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ENVIRONMENTAL ASSESSMENT

PROPOSED AIR FORCE SPACE DIVISION HOUSING PROJECT WHITE POINT, LOS ANGELES, CALIFORNIA

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July, 1984

DEPARTMENT OF THE AIR FORCE
SPACE DIVISION

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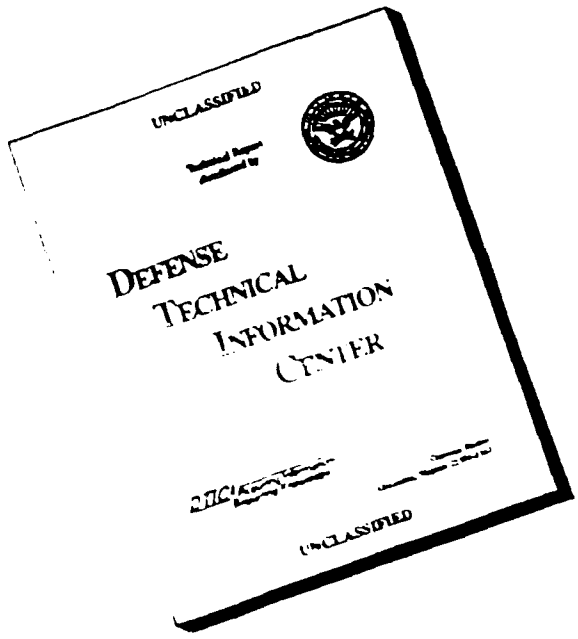

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SUMMARY

ENVIRONMENTAL ANALYSIS
PROPOSED SPACE DIVISION HOUSING PROJECT
WHITE POINT, LOS ANGELES, CALIFORNIA
(Administrative Action)

DESCRIPTION OF THE PROPOSED ACTION

This report has been prepared to identify and analyze the environmental impacts potentially associated with the proposed construction and operation of 170 field grade and senior officer single-family detached housing units on a site of approximately 50 acres in San Pedro, California. The proposed housing site comprises a portion of the 145.8-acre area known as "White Point". A total of approximately 660 persons would live in the proposed project.

The report follows the standard format for an environmental assessment and contains six major sections, as follows: I. Introduction, II.Project Descriptions, III. Alternatives To the Proposed Action, IV. Relationship to land use Plans, Policies and Programs, V. Relationship to the California Coastal Act of 1976 and VI. Environmental Description and Impact Assessment.

The need for the project has been established because of the lack of on-base housing at the Los Angeles Air Force Station (LAAFS), the inability of military personnel to find adequate affordable housing in the Los Angeles area, the lack of available sites for housing within a reasonable commuting distance of LAAFS and the general unavailability of housing consistant with Air Force standards in the local area.

Preparation of this report included a Community Environmental Workshop held on April 11, 1984 to solicit input from the local community. The results of this meeting are included in an Appendix, and all of the areas of concern identified at the meeting are addressed in this report.

Specific alternatives to the proposed project include a no project alternative and an evaluation of all possible housing sites under government control or potential governmental control within a one-hour commute of LAAFS. No other sites of adequate size or potential availability were found. Specific sites considered are as follows:
1. Arbor Vitae Property, 2. Lawndale Missile Plant, 3. Western Avenue Fire Training Area, 4. White Point Naval Officers Housing Area, 5. Suang-na Park Property, 6. Fort MacArthur Upper Reservation, 7. Long Beach Naval Station, and 8. The Los Alamitos Armed Forces Reserve Center (LOSAL).

The report contains an extensive discussion of the relationship between the proposed project and various land use plan, programs and policies covering the project site and surrounding areas. It was considered especially important to provide this information in order to give to the reader the necessary background to understand the complex nature of land disposition in the San Pedro area.

In keeping with the laws requiring the Air Force, as well as other Federal Agencies, to seek a "Finding of Consistency" from the California State Coastal Commission, a separate section outlining the specific issues contained in the Coastal Act which relates to the proposed project is included.

The environmental description and impact assessment section of the report is divided into two major sections, one dealing with the physical environment and one concerned with the man-made environment. The full range of environmental factors, as defined by the requisite guidelines is considered in this report. Appendices containing specialized reports for certain environmental categories are included in their entirety at the conclusion of this document. These reports include a geotechnical evaluation, cultural resources survey, biological survey to determine if a particular endangered species lived on the site and a vehicle circulation report.

No adverse impacts related to topography, geology, and earthquake hazards were identified; although grading needs to take into consideration possible adverse bedding. A comprehensive soils, geologic and grading report will have to be prepared prior to construction.

Although no fossil (paleontological) sites are known on the site, such sites have been found in similar bedrock in the local area. Should fossits be uncovered during grading, construction will be halted and the material investigated by the appropriate authorities.

The site does not represent a significant native plant or animal habitat area. An endangered species, the Palos Verdes Blue butterfly, was discovered several years ago to live at four locals in the vicinity of White Point. A comprehensive survey of the project site did not reveal the presence of this butterfly or a significant amount of its food plant. However, the survey was conducted at a time when the butterfly is not in an adult state. The Air Force has agreed to conduct another survey in the spring of 1985 to make a positive finding of the butterflys' status. No adult Palos Verdes Blues were observed this year, and it is likely that the species is extinct.

The project is not expected to generate enough traffic to cause any adverse impacts to adjacents of roadways. The secondary effects associated with traffic, principally air quality and noise, will as a result not be significantly adverse.

The project would result in a substantial change in the land use of the site. It reduces the total White Point area by approximately one-third. When originally accessed by the military seven years ago, this property had been proposed for a park. Lack of funds prevented the City of Los Angeles from carrying out the park development plans. There is currently a proposal before the

State for a State Park at White Point. The current proposal would include the site being considered for housing addressed in this report. The State has indicated that development of the Air Force Housing would limit the viability of the White Point area for a State Park; although not necessarily preclude it.

All public facilities, service systems and utilities appear adequate to accomodate the proposed project.

No significant historic remains are located on the project site. Several large pre-World War II gun implacements and an abandoned NIKE missile facility are located in close proximity to the project site. The Royal Palms State Beach, which is also of historic interest, is located south of the project site.

An archaeological survey of the site revealed evidence of long term aboriginal occupation. The Air Force, consultants who performed the archaeological survey, and the California State Office of Historic Preservation are currently coordinating a joint effort to determine what actions should be taken to mitigate the project's impact on this potential resource.

The project will not have an adverse environmental impact on views from adjacent properties. No adverse effects on non-renewable energy resources are anticipated.

I. INTRODUCTION

A. Purpose of this Report

This report has been prepared to identify and analyze the environmental impacts potentially associated with the proposed construction and operation of 170 field grade and senior officer single-family detached housing units on a site of approximately 50 acres in San Pedro, California. The proposed housing site comprises a portion of the 145.8-acre area known as "White Point". The Air Force is required by public law to ensure that all proposed actions are initiated, planned, and carried out in a manner to avoid, to the maximum extent possible, adverse effects on the human environment; and that the environmental consequences of all proposed actions be assessed and documented.

The report has been prepared in accordance with, and in compliance with, the requirements of: (1) the National Environmental Policy Act of 1969, as implemented by Executive Order 11514, 42 U.S.C. 4321; (2) The Council on Environmental Quality Regulations 40 CRF part 1500 et. seq.; and (3) Air Force Regulations 19-1, 19-2, 19-7.

B. Relationship to Previous Environmental Documentation

The following report represents a continuation in the consideration of environmental factors relative to the development of Air Force housing in the San Pedro community of Los Angeles. This report is the fourth major environmental document prepared by the Air Force to assess the potential impacts of Air Force housing on various portions of what was previously Fort MacArthur. These documents are as follows:

- Draft Candidate Environmental Statement, Air Force Housing Project Fort MacArthur, California, December 1974. This report considered construction of 200 housing units on one of two sites on Fort MacArthur, one on the Upper Reservation, and one on White Point. These housing units were not constructed because funds for them were never budgeted.

- Environmental Assessment, Proposed Space Division Housing, Fort MacArthur, California, January 1981. This report discussed construction of 300 housing units on the Fort MacArthur Middle Reservation, and contains a Finding of No Significant Impact. Two hundred of these houses have been constructed.

- Supplemental Environmental Assessment, Proposed Space Division Housing, Fort MacArthur, California, April 1983. This report addresses the construction

of an additional 100 housing units, along with the cumulative impact of the previously approved units, on the Fort MacArthur Middle Reservation. The report contains a Finding of No Significant Impact. Seventy of these units, along with the 100 previously approved and not built, are under construction.

A summary of plans and programs focusing on White Point is presented in Section IV of this report. These include the City of Los Angeles Fort MacArthur Planning Program, San Pedro Community Plan, San Pedro Specific Plan of the City of Los Angeles Coastal Program, and the State of California proposal of a State Park at White Point.

C. Reasons for the Proposed Action

The Los Angeles Air Force Station (LAAFS) is the headquarters for the Space Division (SD). SD, and its many tenant organizations, are responsible for the research and development of most of the military's space systems. Specific reasons for the proposed housing project at White Point include the following:

- No on-base housing at LAAFS;
- Inability of military personnel to find adequate housing within the limits of their housing allocations because of the very high prices characteristic of the Los Angeles housing market;
- Lack of available site within a reasonable commuting distance of LAAFS (based on a commuting time of one hour from point to point). A discussion of other sites considered for this project is found in Section III, Alternatives to the Proposed Actions ; and
- Adequate housing consistent with the latest AF housing standards, i.e., 1,400 square feet for a three-bedroom house and 1,550 and 1,700 square feet for a four-bedroom house, is extremely difficult to find in the local area.

D. Planning Actions

Agencies and individuals potentially concerned with or affected by the proposed project were contacted during preparation of this report. A Community Environmental Workshop was held on April 11, 1984. The program of this meeting, and a complete summary of the topics discussed and persons who spoke, is included as Appendix A. Specific areas of concern expressed at the meeting, and subsequently addressed in the appropriate sections of this report, are as follows:

- Removal of open space from the community;
- Conflict with State Park Plan proposals;
- Visual impacts, especially as related to building height (1-story vs. 2-stories);
- Consideration of alternative sites;
- Suitability of site for a golf course;
- Economic obligation of military to support local school district, fire protection, and other public services;
- Violation of Community Plan and zoning; and
- Safety concerns relative to instability of the site.

