provide additional parking space for two guests (or additional owner vehicles). Twenty-seven guest parking stalls will be provided for the Oakmont Vistas development: seven stalls for Upper Court, four stalls for Middle Court and sixteen stalls for Lower Court. Each housing unit will also provide two 5 foot sideyards and a 15 foot by 45 foot back yard.

In terms of open space, the proposed residential development includes a turfed common play area with picnic tables and barbeque pits restricted to the use of the homeowners association. Over 61% (133,649 square feet) of the site is proposed for (common) green areas, common use landscaping and individual homeowner landscaping.

### **Parcel 3**

Parcel 3 consists of a 0.173 acre lot which is located on the highest elevation of the 10 acre site, at the intersection of Westborough Boulevard and Fleetwood Drive. This parcel is designated as suitable for one single family dwelling. Although no development is currently proposed, the lot could be developed with minimal grading.

**Figure 5      Project View of Proposed Storage USA from Westborough Boulevard**



Figure 6

Project View of Proposed Oakmont Vistas from Shamon Drive



**Grading.** Since the project site to be developed is on a hillside, extensive grading would be required prior to construction of the proposed structures and related supporting infrastructure and utilities. The proposed grading plan consists of a balancing of cut and fill operations<sup>1</sup>, with grading on Parcel 1 for the five storage buildings providing the supporting fill and earth material to meet Parcel 2 housing lot and foundation requirements. The proposed project will minimize the use of exposed (visible) exterior retaining walls, by incorporating these earth retention structures within the foundations of the proposed residential units.

## **Required Discretionary Approvals**

The project will require the City of South San Francisco's approval of the following entitlements:

- Adoption of a General Plan Amendment, Zoning Amendment, Rezoning and Use Permit to allow the development of a 4.9-acre mini-storage facility with a resident caretaker's unit;
- Tentative Subdivision Map and Planned Unit Development permit for approval of a 33-unit single-family residential development on a private street, with exceptions to standard lot size, setback requirements and driveway apron lengths;
- Tentative Parcel Map to create three individual parcels at the project site: a 5+-acre site for the residential subdivision, a 4.9+-acre site for the mini-storage facility, and a 0.173-acre single-family residential lot.
- A grading permit, which would enable foundation excavation, the clearing of vegetation and topsoil on the site, as well as earth movement associated with preparing the site for residential and mini-storage unit development on the 10 acre parcel.

In addition, appropriate National Pollutant Discharge Elimination System (NPDES) permits will have to be obtained from the San Francisco Regional Water Quality Control Board (RWQCB).

<sup>1</sup> According to the project's engineer, no fill will be imported to the site and no excess fill from grading activities will be exported off site. Conversation between Lamphier and Associates and Ted Tronoff, P.E., November 12, 1998.

# INITIAL STUDY CHECKLIST

## 1. AESTHETICS

Would the project result in:

- A substantial adverse effect on a scenic vista? No impact
- Substantial damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? No impact
- Substantial degradation of the existing visual character or quality of the site and its surroundings? Potentially Significant\*
- The creation of a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area? Less than significant

\*Reduced to a level of less than significant with identified mitigation measures. Refer to the following discussion.

### Existing Conditions

The project site is currently vacant, with three visually distinct areas. One area is located at the corner of Oakmont and Westborough and is generally level, with no significant vegetation except for grass and one tall bush. A second area, which slopes up directly behind the row of homes along Oakmont Drive, is relatively level covered with scrub brush, weeds, grass and pampas grass. The third area, located to the southwest, is a more steep, densely vegetated slope, characterized by large amounts of



brush leading up to a wooded slope of conifer trees. Portions of the privately-owned site are in deteriorated condition and show evidence of trespassing activities such as dumping and dirt bike use. The project site is located along a 650 foot stretch of Westborough Boulevard, and although not identified as a scenic highway in the South San Francisco General Plan, the site is very visible to motorists using this arterial. The site is not designated in the existing or proposed General Plan as "Open Space" or as a future site for a park. Looking east from the project site and from existing homes along Oakmont Drive are expansive views of San Francisco Bay. The site is also very visible to existing homes along Oakmont, to the east, and to several homes along Fleetwood Drive, to the west. Views of the project site are shown in **Figures 7 through 14**, moving from the north to the south along Oakmont Drive.

**Figures 7 and 8** offer different perspectives of the intersection of Callan, Oakmont and Westborough Boulevard. The Project site is located on the southern corner of this major intersection. In **Figure 7**, San Bruno Mountains can be seen in the background. Westborough Commercial Center, bisected by Callan Boulevard, is shown immediately opposite the Project site. Although not visible in **Figure 7**, there are also existing storage facilities in the area, including the Shurgard facility across Westborough Boulevard at 2679 Meath Drive.

**Figures 9 and 10** provide views of the project site, in particular Parcel 1, looking south from the intersection of Oakmont and Westborough Boulevard. **Figure 9** portrays the northern portion of the site and the proposed location for the access driveway to the mini-storage units proposed for Parcel 1. This view also shows the ridge that now separates existing homes along Oakmont from the remainder of the vacant site. **Figure 10** provides an additional view of the site and proposed location for the storage facility office/caretaker apartment.

**Figures 11 and 12** provide views of the vacant Project site looking north and looking south, respectively. In **Figure 13**, expansive views of San Francisco Bay can be seen from the project site, in the foreground. Another view of the Project site, Parcel 2, is provided in **Figure 14**, which is looking southwest from the corner of Shannon and Oakmont Drive. Presently a stub-end street, Shannon Drive is proposed as future access to the Oakmont Vistas residential subdivision. A home along Fleetwood Drive can be seen just beyond the project's highest elevation, at the intersection of Westborough and Fleetwood Drive. Parcel 3 is proposed in this location to be accessed via a driveway off Fleetwood Drive.

## Project Impacts

Potential impacts resulting from a change in the visual setting are often subjective. To some, any development and change to the existing setting, regardless of the design, is considered adverse; others may consider development as beneficial. According to CEQA Guidelines, Appendix G (a and b), significant visual impacts would normally occur if the proposed Project were to obstruct a scenic vista, or result in a substantial demonstrable negative aesthetically offensive site open to public view.

At a recent public scoping meeting, many adjacent residents expressed opposition to the proposed project since it will remove an existing open space use<sup>1</sup>. Some residents claim that the site was long promised to be retained and developed as a park for the Westborough residential area. However, recent correspondence from South San Francisco indicates that the city has no current plan that identifies the Project site for any public use, and has no basis to purchase the site<sup>2</sup>. The existing South San Francisco General Plan, Capital Improvement Budget and Parks Master Plan do not identify the vacant site as proposed for any public use. For many years, development of residential uses on the project site has been recognized in policies contained in the South San Francisco General Plan. Thus, the conversion of the site from open space to urban development is not considered a significant impact.

<sup>1</sup> It should be noted that the vacant project site is privately owned and is presently not available to the surrounding community for public open space uses.

<sup>2</sup> Letter from Michael A. Wilson, South San Francisco City Manager, to Thomas J. Callan, Jr., Callan Realty Company, dated November 3, 1998.

**Figure 7 View of C&N/Oakmont/Westborough Intersection Looking Northeast**



**Figure 8 View of Westborough Commercial Center Looking North on Oakmont**



**Figure 9**

**View of Project Site Looking Southwest on Oakmont**



**Figure 10 View of Project Site Looking South from Oakmont and Westborough**



Figure 11

View of Project Site Looking North



Figure 12

View of Project Site Looking South



Figure 13 View of Project Site from Parcel 1 Looking East Towards S.F. Bay



Figure 14 Southwest View of Project Site from Corner of Shannon/Oakmont



The Project is not located on a scenic highway. The Project will also not block scenic vistas of San Francisco Bay. Many homes along Oakmont and Fleetwood Drive now enjoy expansive views of the bay to the east. The Project (Parcel 2) is designed to step new homes into the contours of the existing site. This will allow new residents in the Oakmont Vista subdivision to enjoy sweeping views of San Francisco Bay, without blocking vistas of other neighboring residences. For Parcel 1, the storage warehouses will be built on graded lots that lower the new building pads below existing site lines along Westborough Boulevard and residential uses to the west of this major thoroughfare.

Although the proposed development of the project site would not interfere with any scenic vista, the proposed project would result in a significant modification to the visual characteristics of a currently vacant lot, as seen from adjacent properties and from Westborough Boulevard. The project site is located among parcels which have already been developed in urban residential uses. Therefore, the proposed single family residential development, with the exception of the storage facility on Parcel 1, would not be "out of character" with the surrounding development which has already taken place along the east side of Westborough Boulevard. However, the introduction of long, linear and bulky warehouse buildings will not be consistent with the surrounding residential character of the immediate neighborhood, particularly existing residential development on the south side of the property along Fleetwood and east along Oakmont Drive. Viewed from the north, the proposed Project would not detract from the character of the commercial retail center opposite of the site. Vantages of the site from the other side of Westborough would be a consistent extension of this commercial use.

The most adverse negative aesthetic impact of the proposed Project is related to the construction of the five self-storage warehouse structures. This development, coupled with removal of open space, will not only detract from the existing views of the site, but will not be consistent with the residential character of the surrounding neighborhood. Even with extensive grading, the roof lines of the warehouse buildings will be visible to the existing residents along Oakmont Drive. In particular, residents situated on the west side of Oakmont between Westborough and Shannon Drive will have their open space backyard views replaced with massive, linear storage buildings. This change in views will be a potentially negative aesthetic effect. For residents living in units 10-14, their views will change from an open lot to a 16 foot high storage building located approximately 20 feet from the rear fence line. For the remaining residents, backyard views will be replaced with a series of bulky storage buildings that stretch up the hillside. Although the roof line will be the most visible feature of these buildings, it will nevertheless replace an open vista that has remained at the site for over 30 years. Even with mature landscaping, the roof lines of the

warehouse buildings will penetrate the site lines looking west from homes along Oakmont Drive. The warehouse buildings will also be within the viewshed of several homes located on Fleetwood Drive near the intersection of Westborough Boulevard and residents to the west of this arterial.

■ **IMPACT: Modification of Views Along a Major Arterial and from Existing Residences in the Project Vicinity**

The development of the project site as proposed would result in a significant alteration in the visual characteristics of what is currently an undeveloped lot characterized by a number of large trees and an abundance of vegetation. A major aesthetic impact would result from extensive site grading and removal of vegetation during project construction. Because the proposed development would be visible to residents of an established neighborhood, and also occur along a well traveled arterial, this would represent a potentially significant temporary impact associated with the proposed project.

**MITIGATION MEASURE: Modification of Views Along a Major Arterial and from Existing Residences in the Project Vicinity**

(A) The proposed landscaping plan for the project site shall include fast-growing species of trees and shrubs that would complement architectural elements of the proposed residential and storage structures. The design should contribute to the existing built environment with the project changing an undeveloped, heavily vegetated environment to a built environment compatible with adjacent uses and the natural setting. Over time, as the landscaping matures, the visual impacts associated with the proposed development of the project site will be moderated.

(B) The project applicant shall utilize exterior building materials with a natural appearance. Bright and contrasting colors shall not be used. All roofs at the project site shall utilize non-reflective roofing materials.

(C) Under Chapter 20.85 of the South San Francisco Zoning Ordinance, the project has been subject to design review on two previous occasions using the criteria established in applicable zoning sections. The project may be further evaluated in light of the mitigation measures adopted as part of project approval. The Design Review Board will make recommendations to the Planning Commission to approve or disapprove the design, or require such changes as are in its judgment necessary to accomplish the general purposes of Chapters 20.16 and 20.78.



Taken together, these mitigation measures would reduce the impact associated with a modification of existing views along Westborough Boulevard to a level of less than significant. However, even after the proposed landscaping has "grown in", the visual features of the project site with the proposed development in place would remain considerably different from the features currently visible there.

■ **IMPACT: Change in Views and Inconsistent Development not in Character with Surrounding Residential Development**

The development of the proposed storage facilities as proposed would not be a compatible use with the surrounding residential development. The proposed development on Parcel 1 will result in a significant alteration in the visual characteristics of what is currently an undeveloped lot surrounded by single family residences. This would represent a potentially negative aesthetic impact.

**MITIGATION MEASURE: Change in Views and Inconsistent Development not in Character with Surrounding Residential Development**

The mitigation measures identified above will serve to reduce the potential adverse impacts associated with the self-storage warehouse portion of the Project. In addition, the applicant shall incorporate design elements and exterior architectural facade features that serve to visually "break up" the long linear roof lines of the five storage facilities. The intent is to design the buildings to reduce the bulky warehouse features, reduce the appearance of flat linear roof lines, and to simulate and blend in with single family residential development.

The above mitigation measures would reduce the impact associated with the development of warehouse development that is "out of character" with the surrounding residential development to a level of less than significant. However, even with design features and after the proposed landscaping has "grown in", the visual features of the proposed warehouse development would remain considerably different from the existing conditions of the immediate surrounding development.

With the proposed development of the project site, lights and reflective surfaces on-site will increase. However, within the context of the development which has already taken place in the immediate vicinity of the project site, and due to the proximity of the structure to Westborough Boulevard and Oakmont Drive (with its associated light and glare), any light and glare impacts which might be associated with the development of the project site as proposed would be regarded as less than significant.

## 2. AGRICULTURE RESOURCES

Would the project result in:

- The conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency) to non-agricultural use? No impact
- Any conflict with existing zoning for agricultural use? No impact
- Any conflict with a Williamson Act contract? No impact
- Other changes in the existing environment which, due to their location or nature, could result in conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency) to non-agricultural use? No impact

The project site is located within a developed residential and commercial area. Thus, the project would not involve the conversion of open space lands currently used for cattle or agricultural purposes. Likewise, the project would not result in the loss of "prime agricultural soils" or "prime farmland". Therefore, conversion of the project site to residential and industrial uses would not result in the loss of prime agricultural soils.

### 3. AIR QUALITY

Would the project result in:

- Any conflict with the applicable air quality plan? No impact
- Any obstruction to the implementation of the applicable air quality plan? No impact
- Any violation of any air quality standard? Potentially significant\*
- A substantial contribution to an existing or projected air quality violation? No impact
- 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)? Less than significant
- Exposure of sensitive receptors to substantial pollutant concentrations? No impact
- Creation of objectionable odors affecting a substantial number of people? No impact

\*Reduced to a level of less than significant with proposed construction-related mitigation measures identified by the Bay Area Air Quality Management District<sup>3</sup>.

#### Regulatory Setting

The project is located in the San Francisco Bay Area air basin which is subject to the Bay Area Clean Air Plan (CAP), first adopted in 1991, and updated in 1994 and December 1997. The '97 CAP was prepared and adopted by the Bay Area Air Quality Management District (BAAQMD), which is also responsible for regulating, monitoring and enforcing air quality standards in the Bay Area. The '97 CAP is a document

<sup>3</sup> BAAQMD CEQA Guidelines, April, 1996.

required primarily by the federal Clean Air Act of 1970, as amended in 1977 and 1990, and secondarily by the 1988 California Clean Air Act. The goal of the Bay Area '97 CAP is to meet the federal and state air quality standards, particularly the standards for ozone, the principal component of smog. To implement the plan, the BAAQMD has adopted controls on stationary sources, emission controls for motor vehicles, transportation control measures, and other regulations, all of which would reduce emissions of air pollution.<sup>4</sup>

The state and federal air quality standards are based on measurements within various time periods, including 1-hour, 8-hour and 24-hour periods, and annual measurements. As permitted by the federal Clean Air Act, the state standards for ozone, carbon monoxide, and suspended particulate matter adopted as part of the 1988 California Clean Air Act, are higher than the federal standards. The Bay Area is currently designated as an "attainment" area for the state and federal standards for carbon monoxide (CO), sulphur dioxide (SO<sub>2</sub>), and nitrogen dioxide (NO<sub>2</sub>). For particulate matter with a diameter of 10 microns or less (PM-10), the Bay Area is "attainment" for the annual federal standard, but is "non-attainment" under the state annual and 24-hour standards. The Bay Area is currently designated as "unclassified" for the federal 24-hour PM-10 standard, as well as for both the 24-hour and annual federal PM-2.5 standards adopted in 1997.<sup>5</sup>

The Bay Area is also designated as "non-attainment" for both federal and state ozone standards, although it had been designated as "attainment" for the federal standard between 1995 and 1998.<sup>6</sup> Ozone is a strong oxidizing agent produced through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NO<sub>x</sub>), and has the potential to damage both living and inanimate materials with which it comes in contact. When present in the lower atmosphere, even at low concentrations, ozone is harmful to human health and property. Ozone is the major component in smog, and exposure to ozone can entail adverse health impacts, especially for children, but also for adults.<sup>7</sup>

<sup>4</sup> Bay Area Air Quality Management District, *Bay Area '97 Clean Air Plan (CAP)*, Dec. 1997, pp. i-ii.

<sup>5</sup> BAAQMD, *Bay Area Attainment Status*, Sept. 1998 (obtained at BAAQMD website: [www.baaqmd.org](http://www.baaqmd.org)).

<sup>6</sup> Ibid.

<sup>7</sup> BAAQMD, *Bay Area '97 Clean Air Plan (CAP)*, Dec. 1997, p. 1.

## Thresholds of Significance

The BAAQMD considers land use development projects that generate more than 550 pounds per day of CO, or 80 pounds per day of ROG, NO<sub>x</sub>, or PM-10, as having significant air quality impacts and therefore as inconsistent with the CAP. These levels of emissions normally would result from projects that generate over 2,000 vehicle trips per day. Although smaller levels of emissions could result in significant cumulative air quality impacts, the BAAQMD considers development projects that are consistent with local general plans, when those General Plans are also consistent with the '97 CAP, to be consistent with the CAP, and as having insignificant cumulative air quality impacts. For air quality impacts related to PM-10, the BAAQMD does not generally define specific thresholds, but instead considers construction dust control measures to be necessary to avoid significant adverse and a failure to implement appropriate measures to be a potentially significant impact, and in conflict with the CAP.<sup>8</sup>

## Project Impacts

The proposed project would generate a maximum of 652 trips per day (worst case scenario), which is well below the trip generation threshold suggested by the BAAQMD for development projects which are likely to have adverse air quality impacts. With the exception of the proposed mini-warehouse development<sup>9</sup>, the project is consistent with the South San Francisco General Plan, and is therefore considered to be consistent with the '97 CAP, and also is considered having no significant cumulative air quality impacts. The South San Francisco General Plan provides for transportation control measures and other land use planning guidelines that are consistent with the '97 CAP. The proposed project would not interfere with the implementation of the CAP or the air quality-serving policies of the South San Francisco General Plan. The project would not generate any long-term, direct emissions of pollutants or odor-producing emissions, and no sensitive receptors would be exposed to harmful pollutants.

The proposed project would not violate any air quality standard, except during construction, and would not contribute to any existing or projected air quality violation. It would not significantly alter air movement, air moisture or air temperature, would not alter the climate and would not create any objectionable odors.

<sup>8</sup> BAAQMD CEQA Guidelines, April, 1996, pp. 13, 15, 18, 23.

<sup>9</sup> A General Plan Amendment, which would allow for the development of the mini-warehouse development, would render the proposed project consistent with the '97 CAP.

However, during construction, dust and exhaust from the project site could have a temporary adverse effect on air quality in the immediate vicinity.

■ **IMPACT: Construction-Related Air Pollution**

Clearing, grading, earthmoving and construction activities at the project site as proposed could potentially result in the generation of dust and exhaust from construction equipment during construction, which would represent a potentially significant environmental impact on local air quality.

**MITIGATION MEASURE: Construction-Related Air Pollution**

The implementation of conventional dust suppression measures such as watering exposed soil surfaces, covering stockpiles of debris, the routine sweeping of the construction area and adjacent streets, and the suspension of grading and other earthmoving activities during high winds would reduce the potential impact to a level of less than significant. Since the construction would take place on a site which is larger than four acres, the Bay Area Air Quality Management District requires the implementation of all of the following mitigation measures:

- All construction areas shall be watered at least twice daily.
- All trucks hauling soil, sand and other loose materials shall be covered, or shall be required to maintain at least two feet of freeboard.
- All unpaved access roads, parking areas and staging areas shall be either paved, watered three times each day, or be treated through the application of non-toxic soil stabilizers.
- All paved access roads, parking areas and staging areas shall be swept daily with water sweepers.
- If visible soil material is carried onto adjacent public streets, these streets shall be swept daily with water sweepers.
- Hydroseed or non-toxic soil stabilizers shall be applied to previously graded construction areas which have been inactive for ten days or more.

- Exposed stockpiles of dirt, sand, etc. shall be enclosed, covered or watered twice daily, or non-toxic soil binders shall be applied.
- Traffic speeds on unpaved roads shall be limited to 15 miles per hour.
- Sandbags or other erosion control measures shall be installed to prevent soil runoff to public roadways.
- Vegetation in disturbed areas shall be replanted as quickly as possible.

These measures would reduce the construction-related air quality impacts associated with development of the project site to a level of less than significant. Although development and use of the project site as proposed would result in an increase in the volume of traffic going to and from the project site, this increase would not be large enough to result in any significant deterioration in air quality, locally or regionally, and would be regarded as a less than significant impact. The project would not expose sensitive receptors to air pollutants, would not result in any alteration in air movement or temperature, and would not create any objectionable odors.

#### 4. BIOLOGICAL RESOURCES

Would the project result in:

- 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 California Department of Fish and Game or U.S. Fish and Wildlife Service?

No impact
- A substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No impact
- A substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No impact
- Substantial interference with the movement of any native resident or migratory fish or wildlife species?

No impact
- Substantial interference with established native resident or migratory wildlife corridors?

No impact
- Substantial impediment to the use of native wildlife nursery sites?

No impact
- Any conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No impact



- Any conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? No impact

## Setting, Background and Methods

The following biological assessment conducted by **Environmental Collaborative** provides information on the biological resources of the site, evaluates potential impacts on sensitive resources, and identifies measures to mitigate adverse impacts of the project. Biological resources were identified through the review and compilation of existing information and conduct of three field reconnaissance surveys, the first on 1 December 1998. The first review and field reconnaissance provided information on common biological resources, the extent of sensitive natural communities, potential jurisdictional wetlands, and the distribution and habitat requirements of special-status species which have been recorded from or are suspected to occur in the project vicinity. Two additional detailed surveys were conducted on 30 March and 7 May 1999 which confirmed absence of any populations of special-status plant populations or essential habitat for any special-status animal species of concern.

## Natural Community Types and Wildlife Habitat

The site has been extensively altered by past grading activities which has eliminated most of the native plant cover. Non-native grassland now forms the predominant cover over most of the site. Some locations support areas of native scrub and remnant native grasslands, as well as dense stands of highly invasive non-native shrubs and ornamental trees. A summary of the various community types and associated wildlife species is provided below. **Figure 15** shows the extent of the various cover types on the site.

### Grassland

Most of the grassland habitat on the site is composed of non-native annual grasses and forbs. These include: slender wild oat (*Avena barbata*), wild oat (*A. fatua*), ripgut brome (*Bromus diandrus*), Italian ryegrass (*Lolium multiflorum*), broad-leaf filaree (*Erodium botrys*), and plantain (*Plantago coronopus*). Ruderal or weedy species such as bristly ox-tongue (*Picris echioides*), poison hemlock (*Conium maculatum*), and wild

racish (*Raphanus sativus*) form the dominant cover in some locations in the grasslands. Highly invasive non-native French broom (*Genista monspessulana*) and pampus grass (*Cortaderia jubatum*) have also become established on the site and will continue to replace grassland cover unless actively removed.

Two locations continue to support a cover dominated by the native grass species, California oatgrass (*Danthonia californica*). It appears the native stand of grassland in the southwestern portion of the site may be part of the original hillside slope that was not extensively disturbed during creation of the large pad at lower elevations or grading to accommodate Westborough Boulevard and Fleetwood Drive. The spread of French broom and non-native grasses currently threatens the remaining stands of native grassland on the site and because of its small size and degraded condition this remnant native grassland is not considered to be potentially valuable.

Wildlife use of the site is limited by the extent of surrounding development to the north, east and west. The grasslands continue to support a number of small mammals, reptiles, and birds, which in turn serve as prey for predatory species. Common species which occur on or frequent the site include: California vole, Botta pocket gopher, striped skunk, raccoon, English sparrow, white-crowned sparrow, European starling, western fence lizard, northern alligator lizard, and gopher snake. Predatory birds which most likely forage in the remaining grasslands in the vicinity include: American kestrel, red-tailed hawk, turkey vulture, great-horned owl.

### **North Coastal Scrub**

A few native shrub species are scattered throughout the steep, upper elevations of the site, forming an open cover of native north coastal scrub. This community type is poorly developed and has therefore not been shown in **Figure 15**. Coyote brush (*Baccharis pilularis*) is the primary indicator species of coastal scrub on the site, although other species are also present such as yellow bush lupine (*Lupinus arboreus*), coffeeberry (*Rhamnus californica*), California blackberry (*Rubus ursinus*), and California strawberry (*Fragaria chilensis*). Past disturbance has probably limited the occurrence of coastal scrub on the site, although it appears that this community type is spreading into areas of grassland cover as well.

The small extent of coastal scrub on the site limits the habitat available to wildlife species typically associated with this community type. The scattered shrubs most likely provide protective cover and perching substrate for several species of birds, such as wrentit and Anna's humming bird, and small mammals and birds foraging in the adjacent grassland may retreat into areas of dense brush. However, no nests were

observed in the shrubs on the site and the scrub is considered to have only low habitat value due to its isolation and small aerial extent.

### **Willow Scrub**

Two large thickets of native willow (*Salix lasiolepis*) occur along the base of the existing cut slope near the southern boundary of the site. These two areas collectively encompass about 0.1 acres. Although willow can be an indicator of jurisdictional wetland habitat, its occurrence on the site appears to be a result of seasonal seepage on the cut slope rather than an active spring or jurisdictional wetland. Willow often occurs in transitional habitats which are not technically wetlands, such as the fringe of riparian corridors. No evidence of any surface wetland hydrology or other wetland indicator species were observed during the field reconnaissance, and the willow scrub on the site is not believed to be an indicator of riparian habitat.

The dense cover associated with the willow does provide protective cover to wildlife, including evidence of bedding activity by black-tailed deer. As with the coastal scrub, the small size and its isolation from other natural areas limits the habitat value of the willow scrub on the site.

### **Ornamental Landscaping**

Landscaping has been planted in some locations along the fringe of the site. This is limited to rows of Monterey pine (*Pinus radiata*) and cypress (*Cupressus macrocarpa*) along Westborough Boulevard and the rear lot line of a few of the existing residences along Oakmont Drive. A total of about 20 trees occur on the site, most of which have trunk diameters under 12 inches or are composed of clusters of smaller sized trunks. A grove of fairly mature Monterey pines have been planted beyond the project limits in the open space area to the south of the site. Ice plant, cotoneaster, and a few other ornamental species also occur in scattered locations on the site, presumably spreading from adjacent yard areas. While the trees do provide perching substrate for birds, no nests were observed during the field reconnaissance and the landscaping is considered to be of low value to wildlife.

## Special-Status Species

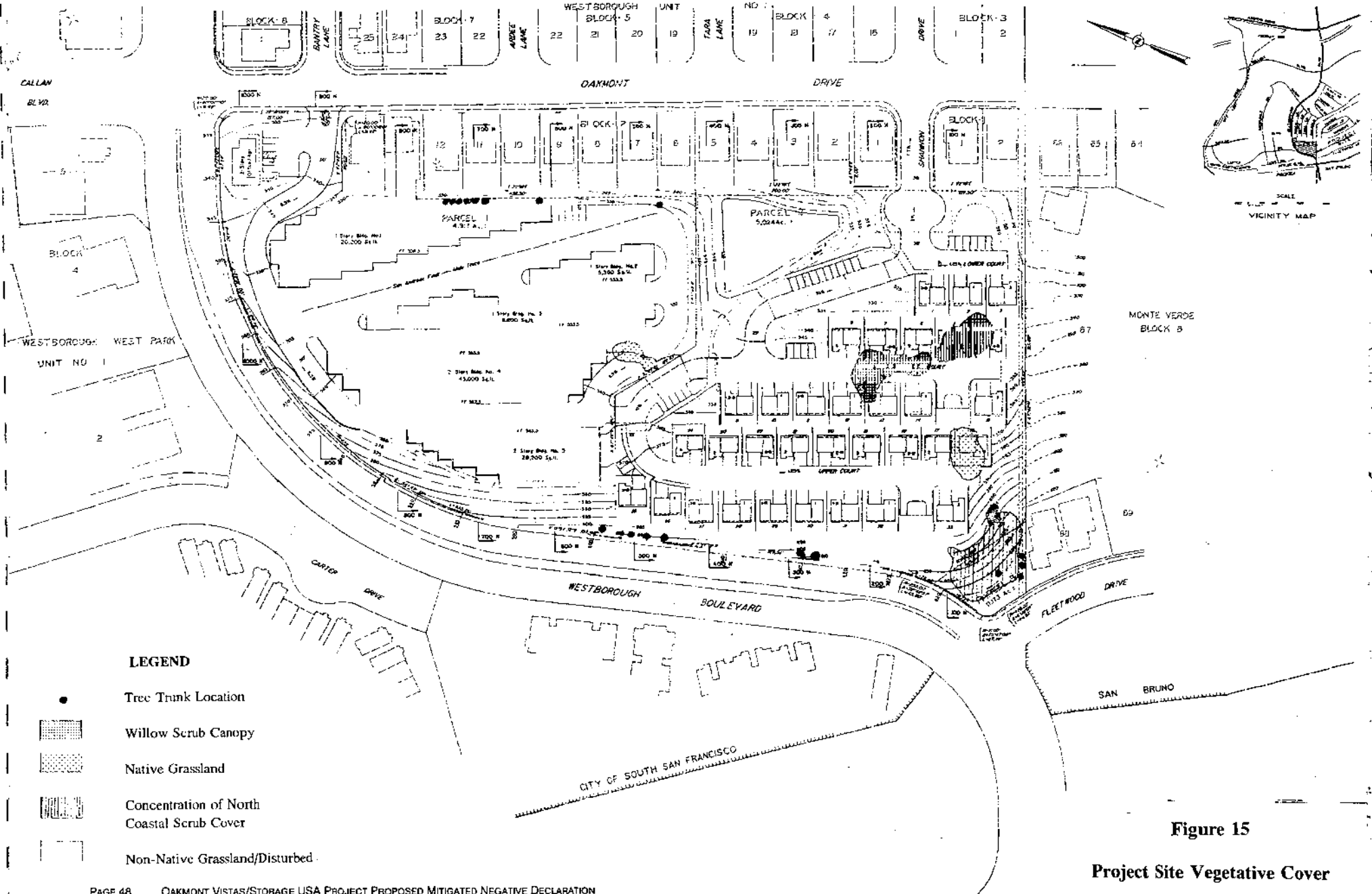
Special-status species<sup>10</sup> are plants and animals that are legally protected under the state and/or federal Endangered Species Acts<sup>11</sup> or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts and other essential habitat. Species with legal protection under the Endangered Species Acts often represent major constraints to development, particularly when they are wide ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take"<sup>12</sup> of these species.

<sup>10</sup> Special-status species include: designated rare, threatened, or endangered and candidate species for listing by the California Department of Fish and Game (CDFG); designated threatened or endangered and candidate species for listing by the U.S. Fish and Wildlife Service (USFWS); species considered rare or endangered under the conditions of Section 15380 of the CEQA Guideline, such as those plant species identified on lists 1A, 1B and 2 in the *Inventory of Rare and Endangered Vascular Plants of California* by the California Native Plant Society; and possibly other species which 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 included on list 3 in the California Native Plant Society *Inventory* or identified as animal "Species of Special Concern" by the CDFG.

<sup>11</sup> The FESA of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The CESA of 1984 parallels the policies of FESA and pertains to native California species.

<sup>12</sup> "Take" as defined by the Federal Endangered Species Act (FESA) means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect" a threatened or endangered species. "Harm" is further defined by the USFWS to include the killing or harming of wildlife due to significant obstruction of essential behavior patterns (i.e., breeding, feeding, or sheltering) through significant habitat modification or degradation. The CDFG also considers the loss of listed species habitat as take, although this policy lacks statutory authority and case law support under the CESA.

Two sections of FESA contain provisions which allow or permit "incidental take." Section 10(a) provides a method by which a state or private action which may result in take may be permitted. The applicant must provide the USFWS with an acceptable conservation plan and publish notification for a permit in the Federal Register. Section 7 pertains to a federal agency which proposes to conduct an action which may result in take, requiring consultation with USFWS and possible issuance of a jeopardy decision. Under the CESA, take can be permitted under Section 2081 of the Fish and Game Code. The applicant must enter into a habitat management agreement with the CDFG, which defines the permitted activities and provides adequate mitigation.



No populations of special-status plant or animal species have been reported from the site or adjacent lands according to records maintained by the California Natural Diversity Data Base. The extent of past disturbance limits the likelihood that any species of concern occur on the site. However, the presence of remnant native grasslands and possible larval host plant for the mission blue butterfly (*Icaricia icarioides missionensis*), a federally endangered species, observed during the December 1998 field reconnaissance, provided an indication that there remained a remote potential for one or more populations of special-status species to occur on the site. Detailed surveys during the appropriate time of the year are generally required to provide a conclusive determination on presence or absence of a special-status species or its essential habitat from a particular location.

As noted above, the areas of remnant native grasslands provided an indication that there was a remote potential for one or more populations of special-status plant species to occur on the site. Over 25 species of special-status plants are known from grassland and scrub habitat in the northern peninsula area, including: San Francisco wallflower (*Erysimum franciscanum*), fragrant fritillary (*Fritillaria liliacea*), San Francisco lessingia (*Lessingia germanorum*), white-rayed pentachaeta (*Pentachaeta bellidiflora*), and San Francisco campion (*Silene verecunda* ssp. *verecunda*). While many of these species can be detected throughout the year, systematic surveys during the spring and summer flowering period are typically required to accurately determine whether smaller annual and non-woody perennial species of concern are present. Detailed field surveys were conducted on 30 March and 7 May 1999 which confirmed that no populations of any special-status plants species occur on the site.

Suitable habitat for most special-status animal species known from the northern peninsula area is absent from the site. This includes absence of aquatic and marsh habitat necessary to support species such as San Francisco garter snake (*Thamnophis sirtalis retrataenia*), California red-legged frog (*Rana aurora draytonii*), and San Francisco forktail damselfly (*Ischnura gemina*). However, there remained a possibility that larval host plants for one or more special-status butterfly species known from the general vicinity may occur on the site but were undetected due to the timing of the field reconnaissance in December of 1998. These include: mission blue and San Bruno elfin (*Incisalia fotis bayensis*), both federally-endangered; bay checkerspot (*Euphydryas editha bayensis*), which is federally-threatened; and callippe silverspot which was previously a federal candidate but was listed as endangered in December of 1997. Each of these species is dependent on different larval host plant species for survival, and presence of suitable host plants within the general range of these species is an indication of possible occurrence at that location.

Larval host plants for San Bruno elfin and bay checkerspot are easily detected throughout the year and were not encountered during the field reconnaissance of the site. Due to the absence of suitable host plants, these species are not suspected to occur on or frequent the site.

A few bluff lupine (*Lupinus variicolor*) plants were observed in the small stand of native grassland in the southeastern portion of the site. Although these shrubs are one of the known hosts for the mission blue butterfly (*Lupinus albifrons*), the small number of plants and their isolation from other suitable habitat precludes an occurrence of even a satellite population of mission blue on the site.

The callippe silverspot occurs in grasslands where its sole larval host plant, johnny jump-up (*Viola pedunculata*), grows. However, no johnny jump-up was observed during the detailed field surveys in Spring, 1999 and essential habitat for callippe silverspot butterfly is absent from the site.

Based on the results of the detailed field surveys, no special-status plants or animal species were detected or are believed to occur on the site.

## Wetlands

Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, 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 California Department of Fish and Game and the U.S. Army Corps of Engineers (Corps) have jurisdiction over modifications to river banks, lakes, stream channels and other wetland features.<sup>13</sup>

<sup>13</sup> The CDFG and Corps have jurisdiction over modifications to stream channels, river banks, lakes, and other wetland features. Jurisdiction of the Corps is established through the provisions of §404 of the Clean Water Act, which prohibits the discharge of dredged or fill material into "waters" of the United States without a permit, including wetlands and unvegetated "other waters of the U.S.". The Corps uses three mandatory technical criteria (hydrophytic vegetation, hydric soils, and wetland hydrology) to determine whether an area is a jurisdictional wetland. All three of the identified technical criteria must be met for an area to be identified as a wetland under Corps jurisdiction, unless the area has been modified by human activity. Jurisdictional authority of the CDFG over wetland areas is established under §1601-1606 of the Fish and Game Code, which pertains to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream. 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 Department, incorporating necessary mitigation, and obtaining a Streambed Alteration agreement. The Wetlands Resources Policy of the CDFG states that the Fish and Game Commission will "strongly discourage development in or conversion of wetlands...unless, at a minimum, project mitigation assures there will be no net loss of either wetland habitat values or acreage". The Department is also responsible for commenting on projects requiring Corps permits under the Fish and Wildlife Coordination Act of 1958.

Other than the willow scrub habitat, no wetland indicators were detected during the field reconnaissance. As discussed previously, the willow scrub does not appear to meet the criteria used by the Corps to determine jurisdiction due to an absence of suitable wetland hydrology and hydric soil conditions. Willows frequently occur in seasonally wet areas which are not saturated long enough during the growing season to qualify as jurisdictional wetlands. Due to the absence of any wetland habitat, no loss of jurisdictional wetland habitat is anticipated and no mitigation is considered necessary.

## **Potential Impacts and Mitigation**

### **Vegetation Removal and Habitat Loss**

Implementation of the proposed project would require disturbance to most of the site. Vegetation within the anticipated limits of grading would be removed as part of proposed grading, consisting primarily of non-native grasslands, together with the 0.1 acres of willow scrub, 0.08 acres of remnant native grasslands, poorly developed north coastal scrub, and stands of invasive shrubs. This loss of primarily non-native vegetation would not be considered significant due to the limited amount of native cover and isolation of the site from other areas of native habitat.

Smaller resident mammals and reptiles would be eliminated from areas encompassed by development, and birds and larger mammals would be at least temporarily displaced as development plans are implemented. Following construction and establishment of landscaping, developed portions of the site would eventually be frequented by wildlife common to the surrounding neighborhood, such as mourning dove, English sparrow, house finch, and American robin, particularly as landscaping matures and provides protective cover and nesting substrate. Suitable foraging habitat for predatory birds would generally be eliminated, but no active nests would be affected and this loss would not be considered significant.

Project-related grading would create suitable conditions for establishment of broom, sweet fennel, pampas grass, gorse and other invasive species. Some of these non-native species already occur on the site, and if their occurrence is not controlled they tend to form dense thickets which out-compete and eventually replace grassland and herbaceous cover. They may spread into the understory of the adjacent open space lands to the south, contributing to the fire hazard on this slope.



■ **IMPACT: Vegetation Removal and Habitat Loss**

Grading associated with project implementation would require removal of existing vegetation and associated wildlife habitat from most of the site. Loss of non-native grassland, ornamental trees, and limited areas of native vegetation would generally not be considered significant. However, grading may contribute to the spread of undesirable species, which would be significant if not adequately controlled. This is considered a potentially significant impact.

**MITIGATION MEASURE: Vegetation Removal and Habitat Loss**

The proposed Landscaping Plan for the project should include a component to prevent re-establishment of weedy invasive species such as broom, gorse, pampas grass, and acacia. Landscape maintenance should include removal of seedlings and newly established shrubs on an annual basis for a minimum of five years until planted ground covers have become successfully established.

With the implementation of the above mitigation measure, this impact would be reduced to a level of insignificance.

**Locally Designated Natural Communities**

The project would not result in significant adverse impacts to any locally designated natural communities. The project will not conflict with any local policies or ordinances pertaining to biological resources, or conflict with any adopted conservation plan.

**Dispersal of Wildlife or Disruption of Wildlife Migration Corridors**

Development of the project site as proposed would not result in substantial interference with the movement of any wildlife species, or any impacts to wildlife dispersal or wildlife migration corridors. The project would not result in the substantial impediment to the use of any native wildlife nursery sites.

## 5. CULTURAL RESOURCES

Would the project result in:

- The physical demolition, destruction, relocation or alteration of a historical resource or its immediate surroundings to the extent that those physical characteristics which convey the historical significance and justify the identification of the historic resource (or the eligibility for such identification) would be materially altered? No impact
- The physical demolition, destruction, relocation or alteration of a unique archaeological resource? Potentially significant\*
- The direct or indirect destruction of a unique paleontological resource? No impact
- The direct or indirect destruction of a unique geological feature? No impact
- The disturbance of any human remains, including those interred outside of formal cemeteries? No impact

\*Reduced to a level of less than significant with identified mitigation measures. Refer to the following discussion.

### Historical Resources

Since the site is vacant, there is no evidence that the project area has historic value or is considered an historical landmark. There is no evidence of any historical resources located at the project site, and no historical resources would be demolished or affected by the proposed development of the project site.

### Paleontological Resources

Development of the project site as proposed would not be expected to result in the disturbance of any paleontological resources, as no such resources have been identified at the project site.

## Archaeological Resources

With its coastal location, South San Francisco has a rich history of Ohlone settlements, consisting of Native American Village sites and shell mounds scattered around the city. Known resources include a Native American archaeological village located within the El Camino Corridor Redevelopment Area, and a large shell mound and two small shell middens near the south slope of San Bruno Mountain. In this context, the project site may contain prehistoric or historic archaeological resources.

Although no cultural or archaeological resources have been recorded on the property, it is still possible that subsurface archaeological materials may be present at the project site, obscured by dense vegetation. These materials could be encountered during site preparation and construction. If buried material were present, the resources could be inadvertently damaged or destroyed by grading activities.

### ■ IMPACT: Archaeological Resources

Although there is no evidence to date of any archaeological materials at the project site, development of the proposed project could possibly impact archaeological resources. This represents a potentially significant impact associated with the proposed project.

### MITIGATION MEASURE: Archaeological Resources

(A) A qualified archaeologist should be present to monitor the initial preparation of the site (stripping and grubbing) prior to the start of construction. If cultural materials are encountered, there shall be no further disturbance of the site until the materials have been evaluated by a qualified archaeologist, and appropriate treatment measures have been identified.

(B) In the event of discovery of any human remains, there shall be no further disturbance of the site until the coroner of San Mateo County 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, the descendants from the deceased Native Americans have made a recommendation to the landowner or 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. If 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, or if the

landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner, then the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Taken together, these mitigation measures would reduce the potential impact to a level of less than significant.

### **Unique Ethnic Cultural Values**

The project site is not regarded as a resource significant to any specific ethnic group.

### **Religious or Sacred Uses**

Project development as proposed would not restrict any existing religious or sacred uses on, or in the vicinity of, the project site. Since the 1960's, the site has been extensively altered and disturbed. The proposed project is not likely to disturb any human remains, including those interred outside formal cemeteries.

No unique geologic or physical features are identified at the project site.

## 6. GEOLOGY AND SOILS

Would the project result in:

- The exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving 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? Potentially Significant\*
- The exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving strong seismic ground shaking? Potentially significant\*
- The exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving seismic-related ground failure, including liquefaction? Less than significant
- The exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving landslides? Potentially Significant\*
- Substantial soil erosion? Potentially Significant\*
- The loss of topsoil? Less than significant
- Development located on a geologic unit or soil that is unstable (or that would become unstable as a result of the project) and which could potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? Potentially Significant\*
- Development located on expansive soil, creating substantial risks to life and property? Potentially Significant\*

- Development in areas where soils are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? No impact

\*Reduced to a level of less than significant with proposed mitigation. Refer to the following discussion.

## Geology

The project site is located near the top of a ridge within the hillside zone of South San Francisco and ranges in elevation between 530 to 550 feet (mean sea level). Located on the San Francisco Peninsula, the surrounding project area consists of a northwest-trending range of hills that level out towards San Francisco Bay, on the east, and toward the Pacific Ocean, on the west. The geology of the site has been determined through a series of geologic field mapping, aerial photo interpretation and subsurface investigation. The most distinctive geologic feature of the project area is the presence of the San Andreas fault which trends northwestward along the San Francisco peninsula, south of Daly City. The site is mapped as underlain at the surface (prior to grading and filling) by rocks of the Franciscan complex to the west of the fault and by the Merced formation to the east. The Franciscan complex bedrock consists largely of greenstone, which outcrops on the slope and in a small area of the level field in the southwestern portion of the site. Trenching on the site also revealed small lenses of serpentine in association with the greenstone. The sediments of the Merced formation to the east consist of interbedded marine siltstone and sandstone. In the southwestern portion of the site, trenches revealed the possible remains of an ancient landslide deposit that appears to extend from half-way up the steep slope down to the level, central portion of the site.

The site, subject to previous grading activities, is overlain by extensive fills that vary widely in composition, engineering properties and degree of consolidation. Engineered fill was placed on the upper slopes (for the widening of Westborough Boulevard in the late 1960's or early 1970's). Other earth materials at the site consist of engineered fill on the lower, flatter portion of the site, colluvium or landslide deposits on the central, mid-slope area, natural soil horizons and greenstone bedrock. Most of the fill is deposited in the central portion of the site, over the former deep trough created by the San Andreas fault.

## Seismicity

Two geotechnical investigations of the site were conducted by Earth Systems Consultants, in February and July, 1997<sup>14</sup>. A related geotechnical study was conducted in 1968 for the proposed improvement of Westborough Boulevard, situated to the west and north of the site<sup>15</sup>. The site is situated within an "Earthquake Fault Zone" identified by the California Division of Mines and Geology. The locations of the San Andreas fault traces and the boundaries of the Earthquake Fault Zone are shown on Figure 3. At least three active traces of the San Andreas fault are located on the site: the main trace (along which rupture occurred during the 1906 earthquake) lies beneath the fill in the center of the site. Two other traces exist on either side of the main trace. All three traces of the fault are considered to be active and capable of co-seismic events and ground rupture. The main San Andreas fault, which traverses the site, has caused many earthquakes during most recent historic time, including the large events of 1838, 1905 and 1989.

The Working Group on California Earthquake Probabilities (Group), 1990, estimates a 67% probability that one or more major earthquakes will occur in the Bay Area during the 30-year period of 1990-2020. The Group estimates a 23% probability of a Richter magnitude 7+ earthquake occurring on the Peninsula segment of the San Andreas fault. For the Hayward fault, located almost 19 miles east of the site, the Group estimates a 23% probability of a magnitude 7 earthquake on the southern segment and a 28% probability of 7 on the northern segment. From historical records and data interpretation, the Group finds it probable that the Westborough area will have strong ground motion resulting from at least one earthquake with a 6 to 8 magnitude and probably a number of lesser events during the life of any new construction on the site.

## Ground Shaking and Surface (Fault) Rupture

Earth Systems Consultants<sup>16</sup> estimated peak horizontal acceleration (seismic shaking potential) for the project site, for various San Francisco Bay Area faults, using the

<sup>14</sup> Geologic and Seismic Investigation, Westborough Unit Five, February, 1997.  
Soil Engineering Study, Westborough Unit Five, Parcel 2, Residential Subdivision, July, 1997.

<sup>15</sup> Gribaldo, Jacobs, Jones and Associates, "Westborough Boulevard Improvement, South San Francisco, California, Corrective Grading and Embankment Stabilization", prepared for City of South San Francisco, dated August 30, 1968.

<sup>16</sup> Geologic and Seismic Hazards Investigations, Westborough Unit 5, February, 1997.

EQFAULT (1994) program. For a magnitude 8 earthquake on the San Andreas fault at the site, the peak horizontal acceleration is estimated to be 0.692; for a 7.5 magnitude (closest point) on the Hayward fault, the peak horizontal acceleration is estimated to be 0.199<sup>17</sup>.

Ground rupture (surface faulting) tends to occur along lines of previous faulting. The 1906 trace of the San Andreas fault traverses the project site, but is presently buried beneath deep fill (central portion of site). As mentioned above, two other fault traces are identified in the bedrock materials on either side of the main trace fault. The potential for ground rupture to occur is considered to be very high for a 25 foot zone on either side of the three identified traces. Although the nature of fill and precise location of the underlying fault are not known, the potential for surface rupture within the filled portion of the site is considered high. The potential for ground rupture outside the identified San Andreas fault zone is considered low.

Seismic risk to future structures on the site is largely dependent on the distance of the structure from the source fault and its epicenter, the character of the earthquake, the underlying geologic, groundwater and soil conditions, and the type of construction for each structure.

### **Seismic-Induced Ground Failures**

Other secondary ground failures, including liquefaction, lurch cracking, lateral spreading, and slope failure, can occur at sites where near-surface earth materials are weak combined with strong ground shaking. The potential for liquefaction at the site is considered low. Earth Systems Consultants did encounter several spring zones near the ground surface, but all the natural and fill materials on the site contained significant amounts of clay (no clay-free sands were found on the site). The high clay content of the fills and residual soils on the site indicate that the shrink-swell capability of these materials is high.

The potential for lateral spreading is considered to be moderate to high on steep slopes overlain by fill or by the old shallow landslide deposit; but considered low elsewhere on the site. The potential for lurch cracking is considered to be moderate within the deep fills in the central portion of the site and in the vacant lot in the northeastern corner, but low elsewhere. The presence of perennial shallow groundwater in the southwestern portion of the site may contribute to potential local settling, slope instability and/or seismically-induced ground failures.

<sup>17</sup> Based on the attenuation relationships of Idriss (1994) for a "rock/stiff soil" site using the EQFAULT program.



## **Slope Failure**

As mentioned above, Earth Systems Consultants discovered an irregular, weathered deposit of unstructured silty clay in the southwestern portion of the site that indicated the remains of a possible ancient slope failure (landslide). There is no indication of recent activity of this deposit and the potential for further movement of this mass is considered low. Shallow slope failures (less than 10 feet thick) could occur within some of the unconsolidated fill deposits on the site, particularly where they lie on exposed, over-steepened slopes overlain by fill or on the ancient landslide deposit. These hazards will increase during the rainy season when the ground is saturated or under seismic loading. The potential for deep, regional-scale landsliding on the site is considered low.

### **■ IMPACT: Seismic Shaking and Fault Rupture**

A moderate to major earthquake on the San Andreas fault or a major earthquake on the Hayward, Calaveras, or Seal Cove faults is expected to cause severe (violent to very strong) ground shaking on the project site during the economic life-span of any construction. Seismic shaking could damage structures and infrastructure at the site. This represents a potentially significant impact related to the proposed development and residential population of the project site.

### **MITIGATION MEASURE: Seismic Shaking and Fault Rupture**

(A) The most current applicable seismic provisions of the Uniform Building Code design requirements shall be followed by the project structural engineer to minimize potential damage to structures due to seismic shaking.

(B) The project geotechnical consultant shall provide anticipated seismic ground accelerations to the project structural engineer for consideration in structural design. All structures on the site shall be designed to accommodate anticipated ground shaking.

(C) In accordance with recommendations of Earth Systems Consultants, residential development (structures for human occupancy) must be restricted to two areas on this site determined to be free of active faults: the vacant lot in the northeastern corner and most of the greenstone bedrock area in the southwestern corner of the site. The remainder of the site shall be utilized only for non-habitable structures or open space. Utilities shall not be built within the geologic setback zone or cross the fault zone, unless equipped with

flexible pipes that accommodate earth movement without failure and/or automatic shut-off valves or any other safety designs that the utility provider deems necessary.

Taken altogether, these mitigation measures would reduce, but not totally eliminate, the potential impacts associated with seismic shaking and fault rupture at the project site. Although the presence of these geologic conditions would increase the vulnerability of the project site to ground shaking, the implementation of these measures would reduce the risks to persons and the proposed structures at the project site to levels generally considered acceptable according to engineering standards for projects of this type in the seismically active San Francisco Bay Area. Therefore, implementation of these measures would reduce this impact to a level of less than significant.

#### ■ **IMPACT: Seismic-Induced Ground Failures**

The potential for secondary seismic ground failures on the project site is considered high for lateral spreading on steep slopes overlain by fill and over the ancient landslide deposit. Likewise, lurch cracking could occur within the deep fills of the central portion of the site, or in the vacant lot in the northeastern corner of the site. This is a potentially significant impact, particularly in areas of shallow groundwater and during seismic loading.

#### **MITIGATION MEASURE: Seismic-Induced Ground Failures**

The project applicant shall be required to demonstrate that all steep slopes at the project site, particularly those which exceed 2:1, will remain stable during earthquake-induced ground shaking, under seismic loading and saturated conditions. The soils engineer shall provide recommendations for corrective grading, based on the soil engineering results and characterization of the fills and shallow landslide deposits in the southwestern portion of the site. This would reduce the potential impact to a level of less than significant.

### **Soils**

A geotechnical investigation of the project site was conducted by Earth Systems Engineering, in 1997. Subsurface exploration consisted of six trenches to a depth between 8 to 12 feet and five exploratory borings to a depth of 27 to 47 feet. Although a number of water inflow zones were encountered near the ground surface during former trenching operations, the natural and fill materials encountered in the

soil borings contain significant amounts of clay. The surface and near surface native soils exhibit a moderate shrink-swell (expansive) potential. Expansive soils are susceptible to cycles of shrinking and swelling as soils dry and become saturated due to fluctuations in water content. Routine laboratory testing of the soil borings and trenching analysis indicated that the subject site is suitable for the proposed residential subdivision and related facilities, from a geotechnical and geological viewpoint, provided the geologic mitigation measures (and grading recommendations, below) are integrated into the design and construction of the project.

■ **IMPACT: Expansive Soils**

Plasticity testing of soil borings by Earth Systems Consultants indicate that expansive soils are present on the site. Where expansive soils are present or used in fills, there is a potential for heaving of soil when the moisture content increases and shrinkage of the soil when its moisture content decreases. Differential movement of expansive soils can cause structural damage to buildings including cracking of foundations and concrete slabs. This represents a potentially significant impact.

**MITIGATION MEASURE: Expansive Soils**

(A) Proposed structures shall include a pier and grade beam foundation system and a premoisturizing program for the soil subgrades beneath concrete slabs-on-grade. The piers beneath each structure shall extend equally into compacted fill or firm, natural ground.

(B) A plan shall be implemented to control building site drainage in order to reduce variation in seasonal wetting and drying of expansive soils on the site.

Taken together, the implementation of these mitigation measures would reduce this impact to a level of less than significant level.

## **Grading**

Grading at the project site would be extensive. Substantial grading will be required to create roadways and building sites for the proposed project (residential and storage units). As shown in **Table 3**, the total grading quantity (cut and fill, each) is about

30,670 cubic yards. As shown on the Site Grading Plan<sup>18</sup>, development will include cut and fill thicknesses of up to 15 feet, with an average depth between 4 and 6 feet. Other improvements include driveways, patios, sidewalks, and other structures. The proposed height of retaining walls is 10 to 12 feet to be constructed along the hillside to provide yard space and to support the residences. Other minor retaining walls will be constructed along the proposed streets. Such grading will result in significant changes in site topography. Grading would also include the clearing of vegetation and topsoil and foundation excavation, although additional earth movement would be anticipated with proposed utilities and roadway improvements.

**Table 3: Preliminary Grading Quantities**

Parcel Number	Cut	Fill
Parcel 1	18,960 cubic yards	9,390 cubic yards
Parcel 2	11,710 cubic yards	21,280 cubic yards
Parcel 3	Unknown	Unknown
Total	30,670 cubic yards	30,670 cubic yards

#### ■ **IMPACT: Grading**

From a geotechnical perspective, the proposed grading and earthmoving activities could result in significant impacts related to cut slope stability, fill settlement and stability, and erosion. These grading and earthmoving activities could entail potentially significant environmental effects, particularly related to erosion.