RELATIONSHIP TO CALIFORNIA ENVIRONMENTAL GUIDELINES

The action under consideration, being a federal project, is not subject to the requirements of the California Environmental Quality Act, and Environmental Impact Report Guidelines. However, it is important to note the general format, range of information considered, and extent of analysis, is comparable to that normally found in Environmental Impact Report documents prepared under California State guidelines. Those familiar with the California guidelines will observe that several sections normally found in Environmental Impact Reports are not called out as specific sections in this document. In all cases, the information commonly found in such sections has been incorporated into the text of the impact sections of this report. These sections are those which identify long term versus short term effects, irreversible and irretrievable commitments of resources, and considerations that offset adverse environmental effects.

II. PROJECT DESCRIPTION

A. Location

1. Regional

The proposed project would be located within a ±50-acre portion of the 145.8-acre area known as "White Point". The site is approximately 20 miles by roadway southeast of the LAAFS within the San Pedro community of the City of Los Angeles, see Figure II-1.

2. Local

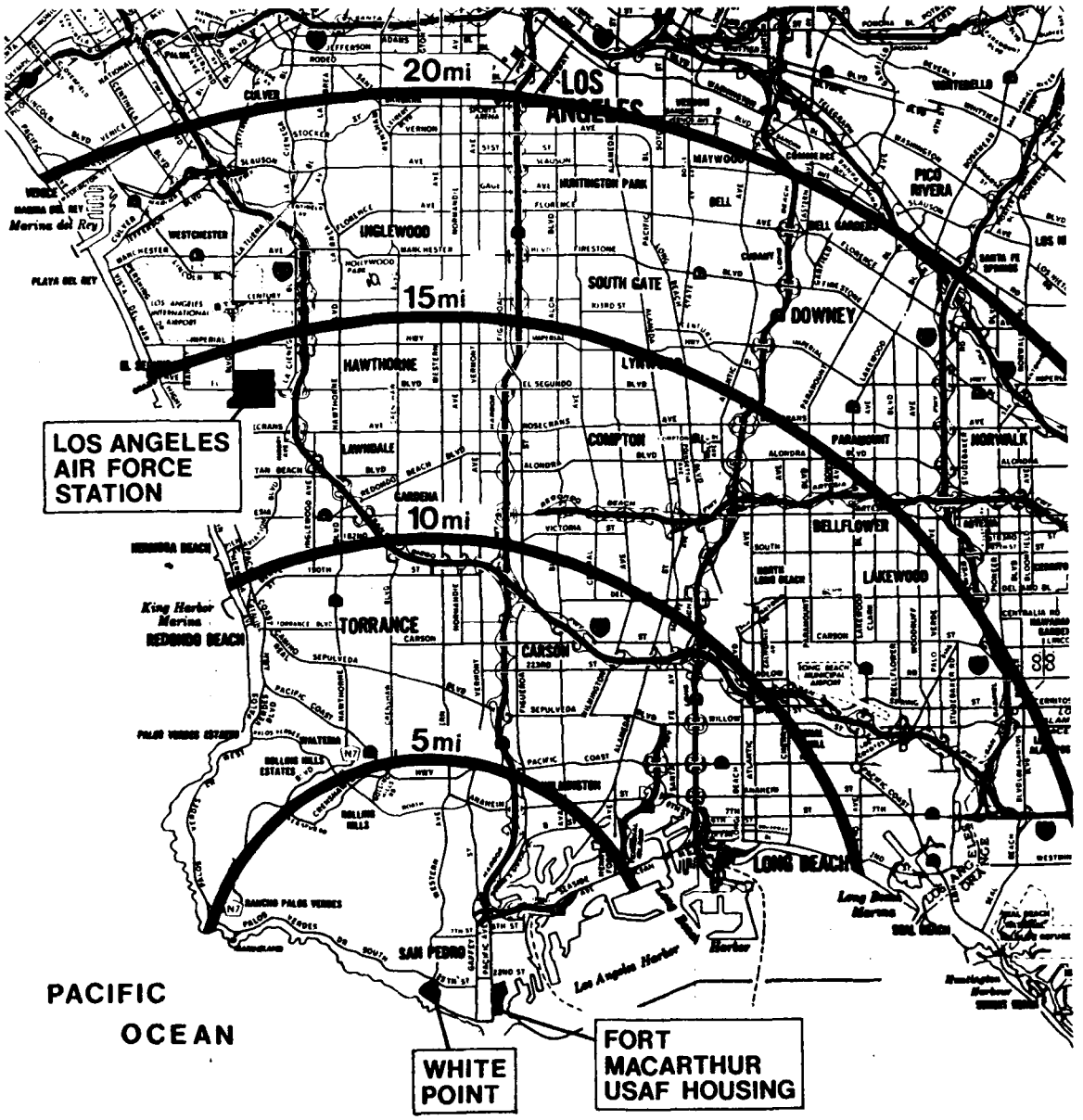
The placement of the project within its local context is shown on Figure II-2, Vicinity Map. The site is on a portion of land which was once part of the Army's Fort MacArthur Military Reservation. The White Point area is a discrete tract of property, separate from other portions of Fort MacArthur. This area has been under the control of the City and County of Los Angeles, since White Point was excessed by the Army seven years ago. The 30.83 acres between Paseo Del Mar and the ocean is controlled by the Los Angeles County Department of Beaches and Parks, while the 114.99 acres north of Paseo Del Mar is controlled by the City of Los Angeles Department of Parks and Recreation.

The entire White Point area is within the boundaries of the coastal zone as established by the California Coastal Act of 1976. The current status and potential future use of the various portions of the project site are discussed in Sections IV-A, B, and C of this report.

3. Development Siting

The study area being considered in this report is limited to the ±50-acre area proposed for development of the subject housing. The remaining portions of White Point are not being considered for acquisition by the Air Force and would remain under their present ownership status.

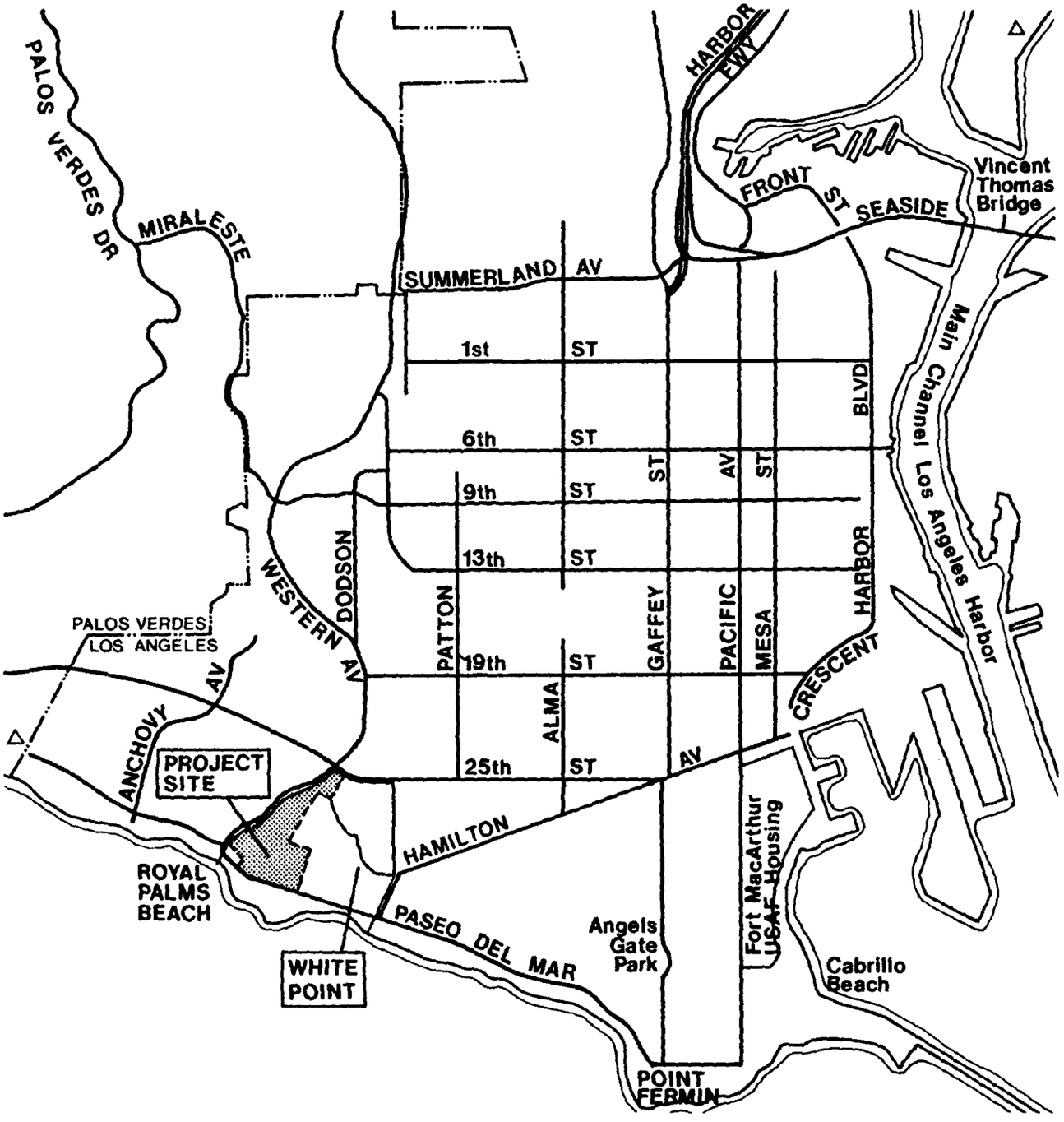
The portion of White Point proposed for Air Force housing is shown on Figure II-3. This figure also shows the relationship of the project site to other uses and features of White Point. The proposed housing site is restricted to the western third of the White Point area. It does not include the abandoned coastal gun emplacement, abandoned Nike Missile installation, community garden, or any of the area south of Paseo Del Mar, i.e., the bluff area along the south side of the street, the Little League field, or any part of the Royal Palms beach. An aerial photograph of White Point and the immediately surrounding area is presented as Figure II-4. Comprehensive information on physical and man-