#### **MITIGATION MEASURE: Grading**

(A) All grading at the project site shall fully conform with the City of South San Francisco Excavation Ordinance, Urban Runoff Pollution Prevention Ordinance, and Uniform Building Code, (1998 Edition). The project applicant shall obtain a permit to excavate from the City of South San Francisco, and shall comply with all conditions of that permit (including the depth limitations, fencing requirements and the requirement to remove any rock, earth or other material which may be dropped or deposited on any public street or place

<sup>18</sup> Oakmont Vistas Site Grading Plan, Westborough Unit 5, Tronoff Engineers, Surveyors, Planners, January, 1998.

from any vehicle transporting such materials from the project site). The project shall incorporate erosion control and Best Management Practices (BMP's) and restrict all grading to the non-rainy season (defined as from October 15 to April 15).

(B) All grading at the project site shall be conducted in such a manner as to prevent storm damage to public or private property of others by flooding, erosion, deposition of debris or any other damage resulting from grading work.

(C) Areas to be graded should first be cleared and stripped to remove topsoil and vegetation. Vegetation and debris should be removed from the site, with top soil stockpiled on-site for re-use in landscaping.

(D) Site clearing, preparation of fill areas, placement of subdrains, placement of fill and other grading operations at the site shall be conducted in accordance with all the recommendations contained in the Earth Science Consultants Report dated July, 1997<sup>19</sup>, and as recommended by the Geotechnical Engineer in the field. The work associated with site mass grading should be performed under the observation of a qualified geotechnical representative of the applicant. This will allow for design changes in the event actual subsurface conditions differ from those anticipated prior to the start of construction. In addition, all unstable material, including landslide deposits, soft and wet material shall be removed in cut, keyway and bench areas. Subsequent scarification and placement of fill and potential subdrains will be per the Earth Systems Consultants recommendations in the July, 1997 report. Cut portions of cut/fill building pads shall be overexcavated to provide a uniform thickness of fill beneath the structures and compacted as structural fill.

The effective implementation of these mitigation measures would reduce the potential impacts associated with grading at the project site to a level of less than significant.

Since the project site is not located near any large body of water, it would not be subject to the hazards associated with seiche or tsunamis. There are no active volcanoes within the San Francisco Bay Area which would present any volcanic hazards at the project site.

<sup>19</sup> Soil Engineering Study, Westborough Unit Five, Parcel 2, July, 1997, pages 14-24.

There is no evidence to suggest that the project site would be subject to region-wide landsliding or mudflows. The proposed development will not require the use of septic tanks or alternative wastewater disposal systems because sewers are available in the area for the disposal of wastewater.

## 7. HAZARDS AND HAZARDOUS MATERIALS

Would the project result in:

- The creation of a significant hazard to the public or the environment through the routine transportation, use or disposal of hazardous materials? No impact
- The creation of 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? Potentially Significant\*
- Hazardous emissions within one-quarter mile of an existing or proposed school? No impact
- The handling of hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school? No impact
- Development located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (if such development would create a significant hazard to the public or the environment)? No impact
- Development located in an area covered by 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), if it would result in a safety hazard for people residing or working in the project area? Less than Significant
- Development within the vicinity of a private airstrip, if it would result in a safety hazard for people residing or working in the project area? No impact
- Impairment or physical interference with the implementation of an adopted emergency response plan? No impact

Impairment or physical interference with the implementation of an adopted emergency evacuation plan? No impact

- Exposure of people or structures to significant risk of loss, injury or death involving wildland fires (including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands)? No impact

\*Reduced to a level of less than significant with proposed mitigation. Refer to the following discussion.

The project as proposed would not create a significant hazard to the public or the environment through the routine transportation, use or disposal of hazardous materials. The project will involve the construction and occupation of residential homes, and the storage of materials in mini-warehouses, and would not involve the transportation or disposal of hazardous materials that could be released into the environment. The average household on the project site may at times purchase and store cleaning products, paint solvents and garden-related supplies that may be classified as hazardous waste, but will be of such limited quantities and stored in such a manner that these would not pose a significant threat to impacting the subsurface soil or groundwater.

Development of the project site as proposed would not result in any increase in the risk of accidental explosion. The project is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and maintained by the San Mateo County Environmental Health Department or Department of Toxic Substances Control<sup>20</sup>. However, portions of the project site were filled in the 1960's before regulatory requirements to monitor the source and contents of fill material were in effect. It is possible that some of the existing fill at the project site might contain materials which would now be classified as hazardous (although no hazardous materials have been identified at the project site to date). Such materials (if found to exist on-site) could be released during site preparation and excavation work, which would represent a potentially significant impact associated with the proposed project.

<sup>20</sup> Conversation between Lamphier & Associates and Gail Lee, San Mateo County Environmental Health Department, and James Stettler, Department of Toxic Substances Control, June 14, 1999.



■ **IMPACT: Possible Exposure of Hazardous Materials**

Due to the unknown character of fill materials previously placed at the project site, it is possible that such fill may contain hazardous materials which, if exposed during the course of site preparation and excavation work, could represent a potentially significant adverse environmental impact associated with the proposed project.

**MITIGATION MEASURE: Halting Work on Encountering Materials Believed to be Hazardous**

In the event that materials which are believed to be hazardous are encountered during site preparation or excavation work, all such activity at the project site shall be halted until the material in question has been evaluated by the South San Francisco Fire Department and/or the San Mateo County Environmental Health Department. Prior to the resumption of work at the project site, implementation of appropriate response measures and disposal methods in accordance with applicable state and local regulations and as approved by the Fire Department would reduce the impact to a level of less than significant.

The project site is located less than a quarter of a mile from Westborough Junior High School. This school is situated northeast of the site on Westborough Boulevard. The project will not result in the handling of hazardous materials or the transport of hazardous materials; therefore, the project would not pose a significant risk to students attending the junior high school nearby.

South San Francisco's General Plan currently does not have a Safety Element that specifies policies for preventing and responding to various types of disasters in the city. The Emergency Response Plan currently serves as the primary vehicle for establishing emergency policy<sup>21</sup>. Project development is not expected to interfere with any emergency response plans or emergency evacuation plans.

There are no known health hazards associated with the project site, and there is no reason to believe that any person would be exposed to any existing source of potential health hazards as a result of project development. Compliance with the Uniform Building Code and Fire Code, as amended by the City of South San Francisco, will ensure that people living in the proposed residential structures and

<sup>21</sup> City of South San Francisco, South San Francisco General Plan: Existing Conditions and Planning Issues, September, 1997, p. 10-40.

using the proposed storage facilities are not exposed to health hazards or potential health hazards.

Development of the project site as proposed would not result in any increase in the risk of accidental explosion or release of hazardous substances. Project development would not interfere with any emergency response plans or emergency evacuation plans. The project as proposed would not create any health hazard or potential health hazard, and would not result in the exposure of people to any existing sources of potential health hazards. The landscaping associated with project development is likely to reduce, rather than increase, the level of fire hazard at the project site.

The project site, along with an adjacent area bounded by Skyline, Carter and Athy Drives to the northwest, has been designated as a "Low Priority Management Unit" area, one of eight areas identified by South San Francisco that require vegetation management or other measures to reduce wildland fire risk and increase the potential for successful fire suppression. The project site is identified as having the lowest fire risk and is described as follows:

*Westborough. The Westborough Management Unit consists of patchy grass and scrub vegetation located on previously graded pad and slope. Residences occur east of the unit and access from Westborough Boulevard is good.*<sup>22</sup>

The site has good access for fire suppression units in the event of a fire, and fire hazard reduction recommendations for the project site include "Combination of hand and mechanical labor to clear a 100-foot buffer around residences"<sup>23</sup> (to the east). In addition, Fire Station No. 4 is located nearby in the Westborough area, on Galway. The development of the project site will remove it from the designation of Low Priority Management, but the site will remain adjacent to the vacant brushy area to the northwest. The proposed project will be reviewed by the South San Francisco Fire Department, which will establish any conditions which will have to be met prior to the issuance of a building permit to ensure that any wildfire hazard on any portion of the project site has been reduced to an acceptable level consistent with project conditions.

<sup>22</sup> South San Francisco General Plan: *Existing Conditions and Planning Issues*, September, 1997, page 10-11.

<sup>23</sup> Ibid, page 10-12.

The project site is located approximately four miles from San Francisco International Airport (SFIA), a commercial aviation facility. A *SFIA Airport Land Use Plan* was prepared by the San Mateo County Airport Land Use Commission which identifies standards for different types of development in areas impacted by aircraft noise. The project site is situated beyond two miles of SFIA and is situated outside the 65 dB noise contours as well as the aircraft noise and noise insulation program area. According to aircraft operation statistics, about 427,475 annual aircraft operations were recorded for SFIA in 1990.<sup>24</sup> The project site is situated well outside the safety zones established for SFIA runways and it is highly unlikely that future residents or mini-warehouse workers/users at the site will be subject to any safety hazards resulting from SFIA operations. The project site is not within the vicinity of any private airstrip that could expose future residents to safety hazards.

<sup>24</sup> South San Francisco General Plan: *Existing Conditions and Planning Issues*, September, 1997, page 13-9.

## 8. HYDROLOGY AND WATER QUALITY

Would the project result in:

- A violation of any water quality standards? No impact
- A violation of any waste discharge requirements? No impact
- Substantial depletion of groundwater supplies such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? No impact
- Substantial interference with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? No impact
- Substantial alteration of the existing drainage pattern of the site or area (including through the alteration of the course of a stream or river) in a manner which would result in substantial erosion or siltation on- or off-site? Potentially Significant\*
- Substantial alteration of the existing drainage pattern of the site or area (including through the alteration of the course of a stream or river) in a manner which would result in flooding on- or off-site? No impact
- A substantial increase in the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? No impact
- The creation (or contribution) of runoff water which would exceed the capacity of existing or planned stormwater drainage systems? Potentially Significant\*

- The creation (or contribution) of substantial additional sources of polluted runoff? Potentially Significant\*
- A substantial degradation of water quality? Less than Significant
- The placement of housing within a 100-year flood hazard area as mapped on the federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? No impact
- The placement of structures within a 100-year flood hazard area which would impede or redirect flood flows? No impact
- The exposure of people or structures to a significant risk of loss, injury or death involving flooding (including flooding as a result of the failure of a levee or dam)? No impact
- Inundation by seiche, tsunami or mudflow? No impact

\*Reduced to a level of less than significant with proposed mitigation measures. Refer to the following discussion.

The following hydrology and water quality assessment of the proposed project was conducted by **Questa Engineering**.

## **Topography and Climate**

The site is located in the northern portion of the San Francisco Peninsula, a northwest-trending range of hills that divide San Francisco Bay and the Pacific Ocean. The site is predominantly open grassland with some native chaparral bushes, a few larger conifers, and willows along the southeastern side of the site.

Elevations on site vary between 490 feet at the southern perimeter of the site to approximately 630 feet at the top of the slope by Fleetwood Drive and Westborough Boulevard. The site slopes gradually from the north, starting at an elevation of 525 feet, to the south, at an elevation of about 490 feet.

The project site lies on an east-facing slope, near the top of a ridge. Extensive grading and filling were performed on the site in the 1960's and early 1970's as part of the development of Westborough Boulevard and the surrounding area. The present site is dominated by a broad, gently sloping field. Moderate to steep slopes exist along the western and southwestern perimeter of the site. Two low, linear ridges were constructed on the eastern and southern perimeters of the site to separate the project site from existing homes on Oakmont Drive. These berms also direct overland flow towards the southeast corner of the site.

The average annual rainfall in the South San Francisco area is approximately 22 inches<sup>25</sup>. The climate of the region is characterized as Mediterranean, with wet winters and dry summers. The region's "rainy" season extends between the winter months of November and April, with relatively dry conditions for the remainder of the year. Temperatures may range from below freezing at night in the winter to above 100 degrees Fahrenheit during the summer months.

## Regional Hydrology

### Surface Runoff

Under pre-development (i.e., existing) conditions the surface runoff from the site flows via overland flow to the central southeastern portion of the site. This flow is generally directed into an existing 12-inch storm drain. A drop inlet for this storm drain is plugged with sediment. At present overland runoff bypasses this inlet and exits the site at the southeast corner as sheet flow onto Shannon Drive. Runoff travels in the street until it flows into a storm drain inlet at the corner of Shannon Drive and Oakmont Drive. The 12-inch storm drain flows down Oakmont Drive within the City of San Bruno jurisdiction to Olympic Drive, approximately 1/3 of a mile southeast of the site. The 30-inch storm drainage line runs down Olympic Drive, which re-enters City of South San Francisco jurisdiction, and connects to a 30-inch RCP pipe at Westborough Boulevard (**Figure 16**). From Westborough Boulevard the runoff continues to flow via the subterranean storm drainage system into Colma Creek, in South San Francisco, west of the project site. The watershed area for the site drainage, shown in **Figure 16**, is approximately 97.6 acres.

<sup>25</sup> Pacific Southwest Interagency Committee, "Factors Affecting Sediment Yield and Measures for the Reduction of Erosion and Sediment Yield," U.S. Forest Service, Berkeley, California, 1978.

### Sub-Drainage/Groundwater Flow

A number of springs were encountered on the site during trenching operations for the geologic and seismic hazards investigation on the project site<sup>26</sup>. The groundwater was measured at depths of about 12 to 19 feet, at about elevation 540 feet<sup>27</sup>. The presence of hydrophilic vegetation (willows, bunch grasses) in the southwestern portion of the site suggest a seasonally perched groundwater table.

A network of subdrains were installed within the project vicinity in conjunction with development of the Monte Verde Subdivision, directly to the east and southeast of the project site, in the early 1960's<sup>28</sup>. An unknown number of these subdrains underlie the fill slope below Westborough Boulevard on the project site. The existing surface and subdrainage piping system for the site vicinity is shown in **Figure 17**. The subdrains are 8 to 12-inch perforated transite pipes, typically surrounded by backfill drain rock at a depth of up to 50 feet. As shown in **Figure 17** the subdrains converge near the intersection of Dublin and Olympic Drives.

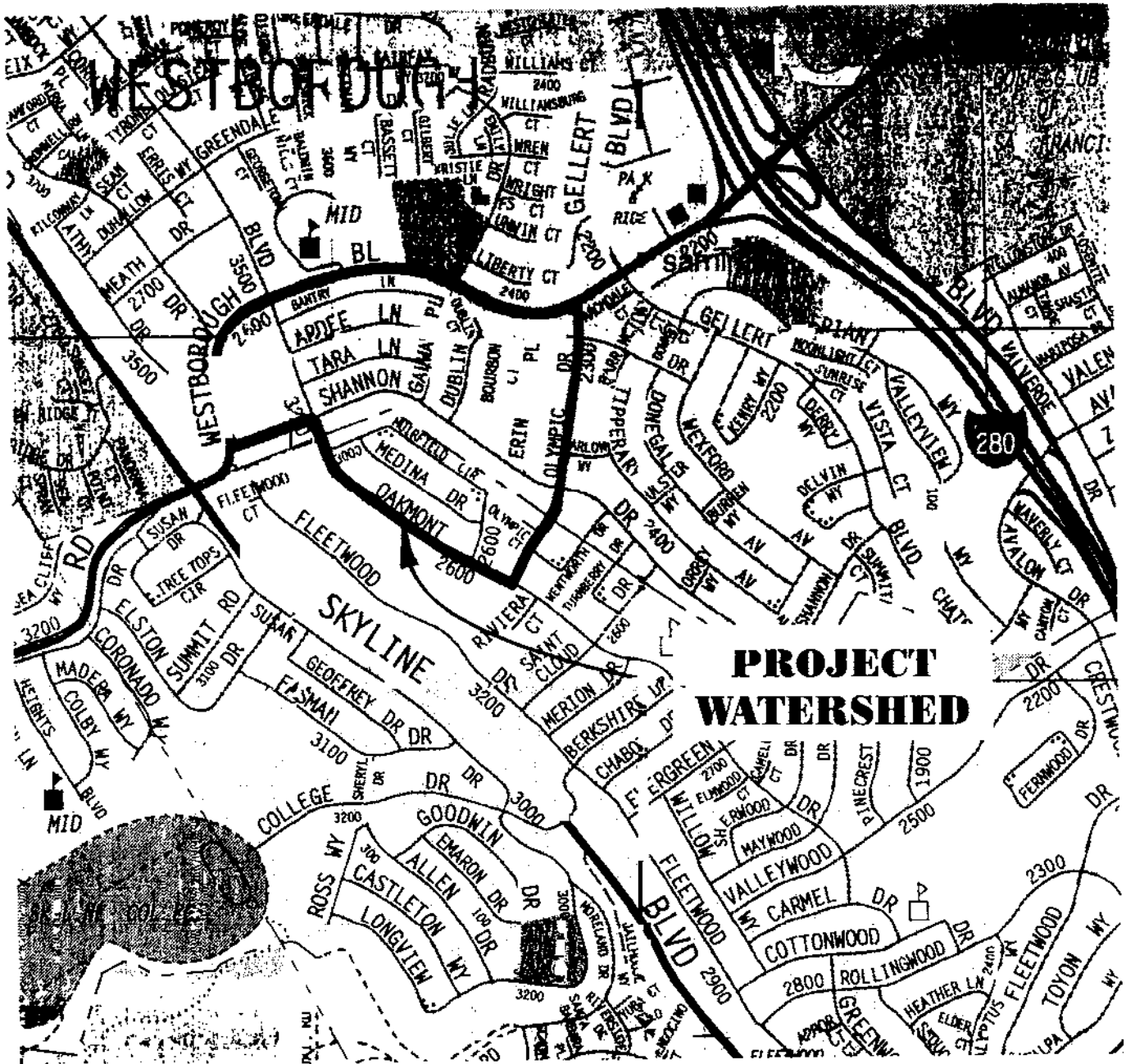
<sup>26</sup> Earth Systems Consultants Northern California, 1997. Geologic and Seismic Hazards Investigation, Westborough Unit 5.

<sup>27</sup> Ibid.

<sup>28</sup> Provenzano, Joseph, 1996. Geotechnical Investigation of Continuing Subsurface Problem at 2601 Oakmont Drive; San Bruno, California.

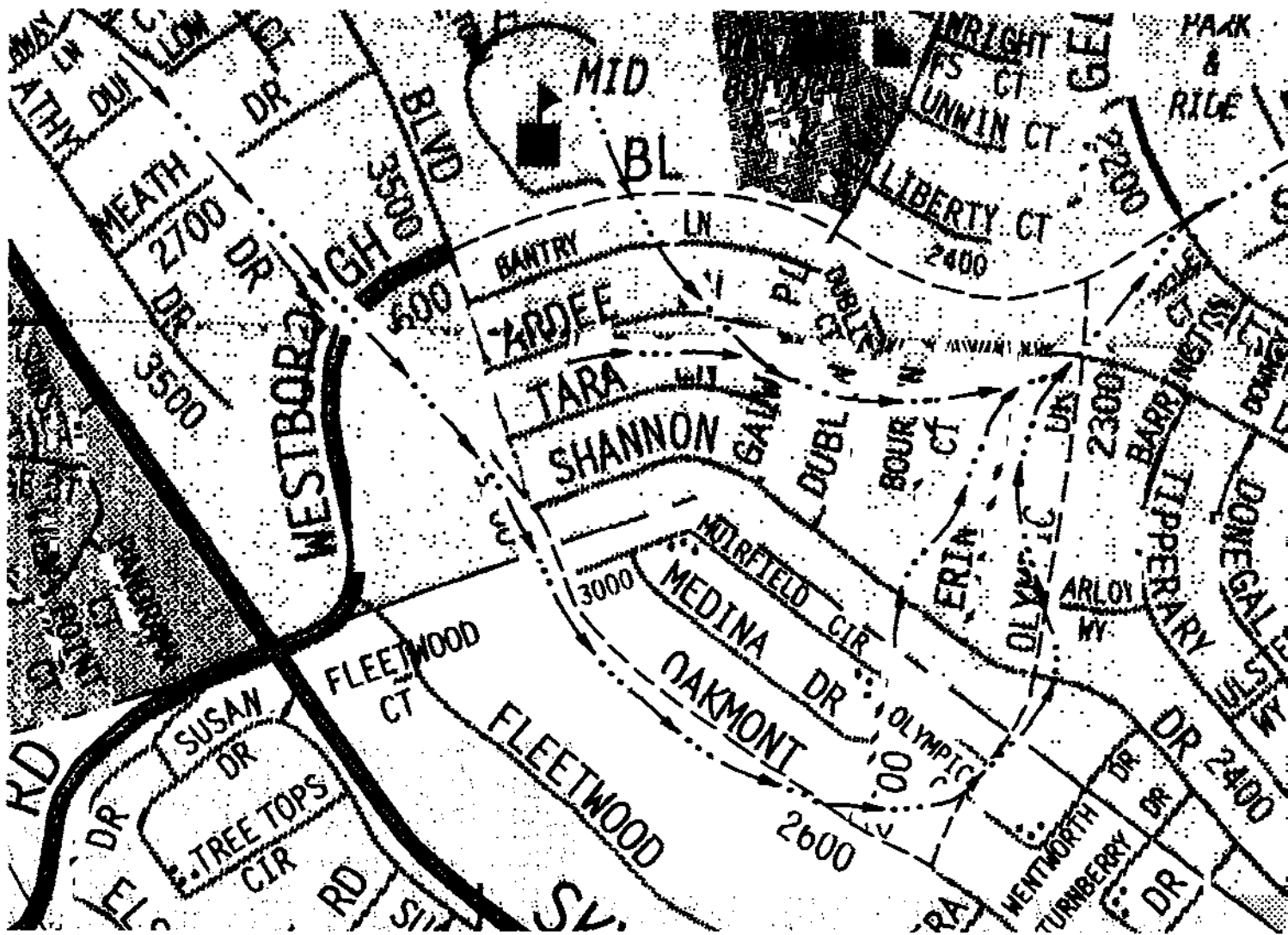
Figure 16

Project Watershed Area





**Figure 17 Storm Drains and Sub-Drains in Project Area**



**LEGEND**

- · · · · · → · · · · · = SUB-DRAIN
- — — — — = STORM DRAIN

**APPROXIMATE SCALE 1" = 600'**

## Historic Sub-Drainage Problems

Subdrainage problems have been reported in the Monte Verde Subdivision since 1980. A number of geotechnical engineering firms<sup>29</sup> have studied the subdrainage issues in the vicinity of the project site, and a summary of their findings is provided here.

From April 1968 through April 1969, the City of San Bruno's Department of Public Works received complaints of house damage and land deformation at 2601, 2611, 2621, 2641, 2661, and 2681 Oakmont Drive. Claims and lawsuits were filed for four of these residences. The conclusion by geotechnical engineers was that the damage appeared to be caused by a breakdown of the subdrain system underlying Oakmont Drive<sup>30</sup>.

In 1980 two homes at the corner of Dublin and Olympic Drives were destroyed by a large sinkhole<sup>31</sup>. The cause of these sinkholes is not certain, but it was noted that the sinkhole occurred at the location where all of the subdrains in the Monte Verde Subdivision converge.

More recent investigations have been conducted at 2601 Oakmont Drive, a property that has experienced progressive settling. Geotechnical engineering studies concluded that the settling at 2601 Oakmont Drive was likely caused by excessive amounts of water entering the subdrain which passes under Oakmont Drive, causing flow under pressure to back-up into the surrounding drain rock, and subsequently causing a soil piping action which results in settling<sup>32</sup>.

<sup>29</sup> Gribaldo Jones and Associates, 1969. Investigation of Distress to Residences at the Monte Verde Subdivision. AND, Hallenbeck Associates, 1994. Geotechnical Engineering Evaluation of Residence @ Oakmont Drive, San Bruno. AND, Provenzano, Joseph, 1996. Geotechnical Investigation of Continuing Subsurface Problem at 2601 Oakmont Drive; San Bruno, California. AND, Earth Systems Consultants Northern California, 1997. Geologic and Seismic Hazards Investigation, Westborough Unit 5.

<sup>30</sup> Gribaldo Jones and Associates, 1969. Investigation of Distress to Residences at the Monte Verde Subdivision.

<sup>31</sup> Provenzano, Joseph, 1996. Geotechnical Investigation of Continuing Subsurface Problem at 2601 Oakmont Drive; San Bruno, California.

<sup>32</sup> Ibid.

## Drainage

### Westborough Unit 5 Peak Runoff Impacts

Westborough Unit 5 is 10.1 acres and is divided into three parcels. The proposed project would have a total combined impervious area of approximately 5.56 acres, as shown in Table 4.

**TABLE 4**  
**Westborough Unit 5 Proposed Developed Area Designation**  
**(Impervious Areas)**

Parcel	Total Area (Acres)	Impervious Area (Acres)	Non-Impervious Area (Acres)
<b>Parcel 1:</b>	4.91		
Access Roads		1.01	
Storage Buildings		2.54	
Hillside/Landscape			1.35
<b>Parcel 2:</b>	5.02		
Streets/Sidewalks		1.06	
Homes/Driveways		0.90	
Retaining Walls		0.02	
Recreation Area			2.09
Home Yard Area			0.98
<b>Parcel 3<sup>33</sup>:</b>	0.17		
Home/Driveway		0.03	
Yard Area			0.03
Hillside			0.11
<b>Totals</b>	10.1	5.56	4.56

<sup>33</sup> Existing site plans do not include specifications for the residential lot on Parcel 3. Designated areas for Parcel 3 are assumed based on plans for Parcel 2.

The proposed project would modify the runoff characteristics of the site through the creation of impervious surfaces and the installation of an expanded storm drainage system. These project changes would increase the rate and volume of runoff from the site. A comparative hydrologic analysis<sup>34</sup> of "pre-project" (i.e. existing) versus "post-project" peak runoff conditions is provided in Table 5.

TABLE 5

**Pre- and Post-Project Peak Storm Water Discharges Without Drainage Mitigation**

Recurrence Interval	Pre-Project Bantry Lane Peak (cfs)	Pre-Project Shannon Drive Peak (cfs)	Post-Project Bantry Lane Peak (cfs)	Post Project Shannon Drive Peak (cfs)
10-year	0	2.3	9.3	7.6
100-year	0	3.3	13.6	13.4

SOURCE: Questa Engineering Corporation, 1998.

**Notes:**

1. Calculations completed using the Rational Formula and rainfall runoff data from San Mateo County.
2. A runoff coefficient of 0.2 was used to estimate the pre-project conditions. A weighted composite runoff coefficient of 0.7 was used to estimate post-project conditions in Parcel 1, and a weighted composite runoff coefficient of 0.52 was used to estimate post-project conditions in Parcels 2 and 3.

Under the existing drainage conditions all runoff drains into a 12-inch storm drain at Shannon Drive, as described in the Regional Hydrology section. The drainage conditions will be altered for the proposed development due to grading, building construction and implementation of a storm drainage system. Post-project drainage will be directed to two points: (1) a 15-inch storm drain at Bantry Lane which will receive runoff from Parcel 1; and (2) the existing 12-inch storm drain connecting to Shannon Drive which will receive runoff from Parcel 2, and most likely from Parcel 3. The 15-inch storm drain at

<sup>34</sup> Using the Rational Formula, as described in "Manual of Standards for Erosion & Sediment Control Measures," Association of Bay Area Governments, 1995.

Bantry Lane currently receives no runoff. No drainage plans were provided for the residential lot on Parcel 3. It is assumed, however, that runoff from Parcel 3 will be directed via storm drains to the proposed storm drainage system on Parcel 2.

The post-project peak discharge rate at the storm drain inlet at Bantry Lane will be approximately 9 and 14 cfs for the 10- and 100-year storm events, respectively. From the inlet at Bantry Lane the storm drain flows to a 30-inch RCP pipe at Westborough Boulevard, approximately 50 yards from Bantry Lane. No hydraulic calculations have been provided by the project engineer to determine the capacity of the 30-inch RCP pipe at Westborough Boulevard.

Parcel 2 runoff will be collected in a system of storm drain inlets, and runoff will exit the site via the existing 12-inch storm drain at Shannon Drive<sup>35</sup>. It is assumed that runoff from Parcel 3 will be directed via a storm drainage pipe to a storm drain inlet near the southwest corner of Parcel 2. A 0.3-acre detention basin, located at the eastern portion of Parcel 2, is planned to reduce post-project peak discharge rates to pre-developed conditions<sup>36</sup>. During dry periods the detention basin will serve as a recreation area. A flow diverter will be designed to divert low flows (approximately  $\leq$  the pre-project 10-year flow rates) to the existing 12-inch storm drain and high flows (approximately  $>$  the pre-project 10-year flows) will be directed to the detention basin<sup>37</sup>. The detention basin will be approximately 2-feet deep and have a storage capacity of approximately 0.5 acre-feet. The project engineer has not yet designed the flow diverter or the outlet structure for the detention basin. Therefore, discharge estimate calculations were not available for analysis in this report. The calculated peak discharge rate at the existing 12-inch storm drain at Shannon Drive will be approximately 7 and 13 cfs for the 10- and 100-year storm events, respectively. These calculations represent the worst case scenario, as the effect of the planned detention basin is not incorporated in the calculations.

#### ■ **IMPACT: Increased Peak Runoff Rates**

Development of the project site will increase the peak runoff rates for the 10- and 100-year recurrence interval storm events. This represents a potentially significant impact associated with the project.

<sup>35</sup> Tronoff Engineers, Parcel 2 Westborough Unit No. 5, January 12, 1998.

<sup>36</sup> Tronoff, Theodore. Personal communication; December 3, 1998.

<sup>37</sup> Ibid.

**MITIGATION MEASURE: Increased Peak Runoff Rates**

(A) No hydraulic analyses have been conducted by the project engineer to determine the capacity of the storm drains at Westborough Boulevard and Oakmont Drive. If the capacity of these storm drains are not sufficient, mitigation measures, such as detention, must be included in the drainage plan. The applicant must include hydraulic calculations in the drainage plan and submit them to the City of South San Francisco for review.

(B) The project engineer has proposed a detention basin in Parcel 2 to maintain post-project peak runoff at or below current levels. However, in order to achieve pre-project discharge rates the flow diverter and outlet structure of the detention basin must be designed appropriately to restrict outflow. In addition, to assure long-term operation and maintenance of the detention facility, the applicant should develop a drainage system operational plan. The design specifications and the drainage system operational plan must be included in the drainage plans and submitted to the City of South San Francisco for approval. The operational plan should specify how the detention facility would be operated, routine maintenance needs, emergency response procedures, and should designate a responsible party to oversee day-to-day operations and maintenance requirements.

(C) Drainage plans for Parcel 3 must be included in the project plans and submitted to the City of South San Francisco for review. The plans for Parcel 3 must include design specifications for outlet protection at the base of the slope bordering Parcels 2 and 3.

The implementation of the above mitigation measures would reduce this impact to a level of less than significant.

**Flooding and Other Water-Related Hazards****Runoff Volume**

The vicinity of the project site is not located within a designated floodway as defined by the Federal Emergency Management Agency's National Flood Insurance Program.<sup>38</sup> No specific flooding problems in the vicinity of the project have been identified. The proposed development will increase the volume of runoff delivered to downstream drainage facilities, due to increased impervious areas and decreased

<sup>38</sup> FEMA; Community Platt #065062007B. September 2, 1981.

infiltration of runoff into the soil. The detention facility incorporated into Parcel 2 would alter the rate at which runoff leaves the site and mitigate project increases of flooding problems. If designed properly, the detention facility should adequately address the effects of increases in runoff volume from Parcels 2 and 3. Further, if sized adequately, the storm drain at Bantry Lane which receives runoff from Parcel 1, should adequately convey increased runoff volumes to the 30-inch storm drain at Westborough Boulevard.

## **Water Quality**

Soil erosion can cause numerous types of environmental impacts. Eroded soils can contain nitrogen and phosphorus, which when carried into water bodies can trigger algal blooms. Extensive blooms of algae can reduce water clarity, deplete oxygen concentrations, and create unpleasant odors. Excessive deposition of sediments in stream channels can blanket fauna and clog stream beds, degrading the habitat for fish and aquatic invertebrates. Increased turbidity due to suspended sediments may also reduce photosynthesis that produces food supply and natural aquatic habitat. Finally, sediment from project-induced onsite erosion could also be deposited in the downstream receiving channel of Colma Creek, which could interfere with the natural flow of storm waters, aggravating downstream flooding conditions.

Soil erosion and subsequent sedimentation and water quality effects could occur during project construction. This would represent a potentially significant impact. Grading will occur on the entire 10-acre site and quantities of cut will equal fill (30,670 cubic yards, not including grading quantities for Parcel 3)<sup>39</sup>. Grading will occur on approximately 2 to 20 percent slopes. The natural vegetation which acts to stabilize the soil will be removed from considerable portions of the graded area.

The earth materials at the site consist of engineered fill on the upper slopes and lower, flatter portion of the site, colluvium or landslide deposits on the central, mid slope area, with natural soil horizons and greenstone bedrock beneath these materials. These soils are generally clayey sands and gravelly clays. The bedrock at the site consists of Franciscan Complex greenstone. These soils present a significant potential for accelerated erosion on disturbed areas, particularly the steeper slopes<sup>40</sup>.

<sup>39</sup> Tronoff Engineers, Site Grading Plan for Westborough Unit No. 5, January 12, 1998.

<sup>40</sup> Earth Systems Consultants Northern California. 1997. Soil Engineering Study, Westborough Unit 5, Parcel 2.

The Site Grading Plan<sup>41</sup> designates sedimentation/silt basins for Parcels 1 and 2 during construction. A temporary silt basin will be installed in Parcel 1 to provide silt removal and retention for the initial site grading of Parcel 1. The recreation area basin in Parcel 2 will be utilized to provide silt removal and retention for Parcel 2 drainage during the construction phase. The basin in Parcel 2 will be retained to serve permanently as a flow detention basin to reduce peak runoff flows from the project. These sedimentation basins are required as part of good construction best management practices mandated by City grading ordinances. No construction-related erosion protection measures are designated in the current site grading plan for Parcel 3, which is particularly susceptible to erosion due to the steep slope on this parcel.

■ **IMPACT: Increased Erosion During Construction**

The soils at the project site are susceptible to erosion during construction activities because: 1) grading of exposed soils will occur on moderate to steep slopes (2 to 20 percent); and 2) the soils on the site are moderately susceptible to erosion. This is a potentially significant impact associated with the proposed development of the project site.

**MITIGATION MEASURE: Increased Erosion During Construction**

(A) The applicant must obtain a general construction activity storm water permit (for construction sites greater than five acres) under the National Pollutant Discharge Elimination System (NPDES) regulations. As part of the NPDES permit, the applicant must prepare a Storm Water Pollution Prevention Plan (SWPPP), which should include an erosion control plan covering Parcels 1, 2 and 3. The erosion control plan should identify the location of specific erosion control measures to be implemented during construction. Erosion control measures and soil stabilization techniques such as straw mulching, erosion control matting, hydroseeding, revegetation, and preservation of existing vegetation should be utilized, in accordance with the regulations outlined in the Association of Bay Area Governments "Erosion & Sediment Control Measures" manual. These erosion control best management practices should be monitored for effectiveness and should be subject to inspection by the licensed design professional who prepares the erosion control plan (and the SWPPP).

<sup>41</sup> Cronoff Engineers, Site Grading Plan for Westborough Unit No. 5, January 12, 1998.



(B) The comments regarding erosion control recommended by the project soils engineers<sup>42</sup> should be fully incorporated into the grading plans prior to the issuance of a grading permit.

(C) After construction is completed, all drainage facilities and sedimentation basins should be inspected for accumulated sediment, and these drainage structures should be cleared of debris and sediment.

(D) Grading and earthwork should be prohibited during the wet season (normally October 15-April 15), and such work should be stopped before pending storm events.

Taken together, these mitigation measures would reduce the potential impact associated with soil erosion during construction to a level of less than significant.

### **General Urban Runoff Pollutant Discharge**

Urban residential and commercial developments contribute non-point source pollutants to the landscape which can be detrimental to water quality. Non-point source pollutants are washed by rainwater from residential areas, landscape areas, playgrounds, and roadways. Urban non-point source pollutants come from a variety of sources including household products and home maintenance supplies, landscape materials and products (pesticides, herbicides, and fertilizers), oil and grease and heavy metals from automobiles, and petroleum hydrocarbons from fuels. For the proposed project, the pollutants of primary concern include suspended solids and floating debris, litter, nutrients and pesticides, heavy metals and petroleum hydrocarbons.

#### **■ IMPACT: Non-Point Source Pollution**

Under the existing site and grading plans no water quality protection measures are designated. The development of a residential subdivision and self-storage units on the project site will involve the construction of roads and parking areas, landscaped areas, and residences and storage buildings. These facilities will contribute non-point source pollutants to the landscape which will be washed into the local drainage system, Colma Creek and ultimately the San Francisco Bay, representing a potentially significant impact.

<sup>42</sup> Earth Systems Consultants Northern California. 1997. Soil Engineering Study, Westborough Unit 5, Parcel 2.

Studies indicate that pollutant concentrations are highest during the first few minutes of a storm, i.e. the first flush<sup>43</sup>. Therefore, the cumulative load of pollutants contributed during the first flush of storms of all sizes is significant. As designed, there are no mitigation measures to reduce the water quality impact from the first flush of runoff from Parcels 1 and 2. The detention basin in Parcel 2 utilizes a flow diverter which directs low flows and the first flush of storm water away from the detention basin directly to the storm drain at Shannon Drive. Therefore, the detention basin will provide only minimal water quality benefit.

#### **MITIGATION MEASURE: Non-Point Source Pollution.**

(A) The applicant must prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) as part of the NPDES permit which they must obtain from the San Francisco Regional Water Quality Control Board. Requirements of the SWPPP include identification and evaluation of potential sources of pollutants associated with activities at the site. In addition, the SWPPP should determine the location and nature of potential water quality impacts. Finally, the SWPPP must identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants in storm water discharges. The SWPPP is developed as a tool for pollution prevention, and should be sufficiently flexible to meet the specific needs of the project.

(B) Best management practices may include a variety of pollution prevention and pollution control measures. They include non-structural practices (maintenance procedures, activity schedules, prohibitions of practices, education/awareness measures, and source control measures) as well as structural practices (treatment measures, and runoff controls).

1. The detention basin in Parcel 2 should be redesigned such that the first flush of stormwater passes through the basin, providing enhanced treatment.
2. Oil and grease/sediment traps or filters should be installed and maintained to provide treatment of runoff from Parcel 2, particularly from vehicle parking areas. These areas can be sources of petroleum products, grit from engine leaks and pavement decay. The oil and grease/sediment traps consist of large buried concrete tanks (similar to septic tanks) through which runoff is directed. In the tanks, sediment settles to the bottom and the oil and grease congeal and float to the

<sup>43</sup> Horner, R., J. Skupien, E. Livingston, and H. Shaver. 1994. Fundamentals of Urban Runoff Management: Technical and Institutional Issues. Terrene Institute, Washington, D.C.

surface where they are trapped. An oil and grease/sediment trap should be installed near the Shannon Drive entrance to the residential subdivision.

3. Filters, such as "Fossil Filters", are set within drainage inlets to collect oil and other contaminants from runoff without impeding hydraulic capacity. These filters contain an absorbent material specifically designed to allow water to flow through the filter while absorbing heavy metals, silt, debris, and petroleum-based contaminants. Filters should be installed in the storm drain inlets in Parcels 1 and 2. The oil, grease and sediments should be pumped-out periodically from oil and grease/sediment tanks, and the filters should be removed at least annually prior to each rainy season.

4. Utilization of vegetative treatment practices, such as bioswales, can reduce the water quality impacts of parking area and roadway runoff in Parcel 1 to less-than-significant levels. A bioswale is an earthen conveyance system in which pollutants are removed by filtration through grass and infiltration through soil. Bioswales use terrestrial grasses and other fine herbaceous plants growing in a channel in which water flows at some depth. Ideal characteristics are dense, uniform growth of fine-stemmed plants which are tolerant of the area's water, climatological, and soil conditions. Bioswales act to remove pollutants primarily by the filtering action of the grasses, by settling, and in some instances, by infiltration into the subsoil. Pollutant uptake by the plant material is not a principle removal mechanism of grass-lined bioswales. Bioswales that increase detention, infiltration and uptake by wetland-type plants within the swale have the potential to substantially improve removal rates, particularly of soluble pollutants. A bioswale should be installed adjacent to the entrance roadway in Parcel 1, and should discharge to the storm drain inlet at Bantry Lane.

Taken together, these mitigation measures would reduce the potential impact associated with non-point source pollution to a level of less than significant.

## **Groundwater**

### **Quantity of Groundwater**

*Beneficial Impact: Reduction of Groundwater Infiltration.* As described in the Historic Sub-Drainage Problems section, several properties in the vicinity of the project site have been damaged in the past 20 years. The evaluation by a number of geotechnical

engineering firms is that these property damage problems have been caused by the subdrainage system in the vicinity<sup>44</sup>.

The proposed development of Westborough Unit No. 5 will have a beneficial impact with regard to the subdrainage problems because there will be an approximate 70 percent reduction in infiltration. The proposed development will have approximately 241,000 sq. ft. (5.53 acres) of impervious surfaces, which is approximately 55 percent of the site area. By increasing the amount of impervious surfaces on the site, surface runoff is increased, infiltration is decreased and less water is introduced into the subdrains underlying the site. While the proposed project will certainly not fix the subdrainage problems occurring off-site, it will not make them worse, and may have a beneficial impact.

### **Subsurface Drainage**

#### **■ IMPACT: On-Site Wet Zones**

The existing site and grading plans include no specifications for dealing with on-site groundwater drainage. The presence of a seasonally perched groundwater table, seasonal springs, and associated wet zones (particularly at the base of the western slope by Westborough Boulevard), represents a potentially significant impact on site stability.

#### **MITIGATION MEASURE: On-Site Wet Zones**

In order to significantly reduce the potential for subdrainage problems on the project site, site grading and drainage measures should intercept and divert subsurface water away from the proposed structures. The soil engineering study<sup>45</sup> for the site recommends tying the existing subdrains along Westborough Boulevard into the Parcel 2 subdivision's storm drain system during mass grading. This measure should be implemented. In addition, as also recommended by the soil engineering study<sup>46</sup>, the subdrain pipe(s) that were broken during exploratory

<sup>44</sup> Gribaldo Jones and Associates, 1969. Investigation of Distress to Residences at the Monte Verde Subdivision. AND; Hallenbeck Associates, 1994. Geotechnical Engineering Evaluation of Residence @ Oakmont Drive, San Bruno. AND; Provenzano, Joseph, 1996. Geotechnical Investigation of Continuing Subsurface Problem at 2601 Oakmont Drive; San Bruno, California.

<sup>45</sup> Earth Systems Consultants Northern California. 1997. Soil Engineering Study, Westborough Unit 5, Parcel 2.

<sup>46</sup> Ibid.

soil trenching by one of the project applicant's geotechnical consultants should be repaired prior to or as part of reconstruction of the site's drainage system.

These mitigation measures would reduce the potential impact associated with on-site wet zones to a level of less than significant.

### **Groundwater Quality**

The ground water quality should not be impacted from the proposed project. The ground water table is 12 to 19 feet below the existing ground level. The soil column should be adequate to provide soil incorporation of non-point source pollutants that infiltrate the soil on site.

## 9. LAND USE PLANNING

Would the project result in:

- The physical division of an established community? No impact
- A conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental impact? Consistent
- A conflict with any applicable habitat conservation plan or natural community conservation plan? Consistent

\*Reduced to a level of insignificance (i.e. determined to be "consistent") with the approval of the requested General Plan Amendment and Zoning redesignation for Parcel 1. Refer to following discussion.

### General Plan Designation and Zoning

#### City of South San Francisco General Plan

The General Plan currently designates the project site for residential use at low density of 8.0 units per net acre. The 33-unit residential subdivision proposed for the 5 acres on Parcel 2 is consistent with the existing General Plan. Although the 4.9 acres situated on Parcel 1 is designated residential, such use would not be permitted due to the geologic setback areas (Earthquake Fault Zone) identified on the site (see Geologic Problems section, below). With these constraints, the mini-storage facility might be considered a compatible, "non-habitable" land use for the seismically-constrained portion of the site; however, the current General Plan designation for the site does not directly address (or permit) the proposed storage unit development for this project site.

The Land Use Element of the General Plan<sup>47</sup> provides a set of operating principles for retaining and enhancing the significant qualities of South San Francisco in the face of growth and change. They are:

- ***Policy 1: Hillsides.*** *Steep hillsides in excess of 30% grade should be retained in their natural state. Development of hillside sites should follow existing contours to the greatest extent possible. Grading should be kept to a minimum.*

The project site is located on a relatively steep, east-facing slope in the hillside zone of South San Francisco. The property rises from a relatively level terrain (Oakmont Drive) at an elevation of about 530 feet to the top of the slope (below Fleetwood/Westborough Boulevard) at approximately 630 feet. The slope has a very steep upper portion (2 feet (horizontal):1 foot (vertical) or 50% slope), an intermediate, moderately sloped area (4:1 or 25% slope), a central bench (6:1 or 17% slope), and a moderately steep lower slope (1.8:1 or 55% slope) which flattens out onto gently sloped terrain. With the exception of the southwestern corner of the site, most of the property was extensively filled, graded and recontoured during the early 1960's during the construction of Westborough Boulevard surrounding the western edge of the site. Therefore, the existing contours and slopes of the site do not resemble "natural" land features. The upper steep slopes on the southwestern edge and most of the lower steep slopes of the property (except Parcel 1) will be retained.

The proposed development and residential structures are designed to step new structures either up or down into the hillside as much as feasible to retain existing contours (slopes) of the site. The project will avoid development on the most steep (upper and lower) hillside portions of the site, which will be retained in their natural state. Nevertheless, a substantial amount of mass grading and earthmoving will be necessary to develop the proposed residential and storage units, associated streets, driveways and parking facilities on the site.

- ***Policy 2: Large Trees and Natural Vegetation.*** *Large trees and significant clusters of vegetation should not be removed without prior City approval.*

The proposed development will require mass grading of significant portions of the project area, which will remove the majority of existing vegetation (grasses and brush) on the site. The largest area containing existing trees is located outside but

<sup>47</sup> Land Use, Transportation, and Circulation Elements of the General Plan for the City of South San Francisco, Department of Economic and Community Development, Planning Division, 1986, as amended.

along the southern property-city limit line in San Bruno. A minor number of trees are located in the southwest portion of the site. Since this section has the steepest slopes, most of this tree vegetation will be retained in its existing state<sup>48</sup>. The project will require a grading permit from the city prior to any grading and vegetation removal on the site.

- ***Policy 4: Earthquakes and Landslides.*** *Because of potential earthquakes and landslides, extensive land filling and grading should be permitted only after an environmental impact report has been prepared and certified which fully addresses soil stability problems and appropriate mitigation measures have been required.*

The proposed development will not be approved by the city without a comprehensive environmental assessment and necessary mitigation measures that will avoid or reduce significant geologic impacts to a less than significant level. If approved, the geologic mitigation measures identified in this Proposed Mitigated Negative Declaration will be incorporated into the Project, and will be monitored by the City of South San Francisco and other agencies, as required.

- ***Policy 6: Utilities and Public Services.*** *No development proposal should be approved if supporting utility systems and public services are inadequate to accommodate the proposed development.*

The proposed project will be served by existing utilities (electricity, gas, water, cable, telephone, sewer, stormwater, etc.) that currently are extended to the site, but require upgrading or adjustments prior to connection. The plan proposes to utilize portions of the previously installed and active 12" storm drain and the 6" VCP sanitary sewer. Unused portions of these existing lines will be cut-off and filled or removed. Other requisite public services such as roads, schools, parks, etc. will either be provided by the development or by in-lieu or development impact fees as required by the city.

- ***Policy 8: View Preservation, Light, Air, and Solar Access.*** *View preservation, light, air, and solar access should be considered in the approval of all new projects in established areas.*

The proposed development will be subject to design review and approval by the city. The project is designed to preserve existing views of the San Francisco Bay

<sup>48</sup> Conversation between Lamphier and Associates and Ted Tronoff, P.E., November 12, 1978.



by the surrounding (uphill) neighborhood and view corridors and residential view lots will be established throughout the site to provide views of San Francisco Bay from the site to the east.

- ***Policy 13: Infill Properties.*** *The design of buildings on infill properties should be compatible with surrounding uses.*

The design of the residential units is intended to use similar building materials, architectural features and colors to complement the surrounding residential neighborhoods. The proposed storage units, although not a compatible use, will be designed to appear similar to residential buildings in the surrounding area and further be screened by vegetation and stepped into the hillside to not contrast with adjacent land uses or block/obscure existing Bay views.

- ***Policy 14: Residential Land Use Category.*** *The benchmark density (units per net acre of land) shall be the number of dwelling units proposed on a specific site for each 43,560 square feet of raw land exclusive of land allocated for streets or submerged land. When the average slope of a site is between 20% and 30%, the City may reduce the net density of a residential project up to 50% of the benchmark density in order to discourage grading and the destruction of natural hillside environment. For Low Density Residential, benchmark density should not exceed 8 dwelling units per acre.*

The proposed residential development on Parcels 2 and 3 consist of a density of slightly less than 8 units per net acre. As stated above, most of the site was significantly altered from its natural hillside state during the 1960's. The proposed residential units are designed with four styles (layouts) that either step up or step down into the existing hillside to conform the development to the natural contours of the site. The steeper (50% slope) southwestern portion of the site will be avoided as much as feasible. As a result of the earthquake setbacks and restrictions over half of the 10 acre site, the proposed residential development could be considered to be 50% of the allowable density for this vacant parcel.

- ***Policy 17: Single Family Planned Unit Developments.*** *The use of planned developments should be encouraged in single family residential projects to maximize usable open space.*

As the City's General Plan recognizes, often the last remaining undeveloped properties, like the Project site, are suitable for low density development but have irregular shapes, limited street frontage or other physical constraints. The proposed development is subject to and the project applicant will seek to obtain

a Planned Unit Development in order to use innovative design and building cluster concepts to maximize common areas and open space on the site.

- **Policy 19: Neighborhood Maintenance.** *A city-wide property maintenance program should be instituted in all residential areas to eliminate conditions which would adversely affect property value.*

The project is designed so that each residential lot owner of Parcel 2 will have an equal share in the Oakmont Vistas homeowner's association which will own and maintain the common area, its slopes, streets and improvements.

- **Policy 20: Recreational Vehicles.** *Large motor homes, boats, campers, and other recreational vehicles should be screened from public view when stored on public properties. Recreational vehicles should not be allowed to encroach on the public right-of-way.*

The proposed Oakmont Vistas Homeowners' Association intends to exclude recreational vehicles in the deed restrictions (CC and R's) for the future residential development (Parcel 2).

- **Policy 38: Landscaping.** *Landscaping shall include a minimum of 15% of the trees as box specimens.*
- **Policy 39: Landscaping.** *A minimum of 10% of each site shall be landscaped.*

The proposed development for Parcel 1 and 2 will provide over 430 trees, according to the conceptual landscaping plan<sup>49</sup>. The proposed development on Parcel 2 will provide almost 60% of landscaping on the site, in excess of the minimum 10% required. The landscaping plan for Parcel 1 intends to provide numerous trees and shrubs along the masonry wall surrounding the site as well as on the interior, to screen the proposed storage buildings.

The project site is situated in Planning Area 10 of the City of South San Francisco, known as the *Westborough Area*. This area, located on the western edge of the city limits, is bounded by Junipero Serra Boulevard and I-280 on the east, King Drive (and Daly City) on the north, Skyline Boulevard on the west and San Bruno on the south. Built out in the late 1960's and early 1970's, the area is largely developed as

<sup>49</sup> Conceptual Landscape Plan, Westborough Unit 5, South San Francisco, Greg Ing and Associates, February 5, 1998 (revised April 13, 1998).

residential, with a mix of single-family, attached townhomes, condominiums and apartment units. Land use densities range from 7 dwelling units per net acre in the south up to 30 dwelling units per net acre in the north. Between 1976 and 1982, several major commercial centers were developed, including the development adjacent to the project site located on Westborough and Callan Boulevards. The site is one of two remaining vacant parcels in the planning area. Policies pertaining to the project site indicate that due to physical constraints relating to steep, sloping banks and the San Andreas fault, detached single-family dwellings or a low density cluster development would be an appropriate use for the site.

- ***Policy 10-2: Oakmont and Westborough.** The vacant Oakmont-Westborough property should be developed with low density, single-family detached or cluster development and designed to be compatible with the adjacent single-family dwellings. Direct vehicular access from the site to Westborough Boulevard should not be permitted.*

The development proposed for Parcels 2 and 3 is consistent with the above policy. The Project consists of low density development that would be clustered in areas to avoid trace faults and steeper slopes of the project area. The applicant is seeking a PUD to develop the site to accommodate a variation of setbacks, lot coverage and other special zoning requirements. Access to Parcel 2 will be provided from the current cul-de-sac of Shannon Drive, located off Oakmont Drive. Access to Parcel 3 is proposed via Fleetwood Drive, not Westborough Boulevard, and is consistent with the above policy.

The proposed development for Parcel 1 (self-storage units) does not consist of a use that is permitted in an area designated for low density residential and therefore is not consistent with the General Plan policies for this site. Access to Parcel 1 is proposed via a driveway off of Oakmont Drive.

The Noise Element<sup>50</sup> indicates that the most significant sources of noise in South San Francisco is aircraft flyover activity from San Francisco Airport; traffic and freeway noise from the Bayshore (I-101) freeway, Interstate 280, Junipero Serra Boulevard, and El Camino Real (82); and rail movements along the Southern Pacific (now Union Pacific) railroad corridor. (See also discussion in Noise section, below). The following policies from the Noise Element apply to the Project site:

<sup>50</sup> Noise Element of the South San Francisco General Plan, September 26, 1990.

- *Overall Noise Goal: To provide a safe and pleasant environment for all citizens, workers, and visitors of South San Francisco.*
- *Policy N-1: All new noise sensitive land uses developed within areas impacted by 65 dB CNEL<sup>51</sup> or more, regardless of the noise source(s), shall incorporate mitigation measures to ensure that interior noise levels do not exceed 45 dB CNEL.*
- *Policy N-8: The City shall evaluate development proposals based on the criteria contained in Table N-1 and shall only approve proposals that are consistent with criteria contained therein.*

According to a noise measurement and analysis study performed for the City in 1990<sup>52</sup>, the residential areas in the western portions of the City were found to be substantially exposed to noise from Interstate 280, Junipero Serra Boulevard, El Camino Real and Westborough Boulevard. Although the Project site is well beyond the 60 dB CNEL for San Francisco Airport, the site is subject to noise from vehicular traffic by its adjacency to Westborough Boulevard. The outer perimeter of the site along Westborough Boulevard is subject to noise levels between 60 and 65 dB CNEL.

Table N-1 of the Noise Element ("Land Use Compatibility Criteria for Aircraft Noise Impacts") indicates that for single family residential, a general land use recommendation of "satisfactory, with little noise impact and requiring no special noise insulation requirements for new construction" would correspond to sites exposed to a CNEL value of 65 dB or less, a recommendation of "new construction or development should be undertaken only after an analysis of noise reduction requirements is made and needed noise insulation features included in the design" would correspond to an  $L_{DN}$  value range of 65 dB to 70 dB, and a recommendation of "new construction or development should not be undertaken" would correspond to  $L_{DN}$  values exceeding 70 dB. For commercial, office uses, and playgrounds, land uses which are applicable to the proposed storage facility (within Parcel 1) and common park grounds (within Parcel 2), Table N-1 indicates a recommendation of "satisfactory, with little noise impact and requiring no special noise insulation requirements for new construction" would correspond to sites exposed to a CNEL value of 70 dB or less. Thus, the proposed Project at the Westborough Boulevard

<sup>51</sup> Community Noise Equivalent Level.

<sup>52</sup> City of South San Francisco Noise Measurements and Analysis for City Noise Element, John C. Freytag, P.E., April 6, 1990.

location appears to be compatible with the land use noise criteria set forth in the City's Noise Element.

The following policies of the Housing Element relate to the proposed development of the project site:

- *Policy 1B: Provide assistance to stimulate private housing development.*
- *Policy 1C: Encourage a variety of housing units in well planned neighborhoods.*
- *Policy 5A: Prohibit new residential development in areas containing major environmental hazards (such as floods, and seismic and safety problems), unless adequate mitigation measures are taken.*

The first policy relates to the City of South San Francisco providing support for private market construction. The second policy ensures that proposed development complies with the City's zoning ordinance and that adequate public facilities are provided to new residential development. The final policy will be implemented in terms of CEQA (environmental assessment) review for those projects proposed for environmentally constrained sites. Since the proposed project is located on a seismically active trace fault of the San Andreas, certain project design features and mitigation measures are integrated into the Project to reduce these hazards to a less than significant level (see Geologic Problems Section discussion, below).