USAF White Point Housing Environmental Analysis

Figure II-1
REGIONAL LOCATION

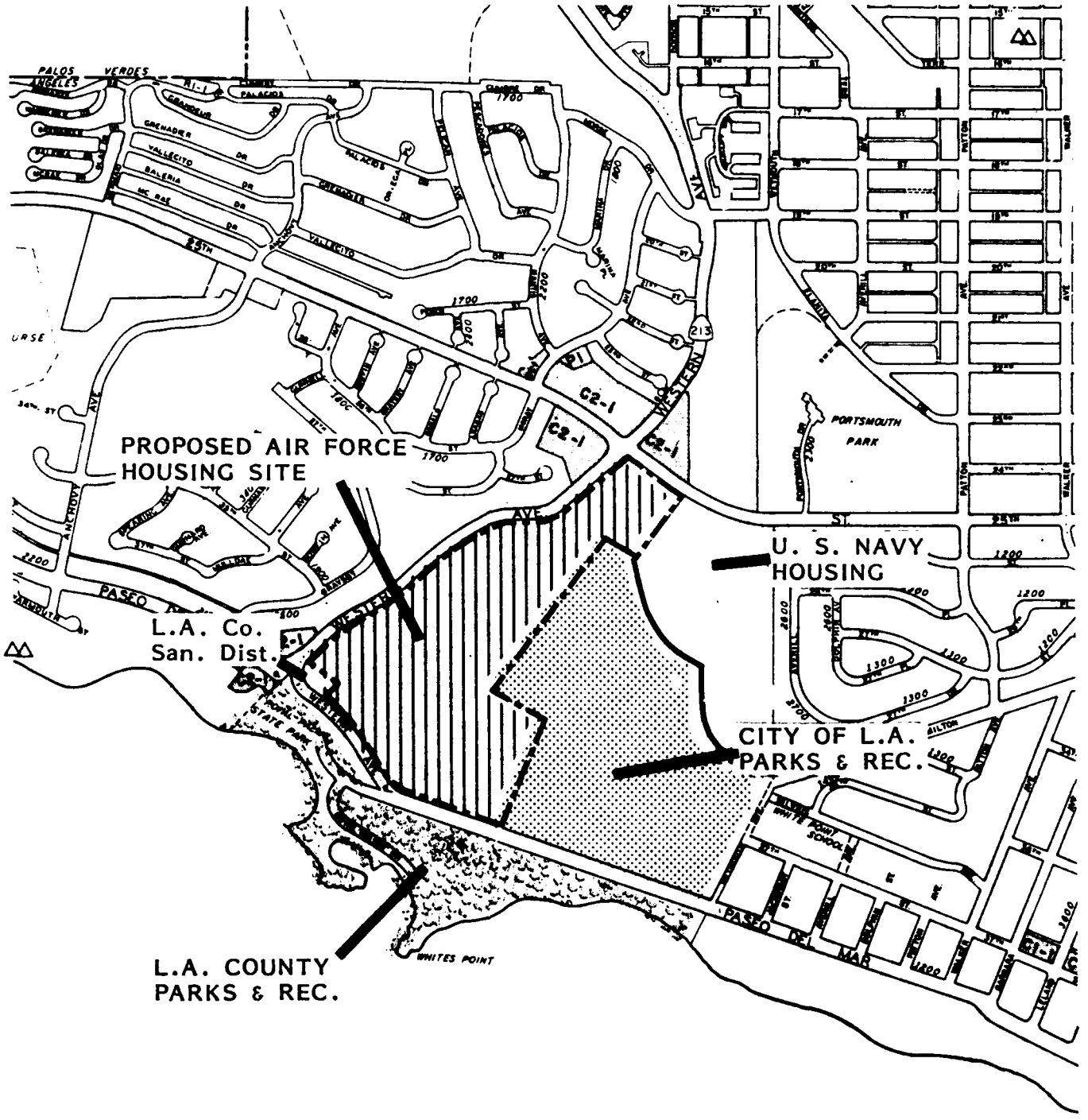
SOURCE: Beland/Associates, Inc.



USAF White Point Housing Environmental Analysis

Figure II-2
VICINITY MAP

SOURCE: Beland/Associates, Inc.



USAF White Point Housing Environmental Analysis

Figure II-3
WHITE POINT AIR FORCE HOUSING SITE

SOURCE: USAF Space Division, March 1984

1000' N

USAF White Point Housing Environmental Analysis

Figure II-a
AERIAL PHOTOGRAPH

SOURCE: Metrex Management Co.
November, 1983

made conditions at the project site and for the surrounding area is found in Section VI, Environmental Description and Impact Assessment, of this report.

4. Scope

The proposed project calls for the construction of 170 single-family detached housing units and a five- to seven-acre recreation area on a site of ±50 acres. This results in a gross dwelling unit per acre density of approximately four units per acre, excluding the recreation area. The housing would be predominately for field grade and senior grade officers, i.e., persons with the rank of Major through Colonel. Approximately 30 units would be for company grade officers. Table II-1 shows the relative mix of housing units' size and type, while Table II-2 provides demographic information on the persons who will be living in the proposed housing units.

The proposed project represents the final phase in an ongoing program of providing much needed housing for the LAAFS. This project will complete current requirements for Air Force housing in the White Point and San Pedro area.

TABLE II-1

WHITE POINT PROPOSED HOUSING TYPE AND SIZE

No. of Units	No. of Bedrooms	Approx.Net Sq.Ft./Unit
20	3	1,350
70	3	1,400
10	4	1,450
50	4	1,550
20	4	1,700
170 Total	-	-----

Source: U. S. Air Force, Space Division, March, 1984.

TABLE II-2

WHITE POINT PROPOSED HOUSING DEMOGRAPHIC PROFILE[1]

Estimated Persons/ Household [2]	Estimated No. of Households	Estimated Total No. of Persons
2	27	54
3	34	102
4	63	252
5	33	165
6	10	60
7	1	7
8	1	8
9	1	9
Total	170	657

[1] Based on a total of 318 households, of all senior officers assigned to Space Division in 1983, the actual numbers for the proposed project may vary slightly as a result of the deomographics of those who would be living in the units.

[2] Household equals a husband, wife, and children.

Source: U. S. Air Force, Space Division, March 1984.

III. ALTERNATIVES TO THE PROPOSED PROJECT

Selection of White Point as the preferred location for the proposed housing units was made following a comprehensive survey of all potentially available properties within a one-hour commuting distance of the Los Angeles Air Force Station. There have been a number of housing surveys over the last several years conducted by various branches of the Department of Defense (DOD). This has been primarily the result of increased naval operations at Terminal Island and the needs of the Air Force. Available land within a one-hour commuting distance of LAAFS is described in this section.

A. No Project - Maintenance of the Status Quo

The discussion of the "No Project" alternative, as defined by NEPA guidelines, calls for the report addressing the "maintenance of the status quo". When considered in relation to the current project, this would include two basic factors: retention of White Point in its present state, and secondly, the effects on military personnel assigned to the LAAFS of not constructing the 170 proposed units.

1. Effect on White Point

If the Air Force White Point project is not undertaken, it is quite likely that the project site portion of White Point will remain vacant for some years to come. Even if the State Park proposal is approved, it will be a number of years before actual development would occur, given the time required for planning the park. A $370 million state bond program for park development and related actions was passed in the June 5, 1984, election. This includes monies for White Point. While State Department of Parks and Recreation planners have stated that the entire White Point property is desired for development of the proposed park, essentially all of the historic, archaeologic, bluff-top view areas from Paseo Del Mar and the entire beach area, would not be affected by the proposed project.

2. Effect on Los Angeles Air Force Station, Los Angeles

In terms of the effect on the U. S. Air Force, adoption of a "No Project" alternative would severely constrain their ability to provide required housing for LAAFS military personnel. LAAFS is already experiencing reluctance of personnel to consider assignment to this area due to the high cost of local housing. It is the responsibility of the Air Force to provide for the health and welfare of active duty personnel and their dependents. Recent housing surveys have substantiated the existing deficiency in available adequate housing. To not pro-

vide the needed housing as is proposed would mean a continuance of unsatisfactory living conditions for a large number of families.

Aside from a strictly humanitarian interest in seeing that the military families are adequately housed, the maintenance of the status quo would run counter to the efforts to attract and retain qualified and dedicated personnel. Thus, it is apparent from both above-stated reasons that the alternative of "No Project" would conflict with the responsibilities of the United States Air Force to perform its mission and to improve the quality of life for its personnel.

The Air Force has stated that the difficulties involved in attracting qualified personnel to the Los Angeles area potentially adversely affects the function of Space Division. This, in turn, has an adverse effect on national defense.

B. Alternative Location(s) for the Proposed Project

The identification of potentially viable alternative sites for the proposed 170 AF housing units is subject to a number of limiting factors. Most significant is the fact that economic factors dictate that the Air Force make use of land which can be obtained without purchase.

Federally owned vacant land and underutilized properties, as well as properties in which the military has a "reversionary" interest, within a one-hour commute of LAAFS, are described below:

1. Arbor Vitae Property: This site comprises approximately 1.0 acres on an alley between Arbor Vitae Street and 96th Street in Los Angeles County. The property has a large building on it and lies directly underneath the final approach to LAX. Formerly owned by the Air Force, it has been up for sale by GSA for several years. The site's small size and severe noise environment preclude its use for housing.

2. Lawndale Missile Plant: A 13.34-acre site owned by the Army, this property is being sought by the Air Force as a site for a 90,000 square foot technical engineering building and an Air Force Recruiting Service Regional Headquarters building, as well as a mobile home park for military personnel. The property is near the intersection of Compton and Aviation Boulevards in Hawthorne. It is also too small for the proposed housing project.

3. Western Avenue Fire Training Area: This site of approximately 5.0 acres is owned by the Navy, and is too small for the proposed project. It is bisected by a large drainage channel and the existing grade is 10 to 15 feet below the surround-

ing area. To cover the drainage channel and bring the property to grade (with the resulting special foundations) would be so expensive as to make the development of housing economically unfeasible.

4. White Point Officer Housing: Approximately 8.0 acres of buildable Navy-owned property remains in the northeast corner of White Point. The Navy has stated their interest to utilize this property for future officer housing.

5. Suang-Nu Park on Palos Verdes North (Youth Hostel) Property: This site is currently owned by the City; however, the Navy is seeking reversion of approximately 45 acres of a 49-acre site for Navy family housing.

6. Fort MacArthur Upper Reservation: An area of approximately 64 acres is currently held by the Los Angeles City Parks and Recreation Department. This property is being utilized as a location for the Korean Bell, Angel's Gate Cultural Center, California Conservation Corps, and a number of other public-related uses. While it could be argued that the utilization is not totally "Parks and Recreation", nor is it in conformance to the development plan submitted in its application for change in ownership from the military, an effort has been made to utilize the property for the public good. Additionally, the City is maintaining the property.

7. Additional Sites: Additional sites which have been suggested as possible locales for the proposed project include the Los Alamitos Armed Forces Reserve Center (LOSAL) in Orange County, and vacant portions of Navy-controlled property within the Long Beach Naval Station.

   The Long Beach Naval Station sites were rejected because the Navy has expressed a desire to retain the property and is currently proposing a major housing development of its own on the only site which is not seriously adversely affected by adjacent industrial land uses.