The Open Space Element<sup>53</sup> establishes one of several policies which may apply to the proposed project:

- *Community Beautification Goal: To encourage the beautification of South San Francisco through the establishment of controls and community awareness programs.*
- *Policy: Landscaping standards and criteria should be prepared for all applicants constructing private developments.*
- *Policy: Regular maintenance standards should be applied to all private and public developments to assure long-range compliance with landscaping standards and improvements.*

<sup>53</sup> Open Space Element of the General Plan, City of South San Francisco, June, 1980.

The above policies will be enforced through the City's design review process and zoning code applications. The proposed project has an extensive landscaping plan to integrate the development into the residential neighborhoods along Oakmont Drive. Extensive tree plantings and associated vegetation is proposed for both Parcels 1 and 2. Furthermore, the project will include landscape maintenance as part of the long-term operations of the storage facility and the Oakmont Vistas subdivision.

Although the site is not formally designated as a park, recreation area or as open space, the proposed development of the project site would entail the loss of a 10 acre public open space currently situated in the Westborough community. Since the site is not currently used for any passive or active recreational purposes, and three other city parks are in the Westborough area, the development of the site would not, from an adopted land use policy standpoint, constitute a significant loss of open space in the area.

### **Zoning Designation**

The project site is currently zoned "R-1-E-P" (Single Family Residential). According to the South San Francisco Zoning Ordinance, this zoning designation permits single family residential at a maximum density of eight units per net acre and a maximum site area per dwelling unit of 5,445 square feet<sup>54</sup>. The "P" denotes that the site will require a Planned Unit Development permit. A Planned Unit Development permit would allow for clustered development, common areas, front, side, and rear yard setbacks, lot coverage and other variations from the single family zone regulations. Other allowed uses in the single family zone are community education, community recreation, cultural and library services, day care services, religious assembly, utility services, or agricultural uses. The proposed developments earmarked for Parcels 2 and 3 would meet the zoning requirements of this portion of the site, provided the City granted a Planned Unit Development for clustered residential development. The project applicant has applied for a Tentative Subdivision Map and Planned Unit Development permit for the project which, if approved, would allow the construction of the proposed 33-unit Oakmont Vistas development and one single family residence on Parcel 3. The existing zoning would not allow the development of a self-storage warehouse development on Parcel 1. According to the current zoning ordinance, such uses ("Personal Storage") are only allowed in areas zoned industrial. There are two similar storage developments in the Westborough area, one across from the site opposite the commercial center (on Meath Drive) and another is located to the north off Skyline Boulevard. Both these sites are surrounded by residential uses and were

<sup>54</sup> Chapters 20.16 and 20.69, South San Francisco Zoning Ordinance.

permitted prior to the adoption of the current zoning regulations regarding storage development in residential areas.

The project applicant for Parcel 1 has applied for a General Plan Amendment, Zoning Amendment and Rezoning and Use Permit to allow a mini-storage facility on the site. The City of South San Francisco's approval of such discretionary approvals for the proposed project would mean that the development of such a facility on a parcel zoned "R-1-E-P" would be generally consistent with the goals, objectives and policies of the General Plan, that it would be in the public interest and for the protection or enhancement of the community, that it would not create a public nuisance, cause excessive or unreasonable detriment to adjoining properties or premises, or cause adverse physical or economic effects to those properties or premises, and that it would result in equal or better development of the project site than would otherwise be the case in the absence of such an approval. **If the City of South San Francisco approves the requested General Plan Amendment, Zoning Amendment and Rezoning and Use Permit for Parcel 1, then the project, with appropriate mitigation measures and conditions of approval, will have been found to be consistent with the overall goals and objectives of the City.**

### **Environmental Plans or Policy Conflicts**

From a *physical site development* perspective, the project as proposed could be considered as consistent with the environmental policies of the City of South San Francisco. The General Plan environmental (hazard) policies that apply to the site include:

- Reduce allowable density by up to 50 percent where slopes are between 20 and 30 percent grade;
- Retain hillsides above 30 percent in their natural state;
- Require geologic report for development in areas of known seismic activity.

In summary, most of the site was significantly altered during the 1960's and does not constitute a natural hillside. Nevertheless, the proposed project will extensively grade and recontour portions of existing slopes that exceed 20 and 30% grades. Due to the earthquake setbacks and restrictions over half of the ten acre site, the proposed residential development is already less than 50% of the allowable density. Grading will be conducted to balance cuts and fill over the site. Geotechnical reports with extensive recommendations were prepared for the site and proposed development.

The recommendations of these reports are included as geologic mitigation measures in this environmental assessment (see **Geologic Problems** section). Further, the development is designed to step up or down in to the existing contours of the site, retaining the slopes as close as feasible to their existing grades.

Because of the physical constraints on the site including the trace faults of the San Andreas, residential development at the project site (Parcel 1 and the eastern portion of Parcel 2) would not be permitted. Although the proposed setback of proposed building structures from the three trace faults on the property and the non-habitable characteristics of a mini-storage facility would resolve potential impacts to human life and structural damage to on-site improvements, the storage development remains inconsistent with the General Plan and zoning regulations for the project site. **If the proposed Tentative Parcel Map, Tentative Subdivision Map and Planned Unit Development permit for Parcels 2 and 3, and the General Plan redesignation and zoning amendment for Parcel 1 are approved, then this would mean that the City of South San Francisco has found that the proposed development is not inconsistent with the environmental and land use policies of the City and is acceptable given the particular geologic and physical site circumstances present at the project site.**

### **Land Use Compatibility**

In the immediate vicinity of the project site are single family residential units along Oakmont Drive (east and south of the project), single family and multiple family homes along Westborough (west of the site) and a commercial shopping complex, residential and storage units (to the north of the site). The development of a 33-unit single family subdivision would be generally compatible with all of these land uses, provided that certain aesthetic and architectural design conditions were incorporated into the proposed development. With respect to the five building mini-storage complex, such a use would not be considered a compatible land use unless certain special conditions of approval were attached to avoid objectionable aesthetic (i.e. warehouse use) characteristics and to render the architectural, height and landscaping features of the development to be compatible with surrounding residential development. **If the proposed General Plan redesignation and zoning amendment for Parcel 1 is approved, then this would mean that the City of South San Francisco has found that the proposed development is not inconsistent with the zoning and land use policies of the City and is acceptable given the particular geologic circumstances present at the project site.**



### **Disruption of an Established Community's Physical Arrangements**

The project site is located in an area with a mix of existing single and multi-family residential and non-residential land uses. The development of a 33-unit residential development and single family dwelling, in addition to a five building self-storage complex at the project site would not significantly disrupt the physical arrangement of the surrounding area or any established community. The 1986 South San Francisco General Plan land use designation shows intent for development at this site, albeit for residential and not storage purposes.

The project will not conflict with any applicable habitat conservation plan or natural community conservation plan.

## 10. MINERAL RESOURCES

Would the project result in:

- The loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- The loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

All construction at the project should comply with current energy-efficiency standards and minimum requirements as established through the Uniform Building Code. Although the development at the project site would increase the demand for energy, this would not conflict with any adopted conservation plans, and the project would not use non-renewable resources in a wasteful and inefficient manner. No mineral resources have been identified at the project site, and project development would not result in the loss of access to any known mineral resource.

## 11. NOISE

Would the project result in:

- Exposure of persons to (or generation of) noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? No impact
- Exposure of persons to (or generation of) excessive groundborne noise levels? No impact
- Exposure of persons to (or generation of) excessive groundborne vibration? No impact
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? No impact
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? Potentially Significant\*
- Development located in an area covered by 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), if it would result in exposure of people residing or working in the project area to excessive noise levels? Potentially Significant\*
- Development within the vicinity of a private airstrip, if it would result in exposure of people residing or working in the project area to excessive noise levels? No impact

\*Reduced to a level of less than significant with proposed mitigation. Refer to the following discussion.

The Noise Element of the City of South San Francisco General Plan indicates that the most significant noise source adjacent to the site is generated by traffic along Westborough Boulevard.

According to a noise measurement and analysis study performed for the City in 1990<sup>55</sup>, the residential areas in the western portions of the City were found to be substantially exposed to noise from Interstate 280, Juniperro Serra Boulevard, El Camino Real and Westborough Boulevard. Although the Project site is well beyond the 60 dBA CNEL (Community Noise Equivalent Level) for San Francisco Airport, Interstate 280, Juniperro Serra Boulevard, and El Camino Real, the site is subject to vehicular noise by its adjacency to Westborough Boulevard. The outer perimeter of the site along Westborough is subject to noise levels between 60 and 65 dBA CNEL.

Table N-1 of the Noise Element ("Land Use Compatibility Criteria for Aircraft Noise Impacts") indicates that for single family residential, a general land use recommendation of "satisfactory, with little noise impact and requiring no special noise insulation requirements for new construction" would correspond to sites exposed to a CNEL value of 65 dBA or less, a recommendation of "new construction or development should be undertaken only after an analysis of noise reduction requirements is made and needed noise insulation features included in the design" would correspond to an  $L_{DN}$  value range of 65 dBA to 70 dBA, and a recommendation of "new construction or development should not be undertaken" would correspond to  $L_{DN}$  values exceeding 70 dBA. For commercial, office uses, and playgrounds, land uses which are applicable to the proposed storage facility and common park grounds within Parcels 1 and 2, Table N-1 indicates a recommendation of "satisfactory, with little noise impact and requiring no special noise insulation requirements for new construction" would correspond to sites exposed to a CNEL value of 70 dBA or less. Thus, the proposed Project, with average noise levels of 65 dBA CNEL or less along the Westborough Boulevard right-of-way, appears to be compatible with the land use noise criteria set forth in the City's Noise Element.

The proposed project would not expose new residents and users of the site to excessive groundborne vibration or to a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. The project, however, will generate temporary increases in noise levels from project construction activities on the site.

<sup>55</sup> City of South San Francisco Noise Measurements and Analysis for City Noise Element, John C. Freytag, P.E., April 6, 1990.

■ **IMPACT: Construction-Related Noise**

Construction at the project site could result in a temporary increase in existing noise levels, although these noise levels would not be regarded as severe. This would represent a potentially significant impact associated with project development.

**MITIGATION MEASURE: Construction-Related Noise**

The Project applicant shall limit the operation of any tools or equipment used in construction to the period between 8:00 AM and 8:00 PM on weekdays (except legal holidays) and between 9:00 AM and 8:00 PM on weekends, and would require the adequate muffling and proper maintenance of all construction equipment used at the project site, would reduce this impact to a level of less than significant.

Once construction at the project site is completed, those living and working in the project area would not be expected to significantly increase the existing noise levels in what is already a largely urbanized portion of South San Francisco, and the proposed development would not result in the exposure of people to severe noise levels.

Although the land use plans for the City indicate that the existing and future average (CNEL) noise levels at the Project site will remain the same or decrease over time (this is particularly true for aircraft operations from San Francisco Airport as the FAA and airlines phase out and replace noisier aircraft with quieter jets), many residents in the community are periodically annoyed by single noise events from San Francisco Airport. Projections of aircraft operations at San Francisco Airport indicate that while average (CNEL) will decrease, the number of aircraft operations will increase in the future.

■ **IMPACT: Aircraft-Related Noise**

Development of single family homes and the introduction of new residents to the project site could result in periodic, but temporary increases in existing and future noise levels (single event noise) from aircraft overflights, although these noise levels would not be regarded as severe. This would represent a potentially significant impact associated with project development.

**MITIGATION MEASURE: Aircraft-Related Noise**

The proposed project will develop single family homes and place future residents in a potentially noise sensitive area of South San Francisco. To provide safe and

comfortable noise levels for future residents, the project shall not have an interior noise level of more than 45 dB CNEL, through the use of dual pane windows, wall/ceiling insulation, weatherstripping, central ventilation systems or other building features to accomplish this goal. This mitigation measure would reduce this impact to a level of less than significant.

The project site is not located within the vicinity of a private airstrip, and therefore would not expose new residents and workers to excessive noise levels from this source.

## 12. POPULATION AND HOUSING

Would the project result in:

- The inducement of substantial 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)? No impact
- The displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? No impact
- The displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere? No impact

### Population Growth

The development of the project site as proposed would result in the addition of up to 33 new single family homes on Parcel 2, 1 new residence (caretaker's apartment) on Parcel 1, and 1 new single family residence on Parcel 3. The development of these three parcels could add up to 105<sup>56</sup> individuals to the population of South San Francisco. This would not represent a significant contribution to any exceedance of official regional or local population projections for the City. ABAG projects a future population of 68,600 by 2010 in South San Francisco, 11,000 more residents than currently now live in the city. Projected household growth in South San Francisco is expected to be 92 to 95 units per year through the year 2000, and increase to 179 households per year through the year 2010<sup>57</sup>. The project represents a small percentage of the population and household growth for the city.

<sup>56</sup> State Department of Finance, Table E-5, 1996. The State Department of Finance indicates an average household size of 3.0 persons in South San Francisco by 1997, which is higher than the County of San Mateo average household size of 2.7.

<sup>57</sup> 1990 U.S. Census, ABAG Draft Projections, 1998  
South San Francisco General Plan, Existing Conditions and Planning Issues, September, 1997

**Growth Inducement**

The City of South San Francisco is already largely developed, with limited potential for additional development, particularly in the Westborough Planning area. The proposed development of the project site (one of two last remaining vacant parcels along Westborough Boulevard) would not be expected to induce substantial additional growth in South San Francisco, either directly or indirectly.

**Housing**

The proposed project would not displace any existing housing.



### 13. PUBLIC SERVICES

Would the project result in:

- Substantial adverse physical impacts associated with the provision of (or need for) new or physically altered governmental 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?

No impact
- Substantial adverse physical impacts associated with the provision of (or need for) new or physically altered governmental 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 protection?

No impact
- Substantial adverse physical impacts associated with the provision of (or need for) new or physically altered governmental facilities, the construction of which could cause significant environmental impacts; in order to maintain acceptable service ratios or other performance objectives for schools?

No impact
- Substantial adverse physical impacts associated with the provision of (or need for) new or physically altered governmental facilities, the construction of which could cause significant environmental impacts; in order to maintain acceptable service ratios or other performance objectives for parks?

No impact
- Substantial adverse physical impacts associated with the provision of (or need for) new or physically altered governmental facilities, the construction of which could cause significant environmental impacts; in order to maintain acceptable service ratios or other performance objectives for other public facilities?

No impact

## Fire Protection

The construction of up to 35 new homes and storage facilities at the project site would not have a significant impact on the existing demand for fire protection services in South San Francisco. The existing level of firefighting personnel and equipment are adequate to serve those who would be living and working at the project site if it is developed as proposed. As discussed under the Hazards section, above, the landscaping associated with project development is likely to reduce, rather than increase, the level of fire hazard at the project site. Fire Station No. 4 is in close proximity to the site (Westborough and Galway) and access to the site is very good. Preliminary review by the Fire Department indicates that fire truck circulation and access to the interior of the proposed Oakmont Vistas development is acceptable. The Fire Department requires either a hammerhead, cul-de-sac or loop road be provided at or near the ends of Middle and Upper Courts with a 54' exterior turning radius and a 34' minimum interior turning radius. The project site plan provides a turn-around area that meets the required Fire Department radii for newer fire trucks to exit the site adjacent to unit #15 (Middle Court) and unit #33 (Upper Court). As for the storage building site plan on Parcel 1, fire truck circulation is acceptable<sup>58</sup>. The proposed development will provide an emergency vehicle access gate between Parcels 1 and 2 at the cul-de-sac between Storage Buildings No. 4 and No. 5. All plans for the proposed project may require further review by the South San Francisco Fire Department prior to approval.

## Police Protection

Those living and working at the project site following the proposed development would require police protection, but this increase in demand would not be considered significant, and the existing police force would be capable of handling any anticipated increase in the number of calls for police services without an increase in personnel or equipment. All plans for the proposed project would need to be reviewed by the South San Francisco Police Department prior to approval. The Crime Prevention Officer would need to evaluate the security implications of the proposed storage development on residents at and in the vicinity of the site and on visitors to the storage facility, while the Traffic Officer would need to evaluate the effects of the project on vehicular circulation in the vicinity of the site (see also Traffic and Circulation section, above).

<sup>58</sup> Conversation between Lamphier and Associates and Tom Ahrens, Assistant Fire Marshall, South San Francisco Fire Department, December 1, 1998.

## Schools

Development of the project site as proposed would add less than ten students to the local school district, and would not result in any increase in the demand for teachers, classroom space and other administrative services and educational facilities. According to the most recent South San Francisco Unified School District Five Year Facility Plan<sup>59</sup>, no individual school was filled to capacity within the school system. Existing facilities have sufficient capacity to accommodate the projected student population through 2001. Although no significant growth in student enrollments is projected, the SSFUSD intends to retain two closed school sites to accommodate future student growth. The project developer will be required to pay a development impact fee which provides a source of funds to the local school district based on the number of square feet of commercial and residential development at the project site, as per the current requirements of the school district and state law. The current fees are \$1.50 per residential square foot and \$0.15 per commercial square foot.

## Maintenance of Public Facilities

Construction activities at the project site could result in damage to Westborough Boulevard if proper precautions are not taken in operating heavy equipment and moving large loads. Although this is not considered a significant impact, the contractor should ensure that all project-related construction activities are conducted so as to minimize or eliminate any potential impacts to local roads.

With the proposed development, the amount of stormwater leaving the project site would increase. However, this increase would not be expected to exceed the current capacity of the City's stormwater collection system. As indicated in the discussion in the **Hydrology** section, above, the proposed project shall be designed to retain storm water on-site as feasible and with the capacity to carry peak storm discharges to adequate storm drainage facilities without damaging properties off-site.

## Other Government Services

The development of the project site as proposed would not be expected to result in any significant increase in the demand for any other government services. A discussion of the project's potential affects on park facilities is discussed in the **Recreation** section, below.

<sup>59</sup> South San Francisco Unified School District Five Year Facility Plan, January, 1997.

## 14. RECREATION

Would the project result in:

- An increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated? No impact
- The construction or expansion of recreational facilities which might have an adverse physical effect on the environment? No impact

The proposed project will be located in the Westborough Planning area. This area of the city does not have any deficiencies in terms of number and distribution of park facilities. This planning area currently has 3 parks and an extensive open space area relatively close to the project site (see **Table 6**, below).

**Table 6: Parks in Westborough Planning Area<sup>60</sup>**

Type/Park	Acres	Service Area	Location	Distance from the Site
<b>Community:</b> Westborough Park	11.3	City	Galway and Westborough	1/3 mile
<b>Neighborhood:</b> Selig Park	6.8	3/4 mile radius	Appian Way	3/4 mile
<b>Mini-Park:</b> Caldan Park*	2.5	1/4 mile radius	Carter and Cromwell	1/3 mile
<b>Open Space:</b> Common Greens	54	Varies	Skyline and Carter Drive	< 1/4 mile
<b>Total</b>	72.1			

\*Proposed

Development of the project site as proposed would not be expected to result in any significant increase in the demand for neighborhood and regional parks, or other local recreational facilities. Project development could bring over 100 new residents to the

<sup>60</sup> South San Francisco Unified School District; South San Francisco Parks, Recreation and Open Space Master Plan, 1997

Westborough area, seven<sup>61</sup> of which could be school-age children needing access to active play facilities. This increase would not have any measurable effect on existing recreational opportunities. Development of the project also includes the provision of over 2 acres of common area facilities to be used by future Oakmont Vistas residents. The City's Quimby Act Park dedication ordinance<sup>62</sup> requires 3 acres of park dedication for every 1000 persons projected to reside in a new subdivision. According to this requirement, the Project should set aside at least 0.3 acres of parkland for the proposed subdivision. The project's provision of over 1 acre of parkland within the new subdivision is in excess of the project requirements as required by the City's Quimby Act ordinance. The park will include a turfed play area as well as picnic benches and barbeque pits. The applicant of the proposed development intends to restrict access to this new park facility to only future residents of the Oakmont Vistas subdivision. Therefore, this will not have a beneficial impact on recreation opportunities in the Westborough area of South San Francisco.

If restrictions on public access to the park is not acceptable to the City, the applicant is amenable to providing public access to the park via a walkway from Shannon Drive and to construct and dedicate the park to the City. Under such an arrangement, the homeowner's association would either contract with a private firm for the maintenance of the facility or pay a yearly fee to the city for that purpose.

In addition to park dedication, the project will be expected to provide development impact fees to mitigate any potential impact on park recreation facilities.

<sup>61</sup> Based on Table 8-6 "Estimated South San Francisco Student Generation Rates", page 8-19, South San Francisco General Plan, Existing Conditions and Planning Issues, September, 1997.

<sup>62</sup> South San Francisco General Plan, *Existing Conditions and Planning Issues*, September, 1997, page 8-14.

## 15. TRANSPORTATION/TRAFFIC

Would the project result in:

- An increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersection s)? No impact\*
- Exceeding (either individually or cumulatively) a level of service standard established by the county congestion management agency for designated roads or highways? No impact
- A change in air traffic patterns (including either an increase in traffic levels or a change in location) that results in substantial safety risks? No impact
- A substantial increase in hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? No impact
- Inadequate emergency access? No impact
- Inadequate parking capacity? Potentially Significant\*\*
- A conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? No impact

\*Although the total number of vehicles utilizing local roadways would be anticipated to increase slightly following development of the project site as proposed, this increase is not projected to result in any significant deterioration in current levels of service at nearby intersections and along adjacent roadways. With no significant increase in traffic congestion associated with project development, this impact would be considered to be less than significant. See discussion below.

**\*\*Reduced to a level of less than significant with proposed traffic mitigation measures. Refer to the following discussion.**

**Crane Transportation Group** evaluated existing and future traffic and circulation conditions in the vicinity of the project site, as well as in the surrounding area. (For full report, see **Appendix B**). Project traffic impacts were analyzed for weekday morning and evening commute peak traffic conditions as well as the mid-afternoon period coinciding with the end of classes at Westborough Middle School. Impacts were evaluated at major intersections along Westborough Boulevard and at both project access intersections along Oakmont Drive. On-site circulation and parking adequacy were also evaluated. In the following discussion, measures are recommended to mitigate all significant impacts due to the project as well as to improve locations with existing deficient operation.

The following criteria are used to evaluate the significance of identified transportation and parking impacts and are considered to be standard professional practice. An impact is considered significant if any of the following conditions are met:

- If a *signalized or all-way-stop intersection* with Base Case (without project) volumes is operating at LOS A, B, C, or D and deteriorates to LOS E operation (or worse) with the addition of project traffic, the impact is considered to be significant and would require mitigation. If a Base Case *stop sign-controlled turn movement* deteriorates to LOS F operation with the addition of project traffic, the impact is considered to be significant and would require mitigation.
- If the Base Case LOS at a *signalized or all-way stop intersection* is already at LOS E or F, or the Base Case LOS of a *stop sign-controlled turn movement* is already LOS F, an increase in traffic of two percent or more due to the project is considered to be significant and would require mitigation.
- If traffic volume levels at a Base Case *unsignalized intersection* increased above Caltrans Peak Hour Warrant #11 criteria levels with the addition of project traffic, the impact is considered to be significant and would require mitigation.
- If proposed access, on-site circulation or parking is deficient based upon city code requirements or in the opinion of the registered traffic engineer conducting this study, the impact is considered to be significant and would require mitigation.

## Trip Generation

Table 3, in **Appendix B**, presents the expected trip generation from both the project residential and miniwarehouse components. Overall, about 60% of the total daily or peak hour traffic would be due to the proposed 34<sup>63</sup> single family units, with the remaining 40% due to the miniwarehouse facilities. Total project trip generation would be expected to be 18 inbound and 33 outbound trips during the AM commute peak hour (7:30-8:30 AM), 26 inbound and 27 outbound trips during the after school peak hour (2:45-3:45 PM) and 41 inbound and 19 outbound trips during the PM commute peak hour (5:00-6:00 PM).

Project residential trip generation rates were obtained from the traffic engineering profession's standard source of trip rate data—Trip Generation, 6th edition.<sup>64</sup> Over 270 single family subdivisions have been surveyed to obtain average trip rate data. However, due to the high number of bedrooms proposed in the project units (about half will be 4 bedroom units and half will be 5 bedroom units), average trip rates were increased by 20% to reflect the potential for a higher than average number of drivers and trip generation from each unit.<sup>65</sup>

Project miniwarehouse trip generation rates were obtained from two sources, the ITE Trip Generation, 6th edition manual and results of Crane Transportation Group surveys of two neighborhood miniwarehouse facilities. A comparison of rates, presented in the Appendix, shows that the local miniwarehouse facilities are generating traffic at rates 20 to 30 percent below average compared to the trip generation manual. To provide a conservative, worst case analysis, the project miniwarehouse units were projected to generate traffic at the higher ITE rates.

In regards to the type of vehicles that might be expected to access the miniwarehouse facilities, based upon the CTG surveys of two nearby facilities, 1 small truck (Ryder/U-haul) might be expected to enter and leave the facility during the morning commute peak hour, with 2 small trucks entering and leaving during the evening commute hour. All other vehicles would be cars, vans or pickups. A higher percentage of trucks would potentially be expected on weekends.

<sup>63</sup> Parcel 2 Site Plan contains 33 units; Parcel 3 contains 1 unit; for a total of 34 units.

<sup>64</sup> Institute of Transportation Engineers (ITE), 1957.

<sup>65</sup> City staff concurred with the higher than average rates.



### **Project Trip Distribution**

Project residential trips were projected to distribute to the local roadway system in a pattern similar to existing neighborhood residential traffic. Project miniwarehouse trips were projected to distribute primarily to the east and west along Westborough Boulevard with a lesser distribution to the north along Callan Boulevard and a small distribution to the residential area just south of the project. In **Appendix B**, Figures 7 and 8 present project traffic distributed to the local roadway network for AM and PM commute peak hour conditions respectively, while Figure 4 presents project traffic distribution for the after school peak traffic hour.

### **Project Intersection Impacts**

Tables 1A and 1C in **Appendix B** show that all signalized intersections along Westborough Boulevard would maintain acceptable LOS D operation during the AM and PM commute peak traffic hours with the addition of traffic from the project residential units only, the project miniwarehouse units only or combined residential and miniwarehouse traffic. Average vehicle delay would be increased by 2.5 seconds or less at each analyzed intersection due to project traffic. During the after school peak traffic hour, operation of the Westborough/Oakmont-Callan intersection would remain LOS C with the addition of project traffic. The project's stop sign controlled residential access approach to Oakmont Drive opposite Shannon Drive, and the project's miniwarehouse stop sign controlled access approach to Oakmont Drive opposite Bantry Lane would both be operating at LOS A conditions (minimum delay for turn movements) during all peak traffic periods. Overall, project level of service impacts would not be significant.

At the Westborough Boulevard/Gellert Boulevard intersection, while project traffic would not result in unacceptable levels of service, project vehicles would add to the eastbound Westborough (downhill) left turn movement, which now intermittently backs out of the available turn pocket storage length during the morning and evening commute peak hours. The project would increase the Base Case AM peak hour volume for this movement of 177 cars by 2 vehicles, an increase of 1.1 percent, and the PM Base Case volume for this movement of 234 cars by 4 vehicles, an increase of 1.7 percent. Since these are less than 2 percent increases, it is not considered a significant impact. The proposed project will not exceed any level of service standard established by the San Mateo County Congestion Management Agency.

## Project Access

### Residential (Parcel 2)

Sight lines for turn movements from the project residential access connection to Oakmont Drive are adequate in both directions (to the north and south). The extension of Shannon Drive into the site is 36 feet wide and would allow 2-way traffic flow as well as parking on both sides of the street. The Shannon Drive eastbound (project access) approach to Oakmont Drive has a downhill (west to east) grade of 7.7%. Both the roadway grade and width are within acceptable City code criteria.

### Miniwarehouse Facility (Parcel 1)

The miniwarehouse access driveway would be located along Oakmont Drive opposite Bantry Lane. The driveway would have a 15 foot wide inbound lane and a 12 foot wide outbound lane separated by an 8 to 9 foot wide island and would be located about 145 feet south of Westborough Boulevard (the center line of the driveway island from the south curbline of Westborough Boulevard). On average, a vehicle would be leaving the miniwarehouse facility once every 6 minutes during the AM commute peak traffic hour, and once every 4 minutes and 20 seconds during the PM commute peak traffic hour. The primary concern of the miniwarehouse driveway location is its proximity to Westborough Boulevard and the probability that a vehicle turning from Westborough Boulevard (particularly downhill eastbound vehicles making a right turn) will be confronted by a vehicle slowly turning from the miniwarehouse driveway. Based upon criteria in "A Policy on Geometric Design of Highways and Streets,"<sup>66</sup> the minimum stopping sight distance on a wet pavement for a vehicle traveling 20 mph is 125 feet; at 25 mph it is 150 feet. Although no value is presented for 15 mph, interpolation of results for higher speeds would suggest a stopping sight distance of 90 to 100 feet. A driver turning left from Westborough Boulevard to Oakmont Drive should be able to see (or become aware of) a vehicle turning from the miniwarehouse driveway at most 150 feet from the vehicle, and more likely 130 to 140 feet from the vehicle. A left turning driver would be traveling 15 to 20 mph when the vehicle exiting the miniwarehouse driveway is first sighted. Sight lines for left turning vehicles are therefore adequate. A driver turning right from Westborough Boulevard to Oakmont Drive should be able to see (or become aware of) a vehicle turning from the miniwarehouse driveway at most 130 to 135 feet from the vehicle, and more likely 125 feet from the vehicle. A right turning driver would be traveling 15 to 20 mph when the vehicle exiting the miniwarehouse driveway is first sighted. Since available sight lines would be borderline acceptable for vehicles turning

<sup>66</sup> American Association of State Highway and Transportation Officials, 1990.

right from Westborough Boulevard, the proposed location of the miniwarehouse driveway is not considered a potentially significant impact.

Turn movements to and from the miniwarehouse driveway would be conducted in a segment of Oakmont Drive with a significant amount of student jaywalking during brief pre- and post-school periods. Students would also be dropped off or wait at the bus stop immediately adjacent to the miniwarehouse driveway. Curb, gutter and sidewalks would be provided along the west side of Oakmont Drive between the existing sidewalk along Westborough Boulevard and the existing sidewalk which begins opposite Bantry Lane. Possibly the reason for so much jaywalking today is the lack of sidewalks along the project frontage. Provision of sidewalks by the project should steer at least some of the jaywalkers to the crosswalk at Westborough Boulevard. Overall, traffic entering and leaving the miniwarehouse facility would have adequate sight lines to see pedestrians crossing Oakmont Drive in the vicinity of the miniwarehouse driveway. Assuming that project drivers would exercise caution during peak pedestrian periods, this traffic should not pose a conflict with pedestrians.

## **On-Site Circulation and Parking**

### **Residential (Parcel 2)**

Refer to Project Site Plan (Figure 4) for the following discussion. All internal streets would be private and would be 25 to 30 feet wide except for the extension of Shannon Drive into the site, which would be 36 feet wide. (Upper Court would be 30 feet wide while Middle and Lower Court would be 25 feet wide). A turnaround area would be provided immediately in front of a gated entry. There would be no parallel on-street parking; rather, bays of 90 degree parking would be provided in 5 locations. Maximum grades on internal streets would be 10% (which would be within the City's maximum 12% grade limit). Three dead end courts would be provided off of the access roadway. The Lower Court would have units on one side of the street while the Middle and Upper courts would have units on both sides of the street. Turnaround areas are proposed near the end of both Middle Court and Upper Court. An emergency access connection would be provided to the miniwarehouse internal street system. Roadway widths and grades meet City code criteria and the internal circulation plan has been approved by the City's Fire Department.

Two garage parking spaces would be provided for each residential unit as would two apron spaces. A total of 27 additional spaces would be provided in 5 separate 90 degree parking bays. The overall site parking ratio, not including apron spaces, would be 2.8 spaces per unit. The City Planning Department has indicated that for 4 or 5 bedroom single family units, in a PUD with minimum 18 foot long aprons, 2 ¼ parking spaces

must be provided, 2 of which must be in a garage. Apron spaces do not count towards unit supply. Based upon these criteria, a total of 66 garage and 9 uncovered parking stalls would be required. Since 93 on-site spaces are proposed (66 garage and 27 uncovered), on-site parking would meet City code criteria.

City code requires PUD apron spaces to have 18-foot long by 8.5-foot wide dimensions for each vehicle. All residential units will have 18-foot long aprons and meet City criteria. A sidewalk is provided along one side of the entry road from the existing sidewalk at the stub end of Shannon Drive up to Middle and Upper Courts. Sidewalks are proposed along the 3 Courts. Thus, the proposed design meets City criteria.

### **Miniwarehouse Facility (Parcel 1)**

Roadways (including aiseways between buildings) within the miniwarehouse facility would be 25 to 30 feet wide. The main access driveway connection would be 30 feet wide. Grades would not exceed 6.5%. The access roadway would be gated just beyond the entry office/caretaker apartment. Hours of security gate access would be 6:00 AM to 9:00 PM. A 6-space parking area would be provided at the entry office. An additional 6 parking stalls are shown on the site plan within the facility.

Roadway widths and grades within the miniwarehouse facility meet Fire District standards.<sup>67</sup> However, in order to meet requirements, the 25-foot aisles between buildings 2 and 3 and between buildings 3 and 4 could only accommodate 1-way flow if parking is to be allowed along one side of the aisles. There is no indication on the site plan regarding one- versus two-way flow along any internal street nor the location of parking spaces parallel to buildings. The 30-foot aisle between buildings 4 and 5 could accommodate two-way flow and parallel parking along one building. However, definition is not provided on the site plan regarding these details. Although preliminary City review finds that the 30-foot aisle between buildings is acceptable, the site plan should provide directional flow patterns and stall locations with allowable parking adjacent to each building. The site plan should also maintain 15-foot clearway (on one-way aisles) and 20-foot clearways (on two-way aisles).

City criteria for two recently approved miniwarehouse facilities required 1 parking space for each 1,500 square feet of storage. The proposed 110,700 square foot facility would therefore require 74 internal parking spaces using this criteria. Alternatively, the City has used a requirement of one parking space for each 50 storage units, but since the total number of storage units to be built at the project site has not been identified, this criteria

<sup>67</sup> Mr. Tom Ahrens.

cannot be used in this instance. The site plan should also provide and designate (by striping them) the location of 74 internal parking spaces within the miniwarehouse facility.

The miniwarehouse entry office would be 900 square feet in size. City code requires 1 parking space for each 300 square feet of office, or 3 spaces for the proposed miniwarehouse office. Since 6 spaces would be provided adjacent to the office, the proposed parking supply is adequate.

■ **IMPACT: Miniwarehouse Caretaker Apartment Parking**

The caretaker apartment unit on top of the entry office is required by City code to have a 2 parking spaces, one of which must be in an enclosed garage. Since no garage is shown on the site plan for this unit, this is considered a significant impact.

**MITIGATION MEASURE: Miniwarehouse Caretaker Apartment Parking**

The applicant shall provide a garage for the caretaker apartment building.

The implementation of the above measure would reduce this impact to a less than significant level.

The project as proposed would provide adequate access to nearby uses. The project would not result in any hazards or barriers to pedestrians or bicyclists. Development of the project site as proposed would not conflict with adopted policies supporting alternative transportation, and would not have any impacts associated with rail, waterborne or air traffic.

## 16. UTILITIES AND SERVICE SYSTEMS

Would the project result in:

- Exceeding wastewater treatment requirements of the applicable Regional Water Quality Control Board? No impact
- The construction of new water or wastewater treatment facilities (or the expansion of existing facilities) which could cause significant environmental effects? No impact
- The construction of new storm water drainage facilities (or the expansion of existing facilities) which could cause significant environmental effects? No impact
- The need for new or expanded entitlements to water supply resources? No impact
- A determination by the wastewater treatment provider which serves (or may serve) the project that it would not have adequate capacity to serve the project's anticipated demand in addition to the provider's existing commitments? No impact
- Development which could not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? No impact
- Non-compliance with federal, state, and local statutes and regulations related to solid waste? No impact

The project will not require any discretionary review by the Regional Water Quality Control Board, and will not exceed wastewater treatment requirements of this regulatory agency.

The proposed project will be served by existing utilities (electricity, gas, water, cable, telephone, sewer, stormwater, etc.) that currently are extended to the site, but require upgrading or adjustments prior to connection. The plan proposes to utilize portions of the previously installed and active 12" storm drain and the 6" VCP sanitary sewer. Unused

portions of these existing lines will be cut-off and filled or removed. Previously broken subdrain pipes underneath the site will be removed or repaired. The project site would be tied into existing local sewer and stormwater drainage systems.

The project as proposed would not result in a need for new delivery systems for, or significant new supplies of, electrical power or natural gas, and service would be extended to serve the project site when necessary.

Local communications systems could provide service to those living and working at the proposed Oakmont Vistas residential subdivision or new storage facility without the need for any significant expansion in existing systems.

Those living and working at the project site would need more water than is currently used there, but this would not place a significantly increased demand on the local or regional water treatment or distribution facilities. The project area, as well as the portion of South San Francisco west of I-280, is served by the Westborough County Water District. Representatives from the Westborough County Water District (WCWD) indicate that water hook-ups and water supply are sufficient to serve the proposed project. The applicant will be required to employ water conservation measures that are consistent with WCWD goals. Westborough County Water District also provides sewage treatment for the portion of South San Francisco west of I-280. Project development would not result in any substantial alterations in the current distribution of local or regional sewer service. Once all fees and costs to install water and sewer pipes, connections, meters and all other appurtenances are paid, water and sewer treatment will be provided to the project site, although drought tolerant landscaping, efficient irrigation facilities, low-flush toilets or other water efficient fixtures may need to be approved by the Westborough County Water District or City of South San Francisco.

Although solid waste generated at the project site would add to the total volume of solid waste currently generated in the local area, this would not represent a significant increase. Solid waste from households in South San Francisco is collected by the South San Francisco Scavenger Company which is brought to the Blue Line Transfer Station and deposited at the Ox Mountain Sanitary Landfill close to Half Moon Bay. This facility has adequate capacity through 2016 and beyond<sup>68</sup>. San Mateo County is responsible for providing adequate waste facilities and meeting state and federal requirements for waste disposal. According to the South San Francisco Scavenger Company, existing solid waste facilities are adequate to handle the additional solid waste generated by the proposed

<sup>68</sup> South San Francisco General Plan, Existing Conditions and Planning Issues, September, 1997, p. 6-11.

project without additional personnel or equipment<sup>69</sup>. Although the South San Francisco does not have an ordinance or resolution regarding recycling, it must nevertheless comply with San Mateo County waste reduction goals (per state law). Therefore, future residents will be required to use recycling bins (provided by the Scavenger Company) to further County waste reduction requirements.

<sup>69</sup> Conversation between Lamphier and Associates and John Rossi, Safety Officer, South San Francisco Scavenger Company, November 12, 1998.



## 17. MANDATORY FINDINGS OF SIGNIFICANCE

- |  |    |
|--|----|
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | No |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of past projects, and effects of probable future projects)?  | No |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  | No |

### Overall Environmental Quality

The project as proposed does not have the potential to significantly degrade the quality of the environment.

Development of the project site as proposed would not substantially reduce the habitat of any fish or wildlife species, would not cause any fish or wildlife population to drop below sustaining levels, would not threaten to eliminate any plant or animal community, and would not reduce the number or restrict the range of any rare or endangered plant or animal.

Project development would not eliminate any important examples of major periods of California pre-history, since implementation of the mitigation measures identified above would adequately protect any archaeological resources that might be found at the project site from the effects which may be associated with new construction proposed there.

## **Short- Versus Long-Term Environmental Goals**

The project would not promote short-term environmental goals to the disadvantage of long-term environmental goals, since development as proposed would result in the improvement of a long vacant property intended for development, and would not result in any development on the seismically-constrained portion of the site, nor on the steep, hillside portion of the project site, retaining the native vegetation in that area.

## **Cumulative Impacts**

The City of South San Francisco has limited potential for additional development. The proposed project would not significantly add to the existing level of development in what is already a relatively "urbanized" part of the City along a major arterial. It does not involve impacts which are individually limited but cumulatively considerable, because the project will incorporate both project-specific mitigation measures and mitigation measures which are in effect city-wide to avoid potentially significant impacts which may be associated with the proposed project.

## **Substantial Adverse Environmental Effects on Human Beings**

The development of the project site as proposed would not cause any substantial adverse environmental effects on human beings either directly or indirectly. All potentially adverse environmental impacts which may be associated with the proposed project will be mitigated to a level that is less than significant through the implementation of the mitigation measures identified in this Proposed Mitigated Negative Declaration.

# ALTERNATIVES

## A. INTRODUCTION

The range of possible alternatives to the proposed project is bounded only by the human imagination, and an infinite number of alternatives could be proposed. To reduce the number of alternatives for evaluation in the Mitigated Negative Declaration/Initial Study to a manageable level while still permitting a reasonable range of alternatives for the purposes of comparison, the total number of possible alternatives to be evaluated was limited to four. One possibility, an alternative that would involve construction of the proposed project at a different location, was removed from consideration early in the decision-making process, since the project as proposed was designed specifically for the project site. The project applicant has expressed no interest in pursuing a project of this nature elsewhere in South San Francisco or in the surrounding area. With the focus limited to the project site, changes in the basic characteristics of the proposed project would present a range of possible alternatives.

The Initial Study/Mitigated Negative Declaration includes a discussion of the following alternatives to the project:

- The "No Project" alternative, under which there would be no new construction at the project site;
- The "Parcel 1 - Limited Residential" alternative, which would retain the development features of the proposed project for Parcels 2 and 3, but would limit development on Parcel 1 to two single family residential units in the area of the site which is not constrained by active fault traces (i.e. the area presently proposed for a mini-warehouse office, caretaker residence and parking lot). Constrained portions of the site would remain as private open space in connection with the residential development on Parcel 1;

- The "Increased Density" alternative, which would double the proposed number of units at the project site to compensate for the inability to develop that portion of the site located in an area constrained by active fault traces in residential uses; and
- The "Neighborhood Recreation" alternative, which would retain the residential development features of the project as proposed for Parcels 2 and 3, but would result in the development of that portion of the project site which is located in an area constrained by active fault traces in a neighborhood recreational use. This alternative includes the development of one residential unit in the area now proposed for a caretaker residence in support of the miniwarehouse use.

Following a discussion of each of the alternatives, a comparison of the alternatives with the project as currently proposed is presented, which is then followed by an evaluation of the alternatives.

## **B. NO PROJECT ALTERNATIVE**

Under the "No Project" alternative, the project site would remain in its current state.

### **LAND USE COMPATIBILITY**

With no development at the project site, there would be no project-related conflicts with existing land uses in the immediate vicinity under the "No Project" alternative.

### **GEOTECHNICAL IMPACTS**

Since the project site would remain in its current state under the "No Project" alternative, there would be no project-related increase in the risk of exposure to geotechnical hazards at the project site.

### **TRAFFIC/PARKING IMPACTS**

Under the "No Project" alternative, no project-related vehicle trips would be generated, and there would be no project-related increase in local demand for parking.

## **BIOLOGICAL RESOURCES**

Biological resources identified at the project site would not be affected by any development-related impacts under the "No Project" alternative, since the site would remain in its current state.

## **DRAINAGE AND HYDROLOGY**

Drainage conditions on and in the vicinity of the project site would be expected to remain unchanged in the absence of any development at the project site. It should be noted, however, that existing drainage problems on and in the vicinity of the project site would not be corrected under this alternative, and might be expected to worsen over time. The proposed project and all three of the other alternatives could only be developed after the correction of all existing drainage problems at the project site.

## **AESTHETICS**

The visual appearance of the project site would remain unchanged under the "No Project" alternative.

## **OTHER ENVIRONMENTAL CONSIDERATIONS**

There would be no significant adverse environmental impacts associated with the "No Project" alternative. It would not result in any growth-inducement, and would not contribute to any cumulative environmental impacts which might be associated with other projects in the immediate vicinity of the project site. This alternative would not result in any increase in local demand for public services or any utility services, would not contribute to any deterioration in local or regional air quality, would not increase ambient noise levels, would not risk any disturbance of buried archaeological or cultural resources, and would not entail any increase in the local population's risk of possible exposure to hazardous materials.

## **C. PARCEL 1-LIMITED RESIDENTIAL ALTERNATIVE**

Under the "Parcel 1-Limited Residential" alternative, development of Parcel 2 and 3 would be consistent with the proposed project. Development of Parcel 1 would be limited to two single family residential units on the portion of the project site which is not constrained by active fault traces. The remainder of Parcel 1, which is generally considered unsuitable for habitable structures, would be fenced off and maintained as private open space for the residential units on Parcel 1. Public access within the fenced

area would not be permitted, although limited routine maintenance such as that required to reduce potential fire hazards would take place on an "as needed" basis.

## **LAND USE COMPATIBILITY**

The "Parcel 1-Limited Residential" alternative would be generally consistent with the existing General Plan and Zoning designations for the project site, and the residential development proposed would be consistent with other residential development in the immediate vicinity, although the number of housing units per acre in the southerly (Parcel 2) portion of the site to be developed would be greater than the average residential density in the surrounding area.

## **GEOTECHNICAL IMPACTS**

Geotechnical impacts associated with the "Parcel 1-Limited Residential" alternative would be similar to those associated with the proposed project, although under this alternative, only the occasional maintenance person would have access to the portions of the project site which are above active fault traces.

## **TRAFFIC/PARKING IMPACTS**

Traffic and parking impacts associated with the "Parcel 1-Limited Residential" alternative would be similar to those associated with the proposed project, although there would be no traffic moving to or from those portions of the project site located over active fault traces.

## **BIOLOGICAL RESOURCES**

Under the "Parcel 1-Limited Residential" alternative, approximately half the project site would remain undisturbed. Since the open space area would be fenced off, however, there would be some reduction in the mobility of animals which are currently found at the project site. Habitat which currently exists on those portions of the project site which are located over active fault traces would receive some level of permanent protection through the establishment of a fenced open space area, but this habitat would also be more isolated, and smaller than that currently provided on-site.

## **DRAINAGE AND HYDROLOGY**

Development under the "Parcel 1-Limited Residential" alternative would reduce the amount of impervious surface at the project site to approximately half that which would be associated with the proposed project, since the area over the active fault

traces would not support any structures or pavement. Because the area above the active fault traces at the project site would be undisturbed under this alternative, it would be expected to have less of a beneficial impact on local drainage patterns and hydrology than would be the case under the proposed project.

## **AESTHETICS**

The maintenance of a permanent open space area at the project site could be regarded as a positive feature, aesthetically, despite the fencing and restricted public access. Since the area of the project site which would be developed would be reduced by approximately fifty percent relative to the proposed project, the "Parcel 1-Limited Residential" alternative would have reduced visual impacts relative to the project as proposed.

## **OTHER ENVIRONMENTAL CONSIDERATIONS**

With roughly the same on-site population, the "Parcel 1-Limited Residential" alternative would place about the same demands on the existing public service networks and utility systems as the proposed project. It would not result in any growth-inducement, and would not contribute significantly to any cumulative environmental impacts which might be associated with other projects in the immediate vicinity of the project site. This alternative would not contribute significantly to any deterioration in local or regional air quality, and would not significantly increase ambient noise levels, except during construction. This alternative, with development of Parcels 2 and 3, would expose future residents to potential aircraft single noise events. With construction occurring on the residential portion of the site, it is possible that there could be some disturbance of buried archaeological or cultural resources or possible exposure of hazardous materials during site preparation and excavation in the affected area.

## **D. INCREASED DENSITY ALTERNATIVE**

Under the current zoning regulations, the maximum density permitted at the project site is 8 dwelling units per net acre. However, approximately half of the acreage at the project site cannot legally support residential development due to the presence of active fault traces. The "Increase Density" alternative would take this limitation into account by permitting the portion of the project site which is not located over active fault traces to be developed at an average density twice as high as the currently proposed project. Under this alternative, the portion of the project site to be developed would support residential densities of up to 16 units per acre, for a total of 68 units.

The portion of the project site located over active fault traces would remain in open space, under conditions similar to those outlined in the "Parcel 1-Limited Residential" alternative, above.

## **LAND USE COMPATIBILITY**

Development of the project site at the density proposed under the "Increased Density" alternative would be consistent with the General Plan and the current zoning regulations, but at such a high density, would not be in keeping with the existing character of the housing in the immediate vicinity of the site. However, General Plan Policy 17 states that "The use of planned developments should be encouraged in single-family residential projects to maximize usable open space." Development of the project site at the density proposed under this alternative would be consistent with this General Plan policy, with the approval of a Planned Unit Development. Retaining that portion of the project site which is constrained by active fault traces in open space would be consistent with the General Plan and current zoning regulations, and would be generally consistent with the residential character of the immediate surroundings.

## **GEOTECHNICAL IMPACTS**

Although no residential development would occur directly over active fault traces under this alternative, the number of people who could be exposed to seismic hazards on-site in the event of a major earthquake along the San Andreas Fault would be approximately twice as high as under the proposed project. Since the total area to be developed would be similar under either the proposed project or the "Increased Density" alternative, other geotechnical impacts would be similar. However, a new grading plan would be required to accommodate the increased seismic loading of what would be larger structures at the project site, and if this would require an increase in the amount of cutting and filling required, the impacts associated with earth movement on that portion of the project site to be developed could be greater under this alternative than similar impacts under the proposed project.

## **TRAFFIC/PARKING IMPACTS**

By doubling the total number of residential units at the project site under the "Increased Density" alternative, the average number of daily vehicle trips to and from the project site would be roughly twice as high as anticipated under the proposed project. The demand for off-street parking would also be roughly twice the level associated with the proposed project.



## **BIOLOGICAL RESOURCES**

With only about half of the project site to be developed, the "Increased Density" alternative would result in the same level of biological resource impacts as that associated with the "Parcel 1-Limited Residential" alternative.

## **DRAINAGE AND HYDROLOGY**

Drainage and hydrology impacts associated with the "Increased Density" alternative would be similar to those associated with the "Parcel 1-Limited Residential" alternative, although the total amount of impervious surface on the portion of the project site to be developed would be somewhat greater than under the proposed project, due to a reduction in the amount of landscaping to accommodate the increased number of dwelling units and associated parking.

## **AESTHETICS**

Since the size of the project site (5 acres) which can be developed in residential uses would remain the same under either the proposed project or the "Increased Density" alternative, a doubling in the total number of units under the "Increased Density" alternative would result in larger structures at the project site, which would entail more significant visual impacts than those associated with the proposed project, with the potential to block views toward San Francisco Bay. With more intense development on the residential portion of the site, less acreage would be devoted to landscaping than under the proposed project. Potential aesthetic impacts associated with the non-residential portion of the project site would be similar to those associated with the "Parcel 1-Limited Residential" alternative.

## **OTHER ENVIRONMENTAL CONSIDERATIONS**

With roughly twice the on-site population, the "Increased Density" alternative would place about twice the demand on the existing public service networks and utility systems as the proposed project. It would not result in any growth-inducement, and would not contribute significantly to any cumulative environmental impacts which might be associated with other projects in the immediate vicinity of the project site. This alternative would not contribute significantly to any deterioration in local or regional air quality, and would not significantly increase ambient noise levels, except during construction. Under this alternative, more residents could be exposed to aircraft single noise events. However, with construction occurring on the residential portion of the site, it is possible that there could be some disturbance of buried archaeological or

cultural resources or possible exposure of hazardous materials during site preparation and excavation in the affected area.

## **E. NEIGHBORHOOD RECREATION ALTERNATIVE**

The "Neighborhood Recreation" alternative would entail the same level of residential development at the project site as under the proposed project, but instead of providing a storage facility on that portion of the project site which is constrained by active fault traces, the affected portion of the site would be used for the development of a neighborhood recreational facility. This alternative also includes the development of one residential unit in the area now proposed for a caretaker residence in support of the miniwarehouse use. Due to the restriction on the construction of "structures for human occupancy" on those portions of the project site which are constrained by active faults (defined as "any structure used or intended for supporting or sheltering any use or occupancy, which is expected to have a human occupancy rate of more than 2,000 person-hours per year" [Hart, 1994, CDMG Special Publication 42]), the type of recreation facility would be limited to those which would require no structures which would meet this definition. The 2,000 person-hour maximum on the annual use of such a structure could be reached in any number of ways. For example, one person could use such a structure for up to eight hours a day, five days a week for fifty weeks a year, or 20 people could use such a structure for up to two hours a week for fifty weeks per year, or 200 people could use the structure for up to ten hours a year. Each local jurisdiction provides its own interpretation of exactly what type of structures may be classified as being within the scope of this definition<sup>1</sup>. Because it is unlikely that the use of any recreational structure at the project site could be regulated with such precision, this limitation would preclude the development of any facilities such as a community swimming pool, tennis courts or a teen center which would require structural components to support the recreational activity. However, those recreational activities which would not require the placement of any structures (i.e., baseball, softball, soccer, football, lacrosse, field hockey, etc.) could be accommodated by playing fields on the portion of the project site which is constrained by active fault traces. It might also be possible to develop a driving range or mini-golf course on that portion of the project site constrained by active fault traces, or to develop a skateboard park there (since it is unlikely that paved areas or obstacles needed for such a use would pose any threat to users in the event of an earthquake).

<sup>1</sup> Telephone conversation between Lamphier and Associates and Kathleen, California Division of Mines and Geology, November 3, 1998.

## **LAND USE COMPATIBILITY**

The "Neighborhood Recreation" alternative would be generally consistent with the existing General Plan and Zoning designations for the project site, and the residential development proposed would be consistent with other residential development in the immediate vicinity, although due to the PUD layout, the density of housing may be perceived to be greater than that in the surrounding area.

## **GEOTECHNICAL IMPACTS**

Geotechnical impacts associated with the "Neighborhood Recreation" alternative would be similar to those associated with the proposed project, although under this alternative, those using the playing fields or other recreational facilities on-site could be exposed to seismic hazards (i.e., fault rupture, ground shaking, etc.) in the event of a major earthquake along the San Andreas Fault. With an absence of any structures in that portion of the project site, however, the risk of earthquake-related injury or death to any recreational user on-site would be minimal.

## **TRAFFIC/PARKING IMPACTS**

Traffic and parking impacts associated with the "Neighborhood Recreation" alternative would be similar to those associated with the proposed project, although there would be some additional traffic associated with recreational uses at those portions of the project site located over active fault traces. If the site is developed for soccer or other similar type playing fields, scheduled events (such as soccer league games) could generate increased traffic and parking demands that exceed the capacity of the surrounding project area.

## **BIOLOGICAL RESOURCES**

With nearly the entire project site to be developed (mostly either in residential uses or as playing fields), the "Neighborhood Recreation" alternative would result in the same level of biological resource impacts as that associated with the proposed project.

## **DRAINAGE AND HYDROLOGY**

Development under the "Neighborhood Recreation" alternative would reduce the amount of impervious surface at the project site to approximately half that which would be associated with the proposed project, since the area over the active fault traces would not support any structures or pavement (except for any paved areas which might be associated with a skateboard park). For this reason, it would be expected to

have less of a beneficial impact on local drainage patterns and hydrology than would be the case under the proposed project, but certainly more than the other three alternatives.

## **AESTHETICS**

The presence of a neighborhood recreational facility such as playing fields could be regarded as a positive feature, aesthetically. Since the area of the project site which would be developed with structures and pavement would be reduced by approximately fifty percent relative to the proposed project, the "Neighborhood Recreation" alternative would have reduced visual impacts relative to the project as proposed.

## **OTHER ENVIRONMENTAL CONSIDERATIONS**

With roughly the same on-site population (with a slight to major increase when the playing fields are in use), the "Neighborhood Recreation" alternative would place about the same demands on the existing public service networks and utility systems as the proposed project. The provision of playing fields at the project site could relieve demand pressure on similar recreational facilities in the South San Francisco area to a limited extent. This alternative would not result in any growth-inducement, and would not contribute significantly to any cumulative environmental impacts which might be associated with other projects in the immediate vicinity of the project site. This alternative would not contribute significantly to any deterioration in local or regional air quality, and would not significantly increase ambient noise levels, except during construction. However, with construction occurring on the residential portion of the site, and some site preparation also required for the development of recreational facilities, it is possible that there could be some disturbance of buried archaeological or cultural resources or possible exposure of hazardous materials during site preparation and excavation in the affected areas.

## F. COMPARISON OF PROJECT AND ALTERNATIVES

In an effort to identify the "environmentally superior" alternative, the environmental impacts associated with each of the alternatives described above were compared with those of the project as proposed (see **Table 7**).

**TABLE 7: COMPARISON OF PROJECT AND ALTERNATIVES**

Environmental Impact	Proposed Project	No Project	Open Space	Increased Density	Neighborhood Recreation
Land Use Compatibility	Inconsistent	Consistent	Consistent	Consistent	Consistent
Geotechnical Impacts	Less than Significant	No Change	Less than Significant	Less than Significant	Less than Significant
Traffic/Parking Impacts	Less than Significant	No Change	Less than Significant	Less than Significant	Less than Significant
Biological Resources	Less than Significant	No Change	Less than Significant	Less than Significant	Less than Significant
Drainage and Hydrology	Less than Significant	No Change	Less than Significant	Less than Significant	Less than Significant
Aesthetics	Less than Significant	No Change	Less than Significant	Less than Significant	Less than Significant
Other Environmental Considerations	Less than Significant	No Change	Less than Significant	Less than Significant	Less than Significant

### LAND USE COMPATIBILITY

The "No Project" alternative would be consistent with the General Plan and current Zoning regulations, and would be compatible with existing development in the vicinity of the project site. The "Parcel 1-Limited Residential", "Increased Density" and "Neighborhood Recreation" alternatives would also be generally consistent with the General Plan and current Zoning regulations, and would be in varying degrees compatible with surrounding residential development. The project as proposed (Parcel 1) would be inconsistent with the General Plan and the current Zoning regulations, and

would incorporate a storage facility which would be regarded as basically incompatible with residential development in the immediate vicinity.

### **GEOTECHNICAL IMPACTS**

Under the "No Project" alternative, there would be no increase in the number of people who could be exposed to potential seismic hazards at the project site. The "Parcel 1-Limited Residential" alternative and the proposed project would have similar numbers of people at the project site, all of whom would potentially be exposed to seismic hazards (although no residential structures would be built in areas which have been identified as the location of active fault traces). The "Neighborhood Recreation" alternative would result in a slight increase in the number of people who could be exposed to seismic hazards on-site relative to the proposed project, but only when the proposed playing fields are in use. The "Increased Density" alternative would expose roughly twice as many people at the project site to potential seismic hazards as would the development of the site as proposed under the project.

### **TRAFFIC/PARKING IMPACTS**

There would be no change in existing traffic patterns or parking demand under the "No Project" alternative. The proposed project and the "Parcel 1-Limited Residential" alternative would be expected to generate similar levels of vehicle traffic, although the traffic associated with the project's proposed storage facility would be slightly greater than would be the case under the "Parcel 1-Limited Residential" alternative. With the use of on-site playing fields, the "Neighborhood Recreation" alternative could be expected to generate more trips than either the proposed project or the "Parcel 1-Limited Residential" alternative when the recreational facilities are in use. The "Increased Density" alternative would generate roughly twice as many average daily vehicle trips than would the proposed project.

### **BIOLOGICAL RESOURCES**

There would be no change in the character of the existing biological resources at the project site under the "No Project" alternative. Under the "Parcel 1-Limited Residential" alternative, approximately half of the project site would remain undisturbed, although it would be fenced, thus reducing the mobility of any wildlife on that portion of the site. Development under the "Increased Density" alternative, the "Neighborhood Recreation" alternative and the project as proposed would have the same level of biological resource impacts, but these would be regarded as less than significant.

## **DRAINAGE AND HYDROLOGY**

The "No Project" alternative would not change existing drainage patterns in the local area or the hydrology of the project site. Approximately half of the project site would be covered with impervious surfaces under either the "Parcel 1-Limited Residential" alternative, the "Increased Density" alternative or the "Neighborhood Recreation" alternative, which would alter local drainage patterns and the hydrology of the project site to a limited degree. With most of the project site covered with impervious surfaces, drainage patterns would be expected to change the most under either the proposed project or the "Increased Density" alternative.

## **AESTHETICS**

The visual appearance of the project site would remain unchanged under the "No Project" alternative. The "Parcel 1-Limited Residential" alternative would retain approximately half of the project site in open space, which would limit changes in the visual character of the site to the development of the new residential units on Parcel 1 and on the other half of the site. Under the "Neighborhood Recreation" alternative, approximately half of the project site would be used for playing fields, while most of the remaining portion of the site would be developed in residential uses. The visual character of the project site would change most dramatically under the "Increased Density" alternative, since the structures to be built on the residential portion of the project site would be larger than those which would be built under the project as proposed.

## **OTHER ENVIRONMENTAL CONSIDERATIONS**

The "No Project" alternative would not result in any significant environmental impacts. With roughly the same on-site population (with a slight to major increase when the playing fields are in use), the "Neighborhood Recreation" and "Parcel 1-Limited Residential" alternatives would place about the same demands on the existing public service networks and utility systems as the proposed project. The "Increased Density" alternative would place greater demands on the existing public service networks and utility systems as the proposed project.

## **G. EVALUATION OF ALTERNATIVES**

In evaluating alternatives, different people may assign different weights to the relative importance of specific environmental impacts. For example, some might "give more weight" to potential land use plan consistency impacts in the alternatives analysis than

to traffic-related impacts, while others may feel that traffic-related impacts should "carry more weight" in the analysis than air quality or noise impacts. In comparing the project and the alternatives for this analysis, a weight of "0" was given to every "consistent" or "no change" value in the comparison matrix, a weight of "1" was given to every "less than significant" value (since an impact which has been identified as "less than significant" may be somewhat more "significant" than a value of "no change"), and a weight of "2" was given to every "potentially significant" or "inconsistent" value. Using this system, the project and each of the alternatives were assigned a total score, with the lowest total score representing the "environmentally superior" alternative.

The "No Project" Alternative received the lowest score (0) in this analysis, and was identified as the "environmentally superior" alternative. **It should be noted, however, that this alternative meets none of the project objectives.**

Under CEQA, when the "No Project" Alternative has been identified as the "environmentally superior" alternative, it is necessary to identify another alternative which would represent the "environmentally superior" alternative in the absence of the "No Project" Alternative.

Using the scoring system described above, the "Parcel 1-Limited Residential" alternative, the "Increased Density" alternative and the "Neighborhood Recreation" alternative all received a score of "6". Although the environmental impacts which would be expected with each of these alternatives would be regarded as less than significant, they would not be identical:

- Since the open space portion of the project site would be fenced off under the "Parcel 1-Limited Residential" alternative or the "Increased Density" alternative, the only people who would be exposed to potential seismic hazards in the event of a major earthquake would be those responsible for routine maintenance. Under the "Neighborhood Recreation" alternative, those using the playing fields or other recreational facilities at the project site could be exposed to seismic hazards in the event of a major earthquake, and there are likely to be more recreational users on-site at any given time than maintenance people.
- Under the "Neighborhood Recreation" alternative, recreational uses at the project site could be expected to generate a limited number of vehicle trips when the playing fields are in use, while the "Parcel 1-Limited Residential" alternative would not be expected to generate any traffic beyond the occasional maintenance vehicle. The "Increased Density" alternative would be expected to



## ALTERNATIVES

generate approximately twice the vehicle traffic associated with the project as proposed.

- The biological character of the open space area would remain unchanged under the "Parcel 1-Limited Residential" alternative or the "Increased Density" alternative (although the fencing would restrict wildlife mobility to some extent). Under the "Neighborhood Recreation" alternative, the existing biological character of the area constrained by active fault traces would be modified through the construction of playing fields and the total area which could be expected to support wildlife would be reduced, although these fields would not be expected to restrict wildlife mobility.

Because the "Parcel 1-Limited Residential" alternative would expose fewer people to potential seismic hazards in the event of a major earthquake, would result in less traffic, and would cause less disruption of the existing biological resources at the project site, it can be regarded as the "environmentally superior" alternative in the absence of the "No Project" alternative.

The "Project" received a score of "8", due in large part to its inconsistency with the existing General Plan and Zoning designations for the project site.

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## **Personal Communications**

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John Hansen, Pacific States Capitol Corporation

Alan Loving, Storage U.S.A.

Pacific Bell

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South San Francisco Fire Prevention Department (Tom Ahrens, Assistant Fire Marshall)

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## REFERENCES

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## RESPONSE TO COMMENTS

During the 30-day public review period for the Proposed Mitigated Negative Declaration, written comments were received from:

Sandy Griffin (and Cecilia Layug);  
Gerald Sinclair;  
Judy W. Davidoff, Baker & McKenzie, Attorneys at Law;  
Docela E. Chatterjee;  
Bernadette Aguilar Casias  
Jean C.R. Finney, District Branch Chief, California Department of Transportation;

These six letters are included as Attachments 1, 2, 3, 4, 5 and 6, below.

In order to avoid repetition in the responses, the comments have been grouped based upon the primary focus of each comment. Since some of the issues raised in some comments may also relate to issues raised in other comments, it is recommended that all of the comments and responses be reviewed in their entirety.

### MODIFICATIONS TO PROPOSED MITIGATED NEGATIVE DECLARATION

Comment: Correction of Proposed Mitigated Negative Declaration

*"1. Page 6. The project applicant should be listed as Hansen PSC, Inc., throughout the document."*

Response: The Initial Study and Mitigated Negative Declaration has been modified to identify the project applicant as "Hansen PSC, Inc." on Page 6 and on Page 15.

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PLANNING

ATTACHMENT 1

Neighbors,

My name is Sandy Griffin and I have lived in the Monte Verde neighborhood for 27 years. I have watched the neighborhood change over the years, some good, some bad. After receiving a letter notifying the neighborhood of the projected building to occur on the vacant property located near the corner of Westborough Blvd. and Oakmont Drive I will for the first time in 27 years express my concerns.

I welcome progress and, in fact, wondered what took a developer so long to put forth a proposed plan to improve this property. I accept the proposed building of some 33 "single family" residences with some reservations, but my real concern is how this project will effect the underground spring in our area. It has already ruined one home on Olympic Drive. It has been a source of concern for all homeowners in this district for some time. The City let this spring drain for years to the drain on the corner of Olympic Drive (one block off Westborough Blvd.). There have been sink holes effecting Oakmont Drive and currently Olympic Drive. The letter I received quotes "significant environmental impacts" will be dealt with and discussed. I want more than discussion on this matter. I refuse to believe that grading this area, tapping into the existing sewer system or creating a completely new drainage system to accommodate these homes would not effect the natural flow of this spring. The Project Manager will build and then leave. Once again it will be the residents who have to deal with what is left behind. If for no other reason, please pay attention because of what the unnatural redirection of this spring would do to your property value.

My second concern is the one dealing with changing the zoning of our district from "single family" dwellings to one that would accept proposed "businesses". I vehemently object to this change. Now they mention a mini storage facility, which doesn't thrill me, but what of the future. This would open the door to all kinds of business. The existing storage facility located right across Westborough Blvd. is a constant source of graffiti. I see no need to supply another billboard for this type of destruction in our neighborhood. Notice what happens to a neighborhood when this type of business is allowed to enter. Family neighborhoods change into industrial looking projects. We would lose the feeling of "family oriented" space if we allow rezoning.

To repeat. I wish to express concerns about the single family dwellings, but I am COMPLETELY AGAINST REZONING this or any portion of our neighborhood. If you have doubts, spend some time on Callan and Shirley Streets near the bowling alley and other businesses in that area. Neighbors were assured of plentiful parking and a clean, healthy atmosphere at the time those changes took place. How many businesses do you find in residential areas in Burlingame and Millbrae where property values are constant? Those residents would not allow this. Why should we?

I plan to send this correspondence on to Susy Kalkin, Senior Planner of the Planning Division for the City of South San Francisco. I hope you will do the same. If you do not wish to compose a letter of your own feel free to sign this paper and add your name to mine expressing "our" concerns.

Thank you

Sandy Griffin

*I plan to send this correspondence on to Susy Kalkin, Senior Planner of the Planning Division for the City of South San Francisco. I hope you will do the same. If you do not wish to compose a letter of your own feel free to sign this paper and add your name to mine expressing "our" concerns.*

*Dear Mr. [illegible]  
2770 [illegible] [illegible]  
[illegible] [illegible]*

AUG 12 1999

PLANNING

## ATTACHMENT 2

August 10 1999

Dear Susy Kalkin;

Vote No on Oakmont Vistas Storage

Project. If there were nothing wrong with the  
Land in the Sixties when housing was booming and each  
lot was sold before the home was built.

One cannot really predict what the Earthquake will do on  
a future. Making the money over the lives of dead people.

Sincerely  
Chad Sumner



RECEIVED

AUG 11 1999

PLANNING

# BAKER & MCKENZIE

ATTORNEYS AT LAW

TWO EMBARCADEIRO CENTER  
TWENTY-FOURTH FLOOR  
SAN FRANCISCO, CALIFORNIA 94111-3909  
TELEPHONE (415) 576-3000  
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NORTH AND  
SOUTH AMERICA

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DALLAS	RIO DE JANEIRO	VALENCIA
HOUSTON	SAN DIEGO	WASHINGTON, D.C.
JUAREZ		

EUROPE  
MIDDLE EAST

ALMATY	MADRID
AMSTERDAM	MILAN
BARCELONA	MOSCOW
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CHICAGO	RITADH
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HO CHI MINH CITY
HONG KONG
MANILA
MELBOURNE
SINGAPORE
SYDNEY
TAIPEI
TOKYO

ATTACHMENT 3

August 10, 1999

JUDY V. DAVIDOFF  
(415) 984-3818  
judy.v.davidoff@bakernet.com

Ms. Susy Kalkin  
City of South San Francisco  
400 Grand Avenue  
Post Office Box 711  
South San Francisco, California 94083

Re: Oakmont Vistas/Storage USA Project South San Francisco  
Initial Study and Proposed Mitigated Negative Declaration

Dear Ms. Kalkin:

Thank you for the opportunity to review the Initial Study and proposed Mitigated Negative Declaration for the Oakmont Vistas/Storage USA projects. The following are our comments on the document on behalf of John Hansen of Hansen PSC, Inc. Overall, we think the document is well written and concise. However, we continue to have major concerns with the alternatives considered, as detailed below.

Our specific comments follow:

1. **Page 6.** The project applicant should be listed as Hansen PSC, Inc., throughout the document.
2. **Page 8.** We are not aware of any ordinance requiring the caretaker apartment to have an attached garage. Please clarify. It is our understanding that the caretaker can utilize an existing parking space.
3. **Page 19.** The continued sentence on top of page 19 should be revised to correct the acreage of the parcel in the southwest corner of the site. This parcel is approximately 5 acres (5.02), not 4, as currently indicated in the text.
4. **Page 20. Project Description.** The continued sentence on top of page 20 should be revised to substitute 33 units for 34.
5. **Page 21. Paragraph 1.** The caretaker unit does not require any HVAC equipment on the building rooftop. Please clarify.

BAKER & MCKENZIE

Ms. Susy Kalkin

August 10, 1999

Page 2

6. Pages 27 & 28, Existing Conditions – Site Description. The site description also should include a discussion of the character and uses found in the surrounding area. For example, in addition to the residential uses adjacent to the site, there are also existing storage facilities in the vicinity of the project and the residential area, including the Shurgard facility across Westborough Boulevard at 2679 Meath Drive.

7. Page 35, Paragraph C. Paragraph C should be further revised to clarify that the residential designs have already been approved by Design Review on two separate occasions. We suggest the revised residential plans, which were the subject of Design Review on July 15<sup>th</sup>, be included in the final document. The text discussion should be updated to reflect the different floor plans and elevations contained in the revised plans.

8. Page 119. The last sentence in the last paragraph on page 119 should be revised to clarify that the location of the 74 internal parking spaces do not need to be striped or designated. As is clear elsewhere in the document more spaces than required have been provided. There is no basis to require stripping, which is not typically done for such storage spaces.

9. Alternatives.

a. The “Parcel One – Limited Residential” and “Neighborhood Recreation” alternatives are inappropriate and should be eliminated from this document. As acknowledged in the document, CEQA does not require a negative declaration document to include the evaluation of project alternatives. However, to the extent that alternatives are considered, alternatives must be both feasible and capable of implementation. Neither the “Parcel One – Limited Residential” or the “Neighborhood Recreation” alternative are feasible, realistic alternatives from either an economic or a legal perspective, nor are they projects that have been proposed by the applicant. Both alternatives utterly fail to meet the project objectives set forth in the project application and the Mitigated Negative Declaration, and as such, should be eliminated.

With respect to the proposed use of Parcel One, the area proposed for storage uses in the proposed project, the City cannot meet its burden to show that an open space condition or recreational use on the portion of this site under either alternative, is legally appropriate under either a “nexus” or a “rough proportionality” analysis. No impacts of the residential project require an almost 50 percent open space dedication, nor do impacts related to the two residential units proposed for Parcel One in the “Parcel One – Limited Residential” alternative require additional project open space. As indicated above, an open space or neighborhood recreational use on the site can be maintained only if the City decided to purchase the property for such purposes, which the City has specifically declined to do. As acknowledged on

**BAKER & MCKENZIE**

Ms. Susy Kalkin

August 10, 1999

Page 3

page 29 of the Mitigated Negative Declaration, "recent correspondence from South San Francisco indicates the City has no current plan that identifies the project site for any public use and has no basis to purchase the site."

Further, the Mitigated Negative Declaration indicates that no additional park land is required by the proposed residential subdivision. (Page 111.) This would also clearly be the case for the two residential units proposed in the "Parcel One - Limited Residential" alternative. The document states that "the Westborough planning area of the City does not have any deficiencies in terms of number and distribution of park facilities." This planning area currently has three parks and extensive open space are relatively close to the project site. (See Table 6, pages 97, 111.) According to the document, the development of the project site as proposed "would not have any measurable effect on existing recreational opportunities." "Development of the project also includes the provision of over two acres of common area facilities to be used by future Oakmont/Vistas residents." (Page 112.)

The Mitigated Negative Declaration also clarifies that the project already more than meets any requirements of the Quimby Act Park Dedication Ordinance. As stated on page 112, under the City's Quimby Act Park Dedication Ordinance, "the project would be required to set aside approximately 0.3 acres of park land for the proposed subdivision." "The project's provision of over one acre of park land within the new subdivision is in excess of the project requirements, as required by the City's Quimby Act ordinance." In addition to park dedication, "the project will be expected to provide development impact fees to mitigate any potential impact on park recreation facilities." (Page 112.)

Finally, the existing South San Francisco General Plan, Capital Improvement Budget and Parks Master Plan do not identify the vacant site as proposed for any public uses. (Page 27.) As stated in the document, "for many years, development of residential uses on the project have been recognized in policies contained in the South San Francisco General Plan, thus the conversion of the site from open space to urban development is not considered a significant impact." (Page 29.) As also stated in the document, "since the project site is not currently used for any passive or active recreational purposes and three other City parks are in the Westborough area, the development of the site would not, from an adopted land use policy standpoint, constitute significant loss of open space in the area." (Page 97.) This is true whether the proposed project is residential and/or storage.

b. The discussion of alternatives should further emphasize that drainage conditions on and in the vicinity of the project site would be improved under the development scenarios set forth in the Project on both Parcels One and Two. The proposed project could be developed only after correction of all the existing drainage problems at the project site. (Page 128.)

BAKER & MCKENZIE

Ms. Susy Kalkin

August 10, 1999

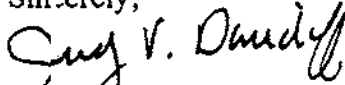
Page 4

c. The discussion of "Parcel One - Limited Residential" alternative should include a discussion of the status of the fenced off portion recommended for the remainder of Parcel One, which is not considered suitable for habitable structures. As public access within the fenced area would not be permitted under this alternative, the fenced portion would become a no man's land, subject to trespass and vandalism. (Pages 128, 129.) Such area could not be regarded as a open space amenity, as it is currently described in the text.

d. The discussion of "Neighborhood Recreation" alternative fails to discuss who would pay to develop the type of recreational facilities set forth under the alternative. Certainly, given the limited access and lack of any need for such facility, this is not a proposal made by the developer. As the City has not stepped up to offer to develop and maintain this property for neighborhood recreation alternative, this proposal is not a feasible alternative.

Thank you for the opportunity to comment.

Sincerely,

  
Judy W. Davidoff

JVD/11

cc: Adam Lindgren, Esq., Assistant City Attorney  
John Hansen, Hansen PSC, Inc.  
John Ward, John M. Ward & Associates

ATTACHMENT 4

August 11, 1999

Re: Oakmont Vistas/Storage USA Project  
South San Francisco, California

Ms. Susy Kalkin, Senior Planner  
Planning Division  
City of South San Francisco  
P. O. Box 711  
South San Francisco, CA 94083

Dear Ms. Kalkin,

The Westborough area has major problems with drainage, heavy moisture, mildew, etc. Like others, we have had work done on the drainage, but some of the problem still exists. Our property abuts the proposed development. We're concerned that the addition of fencing and greenery would further diminish the limited amount of sun that we now get in our backyards - adding to our already existing problems. Although I'm enclosing 'pictures' taken from our second story window, I don't think you can know what might be taken away from us - until you look out our windows. You're invited to come and look for yourselves.

Should rezoning occur, and the storage project come to fruition, may I suggest that you consider entry into that establishment by way of the common wall they will share with Oakmont Vistas. Since it would be a less traveled and restricted area, it would diminish traffic congestion that would occur on the busier streets of Westborough and Oakmont.

Thank you. -o

*Docela E. Chatterjee*

(Mrs.) Docela E. Chatterjee  
3301 Oakmont Drive  
South San Francisco, CA 94080

(650) 952-8165

Neighbors,

My name is Sandy Griffin and I have lived in the Monte Verde neighborhood for 27 years. I have watched the neighborhood change over the years, some good, some bad. After receiving a letter notifying the neighborhood of the projected building to occur on the vacant property located near the corner of Westborough Blvd. and Oakmont Drive I will for the first time in 27 years express my concerns.

I welcome progress and, in fact, wondered what took a developer so long to put forth a proposed plan to improve this property. I accept the proposed building of some 33 "single family" residences with some reservations, but my real concern is how this project will effect the underground spring in our area. It has already ruined one home on Olympic Drive. It has been a source of concern for all homeowners in this district for some time. The City let this spring drain for years to the drain on the corner of Olympic Drive (one block off Westborough Blvd.). There have been sink holes effecting Oakmont Drive and currently Olympic Drive. The letter I received quotes "significant environmental impacts" will be dealt with and discussed. I want more than discussion on this matter. I refuse to believe that grading this area, tapping into the existing sewer system or creating a completely new drainage system to accommodate these homes would not effect the natural flow of this spring. The Project Manager will build and then leave. Once again it will be the residents who have to deal with what is left behind. If for no other reason, please pay attention because of what the unnatural redirection of this spring would do to your property value.

My second concern is the one dealing with changing the zoning of our district from "single family" dwellings to one that would accept proposed "businesses". I vehemently object to this change. Now they mention a mini storage facility, which doesn't thrill me, but what of the future. This would open the door to all kinds of business. The existing storage facility located right across Westborough Blvd. is a constant source of graffiti. I see no need to supply another billboard for this type of destruction in our neighborhood. Notice what happens to a neighborhood when this type of business is allowed to enter. Family neighborhoods change into industrial looking projects. We would lose the feeling of "family oriented" space if we allow rezoning.

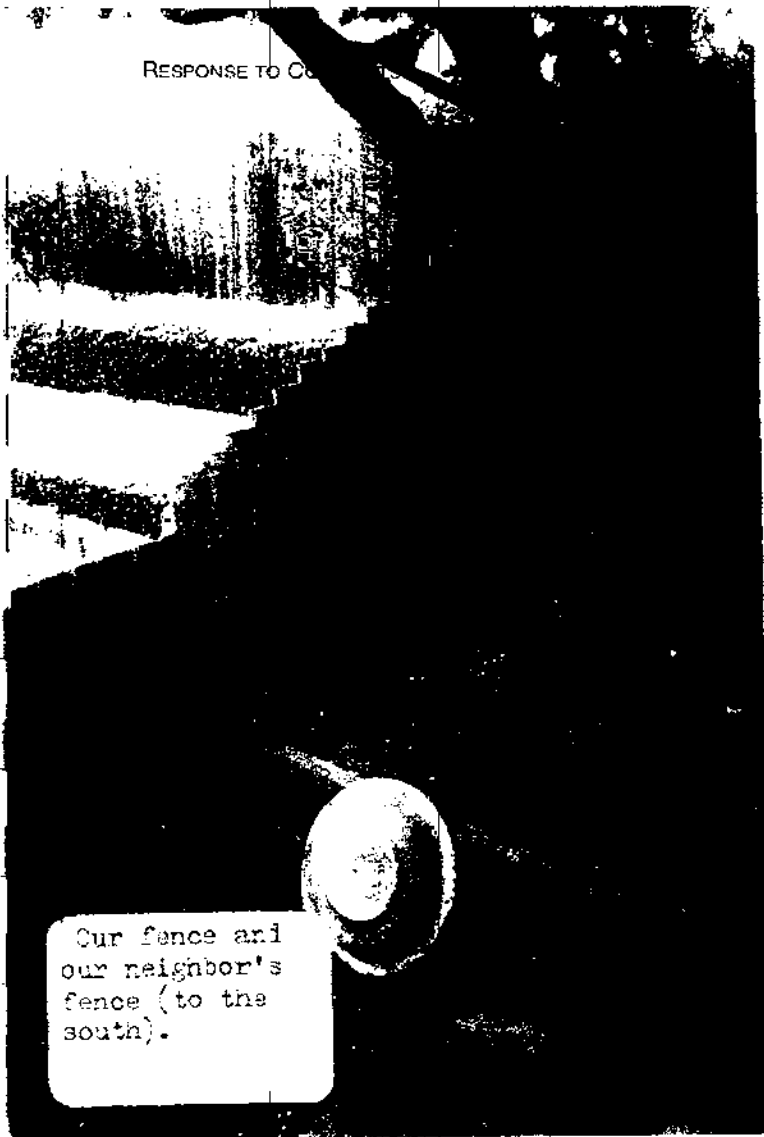
To repeat. I wish to express concerns about the single family dwellings, but I am COMPLETELY AGAINST REZONING this or any portion of our neighborhood. If you have doubts, spend some time on Callan and Shipley Streets near the bowling alley and other businesses in that area. Neighbors were assured of plentiful parking and a clean, healthy atmosphere at the time those changes took place. How many businesses do you find in residential areas in Burlingame and Millbrae where property values are constant? Those residents would not allow this. Why should we?

I plan to send this correspondence on to Susy Kalkin, Senior Planner of the Planning Division for the City of South San Francisco (P.O. Box 711, S.S.F., CA 94080). I hope you will do the same. If you do not wish to compose a letter of your own feel free to sign this paper and add your name to mine expressing "our" concerns.

Thank you

Sandy Griffin

*Dorcia E. Chalkoviz*



Our fence and  
our neighbor's  
fence (to the  
south).



Our fence and  
our neighbor's  
fence (to the  
north).



... can more fence  
and trees at the  
top of the 'hill'  
more dark and  
lamp.







## ATTACHMENT 5

BERNADETTE AGUILAR CASIAS  
2445 BANTRY LANE  
SOUTH SAN FRANCISCO, CA. 94110  
650-872-3006

August 12, 1999

South San Francisco Planning Division  
City of South San Francisco  
P.O. Box 711  
South San Francisco, Ca. 94083

Attn: Susy Kalkin, Senior Planner

Re: Oakmont Vistas/Storage USA Project  
South San Francisco, Ca.

Dear Ms. Kalkin:

I am a homeowner living in Westborough, who is opposed to the above stated construction projects. I am requesting that the Planning Commission deny adoption of a General Plan Amendment or rezoning of said property.

These proposed projects will impact upon this community in a negative way. Currently, our children cannot cross Westborough Blvd., due to the high volume of traffic. The construction of Oakmont Vistas and Storage USA will increase our traffic problem to an unmanageable degree. My understanding of the project also indicates that we will suffer from noise and the possibility of exposure to hazardous materials. We will have no control of our own backyard forcing us to put up with strangers coming to store items in the storage sites. Additionally, I feel that such a project will reduce our property values. We don't need this and don't want it.

I request your help in preserving the integrity of this community by disallowing these projects.

Thank you.



Bernadette Aguilar Casias

Resident Owner of 2445 Bantry Lane, South San Francisco, Ca.

## RESPONSE TO COMMENTS

STATE OF CALIFORNIA - BUSINESS TRANSPORTATION AND HOUSING AGENCY

GRAY DAVIS Governor

## DEPARTMENT OF TRANSPORTATION

P.O. BOX 230660  
OAKLAND, CA 94623-0660  
Tel: (510) 286-4444  
Fax: (510) 286-5513  
TDD: (510) 286-4454

## ATTACHMENT 5



August 12, 1999

SM-280-22.42  
SM-035-26.23  
SM280100

Ms. Susy Kalkin  
Senior Planner  
City of South San Francisco Planning Department  
315 Maple Avenue  
South San Francisco, Ca 94083

Dear Ms. Kalkin:

**Initial Study/Mitigated Negative Declaration for the Oakmont Vistas Storage Project;  
City of South San Francisco**

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. We have examined the document and have the following comments to offer:

1. In appendix B, table 2, pages 1 and 2, please indicate the year and sources of the data for the approved projects listed under South San Francisco, Daly City, Pacifica, and San Bruno and verify whether that the data is current. The proposed Mitigated Negative Declaration lists three approved projects for the City of South San Francisco. However, table 4.3-2 of the South San Francisco General Plan Update DEIR (see attached) indicates that there are more than three development projects approved within the City that may impact the project area. Please clarify this data discrepancy in the two documents.
2. The right turn traffic volumes at the Westborough Boulevard/Skyline Boulevard/Sharp Park Road intersection suggest that a right-turn lane may be necessary to accommodate existing right-turn traffic and traffic generated by projected future growth in the area. Please consider providing a dedicated right-turn lane as mitigation to alleviate current and future traffic conditions at the above intersection.

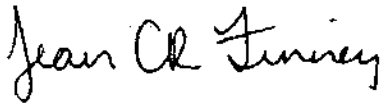
RESPONSE TO COMMENTS

Ms. Susy Kalkin  
August 12, 1999  
Page 2

We thank you for requesting our input. If you have any questions, or need any further information, please do not hesitate to contact Nandini N. Shridhar, AICP, of my staff at (510)622-1642.

Sincerely,

HARRY Y. YAHATA  
District Director

By 

JEAN C R. FINNEY  
District Branch Chief  
IGR/CEQA

c: Ms. Mosie Boyd (State Clearinghouse)

Comment: Correction of Proposed Mitigated Negative Declaration

*"3. Page 19. The continued sentence on top of page 19 should be revised to correct the acreage of the parcel in the southwest corner of the site. This parcel is approximately 5 acres (5.02), not 4, as currently indicated in the text."*

Response: The first sentence in the fourth paragraph under the heading "**Project Site**" beginning on page 16 of the Initial Study and Proposed Mitigated Negative Declaration has been modified to read as follows in the Initial Study and Mitigated Negative Declaration:

*"Two areas of the site are designated as acceptable for residential development, with certain conditions: the vacant lot in the northwestern corner (at the intersection of Oakmont and Westborough Boulevard) and the approximately 5 acre parcel in the southwestern corner of the site."*

Comment: Correction of Proposed Mitigated Negative Declaration

*"4. Page 20, Project Description. The continued sentence on top of page 20 should be revised to substitute 33 units for 34."*

Response: The second sentence under the heading "**Site Ownership**" beginning on page 19 of the Initial Study and Proposed Mitigated Negative Declaration has been modified to read as follows in the Initial Study and Mitigated Negative Declaration:

*"These approvals, or project entitlements, include a General Plan Amendment, Zoning Amendment, Rezoning and Use Permit to allow the development of a 4.9-acre mini-storage facility with a resident caretaker's unit; a Tentative Subdivision Map and Planned Unit Development permit for approval of a 33-unit single-family residential development; a Tentative Parcel Map to create three individual parcels at the project site; and a grading permit, which would enable foundation excavation, the clearing of vegetation and topsoil on the site, as well as earth movement associated with preparing the site for residential and mini-storage unit development on the 10 acre parcel (among other conditions)."*

Comment: Correction of Proposed Mitigated Negative Declaration

*"5. Page 21, Paragraph 1. The caretaker unit does not require any HVAC equipment on the building rooftop. Please clarify."*

Response: The eighth sentence in the first non-bulleted paragraph on page 21 of the Initial Study and Proposed Mitigated Negative Declaration has been modified to read as follows in the Initial Study and Mitigated Negative Declaration:

*"The proposed storage buildings will not provide any heating, ventilation or air conditioning (HVAC) within the individual units; therefore, no HVAC equipment will be necessary on building rooftops."*

Comment: Existing Land Uses in the Vicinity of the Project Site

*"6. Pages 27 & 28, Existing Conditions - Site Description. The site description also should include a discussion of the character and uses found in the surrounding area. For example, in addition to the residential uses adjacent to the site, there are also existing storage facilities in the vicinity of the project and the residential area, including the Shurgard facility across Westborough Boulevard at 2679 Meath Drive."*

Response: The first complete paragraph on page 28 of the Initial Study and Proposed Mitigated Negative Declaration has been modified to read as follows in the Initial Study and Mitigated Negative Declaration:

*"Figures 7 and 8 offer different perspectives of the intersection of Callan, Oakmont and Westborough Boulevard. The Project site is located on the southern corner of this major intersection. In Figure 7, San Bruno Mountains can be seen in the background. Westborough Commercial Center, bisected by Callan Boulevard, is shown immediately opposite the Project site. Although not visible in Figure 7, there are also existing storage facilities in the area, including the Shurgard facility across Westborough Boulevard at 2679 Meath Drive."*

Comment: Design Review

*"7. Page 35, Paragraph C. Paragraph C should be further revised to clarify that the residential designs have already been approved by Design Review on two separate occasions. We suggest the revised residential plans, which were*

*the subject of Design Review on July 15th, be included in the final document. The text discussion should be updated to reflect the different floor plans and elevations contained in the revised plans."*

Response: Paragraph (C) on page 35 of the Initial Study and Proposed Mitigated Negative Declaration has been modified to read as follows in the Initial Study and Mitigated Negative Declaration:

*"(C) Under Chapter 20.85 of the South San Francisco Zoning ordinance, the project has been subject to design review on two previous occasions using the criteria established in applicable zoning sections. The project may be further evaluated in light of the mitigation measures adopted as part of project approval. The design Review Board will make recommendations to the Planning Commission to approve or disapprove the design, or require such changes as are in its judgment necessary to accomplish the general purposes of Chapters 20.16 and 20.78."*

The suggestion to include revised residential plans as part of the Initial Study and Mitigated Negative Declaration is noted. As indicated in the Initial Study and Mitigated Negative Declaration discussion of project-related visual effects, however, the proposed residential development at the site would not be expected to be 'out of character' with surrounding development which has already taken place. Residential floor plans and elevations were not included in the Initial Study and Proposed Mitigated Negative Declaration, and changes to the residential floor plans and elevations which have been made by the project applicant since the publication of the Initial Study and Proposed Mitigated Negative Declaration would not be expected to significantly alter this assessment.

Comment: Clarification of Data

*"1. In appendix B, Table 2, pages 1 and 2, please indicate the year and sources of the data for the approved projects listed under South San Francisco, Daly City, Pacifica, and San Bruno and verify whether that the data is current. The proposed Mitigated Negative Declaration lists three approved projects for the City of South San Francisco. However, table 4.3-2 of the South San Francisco General Plan Update DEIR (see attached) indicates that there are more than three development projects approved within the City that may impact the project area. Please clarify this data discrepancy in the two documents."*

Response: As indicated in the notes to Table 2 in Appendix B, the list of approved/proposed development projects in the project area for South San Francisco, Pacifica and San Bruno was developed by Crane Transportation Group after consultation with Planning Department officials in each of these jurisdictions to reflect the most current (1999) information. This listing of approved/proposed development projects is intended to reflect the level of development anticipated in the project area and the traffic-related effects associated with those projects, rather than a comprehensive listing of all development projects (including those beyond the project area) which may have an effect on traffic conditions in the project area. This is in contrast to the list of projects in the South San Francisco General Plan Update DEIR, which includes all such projects within the City's jurisdiction. Additional development projects which may be proposed and approved in South San Francisco and in other locations outside the project area that are not listed in Table 2 may ultimately have some effect on traffic conditions in the project area. However, as indicated on page B-7, "In addition to traffic from specific developments, an additional .5% per year regional growth rate (to year 2005) was projected for through traffic growth along Westborough Boulevard-Sharpe Park Road and Skyline Boulevard." This growth factor could be regarded as encompassing additional traffic associated with unspecified future development projects not currently proposed or approved within the project area, including projects within other areas of South San Francisco and in other jurisdictions that are not listed in Table 2.

## PROPOSED GENERAL PLAN AMENDMENT/REZONING

Comment: Rezoning Site to Permit Non-Residential Development

*"My second concern is one dealing with changing the zoning of our district from "single family" dwellings to one that would accept proposed "businesses". I vehemently object to this change. Now they mention a mini storage facility, which doesn't thrill me, but what of the future. This would open the door to all kinds of business. The existing storage facility located right across Westborough Blvd. is a constant source of graffiti. I see no need to supply another billboard for this type of destruction in our neighborhood. Notice what happens to a neighborhood when this type of business is allowed to enter. Family neighborhoods change into industrial looking projects. We would lose the feeling of "family oriented" space if we allow rezoning."*



Response: Although not a comment on the content or adequacy of the Initial Study and Proposed Mitigated Negative Declaration, opinion regarding proposed rezoning of the project site is noted. The request for rezoning associated with the proposed project applies only to the project site, and would not otherwise modify the existing "R-1-E-P" (Single Family Residential) zoning in the immediate area. Although it is not possible to absolutely rule out the possibility of future requests for rezoning which may come from owners of other properties in the vicinity of the project site, since the immediate area is already fully developed (largely in residential uses), it is unlikely that such requests will be forthcoming, particularly in light of the strong neighborhood opposition to additional non-residential development in the area. If such requests are made, however, the City of South San Francisco will take action on each request on a case-by-case basis, and is not required to approve such requests simply because similar requests may have previously been approved. The project as proposed is not intended to "supply another billboard" for graffiti, and the presence of a resident caretaker at the site should reduce such property damage to some extent. Since the area surrounding the project site is already fully developed, it is unlikely that development as proposed would result in any significant alterations in the existing character or appearance of the "family neighborhoods" in the surrounding area.

Comment: Objection to Proposed Rezoning

*"To repeat, I wish to express concerns about the single family dwellings, but I am COMPLETELY AGAINST REZONING this or any portion of our neighborhood. If you have doubts, spend some time on Callan and Shipley Streets near the bowling alley and other businesses in that area. Neighbors were assured of plentiful parking and a clean, healthy atmosphere at the time those changes took place. How many businesses do you find in residential areas in Burlingame and Millbrae where property values are constant? Those residents would not allow this. Why should we?"*

Response: Although not a comment on the content or adequacy of the Initial Study and Proposed Mitigated Negative Declaration, objection to the proposed rezoning is noted. The Initial Study and Proposed Mitigated Negative Declaration evaluated the potential environmental effects which might be associated with the proposed development of the project site. It is beyond the scope of this evaluation to compare the current proposal

with similar proposals which may or may not have been made in other communities such as Burlingame or Millbrae.

Comment: Objection to Proposed Project

*"Vote No on Oakmont Vistas Storage Project. If there were nothing wrong with the land in the sixties when housing was booming and each lot was sold before the home was built. One cannot really predict what an earthquake will do on a fracture. Making the money over the lives of dead people."*

Response: Although not a comment on the content or adequacy of the Initial Study and Proposed Mitigated Negative Declaration, objection to the proposed project is noted.

Comment: Opposition to Proposed General Plan Amendment/Rezoning

*"I am a homeowner living in Westborough, who is opposed to the above stated construction projects. I am requesting that the Planning Commission deny adoption of a General Plan Amendment or rezoning of said property."*

Response: Although not a comment on the content or adequacy of the Initial Study and Proposed Mitigated Negative Declaration, opposition to the proposed General Plan Amendment/Rezoning is noted.

Comment: Opinion Regarding Approval of Proposed Project

*"I request your help in preserving the integrity of this community by disallowing these projects."*

Response: Although not a comment on the content or adequacy of the Initial Study and Proposed Mitigated Negative Declaration, opposition to the project as currently proposed is noted.

## DRAINAGE

Comment: Project-Related Effects on Existing Drainage Problems

*"I welcome progress and, in fact, wondered what took a developer so long to put forth a proposed plan to improve this property. I accept the proposed building of some 33 "single family" residences with some reservations, but my real concern is how this project will effect the underground spring in our area."*

*It has already ruined one home on Olympic Drive. It has been a source of concern for all homeowners in this district for some time. The City let this spring drain for years to a drain on the corner of Olympic Drive (one block off Westborough Blvd.). There have been sink holes effecting Oakmont Drive and currently Olympic Drive. The letter I received quotes "significant environmental impacts" will be dealt with and discussed. I want more than discussion on this matter. I refuse to believe that grading this area, tapping into existing sewer system or creating a completely new drainage system to accommodate these homes would not effect the natural flow of this spring. The Project Manager will build and then leave. Once again it will be the residents who have to deal with what is left behind. If for no other reason, please pay attention because of what the unnatural redirection of this spring would do to your property value."*

Response: Sub-Drainage and Groundwater Flow issues associated with the proposed development of the project site are addressed on page 74 and Page 77 of the Initial Study and Proposed Mitigated Negative Declaration. As indicated on Page 87 of the Initial Study and Proposed Mitigated Negative Declaration, the presence of seasonal springs and associated wet zones represents a potentially significant impact on site stability. The Initial Study and Proposed Mitigated Negative Declaration included the following Mitigation Measure which, if effectively implemented, would reduce the potential impact associated with on-site wet zones to a level of less than significant (see Page 87):

*"In order to significantly reduce the potential for subdrainage problems on the project site, site grading and drainage measures should intercept and divert subsurface water away from the proposed structures. The soil engineering study for the site recommends tying the existing subdrains along Westborough Boulevard into the Parcel 2 subdivision's storm drain system during mass grading. This measure should be implemented. In addition, as also recommended by the soil engineering study, the subdrain pipe(s) that were broken during exploratory soil trenching by one of the project applicant's geotechnical consultants should be repaired prior to or as part of reconstruction of the site's drainage system."*

Implementation of the proposed Mitigation Measure would ultimately redirect the natural flow of existing springs at the project site to reduce the potential for future property damage, both on- and off-site. Regardless of what development eventually takes place at the project (if

any), nearby residents who remain in the area will have to "deal with" the environmental consequences of such development to some extent. The purpose of the Initial Study and Mitigated Negative Declaration is to provide information on the type of environmental consequences that may be anticipated with development of the project site as proposed, and to identify measures which would reduce potentially significant environmental impacts to a level of less than significant. The implementation of the above Mitigation Measure is intended to ensure that the type of subdrainage problems which have been associated with previous development in the vicinity of the project site are resolved satisfactorily prior to the proposed development at the project site. Since the Initial Study and Proposed Mitigated Negative Declaration is an environmental review document, it does not address the economic effects (either positive or negative) which implementation of proposed Mitigation Measures may have on property values in the area.

Comment: Project-Related Drainage Effects

*"The Westborough area has major problems with drainage, heavy moisture, mildew, etc. Like others, we have had work done on the drainage, but some of the problem still exists."*

Response: Existing drainage problems on and in the vicinity of the project site are addressed in the "Hydrology and Water Quality" section of the Initial Study Checklist, beginning on Page 71 of the Initial Study and Proposed Mitigated Negative Declaration.

## TRANSPORTATION/TRAFFIC

Comment: Vehicle Access to Proposed Storage Area

*"Should rezoning occur, and the storage project come to fruition, may I suggest that you consider entry into that establishment by way of the common wall they will share with Oakmont Vistas. Since it would be a less traveled and restricted area, it would diminish traffic congestion that would occur on the busier streets of Westborough and Oakmont."*

Response: Access to the proposed storage warehouse portion of the project site is addressed on Pages 117 and 118 of the Initial Study and Mitigated Negative Declaration, which indicates that the proposed point of access along Oakmont Drive opposite Bantry Lane would not result in any

potentially significant environmental impact. Routing storage area traffic through the proposed residential portion of the project site would not result in any decrease in the total volume of traffic anticipated on local streets, since both the proposed access point to the storage warehouse area and the proposed access point to the residential area would be located along Oakmont Drive, and all project-related traffic would ultimately find its way to Oakmont Drive regardless of where the access points to each portion of the project site are placed. However, providing access to the proposed storage area through the proposed residential area as suggested in this comment would eliminate the need for a second project-related intersection along Oakmont Drive to serve the proposed storage area, which could result in less traffic congestion at that portion of Oakmont Drive.

Comment: Vehicle Access to Proposed Storage Area

*"Why not access the storage area somewhere along this common wall. It would be away from the heavier traffic flow on Oakmont. Or are the developers concerned that potential buyers would quest on (and not like) what that could do to their property values. We feel the same way."*

Response: Providing access to the proposed storage area through the proposed residential area as suggested in this comment would eliminate the need for a second project-related intersection along Oakmont Drive to serve the proposed storage area, which could result in less traffic congestion at that portion of Oakmont Drive. This would not alter the total anticipated volume of project-related traffic along Oakmont Drive, however, since all project-related traffic would be entering Oakmont Drive at the proposed residential entryway, rather than at two separate entryways. As indicated in Table 3 in Appendix B of the Initial Study and Mitigated Negative Declaration, estimated vehicle trips related to the proposed storage facility would range from 10 during the A.M. peak hour to 14 during the P.M. peak hour, with an estimated average of one vehicle trip every five minutes during the after school peak hour (12 trips per hour). Although residents in any area are unlikely to favor any additional vehicle trips passing in front of their homes, an increase in the number of vehicle trips of the magnitude anticipated with the proposed development of the project site would not be regarded as significant, either passing in front of homes located at the project site or passing in front of existing homes located off-site. Limiting access to the proposed storage area to that entry associated with the proposed

residential area would, in effect, maximize the number of homes which would be exposed to storage-related vehicle trips.

Comment: Parking for Caretaker Apartment

*"2. Page 8. We are not aware of any ordinance requiring the caretaker apartment to have an attached garage. Please clarify. It is our understanding that the caretaker can utilize an existing parking space."*

Response: The proposed caretaker apartment would qualify as a residential use under Chapter 20.74.040 of the City of South San Francisco Zoning Ordinances, and under (a) Family Residential Use Types (1), one-unit dwellings (such as the proposed caretaker apartment) require a minimum of two parking spaces per unit, one of which shall be in a garage.

Comment: Storage Area Parking Spaces

*"8. Page 119. The last sentence in the last paragraph on page 119 should be revised to clarify that the location of the 74 internal parking spaces do not need to be striped or designated. As is clear elsewhere in the document, more spaces than required have been provided. There is no basis to require stripping, which is not typically done for such storage spaces."*

Response: On Page 119, the Initial Study and Proposed Mitigated Negative Declaration indicated that the proposed number of parking spaces at the storage facility at the project site would be 12: six parking stalls associated with the entry office and an additional six parking stalls shown on the site plan. The six parking stalls associated with the entry office would exceed the three spaces required to support that use. However, City criteria for two recently approved storage facilities required 1 parking space for each 1,500 square feet of storage space. Using this criteria, a total of 74 on-site parking spaces would need to be provided to support the 110,700 square feet of storage space proposed. Another means which the City of South San Francisco has used to establish the number of parking spaces which will be required at a storage facility is based on the ratio of one parking space for each fifty storage units. The project applicant has not indicated the total number of storage units which will ultimately be developed at the project site, so this means of establishing the number of parking spaces to be provided can not be used in this instance. Although the City of South San

San Francisco Zoning Ordinances do not indicate that striping is essential, this is a conventional way of formally delineating the location and size of the required number of parking spaces at any particular site, and would be required at the project site. Additionally, under Chapter 20.74.110 (b), concrete bumper guards or wheel stops shall be provided for all unenclosed parking spaces.

In response to this comment, the text in the last paragraph on page 119 of the Initial Study and Proposed Mitigated Negative Declaration has been modified to read as follows in the Initial Study and Mitigated Negative Declaration:

"City criteria for two recently approved miniwarehouse facilities required 1 parking space for each 1,500 square feet of storage. The proposed 110,700 square foot facility would therefore require 74 internal parking spaces using this criteria. Alternatively, the City has used a requirement of one parking space for each 50 storage units, but since the total number of storage units to be built at the project site has not been identified, this criteria cannot be used in this instance. The site plan should also provide and designate (by striping them) the location of 74 internal parking spaces within the miniwarehouse facility."

Comment: Project-Related Increase in Traffic

*"These proposed projects will impact upon this community in a negative way. Currently, our children cannot cross Westborough Blvd., due to the high volume of traffic. The construction of Oakmont Vistas and Storage USA will increase our traffic problem to an unmanageable degree."*

Response: As indicated on Page 116 of the Initial Study and Mitigated Negative Declaration, although development of the project site as proposed would result in an increase in local vehicular traffic, project-related level of service impacts on intersections in the vicinity of the project site would not be significant, and would not exceed any level of service standard established by the San Mateo County Congestion Management Agency. Based on the traffic analysis presented in Appendix B of the Initial Study and Mitigated Negative Declaration, the proposed project would not create any "unmanageable" local traffic problems, or make any existing local traffic problems "unmanageable".

Comment: Suggested Provision of Right Turn Lane

*"2. The right turn traffic volumes at the Westborough Boulevard/Skyline Boulevard/Sharp Park Road intersection suggest that a right-turn lane may be necessary to accommodate existing right-turn traffic and traffic generated by projected future growth in the area. Please consider providing a dedicated right-turn lane as mitigation to alleviate current and future traffic conditions at the above intersection."*

Response: Comment noted. The addition of a right-turn lane at the intersection of Westborough Boulevard/Skyline Boulevard/Sharp Park Road could better accommodate existing and projected right-turn traffic than the existing intersection configuration. However, based on the traffic analysis presented in Appendix B of the Initial Study and Mitigated Negative Declaration, the project-related contribution to the traffic volumes at this intersection is relatively small (an estimated 3 right turns from Westborough Boulevard to Skyline Boulevard during the A.M. peak hour and an estimated 2 right turns from Westborough Boulevard to Skyline Boulevard during the P.M. peak hour - see Appendix B, Figure 7 and Figure 8). It would be difficult to justify a project-related contribution to the suggested intersection improvement with only two or three such turning movements attributable to the project during each peak hour.

**OTHER PROJECT-RELATED EFFECTS**

Comment: Project-Related Reduction in Access to Sunlight

*"Our property abuts the proposed development. We're concerned that the addition of fencing and greenery would further diminish the limited amount of sun that we now get in our backyards - adding to our already existing problems. Although I'm enclosing 'pictures' taken from our second story window, I don't think you can know what might be taken away from us - until you look out the windows. You're invited to come and look for yourselves."*

Response: As currently proposed, development of the project site would incorporate walls, fences and landscaping elements intended to provide some screening. The fences and walls would not be high enough to interfere with the amount of sunlight reaching adjacent properties. In some instances, depending on the ultimate height of the landscaping elements incorporated at the boundary of the project site, it is possible



that trees could shade adjacent properties at times. Based on the photographs provided with this comment, however, it appears unlikely that any landscaping elements used at the project site would increase the amount of shading significantly beyond that which is already provided by trees now located in the back yard of the commentor's residence at 3301 Oakmont Drive. In finalizing the landscaping plans for the project site, it may be possible to balance the desired level of screening with an acceptable level of shading. However, it is likely that some residents who live along the boundary of the project site would prefer a higher level of screening (even if it also means increased shading) rather than a reduction in the level of screening now proposed.

Comment: Project-Related Noise/Exposure to Hazardous Materials

*"My understanding of the project also indicates that we will suffer from noise and the possibility of exposure to hazardous materials."*

Response: Potential noise effects associated with the proposed project are addressed in the "Noise" section of the Initial Study and Mitigated Negative Declaration, beginning on Page 102. As indicated, there would be a temporary increase in existing noise levels during construction at the project site (which could be reduced to a level of less than significant through the limitation of construction hours and the muffling and maintenance of all construction equipment), and there would be a potential increase in exposure of new residents at the site to noise associated with aircraft overflights (which could be reduced to a level of less than significant through the use of dual pane windows, wall/ceiling insulation, weatherstripping, central ventilation systems or other building features intended to reduce maximum interior noise levels to 45 dB CNEL or less).

As indicated on Page 68 of the Initial Study and Mitigated Negative Declaration, due to the unknown character of fill materials previously placed at the project site, it is possible that such fill may contain hazardous materials which, if exposed during the course of site preparation and excavation work, could represent a potentially significant adverse environmental impact associated with the proposed project. This potential effect could be reduced to a level of less than significant by halting work at the project site on encountering materials believed to be hazardous until an evaluation of the material in question has been completed, and appropriate response measures have been

identified by the South San Francisco Fire Department and/or the San Mateo County Environmental Health Department.

Comment: Use of Project Site and Effects on Adjacent Properties

*"We will have no control of our own backyard forcing us to put up with strangers coming to store items in the storage sites."*

Response: If the project site is developed as currently proposed, a portion of the site will provide commercial storage facilities which will be used by customers who may not be known to those living in the area. While residents living nearby will continue to have "control" of their property (including back yards, front yards and side yards), they would have no more and no less "control" over the activities taking place on the project site than they do today. The level of activity at the project site would be expected to be considerably greater than it is now if developed as proposed, and most of those utilizing the proposed storage facilities could probably be characterized as "strangers" by nearby residents..

Comment: Project-Related Effects on Property Values

*"Additionally, I feel that such a project will reduce our property values. We don't need this and don't want it."*

Response: The purpose of the Initial Study and Mitigated Negative Declaration is to evaluate the environmental effects which may be associated with the proposed project and to identify mitigation measures which could reduce significant environmental impacts to a level of less than significant. It is beyond the scope of this document to provide an analysis of the project's economic effects, such as the effect such development might have on property values in the surrounding area.

Opinion regarding the need for the proposed project is noted.

## ALTERNATIVES TO THE PROPOSED PROJECT

Comment: Elimination of Discussion of Alternatives

*"9. Alternatives. a. The "Parcel One - Limited Residential" and neighborhood recreation" alternatives are inappropriate and should be eliminated from this document. As acknowledged in the document, CEQA does not require a*

*negative declaration document to include the evaluation of project alternatives. However, to the extent that alternatives are considered, alternatives must be both feasible and capable of implementation. Neither the "Parcel One - Limited Residential" or the "Neighborhood Recreation" alternative are feasible, realistic alternatives from either an economic or a legal perspective, nor are they projects that have been proposed by the applicant. Both alternatives utterly fail to meet project objectives set forth in the project application and the Mitigated Negative Declaration, and as such, should be eliminated.*

*With respect to the proposed use of Parcel One, the area proposed for storage uses in the proposed project, the City cannot meet its burden to show that an open space condition or recreational use on the portion of this site under either alternative, is legally appropriate under either a "nexus" or a "rough proportionality" analysis. No impacts of the residential project required an almost 50 percent open space dedication, nor do impacts related to the two residential units proposed for Parcel One in the "Parcel One - Limited Residential" alternative require additional project open space. As indicated above, an open space or neighborhood recreational use on the site can be maintained only if the City decided to purchase the property for such purposes, which the City has specifically declined to do. As acknowledged on page 29 of the Mitigated Negative Declaration, "recent correspondence from South San Francisco indicates the City has no current plan that identifies the project site for any public use and has no basis to purchase the site."*

*Further, the Mitigated Negative Declaration indicates that no additional park land is required by the proposed residential subdivision. (Page 111.) This would also clearly be the case for the two residential units proposed in the "Parcel One - Limited Residential" alternative. The document states that "the Westborough planning area of the City does not have any deficiencies in terms of the number and distribution of park facilities." This planning area currently has three parks and extensive open space are relatively close to the project site. (See Table 6, pages 97, 111.) According to the document, the development of the project site as proposed "would not have any measurable effect on existing recreational opportunities." "Development of the project also includes the provision of over two acres of common area facilities to be used by future Oakmont/Vistas residents." (Page 112.)*

*Finally, the existing South San Francisco General Plan, Capital Improvement Budget and Parks Master Plan do not identify the vacant site as proposed for any public uses. (Page 27.) As stated in the document, "for many years, development of residential uses on the project have been recognized in policies*

*contained in the South San Francisco General Plan, thus the conversion of the site from open space to urban development is not considered a significant impact." (Page 29.) As also stated in the document, "since the project site is not currently used for any passive or active recreational purposes and three other City parks are in the Westborough area, the development of the site would not, from an adopted land use policy standpoint, constitute a significant loss of open space in the area." (Page 97.) This is true whether the proposed project is residential and/or storage.'*

Response: Opinion regarding the discussion of alternatives within the Initial Study and Mitigated Negative Declaration noted. Although the property owner or project applicant may not have any economic incentive or interest in pursuing any of the alternatives discussed, this does not make them illegal, infeasible or physically incapable of implementation. While these alternatives would not meet the stated project objectives to the same extent as the proposed project, they would create construction job opportunities, would eliminate a vacant and neglected 10 acre parcel in a visible area of South San Francisco, would enhance the site with new drainage facilities, and would provide new property tax revenue.