   The LOSAL property is committed to use by the California Army National Guard. Despite this facility's large size (approximately 1,300 acres), only about 20 acres of vacant land suitable for housing remains. The remainder of LOSAL is heavily impacted by aircraft operations, taken up by the airfield itself, or fully developed and utilized. The Navy recently requested 45 acres at LOSAL for housing. This request was denied because the Department of the Army stated that the land was needed for its Reserve/Guard mission.

IV. RELATIONSHIP OF THE PROPOSED PROJECT TO LAND USE PLANS, POLICIES, AND PROGRAMS

A. Draft Candidate Environmental Statement, Air Force Family Housing Project, Fort MacArthur, California, Space and Missile Systems Organization (SAMSO) of the Air Force Systems Command (AFSC), Wilsey & Ham, 1974.

When the U. S. Army reported that the White Point and Upper Reservation portions of Fort MacArthur were to be excessed, the Air Force undertook an investigation of the subject properties for the construction of up to 200 family housing units. The area known as the Middle Reservation, where Air Force family housing was eventually constructed, was not considered because at the time it was not proposed for release from Army control. When it became clear several months later that the Middle Reservation would become available for military housing, the Air Force dropped its plans for housing on either White Point or the Upper Reservation, and the City and County of Los Angeles began to actively consider use of the two locales.

B. City of Los Angeles Fort MacArthur Planning Program, Wilsey & Ham/The Natelson Company, 1975.

The plans for the closure of portions of Fort MacArthur, including the White Point area, were announced in the early 1970s. At that time the City of Los Angeles began to investigate future uses for the properties. In 1975, the City applied for and received a technical assistance grant from the Economic Development Administration (EDA) to prepare land use plans and related documentation. "The City of Los Angeles Fort MacArthur Planning Program" of 1975 was the product of the EDA-sponsored study. This plan called for White Point to be devoted to recreational use as a regional park with both passive and active recreational facilities. The original plan showed a small commercial node located at the southeastern corner of Western Avenue and 25th Street which would provide restaurants and leisure goods shopping opportunities for park users. Provision for this commercial area was not included in the deed of transfer. Implementation of this program has not occurred due to a lack of funds.

C. Transfer of White Point from the Federal Government, 1978.

The White Point area was formally conveyed to the City of Los Angeles (portion north of Paseo del Mar) and Los Angeles County (portion south of Paseo del Mar) in 1978. A copy of the property transfer agreement is included as Appendix B. This agreement contains a number of provisions relative to the subject property including placing a sign on the property indicating it has been acquired for use by the general public, submission of biennial reports to the Secretary of the Interior setting forth the

use made of the property during the preceeding two-year period, and a reversion clause if at any time the property or a portion of the property is needed for the national defense.

D. Department of Defense Military Family Housing Alternative Site Study, 1981-1982.

In late 1981 and early 1982, the Department of Defense, in response to the needs of several military organizations for permanent housing in Southern California, undertook a study of alternative housing sites. Few suitable sites were identified. A review of those sites relevant to the current project are addressed in Section III, Alternatives, of this report. In response to the community concerns generated by DOD's interest in providing additional housing, the Mayor of Los Angeles established a citizens committee. This committee studied the various housing sites under consideration by the military, and in mid-1982 made a series of recommendations, see Appendix C. One of the recommendations was that the property on the White Point site being considered in this report was suitable for the development of miliary housing at an R-1 zoning category density.

E. Naval Housing Proposal for White Point, 1982.

In 1982, the U. S. Navy made an initial investigation into the possibility of constructing housing units on White Point. This proposal was dropped after several months in favor of the 49-acre Suanga-na Village Park site on Palos Verdes Drive North. As with White Point, this had been military property which was deeded to the City for a park after being declared excess, and was subsequently not developed due to lack of funds. Negotiations are in progress between the Navy and the City of Los Angeles on the Suang-Nu Village Park site.

F. State Park Plans for White Point, March 1984.

The State of California Department of Parks and Recreation is currently in the process of preparing a feasibility study to assess the potential for development of a State Park on the entire White Point area. Development of a State Park was first looked into when it became apparent that the City and County of Los Angeles were not going to be able to develop the property due to lack of funds. The state's initial interest in White Point in 1978 was met with strong opposition from local residents who objected to overnight camping. Within the last eight months, interest in state development of White Point has been reactivated, principally at the request of local homeowners' groups. Two public hearings have been held on the State Park proposal, and a preliminary feasibility study and land use map prepared, see Appendix D.

G. San Pedro Community Plan, September 1980.

The San Pedro Community Plan was adopted by the Los Angeles City Council on September 30, 1980. It was the product of a five-year planning effort and replaced a plan adopted in 1962 (last amended 1970).

Portions of the plan relative to White Point and the project site are illustrated on Figure IV-1.

The entire White Point area, including the project site, is designated "Open Space/Publically Owned 1". The plan calls for development of the White Point area in conformance with the recommendations of the previously discussed Fort MacArthur Planning Program of 1975, see Subsection B. The proposed housing development is not consistent with the land uses indicated on the Community Plan, which limits use of White Point to recreational and environmental protection purposes. The transfer of the property to the City and County precluded all use other than recreation.

Most of the property in the immediate vicinity of White Point, excepting the commercial area at Western Avenue and 25th Street, and a small medium-density (24+ to 40 dwelling units per acre) residential area at the northwest corner of Paseo del Mar and Western Avenue, is designated for low-density (3+ to 7 dwelling units per acre) single family residential. The proposed plan, including the five- to seven-acre recreation area, would be developed at a density of approximately 3.4 dwelling units per gross acre .

H. Zoning, March 1984

Most of the land surrounding White Point is zoned in conformance with the Community Plan Land Use designations, see Figure IV-2. All single family residential areas are zoned RI-1. The apartment complex at the northwest corner of Western Avenue and Paseo del Mar is zoned R-3, while commercial areas adjacent to the Western Avenue/25th Street intersection area are zoned C-1.

The White Point area, including the project site, is zoned AI-1, Agricultural, a classification used for parklands and consistent with the General Plan classification for the area.

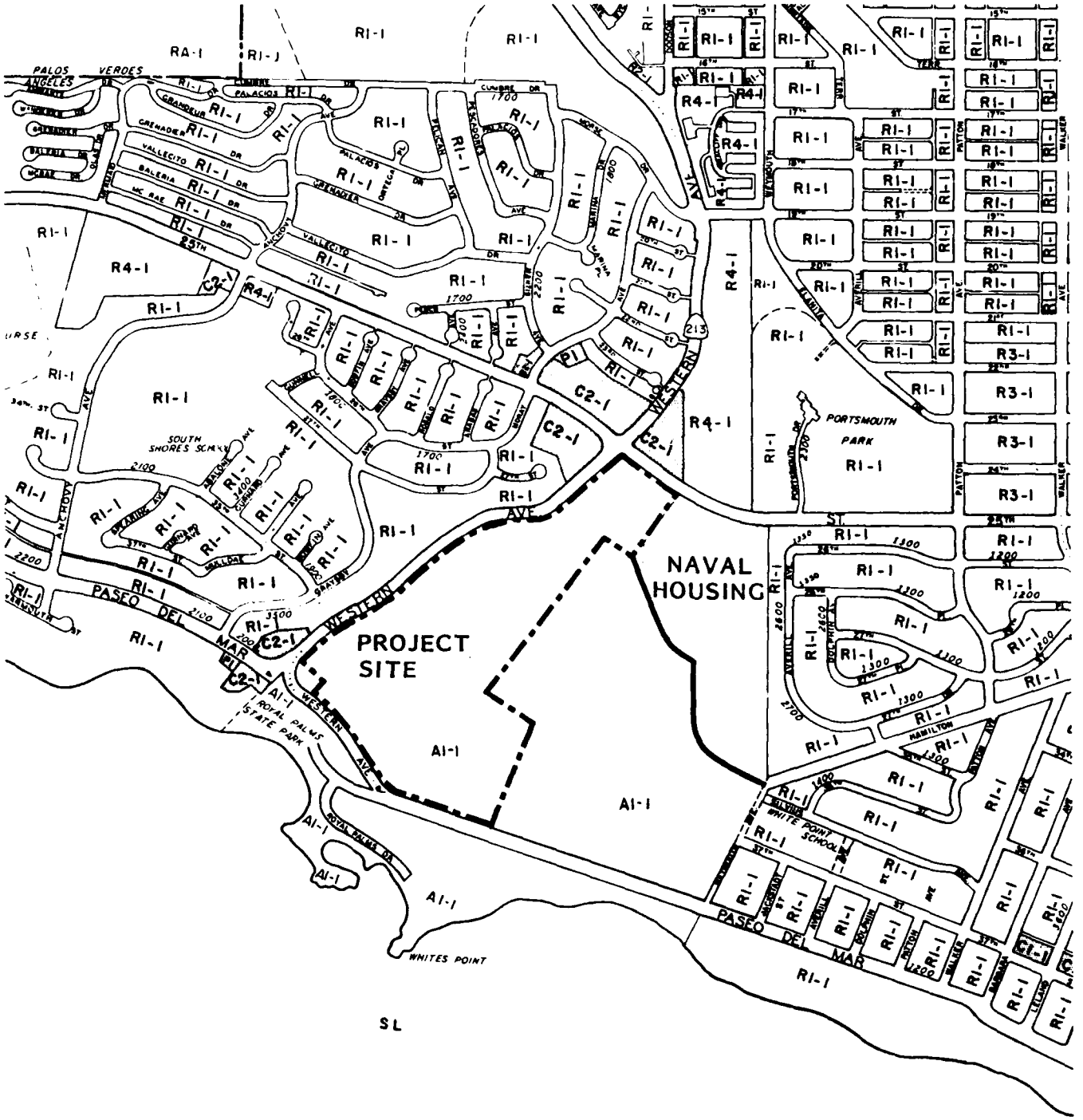
I. San Pedro Specific Plan for the City of Los Angeles Local Coastal Program (draft Specific Plan, April 15, 1982).

The California Coastal Act of 1976 required local jurisdictions to develop land use plans, policies and programs for shore line areas designated by the state as being within the "Coastal Zone". Local government plans must be consistent with the provisions of the Act, and Local Coastal Programs (LCPs) were mandated by the state. When adopted, the LCP would take precedence over other city, county, and state plans for areas within the Coastal Zone.

The entire White Point area is within the boundaries of the San Pedro Coastal Zone, see Figure IV-3.

Figure IV 1
SAN PEDRO COMMUNITY PLAN

Source: City of Los Angeles Community Planning Department, 12/82



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USAF White Point Housing Environmental Analysis

Figure IV-2
LOS ANGELES ZONING

SOURCE: Metrex Management Co.