The "Parcel 1 - Limited Residential" alternative is not predicated on any "nexus" or "rough proportionality" to the proposed residential development at the project site, but is a hypothetical alternative to the development pattern currently proposed. As indicated in the Initial Study and Mitigated Negative Declaration and in this comment, the City has no current plan that identifies the project site for any public use and has no basis to purchase the site. However, the discussion of this alternative on Page 128 of the Initial Study and Mitigated Negative Declaration indicates that the undeveloped portion of Parcel 1, which is generally considered unsuitable for habitable structures, would be fenced off and maintained as private open space for residential units on that parcel, so this portion of the property would not need to be purchased and maintained by the City under this alternative.

As indicated in this comment and on Page 112 of the Initial Study and Mitigated Negative Declaration, the project as currently proposed would provide more parkland than would be required under the City's Quimby Act ordinance. Since it would be in private ownership with no public access, the open space feature associated with the "Parcel 1 - Limited Residential" alternative would not provide any additional land which would meet the requirements of the City's Quimby Act ordinance.

As indicated in this comment and on Page 29 of the Initial Study and Mitigated Negative Declaration, for many years, development of residential uses on the project site has been recognized in policies contained in the South San Francisco General Plan. The "Parcel 1 - Limited Residential" alternative would permit residential development to take place on this parcel, but would limit such development to those areas which have been identified as suitable, keeping those areas which are unsuitable for such development as permanent, private open space. The intent of the alternative is not to increase the City's public open space (it would result in no increase in public open space), but to enable limited residential development in those areas of the site where such development is not at increased risk of exposure to geotechnical hazards without necessitating a change from the current General Plan land use designation and zoning of the site.

Comment: Project-Related and Alternative-Related Drainage Improvements

*"9. Alternatives. b. The discussion of alternatives should further emphasize that drainage conditions on and in the vicinity of the project site would be improved under the development scenarios set forth in the Project on both Parcels One and Two. The proposed project could be developed only after correction of all the existing drainage problems at the site. (Page 128.)"*

Response: As indicated in this comment, existing drainage problems at the project site would need to be corrected prior to the start of construction of any structures (see discussion of Subsurface Drainage and On-Site Wet Zones on pages 87 and 88 of the Initial Study and Mitigated Negative Declaration). This work would not be accomplished under the "No Project" alternative, but could be required under the "Parcel 1 - Limited Residential" alternative, the "Increased Density" alternative or the "Neighborhood Recreation" alternative.

Comment: Parcel One Conditions under "Parcel One - Limited Residential Alternative

*"9. Alternatives. c. The discussion of "Parcel One - Limited Residential" alternative should include a discussion of the status of the fenced off portion recommended for the remainder of Parcel One, which is not considered suitable for habitable structures. As public access within the fenced area would not be permitted under this alternative, the fenced portion would become a no man's land, subject to trespass and vandalism. (Pages 128, 129.) Such area*

*could not be regarded as a open space amenity, as it is currently described in the text."*

Response: As indicated on Page 128 of the Initial Study and Mitigated Negative Declaration, the portion of Parcel 1 which is generally considered unsuitable for habitable structures would be fenced off and maintained as private open space for the residential units on Parcel 1. Although this area would not be expected to receive the same level of maintenance as a private yard, the property owner within Parcel 1 would be responsible for on-going maintenance and security in this area. Since it would be vacant, it is unlikely that this area would be subject to significant vandalism, and it would be no more subject to trespass than any other fenced area in a predominantly residential area. Because the property owners in Parcel 1 would be paying for this open space area and would be living adjacent to it, there should be sufficient incentive for them to provide sufficient maintenance to keep it in a aesthetically pleasing condition, rather than permit it to become a sort of "no man's land".

Comment: Need for Recreational Facilities under Neighborhood Recreation Alternative

*"9. Alternatives. d. The discussion of "Neighborhood Recreation" alternative fails to discuss who would pay to develop the type of recreational facilities set forth under the alternative. Certainly given the limited access and lack of any need for such facility, this is not a proposal made by the developer. As the City has not stepped up to offer to develop and maintain this property for neighborhood recreation alternative, this proposal is not a feasible alternative."*

Response: Although not addressed in the discussion of the hypothetical "Neighborhood Recreation" alternative, the development of a portion of the project site for the purposes of a neighborhood recreational facility would probably become the financial responsibility of the City of South San Francisco, although it might be possible for private interests to develop a driving range or mini-golf course there. As indicated in this comment, to date the City has shown no interest in directing any City resources toward the development of such an alternative. However, this does not mean that such resources could not become available at some point in the future, particularly given the level of public interest in an alternative of this type.

## APPENDIX A

### LIST OF MITIGATION MEASURES

#### AESTHETICS

■ **IMPACT: Modification of Views Along a Major Arterial and from Existing Residences in the Project Vicinity**

The development of the project site as proposed would result in a significant alteration in the visual characteristics of what is currently an undeveloped lot characterized by a number of large trees and an abundance of vegetation. A major aesthetic impact would result from extensive site grading and removal of vegetation during project construction. Because the proposed development would be visible to residents of an established neighborhood, and also occur along a well traveled arterial, this would represent a potentially significant temporary impact associated with the proposed project.

**MITIGATION MEASURE: Modification of Views Along a Major Arterial and from Existing Residences in the Project Vicinity**

(A) The proposed landscaping plan for the project site shall include fast-growing species of trees and shrubs that would complement architectural elements of the proposed residential and storage structures. The design should contribute to the existing built environment with the project changing an undeveloped, heavily vegetated environment to a built environment compatible with adjacent uses and the natural setting. Over time, as the landscaping matures, the visual impacts associated with the proposed development of the project site will be moderated.

(B) The project applicant shall utilize exterior building materials with a natural appearance. Bright and contrasting colors shall not be used. All roofs at the project site shall utilize non-reflective roofing materials.

(C) Under Chapter 20.85 of the South San Francisco Zoning Ordinance, the project has been subject to design review using the criteria established in applicable zoning sections. The project may be further evaluated in light of the mitigation measures adopted as part of project approval. The Design Review Board will make recommendations to the Planning Commission to approve or disapprove the design, or require such changes as are in its judgment necessary to accomplish the general purposes of Chapter 20.16 and 20.78.

Taken together, these mitigation measures would reduce the impact associated with a modification of existing views along Westborough Boulevard to a level of less than significant. However, even after the proposed landscaping has "grown in", the visual features of the project site with the proposed development in place would remain considerably different from the features currently visible there.

■ **IMPACT: Change in Views and Inconsistent Development not in Character with Surrounding Residential Development**

The development of the proposed storage facilities as proposed would not be a compatible use with the surrounding residential development. The proposed development on Parcel 1 will result in a significant alteration in the visual characteristics of what is currently an undeveloped lot surrounded by single family residences. This would represent a potentially negative aesthetic impact.

**MITIGATION MEASURE: Change in Views and Inconsistent Development not in Character with Surrounding Residential Development**

The mitigation measures identified above will serve to reduce the potential adverse impacts associated with the self-storage warehouse portion of the Project. In addition, the applicant shall incorporate design elements and exterior architectural facade features that serve to visually "break up" the long linear roof lines of the five storage facilities. The intent is to design the buildings to reduce the bulky warehouse features, reduce the appearance of flat linear roof lines, and to simulate and blend in with single family residential development.

Taken together, these mitigation measures would reduce the impact associated with the development of warehouse development that is "out of character" with the surrounding residential development to a level of less than significant. However, even with design features and after the proposed landscaping has "grown in", the visual features of the proposed warehouse development would remain considerably different from immediate surrounding development.



## AIR QUALITY

### ■ **IMPACT: Construction-Related Air Pollution**

Clearing, grading, earthmoving and construction activities at the project site as proposed would be expected to result in the generation of dust and exhaust from construction equipment during construction, which would represent a potentially significant environmental impact on local air quality.

### **MITIGATION MEASURE: Construction-Related Air Pollution**

The implementation of conventional dust suppression measures such as watering exposed soil surfaces, covering stockpiles of debris, the routine sweeping of the construction area and adjacent streets, and the suspension of grading and other earthmoving activities during high winds would reduce the potential impact to a level of less than significant. Since the construction would take place on a site which is larger than four acres, the Bay Area Air Quality Management District requires the implementation of all of the following mitigation measures:

- All construction areas shall be watered at least twice daily.
- All trucks hauling soil, sand and other loose materials shall be covered, or shall be required to maintain at least two feet of freeboard.
- All unpaved access roads, parking areas and staging areas shall be either paved, watered three times each day, or be treated through the application of non-toxic soil stabilizers.
- All paved access roads, parking areas and staging areas shall be swept daily with water sweepers.
- If visible soil material is carried onto adjacent public streets, these streets shall be swept daily with water sweepers.
- Hydroseed or non-toxic soil stabilizers shall be applied to previously graded construction areas which have been inactive for ten days or more.
- Exposed stockpiles of dirt, sand, etc. shall be enclosed, covered or watered twice daily, or non-toxic soil binders shall be applied.

- Traffic speeds on unpaved roads shall be limited to 15 miles per hour.
- Sandbags or other erosion control measures shall be installed to prevent soil runoff to public roadways.
- Vegetation in disturbed areas shall be replanted as quickly as possible.

These measures would reduce the construction-related air quality impacts associated with development of the project site to a level of less than significant.

## **BIOLOGICAL RESOURCES**

### **■ IMPACT: Vegetation Removal and Habitat Loss**

Grading associated with project implementation would require removal of existing vegetation and associated wildlife habitat from most of the site. Loss of non-native grassland, ornamental trees, and limited areas of native vegetation would generally not be considered significant. However, grading may contribute to the spread of undesirable species, which would be significant if not adequately controlled. This is considered a potentially significant impact.

### **MITIGATION MEASURE: Vegetation Removal and Habitat Loss**

The proposed Landscaping Plan for the project should include a component to prevent re-establishment of weedy invasive species such as broom, gorse, pampas grass, and acacia. Landscape maintenance should include removal of seedlings and newly established shrubs on an annual basis for a minimum of five years until planted ground covers have become successfully established.

With the implementation of the above mitigation measure, this impact would be reduced to a level of insignificance.

## **CULTURAL RESOURCES**

### **■ IMPACT: Archaeological Resources**

Although there is no evidence to date of any archaeological materials at the project site, development of the proposed project could possibly impact archaeological resources. This represents a potentially significant impact associated with the proposed project.

### **MITIGATION MEASURE: Archaeological Resources**

(A) A qualified archaeologist should be present to monitor the initial preparation of the site (stripping and grubbing) prior to the start of construction. If cultural materials are encountered, there shall be no further disturbance of the site until the materials have been evaluated by a qualified archaeologist, and appropriate treatment measures have been identified.

(B) In the event of discovery of any human remains, there shall be no further disturbance of the site until the coroner of San Mateo County 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, the descendants from the deceased Native Americans have made a recommendation to the landowner or 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. If 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, or if the landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner, then the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Taken together, these mitigation measures would reduce the potential impact to a level of less than significant.

## **GEOLOGY AND SOILS**

### **■ IMPACT: Seismic Shaking and Fault Rupture**

A moderate to major earthquake on the San Andreas fault or a major earthquake on the Hayward, Calaveras, or Seal Cove faults is expected to cause severe (violent to very strong) ground shaking on the project site during the economic life-span of any construction. Seismic shaking could damage structures and infrastructure at the site. This represents a potentially significant impact related to the proposed development and residential population of the project site.

### **MITIGATION MEASURE: Seismic Shaking and Fault Rupture**

(A) The most current applicable seismic provisions of the Uniform Building Code design requirements shall be followed by the project structural engineer to minimize potential damage to structures due to seismic shaking.

(B) The project geotechnical consultant shall provide anticipated seismic ground accelerations to the project structural engineer for consideration in structural design. All structures on the site shall be designed to accommodate anticipated ground shaking.

(C) In accordance with recommendations of Earth Systems Consultants, residential development (structures for human occupancy) must be restricted to two areas on this site determined to be free of active faults: the vacant lot in the northeastern corner and most of the greenstone bedrock area in the southwestern corner of the site. The remainder of the site shall be utilized only for non-habitable structures or open space. Utilities shall not be built within the geologic setback zone or cross the fault zone, unless equipped with flexible pipes that accommodate earth movement without failure and/or automatic shut-off valves or any other safety designs that the utility provider deems necessary.

Taken altogether, these mitigation measures would reduce, but not totally eliminate, the potential impacts associated with seismic shaking and fault rupture at the project site. Although the presence of these geologic conditions would increase the vulnerability of the project site to ground shaking, the implementation of these measures would reduce the risks to persons and the proposed structures at the project site to levels generally considered acceptable according to engineering standards for projects of this type in the seismically active San Francisco Bay Area. Therefore,

implementation of these measures would reduce this impact to a level of less than significant.

■ **IMPACT: Seismic-Induced Ground Failures**

The potential for secondary seismic ground failures on the project site is considered high for lateral spreading on steep slopes overlain by fill and over the ancient landslide deposit. Likewise, lurch cracking could occur within the deep fills of the central portion of the site, or in the vacant lot in the northeastern corner of the site. This is a potentially significant impact, particularly in areas of shallow groundwater and during seismic loading.

**MITIGATION MEASURE: Seismic-Induced Ground Failures**

The project applicant shall be required to demonstrate that all steep slopes at the project site, particularly those which exceed 2:1, will remain stable during earthquake-induced ground shaking, under seismic loading and saturated conditions. The soils engineer shall provide recommendations for corrective grading, based on the soil engineering results and characterization of the fills and shallow landslide deposits in the southwestern portion of the site. This would reduce the potential impact to a level of less than significant.

■ **IMPACT: Expansive Soils**

Plasticity testing of soil borings by Earth Systems Consultants indicate that expansive soils are present on the site. Where expansive soils are present or used in fills, there is a potential for heaving of soil when the moisture content increases and shrinkage of the soil when its moisture content decreases. Differential movement of expansive soils can cause structural damage to buildings including cracking of foundations and concrete slabs. This represents a potentially significant impact.

**MITIGATION MEASURE: Expansive Soils**

(A) Proposed structures shall include a pier and grade beam foundation system and a premoisturizing program for the soil subgrades beneath concrete slabs-on-grade. The piers beneath each structure shall extend equally into compacted fill or firm, natural ground

(B) A plan shall be implemented to control building site drainage in order to reduce variation in seasonal wetting and drying of expansive soils on the site.

Taken together, the implementation of these mitigation measures would reduce this impact to a level of less than significant level.

■ **IMPACT: Grading**

From a geotechnical perspective, the proposed grading and earthmoving activities could result in significant impacts related to cut slope stability, fill settlement and stability, and erosion. These grading and earthmoving activities could entail potentially significant environmental effects, particularly related to erosion.

**MITIGATION MEASURE: Grading**

(A) All grading at the project site shall fully conform with the City of South San Francisco Excavation Ordinance, Urban Runoff Pollution Prevention Ordinance, and Uniform Building Code, (1998 Edition). The project applicant shall obtain a permit to excavate from the City of South San Francisco, and shall comply with all conditions of that permit (including the depth limitations, fencing requirements and the requirement to remove any rock, earth or other material which may be dropped or deposited on any public street or place from any vehicle transporting such materials from the project site). The project shall incorporate erosion control and Best Management Practices (BMP's) and restrict all grading to the non-rainy season (defined as from October 15 to April 15).

(B) All grading at the project site shall be conducted in such a manner as to prevent storm damage to public or private property of others by flooding, erosion, deposition of debris or any other damage resulting from grading work.

(C) Areas to be graded should first be cleared and stripped to remove topsoil and vegetation. Vegetation and debris should be removed from the site, with top soil stockpiled on-site for re-use in landscaping.

(D) Site clearing, preparation of fill areas, placement of subdrains, placement of fill and other grading operations at the site shall be conducted in accordance with all the recommendations contained in the Earth Science Consultants Report dated July, 1997<sup>1</sup>, and as recommended by the Geotechnical Engineer in the field. The work associated with site mass grading

<sup>1</sup> Soil Engineering Study, Westborough Unit Five, Parcel 2, July, 1997, pages 14-24.

should be performed under the observation of a qualified geotechnical representative of the applicant. This will allow for design changes in the event actual subsurface conditions differ from those anticipated prior to the start of construction. In addition, all unstable material, including landslide deposits, soft and wet material shall be removed in cut, keyway and bench areas. Subsequent scarification and placement of fill and potential subdrains will be per the Earth Systems Consultants recommendations in the July, 1997 report. Cut portions of cut/fill building pads shall be overexcavated to provide a uniform thickness of fill beneath the structures and compacted as structural fill.

The effective implementation of these mitigation measures would reduce the potential impacts associated with grading at the project site to a level of less than significant.

## **HAZARDS AND HAZARDOUS MATERIALS**

### **■ IMPACT: Possible Exposure of Hazardous Materials**

Due to the unknown character of fill materials previously placed at the project site, it is possible that such fill may contain hazardous materials which, if exposed during the course of site preparation and excavation work, could represent a potentially significant adverse environmental impact associated with the proposed project.

### **MITIGATION MEASURE: Halting Work on Encountering Materials Believed to be Hazardous**

In the event that materials which are believed to be hazardous are encountered during site preparation or excavation work, all such activity at the project site shall be halted until the material in question has been evaluated by the South San Francisco Fire Department and/or the San Mateo County Environmental Health Department. Prior to the resumption of work at the project site, implementation of appropriate response measures and disposal methods in accordance with applicable state and local regulations and as approved by the Fire Department would reduce the impact to a level of less than significant.

## **HYDROLOGY AND WATER QUALITY**

### **■ IMPACT: Increased Peak Runoff Rates**

Development of the project site will increase the peak runoff rates for the 10- and 100-year recurrence interval storm events. This represents a potentially significant impact associated with the project.

### **MITIGATION MEASURE: Increased Peak Runoff Rates**

(A) No hydraulic analyses have been conducted by the project engineer to determine the capacity of the storm drains at Westborough Boulevard and Oakmont Drive. If the capacity of these storm drains are not sufficient, mitigation measures, such as detention, must be included in the drainage plan. The applicant must include hydraulic calculations in the drainage plan and submit them to the City of South San Francisco for review.

(B) The project engineer has proposed a detention basin in Parcel 2 to maintain post-project peak runoff at or below current levels. However, in order to achieve pre-project discharge rates the flow diverter and outlet structure of the detention basin must be designed appropriately to restrict outflow. In addition, to assure long-term operation and maintenance of the detention facility, the applicant should develop a drainage system operational plan. The design specifications and the drainage system operational plan must be included in the drainage plans and submitted to the City of South San Francisco for approval. The operational plan should specify how the detention facility would be operated, routine maintenance needs, emergency response procedures, and should designate a responsible party to oversee day-to-day operations and maintenance requirements.

(C) Drainage plans for Parcel 3 must be included in the project plans and submitted to the City of South San Francisco for review. The plans for Parcel 3 must include design specifications for outlet protection at the base of the slope bordering Parcels 2 and 3.

The implementation of the above mitigation measures would reduce this impact to a level of less than significant.



■ **IMPACT: Increased Erosion During Construction**

The soils at the project site are susceptible to erosion during construction activities because: 1) grading of exposed soils will occur on moderate to steep slopes (2 to 20 percent); and 2) the soils on the site are moderately susceptible to erosion. This is a potentially significant impact associated with the proposed development of the project site.

**MITIGATION MEASURE: Increased Erosion During Construction**

(A) The applicant must obtain a general construction activity storm water permit (for construction sites greater than five acres) under the National Pollutant Discharge Elimination System (NPDES) regulations. As part of the NPDES permit, the applicant must prepare a Storm Water Pollution Prevention Plan (SWPPP), which should include an erosion control plan covering Parcels 1, 2 and 3. The erosion control plan should identify the location of specific erosion control measures to be implemented during construction. Erosion control measures and soil stabilization techniques such as straw mulching, erosion control matting, hydroseeding, revegetation, and preservation of existing vegetation should be utilized, in accordance with the regulations outlined in the Association of Bay Area Governments "Erosion & Sediment Control Measures" manual. These erosion control best management practices should be monitored for effectiveness and should be subject to inspection by the licensed design professional who prepares the erosion control plan (and the SWPPP).

(B) The comments regarding erosion control recommended by the project soils engineers<sup>2</sup> should be fully incorporated into the grading plans prior to the issuance of a grading permit.

(C) After construction is completed, all drainage facilities and sedimentation basins should be inspected for accumulated sediment, and these drainage structures should be cleared of debris and sediment.

<sup>2</sup> Earth Systems Consultants Northern California. 1997. Soil Engineering Study, Westborough Unit 5, Parcel 2.

(D) Grading and earthwork should be prohibited during the wet season (normally October 15-April 15), and such work should be stopped before pending storm events.

Taken together, these mitigation measures would reduce the potential impact associated with soil erosion during construction to a level of less than significant.

■ **IMPACT: Non-Point Source Pollution**

Under the existing site and grading plans no water quality protection measures are designated. The development of a residential subdivision and self-storage units on the project site will involve the construction of roads and parking areas, landscaped areas, and residences and storage buildings. These facilities will contribute non-point source pollutants to the landscape which will be washed into the local drainage system, Colma Creek and ultimately the San Francisco Bay, representing a potentially significant impact.

Studies indicate that pollutant concentrations are highest during the first few minutes of a storm, i.e. the first flush<sup>3</sup>. Therefore, the cumulative load of pollutants contributed during the first flush of storms of all sizes is significant. As designed, there are no mitigation measures to reduce the water quality impact from the first flush of runoff from Parcels 1 and 2. The detention basin in Parcel 2 utilizes a flow diverter which directs low flows and the first flush of storm water away from the detention basin directly to the storm drain at Shannon Drive. Therefore, the detention basin will provide only minimal water quality benefit.

**MITIGATION MEASURE: Non-Point Source Pollution.**

(A) The applicant must prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) as part of the NPDES permit which they must obtain from the San Francisco Regional Water Quality Control Board. Requirements of the SWPPP include identification and evaluation of potential sources of pollutants associated with activities at the site. In addition, the SWPPP should determine the location and nature of potential water quality impacts. Finally, the SWPPP must identify and implement site-specific best

<sup>3</sup> Horner, R., J. Skupien, E. Livingston, and H. Shaver. 1994. Fundamentals of Urban Runoff Management: Technical and Institutional Issues. Terrene Institute. Washington, D.C.

management practices (BMPs) to reduce or prevent pollutants in storm water discharges. The SWPPP is developed as a tool for pollution prevention, and should be sufficiently flexible to meet the specific needs of the project.

(B) Best management practices may include a variety of pollution prevention and pollution control measures. They include non-structural practices (maintenance procedures, activity schedules, prohibitions of practices, education/awareness measures, and source control measures) as well as structural practices (treatment measures, and runoff controls).

1. The detention basin in Parcel 2 should be redesigned such that the first flush of stormwater passes through the basin, providing enhanced treatment.
2. Oil and grease/sediment traps or filters should be installed and maintained to provide treatment of runoff from Parcel 2, particularly from vehicle parking areas. These areas can be sources of petroleum products, grit from engine leaks and pavement decay. The oil and grease/sediment traps consist of large buried concrete tanks (similar to septic tanks) through which runoff is directed. In the tanks, sediment settles to the bottom and the oil and grease congeal and float to the surface where they are trapped. An oil and grease/sediment trap should be installed near the Shannon Drive entrance to the residential subdivision.
3. Filters, such as "Fossil Filters", are set within drainage inlets to collect oil and other contaminants from runoff without impeding hydraulic capacity. These filters contain an absorbent material specifically designed to allow water to flow through the filter while absorbing heavy metals, silt, debris, and petroleum-based contaminants. Filters should be installed in the storm drain inlets in Parcels 1 and 2. The oil, grease and sediments should be pumped-out periodically from oil and grease/sediment tanks, and the filters should be removed at least annually prior to each rainy season.
4. Utilization of vegetative treatment practices, such as bioswales, can reduce the water quality impacts of parking area and roadway runoff in Parcel 1 to less-than-significant levels. A bioswale is an earthen conveyance system in which pollutants are removed by filtration through grass and infiltration through soil. Bioswales use terrestrial grasses and other fine herbaceous plants growing in a channel in which water flows at some depth. Ideal characteristics are dense, uniform growth of fine-stemmed plants which are tolerant of the area's water, climatological, and soil conditions. Bioswales act to remove pollutants primarily by the filtering action of the grasses, by settling, and in some instances, by infiltration into

the subsoil. Pollutant uptake by the plant material is not a principle removal mechanism of grass-lined bioswales. Bioswales that increase detention, infiltration and uptake by wetland-type plants within the swale have the potential to substantially improve removal rates, particularly of soluble pollutants. A bioswale should be installed adjacent to the entrance roadway in Parcel 1, and should discharge to the storm drain inlet at Bantry Lane.

Taken together, these mitigation measures would reduce the potential impact associated with non-point source pollution to a level of less than significant.

■ **IMPACT: On-Site Wet Zones**

The existing site and grading plans include no specifications for dealing with on-site groundwater drainage. The presence of a seasonally perched groundwater table, seasonal springs, and associated wet zones (particularly at the base of the western slope by Westborough Boulevard), represents a potentially significant impact on site stability.

**MITIGATION MEASURE: On-Site Wet Zones**

In order to significantly reduce the potential for subdrainage problems on the project site, site grading and drainage measures should intercept and divert subsurface water away from the proposed structures. The soil engineering study<sup>4</sup> for the site recommends tying the existing subdrains along Westborough Boulevard into the Parcel 2 subdivision's storm drain system during mass grading. This measure should be implemented. In addition, as also recommended by the soil engineering study<sup>5</sup>, the subdrain pipe(s) that were broken during exploratory soil trenching by one of the project applicant's geotechnical consultants should be repaired prior to or as part of reconstruction of the site's drainage system.

These mitigation measures would reduce the potential impact associated with on-site wet zones to a level of less than significant.

<sup>4</sup> Earth Systems Consultants Northern California. 1997. Soil Engineering Study, Westborough Unit 5, Parcel 2.

<sup>5</sup> Ibid.

## NOISE

### ■ **IMPACT: Construction-Related Noise**

Construction at the project site could result in a temporary increase in existing noise levels, although these noise levels would not be regarded as severe. This would represent a potentially significant impact associated with project development.

#### **MITIGATION MEASURE: Construction-Related Noise**

The Project applicant shall limit the operation of any tools or equipment used in construction to the period between 8:00 AM and 8:00 PM on weekdays (except legal holidays) and between 9:00 AM and 8:00 PM on weekends, and would require the adequate muffling and proper maintenance of all construction equipment used at the project site, would reduce this impact to a level of less than significant.

Once construction at the project site is completed, those living and working in the project area would not be expected to significantly increase the existing noise levels in what is already a largely urbanized portion of South San Francisco, and the proposed development would not result in the exposure of people to severe noise levels.

### ■ **IMPACT: Aircraft-Related Noise**

Development of single family homes and the introduction of new residents to the project site could result in periodic, but temporary increases in existing and future noise levels (single event noise) from aircraft overflights, although these noise levels would not be regarded as severe. This would represent a potentially significant impact associated with project development.

#### **MITIGATION MEASURE: Aircraft-Related Noise**

The proposed project will develop single family homes and place future residents in a potentially noise sensitive area of South San Francisco. To provide safe and comfortable noise levels for future residents, the project shall not have an interior noise level of more than 45 dB CNEL, through the use of dual pane windows, wall/ceiling insulation, weatherstripping, central ventilation systems or other building features to accomplish this goal. This mitigation measure would reduce this impact to a level of less than significant.

## **TRANSPORTATION/TRAFFIC**

### **■ IMPACT: Miniwarehouse Caretaker Apartment Parking**

The caretaker apartment unit on top of the entry office is required by City code to have a 2 parking spaces, one of which must be in an enclosed garage. Since no garage is shown on the site plan for this unit, this is considered a significant impact.

### **MITIGATION MEASURE: Miniwarehouse Caretaker Apartment Parking**

The applicant shall provide a garage for the caretaker apartment building.

## **APPENDIX B**

### **TRAFFIC, PARKING AND CIRCULATION**

#### **OVERVIEW**

This section analyses the circulation and parking impacts expected due to development of 34<sup>1</sup> single family residences and 927 mini warehouse storage units on the project site. Evaluation has been conducted of project traffic impacts during both the morning and evening commute peak traffic hours as well as during the mid-afternoon period coinciding with the end of classes at the Westborough Middle School. Impacts have been determined at major intersections along Westborough Boulevard and at both project access intersections along Oakmont Drive. On-site circulation and parking adequacy have also been evaluated. Measures have been recommended to mitigate all significant impacts due to the project as well as to improve locations with existing deficient operation.

#### **I. SETTING**

##### **A. ROADWAYS**

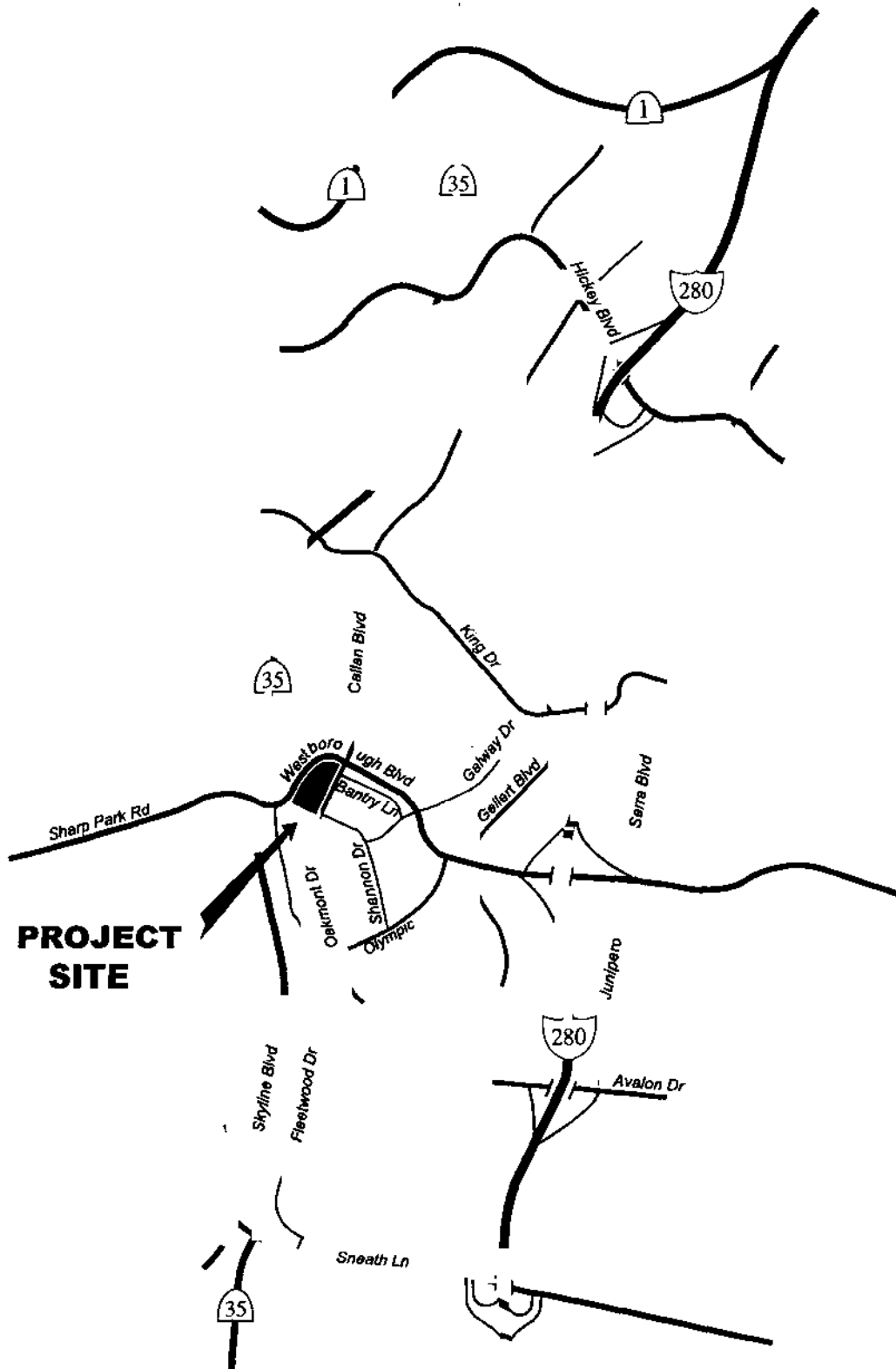
Regional access to the project area is provided by the Interstate 280 freeway and the State Route 35 highway (Skyline Boulevard). See Figure 1. Local access is provided by Westborough Boulevard, Sharp Park Road, Callan Boulevard and Shannon Drive. Direct project access would be from Oakmont Drive. Each roadway is briefly described below while a schematic of turn and through lanes at each major intersection along Westborough Boulevard analyzed for this study is presented in Figure 2.

<sup>1</sup> Parcel 2 - 33 units; Parcel 3 - 1 unit.

Not To Scale



**NORTH**



**PROJECT  
SITE**

Oakmont Vistas Subdivision/Storage USA Mini Warehouse Traffic Study

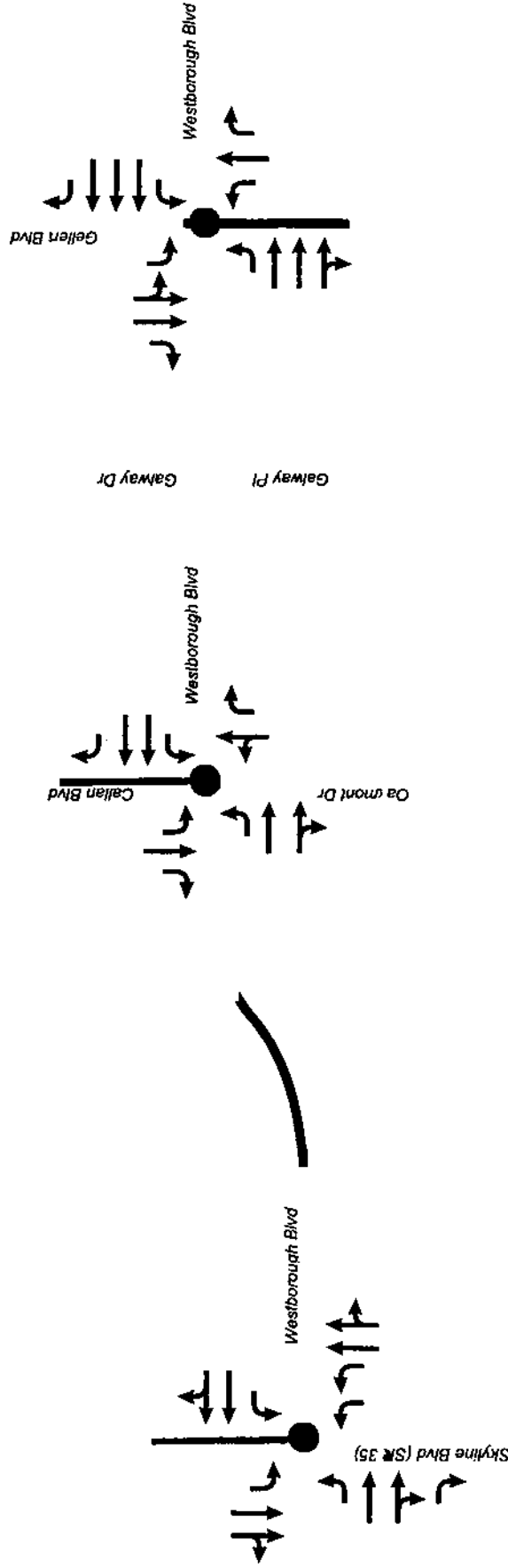


**CRANE TRANSPORTATION GROUP**

**Figure 1  
Area Map**



● = Signalized Intersection



**Figure 2**  
Existing Intersection Lane Geometrics

**Interstate 280 (I-280)** is an 8-lane freeway extending north to San Francisco and south to San Jose. It has a partial interchange with Westborough Boulevard that accommodates all movements except from northbound I-280. The northbound off-ramp is located at the Junipero Serra Boulevard/Avalon Drive intersection about half a mile south of Westborough Boulevard.

**Skyline Boulevard** (State Route 35) runs in a general north-south direction to the west of the project site. It extends to San Francisco and an interchange with S.R. 1 on the north and to an interchange with I-280 about 3 miles to the south of the project. Skyline Boulevard has 4 travel lanes just south of Westborough Boulevard and 2 travel lanes to the north. The Skyline/ Westborough intersection is signalized.

**Westborough Boulevard** is a major arterial roadway in South San Francisco that runs in a general east-west direction. In the project vicinity it has signalized intersections with Oakmont Drive-Callan Boulevard, Skyline Boulevard, Galway Drive-Galway Place, Gellert Boulevard and at the I-280 interchange. It has an east to west uphill alignment from I-280 to Skyline Boulevard with 2 lanes in each direction separated by a raised landscaped median in the vicinity of Skyline Boulevard and Oakmont Drive-Callan Boulevard and 3 lanes in each direction separated by a raised median in the vicinity of Gellert Boulevard and I-280. At Skyline Boulevard the roadway changes names to Sharp Park Road, which continues as a 4-lane arterial on a general east to west downhill grade to Highway 1 in Pacifica. The posted speed limit is 35 miles per hour (mph) and curb, gutter and sidewalks are provided along both sides of the street. Westborough Boulevard borders the north and west sides of the project site.

**Oakmont Drive** is a 2-lane, 40-foot wide collector roadway extending for about 1.5 miles south of Westborough Boulevard into single family residential neighborhoods. The posted speed limit is 25 mph and parking is allowed on both sides of the street. Curb, gutter and sidewalks are provided along both sides of the street in all areas except for a short segment on the west side of the street just south of Westborough Boulevard (adjacent to the project site). Oakmont Drive is not stop sign controlled for about three quarters of a mile (until St. Cloud Drive), south of its signalized intersection with Westborough Boulevard. The South San Francisco/San Bruno boundary is located just south of the Shannon Drive intersection.

**Callan Boulevard** extends north of Westborough Boulevard as the fourth leg of the Oakmont Drive intersection. It has wide single travel lanes in each direction separated by a raised median.

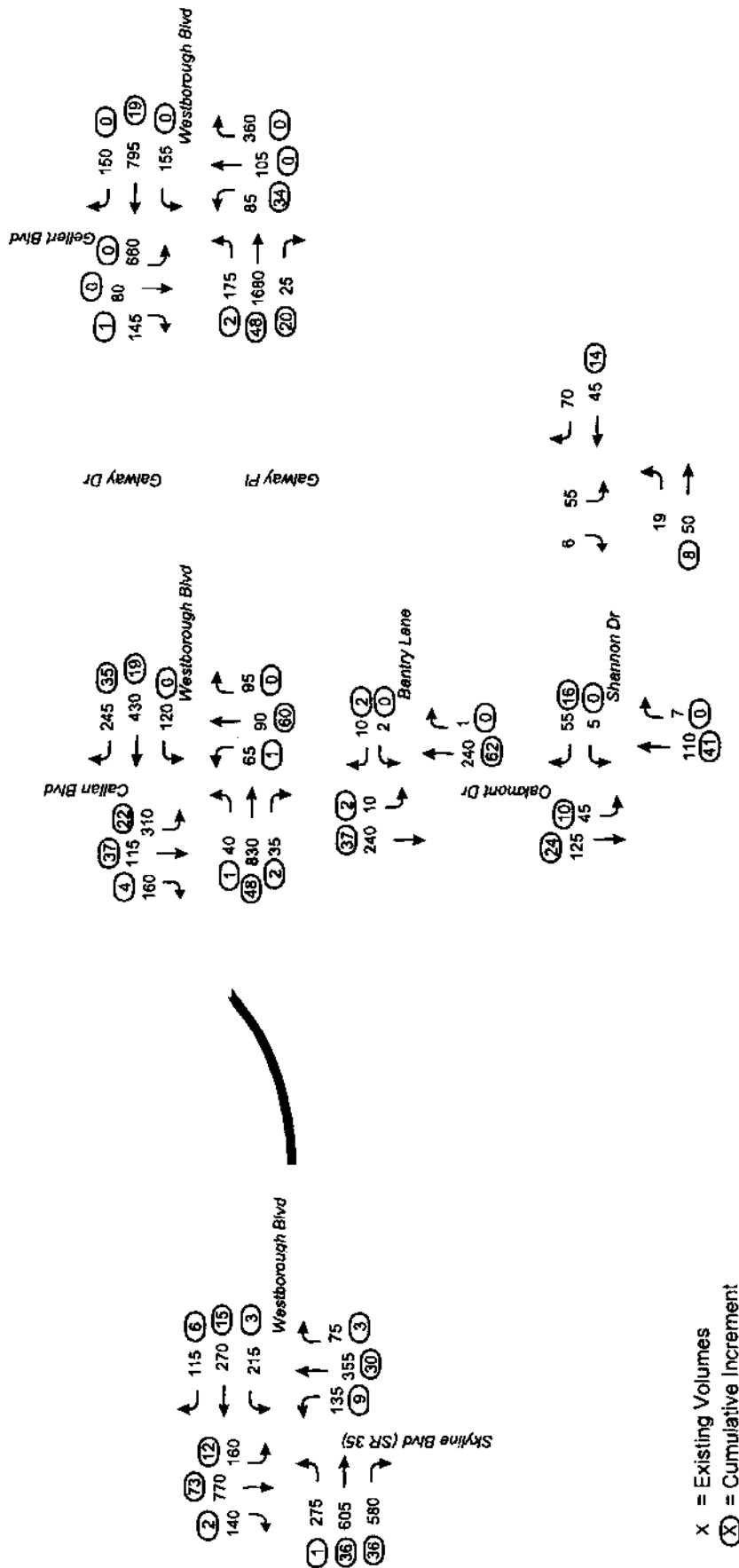
**Shannon Drive** is a 2-lane residential street extending to the east of Oakmont Drive on a general downhill grade. Parking is allowed on both sides of the street and curb,

gutter and sidewalks are provided on both sides of the street. Shannon Drive, in conjunction with either Galway Place or Olympic Drive, provide alternate travel routes to Westborough Boulevard (compared to Oakmont Drive) for local area residents traveling to/from the east on Westborough Boulevard. The extension of Shannon Drive to the west of Oakmont Drive (now a dead end stub street) would provide access to all project residential units.

## **B. VOLUMES**

Existing AM and PM commute peak period (7:00-9:00 AM, 4:00-6:15 PM) traffic counts were conducted by Crane Transportation Group on either October 30, November 3 or November 5, 1998 at the Westborough Boulevard intersections with Skyline Boulevard-Sharp Park Road, Oakmont Drive-Callan Boulevard and Gellert Boulevard. Counts were also conducted at the Oakmont Drive intersections with Bantry Lane (opposite the project's proposed miniwarehouse entrance) and Shannon Drive (at the project's proposed residential access), at the Shannon Drive/Galway Place intersection and at the entrance to two local miniwarehouse facilities (Surgard Storage facilities on Meath Drive [north of Westborough Boulevard opposite the project site] and on King Drive between Skyline and Callan boulevards). Mid-afternoon (2:30-4:00 PM) counts were conducted at the Oakmont/Westborough and Oakmont/Bantry intersections during the period of peak student pedestrian activity at the end of classes at the Westborough Middle School. The AM commute peak traffic hour was determined to be 7:30-8:30 AM, the PM commute peak traffic hour was determined to be 5:00-6:00 PM, while the after school peak pedestrian period was determined to be 2:45-3:45 PM. Figures 3, 4 and 5 present existing AM commute, after school and PM commute peak hour traffic volumes respectively.

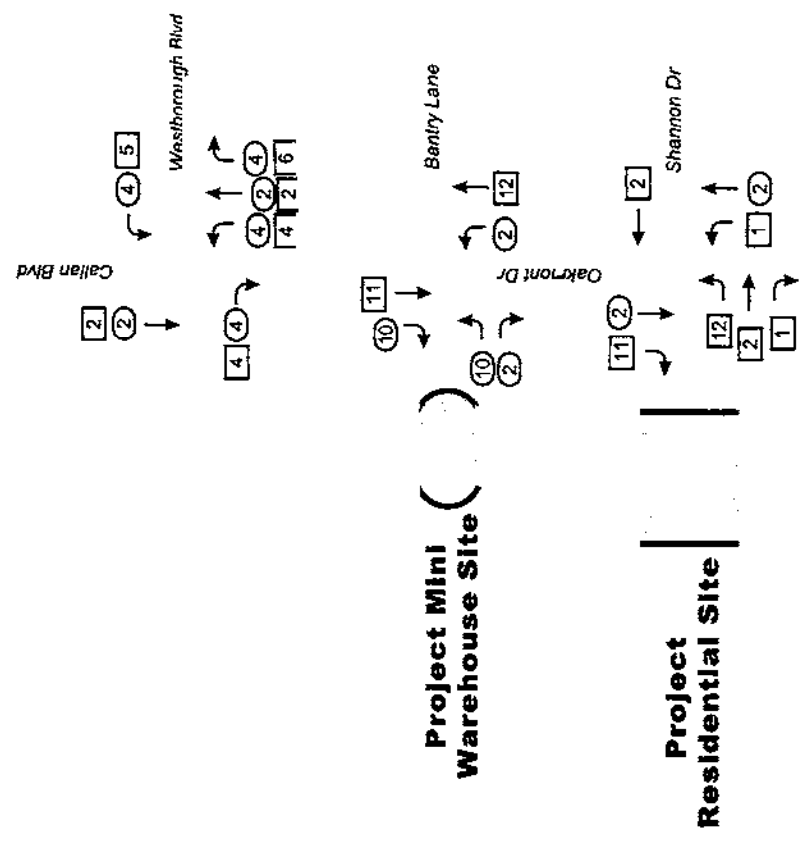
Surveys at the two nearby miniwarehouse facilities were conducted in order to develop a local area trip rate per miniwarehouse unit and to determine the mix of vehicles that are now accessing local warehouse facilities. Overall, the 997-unit Surgard facility on King Drive near Skyline Boulevard never had more than 19 total vehicles (inbound + outbound) during any one hour period from 7:00 to 9:00 AM, or more than 19 total vehicles (inbound + outbound) during any one hour period from 4:00 to 6:15 PM. The 760-unit facility across Westborough Boulevard from the project site never had more than 4 total vehicles during any one hour period from 7:00 to 9:00 AM or more than 13 total vehicles during any one hour period from 4:00 to 6:15 PM. Overall, the weekday commute peak period vehicle mix accessing the King Drive facility was 50% cars, 40% vans/pickups and 10% small trucks. The commute period vehicle mix accessing the Meath Drive (Westborough) facility was 90% cars, 10% vans/pickups and 0% small trucks. Gate hours at both facilities is 6:00 AM to 9:00 PM, daily.



Oakmont Vistas Subdivision/Storage USA Mini Warehouse Traffic Study

**Figure 3**  
 Existing Traffic Volumes & Cumulative Development Increment  
 (Without Project)  
 AM Peak Hour (7:30 - 8:30)

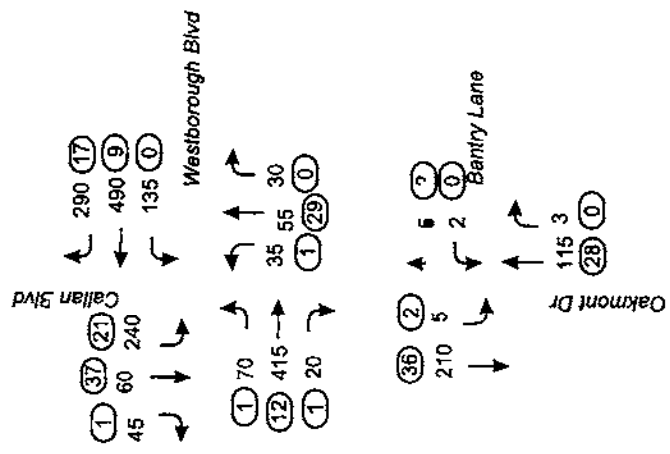
(X) = Mini Warehouse Increment  
[X] = Residential Increment



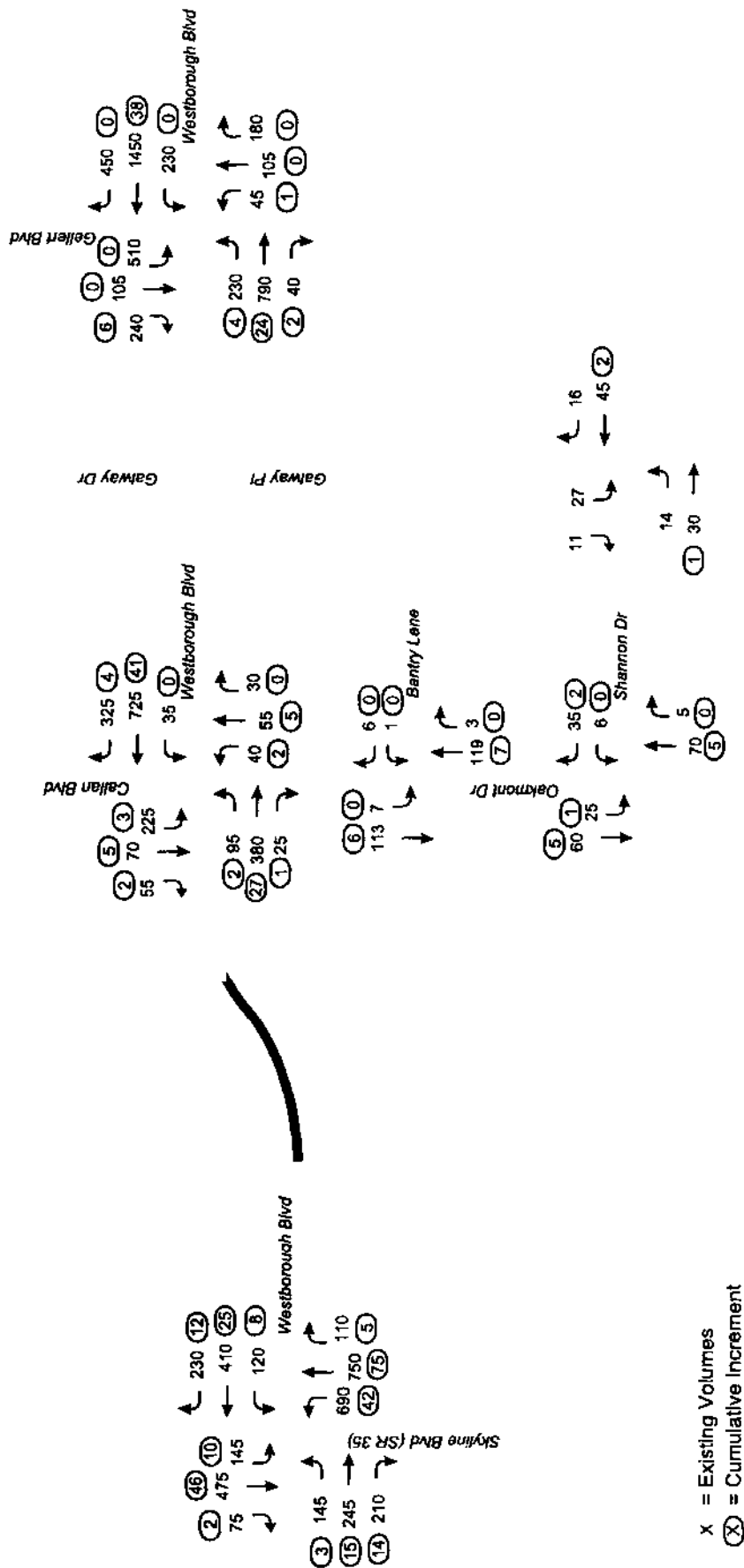
### Project Volume Increment

**Figure 4**  
Existing Traffic Volumes + Cumulative Development  
and Project Volume Increments  
After School Peak Hour (2:45 - 3:45)

X = Existing Volumes  
(X) = Cumulative Increment



### Existing and Cumulative Development (Without Project)



Oakmont Vistas Subdivision/Storage USA Mini Warehouse Traffic Study

**Figure 5**  
 Existing Traffic Volumes & Cumulative Development Increment  
 (Without Project)  
 PM Peak Hour (5:00 - 6:00)

### C. INTERSECTION OPERATION

**Signalized Intersections.** Intersections, rather than roadway segments between intersections, are almost always the capacity controlling locations for any circulation system. Signalized intersection operation is graded based upon two different scales. The first scale employs a grading system called Level of Service (LOS) which ranges from Level A, indicating uncongested flow and minimum delay to drivers, down to Level F, indicating significant congestion and delay on most or all intersection approaches. The Level of Service scale is also associated with an average vehicle delay tabulation (1994 Highway Capacity Manual [HCM] operations method) at each intersection. The vehicle delay designation allows a more detailed examination of the impacts of a particular project. Greater detail regarding the LOS/delay relationship is provided in the Appendix.

**Unsignalized Intersections.** Unsignalized intersection operation is also typically graded using the Level of Service A through F scale. LOS ratings for all-way stop intersections are determined using a methodology outlined in the 1994 update of the *Highway Capacity Manual* (TRB Circular 209). Under this methodology, all-way stop intersections receive one LOS designation reflecting operation of the entire intersection. Average vehicle delay values are also calculated. Intersections with side streets on y stop sign controlled are also evaluated using the LOS and delay scales using a methodology outlined in the 1994 *Highway Capacity Manual*. However, unlike signalized or all-way stop analysis where the LOS and delay designations pertain to the entire intersection, in side street stop sign control analysis LOS and delay designations are computed for stop sign controlled approaches or individual turn and through movements rather than for the entire intersection. The Appendix provides greater detail about unsignalized analysis methodologies.

The City of South San Francisco considers Level of Service D (LOS D) to be the poorest acceptable operation for signalized and all-way-stop intersections and LOS E to be the poorest acceptable operation for unsignalized intersection turn movements.

Tables 1A, 1B and 1C present intersection levels of service for AM peak hour, after school peak hour and PM commute peak hour conditions, respectively. All analyzed intersections are currently operating at acceptable levels of service during all peak traffic periods. The Westborough signalized intersections with Skyline Boulevard and Gellert Boulevard are operating at LOS D during both commute peak traffic hours while the Westborough/Oakmont-Callan signalized intersection is operating at LOS C during both commute peak traffic hours as well as during the after school peak traffic hour. Stop sign controlled movements at intersections along Oakmont Drive are operating at LOS A (minimal delay) during all peak traffic periods.

**Table 1A****INTERSECTION LEVEL OF SERVICE****AM PEAK HOUR**

<b>INTERSECTION</b>	<b>EXISTING</b>	<b>BASE CASE + PROJECT</b>			
		<b>EXISTING + APPROVED DEVELOPMENT (BASE CASE)</b>	<b>PROJECT RESIDENTIAL ONLY</b>	<b>PROJECT MINI- WAREHOUSE ONLY</b>	<b>TOTAL PROJECT</b>
Westborough Blvd/ Skyline Blvd-Sharp Park Rd (Signal)	D-27.2 <sup>(1)</sup>	D-29.6	D-29.8	D-29.6	D-29.9
Westborough Blvd/ Oakmont Dr-Callan Blvd (Signal)	C-23.6 <sup>(1)</sup>	D-27.3	D-28.2	D-27.7	D-28.7
Westborough Blvd/ Gellert Blvd (Signal)	D-28.5 <sup>(1)</sup>	D-32.2	D-32.9	D-32.4	D-33.1
Oakmont Dr/Bantry Lane/ Project Miniwarehouse Access (Project Access & Bantry Stop-Sign Controlled)	A-4.5 <sup>(2)</sup>	A-4.9 <sup>(2)</sup>	A-5.0 <sup>(2)</sup>	A-4.9/B-8.3 <sup>(4)</sup>	A-5.0/ B-8.6 <sup>(4)</sup>
Oakmont Dr/Shannon Dr/ Project Residential Access (Project Access & Shannon Stop-Sign Controlled)	A-3.7 <sup>(3)</sup>	A-4.0 <sup>(3)</sup>	A-4.0/B-8.2 <sup>(5)</sup>	A-4.0 <sup>(3)</sup>	A-4.0/ B-8.2 <sup>(5)</sup>

<sup>(1)</sup> Signalized level of service—average vehicle delay (in seconds).

<sup>(2)</sup> Unsignalized level of service—average vehicle delay (in seconds), westbound Bantry Lane approach.

<sup>(3)</sup> Unsignalized level of service—average vehicle delay (in seconds), westbound Shannon Drive approach.

<sup>(4)</sup> Unsignalized level of service—westbound Bantry Lane approach/eastbound project miniwarehouse approach.

<sup>(5)</sup> Unsignalized level of service—westbound Shannon Drive approach/eastbound project residential approach.

*Source: Crane Transportation Group*



**Table 13**

**INTERSECTION LEVEL OF SERVICE**

**AFTER SCHOOL PEAK HOUR**

INTERSECTION	EXISTING	BASE CASE + PROJECT			
		EXISTING + APPROVED DEVELOPMENT (BASE CASE)	PROJECT RESIDENTIAL ONLY	PROJECT MINI- WAREHOUSE ONLY	TOTAL PROJECT
Westborough Blvd/ Oakmont Dr-Callan Blvd (Signal)	C-20.2 <sup>(1)</sup>	C-21.6	C-21.7	C-21.7	C-21.8
Oakmont Dr/Bantry Lane/ Project Miniwarehouse Access (Project Access & Bantry Stop-Sign Controlled)	A-4.0 <sup>(2)</sup>	A-4.1 <sup>(2)</sup>	A-4.2 <sup>(2)</sup>	A-4.1/B-6.3 <sup>(3)</sup>	A-4.2/ B-6.5 <sup>(3)</sup>

<sup>(1)</sup> Signalized level of service—average vehicle delay (in seconds).

<sup>(2)</sup> Unsignalized level of service—average vehicle delay (in seconds), westbound Bantry Lane approach.

<sup>(3)</sup> Unsignalized level of service—westbound Bantry Lane approach/eastbound project miniwarehouse approach.

*Source: Crane Transportation Group*

**Table 1C****INTERSECTION LEVEL OF SERVICE****PM PEAK HOUR**

<b>INTERSECTION</b>	<b>EXISTING</b>	<b>BASE CASE + PROJECT</b>			
		<b>EXISTING + APPROVED DEVELOPMENT (BASE CASE)</b>	<b>PROJECT RESIDENTIAL ONLY</b>	<b>PROJECT MINI- WAREHOUSE ONLY</b>	<b>TOTAL PROJECT</b>
Westborough Blvd/ Skyline Blvd-Sharp Park Rd (Signal)	D-26.4(1)	D-27.5	D-29.8	D-29.6	D-29.9
Westborough Blvd/ Oakmont Dr-Callan Blvd (Signal)	C-23.6(1)	D-27.3	D-28.2	D-27.7	D-28.7
Westborough Blvd/ Gellert Blvd (Signal)	D-28.5(1)	D-32.2	D-32.9	D-32.4	D-33.1
Oakmont Dr/Bantry Lane/ Project Miniwarehouse Access (Project Access & Bantry Stop-Sign Controlled)	A-3.4(2)	A-3.5(2)	A-3.6(2)	A-3.5/A-4.9	A-3.6/B-5.2
Oakmont Dr/Shannon Dr/ Project Residential Access (Project Access & Shannon Stop-Sign Controlled)	A-3.4(3)	A-3.5(3)	A-3.6/B-5.2(5)	A-3.5(3)	A-3.6/ B-5.2(5)

(1) Signalized level of service—average vehicle delay (in seconds).

(2) Unsignalized level of service—average vehicle delay (in seconds), westbound Bantry Lane approach.

(3) Unsignalized level of service—average vehicle delay (in seconds), westbound Shannon Drive approach.

(4) Unsignalized level of service—westbound Bantry Lane approach/eastbound project miniwarehouse approach.

(5) Unsignalized level of service—westbound Shannon Drive approach/eastbound project residential approach.

*Source: Crane Transportation Group*

#### D. PEDESTRIAN VOLUMES

Pre- and post-school pedestrian counts in the vicinity of the Westborough/Oakmont-Callan intersection are presented in Figure 6. During the pre-school period (7:30-8:30) SAMTRANS buses dropped off Westborough Middle School students along both sides of Oakmont Drive south of Westborough Boulevard (buses in both directions). These students as well as others from the neighborhood to the south all crossed Westborough Boulevard to the north (school) side of the street. In addition to middle school students, older teens crossed Westborough Boulevard north to south and waited for a southbound SAMTRANS bus on the southwest corner of the Oakmont/Westborough intersection. During the after school hour, middle school students crossed Westborough Boulevard north to south to access bus stops on both sides of Oakmont Drive as well as the adjacent neighborhood. The vast majority of middle school students crossing Westborough Boulevard waited for SAMTRANS buses. Just after the middle school students were picked up by SAMTRANS buses, older students were dropped off by a northbound SAMTRANS bus at the Oakmont/Bantry intersection. Most of these students crossed to the north side of Westborough Boulevard. Virtually all students crossing Westborough Boulevard were observed to use (stay in) the crosswalks during pre- and post-school hours. Some students crossing Oakmont Drive were observed to use the crosswalk at Westborough Boulevard. However, a majority of students crossed Oakmont Drive between Westborough Boulevard and Bantry Lane outside the available crosswalks during both pre- and post-school hours. Virtually all students crossing Callan Boulevard at Westborough Boulevard were observed to stay within the crosswalk on the north side of the intersection.

#### E. TRANSIT SERVICE

San Mateo County Transit (SAMTRANS) provides bus service in the project area. Routes 21A, 21B and 21F travel on Oakmont Drive between Westborough Boulevard and Shannon Drive. All three routes provide service to the Colma BART station while routes 21A and 21B also serve the Serramonte Shopping Center. Bus stops are located in close proximity to the Westborough/Oakmont and Oakmont/Shannon intersections. Characteristics of each route are as follows:

**Route 21A** (Stonestown Shopping Center in San Francisco to North County Government Center in South San Francisco)

- 30 minute headways 6:00AM to midnight on weekdays
- 30 minute headways 9:00 AM to 6:00 PM on Saturdays
- 30 minute headways 9:00 AM to 6:00 PM on Sundays

***Route 21B*** (Skyline College to Colma BART station)

- 60 minute headways 6:00 AM to 6:00 PM on weekdays with 30 minute headways during commute periods

***Route 21F*** (Westborough Shopping Center in South San Francisco to Colma BART station)

- limited service during commute periods

**F. OBSERVED OPERATIONAL & SAFETY CONCERNS**

The left turn pockets on the Westborough Boulevard approaches to Gellert Boulevard intermittently have demand greater than the available storage length during both commute periods (eastbound only during the AM commute and both directions during the PM commute). City public works staff indicates that demand is also greater than available storage on weekend afternoons.

The left turn pocket on the Westborough westbound (uphill) approach to Olympic Drive intermittently has demand greater than the available storage length during the evening commute. The westbound left turn pocket serving traffic turning to Olympic Drive is constructed back to back with the eastbound left turn pocket serving traffic turning to Gellert Boulevard. Thus, there is no room to lengthen either turn lane. There is, however, available median area along Westborough Boulevard to the east of Gellert Boulevard to lengthen the left turn lane on the westbound Westborough Boulevard approach to Gellert Boulevard.

There is no sidewalk along the west side of Oakmont Drive just south of Westborough Boulevard, at the bus stop for southbound SAMTRANS buses. In dry weather, customers stand in dirt or grass areas. In wet weather, bus customers must wait on the sidewalk of the adjacent house (to the south), in the street, or in wet grass.

Some vehicles travel faster than the posted speed limits along Oakmont Drive (particularly southbound, in the downhill direction near Shannon Drive) and along Shannon Drive (particularly eastbound, in the downhill direction).

**G. BASE CASE (APPROVED DEVELOPMENT) TRAFFIC VOLUMES AND OPERATING CONDITIONS**

Projections have been developed of the additional peak hour traffic that would be expected on the local roadway system due to completion of nearby approved and/or

under construction development in South San Francisco, Pacifica and San Bruno. Project lists, supplied by each city's planning department, are contained in Table 2 along with the expected trip generation from each development. Figures 3, 4 and 5 contain the traffic increment from approved development for AM commute peak hour, after school peak hour and PM commute peak hour conditions, respectively. In addition to traffic from specific developments, an additional .5% per year regional growth rate (to year 2005) was projected for through traffic growth along Westborough Boulevard-Sharp Park Road and Skyline Boulevard.

Tables 1A, 1B and 1C show that all analyzed intersections would maintain acceptable operation during peak traffic periods with the addition of approved development traffic to existing volumes (Base Case conditions). During both the AM and PM commute peak hours the signalized Westborough Boulevard intersections with Gellert Boulevard, Callan Boulevard-Oakmont Drive and Skyline Boulevard would all be operating at LOS D conditions. During the after school peak hour the signalized Westborough Boulevard/Callan-Oakmont intersection would be operating at LOS C. The stop sign controlled Bantry Lane and Shannon Drive approaches to Oakmont Drive would be operating at LOS A conditions. Cumulative development would be expected to add only small volume increases to the Westborough Boulevard left turn movements at Gellert Boulevard where demand now intermittently exceeds available storage length. No additional traffic would be expected to be added to the left turn movement from Westborough Boulevard to Olympic Drive.

## II. IMPACTS

This section identifies the traffic and parking impacts expected due to the proposed project.

### A. SIGNIFICANCE CRITERIA

This study uses the following criteria to evaluate the significance of identified transportation and parking impacts:

- If a *signalized or all-way-stop intersection* with Base Case (without project) volumes is operating at LOS A, B, C, or D and deteriorates to LOS E operation (or worse) with the addition of project traffic, the impact is considered to be significant and would require mitigation. If a Base Case *stop sign-controlled turn movement* deteriorates to LOS F operation with the addition of project traffic, the impact is considered to be significant and would require mitigation.

Table 2 (page 1)

**TRIP GENERATION  
APPROVED/PROPOSED DEVELOPMENT IN  
SOUTH SAN FRANCISCO/PACIFICA/SAN BRUNO  
IN THE PROJECT AREA**

CITY	PROJECT/ LOCATION	SIZE	DAILY 2- WAY TRIPS			AM PEAK HOUR TRIPS			AFTER SCHOOL PEAK HOUR TRIPS			PM PEAK HOUR TRIPS					
			Rate	Vol		INBOUND	OUTBOUND	Rate	Vol		INBOUND	OUTBOUND	Rate	Vol			
South San Francisco <sup>(1)</sup>	Carter Park I & II Condominiums Near Callan Blvd/King Dr.	93 units	5.9	550		0.7	7	.37	34	.22	21	.22	21	.36	34	.18	17
	Union 76 Gas Station/Near Callan Blvd/ King Dr.	8 vehicle fueling positions	168.6	1350		6.26	50	6.01	48	NA	40	NA	40	7.43	60	7.13	57
	St. Augustine School & Church Expansion Callan Blvd/ Greendale Dr.	365 students	NA	NA		.59	214	.41	125	.26	96	.35	127	.015	5	.03	10
Daly City	Single Family Callan Blvd/ North of King	35 units	9.6	336		.19	7	.56	20	.35	12	.37	13	.65	23	.36	16

Table 2 (page 2)

**TRIP GENERATION  
APPROVED/PROPOSED DEVELOPMENT IN  
SOUTH SAN FRANCISCO/PACIFICA/SAN BRUNO  
IN THE PROJECT AREA**

CITY	PROJECT/ LOCATION	SIZE	DAILY 2- WAY TRIPS			AM PEAK HOUR TRIPS			AFTER SCHOOL PEAK HOUR TRIPS			PM PEAK HOUR TRIPS		
			Rate	Vol	Rate	INBOUND	Rate	OUTBOUND	INBOUND	Rate	OUTBOUND	INBOUND	Rate	OUTBOUND
Pacifica <sup>(2)</sup>	Fairmont Estates Single Family Residential Near Skyline Blvd/ Hickey Blvd	43 units	9.6	414	.19	8	.56	24	.35	15	.37	16	.65	28
San Bruno <sup>(3)</sup>	Sky Ridge Single Family Residential West of Skyline Blvd/ Hickey Blvd	69 units including to be built or occupied	9.6	664	.19	13	.56	39	.35	24	.37	26	.65	45
San Bruno <sup>(3)</sup>	Single Family Residential West of Skyline Blvd/ North of Sharp Park Blvd	40 units	9.6	384	.19	8	.56	22	.35	14	.37	15	.65	26

<sup>(1)</sup> Project List—Ms. Susy Kalkin, South San Francisco Planning Department.

<sup>(2)</sup> Project List—Mr. Lee Diaz, Pacifica Planning Department

<sup>(3)</sup> Project List—Mr. Steve Padovan, San Bruno Planning Department

*Trip Rate Source for Residential and Service Station Uses: Trip Generation 6th Edition by the Institute of Transportation Engineers, 1997.*

*Trip Rate Source for Private School: Traffic Study for The Proposed St. Augustine Church Expansion and New School by The Wilson Engineering Company, June 1998.*

*Compiled by Crane Transportation Group*

- If the Base Case LOS at a *signalized* or *all-way stop intersection* is already at LOS E or F, or the Base Case LOS of a *stop sign-controlled turn movement* is already LOS F, an increase in traffic of two percent or more due to the project is considered to be significant and would require mitigation.
- If traffic volume levels at a Base Case *unsignalized intersection* increased above Caltrans Peak Hour Warrant #11 criteria levels with the addition of project traffic, the impact is considered to be significant and would require mitigation.
- If proposed access, on-site circulation or parking is deficient based upon city code requirements or in the opinion of the registered traffic engineer conducting this study, the impact is considered to be significant and would require mitigation.

## B. TRIP GENERATION

Table 3 presents the expected trip generation from both the project residential and miniwarehouse components. Overall, about 60% of the total daily or peak hour traffic would be due to the proposed 34 single family units, with the remaining 40% due to the miniwarehouse facilities. Total project trip generation would be expected to be 18 inbound and 33 outbound trips during the AM commute peak hour (7:30-8:30 AM), 26 inbound and 27 outbound trips during the after school peak hour (2:45-3:45 PM) and 41 inbound and 19 outbound trips during the PM commute peak hour (5:00-6:00 PM).

Project residential trip generation rates were obtained from the traffic engineering profession's standard source of trip rate data—Trip Generation, 6th edition.<sup>2</sup> Over 270 single family subdivisions have been surveyed to obtain average trip rate data. However, due to the high number of bedrooms proposed in the project units (about half will be 4 bedroom units and half will be 5 bedroom units), average trip rates were increased by 20% to reflect the potential for a higher than average number of drivers and trip generation from each unit.<sup>3</sup>

Project miniwarehouse trip generation rates were obtained from two sources, the ITE Trip Generation, 6th edition manual and results of Crane Transportation Group surveys

<sup>2</sup> Institute of Transportation Engineers (ITE), 1997.

<sup>3</sup> City staff concurred with the higher than average rates.



Table 3

## PROJECT TRIP GENERATION

USE	SIZE	DAILY 2-WAY TRIPS		AM PEAK HOUR TRIPS		AFTER SCHOOL PEAK HOUR TRIPS				PM PEAK HOUR TRIPS			
						INBOUND		OUTBOUND		INBOUND		OUTBOUND	
		Rate	Vol	Rate	Vol	Rate	Vol	Rate	Vol	Rate	Vol	Rate	Vol
Single Family Residential	34 units	11.5	392	.23	8	.67	23	.42	14	.44	15	.78	27
Mini Warehouse	927 units	.28	260	.01	10	.01	10	NA*	12	NA*	12	.015	14
TOTAL			652		18		33		26		27		41

(1) Residential Rates projected to be 20% above average due to mix of 4 and 5 bedroom units.

*Trip Rate Source: Trip Generation 6th Edition by the Institute of Transportation Engineers, 1997 unless noted.*

*Compiled by: Crane Transportation Group*

*\* Historical trip rates not available. Trip generation projected by Crane Transportation Group based upon observed activity at other neighborhood self-storage facilities.*

of two neighborhood miniwarehouse facilities. A comparison of rates, presented in the Appendix, shows that the local miniwarehouse facilities are generating traffic at rates 20 to 30 percent below average compared to the trip generation manual. To provide a conservative, worst case analysis, the project miniwarehouse units were projected to generate traffic at the higher ITE rates.

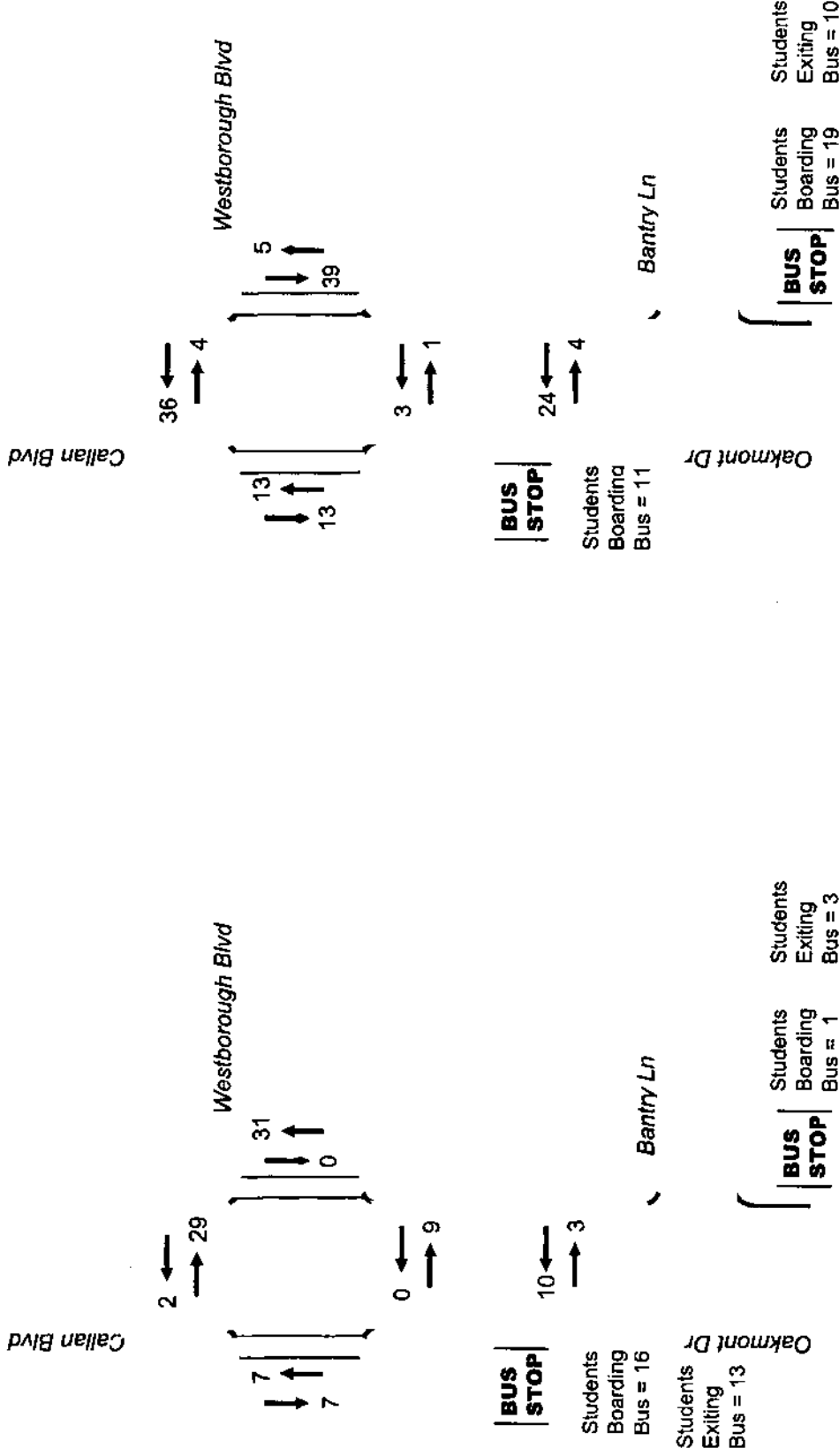
In regards to the type of vehicles that might be expected to access the miniwarehouse facilities, based upon the CTG surveys of two nearby facilities, 1 small truck (Ryder/U-haul) might be expected to enter and leave the facility during the morning commute peak hour, with 2 small trucks entering and leaving during the evening commute hour. All other vehicles would be cars, vans or pickups. A higher percentage of trucks would potentially be expected on weekends.

### **C. PROJECT TRIP DISTRIBUTION**

Project residential trips were projected to distribute to the local roadway system in a pattern similar to existing neighborhood residential traffic. Project miniwarehouse trips were projected to distribute primarily to the east and west along Westborough Boulevard with a lesser distribution to the north along Callan Boulevard and a small distribution to the residential area just south of the project. Figures 7 and 8 present project traffic distributed to the local roadway network for AM and PM commute peak hour conditions respectively, while Figure 4 presents project traffic distribution for the after school peak traffic hour.

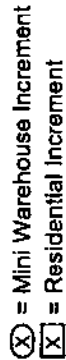
### **D. PROJECT INTERSECTION IMPACTS**

Tables 1A and 1C show that all signalized intersections along Westborough Boulevard would maintain acceptable LOS D operation during the AM and PM commute peak traffic hours with the addition of traffic from the project residential units only, the project miniwarehouse units only or combined residential and miniwarehouse traffic. Average vehicle delay would be increased by 2.5 seconds or less at each analyzed intersection due to project traffic. During the after school peak traffic hour, operation of the Westborough/Oakmont-Callan intersection would remain LOS C with the addition of project traffic. The project's stop sign controlled residential access approach to Oakmont Drive opposite Shannon Drive, and the project's miniwarehouse stop sign controlled access approach to Oakmont Drive opposite Bantry Lane would both be operating at LOS A conditions (minimum delay for turn movements) during all peak traffic periods. Overall, project level of service impacts would not be significant.

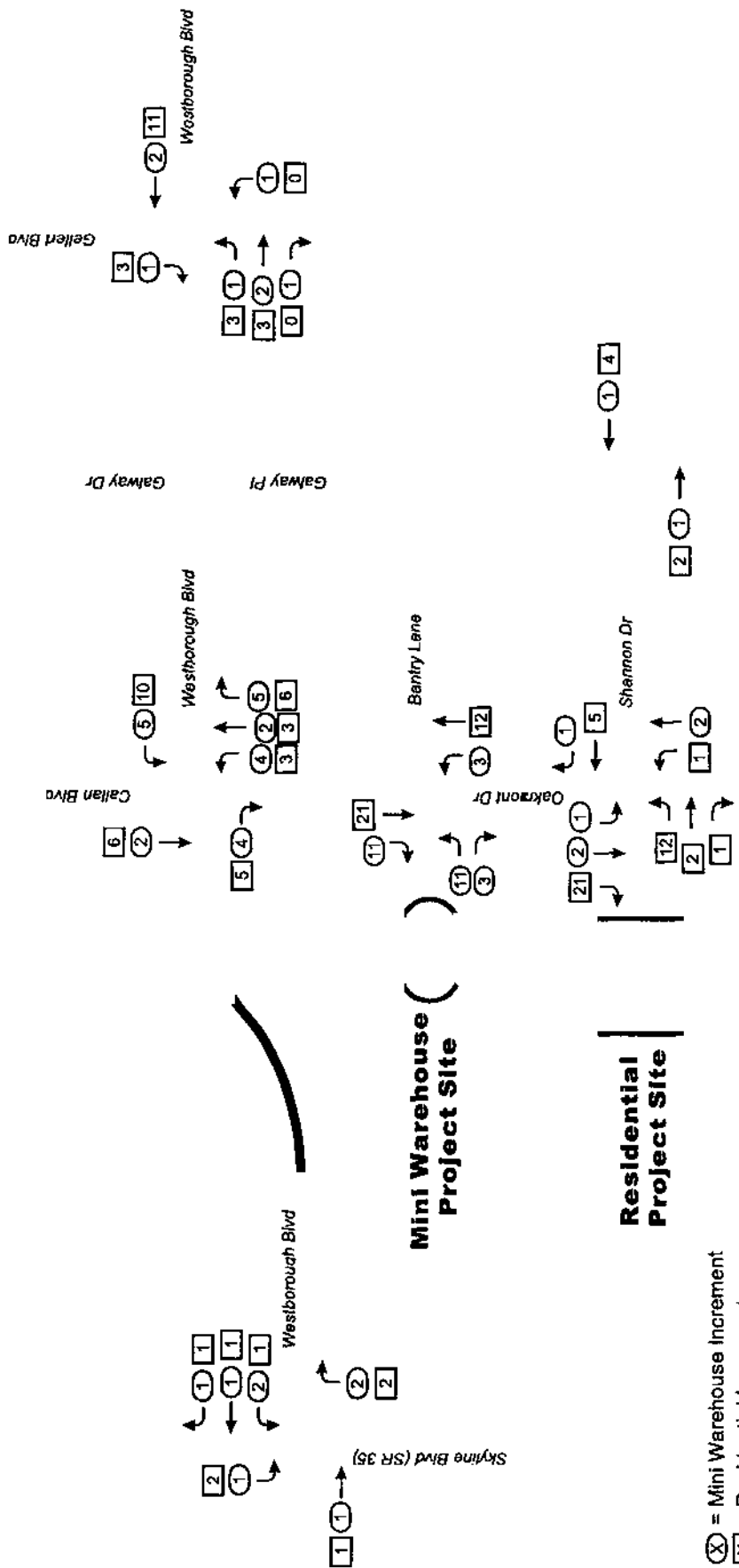


Oakmont Vistas Subdivision/Storage USA Mini Warehouse Traffic Study

**Figure 6**  
Pedestrian Traffic Volumes  
AM Peak Hour (7:30 - 8:30) and  
After School Peak Hour (2:45 - 3:45 PM)



**Figure 7**  
**Project Residential and Mini Warehouse Volume Increments**  
**AM Peak Hour**  
**(7:30 - 8:30)**



Oakmont Vistas Subdivision/Sroage USA Mini Warehouse Traffic Study

**Figure 8**  
**Project Residential and Mini Warehouse Volume Increments**  
**PM Peak Hour**  
**(5:00 - 6:00)**

At the Westborough Boulevard/Gellert Boulevard intersection, while project traffic would not result in unacceptable level of service, project vehicles would add to the eastbound Westborough (downhill) left turn movement, which now intermittently backs out of the available turn pocket storage length during the morning and evening commute peak hours. The project would increase the Base Case AM peak hour volume for this movement of 177 cars by 2 vehicles, an increase of 1.1 percent, and the PM Base Case volume for this movement of 234 cars by 4 vehicles, an increase of 1.7 percent. Since these are less than 2 percent increases, it is not considered a significant impact.

## **E. PROJECT ACCESS IMPACTS**

### **1. Residential Access**

Sight lines for turn movements from the project residential access connection to Oakmont Drive are adequate in both directions (to the north and south). The extension of Shannon Drive into the site is 36 feet wide and would allow 2-way traffic flow as well as parking on both sides of the street. The Shannon Drive eastbound (project access) approach to Oakmont Drive has a downhill (west to east) grade of 7.7%. Both the roadway grade and width are within acceptable City code criteria.

### **2. Miniwarehouse Access**

The miniwarehouse access driveway would be located along Oakmont Drive opposite Bantry Lane. The driveway would have a 15 foot wide inbound lane and a 12 foot wide outbound lane separated by an 8 to 9 foot wide island and would be located about 145 feet south of Westborough Boulevard (the centerline of the driveway island from the south curbline of Westborough Boulevard). On average, a vehicle would be leaving the miniwarehouse facility once every 6 minutes during the AM commute peak traffic hour, and once each 4 minutes and 20 seconds during the PM commute peak traffic hour. The primary concern of the miniwarehouse driveway location is its proximity to Westborough Boulevard and the probability that a vehicle turning from Westborough Boulevard (particularly downhill eastbound vehicles making a right turn) will be confronted by a vehicle slowly turning from the miniwarehouse driveway. Based upon criteria in "A Policy on Geometric Design of Highways and Streets,"<sup>4</sup> the minimum stopping sight distance on a wet pavement for a vehicle traveling 20 mph is 125 feet; at 25 mph it is 150 feet. Although no value is presented for 15 mph, interpolation of results for higher speeds would suggest a stopping sight distance of 90

<sup>4</sup> American Association of State Highway and Transportation Officials, 1990.

to 100 feet. A driver turning left from Westborough Boulevard to Oakmont Drive should be able to see (or become aware of) a vehicle turning from the miniwarehouse driveway at most 150 feet from the vehicle, and more likely 130 to 140 feet from the vehicle. A left turning driver would be traveling 15 to 20 mph when the vehicle exiting the miniwarehouse driveway is first sighted. Sight lines for left turning vehicles are therefore adequate. A driver turning right from Westborough Boulevard to Oakmont Drive should be able to see (or become aware of) a vehicle turning from the miniwarehouse driveway at most 130 to 135 feet from the vehicle, and more likely 125 feet from the vehicle. A right turning driver would be traveling 15 to 20 mph when the vehicle exiting the miniwarehouse driveway is first sighted. Since available sight lines would be borderline acceptable for vehicles turning right from Westborough Boulevard, this is not considered a potentially significant impact.

Turn movements to and from the miniwarehouse driveway would be conducted in a segment of Oakmont Drive with a significant amount of student jaywalking during brief pre- and post-school periods. Students would also be dropped off or waiting at the bus stop immediately adjacent to the miniwarehouse driveway. Curb, gutter and sidewalks would be provided along the west side of Oakmont Drive between the existing sidewalk along Westborough Boulevard and the existing sidewalk which begins opposite Bantry Lane. It is probable (possible) that the reason for so much jaywalking today is the lack of sidewalks along the project frontage. Provision of sidewalks should attract at least some of the jaywalkers to the crosswalk at Westborough Boulevard. Overall, traffic entering and leaving the miniwarehouse facility would have adequate sight lines to see pedestrians crossing Oakmont Drive in the vicinity of the miniwarehouse driveway. It is assumed that project drivers would exercise caution during peak pedestrian periods, as drivers do today.

## **F. ON-SITE CIRCULATION & PARKING**

### **1. Residential**

Refer to Project Site Plan (Figure 4) for the following discussion. All internal streets would be private and would be 25 to 30 feet wide except for the extension of Shannon Drive into the site, which would be 36 feet wide. (Upper Court would be 30 feet wide while Middle and Lower Court would be 25 feet wide). A turnaround area would be provided immediately in front of a gated entry. There would be no parallel on-street parking; rather, bays of 90 degree parking would be provided in 5 locations. Maximum grades on internal streets would be 10% (which would be within the City's maximum 12% grade limit). Three dead end courts would be provided off of the access roadway. The Lower Court would have units on one side of the street while the Middle and Upper courts would have units on both sides of the street. Turnaround

areas are proposed near the end of both Middle Court and Upper Court. An emergency access connection would be provided to the miniwarehouse internal street system. Roadway widths and grades meet City code criteria and the internal circulation plan has been approved by the City's Fire Department.

Two garage parking spaces would be provided for each residential unit as would two apron spaces. A total of 27 additional spaces would be provided in 5 separate 90 degree parking bays. The overall site parking ratio, not including apron spaces, would be 2.8 spaces per unit. The City Planning Department has indicated that for 4 or 5 bedroom single family units, in a PUD with minimum 18 foot long aprons, 2 ¼ parking spaces must be provided, 2 of which must be in a garage. Apron spaces do not count towards unit supply. Based upon these criteria, a total of 66 garage and 9 uncovered parking stalls would be required. Since 93 on-site spaces are proposed (66 garage and 27 uncovered), on-site parking would meet City code criteria.

City code requires PUD apron spaces to have 18-foot long by 8.5-foot wide dimensions for each vehicle. All residential units will have 18-foot long aprons and meet City criteria. It should be noted, however, that given the larger dimensions of vans, pickups, and sports utility vehicles now in popular demand, it is likely that with 18-foot long aprons there will be instances where larger vehicles parked in driveways will partially extend across a sidewalk or slightly into the street.

A sidewalk is provided along one side of the entry road from the existing sidewalk at the stub end of Shannon Drive up to Middle and Upper Courts. Sidewalks are proposed along the 3 Courts. Thus, the proposed design meets City criteria.

## **2. Miniwarehouse**

Roadways (including aiseways between buildings) within the miniwarehouse facility would be 25 to 30 feet wide. The main access driveway connection would be 30 feet wide. Grades would not exceed 6.5%. The access roadway would be gated just beyond the entry office/caretaker apartment. Hours of public access would be 6:00 AM to 9:00 PM. A 6-space parking area would be provided at the entry office. An additional 6 parking stalls are shown on the site plan within the facility.

Roadway widths and grades within the miniwarehouse facility meet Fire District standards.<sup>5</sup> However, in order to meet requirements, the 25-foot aisles between buildings 2 and 3 and between buildings 3 and 4 could only accommodate 1-way flow

<sup>5</sup> Mr. Tom Ahrens.



If parking is to be allowed along one side of the aisles. There is no indication on the site plan regarding one- versus two-way flow along any internal street nor the location of parking spaces parallel to buildings. The 30-foot aisle between buildings 4 and 5 could accommodate two-way flow and parallel parking along one building. However, definition is not provided on the site plan regarding these details. Although preliminary City review finds that the 30-foot aisle between buildings is acceptable, the site plan should provide directional flow patterns and stall locations with allowable parking adjacent to each building. The site plan should also maintain 15-foot clearway (on one-way aisles) and 20-foot clearways (on two-way aisles).

City criteria for two recently approved miniwarehouse facilities required 1 parking space for each 1,500 square feet of storage. The proposed 110,700 square foot facility would therefore require 74 internal parking spaces. The site plan should also provide and designate the location of 74 internal spaces within the miniwarehouse facility.

The caretaker apartment unit on top of the entry office is required by City code to have 2 parking spaces, one of which must be in an enclosed garage. Since no garage is shown on the site plan for this unit, this would be a significant impact.

The entry office would be 900 square feet in size. City code requires 1 parking space for each 300 square feet of office, or 3 spaces for the proposed miniwarehouse office. Since 6 spaces would be provided adjacent to the office, the proposed parking supply is adequate.

### **III. MITIGATION MEASURES**

#### **A. EXISTING & BASE CASE CONDITIONS (NEEDED WITH OR WITHOUT THE PROJECT)**

##### **1. Westborough Boulevard/Gellert Boulevard Intersection-Left Turn Lane Storage Problems**

- **Westbound Left Turn Lane**  
Lengthen the existing left turn lane on the westbound (uphill) Westborough Boulevard intersection approach. Lengthening by 75 feet (3 car lengths) could be accomplished in the landscaped median area without requiring removal of a large palm tree in the median.
- **Eastbound Left Turn lane**  
The best solution, if right-of-way were available, would be to provide side-by-side (rather than back-to-back) left turn lanes on Westborough

Boulevard between Gellert Boulevard and Olympic Drive (one for westbound uphill vehicles turning left to Olympic Drive and one for eastbound downhill vehicles turning left to Gellert Boulevard). The existing storage length of 115 feet in the lane on the uphill approach to Olympic Drive and 150 feet in the lane on the downhill approach to Gellert could each be increased up to about 300 feet with this proposal. The one limiting factor to this proposal is the potential lack of right-of-way along Westborough Boulevard in this area. Side-by-side turn lanes would require an additional 10 feet of width (if maintaining the existing 5 foot wide median along Westborough Boulevard between the two intersections) or an additional 6 to 7 feet of width if eliminating the median. Since a street light is located in this median, it is doubtful if the median could be entirely eliminated. Widening of Westborough Boulevard would potentially not only be required between Gellert Boulevard and Olympic Drive, but also may be required for a short distance just west (uphill) of Olympic Drive and just east (downhill) of Gellert Boulevard in order to properly realign the through travel lanes along Westborough Boulevard through both intersections.

A field inspection of the site area indicated minimal possibilities for easy right-of-way acquisition. Currently, the south side of Westborough Boulevard has a 4.5-foot wide sidewalk and from zero to 10 feet of landscaping between the curb and fence lines or a retaining wall (near the Oakmont Drive intersection). The north side of Westborough Boulevard has a 4.5-foot side sidewalk and a minimal landscaping strip adjacent to an Arco gas station near the Gellert Boulevard intersection and an undeveloped parcel opposite the Olympic Drive intersection.

Given the limited possibilities to widen Westborough Boulevard, a second alternative to consider would be to restripe both Westborough Boulevard approaches to Gellert Boulevard as follows:

	<b>Current</b>	<b>Proposed</b>
Westbound	1 exclusive left turn 3 exclusive through 1 exclusive right turn	1 exclusive left turn 1 shared through/left 2 exclusive through 1 exclusive right
Eastbound	1 exclusive left turn 2 exclusive through 1 shared through/right turn	1 exclusive left turn 1 shared through/left turn 1 exclusive through 1 shared through/right turn

Split phase operation would then be required for the westbound and eastbound intersection approaches. Resultant AM and PM peak hour operation would be LOS D with Base Case + project volumes and less average vehicle delay than with the current striping and phasing.<sup>6</sup>

Both the north and south Gellert Boulevard departures have at least 2 travel lanes to accommodate 2 lanes of left turning vehicles from Westborough Boulevard with this proposal. The only potential problem with this solution could involve the large percentage of eastbound (downhill) left turning vehicles that make an immediate right turn into the Westborough Shopping Center after turning onto Gellert Boulevard. Customers would need to learn that they would need to turn from the combined through/left turn lane in order to easily access the shopping center and avoid an immediate weave movement after turning from the inside (exclusive) left turn lane.

This mitigation would have no impact on the PM commute left turn storage problems on the Westborough approach to Olympic Drive.

## **B. PROJECT MITIGATION**

The following mitigation measure is recommended for the proposed project:

### **MINIWAREHOUSE CARETAKER APARTMENT PARKING**

The applicant shall provide a garage for the caretaker apartment unit.

<sup>6</sup> 29.4 seconds average vehicle delay during the AM peak hour and 29.3 seconds average vehicle delay during the PM peak hour.

## APPENDIX

### MINIWAREHOUSE TRIP GENERATION RATES

SOURCE	TIME PERIOD	TRIPS PER UNIT		TIME PERIOD		
		AM PEAK HOUR			PM PEAK HOUR	
		IN	OUT		IN	OUT
Skyline Blvd*/ King Drive Surgard Storage Facility	7:30-8:30 AM**	.008	.008	5:00-6:00 PM**	.005	.004
	Peak Hour Between 7:00-9:00 AM	.008	.008	Peak Hour Between 4:00-6:00PM	.010	.009
Westborough Blvd*/ Meath Drive Surgard Storage Facility	7:30-8:30 AM**	.003	.003	5:00-6:00 PM**	.007	.009
	Peak Hour Between 7:00-9:00 AM	.003	.003	Peak Hour Between 4:00-6:00 PM	.007	.011
Trip Generation ITE 6th Edition Manual	Peak Hour Between 7:00-9:00 AM	.010	.010	Peak Hour Between 4:00-6:00 PM	.015	.015

\* Source: Crane Transportation Group, November 1998 surveys.

\*\* Times of local circulation system ambient peak traffic.

## **SIGNALIZED INTERSECTION LEVEL OF SERVICE DEFINITIONS**

Level of Service	Description
A	Very low delay, less than 5.0 seconds per vehicle. Progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths contribute to low delay.
B	Delay in the range of 5.1 to 15.0 seconds per vehicle. Good progression and/or short cycle lengths. More vehicles stop causing higher levels of average delay.
C	Delay in the range of 15.1 to 25.0 seconds per vehicle. Fair progression and/or longer cycle lengths. Individual cycle failures, resulting in drivers having to wait through more than one red signal indication, begin to appear. The number of vehicles stopping is significant although many still pass through the intersection without stopping.
D	Delay in the range of 25.1 to 40.0 seconds per vehicle. The influence of congestion becomes more noticeable. Unfavorable progression, long cycle lengths, or high volumes. Many vehicles stop, the proportion of vehicles not stopping declines. Individual cycle failures noticeable.
E	Delay in the range of 40.1 to 60.0 seconds per vehicle. The limit of acceptable delay. Poor progression, long cycle lengths, and high volumes. Individual cycle failures are frequent.
F	Delay in excess of 60.0 seconds per vehicle. Unacceptable to most drivers. Oversaturation, arrival flow rates exceed the capacity of the intersection. Many individual cycle failures. Poor progression and long cycle lengths.

Source: 1994 Highway Capacity Manual

**DESCRIPTION OF LEVEL OF SERVICE FOR  
MINOR MOVEMENTS AT UNSIGNALIZED INTERSECTIONS**

Level of Service	Average Total Delay (seconds per vehicle)
A	$\leq 5$
B	$> 5 \text{ and } \leq 10$
C	$> 10 \text{ and } \leq 20$
D	$> 20 \text{ and } \leq 30$
E	$> 30 \text{ and } \leq 45$
F	$> 45$

Total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position.

Source: 1994 Highway Capacity Manual

ATTACHMENT B:

OAKMONT MEADOWS TRANSPORTATION ASSESSMENT

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ATTACHMENT TO THE  
APRIL 2016  
OAKMONT MEADOWS RESIDENTIAL DEVELOPMENT PROJECT  
INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION







## Memorandum

**Date:** February 12, 2016

**Project:** SSF010

**To:** Nathaniel Taylor  
Lamphier-Gregory

**From:** Mark Spencer  
[mspencer@w-trans.com](mailto:mspencer@w-trans.com)

**Subject:** Oakmont Meadows Transportation Assessment

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As requested, W-Trans has prepared a transportation assessment in support of an Initial Study/Mitigated Negative Declaration for the proposed Oakmont Meadows residential development to be located at 3460 Westborough Road in the City of South San Francisco in the County of San Mateo. The analysis focuses on the project's traffic impacts based and the potential for increased traffic associated with the additional 19 residential units. The transportation assessment was completed in accordance with the criteria established by the City of South San Francisco and the City/County Association of Governments of San Mateo County (C/CAG), and is consistent with standard traffic engineering techniques.

### Study Area

The study area consists of the following intersections:

1. Westborough Boulevard and Skyline Boulevard
2. Westborough Boulevard and Oakmont Drive-Callan Boulevard
3. Westborough Boulevard and Gellert Boulevard
4. Oakmont Drive and Shannon Drive

All of the intersections are signalized with the exception of Oakmont Drive/Shannon Drive intersection which has stop-controlled side-streets.

Intersection turning movement volume counts were obtained January 12, 2016 for all study intersections. The counts were collected during typical weekday a.m. and p.m. peak periods to evaluate the highest potential impacts for the proposed project. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute.

### Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general there is a network of sidewalks, crosswalks, pedestrian signals, and curb ramps provide access for pedestrians in the vicinity of the proposed project site.

### Bicycle Facilities

The *Highway Design Manual*, California Department of Transportation (Caltrans), 2012, classifies bikeways into three categories:

- Class I Multi-Use Path – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- Class II Bike Lane – a striped and signed lane for one-way bike travel on a street or highway.
- Class III Bike Route – signing only for shared use with motor vehicles within the same travel lane on a street or highway.

In the project area, there are Class II bike lanes on Westborough Boulevard between Skyline Boulevard-Sharp Park Road and Galway Drive, as well as on Callan Boulevard north of the project site. There are class III bike routes on Westborough Boulevard from Galway Drive and east through the study area. There are also class III bike routes on Oakmont Drive.

### Transit Facilities

Currently there are several bus stops within walking distance serviced by SamTrans. Bus stops for routes 122 and 28 are currently on Oakmont Drive adjacent to the proposed project site and routes 121 and 140 are near the Skyline Boulevard/Westborough intersection.

Route 122 connects to the Stonestown Shopping Center and San Francisco State University to the north and South San Francisco BART station to the South. Additional stops include the Colma BART station, Seton Medical Center, and King Plaza Shopping Center with options to transfer to other routes along the routes. On weekdays, the route begins at 5:15 a.m. or 6:00 a.m., depending on the direction of travel, and ends at 11:10 p.m. with about 30 minute headways. The route operates on a reduced schedule on the weekends.

Route 28 runs school days to and from South San Francisco High School. The route runs twice in the morning and evening hours around the high school bell schedule. There is an additional route for early dismissal on Wednesdays. While the route caters to the high school, it can be used for public use.

Route 121 provides service every day of the week with varying headways, 30 minutes on weekdays and 60 minutes on weekends. The limits of the service are between Lowell Street/Hanover Street intersection in San Francisco to the north and the Skyline College Transit Center to the south with stops at the Daily City and Colma BART station.

Route 140 provides service between the SFO AirTrain and the intersection of Manor Drive/Palmetto Avenue in Pacifica. The route operates every day of the week with varying start and end times, headways ranging from 30 minutes to an hour, and limited stops.

### Collision History

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is July 1, 2009 through June 30, 2014.

As presented in Table 1, the calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in *2012 Collision Data on California State Highways*, California Department of Transportation. Generally, the intersections operate below or near the statewide average for similar facilities. The collision rate calculations are attached.

**Table 1 – Collision Rates at the Study Intersections**

<b>Study Intersection</b>		<b>Number of Collisions (2009-2014)</b>	<b>Calculated Collision Rate (c/mve)</b>	<b>Statewide Average Collision Rate (c/mve)</b>
1.	Westborough Blvd/Skyline Blvd	31	0.39	0.27
2.	Westborough Blvd/Oakmont Dr-Callan Blvd	11	0.20	0.27
3.	Westborough Blvd/Gellert Blvd	18	0.20	0.27
4.	Shannon Dr/Oakmont Dr	0	0.00	0.15

Note: c/mve = collisions per million vehicles entering

*Westborough Boulevard and Skyline Boulevard* had a calculated collision rate of 0.39 collisions per million vehicles entering the intersection (c/mve), which is slightly higher than the Statewide Average of 0.27 c/mve. Of the 31 collisions recorded, more than a third were rear-end collisions and of those, the majority were due to unsafe speeds or following too closely. This could be mitigated with increased enforcement but is generally common for congested urban areas.

## Capacity Analysis

### Levels of Service Methodology

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2000. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

### Traffic Operation Standards

The City of South San Francisco, in General Plan Transportation Policy 4.2.G-9, has established minimally acceptable LOS standards.

- Strive to maintain LOS D or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours.

In addition, it states that an LOS of E or F are acceptable after finding that:

- There is no practical and feasible way to mitigate the lower level of service; and
- The uses resulting in the lower level of service are of clear, overall public benefit.

## Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data was collected while local schools were in session.

Under existing conditions, each of the study intersections operate acceptably. A summary of the intersection level of service calculations is contained in Table 2, and copies of the Level of Service calculations are attached.

**Table 2 – Existing Peak Hour Intersection Levels of Service**

Study Intersection Approach	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. Westborough Blvd/Skyline Blvd	28.5	C	30.5	C
2. Westborough Blvd/Oakmont Dr-Callan Blvd	25.0	C	18.4	B
3. Westborough Blvd/Gellart Blvd	42.4	D	27.1	C
4. Shannon Dr/Oakmont Dr	3.7	A	2.6	A
Eastbound Approach	13.2	B	9.8	A
Westbound Approach	9.6	B	9.0	A

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*;

## Project Description

The proposed infill project would develop 12 single family homes and seven townhomes located on the southwest corner of the Oakmont Drive-Callan Boulevard/Westborough Boulevard intersection. The project access would connect to an existing, but currently incomplete, segment of road off of Shannon Park Court.

## Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 9<sup>th</sup> Edition, 2012 for “Single Family Detached Housing” (ITE LU #210) and “Residential Condominiums/Townhouses” (ITE LU #230). The proposed project is expected to generate an average of 155 trips per day, including 12 trips during the a.m. peak hour and 16 during the p.m. peak hour. The expected trip generation potential for the proposed project is indicated in Table 3.

**Table 3 – Trip Generation Summary**

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
<b>Proposed</b>											
Single Family Detached Housing	12 du	9.52	114	0.75	9	2	7	1.00	12	8	4
Condominium/Townhouse	7 du	5.81	41	0.44	3	1	2	0.52	4	2	2
<b>Total</b>			<b>155</b>		<b>12</b>	<b>3</b>	<b>9</b>		<b>16</b>	<b>10</b>	<b>6</b>

Note: du = dwelling unit;

## Trip Distribution

The pattern used to allocate new project trips to the street network was determined from the residential distribution used for the same proposed site, but different proposed project, in the *Initial Study and Mitigated*

*Negative Declaration for Oakmont Vistas/Storage USA South San Francisco (October 1999).* The applied distribution assumptions and resulting trips are shown in Table 4.

Table 4 – Trip Distribution Assumptions	
Route	Percent
Callan Blvd to/from the North	17%
Oakmont Dr to/from the South	6%
Shannon Dr to/from the East	7%
Sharp Park Rd to/from the West	4%
Skyline Blvd to/from the North	8%
Skyline Blvd to/from the South	10%
Westborough Blvd to/from the East	39%
Gellert Blvd to/from the North	9%
<b>TOTAL</b>	<b>100%</b>

## Existing plus Project Conditions

Upon the addition of project-related traffic to the Existing volumes, the study intersections are expected to continue operating acceptably at the same LOS. These results are summarized in Table 5. Project traffic volumes are shown in Figure 5.

Table 5 – Existing and Existing plus Project Peak Hour Intersection Levels of Service									
Study Intersection <i>Approach</i>		Existing Conditions				Existing plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	Westborough Blvd/Skyline Blvd	28.5	C	30.5	C	28.6	C	30.5	C
2.	Westborough Blvd/Oakmont Dr-Callan Blvd	25.0	C	18.4	B	25.1	C	18.5	B
3.	Westborough Blvd/Gellart Blvd	42.4	D	27.1	C	42.6	D	27.2	C
4.	Shannon Dr/Oakmont Dr	3.7	A	2.6	A	4.0	A	2.8	A
	Eastbound Approach	13.2	<i>B</i>	9.8	A	13.5	<i>B</i>	10.2	<i>B</i>
	Westbound Approach	9.6	<i>B</i>	9.0	A	9.7	<i>B</i>	9.2	A

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*;

Conclusion: Upon the addition of the project trips, the study intersections would continue operating at acceptable levels of service set forth by the City of South San Francisco and C/CAG.

## Alternative Modes

### Pedestrian Facilities

In the study area, there are currently continuous sidewalk facilities. The proposed on-site sidewalks would conform with existing facilities. According to the site plan, there would not be a continuous sidewalk onsite

but at any on location, there would be a sidewalk on at least one side of the street. There would also be a pedestrian path along the eastern perimeter of the project site starting near where the proposed access road would conform to existing facilities and ending on Oakmont Drive between the proposed townhomes and the existing residences.

Per municipal code, 19.20.010, for minor street in a residential subdivision, a sidewalk is required on each side of the right of way. Additionally, the 4.3-G-2 guiding policy encourages providing safe and direct pedestrian routes and bikeways between and through residential neighborhoods, and to transit centers.

Recommendations: A continuous pedestrian network should be provided with sidewalks on both sides of Shannon Place, to meet City Standards in addition to promoting alternative modes through safe and direct pedestrian routes to the alternative modes available on Oakmont Drive adjacent to the site.

### Bicycle Facilities

According to the proposed site plan, there are no proposed bicycle facilities or modification to the existing facilities. Residents would be expected to use their personal garage for bicycle parking.

Conclusion: The existing bicycle facilities and proposed individual garages would adequately serve the residents of the site.

### Transit Facilities

There are several bus stops within walking distance to the project site. It is reasonable to assume that residents of the proposed project would use public transportation. The General Plan's guiding policy, 4.4-G-1, states that local and regional public transit serving South San Francisco should be promoted. The proposed project is located adjacent to an existing bus stop. According to the site plan, a pedestrian path leaving the site is proposed within 100 feet of the bus stops. T

Conclusion: The proposed project site should be adequately served by the existing transit facilities.

### Parking Requirements

Per the South San Francisco Municipal Code 20.330.004, the townhomes and single family dwelling would each require two spaces with at least one of the spaces covered. Per the site plan, each of the units would be provided with a two-car garage. Additionally, 19 parking would be provided along Shannon Place. If each residence only parked one car in the garage, the proposed parking supply along Shannon Place would accommodate the other vehicle. The proposed parking supply adequately meets the City Municipal Code.

For a comparison, the anticipated parking demand was estimated using standard rates published by ITE in *Parking Generation*, 4<sup>th</sup> Edition, 2010. The parking demand for the proposed project was estimated using the published standard rates for Residential Townhouse (ITE LU#230) and Single-Family Detached Housing (ITE LU#210), both of which estimate demand based on the number of dwelling units. Based on the parking generation rates, the average parking demand would be 32 parking stalls which would be accommodated with the proposed two car garages and the 19 parking stalls along Shannon Place.

Conclusion: The proposed parking supply would adequately serve the site's residential uses.

### CEQA Initial Checklist: Project Impacts

- a. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not*

*limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

The following discussion addresses project impacts on pedestrian and bicycle facilities and transit. Impacts on intersections are addressed under (b) below.

#### Impact on Pedestrian Facilities

**Less-than-Significant Impact with Mitigation.** It is reasonable to assume that residents would want to walk to the adjacent street network. Per South San Francisco Municipal Code, 19.20.010, sidewalks are required on both sides of a minor street's right of way. Additionally, the 4.3-G-2 guiding policy from the City's General Plan states that safe and direct pedestrian routes and bikeways between and through residential neighborhoods, and to transit centers should be encourage.

With the proposed recommendation to design for sidewalks on both sides of the street, the residents would be adequately served and adhere to the City's guiding policy.

#### Impact on Bicycle Facilities

**No Impact.** There are existing dedicated Class II bicycle lanes along the northern project frontage and Class III bicycle route on the west side of the project frontage on Oakmont Drive. Bicycle trips generated by the project would be adequately served by these existing facilities.

#### Impact on Transit

**No Impact.** The proposed project would adequately be served by the existing facilities as well as adhering to the General Plan's Guiding Policy that alternative modes should be encouraged. The proposed site plan has a pedestrian path to and from the site to Oakmont Drive in close proximity to an existing SamTrans bus stop.

- b. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

**Less-than-Significant Impact.** The City of South San Francisco has established the minimally acceptable LOS standard to strive to maintain LOS D or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours. In addition, it states that an LOS of E or F are acceptable after finding that there is no practical and feasible way to mitigate the lower level of service and the uses resulting in the lower level of service are of clear, overall public benefit.

The Westborough Boulevard/Skyline Boulevard intersection is located on State Route 35, Skyline Boulevard, which is a facility in the County's Management Program (CMP); however, the intersection is not one of the 16 intersections in the CMP. Based on the CMP, that segment of Skyline Boulevard has an LOS standard of E but the intersection must maintain the LOS Standard set forth by the City of South San Francisco which is LOS D.