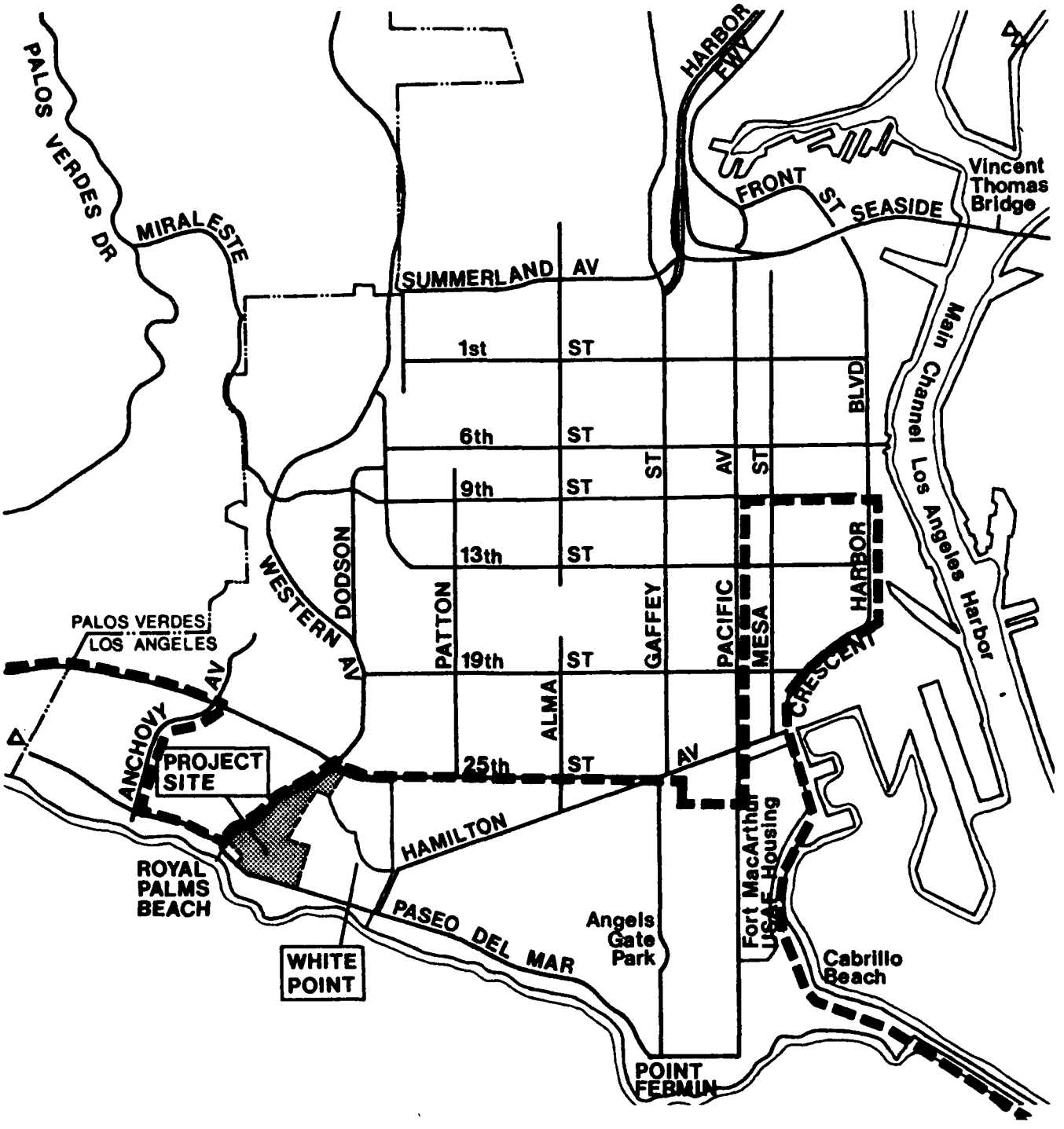
The current draft San Pedro Specific Plan, which is also the City's draft LCP, calls for development of the White Point area in conformance with the recommendations of the Fort MacArthur Planning Program of 1975, see Subsection B.

The draft Specific Plan states that because of ".... the potential for providing view sites offering spectacular views for the public to and along the coast", all of the White Point area ".... shall be designated a public view site and any development therein shall facilitate or provide for public viewing to and along the coast".

As currently written, the draft Specific Plan recommends uses for the White Point area, including the project site, which are not in conformance with the proposed project.

The draft Specific Plan has been reviewed by the City Planning Department and forwarded to the Los Angeles City Planning Commission for formal hearing prior to submission to the City Council for adoption. It is anticipated that the draft Plan will be significantly altered as a result of criticism from a number of community groups. The City's Chief Hearing Examiner's recommendations to the City Planning Commission do not contain significant modifications to sections of the Specific Plan which address federally-owned properties. The nature of these comments is not known at this time.

The Specific Plan has been forwarded to the Planning Commission for consideration on July 19, 1984. Following a series of hearings and incorporation of changes, the Plan will be sent to the City Council for adoption. It is not known how long this process will take. Given the nature of the Plan adoption process to this point, it could easily be several months.



USAF White Point Housing Environmental Analysis

Coastal Zone Boundary

Figure IV-3
COASTAL ZONE

SOURCE: Beland/Associates, Inc., City of Los Angeles

J. San Pedro Chamber of Commerce Support of AF Housing, May 1984.

In early 1984 the San Pedro Chamber of Commerce formed a special "Chamber Task Force" committee to study the implications of the Air Force proposal for construction of 170 single-family residences on 50+ acres of White Point. A position paper was prepared which assessed the pros and cons of the preliminary State Park proposal for White Point, the Air Force's proposed housing development, and recreation development by the City or County. The results of this study was a recommendation that the Air Force housing project be undertaken and that the remainder of the property remain in the City of Los Angeles control. The Chamber of Commerce position paper is included in its entirety as Appendix E.

V. RELATIONSHIP OF THE PROPOSED PROJECT TO THE CALIFORNIA COASTAL ACT OF 1976.

Federal law requires the Air Force, as well as other federal agencies, to seek a "Finding of Consistency" from the State Coastal Commission of any development within the Coastal Zone. Such a finding would indicate that the project is "consistent to the maximum extent practicable" with the Coastal Act. Although the Finding will be made at the state level, the State Commission has the discretion to consult with regional and local coastal planners prior to making its Finding. As previously described in the prior section, it is not clear exactly how the City of Los Angeles Local Coastal Plan (i.e., San Pedro Specific Plan) will address the relationship of federal projects to local coastal planning. The consideration of State Park plans for the White Point area will also be given consideration by the Coastal Commission.

A preliminary listing of issues which are likely to arise during proceedings for the Finding of Consistency for the proposed project are described as below:

A. Shoreline Access

None, the proposed project will in no way affect access to the ocean; see Sections II-A-3 and IV-B-1.

B. Recreation and Visitor-Serving Facilities

The California State Parks and Recreation Department has stated that the proposed 50-acre housing development would make development of a State Park at White Point less desirable. It should be noted, however, that the proposed project would not impact the beach area, or any of the sites of potential historical or cultural interest (e.g., the Coastal Gun Enplacements, and the Nike Missile launchers); see Sections IV-F and VI-B-8.

C. Housing

The status of the proposed housing units if the Air Force no longer needs them, as well as the effect on adjacent housing, was identified as an area of concern during the White Point housing workshop; see Appendix A and Section VI-B-3.

D. Water and Marine Resources

The possible effect of the proposed project runoff on the tidal and off-shore areas below the bluff south of the project site may be questioned; see Section VI-A-5. Consideration of such factors during the design of runoff control facilities, and the use of standard engineering practices, are expected to render any potential impacts negligible.

E. Diking, Dredging and Shoreline Structures

The project would have no effect on these areas of concern; see Section VI-A-1.

F. Commercial Fishing and Recreational Boating

None, same as above; see Section VI-A-1.

G. Environmentally Sensitive Habitat Areas

Areas of concern relative to habitat areas include those relative to the tidal and offshore zone identified in D above. The likelihood of finding a colony of the Palos Verdes Blue Butterfly when the site is resurveyed in the Spring of 1985 is remote, see Section VI-A-5.

H. Agriculture

None, the proposed project will not affect the area used for community gardens on White Point; see Section VI-A-1.

I. Hazard Areas

Bluff top areas will not be affected. Any areas of concern relative to slope and soil stability can be eliminated through standard engineering practices; see Sections VI-A-1, 2, and 3.

J. Forestry and Soil Resources

No environmental effects relative to this category are anticipated; see Sections VI-A-1 and V-B-1.

K. Locating and Planning New Development

Factors concerning the Proposed State Park Plan for White Point were identified in B, Recreation and Visitor-Serving Facilities, above. The proposed project is not expected to have an effect on private development in the surrounding community; see Sections IV and VI-B-3.

L. Coastal Visual Resources and Special Communities

The potential for panoramic views from the project site has been identified by some members of the local community as well as in the State Parks Preliminary Planning Report as a significant issue. The proposed project will not block views from any nearby residences, nor will it impact ocean views from the bluff top area and Paseo del Mar; see Section VI-9.

M. Public Works

No significant effect on public facilities, utilities, or infrastructure is anticipated; see Sections VI-B-5, and 6.

N. Industrial Development and Energy Facilities

No significant effect under this category is expected; see Sections VI-B-1, 4, and 10.

VI. ENVIRONMENTAL DESCRIPTION AND IMPACT ASSESSMENT

A. The Physical Environment

1. Topography

a. Existing Environment

The site area comprises three distinct marine terraces and the slopes which separate them. The elevation ranges from 375 feet in the northern portion of the site to 125 feet in the southeastern corner, for a total drop of 250 feet over a distance of 2,600 feet. A topographic map of the site is presented as Figure VI-1. The site does not extend south of Paseo del Mar, with the result that no house will be closer than 500 feet from the edge of the bluff which drops to the sea.

b. Impact

Development of the proposed project is likely to require extensive earthmoving activity, including cut and fill operations. However, the actual extent of this activity is not known at this time since grading plans for the project have not as yet been prepared. Grading for the site is expected to be balanced, with no significant importation or exportation of soil materials. While grading will alter the specific terrain of the site, the general terraced nature of the topography will remain.

Comprehensive grading plans, based on a complete geologic and soils report, will be required before development of the proposed project can occur.

c. Mitigation Measures

None required.

2. Geology

A geotechnical evaluation of the project site was prepared by Converse Consultants and is included in its entirety as Appendix F. This study incorporates information from a geologic reconnaissance prepared for the 1974 Draft Candidate Environmental Statement. This prior study covered the southern half of the project site. The data which follows has been abstracted from the Converse study.

The proposed project will not impact or be impacted by the bluff area overlooking the ocean on the south side of Paseo del Mar. The proposed development's distance from the bluffs precludes the need for any setback requirements.

Strict adherence to the recommendations of the requisite soil/geology report to be prepared prior to the development of grading plans will reduce any potential geologic hazards to acceptable levels.

a. Landslides

(1) Existing Environment

No landslides were observed at the project site, although landslides have occurred on natural slopes to the east of the subject property.

(2) Impact

There do not appear to be potential landslide problems associated with the project site.

(3) Mitigation Measures

No special mitigation measures are deemed necessary.

b. Ground Water

(1) Existing Environment

No springs nor evidence of unusual moisture conditions were noted at the site. Ground water is probably at considerable depth (i.e., 50-100 feet) beneath the ground surface. After development and installation of irrigation systems, however, localized near-surface seepage may occur on graded slopes and some pad areas, depending on the height of slopes and type of earth materials.

(2) Impact

Adverse seepage and/or surficial instability, as well as possible gross instability, may result within graded areas.

When the requisite geologic and soils report prior to construction is prepared, borings or other appropriate methods will be taken. The results will be evaluated with respect to planned development to obtain information on potential post-grading seepage. Where a relatively high potential for such seepage exists, appropriate drainage devices will be designed and installed (e.g., french drains and buttress drains).

(3) Mitigation Measures

No special measures are required.

c. Settlement

(1) Existing Environment

Normally compressible topsoil, slopewash, noncompacted fill and near-surface terrace deposits exist at the site.

(2) Impact

Settlement potential is expected to be minimal in fill areas, provided the vertical thickness of compacted fills does not exceed about 50 feet, and all compressible soils are removed before placing compacted fill.

Potentially compressible soil (e.g., slopewash, terrace deposits, etc.) deposits in planned fill areas will be explored and evaluated. Thicker fill areas will be constructed early in the grading operation to minimize post-grading settlement, although most settlement is expected to occur during grading. Installation of survey monuments on the fill surface to provide a means to monitor and evaluate any settlement is recommended.

(3) Mitigation Measures

None required.

d. Expansive Soils

(1) Existing Environment

For the most part, all earth materials at the site, including slopewash, terrace deposits, and bedrock, are expansive.

(2) Impact

Expansive soils can have an adverse effect on structures by cracking and significant damage to slabs-on-grade, foundations, pool shells, and concrete/brick decks.

Potential for expansitivity will be checked by laboratory tests during subsequent studies and after rough grading has been completed. Possible measures to eliminate or substantially reduce expansive soils include the use of post-tensioned slabs-on-grade, properly designed conventional foundation systems, or removal of expansive soils beneath planned footings, slabs-on-grade and decks, and replacement with generally nonexpansive soils.

(3) Mitigation Measures

None required.

e. Site Stability

(1) Existing Environment

Bedrock beds exposed throughout the site dip generally within the range of 5° to 30° to the southwest and south (seaward).

(2) Impact

Potential instability for any planned south- to southwest-facing cut slopes exists.

If generally south- to southwest-facing cut slopes are required, stabilization fills (i.e., buttress with subdrains) could be constructed to provide slope support. To eliminate the need for such support, graded cut slopes could be oriented in a north-south direction, or south-facing slopes could be graded at the angle of bedding (i.e., 15°).

(3) Mitigation Measures

No mitigation measures are required, assuming cut slopes are oriented in a north-south direction and south-facing slopes are graded at the angle of bedding.

3. Seismology

a. Existing Environment

Previous seismic studies covering the site, which are included in their entirety in Appendix F, indicate that the study area has a lower potential for exposure to significant adverse effects from a major earthquake than approximately 75 percent of the Greater Los Angeles region. The largest potential earthquake to affect the project site would be an 8.5 Richter magnitude event on the San Andreas Fault. This fault is located 65 miles north of White Point. The nearest major fault to the project site is the Cabrillo Fault, which passes 1,200 feet north of the northern border of the project site. This fault has not been active within the last two million years.

Seismicity was also reviewed in the project's geotechnical evaluation prepared by Converse Consultants, see Appendix F. No faults were observed at the site.

b. Impact

No significant seismic hazards were identified which suggest that the proposed site is exposed to more potential damage from seismic events than the surrounding areas. The seismic analysis (see Appendix F) indicates that the project area is comparatively less hazardous than most areas in the Los Angeles Basin relative to exposure to damage from seismic events. These conclusions assume that proposed grading, fill, compaction, and any other necessary site preparation activities as recommended by the required geology report, will be adequately carried out.

The potential for ground rupture at the site due to faulting is unlikely. Maximum credible ground accelerations on the order of 0.3-0.6g are possible as a result of seismic activity on a nearby active fault. Because of geologic and geographic conditions at the site, secondary effects of seismic activity (e.g., tsunami or liquefaction) are considered very low.

Seismic risk levels can be minimized by adherence to local seismic protection standards for new construction. No special earthquake protection features appear necessary.

c. Mitigation Measures

No special mitigation measures are considered necessary to minimize fault/seismic risk for one- and two-story wood-frame structures.

4. Paleontology

a. Existing Environment

No recorded paleontologic (i.e., fossil) sites are located on the project area. However, fossils have been found in the Monterey Formation, which underlies the site. A shark's tooth and numerous fish scales were discovered in a road cut in the northern portion of the site during a field reconnaissance for this study. There are three paleontologic sites located in the cliff just above the ocean to the south and outside of the project site. All of the sites are in the Middle Miocene rocks (13 to 15 million years old), and have produced various fossils, including fish, birds, whales, and porpoises.

b. Impact

While no impacts on paleongologic resources are anticipated, it is possible that fossils could be exposed when site grading activity uncovers portions of the Monterey Formation.

c. Mitigation Measures

Should fossil material be discovered during construction at the project site, it is recommended that construction be halted or shifted to another portion of the site. The uncovered materials should not be disturbed or examined by members of the construction crew. The Los Angeles County Museum of Natural History should be contacted immediately, so that an assessment of the discovery by qualified professionals can be made.

5. Flora and Fauna

a. Existing Environment

A comprehensive analysis of plants and animals on the site was conducted for the previous environmental analysis of White Point; this analysis is included in its entirety as Appendix G. While White Point represents an extensive tract of undeveloped land, the vegetation on the site is representative of highly disturbed areas consisting almost entirely of naturalized weedy species. Only six of the 56 plant species reported from the site are native. These plants - milkweed, goldenbush, malacothrix, spurge, locoweed, and lupine- occur throughout Southern California.

Since the site consists of rather homogeneous grass-dominated vegetation, it is able to support a much less diverse vertebrate fauna than would native coastal sage scrub vegetation of a habitat containing more trees. Disking of some of the flat areas has further reduced the habitat available for vertebrates. Native fauna appears to be too greatly distributed to constitute a significant wildlife habitat.

In 1977, a butterfly which had been previously unknown to science was discovered on the Palos Verdes Peninsula. Named the Palos Verdes Blue, Glaucopsyche lygdamus palosverdesensis, it was found at several locales in seaward facing canyons and terraces. The larva of this species is known to feed exclusively on a single species of plant, an ocean milk-vetch which is popularly known as locoweed. This plant was once quite common on the Peninsula, but has in recent years been greatly reduced by development and fire control methods. The adult butterfly can only be observed during the early Spring. The last two seasons (1982/83 and 1983/84) have been particularly bad for the milk-vetch plant, first because of excessive rains and then because of lack of rain. No butterflies were discovered this year and it is feared that the species is probably extinct. This appears to be the first instance of a federally designated endangered species becoming extinct.

b. Impact

An effort was made to determine the likelihood of a colony of the Palos Verdes Blue being located on the ±50-acre study site. Mr. Jess Morton, a local amateur entomologist who was instrumental in the initial identification of the butterfly and who was recommended by the Los Angeles Museum of Natural History, conducted a field survey of the entire site area. A letter documenting the survey results is included in Appendix G. This search did not turn up

any direct evidence of the existance of the Palos Verdes Blue Butterfly. Four small larval foodplants, Astragalus trichopodus ssp., were located, but these did not show any indications of the presence of the butterfly, (e.g., seed pods bored by the butterfly larva). It is important to note, however, that the foodplant tends to die back during the Summer and becomes very difficult to detect. The White Point property does not appear to be an appropriate habitat for the insect since it is heavily disturbed from weed control activity. The vacant property to the east of the site was not surveyed and it is not known if a suitable habitat locale is located in this area.

While it is extremely doubtful a colony of the Palos Verdes Blue Butterfly exists on the project site, the area will be surveyed again during the early Spring of 1985. At that time milk-vetch would be most visible and the adult butterflies, if any still exist, would be flying. The site will not be disturbed by any Air Force housing construction activity until this survey is complete and the results reported. The United States Air Force is currently in contact with the United States Department of Fish and Wildlife to keep them apprised of this matter.

c. Mitigation Measures

None required, unless the 1985 Spring survey identifies a colony(s) of the Palos Verdes Blue Butterfly. Should a butterfly colony(s) be found, a strategy to ensure its viability would be developed. The nature of such a strategy would be dependent on the size and location of the colony(s).

6. Air Quality and Climate

a. Existing Environment

Air quality and climatological data for the San Pedro region is found in Appendix H. When compared with downtown Los Angeles, the air quality in San Pedro is considerably better (see Appendix H for quantifiable data). Detailed information on air quality is available from the South Coast Air Quality Management District, the regional agency responsible for air quality monitoring and control.

The average daily temperature in the San Pedro area ranges from 55 to 70 degrees Fahrenheit. The rainy season occurs between November and April. There is very little smog because of the prevailing ocean breezes. Wind direction is from the west at an average of five to seven miles per hour.

b. Impact

The proposed project is not expected to have a significant impact on air quality or climate. Air quality is affected by four major factors: 1) motor vehicle use, 2) space heating and water heating, 3) use of electrical energy, and 4) short-term activities associated with construction. Of these, motor vehicles produce the greatest number of pollutants.

Air pollutant emissions analysis is presented on Table VI-1. This table assumes that project residents will use private vehicles for home-to-work (and return) trips.

The table is divided into three sections. The first section describes the total amount of pollutants generated by the proposed project. (Stationary emissions refer to those originating from heating needs and the generation of electricity, while mobile emissions are those produced by motor vehicles.) The second section compares emissions generated by the project with the total of those currently produced in the local area. The estimate of local emissions is based on the average number of miles vehicles travelled in a 24-hour period in the southern portion of San Pedro (i.e., east of Western Avenue and south of 9th Street). The third section of the table compares project-generated emissions with the estimated total number of pounds of emissions per day for the South Bay area (AQMD Source Receptor Area Number 3).