Based on the counts collected during the morning and evening peak hours on January 12, 2016, each of the study intersections are operating at an acceptable set forth by the City. Upon the addition of the project generation trips to the existing network, the intersections would continue to operate at their existing LOS.

- c. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

**No Impact.** The project would not contain any features or characteristics that would result in a change in air traffic patterns nor would any feature be of sufficient height to affect air traffic.

- d. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

**Less-than-Significant Impact.** The design of the project would be required to meet all local design and construction standards, and as such, would not substantially increase hazards due to a design feature. The proposed project would have one ingress and one egress with a designated turnaround located on the north end of the site. The proposed point of ingress and egress would conform to an existing leg of the Shannon Drive/ Shannon Court intersection. Per City standards, once the intersection is completed, adequate signage should be installed to promote safety.

- e. *Result in inadequate emergency access?*

**Less-than-Significant Impact.** The proposed project would have one access road for all ingress and egress. Emergency vehicles would be able to enter the site and maneuver in the designated turnaround area located at the north end of the site near the townhomes to turn around and exit the site. The site's road, which is designed to meet City standards, would be of adequate width, and the turnaround would be of adequate size.

- f. *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

**Less-than-Significant Impact with Mitigation.** See discussion under (a) above. The proposed project would be adequately served by existing bicycle and transit facilities. It is recommended that the on-site pedestrian facilities be improved by incorporating sidewalks on both sides of Shannon Place such that the improvements meet the City's specifications. This recommendation would also ensure consistency with General Plan Policy regarding pedestrian pathways. With this mitigation measure, the project would not conflict with adopted policies, plans, or programs regarding alternative modes.

## Conclusions and Recommendations

- The proposed project would generate an average of 155 new trips daily, with 12 new trips during the a.m. peak hour and 16 new trips during the p.m. peak hour.
- Upon the addition of project generated trips, all intersections would operate at LOS D or better which is the lowest acceptable LOS standard as established by the City of San Francisco and C/CAG thresholds of significance.
- The proposed parking supply of 19 parking spaces and a two-car garage for each unit adheres to the City's requirements as well as the anticipated average parking demand for the site based ITE's parking generation rates.
- Sidewalks should be constructed on each of Shannon Place to provide a continuous pedestrian connection.
- The proposed project would be accommodated by the existing bicycle and transit facilities.



Attachments:

Collision Rate Calculations  
LOS Calculations

### Intersection Collision Rate Calculations

#### Oakmont Meadows

**Intersection # 1:** Westborough Boulevard-Sharp Park Road & Skyline Boulevard

**Date of Count:** Tuesday, January 12, 2016

**Number of Collisions:** 31

**Number of Injuries:** 13

**Number of Fatalities:** 0

**ADT:** 44100

**Start Date:** July 1, 2009

**End Date:** June 30, 2014

**Number of Years:** 5

**Intersection Type:** Four-Legged

**Control Type:** Signals

**Area:** Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{31}{44,100} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
<b>Study Intersection</b>	<b>0.39 c/mve</b>	<b>0.0%</b>	<b>41.9%</b>
<b>Statewide Average*</b>	<b>0.27 c/mve</b>	<b>0.4%</b>	<b>41.9%</b>

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

\* 2012 Collision Data on California State Highways, Caltrans

**Intersection # 2:** Westborough Boulevard & Oakmont Drive-Callan Boulevard

**Date of Count:** Tuesday, January 12, 2016

**Number of Collisions:** 11

**Number of Injuries:** 9

**Number of Fatalities:** 0

**ADT:** 29600

**Start Date:** July 1, 2009

**End Date:** June 30, 2014

**Number of Years:** 5

**Intersection Type:** Four-Legged

**Control Type:** Signals

**Area:** Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{11}{29,600} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
<b>Study Intersection</b>	<b>0.20 c/mve</b>	<b>0.0%</b>	<b>81.8%</b>
<b>Statewide Average*</b>	<b>0.27 c/mve</b>	<b>0.4%</b>	<b>41.9%</b>

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

\* 2012 Collision Data on California State Highways, Caltrans

### Intersection Collision Rate Calculations

#### Oakmont Meadows

**Intersection # 3:** Westborough Boulevard & Gellart Boulevard

**Date of Count:** Tuesday, January 12, 2016

**Number of Collisions:** 18

**Number of Injuries:** 11

**Number of Fatalities:** 0

**ADT:** 48700

**Start Date:** July 1, 2009

**End Date:** June 30, 2014

**Number of Years:** 5

**Intersection Type:** Four-Legged

**Control Type:** Signals

**Area:** Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{18}{48,700} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
<b>Study Intersection</b>	<b>0.20 c/mve</b>	<b>0.0%</b>	<b>61.1%</b>
<b>Statewide Average*</b>	<b>0.27 c/mve</b>	<b>0.4%</b>	<b>41.9%</b>

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

\* 2012 Collision Data on California State Highways, Caltrans

**Intersection # 4:** Shannon Drive & Oakmont Drive

**Date of Count:** Tuesday, January 12, 2016

**Number of Collisions:** 0

**Number of Injuries:** 0

**Number of Fatalities:** 0

**ADT:** 4300

**Start Date:** July 1, 2009

**End Date:** June 30, 2014

**Number of Years:** 5

**Intersection Type:** Four-Legged

**Control Type:** Stop & Yield Controls

**Area:** Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{0}{4,300} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
<b>Study Intersection</b>	<b>0.00 c/mve</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Statewide Average*</b>	<b>0.15 c/mve</b>	<b>1.0%</b>	<b>41.9%</b>

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

\* 2012 Collision Data on California State Highways, Caltrans

## AM Peak Hour - Existing Conditions

Level Of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)\*\*\*\*\*  
Intersection #1 Westborough Boulevard/Skyline Boulevard  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.645  
 Loss Time (sec): 0 Average Delay (sec/veh): 28.5  
 Optimal Cycle: 64 Level Of Service: C

Street Name: Skyline Boulevard Westborough Boulevard  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	1	1	0	1	1	0	1

Volume Module: >> Count Date: 12 Jan 2016 << 7:15 - 8:15

Base Vol:	166	337	72	227	764	58	147	641	745	103	175	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	166	337	72	227	764	58	147	641	745	103	175	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	175	355	76	239	804	61	155	675	784	108	184	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	175	355	76	239	804	61	155	675	784	108	184	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	175	355	76	239	804	61	155	675	784	108	184	95

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.93	0.93	0.95	0.94	0.94	0.95	0.87	0.87	0.95	0.90	0.90
Lanes:	2.00	1.65	0.35	1.00	1.86	0.14	1.00	1.39	1.61	1.00	1.32	0.68
Final Sat.:	3502	2897	619	1805	3318	252	1805	2301	2675	1805	2262	1164

Capacity Analysis Module:

Vol/Sat:	0.05	0.12	0.12	0.13	0.24	0.24	0.09	0.29	0.29	0.06	0.08	0.08
Crit Moves:	***			***			***			***		
Green/Cycle:	0.08	0.22	0.22	0.24	0.38	0.38	0.28	0.45	0.45	0.09	0.27	0.27
Volume/Cap:	0.65	0.56	0.56	0.56	0.65	0.65	0.31	0.65	0.65	0.65	0.31	0.31
Delay/Veh:	50.1	35.8	35.8	35.4	26.8	26.8	28.6	21.7	21.7	52.1	29.5	29.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.1	35.8	35.8	35.4	26.8	26.8	28.6	21.7	21.7	52.1	29.5	29.5
LOS by Move:	D	D	D	D	C	C	C	C	C	D	C	C
HCM2k95thQ:	8	13	13	13	22	22	8	23	23	7	7	7

Note: Queue reported is the number of cars per lane.

## PM Peak Hour - Existing Conditions

Level Of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)\*\*\*\*\*  
Intersection #1 Westborough Boulevard/Skyline Boulevard  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.581  
 Loss Time (sec): 0 Average Delay (sec/veh): 30.5  
 Optimal Cycle: 54 Level Of Service: C

Street Name: Skyline Boulevard Westborough Boulevard  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	1	1	0	1	1	0	1	1	0	1

Volume Module: >> Count Date: 12 Jan 2016 << 4:45-5:45

Base Vol:	647	701	140	147	430	72	113	248	237	189	393	167
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	647	701	140	147	430	72	113	248	237	189	393	167
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	681	738	147	155	453	76	119	261	249	199	414	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	681	738	147	155	453	76	119	261	249	199	414	176
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	681	738	147	155	453	76	119	261	249	199	414	176

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.93	0.93	0.95	0.93	0.93	0.95	0.88	0.88	0.95	0.91	0.91
Lanes:	2.00	1.67	0.33	1.00	1.71	0.29	1.00	1.53	1.47	1.00	1.40	0.60
Final Sat.:	3502	2934	586	1805	3027	507	1805	2567	2453	1805	2419	1028

Capacity Analysis Module:

Vol/Sat:	0.19	0.25	0.25	0.09	0.15	0.15	0.07	0.10	0.10	0.11	0.17	0.17
Crit Moves:	***			***			***			***		
Green/Cycle:	0.33	0.44	0.44	0.15	0.26	0.26	0.11	0.20	0.20	0.21	0.29	0.29
Volume/Cap:	0.58	0.57	0.57	0.57	0.58	0.58	0.58	0.52	0.52	0.52	0.58	0.58
Delay/Veh:	28.2	21.3	21.3	42.3	33.4	33.4	46.2	36.5	36.5	36.2	30.9	30.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	28.2	21.3	21.3	42.3	33.4	33.4	46.2	36.5	36.5	36.2	30.9	30.9
LOS by Move:	C	C	C	D	C	C	D	D	D	D	C	C
HCM2k95thQ:	17	20	20	10	15	15	9	11	11	10	15	15

Note: Queue reported is the number of cars per lane.

## AM Peak Hour - Existing Conditions

## Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Westborough Boulevard/Oakmont Drive-Callan Boulevard

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699  
 Loss Time (sec): 0 Average Delay (sec/veh): 25.0  
 Optimal Cycle: 62 Level Of Service: C

Street Name: Oakmont Drive-Callan Boulevard Westborough Boulevard

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 1 0 0 1 1 0 1 0 1 1 0 2 0 1

Volume Module: &gt;&gt; Count Date: 12 Jan 2016 &lt;&lt; 7:30-8:30

Base Vol: 35 79 55 345 113 72 50 821 26 179 302 294

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 35 79 55 345 113 72 50 821 26 179 302 294

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89

PHF Volume: 39 89 62 388 127 81 56 922 29 201 339 330

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 39 89 62 388 127 81 56 922 29 201 339 330

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 39 89 62 388 127 81 56 922 29 201 339 330

## Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.90 0.90 0.85 0.61 1.00 0.85 0.95 0.95 0.85 0.95 0.95 0.85

Lanes: 0.31 0.69 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 526 1186 1615 1167 1900 1615 1805 3610 1615 1805 3610 1615

## Capacity Analysis Module:

Vol/Sat: 0.07 0.07 0.04 0.33 0.07 0.05 0.03 0.26 0.02 0.11 0.09 0.20

Crit Moves: \*\*\*\*

Green/Cycle: 0.48 0.48 0.48 0.48 0.48 0.07 0.37 0.37 0.16 0.46 0.46

Volume/Cap: 0.16 0.16 0.08 0.70 0.14 0.11 0.45 0.70 0.05 0.70 0.21 0.45

Delay/Veh: 15.0 15.0 14.4 24.6 14.8 14.6 47.3 28.7 20.5 47.2 16.4 19.1

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 15.0 15.0 14.4 24.6 14.8 14.6 47.3 28.7 20.5 47.2 16.4 19.1

LOS by Move: B B B C B B D C C D B B

HCM2k95thQ: 4 4 2 19 4 3 3 22 1 14 6 13

Note: Queue reported is the number of cars per lane.

## PM Peak Hour - Existing Conditions

## Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Westborough Boulevard/Oakmont Drive-Callan Boulevard

Cycle (sec): 100 Critical Vol./Cap.(X): 0.394  
 Loss Time (sec): 0 Average Delay (sec/veh): 18.4  
 Optimal Cycle: 31 Level Of Service: B

Street Name: Oakmont Drive-Callan Boulevard Westborough Boulevard

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 1 0 0 1 1 0 1 0 1 1 0 2 0 1

Volume Module: &gt;&gt; Count Date: 12 Jan 2016 &lt;&lt; 4:45-5:45

Base Vol: 38 50 22 149 47 34 112 402 31 45 670 275

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 38 50 22 149 47 34 112 402 31 45 670 275

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 40 53 23 157 49 36 118 423 33 47 705 289

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 40 53 23 157 49 36 118 423 33 47 705 289

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 40 53 23 157 49 36 118 423 33 47 705 289

## Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.89 0.89 0.85 0.62 1.00 0.85 0.95 0.95 0.85 0.95 0.95 0.85

Lanes: 0.43 0.57 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 729 959 1615 1178 1900 1615 1805 3610 1615 1805 3610 1615

## Capacity Analysis Module:

Vol/Sat: 0.05 0.05 0.01 0.13 0.03 0.02 0.07 0.12 0.02 0.03 0.20 0.18

Crit Moves: \*\*\*\*

Green/Cycle: 0.34 0.34 0.34 0.34 0.34 0.17 0.54 0.54 0.12 0.50 0.50

Volume/Cap: 0.16 0.16 0.04 0.39 0.08 0.07 0.39 0.22 0.04 0.22 0.39 0.36

Delay/Veh: 23.3 23.3 22.3 25.9 22.5 22.5 38.1 12.0 10.8 40.2 15.9 15.7

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 23.3 23.3 22.3 25.9 22.5 22.5 38.1 12.0 10.8 40.2 15.9 15.7

LOS by Move: C C C C C D B B D B B

HCM2k95thQ: 4 4 1 8 2 2 6 7 1 3 14 11

Note: Queue reported is the number of cars per lane.

## AM Peak Hour - Existing Conditions

Level Of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

## Intersection #3 Westborough Boulevard/Gellert Boulevard

Cycle (sec): 100 Critical Vol./Cap.(X): 0.956  
 Loss Time (sec): 0 Average Delay (sec/veh): 42.4  
 Optimal Cycle: 180 Level Of Service: D

Street Name: Gellert Boulevard Westborough Boulevard  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0  
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
 Lanes: 1 0 1 0 1 1 1 0 2 0 1 1 0 3 0 1

Volume Module: >> Count Date: 12 Jan 2016 << 7:30-8:30  
 Base Vol: 56 46 362 557 57 130 119 1604 29 124 650 161  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 56 46 362 557 57 130 119 1604 29 124 650 161  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94  
 PHF Volume: 60 49 385 593 61 138 127 1706 31 132 691 171  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 60 49 385 593 61 138 127 1706 31 132 691 171  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 FinalVolume: 60 49 385 593 61 138 127 1706 31 132 691 171

Saturation Flow Module:  
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
 Adjustment: 0.95 1.00 0.85 0.91 0.91 0.85 0.95 0.95 0.85 0.95 0.91 0.85  
 Lanes: 1.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00  
 Final Sat.: 1805 1900 1615 3455 1727 1615 1805 3610 1615 1805 5187 1615

Capacity Analysis Module:  
 Vol/Sat: 0.03 0.03 0.24 0.17 0.04 0.09 0.07 0.47 0.02 0.07 0.13 0.11  
 Crit Moves: \*\*\*\*  
 Green/Cycle: 0.12 0.25 0.25 0.18 0.31 0.31 0.20 0.49 0.49 0.08 0.37 0.37  
 Volume/Cap: 0.28 0.10 0.96 0.96 0.11 0.28 0.36 0.96 0.04 0.96 0.36 0.28  
 Delay/Veh: 40.8 29.0 70.4 64.6 24.7 26.4 35.3 36.7 13.0 108.9 22.7 22.2  
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 40.8 29.0 70.4 64.6 24.7 26.4 35.3 36.7 13.0 108.9 22.7 22.2  
 LOS by Move: D C E E C C D D B F C C  
 HCM2k95thQ: 4 2 29 25 3 7 7 52 1 14 11 7

Note: Queue reported is the number of cars per lane.

## PM Peak Hour - Existing Conditions

Level Of Service Computation Report  
2000 HCM Operations Method (Base Volume Alternative)

## Intersection #3 Westborough Boulevard/Gellert Boulevard

Cycle (sec): 100 Critical Vol./Cap.(X): 0.637  
 Loss Time (sec): 0 Average Delay (sec/veh): 27.1  
 Optimal Cycle: 63 Level Of Service: C

Street Name: Gellert Boulevard Westborough Boulevard  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0  
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
 Lanes: 1 0 1 0 1 1 1 0 2 0 1 1 0 3 0 1

Volume Module: >> Count Date: 12 Jan 2016 << 5:00-6:00  
 Base Vol: 41 79 169 437 81 218 168 615 13 203 1295 444  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 41 79 169 437 81 218 168 615 13 203 1295 444  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94  
 PHF Volume: 44 84 180 465 86 232 179 654 14 216 1378 472  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 44 84 180 465 86 232 179 654 14 216 1378 472  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 FinalVolume: 44 84 180 465 86 232 179 654 14 216 1378 472

Saturation Flow Module:  
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
 Adjustment: 0.95 1.00 0.85 0.91 0.91 0.85 0.95 0.95 0.85 0.95 0.91 0.85  
 Lanes: 1.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00  
 Final Sat.: 1805 1900 1615 3466 1733 1615 1805 3610 1615 1805 5187 1615

Capacity Analysis Module:  
 Vol/Sat: 0.02 0.04 0.11 0.13 0.05 0.14 0.10 0.18 0.01 0.12 0.27 0.29  
 Crit Moves: \*\*\*\*  
 Green/Cycle: 0.06 0.17 0.17 0.21 0.33 0.33 0.16 0.37 0.37 0.24 0.46 0.46  
 Volume/Cap: 0.44 0.25 0.64 0.64 0.15 0.44 0.64 0.49 0.02 0.49 0.58 0.64  
 Delay/Veh: 48.7 36.0 43.1 37.6 23.6 26.8 44.4 24.5 20.0 33.3 20.3 22.5  
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 48.7 36.0 43.1 37.6 23.6 26.8 44.4 24.5 20.0 33.3 20.3 22.5  
 LOS by Move: D D D D C C D C C C C  
 HCM2k95thQ: 4 5 12 15 4 11 12 16 1 12 21 21

Note: Queue reported is the number of cars per lane.

## AM Peak Hour - Existing Conditions

Level Of Service Computation Report  
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Shannon Drive/Oakmont Drive

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: B[ 13.2]

Street Name:	Oakmont Drive				Shannon Drive				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Lanes:	0	0	1	0	0	0	1	0	0

Volume Module:	>>	Count	Date:	12 Jan 2016	<<	7:45-8:45
Base Vol:	2	84	5	50	110	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	84	5	50	110	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.69	0.69	0.69	0.69	0.69	0.69
PHF Volume:	3	122	7	72	159	13
Reduct Vol:	0	0	0	0	0	0
FinalVolume:	3	122	7	72	159	13

Critical Gap Module:	Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3	

Capacity Module:	Cnflict Vol:	172	xxxx	xxxxx	129	xxxx	xxxxx	486	446	166	446	449	125
Potent Cap.:	1417	xxxx	xxxxx	1469	xxxx	xxxxx	495	510	884	526	508	931	
Move Cap.:	1417	xxxx	xxxxx	1469	xxxx	xxxxx	430	483	884	498	481	931	
Volume/Cap:	0.00	xxxx	xxxxx	0.05	xxxx	xxxxx	0.04	0.01	0.00	0.01	0.00	0.09	

Level Of Service Module:	2Way95thQ:	0.0	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.5	xxxx	xxxxx	7.6	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	466	xxxxx	xxxx	871	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxxx	0.2	xxxxxx	xxxxxx	0.4	xxxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxxx	13.2	xxxxxx	xxxxxx	9.6	xxxxxx	
Shared LOS:	*	*	*	*	*	*	*	B	*	*	A	*	
ApproachDel:	xxxxxx			xxxxxx				13.2			9.6		
ApproachLOS:	*			*				B			A		

Note: Queue reported is the number of cars per lane.

## PM Peak Hour - Existing Conditions

Level Of Service Computation Report  
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Shannon Drive/Oakmont Drive

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: A[ 9.8]

Street Name:	Oakmont Drive				Shannon Drive				
Approach:	North Bound		South Bound		East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign		
Rights:	Include		Include		Include		Include		
Lanes:	0	0	1	0	0	0	1	0	0

Volume Module:	>>	Count	Date:	12 Jan 2016	<<	5:00-6:00
Base Vol:	2	68	1	24	57	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	68	1	24	57	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.82	0.82	0.82	0.82	0.82	0.82
PHF Volume:	2	83	1	29	70	15
Reduct Vol:	0	0	0	0	0	0
FinalVolume:	2	83	1	29	70	15

Critical Gap Module:	Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3	

Capacity Module:	Cnflict Vol:	84	xxxx	xxxxx	84	xxxx	xxxxx	241	224	77	226	231	84
Potent Cap.:	1525	xxxx	xxxxx	1525	xxxx	xxxxx	717	678	990	734	672	981	
Move Cap.:	1525	xxxx	xxxxx	1525	xxxx	xxxxx	680	664	990	720	658	981	
Volume/Cap:	0.00	xxxx	xxxxx	0.02	xxxx	xxxxx	0.01	0.00	0.00	0.00	0.00	0.03	

Level Of Service Module:	2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	756	xxxxx	xxxx	930	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxxx	0.0	xxxxxx	xxxxxx	0.1	xxxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxxx	9.8	xxxxxx	xxxxxx	9.0	xxxxxx	
Shared LOS:	*	*	*	*	*	*	*	A	*	*	A	*	
ApproachDel:	xxxxxx			xxxxxx				9.8			9.0		
ApproachLOS:	*			*				A			A		

Note: Queue reported is the number of cars per lane.

AM Peak Hour - Existing plus Project Conditions

Trip Generation Report

Forecast for am

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Oakmont Mead	1.00	Residential	3.00	9.00	3	9	12	100.0
	Zone 1 Subtotal					3	9	12	100.0
TOTAL						3	9	12	100.0

PM Peak Hour - Existing plus Project Conditions

Trip Generation Report

Forecast for pm

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	Oakmont Mead	1.00	Residential	10.00	6.00	10	6	16	100.0
	Zone 1 Subtotal					10	6	16	100.0
TOTAL						10	6	16	100.0



## AM Peak Hour - Existing plus Project Conditions

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1 Westborough Boulevard/Skyline Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.646  
 Loss Time (sec): 0 Average Delay (sec/veh): 28.6  
 Optimal Cycle: 64 Level Of Service: C  
 \*\*\*\*\*

Street Name: Skyline Boulevard Westborough Boulevard  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
 Lanes: 2 0 1 1 0 1 0 1 1 0 1 0

Volume Module: >> Count Date: 12 Jan 2016 << 7:15 - 8:15  
 Base Vol: 166 337 72 227 764 58 147 641 745 103 175 90  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 166 337 72 227 764 58 147 641 745 103 175 90  
 Added Vol: 0 0 0 0 0 0 0 0 0 1 0 1  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 166 337 72 227 764 58 147 641 745 104 175 91  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
 PHF Volume: 175 355 76 239 804 61 155 675 784 109 184 96  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 175 355 76 239 804 61 155 675 784 109 184 96  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 FinalVolume: 175 355 76 239 804 61 155 675 784 109 184 96

Saturation Flow Module:  
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
 Adjustment: 0.92 0.93 0.93 0.95 0.94 0.94 0.95 0.87 0.87 0.95 0.90 0.90  
 Lanes: 2.00 1.65 0.35 1.00 1.86 0.14 1.00 1.39 1.61 1.00 1.32 0.68  
 Final Sat.: 3502 2897 619 1805 3318 252 1805 2301 2675 1805 2254 1172

Capacity Analysis Module:  
 Vol/Sat: 0.05 0.12 0.12 0.13 0.24 0.24 0.09 0.29 0.29 0.06 0.08 0.08  
 Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*  
 Green/Cycle: 0.08 0.22 0.22 0.23 0.38 0.38 0.28 0.45 0.45 0.09 0.27 0.27  
 Volume/Cap: 0.65 0.56 0.56 0.56 0.65 0.65 0.31 0.65 0.65 0.65 0.31 0.31  
 Delay/Veh: 50.1 35.9 35.9 35.5 26.9 26.9 28.7 21.8 21.8 52.1 29.4 29.4  
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 50.1 35.9 35.9 35.5 26.9 26.9 28.7 21.8 21.8 52.1 29.4 29.4  
 LOS by Move: D D D D C C C C C D C C  
 HCM2k95thQ: 8 13 13 13 22 22 8 23 23 7 7 7

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

## PM Peak Hour - Existing plus Project Conditions

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #1 Westborough Boulevard/Skyline Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.581  
 Loss Time (sec): 0 Average Delay (sec/veh): 30.5  
 Optimal Cycle: 54 Level Of Service: C  
 \*\*\*\*\*

Street Name: Skyline Boulevard Westborough Boulevard  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
 Lanes: 2 0 1 1 0 1 0 1 1 1 1 0

Volume Module: >> Count Date: 12 Jan 2016 << 4:45-5:45  
 Base Vol: 647 701 140 147 430 72 113 248 237 189 393 167  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 647 701 140 147 430 72 113 248 237 189 393 167  
 Added Vol: 0 0 1 1 0 0 0 0 0 1 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 647 701 141 148 430 72 113 248 237 190 393 167  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
 PHF Volume: 681 738 148 156 453 76 119 261 249 200 414 176  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 681 738 148 156 453 76 119 261 249 200 414 176  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 FinalVolume: 681 738 148 156 453 76 119 261 249 200 414 176

Saturation Flow Module:  
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
 Adjustment: 0.92 0.93 0.93 0.95 0.93 0.93 0.95 0.88 0.88 0.95 0.91 0.91  
 Lanes: 2.00 1.67 0.33 1.00 1.71 0.29 1.00 1.53 1.47 1.00 1.40 0.60  
 Final Sat.: 3502 2930 589 1805 3027 507 1805 2567 2453 1805 2419 1028

Capacity Analysis Module:  
 Vol/Sat: 0.19 0.25 0.25 0.09 0.15 0.15 0.07 0.10 0.10 0.11 0.17 0.17  
 Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*  
 Green/Cycle: 0.33 0.44 0.44 0.15 0.26 0.26 0.11 0.20 0.20 0.21 0.29 0.29  
 Volume/Cap: 0.58 0.57 0.57 0.57 0.58 0.58 0.58 0.52 0.52 0.52 0.58 0.58  
 Delay/Veh: 28.2 21.4 21.4 42.3 33.4 33.4 46.2 36.6 36.6 36.1 30.9 30.9  
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 28.2 21.4 21.4 42.3 33.4 33.4 46.2 36.6 36.6 36.1 30.9 30.9  
 LOS by Move: C C C D C C D D D D C C  
 HCM2k95thQ: 17 20 20 10 15 15 9 11 11 10 15 15

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

## AM Peak Hour - Existing plus Project Conditions

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #2 Westborough Boulevard/Oakmont Drive-Callan Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.703  
 Loss Time (sec): 0 Average Delay (sec/veh): 25.1  
 Optimal Cycle: 63 Level Of Service: C  
 \*\*\*\*\*

Street Name: Oakmont Drive-Callan Boulevard Westborough Boulevard  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	1	0	2	0	1	0

Volume Module: >> Count Date: 12 Jan 2016 << 7:30-8:30

Base Vol:	35	79	55	345	113	72	50	821	26	179	302	294
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	79	55	345	113	72	50	821	26	179	302	294
Added Vol:	2	2	3	0	1	0	0	0	1	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	81	58	345	114	72	50	821	27	180	302	294
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
PHF Volume:	42	91	65	388	128	81	56	922	30	202	339	330
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	91	65	388	128	81	56	922	30	202	339	330
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	42	91	65	388	128	81	56	922	30	202	339	330

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.90	0.85	0.61	1.00	0.85	0.95	0.95	0.85	0.95	0.95	0.85
Lanes:	0.31	0.69	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	535	1171	1615	1157	1900	1615	1805	3610	1615	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.08	0.08	0.04	0.34	0.07	0.05	0.03	0.26	0.02	0.11	0.09	0.20
Crit Moves:	****			****			****			****		
Green/Cycle:	0.48	0.48	0.48	0.48	0.48	0.48	0.07	0.36	0.36	0.16	0.45	0.45
Volume/Cap:	0.16	0.16	0.08	0.70	0.14	0.11	0.45	0.70	0.05	0.70	0.21	0.45
Delay/Veh:	14.9	14.9	14.3	24.6	14.7	14.5	47.3	28.9	20.7	47.4	16.5	19.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.9	14.9	14.3	24.6	14.7	14.5	47.3	28.9	20.7	47.4	16.5	19.2
LOS by Move:	B	B	B	C	B	B	D	C	C	D	B	B
HCM2k95thQ:	5	5	2	19	4	3	3	22	1	14	7	14

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

## PM Peak Hour - Existing plus Project Conditions

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #2 Westborough Boulevard/Oakmont Drive-Callan Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.394  
 Loss Time (sec): 0 Average Delay (sec/veh): 18.5  
 Optimal Cycle: 31 Level Of Service: B  
 \*\*\*\*\*

Street Name: Oakmont Drive-Callan Boulevard Westborough Boulevard  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	1	0	2	0	1	0

Volume Module: >> Count Date: 12 Jan 2016 << 4:45-5:45

Base Vol:	38	50	22	149	47	34	112	402	31	45	670	275
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	50	22	149	47	34	112	402	31	45	670	275
Added Vol:	1	1	2	0	2	0	0	0	2	3	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	39	51	24	149	49	34	112	402	33	48	670	275
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	41	54	25	157	52	36	118	423	35	51	705	289
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	54	25	157	52	36	118	423	35	51	705	289
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	54	25	157	52	36	118	423	35	51	705	289

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.89	0.85	0.62	1.00	0.85	0.95	0.95	0.85	0.95	0.95	0.85
Lanes:	0.43	0.57	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	730	955	1615	1174	1900	1615	1805	3610	1615	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.06	0.06	0.02	0.13	0.03	0.02	0.07	0.12	0.02	0.03	0.20	0.18
Crit Moves:	****			****			****			****		
Green/Cycle:	0.34	0.34	0.34	0.34	0.34	0.34	0.17	0.53	0.53	0.13	0.50	0.50
Volume/Cap:	0.17	0.17	0.05	0.39	0.08	0.07	0.39	0.22	0.04	0.22	0.39	0.36
Delay/Veh:	23.3	23.3	22.2	25.9	22.5	22.4	38.1	12.4	11.1	39.6	16.0	15.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.3	23.3	22.2	25.9	22.5	22.4	38.1	12.4	11.1	39.6	16.0	15.8
LOS by Move:	C	C	C	C	C	C	D	B	B	D	B	B
HCM2k95thQ:	4	4	1	8	2	2	6	7	1	3	14	11

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

## AM Peak Hour - Existing plus Project Conditions

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #3 Westborough Boulevard/Gellert Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.957  
 Loss Time (sec): 0 Average Delay (sec/veh): 42.6  
 Optimal Cycle: 180 Level Of Service: D  
 \*\*\*\*\*

Street Name: Gellert Boulevard Westborough Boulevard  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
 Lanes: 1 0 1 0 1 1 1 1 0 2 0 1 1 0 3 0 1

Volume Module: >> Count Date: 12 Jan 2016 << 7:30-8:30  
 Base Vol: 56 46 362 557 57 130 119 1604 29 124 650 161  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 56 46 362 557 57 130 119 1604 29 124 650 161  
 Added Vol: 0 0 0 0 0 0 1 4 0 0 1 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 56 46 362 557 57 130 120 1608 29 124 651 161  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94  
 PHF Volume: 60 49 385 593 61 138 128 1711 31 132 693 171  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 60 49 385 593 61 138 128 1711 31 132 693 171  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 FinalVolume: 60 49 385 593 61 138 128 1711 31 132 693 171

Saturation Flow Module:  
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
 Adjustment: 0.95 1.00 0.85 0.91 0.91 0.85 0.95 0.95 0.85 0.95 0.91 0.85  
 Lanes: 1.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00  
 Final Sat.: 1805 1900 1615 3455 1727 1615 1805 3610 1615 1805 5187 1615

Capacity Analysis Module:  
 Vol/Sat: 0.03 0.03 0.24 0.17 0.04 0.09 0.07 0.47 0.02 0.07 0.13 0.11  
 Crit Moves: \*\*\*\*  
 Green/Cycle: 0.12 0.25 0.25 0.18 0.31 0.31 0.20 0.50 0.50 0.08 0.37 0.37  
 Volume/Cap: 0.28 0.10 0.96 0.96 0.11 0.28 0.36 0.96 0.04 0.96 0.36 0.28  
 Delay/Veh: 40.8 29.0 70.8 64.9 24.7 26.4 35.2 36.8 13.0 109.3 22.8 22.2  
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 40.8 29.0 70.8 64.9 24.7 26.4 35.2 36.8 13.0 109.3 22.8 22.2  
 LOS by Move: D C E E C C D D B F C C  
 HCM2k95thQ: 4 2 29 25 3 7 7 52 1 14 11 7

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

## PM Peak Hour - Existing plus Project Conditions

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #3 Westborough Boulevard/Gellert Boulevard  
 \*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.638  
 Loss Time (sec): 0 Average Delay (sec/veh): 27.2  
 Optimal Cycle: 63 Level Of Service: C  
 \*\*\*\*\*

Street Name: Gellert Boulevard Westborough Boulevard  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected  
 Rights: Include Include Include Include  
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
 Lanes: 1 0 1 0 1 1 1 1 0 2 0 1 1 0 3 0 1

Volume Module: >> Count Date: 12 Jan 2016 << 5:00-6:00  
 Base Vol: 41 79 169 437 81 218 168 615 13 203 1295 444  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 41 79 169 437 81 218 168 615 13 203 1295 444  
 Added Vol: 0 0 0 0 0 1 1 2 0 0 4 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 41 79 169 437 81 219 169 617 13 203 1299 444  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94  
 PHF Volume: 44 84 180 465 86 233 180 656 14 216 1382 472  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 44 84 180 465 86 233 180 656 14 216 1382 472  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 FinalVolume: 44 84 180 465 86 233 180 656 14 216 1382 472

Saturation Flow Module:  
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
 Adjustment: 0.95 1.00 0.85 0.91 0.91 0.85 0.95 0.95 0.85 0.95 0.91 0.85  
 Lanes: 1.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00  
 Final Sat.: 1805 1900 1615 3466 1733 1615 1805 3610 1615 1805 5187 1615

Capacity Analysis Module:  
 Vol/Sat: 0.02 0.04 0.11 0.13 0.05 0.14 0.10 0.18 0.01 0.12 0.27 0.29  
 Crit Moves: \*\*\*\*  
 Green/Cycle: 0.06 0.17 0.17 0.21 0.33 0.33 0.16 0.37 0.37 0.24 0.46 0.46  
 Volume/Cap: 0.44 0.25 0.64 0.64 0.15 0.44 0.64 0.49 0.02 0.49 0.58 0.64  
 Delay/Veh: 48.8 36.0 43.1 37.6 23.7 26.8 44.3 24.5 20.0 33.3 20.3 22.6  
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 48.8 36.0 43.1 37.6 23.7 26.8 44.3 24.5 20.0 33.3 20.3 22.6  
 LOS by Move: D D D D C C D C B C C C  
 HCM2k95thQ: 4 5 12 15 4 11 12 16 1 12 21 21

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

## AM Peak Hour - Existing plus Project Conditions

Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #4 Shannon Drive/Oakmont Drive  
\*\*\*\*\*

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: B[ 13.5]  
\*\*\*\*\*

Street Name: Oakmont Drive Shannon Drive  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign  
Rights: Include Include Include Include  
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

Volume Module: >> Count Date: 12 Jan 2016 << 7:45-8:45  
Base Vol: 2 84 5 50 110 9 13 4 2 4 1 59  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 2 84 5 50 110 9 13 4 2 4 1 59  
Added Vol: 0 0 0 0 0 2 6 2 1 0 1 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 2 84 5 50 110 11 19 6 3 4 2 59  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69 0.69  
PHF Volume: 3 122 7 72 159 16 28 9 4 6 3 86  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 3 122 7 72 159 16 28 9 4 6 3 86

Critical Gap Module:  
Critical Gp: 4.1 xxxx xxxxxx 4.1 xxxx xxxxxx 7.1 6.5 6.2 7.1 6.5 6.2  
FollowUpTim: 2.2 xxxx xxxxxx 2.2 xxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:  
Cnflict Vol: 175 xxxx xxxxxx 129 xxxx xxxxxx 488 447 167 450 451 125  
Potent Cap.: 1413 xxxx xxxxxx 1469 xxxx xxxxxx 494 509 882 523 507 931  
Move Cap.: 1413 xxxx xxxxxx 1469 xxxx xxxxxx 428 482 882 492 480 931  
Volume/Cap: 0.00 xxxx xxxxxx 0.05 xxxx xxxxxx 0.06 0.02 0.00 0.01 0.01 0.09

Level Of Service Module:  
2Way95thQ: 0.0 xxxx xxxxxx 0.2 xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx  
Control Del: 7.6 xxxx xxxxxx 7.6 xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx  
LOS by Move: A \* \* A \* \* \* \* \* \* \* \* \* \*  
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT  
Shared Cap.: xxxx xxxx xxxxxx xxxx xxxx xxxxxx 465 xxxxxx xxxx 859 xxxxxx  
SharedQueue:xxxxxx xxxx xxxxxx xxxxxx xxxxxx 0.3 xxxxxx xxxxxx 0.4 xxxxxx  
Shrd ConDel:xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx 13.5 xxxxxx xxxxxx 9.7 xxxxxx  
Shared LOS: \* \* \* \* \* \* \* B \* A \*  
ApproachDel: xxxxxxxx xxxxxxxx 13.5 9.7  
ApproachLOS: \* \* B A

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

## PM Peak Hour - Existing plus Project Conditions

Level Of Service Computation Report  
2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
Intersection #4 Shannon Drive/Oakmont Drive  
\*\*\*\*\*

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: B[ 10.2]  
\*\*\*\*\*

Street Name: Oakmont Drive Shannon Drive  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign  
Rights: Include Include Include Include  
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

Volume Module: >> Count Date: 12 Jan 2016 << 5:00-6:00  
Base Vol: 2 68 1 24 57 12 3 1 2 2 2 27  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 2 68 1 24 57 12 3 1 2 2 2 27  
Added Vol: 1 0 0 0 0 7 4 1 0 0 2 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 3 68 1 24 57 19 7 2 2 2 4 27  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82  
PHF Volume: 4 83 1 29 70 23 9 2 2 2 5 33  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
FinalVolume: 4 83 1 29 70 23 9 2 2 2 5 33

Critical Gap Module:  
Critical Gp: 4.1 xxxx xxxxxx 4.1 xxxx xxxxxx 7.1 6.5 6.2 7.1 6.5 6.2  
FollowUpTim: 2.2 xxxx xxxxxx 2.2 xxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:  
Cnflict Vol: 93 xxxx xxxxxx 84 xxxx xxxxxx 249 231 81 233 242 84  
Potent Cap.: 1515 xxxx xxxxxx 1525 xxxx xxxxxx 708 672 984 726 663 981  
Move Cap.: 1515 xxxx xxxxxx 1525 xxxx xxxxxx 669 658 984 710 649 981  
Volume/Cap: 0.00 xxxx xxxxxx 0.02 xxxx xxxxxx 0.01 0.00 0.00 0.00 0.01 0.03

Level Of Service Module:  
2Way95thQ: 0.0 xxxx xxxxxx 0.1 xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx  
Control Del: 7.4 xxxx xxxxxx 7.4 xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx  
LOS by Move: A \* \* A \* \* \* \* \* \* \* \* \* \*  
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT  
Shared Cap.: xxxx xxxx xxxxxx xxxx xxxx xxxxxx 708 xxxxxx xxxx 904 xxxxxx  
SharedQueue:xxxxxx xxxx xxxxxx xxxxxx xxxxxx 0.1 xxxxxx xxxxxx 0.1 xxxxxx  
Shrd ConDel:xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx 10.2 xxxxxx xxxxxx 9.2 xxxxxx  
Shared LOS: \* \* \* \* \* \* \* B \* A \*  
ApproachDel: xxxxxxxx xxxxxxxx 10.2 9.2  
ApproachLOS: \* \* B A

\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

APPENDIX B:  
OAKMONT MEADOWS TRANSPORTATION  
ASSESSMENT, REVISED PROJECT

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Attachment to the October 2018 Recirculated IS/MND for the Revised  
Oakmont Meadows Residential Development Project





October 11, 2018

Ms. Rebecca Auld  
Lamphier-Gregory  
1944 Embarcadero  
Oakland, CA 94606

## Revised Oakmont Meadows Transportation Assessment

Dear Ms. Auld;

As requested, W-Trans has prepared a transportation assessment in support of a Recirculated Initial Study/Mitigated Negative Declaration for the proposed Oakmont Meadows residential development to be located at 3460 Westborough Road in the City of South San Francisco in the County of San Mateo. The analysis focuses on the project's traffic impacts based and the potential for increased traffic associated with the additional 22 residential units. The analysis performed was based on a previously proposed project that resulted in more peak hour trips than is currently proposed. As such, the analysis is considered conservative. The transportation assessment was completed in accordance with the criteria established by the City of South San Francisco and the City/County Association of Governments of San Mateo County (C/CAG) and is consistent with standard traffic engineering techniques.

### Study Area

The study area consists of the following intersections:

1. Westborough Boulevard and Skyline Boulevard
2. Westborough Boulevard and Oakmont Drive-Callan Boulevard
3. Westborough Boulevard and Gellert Boulevard
4. Oakmont Drive and Shannon Drive

All the intersections are signalized except for Oakmont Drive/Shannon Drive intersection which has stop-controlled side-streets.

Intersection turning movement volume counts were obtained January 12, 2016 for all study intersections. The counts were collected during typical weekday a.m. and p.m. peak periods to evaluate the highest potential impacts for the proposed project. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute.

### Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, there is a network of sidewalks, crosswalks, pedestrian signals, and curb ramps provide access for pedestrians near the proposed project site.

### Bicycle Facilities

The *Highway Design Manual*, California Department of Transportation (Caltrans), 2012, classifies bikeways into three categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.

- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.

In the project area, there are Class II bike lanes on Westborough Boulevard between Skyline Boulevard-Sharp Park Road and Galway Drive, as well as on Callan Boulevard north of the project site. There are class III bike routes on Westborough Boulevard from Galway Drive and east through the study area. There are also class III bike routes on Oakmont Drive.

## **Transit Facilities**

Currently there are several bus stops within walking distance serviced by SamTrans. Bus stops for routes 122 and 28 are currently on Oakmont Drive adjacent to the proposed project site and routes 121 and 140 are near the Skyline Boulevard/Westborough intersection.

Route 122 connects to the Stonestown Shopping Center and San Francisco State University to the north and South San Francisco BART station to the South. Additional stops include the Colma BART station, Seton Medical Center, and King Plaza Shopping Center with options to transfer to other routes along the routes. On weekdays, the route begins at 5:15 a.m. or 6:00 a.m., depending on the direction of travel, and ends at 11:10 p.m. with about 30-minute headways. The route operates on a reduced schedule on the weekends.

Route 28 runs school days to and from South San Francisco High School. The route runs twice in the morning and evening hours around the high school bell schedule. There is an additional route for early dismissal on Wednesdays. While the route caters to the high school, it can be used for public use.

Route 121 provides service every day of the week with varying headways, 30 minutes on weekdays and 60 minutes on weekends. The limits of the service are between Lowell Street/Hanover Street intersection in San Francisco to the north and the Skyline College Transit Center to the south with stops at the Daily City and Colma BART station.

Route 140 provides service between the SFO AirTrain and the intersection of Manor Drive/Palmetto Avenue in Pacifica. The route operates every day of the week with varying start and end times, headways ranging from 30 minutes to an hour, and limited stops.

## **Collision History**

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The five-year period reviewed is July 1, 2009 through June 30, 2014.

As presented in Table 1, the calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in *2012 Collision Data on California State Highways*, California Department of Transportation. Generally, the intersections operate below or near the statewide average for similar facilities. The collision rate calculations are attached.



**Table 1 – Collision Rates at the Study Intersections**

<b>Study Intersection</b>	<b>Number of Collisions (2009-2014)</b>	<b>Calculated Collision Rate (c/mve)</b>	<b>Statewide Average Collision Rate (c/mve)</b>
1. Westborough Blvd/Skyline Blvd	31	0.39	0.27
2. Westborough Blvd/Oakmont Dr-Callan Blvd	11	0.20	0.27
3. Westborough Blvd/Gellert Blvd	18	0.20	0.27
4. Shannon Dr/Oakmont Dr	0	0.00	0.15

Note: c/mve = collisions per million vehicles entering

*Westborough Boulevard and Skyline Boulevard* had a calculated collision rate of 0.39 collisions per million vehicles entering the intersection (c/mve), which is slightly higher than the Statewide Average of 0.27 c/mve. Of the 31 collisions recorded, more than a third were rear-end collisions and of those, the majority were due to unsafe speeds or following too closely. This could be mitigated with increased enforcement but is generally common for congested urban areas.

## Capacity Analysis

### Levels of Service Methodology

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2000. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

### Traffic Operation Standards

The City of South San Francisco, in General Plan Transportation Policy 4.2.G-9, has established minimally acceptable LOS standards.

- Strive to maintain LOS D or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours.

In addition, it states that an LOS of E or F are acceptable after finding that:

- There is no practical and feasible way to mitigate the lower level of service; and
- The uses resulting in the lower level of service are of clear, overall public benefit.

## Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data was collected while local schools were in session.

Under existing conditions, each of the study intersections operate acceptably. A summary of the intersection level of service calculations is contained in Table 2, and copies of the Level of Service calculations are attached.

**Table 2 – Existing Peak Hour Intersection Levels of Service**

Study Intersection <i>Approach</i>	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. Westborough Blvd/Skyline Blvd	28.5	C	30.5	C
2. Westborough Blvd/Oakmont Dr-Callan Blvd	25.0	C	18.4	B
3. Westborough Blvd/Gellart Blvd	42.4	D	27.1	C
4. Shannon Dr/Oakmont Dr	3.7	A	2.6	A
<i>Eastbound Approach</i>	<i>13.2</i>	<i>B</i>	<i>9.8</i>	<i>A</i>
<i>Westbound Approach</i>	<i>9.6</i>	<i>B</i>	<i>9.0</i>	<i>A</i>

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

## Project Description

The currently proposed project consists of 22 townhomes while the previously proposed project would have developed seven single family homes and 15 townhomes. The site is located on the southwest corner of the Oakmont Drive-Callan Boulevard/Westborough Boulevard intersection and would be accessed at two locations. For 13 of the units, access would be via an existing, but currently incomplete, segment of road off Shannon Park Court. For the remaining nine units, access would be provided via a driveway on Oakmont Drive. Internally, there would be road connecting these two areas and access points though it would only serve as an emergency vehicle access road.

## Trip Generation

The anticipated trip generation for the currently proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 9<sup>th</sup> Edition, 2012 for “Residential Condominiums/Townhouses” (ITE LU #230). While there is a more recent version of the Trip Generation Manual, to be consistent with work previously done, the 9<sup>th</sup> edition rates were used. The currently proposed project is expected to generate an average of 128 trips per day, including 10 trips during the a.m. peak hour and 11 during the p.m. peak hour. The expected trip generation for the proposed project is indicated in Table 3.

**Table 3 – Trip Generation Summary**

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
<b>Proposed</b>											
Condominium/Townhouse	22 du	5.81	128	0.44	10	2	8	0.52	11	8	3

Note: du = dwelling unit

## Trip Distribution

The pattern used to allocate new project trips to the street network was determined from the residential distribution used for the same proposed site, but different proposed project, in the *Initial Study and Mitigated*

*Negative Declaration for Oakmont Vistas/Storage USA South San Francisco (October 1999).* The applied distribution assumptions and resulting trips are shown in Table 4.

<b>Table 4 – Trip Distribution Assumptions</b>	
<b>Route</b>	<b>Percent</b>
Callan Blvd to/from the North	17%
Oakmont Dr to/from the South	6%
Shannon Dr to/from the East	7%
Sharp Park Rd to/from the West	4%
Skyline Blvd to/from the North	8%
Skyline Blvd to/from the South	10%
Westborough Blvd to/from the East	39%
Gellert Blvd to/from the North	9%
<b>TOTAL</b>	<b>100%</b>

## Existing plus Project Conditions

As noted earlier in this memo, the service level analysis was run for a previously proposed project that was projected to result more peak hour trips. Since the currently proposed project is expected to generate fewer trips than the previously analyzed project, the results presented below are still considered accurate, as well as conservative.

Upon the addition of the previously project-related traffic to the Existing volumes, the study intersections are expected to continue operating acceptably at the same LOS. These results are summarized in Table 5. Project traffic volumes are shown in Figure 5.

<b>Table 5 – Existing and Existing plus Project Peak Hour Intersection Levels of Service</b>								
<b>Study Intersection Approach</b>	<b>Existing Conditions</b>				<b>Existing plus Project</b>			
	<b>AM Peak</b>		<b>PM Peak</b>		<b>AM Peak</b>		<b>PM Peak</b>	
	<b>Delay</b>	<b>LOS</b>	<b>Delay</b>	<b>LOS</b>	<b>Delay</b>	<b>LOS</b>	<b>Delay</b>	<b>LOS</b>
1. Westborough Blvd/Skyline Blvd	28.5	C	30.5	C	28.6	C	30.5	C
2. Westborough Blvd/Oakmont Dr-Callan Blvd	25.0	C	18.4	B	25.1	C	18.5	B
3. Westborough Blvd/Gellart Blvd	42.4	D	27.1	C	42.6	D	27.2	C
4. Shannon Dr/Oakmont Dr	3.7	A	2.6	A	4.0	A	2.8	A
<i>Eastbound Approach</i>	<i>13.2</i>	<i>B</i>	<i>9.8</i>	<i>A</i>	<i>13.5</i>	<i>B</i>	<i>10.2</i>	<i>B</i>
<i>Westbound Approach</i>	<i>9.6</i>	<i>B</i>	<i>9.0</i>	<i>A</i>	<i>9.7</i>	<i>B</i>	<i>9.2</i>	<i>A</i>

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

**Finding:** Upon the addition of the project trips, the study intersections would continue operating at acceptable levels of service set forth by the City of South San Francisco and C/CAG.

## **Alternative Modes**

### **Pedestrian Facilities**

In the study area, there are currently continuous sidewalk facilities. The proposed on-site sidewalks would conform to existing facilities. According to the site plan, there would not be a continuous sidewalk on-site but at any on-site location, there would be a sidewalk on at least one side of the street.

Per municipal code, 19.20.010, for minor streets in a residential subdivision, a sidewalk is required on each side of the right of way. Additionally, the 4.3-G-2 guiding policy encourages providing safe and direct pedestrian routes and bikeways between and through residential neighborhoods, and to transit centers.

**Recommendations:** A continuous pedestrian network should be provided with sidewalks on both sides of Shannon Place, to meet City Standards in addition to promoting alternative modes through safe and direct pedestrian routes to the alternative modes available on Oakmont Drive adjacent to the site.

### **Bicycle Facilities**

According to the proposed site plan, there are no proposed bicycle facilities or modification to the existing facilities. Residents would be expected to use their personal garage for bicycle parking.

**Finding:** The existing bicycle facilities and proposed individual garages would adequately serve the residents of the site.

### **Transit Facilities**

There are several bus stops within walking distance to the project site. It is reasonable to assume that residents of the proposed project would use public transportation. The General Plan's guiding policy, 4.4-G-1, states that local and regional public transit serving South San Francisco should be promoted. The proposed project is located adjacent to an existing bus stop that serves SamTrans routes 28 and 122. According to the site plan, a pedestrian path that would provide access the site is proposed within 100 feet of the bus stops.

**Finding:** The proposed project site should be adequately served by the existing transit facilities.

## **Parking Requirements**

Per the South San Francisco Municipal Code 20.330.004, the townhomes would each require two spaces with at least one of the spaces covered for a total of 44 provided spaces. Per the site plan, each of the units would be equipped with a two-car garage, for a total of 44 covered parking spaces. Additional parking includes 27 driveway spaces, and 14 on-street spaces, for a total of 85 proposed parking spaces. The proposed parking supply would adequately satisfy the City's Municipal Code.

For a comparison, the anticipated parking demand was estimated using standard parking demand rates published by ITE in *Parking Generation*, 4<sup>th</sup> Edition, 2010. The parking demand for the proposed project was estimated using published standard rates for Residential Townhouse (ITE LU#230), which estimates demand based on the number of dwelling units. Based on the parking generation rates, the average weekday parking demand would be 31 parking stalls which would be accommodated with the proposed parking supply.

**Finding:** The proposed parking supply would adequately serve the site's residential uses.

## Sight Distance

At unsignalized intersections a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross, turn left, or turn right, without requiring the through traffic to radically alter their speed. Sight distance should be measured from a 3.5-foot height at the location of the driver on the minor road to a 4.25-foot object height in the center of the approaching lane of the major road. Setback for the driver on the crossroad shall be a minimum of 15 feet, measured from the edge of the traveled way.

Although sight distance requirements are not technically applicable to urban driveways, sight distance along Oakmont Drive at the project driveway was evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distance at a driveway is based on stopping sight distance, which uses the approach travel speeds as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a following driver to stop, if there is a vehicle waiting to turn into a driveway, is evaluated based on stopping sight distance criterion and the approach speed on the major street.

Based on a posted speed limit of 25 mph, the minimum stopping sight distance needed is 150 feet. Sight distance at the proposed driveway was field measured, and in both directions, there is not a clear line of sight due to on-street parking on west side of Oakmont Drive along the project frontage near the proposed driveway. To improve sight lines to the north, it is recommended that parking be prohibited on the west side of Oakmont Drive, north of the driveway, for a total length of 60 feet. This would leave about 45 feet, roughly two parking spaces on the west side of Oakmont Drive between the project driveway and the intersection of Westborough Boulevard/Oakmont Drive.

To provide the recommended sight lines to the south of the project driveway, parking should be prohibited from the proposed project driveway through the pedestrian curb ramp to the south, which is about 20 feet from the driveway. This would provide adequate sight lines as well as discourage motorists from parking vehicles in front of the pedestrian curb ramp (which was observed at the time of the site visit).

The line of sight between a vehicle at the proposed project driveway and a vehicle at Bantry Lane, across from the driveway, was also reviewed and determined to be clear.

**Finding:** Stopping sight distance at the project driveway is inadequate.

**Recommendation:** To provide adequate sight lines, parking should be prohibited for 60 feet to the north of the project driveway on the west side of Oakmont Drive, and prohibited to the south of the project driveway for 20 feet on the west side of Oakmont Drive, extending through the pedestrian curb ramp.

## CEQA Initial Checklist: Project Impacts

- a. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

The following discussion addresses project impacts on pedestrian and bicycle facilities and transit. Impacts on intersections are addressed under (b) below.

## Impact on Pedestrian Facilities

**Less-than-Significant Impact.** It is reasonable to assume that residents would want to walk to the adjacent street network. Per South San Francisco Municipal Code, 19.20.010, sidewalks are required on both sides of a minor street's right of way. Additionally, the 4.3-G-2 guiding policy from the City's General Plan states that safe and direct pedestrian routes and bikeways between and through residential neighborhoods, and to transit centers should be encouraged. However, the streets in the proposed project would be private and these standards would not necessarily apply. Having sidewalks located on only one side of the street is consistent with the adjacent development connecting through Shannon Drive. Therefore, this would not be a significant impact under CEQA, however, it remains the recommendation that the design accommodate sidewalks on both sides of the street, to enhance the residents' pedestrian access.

## Impact on Bicycle Facilities

**No Impact.** There are existing dedicated Class II bicycle lanes along the northern project frontage and Class III bicycle route on the west side of the project frontage on Oakmont Drive. Bicycle trips generated by the project would be adequately served by these existing facilities.

## Impact on Transit

**No Impact.** The proposed project would adequately be served by the existing facilities as well as adhering to the General Plan's Guiding Policy that alternative modes should be encouraged. The proposed site plan has a pedestrian path to and from the site to Oakmont Drive near an existing SamTrans bus stop.