Table VI-1 indicates that the proposed project would not significantly increase regional or local air quality.

TABLE VI-1

AIR POLLUTANT EMISSIONS
Total Average Daily Emissions*

Proposed Development

Pollutant	Stationary Total Units	Mobile Emissions		Total Emissions	
		Local Total Units	Regional Total Units	Local Total Units	Regional Total Units
Carbon Monoxide	2	292	692	295	694
Hydrocarbons	-	37	93	37	93
Nitrogen Oxides	3	39	102	42	105
Particulates	-	7	17	7	17
Sulfur Oxides	-	2	5	2	5

Comparison of Average Daily Emissions**(Local)

Pollutant	Existing	Proposed Development 170 Units	Percent Increase
Carbon Monoxide	15,710	295	1.88%
Hydrocarbons	2,040	37	1.81%
Nitrogen Oxides	2,050	42	2.05%
Particulates	350	7	2.00%
Sulfur Oxides	120	2	1.67%

Comparison of Average Daily Emissions**(Regional)

Pollutant	Existing	Proposed Development 170 Units	Percent Increase
Carbon Monoxide	936,310	694	0.07%
Hydrocarbons	230,230	93	0.04%
Nitrogen Oxides	280,150	105	0.04%
Particulates	42,450	17	0.04%
Sulfur Oxides	217,630	5	0.02%

* Quantification derived from City of Los Angeles "EIR Manual for Private Projects", August 1975 with revisions, Section A.
**All emissions given in pounds per day.

The quantity of emissions generated by the project is not large, either in absolute terms (pounds per day) or in comparison to existing conditions in the local South San Pedro area or in the South Bay region.

Of the five pollutants considered in the analysis, none will increase regional pollution levels more than 0.07%, as shown in Table VI-1.

The table assumes that the proposed project represents a net addition to the total vehicle miles travelled. A general survey by Space Division indicates that LAAFS personnel now reside in over 90 incorporated cities in five counties in the Los Angeles area, and that many have one-way travel times of one hour or more. Since the proposed project will reduce the number of LAAFS personally travelling long distances on home-to-work trips, the proposed project represents a net decrease in vehicular emissions generated by Los Angeles Air Force Station personnel. This is a beneficial effect of the proposed project, from the standpoint of regional air quality.

An additional factor which could affect air quality is the fact that many LAAFS personnel are transferred here from out of state. It is likely that some vehicles belonging to LAAFS personnel may not meet California emissions standards which are more stringent than those in other areas. There are no available data on the total number of vehicles involved.

Military personnel, who are not required to reregister out-of-state vehicles, may only have two out-of-state registered vehicles at any one time.

Information from the Air Force housing development at the Middle Reservation indicates that approximately 75 percent of the Air Force personnel carpool, while ten percent ride the bus and only about 15 percent drive. If these ratios hold true for the White Point project, the air pollutant emission estimates shown on Table VI-10 would be substantially reduced.

c. Mitigation Measures

None required.

7. Noise

a. Existing Environment

Traffic on Paseo del Mar and Western Avenue is the primary noise source in the area near the project site. Current and projected traffic volumes are not sufficiently high to create noise levels which would be considered normally unacceptable. This determination was made using the method described by the Department of Housing and Urban Development in their "Noise Assessment Guidelines", August 1971.

b. Impact

Adverse noise levels resulting from the full development of the proposed project are negligible. Automobile traffic, the primary source of noise, will not reach volumes sufficient to cause noise impacts either within the proposed development or on the surrounding neighborhood.

The construction of the proposed development can be expected to create short-term adverse noise impacts on the surrounding community. These will be derived from a wide variety of sources, including heavy trucks and earthmoving equipment, power saws, drills, hammering, and other sounds associated with a construction site.

There are a number of means available which can reduce anticipated noise impact, but not eliminate it. Sound muffling devices are available for heavier earthmoving machinery. However, there is no technological means at present to curtail noise from smaller power equipment (saws, drills, etc.). This noise will be substantial, especially given the number of units to be built. To minimize construction noise impact, outdoor construction activity will be limited to normal waking hours, and heavy machinery will not be operated prior to 7:00 AM. Once the majority of work on the units is taking place inside, no additional noise control features are likely to be required.

c. Mitigation Measures

None required.

PAGE VI-14

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B. Man-Made Environment

1. Existing Land Use

a. Surrounding Area

(1) Existing Environment

The area west of the site is a residential neighborhood of high cost single family detached homes, excepting a small, medium-density housing tract at the northeast corner of Western Avenue and Paseo del Mar. There is a neighborhood commercial development located at the corner of Western Avenue and 25th Street to the northwest of the project site. The remaining portions of White Point are located to the east and south of the site. This includes the area south of Paseo del Mar where the Royal Palms Beach and baseball diamond are located, as well as those portions of White Point which contain the old coastal gun emplacement and abandoned Nike Missile facility. The land uses surrounding the site are identified on the aerial photograph presented as Figure II-4. The beach area is open to the public and maintained. There is a county lifeguard station at this locale. The area north of Paseo del Mar is presently closed to public access. Initial attempts by the city to open the area for passive recreation uses were terminated due to lack of funding. Use of a portion of the area by a model airplane club was also discontinued because of complaints from nearby residents. The property has been recently used by the Boy Scouts and for various community tours and walks.

(2) Impact

As described above, major portions of White Point will not be affected by the proposed development. The proposed project will have essentially no effect on portions of White Point south of Paseo del Mar or the eastern half of White Point north of Paseo del Mar. This includes essentially all of the areas currently open to the public, as well as potential cultural and historic features such as the coastal gun emplacements and the Nike Missile launch facilities.

It is doubtful that the proposed project would have a significant effect on any of the land uses adjacent to the project. While greater utilization of streets and local commercial facilities can be anticipated, no actual changes in land use density or type are anticipated.

b. Project Site

(1) Existing Environment

The project site is vacant. Seven small wood-frame structures in the northern portion of the site were demolished several years ago. These buildings were constructed during World War II by the Army and were later used by the Army Reserve. A sewage pump station operated by Los Angeles County Sanitation District is located in the extreme southwest corner of the site. The only remaining structure on the site is a small wood-frame Army building in the southeastern portion of the site. It is currently abandoned. This structure probably dates from the construction of the Nike Missile facilities.

The site has been greatly altered from its natural state by human activity, including some grading activity in specific areas, road construction, and weed control activity.

(2) Impact

Development of the proposed project would drastically alter the present open space nature of the subject site. The change to single family housing would be considered a permanent change.

(3) Mitigation Measures

No mitigation measures are recommended.

2. Population

a. Existing Environment

The 1980 census reported a resident population for San Pedro was approximately 62,000 persons. Excluded from this total are merchant seamen and naval personnel at sea and inmates at the U. S. Federal Correctional Institution. This represents an increase of only 2.49 percent over the total population of 60,497 reported in the 1970 census. The fact that the community remained essentially static during this period can be attributed to several factors. These include the fact that the area is almost completely built up with very little remaining vacant land; development restrictions related to the California Coastal Zone Management Program; and an overall decline in household size.

A comparison of 1970 with 1980 population data is found on Table VI-2. In addition to information on the San Pedro community as a whole, figures are also presented for several census tracts in the immediate vicinity of White Point, the 15th Council District and the City of Los Angeles.

The same census tracts were used in both 1970 and 1980, facilitating comparisons of this demographic information. Figure VI-2 shows the tracts within the local San Pedro community.

Recently compiled population data prepared by Economic Research Associates, Inc. of Los Angeles, place San Pedro's total population at 67,300 persons. This estimate includes a wider area than that reported by the Census Bureau, which did not include unincorporated county islands in San Pedro.

b. Impact

Development of the proposed project would add a total of approximately 660 persons, of whom 320 would be under the age of 18, to the local community. This would represent an increase of approximately 1.0 percent to the San Pedro community. While this is a small increase when based on a community-wide scale, the perceived change to the local neighborhood will most likely be much more noticeable. This increase will result in direct effects on the surrounding area. These include economic, traffic, housing, service systems, and public facility impacts discussed in other portions of this report.

c. Mitigation Measures

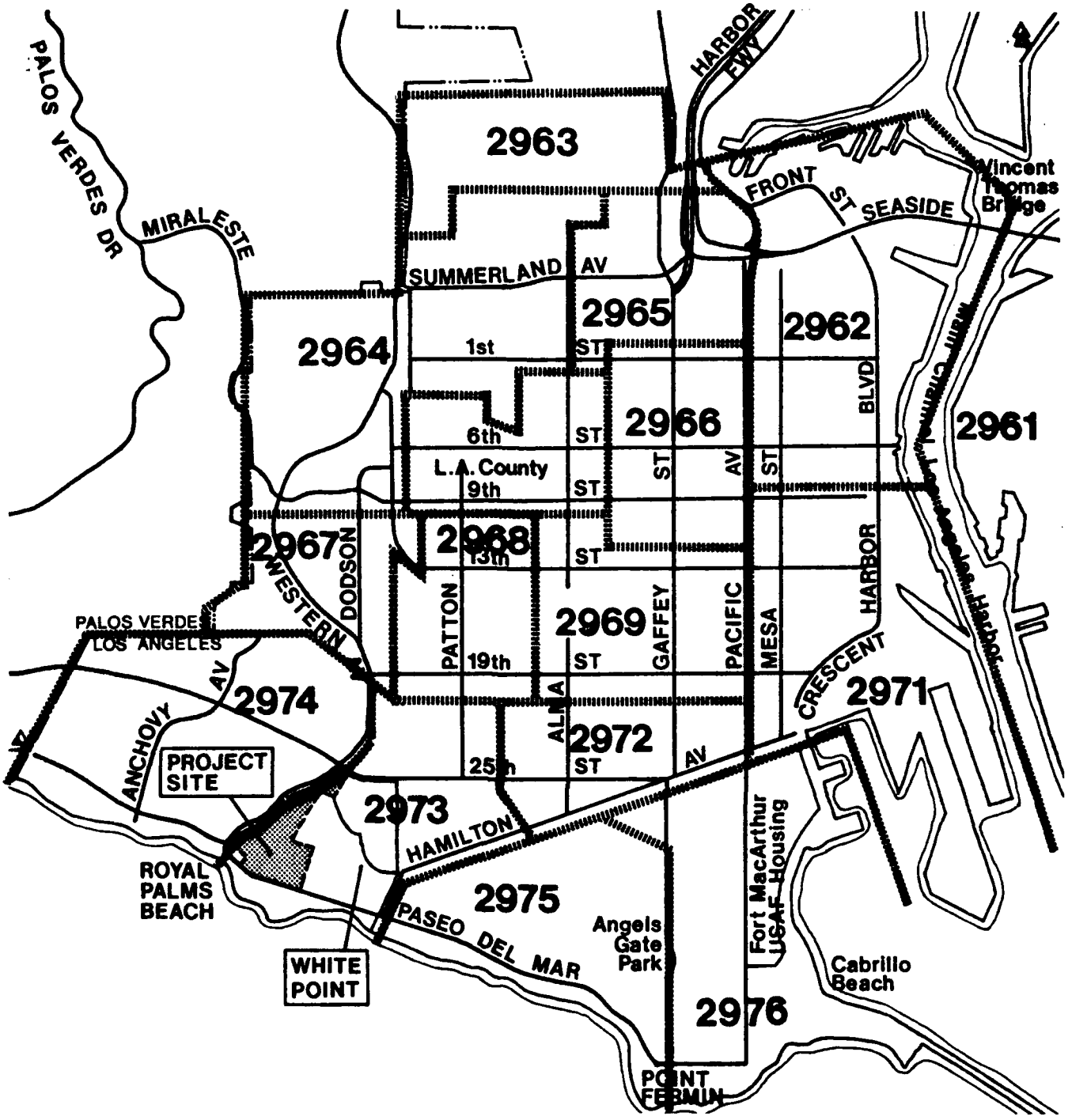
No specific mitigation measures appear necessary.