- b. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

**Less-than-Significant Impact.** The City of South San Francisco has established the minimally acceptable LOS standard to strive to maintain LOS D or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours. In addition, it states that an LOS of E or F are acceptable after finding that there is no practical and feasible way to mitigate the lower level of service and the uses resulting in the lower level of service are of clear, overall public benefit.

The Westborough Boulevard/Skyline Boulevard intersection is located on State Route 35, Skyline Boulevard, which is a facility in the County's Management Program (CMP); however, the intersection is not one of the 16 intersections in the CMP. Based on the CMP, that segment of Skyline Boulevard has an LOS standard of E, but the intersection must maintain the LOS Standard set forth by the City of South San Francisco which is LOS D.

Based on the counts collected during the morning and evening peak hours on January 12, 2016, each of the study intersections are operating at an acceptable set forth by the City. Upon the addition of the project generation trips to the existing network, the intersections would continue to operate at their existing LOS.

- c. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

**No Impact.** The project would not contain any features or characteristics that would result in a change in air traffic patterns nor would any feature be of sufficient height to affect air traffic.

- d. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

**Less-than-Significant Impact with Mitigation.** Stopping sight distance at the proposed project driveway at Oakmont Drive is inadequate. To provide adequate sight lines, parking shall be prohibited for at least 60 feet to the north of the project driveway on the west side of Oakmont Drive, and prohibited to the south of the project driveway for at least 20 feet on the west side of Oakmont Drive, extending through the pedestrian curb ramp. With the proposed parking prohibitions on Oakmont Drive, stopping site distances would be consistent with design safety standards.

e. *Result in inadequate emergency access?*

**Less-than-Significant Impact.** For 13 of the units, access would be via an existing, but currently incomplete, segment of road off Shannon Park Court. For the remaining 9 units, access would be provided via a driveway on Oakmont Drive. Internally, there would be road connecting these two areas and access points though it would only serve as an emergency vehicle access road. Emergency vehicles would be able to enter the site and maneuver in the designated cul-de-sac or turnaround areas or proceed through the site on the emergency vehicle access road. The project would result in adequate emergency access.

f. *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

**Less-than-Significant Impact.** See discussion under (a) above. The proposed project would be adequately served by pedestrian, bicycle, and transit facilities. The project would not conflict with adopted policies, plans, or programs regarding alternative modes. While not a significant impact, it is recommended that the on-site pedestrian facilities be enhanced by incorporating sidewalks on both sides of proposed streets such that the improvements meet the City's specifications for public streets.

## Conclusions and Recommendations

- The proposed project would generate an average of 128 new trips daily, with 10 new trips during the a.m. peak hour and 11 new trips during the p.m. peak hour.
- Upon the addition of project generated trips, all intersections would operate at LOS D or better which is the lowest acceptable LOS standard as established by the City of San Francisco and C/CAG thresholds of significance.
- The proposed parking supply of 27 driveway spaces and 14 on-street spaces, and a two-car garage for each unit, would satisfy the City's requirements as well as the anticipated average parking demand for the site based ITE's parking generation rates.
- While not a CEQA impact, sidewalks could be constructed on each side of project streets to enhance pedestrian connections.
- The existing bicycle and transit facilities would accommodate the anticipated needs of the proposed project.
- Currently, the sight distance at the proposed project driveway on Oakmont Drive is inadequate and would result in a site hazard. As such, parking to the north of the driveway on the west side of Oakmont Drive shall be prohibited and the curb painted red for at least 60 feet. To the south, the curb on the west side of Oakmont Drive shall be painted red so that parking is prohibited for a length of at least 20 feet (through the pedestrian curb ramp).

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,



Briana Byrne, EIT  
Assistant Engineer



Mark Spencer, PE  
Principal



MES/bkb/SSF010.L1

Enclosure: February 2016 Transportation Assessment for the original Oakmont Meadows Project





## Memorandum

**Date:** February 12, 2016

**Project:** SSF010

**To:** Nathaniel Taylor  
Lamphier-Gregory

**From:** Mark Spencer  
[mspencer@w-trans.com](mailto:mspencer@w-trans.com)

**Subject:** Oakmont Meadows Transportation Assessment

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As requested, W-Trans has prepared a transportation assessment in support of an Initial Study/Mitigated Negative Declaration for the proposed Oakmont Meadows residential development to be located at 3460 Westborough Road in the City of South San Francisco in the County of San Mateo. The analysis focuses on the project's traffic impacts based and the potential for increased traffic associated with the additional 19 residential units. The transportation assessment was completed in accordance with the criteria established by the City of South San Francisco and the City/County Association of Governments of San Mateo County (C/CAG), and is consistent with standard traffic engineering techniques.

### Study Area

The study area consists of the following intersections:

1. Westborough Boulevard and Skyline Boulevard
2. Westborough Boulevard and Oakmont Drive-Callan Boulevard
3. Westborough Boulevard and Gellert Boulevard
4. Oakmont Drive and Shannon Drive

All of the intersections are signalized with the exception of Oakmont Drive/Shannon Drive intersection which has stop-controlled side-streets.

Intersection turning movement volume counts were obtained January 12, 2016 for all study intersections. The counts were collected during typical weekday a.m. and p.m. peak periods to evaluate the highest potential impacts for the proposed project. The morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute.

### Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general there is a network of sidewalks, crosswalks, pedestrian signals, and curb ramps provide access for pedestrians in the vicinity of the proposed project site.

### Bicycle Facilities

The *Highway Design Manual*, California Department of Transportation (Caltrans), 2012, classifies bikeways into three categories:

- Class I Multi-Use Path – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- Class II Bike Lane – a striped and signed lane for one-way bike travel on a street or highway.
- Class III Bike Route – signing only for shared use with motor vehicles within the same travel lane on a street or highway.

In the project area, there are Class II bike lanes on Westborough Boulevard between Skyline Boulevard-Sharp Park Road and Galway Drive, as well as on Callan Boulevard north of the project site. There are class III bike routes on Westborough Boulevard from Galway Drive and east through the study area. There are also class III bike routes on Oakmont Drive.

### Transit Facilities

Currently there are several bus stops within walking distance serviced by SamTrans. Bus stops for routes 122 and 28 are currently on Oakmont Drive adjacent to the proposed project site and routes 121 and 140 are near the Skyline Boulevard/Westborough intersection.

Route 122 connects to the Stonestown Shopping Center and San Francisco State University to the north and South San Francisco BART station to the South. Additional stops include the Colma BART station, Seton Medical Center, and King Plaza Shopping Center with options to transfer to other routes along the routes. On weekdays, the route begins at 5:15 a.m. or 6:00 a.m., depending on the direction of travel, and ends at 11:10 p.m. with about 30 minute headways. The route operates on a reduced schedule on the weekends.

Route 28 runs school days to and from South San Francisco High School. The route runs twice in the morning and evening hours around the high school bell schedule. There is an additional route for early dismissal on Wednesdays. While the route caters to the high school, it can be used for public use.

Route 121 provides service every day of the week with varying headways, 30 minutes on weekdays and 60 minutes on weekends. The limits of the service are between Lowell Street/Hanover Street intersection in San Francisco to the north and the Skyline College Transit Center to the south with stops at the Daily City and Colma BART station.

Route 140 provides service between the SFO AirTrain and the intersection of Manor Drive/Palmetto Avenue in Pacifica. The route operates every day of the week with varying start and end times, headways ranging from 30 minutes to an hour, and limited stops.

### Collision History

The collision history for the study area was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is July 1, 2009 through June 30, 2014.

As presented in Table 1, the calculated collision rates for the study intersections were compared to average collision rates for similar facilities statewide, as indicated in *2012 Collision Data on California State Highways*, California Department of Transportation. Generally, the intersections operate below or near the statewide average for similar facilities. The collision rate calculations are attached.

**Table 1 – Collision Rates at the Study Intersections**

<b>Study Intersection</b>		<b>Number of Collisions (2009-2014)</b>	<b>Calculated Collision Rate (c/mve)</b>	<b>Statewide Average Collision Rate (c/mve)</b>
1.	Westborough Blvd/Skyline Blvd	31	0.39	0.27
2.	Westborough Blvd/Oakmont Dr-Callan Blvd	11	0.20	0.27
3.	Westborough Blvd/Gellert Blvd	18	0.20	0.27
4.	Shannon Dr/Oakmont Dr	0	0.00	0.15

Note: c/mve = collisions per million vehicles entering

*Westborough Boulevard and Skyline Boulevard* had a calculated collision rate of 0.39 collisions per million vehicles entering the intersection (c/mve), which is slightly higher than the Statewide Average of 0.27 c/mve. Of the 31 collisions recorded, more than a third were rear-end collisions and of those, the majority were due to unsafe speeds or following too closely. This could be mitigated with increased enforcement but is generally common for congested urban areas.

## Capacity Analysis

### Levels of Service Methodology

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2000. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

### Traffic Operation Standards

The City of South San Francisco, in General Plan Transportation Policy 4.2.G-9, has established minimally acceptable LOS standards.

- Strive to maintain LOS D or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours.

In addition, it states that an LOS of E or F are acceptable after finding that:

- There is no practical and feasible way to mitigate the lower level of service; and
- The uses resulting in the lower level of service are of clear, overall public benefit.

## Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the a.m. and p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data was collected while local schools were in session.

Under existing conditions, each of the study intersections operate acceptably. A summary of the intersection level of service calculations is contained in Table 2, and copies of the Level of Service calculations are attached.

**Table 2 – Existing Peak Hour Intersection Levels of Service**

Study Intersection Approach	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. Westborough Blvd/Skyline Blvd	28.5	C	30.5	C
2. Westborough Blvd/Oakmont Dr-Callan Blvd	25.0	C	18.4	B
3. Westborough Blvd/Gellart Blvd	42.4	D	27.1	C
4. Shannon Dr/Oakmont Dr	3.7	A	2.6	A
Eastbound Approach	13.2	B	9.8	A
Westbound Approach	9.6	B	9.0	A

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*;

## Project Description

The proposed infill project would develop 12 single family homes and seven townhomes located on the southwest corner of the Oakmont Drive-Callan Boulevard/Westborough Boulevard intersection. The project access would connect to an existing, but currently incomplete, segment of road off of Shannon Park Court.

## Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 9<sup>th</sup> Edition, 2012 for “Single Family Detached Housing” (ITE LU #210) and “Residential Condominiums/Townhouses” (ITE LU #230). The proposed project is expected to generate an average of 155 trips per day, including 12 trips during the a.m. peak hour and 16 during the p.m. peak hour. The expected trip generation potential for the proposed project is indicated in Table 3.

**Table 3 – Trip Generation Summary**

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Proposed											
Single Family Detached Housing	12 du	9.52	114	0.75	9	2	7	1.00	12	8	4
Condominium/Townhouse	7 du	5.81	41	0.44	3	1	2	0.52	4	2	2
Total			155		12	3	9		16	10	6

Note: du = dwelling unit;

## Trip Distribution

The pattern used to allocate new project trips to the street network was determined from the residential distribution used for the same proposed site, but different proposed project, in the *Initial Study and Mitigated*

*Negative Declaration for Oakmont Vistas/Storage USA South San Francisco (October 1999).* The applied distribution assumptions and resulting trips are shown in Table 4.

Table 4 – Trip Distribution Assumptions	
Route	Percent
Callan Blvd to/from the North	17%
Oakmont Dr to/from the South	6%
Shannon Dr to/from the East	7%
Sharp Park Rd to/from the West	4%
Skyline Blvd to/from the North	8%
Skyline Blvd to/from the South	10%
Westborough Blvd to/from the East	39%
Gellert Blvd to/from the North	9%
<b>TOTAL</b>	<b>100%</b>

## Existing plus Project Conditions

Upon the addition of project-related traffic to the Existing volumes, the study intersections are expected to continue operating acceptably at the same LOS. These results are summarized in Table 5. Project traffic volumes are shown in Figure 5.

Table 5 – Existing and Existing plus Project Peak Hour Intersection Levels of Service									
Study Intersection <i>Approach</i>		Existing Conditions				Existing plus Project			
		AM Peak		PM Peak		AM Peak		PM Peak	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1.	Westborough Blvd/Skyline Blvd	28.5	C	30.5	C	28.6	C	30.5	C
2.	Westborough Blvd/Oakmont Dr-Callan Blvd	25.0	C	18.4	B	25.1	C	18.5	B
3.	Westborough Blvd/Gellart Blvd	42.4	D	27.1	C	42.6	D	27.2	C
4.	Shannon Dr/Oakmont Dr	3.7	A	2.6	A	4.0	A	2.8	A
	Eastbound Approach	13.2	B	9.8	A	13.5	B	10.2	B
	Westbound Approach	9.6	B	9.0	A	9.7	B	9.2	A

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*;

Conclusion: Upon the addition of the project trips, the study intersections would continue operating at acceptable levels of service set forth by the City of South San Francisco and C/CAG.

## Alternative Modes

### Pedestrian Facilities

In the study area, there are currently continuous sidewalk facilities. The proposed on-site sidewalks would conform with existing facilities. According to the site plan, there would not be a continuous sidewalk onsite

but at any on location, there would be a sidewalk on at least one side of the street. There would also be a pedestrian path along the eastern perimeter of the project site starting near where the proposed access road would conform to existing facilities and ending on Oakmont Drive between the proposed townhomes and the existing residences.

Per municipal code, 19.20.010, for minor street in a residential subdivision, a sidewalk is required on each side of the right of way. Additionally, the 4.3-G-2 guiding policy encourages providing safe and direct pedestrian routes and bikeways between and through residential neighborhoods, and to transit centers.

Recommendations: A continuous pedestrian network should be provided with sidewalks on both sides of Shannon Place, to meet City Standards in addition to promoting alternative modes through safe and direct pedestrian routes to the alternative modes available on Oakmont Drive adjacent to the site.

### Bicycle Facilities

According to the proposed site plan, there are no proposed bicycle facilities or modification to the existing facilities. Residents would be expected to use their personal garage for bicycle parking.

Conclusion: The existing bicycle facilities and proposed individual garages would adequately serve the residents of the site.

### Transit Facilities

There are several bus stops within walking distance to the project site. It is reasonable to assume that residents of the proposed project would use public transportation. The General Plan's guiding policy, 4.4-G-1, states that local and regional public transit serving South San Francisco should be promoted. The proposed project is located adjacent to an existing bus stop. According to the site plan, a pedestrian path leaving the site is proposed within 100 feet of the bus stops. T

Conclusion: The proposed project site should be adequately served by the existing transit facilities.

### Parking Requirements

Per the South San Francisco Municipal Code 20.330.004, the townhomes and single family dwelling would each require two spaces with at least one of the spaces covered. Per the site plan, each of the units would be provided with a two-car garage. Additionally, 19 parking would be provided along Shannon Place. If each residence only parked one car in the garage, the proposed parking supply along Shannon Place would accommodate the other vehicle. The proposed parking supply adequately meets the City Municipal Code.

For a comparison, the anticipated parking demand was estimated using standard rates published by ITE in *Parking Generation*, 4<sup>th</sup> Edition, 2010. The parking demand for the proposed project was estimated using the published standard rates for Residential Townhouse (ITE LU#230) and Single-Family Detached Housing (ITE LU#210), both of which estimate demand based on the number of dwelling units. Based on the parking generation rates, the average parking demand would be 32 parking stalls which would be accommodated with the proposed two car garages and the 19 parking stalls along Shannon Place.

Conclusion: The proposed parking supply would adequately serve the site's residential uses.

### CEQA Initial Checklist: Project Impacts

- a. *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not*

*limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

The following discussion addresses project impacts on pedestrian and bicycle facilities and transit. Impacts on intersections are addressed under (b) below.

#### Impact on Pedestrian Facilities

**Less-than-Significant Impact with Mitigation.** It is reasonable to assume that residents would want to walk to the adjacent street network. Per South San Francisco Municipal Code, 19.20.010, sidewalks are required on both sides of a minor street's right of way. Additionally, the 4.3-G-2 guiding policy from the City's General Plan states that safe and direct pedestrian routes and bikeways between and through residential neighborhoods, and to transit centers should be encourage.

With the proposed recommendation to design for sidewalks on both sides of the street, the residents would be adequately served and adhere to the City's guiding policy.

#### Impact on Bicycle Facilities

**No Impact.** There are existing dedicated Class II bicycle lanes along the northern project frontage and Class III bicycle route on the west side of the project frontage on Oakmont Drive. Bicycle trips generated by the project would be adequately served by these existing facilities.

#### Impact on Transit

**No Impact.** The proposed project would adequately be served by the existing facilities as well as adhering to the General Plan's Guiding Policy that alternative modes should be encouraged. The proposed site plan has a pedestrian path to and from the site to Oakmont Drive in close proximity to an existing SamTrans bus stop.

- b. *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

**Less-than-Significant Impact.** The City of South San Francisco has established the minimally acceptable LOS standard to strive to maintain LOS D or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours. In addition, it states that an LOS of E or F are acceptable after finding that there is no practical and feasible way to mitigate the lower level of service and the uses resulting in the lower level of service are of clear, overall public benefit.

The Westborough Boulevard/Skyline Boulevard intersection is located on State Route 35, Skyline Boulevard, which is a facility in the County's Management Program (CMP); however, the intersection is not one of the 16 intersections in the CMP. Based on the CMP, that segment of Skyline Boulevard has an LOS standard of E but the intersection must maintain the LOS Standard set forth by the City of South San Francisco which is LOS D.

Based on the counts collected during the morning and evening peak hours on January 12, 2016, each of the study intersections are operating at an acceptable set forth by the City. Upon the addition of the project generation trips to the existing network, the intersections would continue to operate at their existing LOS.

- c. *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

**No Impact.** The project would not contain any features or characteristics that would result in a change in air traffic patterns nor would any feature be of sufficient height to affect air traffic.

- d. *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

**Less-than-Significant Impact.** The design of the project would be required to meet all local design and construction standards, and as such, would not substantially increase hazards due to a design feature. The proposed project would have one ingress and one egress with a designated turnaround located on the north end of the site. The proposed point of ingress and egress would conform to an existing leg of the Shannon Drive/ Shannon Court intersection. Per City standards, once the intersection is completed, adequate signage should be installed to promote safety.

- e. *Result in inadequate emergency access?*

**Less-than-Significant Impact.** The proposed project would have one access road for all ingress and egress. Emergency vehicles would be able to enter the site and maneuver in the designated turnaround area located at the north end of the site near the townhomes to turn around and exit the site. The site's road, which is designed to meet City standards, would be of adequate width, and the turnaround would be of adequate size.

- f. *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

**Less-than-Significant Impact with Mitigation.** See discussion under (a) above. The proposed project would be adequately served by existing bicycle and transit facilities. It is recommended that the on-site pedestrian facilities be improved by incorporating sidewalks on both sides of Shannon Place such that the improvements meet the City's specifications. This recommendation would also ensure consistency with General Plan Policy regarding pedestrian pathways. With this mitigation measure, the project would not conflict with adopted policies, plans, or programs regarding alternative modes.

## Conclusions and Recommendations

- The proposed project would generate an average of 155 new trips daily, with 12 new trips during the a.m. peak hour and 16 new trips during the p.m. peak hour.
- Upon the addition of project generated trips, all intersections would operate at LOS D or better which is the lowest acceptable LOS standard as established by the City of San Francisco and C/CAG thresholds of significance.
- The proposed parking supply of 19 parking spaces and a two-car garage for each unit adheres to the City's requirements as well as the anticipated average parking demand for the site based ITE's parking generation rates.
- Sidewalks should be constructed on each of Shannon Place to provide a continuous pedestrian connection.
- The proposed project would be accommodated by the existing bicycle and transit facilities.



Attachments:

Collision Rate Calculations  
LOS Calculations

### Intersection Collision Rate Calculations

#### Oakmont Meadows

**Intersection # 1:** Westborough Boulevard-Sharp Park Road & Skyline Boulevard

**Date of Count:** Tuesday, January 12, 2016

**Number of Collisions:** 31

**Number of Injuries:** 13

**Number of Fatalities:** 0

**ADT:** 44100

**Start Date:** July 1, 2009

**End Date:** June 30, 2014

**Number of Years:** 5

**Intersection Type:** Four-Legged

**Control Type:** Signals

**Area:** Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{31}{44,100} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
<b>Study Intersection</b>	<b>0.39 c/mve</b>	<b>0.0%</b>	<b>41.9%</b>
<b>Statewide Average*</b>	<b>0.27 c/mve</b>	<b>0.4%</b>	<b>41.9%</b>

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

\* 2012 Collision Data on California State Highways, Caltrans

**Intersection # 2:** Westborough Boulevard & Oakmont Drive-Callan Boulevard

**Date of Count:** Tuesday, January 12, 2016

**Number of Collisions:** 11

**Number of Injuries:** 9

**Number of Fatalities:** 0

**ADT:** 29600

**Start Date:** July 1, 2009

**End Date:** June 30, 2014

**Number of Years:** 5

**Intersection Type:** Four-Legged

**Control Type:** Signals

**Area:** Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{11}{29,600} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
<b>Study Intersection</b>	<b>0.20 c/mve</b>	<b>0.0%</b>	<b>81.8%</b>
<b>Statewide Average*</b>	<b>0.27 c/mve</b>	<b>0.4%</b>	<b>41.9%</b>

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

\* 2012 Collision Data on California State Highways, Caltrans

### Intersection Collision Rate Calculations

#### Oakmont Meadows

**Intersection # 3:** Westborough Boulevard & Gellart Boulevard

**Date of Count:** Tuesday, January 12, 2016

**Number of Collisions:** 18

**Number of Injuries:** 11

**Number of Fatalities:** 0

**ADT:** 48700

**Start Date:** July 1, 2009

**End Date:** June 30, 2014

**Number of Years:** 5

**Intersection Type:** Four-Legged

**Control Type:** Signals

**Area:** Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{18}{48,700} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
<b>Study Intersection</b>	<b>0.20 c/mve</b>	<b>0.0%</b>	<b>61.1%</b>
<b>Statewide Average*</b>	<b>0.27 c/mve</b>	<b>0.4%</b>	<b>41.9%</b>

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

\* 2012 Collision Data on California State Highways, Caltrans

**Intersection # 4:** Shannon Drive & Oakmont Drive

**Date of Count:** Tuesday, January 12, 2016

**Number of Collisions:** 0

**Number of Injuries:** 0

**Number of Fatalities:** 0

**ADT:** 4300

**Start Date:** July 1, 2009

**End Date:** June 30, 2014

**Number of Years:** 5

**Intersection Type:** Four-Legged

**Control Type:** Stop & Yield Controls

**Area:** Urban

$$\text{collision rate} = \frac{\text{Number of Collisions} \times 1 \text{ Million}}{\text{ADT} \times 365 \text{ Days per Year} \times \text{Number of Years}}$$

$$\text{collision rate} = \frac{0}{4,300} \times \frac{1,000,000}{365 \times 5}$$

	Collision Rate	Fatality Rate	Injury Rate
<b>Study Intersection</b>	<b>0.00 c/mve</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Statewide Average*</b>	<b>0.15 c/mve</b>	<b>1.0%</b>	<b>41.9%</b>

ADT = average daily total vehicles entering intersection

c/mve = collisions per million vehicles entering intersection

\* 2012 Collision Data on California State Highways, Caltrans

AM Existing	Mon Feb 8, 2016 18:20:08												Page 2-1
AM Peak Hour - Existing Conditions													
Level of Service Computation Report													
2000 HCM Operations Method (Base Volume Alternative)													
Intersection #1 Westborough Boulevard/Skyline Boulevard													
Cycle (sec):	100	Critical Vol./Cap. (X):		0.645									
Loss Time (sec):	0	Average Delay (sec/veh):		28.5									
Optimal Cycle:	64	Level of Service:		C									
*****													
Street Name:	Skyline Boulevard		Westborough Boulevard										
Approach:	North Bound		East Bound		West Bound								
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	
Rights:	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	0	1	0	1	0	1	1	0	1	
*****													
Volume Module: >> Count Date: 12 Jan 2016 << 7:15 - 8:15													
Base Vol:	166	337	72	227	764	58	147	641	745	103	175	90	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	166	337	72	227	764	58	147	641	745	103	175	90	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
PHF Volume:	175	355	76	239	804	61	155	675	784	108	184	95	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	175	355	76	239	804	61	155	675	784	108	184	95	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	175	355	76	239	804	61	155	675	784	108	184	95	
*****													
Saturation Flow Module:													
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	0.93	0.93	0.95	0.94	0.94	0.95	0.87	0.87	0.95	0.90	0.90	
Lanes:	2.00	1.65	0.35	1.00	1.86	0.14	1.00	1.39	1.61	1.00	1.32	0.68	
Final Sat:	3502	2897	619	1805	3318	252	1805	2301	2675	1805	2262	1164	
*****													
Capacity Analysis Module:													
Vol/Sat:	0.05	0.12	0.12	0.13	0.24	0.24	0.09	0.29	0.29	0.06	0.08	0.08	
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green/Cycle:	0.08	0.22	0.22	0.24	0.38	0.38	0.28	0.45	0.45	0.09	0.27	0.27	
Volume/Cap:	0.65	0.56	0.56	0.56	0.65	0.65	0.31	0.65	0.65	0.65	0.31	0.31	
Delay/Veh:	50.1	35.8	35.8	35.4	26.8	26.8	28.6	21.7	21.7	52.1	29.5	29.5	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	50.1	35.8	35.8	35.4	26.8	26.8	28.6	21.7	21.7	52.1	29.5	29.5	
LOS by Move:	D	D	D	D	C	C	C	C	C	D	C	C	
HCM2K95thQ:	8	13	13	13	22	22	8	23	23	7	7	7	
*****													
Note: Queue reported is the number of cars per lane.													
*****													

PM Existing	Mon Feb 8, 2016 18:20:10												Page 2-1
PM Peak Hour - Existing Conditions													
Level of Service Computation Report													
2000 HCM Operations Method (Base Volume Alternative)													
Intersection #1 Westborough Boulevard/Skyline Boulevard													
Cycle (sec):	100	Critical Vol./Cap. (X):		0.581									
Loss Time (sec):	0	Average Delay (sec/veh):		30.5									
Optimal Cycle:	54	Level of Service:		C									
*****													
Street Name:	Skyline Boulevard		Westborough Boulevard										
Approach:	North Bound		South Bound		East Bound		West Bound						
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	
Rights:	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	1	0	1	0	1	0	1	1	0	1	
*****													
Volume Module: >> Count Date: 12 Jan 2016 << 4:45-5:45													
Base Vol:	647	701	140	147	430	72	113	248	237	189	393	167	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	647	701	140	147	430	72	113	248	237	189	393	167	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
PHF Volume:	681	738	147	155	453	76	119	261	249	199	414	176	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	681	738	147	155	453	76	119	261	249	199	414	176	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	681	738	147	155	453	76	119	261	249	199	414	176	
*****													
Saturation Flow Module:													
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	0.93	0.93	0.95	0.93	0.93	0.95	0.88	0.88	0.95	0.91	0.91	
Lanes:	2.00	1.67	0.33	1.00	1.71	0.29	1.00	1.53	1.47	1.00	1.40	0.60	
Final Sat:	3502	2934	586	1805	3027	507	1805	2567	2453	1805	2419	1028	
*****													
Capacity Analysis Module:													
Vol/Sat:	0.19	0.25	0.25	0.09	0.15	0.15	0.07	0.10	0.10	0.11	0.17	0.17	
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	
Green/Cycle:	0.33	0.44	0.44	0.15	0.26	0.26	0.11	0.20	0.20	0.21	0.29	0.29	
Volume/Cap:	0.58	0.57	0.57	0.57	0.58	0.58	0.58	0.52	0.52	0.52	0.58	0.58	
Delay/Veh:	28.2	21.3	21.3	42.3	33.4	33.4	46.2	36.5	36.5	36.2	30.9	30.9	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	28.2	21.3	21.3	42.3	33.4	33.4	46.2	36.5	36.5	36.2	30.9	30.9	
LOS by Move:	C	C	C	D	C	C	D	D	D	D	C	C	
HCM2K95thQ:	17	20	20	10	15	15	9	11	11	10	15	15	
*****													
Note: Queue reported is the number of cars per lane.													
*****													

PM Existing	Mon Feb 8, 2016 18:20:10												Page 2-1	
-----														
PM Peak Hour - Existing Conditions														
-----														
Level of Service Computation Report														
2000 HCM Operations Method (Base Volume Alternative)														
*****														
Intersection #1 Westborough Boulevard/Skyline Boulevard														
*****														
Cycle (sec):	100	Critical Vol./Cap.(X):										0.581		
Loss Time (sec):	0	Average Delay (sec/veh):										30.5		
Optimal Cycle:	54	Level of Service:										C		
*****														
Street Name:	Skyline Boulevard					Westborough Boulevard								
Approach:	North Bound					East Bound					West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Protected			Protected			Protected			Protected				
Rights:	Include			Include			Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	2	0	1	0	1	0	1	0	1	1	0	1		
-----														
Volume Module: >> Count Date: 12 Jan 2016 << 4:45-5:45														
Base Vol:	647	701	140	147	430	72	113	248	237	189	393	167		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	647	701	140	147	430	72	113	248	237	189	393	167		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
PHF Volume:	681	738	147	155	453	76	119	261	249	199	414	176		
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	681	738	147	155	453	76	119	261	249	199	414	176		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	681	738	147	155	453	76	119	261	249	199	414	176		
-----														
Saturation Flow Module:														
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	0.92	0.93	0.93	0.95	0.93	0.93	0.95	0.88	0.88	0.95	0.91	0.91		
Lanes:	2.00	1.67	0.33	1.00	1.71	0.29	1.00	1.53	1.47	1.00	1.40	0.60		
Final Sat:	3502	2934	586	1805	3027	507	1805	2567	2453	1805	2419	1028		
-----														
Capacity Analysis Module:														
Vol/Sat:	0.19	0.25	0.25	0.09	0.15	0.15	0.07	0.10	0.10	0.11	0.17	0.17		
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****		
Green/Cycle:	0.33	0.44	0.44	0.15	0.26	0.26	0.11	0.20	0.20	0.21	0.29	0.29		
Volume/Cap:	0.58	0.57	0.57	0.57	0.58	0.58	0.58	0.52	0.52	0.52	0.58	0.58		
Delay/Veh:	28.2	21.3	21.3	42.3	33.4	33.4	46.2	36.5	36.5	36.2	30.9	30.9		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	28.2	21.3	21.3	42.3	33.4	33.4	46.2	36.5	36.5	36.2	30.9	30.9		
LOS by Move:	C	C	C	D	C	C	D	D	D	D	C	C		
HCM2k95thQ:	17	20	20	10	15	15	9	11	11	10	15	15		
*****														
Note: Queue reported is the number of cars per lane.														
*****														

AM Existing	Mon Feb 8, 2016 18:20:08										Page 3-1
AM Peak Hour - Existing Conditions											
Level Of Service Computation Report											
2000 HCM Operations Method (Base Volume Alternative)											
*****											
Intersection #2 Westborough Boulevard/Oakmont Drive-Callan Boulevard											
*****											
Cycle (sec):	100	Critical Vol./Cap.(X):		0.699							
Loss Time (sec):	0	Average Delay (sec/veh):		25.0							
Optimal Cycle:	62	Level Of Service:		C							
*****											
Street Name:	Oakmont Drive-Callan Boulevard			Westborough Boulevard							
Approach:	North Bound			South Bound							
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R					
Control:	Permitted	Permitted	Protected	Protected	Protected	Protected					
Rights:	Include	Include	Include	Include	Include	Include					
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0					
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0					
Lanes:	0 1 0 0 1	1 0 1 0 1	1 0 2 0 1	1 0 2 0 1	1 0 2 0 1	1 0 2 0 1					
*****											
Volume Module:	>> Count Date: 12 Jan 2016 << 7:30-8:30										
Base Vol:	35 79 55	345 113	72 50 821	26 179 302	294						
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00						
Initial Bse:	35 79 55	345 113	72 50 821	26 179 302	294						
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00						
PHF Adj:	0.89 0.89	0.89 0.89	0.89 0.89	0.89 0.89	0.89						
PHF Volume:	39 89 62	388 127 81	56 922 29	201 339 330							
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0						
Reduced Vol:	39 89 62	388 127 81	56 922 29	201 339 330							
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00						
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00						
FinalVolume:	39 89 62	388 127 81	56 922 29	201 339 330							
*****											
Saturation Flow Module:											
Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900						
Adjustment:	0.90 0.90	0.85 0.61 1.00	0.85 0.95 0.95	0.85 0.95 0.95	0.85						
Lanes:	0.31 0.69	1.00 1.00 1.00	1.00 1.00 2.00	1.00 1.00 2.00	1.00						
Final Sat.:	526 1186	1615 1167 1900	1615 1805 3610	1615 1805 3610	1615						
*****											
Capacity Analysis Module:											
Vol/Sat:	0.07 0.07	0.04 0.33 0.07	0.05 0.03 0.26	0.02 0.11 0.09	0.20						
Crit Moves:	*****										
Green/Cycle:	0.48 0.48	0.48 0.48	0.48 0.07 0.37	0.37 0.16 0.46	0.46						
Volume/Cap:	0.16 0.16	0.08 0.70 0.14	0.11 0.45 0.70	0.05 0.70 0.21	0.45						
Delay/Veh:	15.0 15.0	14.4 24.6 14.8	14.6 47.3 28.7	20.5 47.2 16.4	19.1						
User DelAdj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00						
AdjDel/Veh:	15.0 15.0	14.4 24.6 14.8	14.6 47.3 28.7	20.5 47.2 16.4	19.1						
LOS by Move:	B B B	C B D	C C C	C D B	B B						
HCM2k95thQ:	4 4 2	19 4 3	3 22 1	14 6 13							
*****											
Note: Queue reported is the number of cars per lane.											
*****											

PM Existing	Mon Feb 8, 2016 18:20:10										Page 3-1
PM Peak Hour - Existing Conditions											
Level Of Service Computation Report											
2000 HCM Operations Method (Base Volume Alternative)											
*****											
Intersection #2 Westborough Boulevard/Oakmont Drive-Callan Boulevard											
*****											
Cycle (sec):	100	Critical Vol./Cap.(X):		0.394							
Loss Time (sec):	0	Average Delay (sec/veh):		18.4							
Optimal Cycle:	31	Level Of Service:		B							
*****											
Street Name:	Oakmont Drive-Callan Boulevard			Westborough Boulevard							
Approach:	North Bound			South Bound							
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R					
Control:	Permitted	Permitted	Protected	Protected	Protected	Protected					
Rights:	Include	Include	Include	Include	Include	Include					
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0					
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0					
Lanes:	0 1 0 0 1	1 0 1 0 1	1 0 2 0 1	1 0 2 0 1	1 0 2 0 1	1 0 2 0 1					
*****											
Volume Module:	>> Count Date: 12 Jan 2016 << 4:45-5:45										
Base Vol:	38 50 22	149 47 34	112 402	31 45 670	275						
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00						
Initial Bse:	38 50 22	149 47 34	112 402	31 45 670	275						
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00						
PHF Adj:	0.95 0.95	0.95 0.95	0.95 0.95	0.95 0.95	0.95						
PHF Volume:	40 53 23	157 49 36	118 423 33	47 705 289							
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0						
Reduced Vol:	40 53 23	157 49 36	118 423 33	47 705 289							
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00						
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00						
FinalVolume:	40 53 23	157 49 36	118 423 33	47 705 289							
*****											
Saturation Flow Module:											
Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900						
Adjustment:	0.89 0.89	0.85 0.62 1.00	0.85 0.95 0.95	0.85 0.95 0.95	0.85						
Lanes:	0.43 0.57	1.00 1.00 1.00	1.00 1.00 2.00	1.00 1.00 2.00	1.00						
Final Sat.:	729 959 1615	1178 1900 1615	1805 3610 1615	1805 3610 1615	1805 3610 1615						
*****											
Capacity Analysis Module:											
Vol/Sat:	0.05 0.05	0.01 0.13 0.03	0.02 0.07 0.12	0.02 0.03 0.20	0.18						
Crit Moves:	*****										
Green/Cycle:	0.34 0.34	0.34 0.34	0.34 0.17 0.54	0.54 0.12 0.50	0.50						
Volume/Cap:	0.16 0.16	0.04 0.39 0.08	0.07 0.39 0.22	0.04 0.22 0.39	0.36						
Delay/Veh:	23.3 23.3	22.3 25.9 22.5	22.5 38.1 12.0	10.8 40.2 15.9	15.7						
User DelAdj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00						
AdjDel/Veh:	23.3 23.3	22.3 25.9 22.5	22.5 38.1 12.0	10.8 40.2 15.9	15.7						
LOS by Move:	C C C	C C C	C D B	B B B	B B						
HCM2k95thQ:	4 4 1	8 2 2	6 7 1	3 14 11							
*****											
Note: Queue reported is the number of cars per lane.											
*****											

Level Of Service Computation Report														
2000 HCM Operations Method (Base Volume Alternative)														
*****														
Intersection #3 Westborough Boulevard/Gellert Boulevard														
*****														
Cycle (sec):	100	Critical Vol./Cap.(X):			0.956									
Loss Time (sec):	0	Average Delay (sec/veh):			42.4									
Optimal Cycle:	180	Level of Service:			D									
*****														
Street Name: Gellert Boulevard South Bound East Bound Westbound Boulevard														
Approach:	North Bound	South Bound			East Bound			West Bound						
Movement:	L - T - R	R	L - T - R	R	L - T - R	R	L - T - R	R	L - T - R	R				
Control:	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	1	1	0	1	1	0	2	0	1
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Volume Module: >> Count Date: 12 Jan 2016 << 7:30-8:30														
Base Vol:	56	46	362	557	57	130	119	1604	29	124	650	161		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	56	46	362	557	57	130	119	1604	29	124	650	161		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	60	49	385	593	61	138	127	1706	31	132	691	171		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	60	49	385	593	61	138	127	1706	31	132	691	171		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	60	49	385	593	61	138	127	1706	31	132	691	171		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Saturation Flow Module:														
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj:	0.95	1.00	0.85	0.91	0.91	0.85	0.95	0.95	0.85	0.95	0.91	0.85		
Adjustment:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.00
Final Sat:	1805	1900	1615	3455	1727	1615	1805	3610	1615	1805	5187	1615		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Capacity Analysis Module:														
Vol/Sat:	0.03	0.03	0.24	0.17	0.04	0.09	0.07	0.47	0.02	0.07	0.13	0.11		
Crit Moves:	0.03	0.03	0.24	0.17	0.04	0.09	0.07	0.47	0.02	0.07	0.13	0.11		
Green/Cycle:	0.12	0.25	0.25	0.18	0.31	0.31	0.20	0.49	0.49	0.08	0.37	0.37		
Volume/Cap:	0.28	0.10	0.96	0.96	0.11	0.28	0.36	0.96	0.04	0.96	0.36	0.28		
Delay/Veh:	40.8	29.0	70.4	64.6	24.7	26.4	35.3	36.7	13.0	108.9	22.7	22.2		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.8	29.0	70.4	64.6	24.7	26.4	35.3	36.7	13.0	108.9	22.7	22.2		
LOS by Move:	D	C	E	E	C	C	D	D	B	F				

Level of Service Computation Report															
2000 HCM Operations Method (Base Volume Alternative)															
*****															
Intersection #3 Westborough Boulevard/Gellert Boulevard															
*****															
Cycle (sec):	100	Critical Vol./Cap.(X):				0.637									
Loss time (sec):	0	Average Delay (sec/veh):				27.1									
Optimal Cycle:	63	Level of Service:				C									
*****															
Street Name: Gellert Boulevard      Westborough Boulevard															
Approach:	North Bound	South Bound				East Bound				West Bound					
Movement:	L - T - R	L	T	R	L	T	R	L	T	R	L	T	R		
Control:	Protected	Protected			Protected			Protected			Protected				
Rights:	Include	Include			Include			Include			Include				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Lanes:	1	0	1	0	1	1	1	0	1	1	0	2	0		
Volume Module: >> Count Date: 12 Jan 2016 << 5:00-6:00															
Base Vol:	41	79	169	437	81	218	168	615	13	203	1295	444			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	41	79	169	437	81	218	168	615	13	203	1295	444			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		
PHF Volume:	44	84	180	465	86	232	179	654	14	216	1378	472			
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	44	84	180	465	86	232	179	654	14	216	1378	472			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	44	84	180	465	86	232	179	654	14	216	1378	472			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adj:	0.95	1.00	0.85	0.91	0.91	0.85	0.95	0.95	0.85	0.95	0.91	0.85			
Adjustment:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00			
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	1.00	1.00	3.00	1.00			
Final Sat:	1805	1900	1615	3466	1733	1615	1805	3610	1615	1805	5187	1615			
Capacity Analysis Module:															
Vol/Sat:	0.02	0.04	0.11	0.13	0.05	0.14	0.10	0.18	0.01	0.12	0.27	0.29			
Crit Moves:	****														
Green/Cycle:	0.06	0.17	0.17	0.21	0.33	0.33	0.16	0.37	0.37	0.24	0.46	0.46			
Volume/Cap:	0.44	0.25	0.64	0.64	0.15	0.44	0.64	0.49	0.02	0.49	0.58	0.64			
Delay/Veh:	48.7	36.0	43.1	37.6	23.6	26.8	44.4	24.5	20.0	33.3	20.3	22.5			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	48.7	36.0	43.1	37.6	23.6	26.8	44.4	24.5	20.0	33.3	20.3	22.5			
LOS by Move:	D	D	D	D	C	C	D	C	C	C	C	C			
HCM2k95tho:	4	5	12	15	4	11	12	16	1	12	21	21			
*****															
Note: Queue reported is the number of cars per lane.															
*****															



AM Existing plus Project										Mon Feb 8, 2016 18:20:12										Page 2-1									
AM Peak Hour - Existing plus Project Conditions																													
Trip Generation Report																													
Forecast for am																													
Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	Total % Of Trips Total																				
1	Oakmont Mead	1.00	Residential	3.00	9.00	3	9	12	100.0																				
	Zone 1 Subtotal					3	9	12	100.0																				
TOTAL																													

PM Existing plus Project										Mon Feb 8, 2016 18:20:16										Page 2-1									
PM Peak Hour - Existing plus Project Conditions																													
Trip Generation Report																													
Forecast for pm																													
Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	Total % Of Trips Total																				
1	Oakmont Mead	1.00	Residential	10.00	6.00	10	6	16	100.0																				
	Zone 1 Subtotal					10	6	16	100.0																				
TOTAL																													

PM Existing plus Project										Mon Feb 8, 2016 18:20:16										Page 2-1									
PM Peak Hour - Existing plus Project Conditions																													
Trip Generation Report																													
Forecast for pm																													
Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	Total % Of Trips Total																				
1	Oakmont Mead	1.00	Residential	10.00	6.00	10	6	16	100.0																				
	Zone 1 Subtotal					10	6	16	100.0																				
TOTAL																													



Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #1 Westborough Boulevard/Skyline Boulevard  
\*\*\*\*\*

Cycle (sec): 100    Critical Vol./Cap.(X): 0.646  
Loss Time (sec): 0    Average Delay (sec/veh): 28.6  
Optimal Cycle: 64    Level Of Service: C

\*\*\*\*\*  
Street Name: Skyline Boulevard    Westborough Boulevard  
Approach: North Bound    South Bound    East Bound    West Bound  
Movement: L - T - R    L - T - R    L - T - R    L - T - R

Control: Protected    Protected    Protected    Protected  
Rights: Include    Include    Include    Include  
Min. Green: 0    0    0    0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 2 0 1 1 0 1 0 1 1 0 1 1 1 0 1 1 0

Volume Module: >> Count Date: 12 Jan 2016 << 7:15 - 8:15

Base Vol: 166 337 72 227 764 58 147 641 745 103 175 90  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 166 337 72 227 764 58 147 641 745 103 175 90  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 166 337 72 227 764 58 147 641 745 104 175 91  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 175 355 76 239 804 61 155 675 784 109 184 96  
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 175 355 76 239 804 61 155 675 784 109 184 96  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Volume: 175 355 76 239 804 61 155 675 784 109 184 96

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.92 0.93 0.93 0.95 0.94 0.94 0.95 0.87 0.87 0.95 0.90 0.90  
Lanes: 2.00 1.65 0.35 1.00 1.86 0.14 1.00 1.39 1.61 1.00 1.32 0.68  
Final Sat.: 3502 2897 619 1805 3318 252 1805 2301 2675 1805 2254 1172

Capacity Analysis Module:  
Vol/Sat: 0.05 0.12 0.12 0.13 0.24 0.24 0.09 0.29 0.29 0.06 0.08 0.08  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.08 0.22 0.22 0.23 0.38 0.38 0.28 0.45 0.45 0.09 0.27 0.27  
Volume/Cap: 0.65 0.56 0.56 0.56 0.65 0.65 0.31 0.65 0.65 0.65 0.31 0.31  
Delay/Veh: 50.1 35.9 35.9 35.5 26.9 26.9 28.7 21.8 21.8 52.1 29.4 29.4  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 50.1 35.9 35.9 35.5 26.9 26.9 28.7 21.8 21.8 52.1 29.4 29.4  
LOS by Move: D D D C C C C C C C C C  
HCM2k95thQ: 8 13 13 13 22 22 8 23 23 7 7 7  
\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #1 Westborough Boulevard/Skyline Boulevard  
\*\*\*\*\*

Cycle (sec): 100    Critical Vol./Cap.(X): 0.581  
Loss Time (sec): 0    Average Delay (sec/veh): 30.5  
Optimal Cycle: 54    Level Of Service: C

\*\*\*\*\*  
Street Name: Skyline Boulevard    Westborough Boulevard  
Approach: North Bound    South Bound    East Bound    West Bound  
Movement: L - T - R    L - T - R    L - T - R    L - T - R

Control: Protected    Protected    Protected    Protected  
Rights: Include    Include    Include    Include  
Min. Green: 0    0    0    0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 2 0 1 1 0 1 0 1 1 0 1 1 1 0 1 1 0

Volume Module: >> Count Date: 12 Jan 2016 << 4:45-5:45

Base Vol: 647 701 140 147 430 72 113 248 237 189 393 167  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 647 701 140 147 430 72 113 248 237 189 393 167  
Added Vol: 0 0 1 1 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 647 701 141 148 430 72 113 248 237 190 393 167  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 681 738 148 156 453 76 119 261 249 200 414 176  
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 681 738 148 156 453 76 119 261 249 200 414 176  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Volume: 681 738 148 156 453 76 119 261 249 200 414 176

Saturation Flow Module:  
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.92 0.93 0.93 0.95 0.93 0.93 0.95 0.88 0.88 0.95 0.91 0.91  
Lanes: 2.00 1.67 0.33 1.00 1.71 0.29 1.00 1.53 1.47 1.00 1.40 0.60  
Final Sat.: 3502 2930 589 1805 3027 507 1805 2567 2453 1805 2419 1028

Capacity Analysis Module:  
Vol/Sat: 0.19 0.25 0.25 0.09 0.15 0.15 0.07 0.10 0.10 0.11 0.17 0.17  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.33 0.44 0.44 0.15 0.26 0.26 0.11 0.20 0.20 0.21 0.29 0.29  
Volume/Cap: 0.58 0.57 0.57 0.57 0.58 0.58 0.58 0.52 0.52 0.52 0.58 0.58  
Delay/Veh: 28.2 21.4 21.4 42.3 33.4 33.4 46.2 36.6 36.6 36.1 30.9 30.9  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 28.2 21.4 21.4 42.3 33.4 33.4 46.2 36.6 36.6 36.1 30.9 30.9  
LOS by Move: C C C D C C D D D D C C  
HCM2k95thQ: 17 20 20 10 15 15 9 11 11 10 15 15  
\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #2 Westborough Boulevard/Oakmont Drive-Callan Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.703

Loss Time (sec): 0 Average Delay (sec/veh): 25.1

Optimal Cycle: 63 Level Of Service: C

\*\*\*\*\*

Street Name: Oakmont Drive-Callan Boulevard Westborough Boulevard

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Include Protected Include Protected

Rights: 0 0 0 0 0 0 0 0 0 0 0 0

Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Y+R: 0 1 0 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1

Lanes: 0 1 0 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module: >> Count Date: 12 Jan 2016 << 7:30-8:30

Base Vol: 35 79 55 345 113 72 50 821 26 179 302 294

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 35 79 55 345 113 72 50 821 26 179 302 294

Added Vol: 2 2 3 0 0 1 0 0 0 1 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 37 81 58 345 114 72 50 821 27 180 302 294

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89

PHF Volume: 42 91 65 388 128 81 56 922 30 202 339 330

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 42 91 65 388 128 81 56 922 30 202 339 330

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 42 91 65 388 128 81 56 922 30 202 339 330

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.90 0.90 0.85 0.61 1.00 0.85 0.95 0.95 0.85 0.95 0.95 0.85

Lanes: 0.31 0.69 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 535 1171 1615 1157 1900 1615 1805 3610 1615 1805 3610 1615

Capacity Analysis Module:

Vol/Sat: 0.08 0.08 0.04 0.34 0.07 0.05 0.03 0.26 0.02 0.11 0.09 0.20

Crit Moves: \*\*\*\*

Green/Cycle: 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48 0.48

Volume/Cap: 0.16 0.16 0.08 0.70 0.14 0.11 0.45 0.70 0.05 0.70 0.21 0.45

Delay/Veh: 14.9 14.9 14.3 24.6 14.7 14.5 47.3 28.9 20.7 47.4 16.5 19.2

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 14.9 14.9 14.3 24.6 14.7 14.5 47.3 28.9 20.7 47.4 16.5 19.2

LOS by Move: B B C B B D C C D B B B

HCM2k95thQ: 5 5 2 19 4 3 3 22 1 14 7 14

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #2 Westborough Boulevard/Oakmont Drive-Callan Boulevard

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.394

Loss Time (sec): 0 Average Delay (sec/veh): 18.5

Optimal Cycle: 31 Level Of Service: B

\*\*\*\*\*

Street Name: Oakmont Drive-Callan Boulevard Westborough Boulevard

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Include Protected Include Protected

Rights: 0 0 0 0 0 0 0 0 0 0 0 0

Min. Green: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Y+R: 0 1 0 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1

Lanes: 0 1 0 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module: >> Count Date: 12 Jan 2016 << 4:45-5:45

Base Vol: 38 50 22 149 47 34 112 402 31 45 670 275

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 38 50 22 149 47 34 112 402 31 45 670 275

Added Vol: 1 1 2 0 2 0 0 0 0 2 3 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 39 51 24 149 49 34 112 402 33 48 670 275

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 41 54 25 157 52 36 118 423 35 51 705 289

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 41 54 25 157 52 36 118 423 35 51 705 289

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 41 54 25 157 52 36 118 423 35 51 705 289

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.89 0.89 0.85 0.62 1.00 0.85 0.95 0.95 0.85 0.95 0.95 0.85

Lanes: 0.43 0.57 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 730 955 1615 1174 1900 1615 1805 3610 1615 1805 3610 1615

Capacity Analysis Module:

Vol/Sat: 0.06 0.06 0.02 0.13 0.03 0.02 0.07 0.12 0.02 0.03 0.20 0.18

Crit Moves: \*\*\*\*

Green/Cycle: 0.34 0.34 0.34 0.34 0.34 0.34 0.34 0.34 0.34 0.34 0.34 0.34

Volume/Cap: 0.17 0.17 0.05 0.39 0.08 0.07 0.39 0.22 0.04 0.22 0.39 0.36

Delay/Veh: 23.3 23.3 22.2 25.9 22.5 22.4 38.1 12.4 11.1 39.6 16.0 15.8

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 23.3 23.3 22.2 25.9 22.5 22.4 38.1 12.4 11.1 39.6 16.0 15.8

LOS by Move: C C C C C C C C D B B B

HCM2k95thQ: 4 4 1 8 2 2 6 7 1 3 14 11

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

## AM Peak Hour - Existing plus Project Conditions

Level of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #3 Westborough Boulevard/Gellert Boulevard  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.957  
Loss Time (sec): 0 Average Delay (sec/veh): 42.6  
Optimal Cycle: 180 Level of Service: D  
\*\*\*\*\*

Street Name: Gellert Boulevard Westborough Boulevard  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected Protected  
Rights: Include Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 1 0 1 1 1 0 1 1 0 2 0 1 1 0 3 0 1

Volume Module: >> Count Date: 12 Jan 2016 << 7:30-8:30

Base Vol: 56 46 362 557 57 130 119 1604 29 124 650 161  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 56 46 362 557 57 130 119 1604 29 124 650 161  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 56 46 362 557 57 130 120 1608 29 124 651 161  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94  
PHF Volume: 60 49 385 593 61 138 128 1711 31 132 693 171  
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 60 49 385 593 61 138 128 1711 31 132 693 171  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 60 49 385 593 61 138 128 1711 31 132 693 171

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.95 1.00 0.85 0.91 0.91 0.85 0.95 0.95 0.85 0.95 0.91 0.85  
Lanes: 1.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00  
Final Sat.: 1805 1900 1615 3455 1727 1615 1805 3610 1615 1805 5187 1615

Capacity Analysis Module:

Vol/Sat: 0.03 0.03 0.24 0.17 0.04 0.09 0.07 0.47 0.02 0.07 0.13 0.11  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.12 0.25 0.25 0.18 0.31 0.31 0.20 0.50 0.50 0.08 0.37 0.37  
Volume/Cap: 0.28 0.10 0.96 0.96 0.11 0.28 0.36 0.96 0.04 0.96 0.36 0.28  
Delay/Veh: 40.8 29.0 70.8 64.9 24.7 26.4 35.2 36.8 13.0 109.3 22.8 22.2  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 40.8 29.0 70.8 64.9 24.7 26.4 35.2 36.8 13.0 109.3 22.8 22.2  
LOS by Move: D E C E C D D B F C C  
HCM2k95thQ: 4 2 29 25 3 7 7 52 1 14 11 7  
\*\*\*\*\*

Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

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## PM Peak Hour - Existing plus Project Conditions

Level of Service Computation Report  
2000 HCM Operations Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #3 Westborough Boulevard/Gellert Boulevard  
\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.638  
Loss Time (sec): 0 Average Delay (sec/veh): 27.2  
Optimal Cycle: 63 Level of Service: C  
\*\*\*\*\*

Street Name: Gellert Boulevard Westborough Boulevard  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected Protected  
Rights: Include Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0  
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  
Lanes: 1 0 1 0 1 1 1 0 1 1 0 2 0 1 1 0 3 0 1

Volume Module: >> Count Date: 12 Jan 2016 << 5:00-6:00

Base Vol: 41 79 169 437 81 218 168 615 13 203 1295 444  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 41 79 169 437 81 218 168 615 13 203 1295 444  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 41 79 169 437 81 219 169 617 13 203 1299 444  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94  
PHF Volume: 44 84 180 465 86 233 180 656 14 216 1382 472  
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 44 84 180 465 86 233 180 656 14 216 1382 472  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 44 84 180 465 86 233 180 656 14 216 1382 472

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
Adjustment: 0.95 1.00 0.85 0.91 0.91 0.85 0.95 0.95 0.85 0.95 0.91 0.85  
Lanes: 1.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 3.00 1.00  
Final Sat.: 1805 1900 1615 3466 1733 1615 1805 3610 1615 1805 5187 1615

Capacity Analysis Module:

Vol/Sat: 0.02 0.04 0.11 0.13 0.05 0.14 0.10 0.18 0.01 0.12 0.27 0.29  
Crit Moves: \*\*\*\*  
Green/Cycle: 0.06 0.17 0.17 0.21 0.33 0.33 0.16 0.37 0.37 0.24 0.46 0.46  
Volume/Cap: 0.44 0.25 0.64 0.64 0.15 0.44 0.64 0.49 0.02 0.49 0.58 0.64  
Delay/Veh: 48.8 36.0 43.1 37.6 23.7 26.8 44.3 24.5 20.0 33.3 20.3 22.6  
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
AdjDel/Veh: 48.8 36.0 43.1 37.6 23.7 26.8 44.3 24.5 20.0 33.3 20.3 22.6  
LOS by Move: D D D D C C D C B C C  
HCM2k95thQ: 4 5 12 15 4 11 12 16 1 12 21 21  
\*\*\*\*\*

Note: Queue reported is the number of cars per lane.  
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