TABLE VI-2

DEMOGRAPHIC PROFILE:
WHITE POINT VICINITY, SAN PEDRO, AND CITY OF LOS ANGELES*

DEMOGRAPHIC CATEGORY		YEAR	TRACT 2973 including White Point	TRACT 2972	TRACT 2975	TRACT 2974	TOTAL SAN PEDRO	15th COUNCIL DISTRICT	CITY OF L.A.
TOTAL POPULATION		1970	2,898	6,459	3,374	3,374	60,497	175,375	2,805,264
		1980	2,587	6,760	3,304	3,989	62,004	181,932	2,966,850
Age (% total)	0-17	1970	31.4	21.7	32.5	41.2	39.3	38.4	30.3
		1980	24.4	24.2	24.9	20.0	25.9	32.4	25.1
	18-64	1970	58.8	66.8	61.2	54.5	49.5	54.3	59.6
		1980	56.6	63.3	65.7	68.9	62.2	59.1	64.3
	65+	1970	9.8	11.5	6.3	4.3	11.2	7.3	10.1
		1980	19.0	12.5	9.5	11.2	11.9	8.5	10.6
Ethnicity (% total)	White	1970	95.2	79.6	85.2	96.1	68.9	47.6	60.2
		1980	92.3	70.0	79.5	93.6	59.3	38.2	47.8
	Black	1970	0.3	0.2	1.5	0.7	4.2	21.4	17.3
		1980	0.9	1.3	2.1	1.0	4.3	19.0	17.0
	Hispanic	1970	4.5	19.4	10.7	3.2	23.6	26.0	18.5
		1980	10.7	21.6	12.6	5.4	30.8	35.4	27.5

*based on 1970 and 1980 Federal Census Statistics; includes resident population only, not included are merchant and military seamen at sea and inmates at the U. S. Federal Correccional Institutions.



USAF White Point Housing Environmental Analysis

Figure VI-2
CENSUS TRACTS

SOURCE: U. S. Dept. of Commerce, Bureau of Census

3. Housing

a. Existing Environment

Since 1970, the San Pedro community has experienced an increase in total housing units and a decrease in average household size. As seen in Table VI-3, there were approximately 21,800 dwelling units in 1970. The total number increased by 1,700 housing units in 1978, and by another 1,500 units by 1982. The average household size fell from 3.2 persons per unit in 1970 to an estimated 2.5 persons per unit in 1982.

Housing and population data recently compiled by Economic Research Associates, Inc. reports a total of 26,154 households in 1983 for the greater San Pedro area. When compared with population estimates for the same area, the average household size is 2.57 persons per household. This is consistent with the Federal Census and California State Department of Finance figures.

TABLE VI-3

Housing Units in the San Pedro Community

	1970	1978	1982
Number of Units	21,800	23,500	25,000
% Increase from 1970	-0-	7.8%	14.7%

Source: 1980 Census, Beland/Associates, Inc.

Table VI-4 represents the 1980 housing profile for the Fort MacArthur vicinity and for the overall San Pedro area.

More than 60 percent of San Pedro's housing stock is comprised of single-family units and duplexes. The area contains virtually no mobile homes. Multiple units comprise the remainder of the housing stock in the community, and represents the fastest growing component of the housing market.

San Pedro has long been known as an area with a considerable stock of low- and moderate-income housing in good condition. Within the last seven years, however, housing prices in San Pedro have escalated dramatically,

TABLE VI-4

1980 HOUSING PROFILE:
WHITE POINT VICINITY AND THE SAN PEDRO AREA

DATA CATEGORY	White Point Tract 2973		White Point Vicinity						San Pedro All Tracts	
			Tract 2974		Tract 2972		Tract 2975			
	No.	%	No.	%	No.	%	No.	%	No.	%
Total year-round units	930	100.0	1,530	100.0	3,010	100.0	1,167	100.0	25,033	100.0
OCCUPANCY										
Occupied units	906	97.4	1,511	98.8	2,845	94.5	1,226	96.8	23,838	95.2
Vacant units	24	2.6	19	1.2	165	5.5	41	3.2	1 195	4.7
OWNER/RENTER PATTERN										
Owner occupied	646	71.3	1,314	87.0	989	34.8	801	65.3	10,017	40.0
Renter occupied	260	28.7	197	13.0	1,856	65.2	425	34.7	13,821	55.2
HOUSING POPULATION DENSITY										
Average population/unit	2.86		3.04		2.38		2.69		2.47	
Units/1.01± persons/room	28	3.1	18	1.2	186	6.5	54	4.4	2,386	9.5
Owner occupied	16	1.8	16	1.1	41	1.4	18	1.5	504	2.0
Renter occupied	12	1.3	2	0.1	145	5.1	36	2.9	1,882	7.5
HOUSING COST INDICATORS										
Median value/single-family houses	101,200		156,400		90,000		116,100		100,799	
Median contract rent	328		400		271		264		233	

Source: 1980 Census, Beland/Associates, Inc.

such that ownership housing is rapidly growing out of reach of low- and moderate-income households. Rising prices in San Pedro are related not only to the areawide price increases which the Los Angeles metropolitan area has experienced, but also to the attractiveness of San Pedro itself. Its coastal location and relatively smog-free environment, plus its comparative proximity to downtown, make it a desirable and convenient place to live. Another notable but intangible attraction of San Pedro is its very strong sense of community identify, which many families consider important in their choice of home location.

In the past, housing costs in San Pedro were significantly lower than other coastal areas, such as Santa Monica and the beach communities around Los Angeles International Airport. The lower housing costs made San Pedro a viable place to purchase a home, especially for middle-income families priced out of other coastal communities. Although housing costs in San Pedro are still somewhat lower than these other locations, local prices have risen rapidly. A survey of housing costs in the neighborhoods adjacent to White Point made in 1983 confirms that dwelling units hitherto considered part of the middle-income housing stock are now within the middle- and upper-income price range.

Prices of units vary from approximately $65,000 to $211,000 and up. The median price of a home is $130,000. Current national and regional economic conditions, coupled with the continued high interest rates, have made it extremely difficult for individuals and families to purchase a home. To purchase a $130,000 home today under conventional financing, a family would need to be able to afford a monthly house payment of over $1,000 plus taxes and insurance.

b. Impact

The proposed project is not expected to have a significant effect on either the local or regional housing market. A slight beneficial effect may result from the freeing up of some rental units, which are in extremely short supply in Los Angeles.

The effect of the proposed development on the local housing market, in particular, real estate values, is difficult to predict. Much of the impact will depend on how the proposed development is perceived by the local community. If the housing development as currently proposed is in keeping with surrounding single-family neighborhoods. As a result, there is likely to be little effect on local housing values.

c. Mitigation Measures.

None required.

4. Employment/Economy

a. Existing Environment

The economy of San Pedro is strongly oriented toward the harbor. The majority of industry in San Pedro is directly or indirectly related to port activities, such as ship building, shipping, fishing, vessel provisions and repair, etc. Thirty-six manufacturing companies operate in the area. Major employment generators in the community are listed on Table VI-5.

White Point has not been used by the military since the Nike Missile Program was active in the 1960s. At the present time, there are no full time employees at White Point.

This section of the report also addresses the economic implications of the proposed project on service systems and utilities.

b. Impact

(1) Relation to Surrounding Community

Because LAAFS personnel are now widely dispersed throughout the Los Angeles area, it is believed that few, if any, of the families which are to reside in the proposed development currently live in San Pedro. Therefore, it is projected that the residents of the proposed development will represent "new" population to the San Pedro area. The influx of 170 military families into the community will have potential economic benefits (increased business with local merchants, etc.) for the local community. However, the effect may not be as great as it would be if the housing project were to serve the civilian market. This is due to the fact that military families have access to various commissary and exchange facilities, where some shopping may be conducted.

Foremost among the local businesses to be patronized will be restaurants and other leisure time businesses, financial institutions and service businesses oriented toward residential consumers (e. g., dry cleaners, drug stores, house and carpet cleaning concerns, beauty salons, etc.). Because of their proximity to White Point, commercial businesses at the corner of Western Ave-

TABLE VI-5

MAJOR EMPLOYMENT CENTERS IN THE SAN PEDRO COMMUNITY

Facility or Company	Number Employed	Products or Services
Manufacturing*		
Todd Shipyard Corporation	5,500	Shipbuilding and Repairs
Star Kist Foods	3,500	Sea Foods
Pan Pacific Fisheries	850	Fisheries
Union Oil Company	609	Petroleum Products
Di Carlo Bakery	400	Bakery and Distributors
Logicon	310	Computer Science
Non-Manufacturing		
Stevedoring, Clerks and Foremen- Docks	4,000	Shiploading
San Pedro Peninsula Hospital	1,300	Hospital
Harbor College	766	School
Los Angeles Harbor Dept.	500	Harbor Operation
Pacific Telephone Company	385	Telephone Company

*These are the largest manufacturing concerns in the San Pedro area.

Source: San Pedro Chamber of Commerce, July 1982.

nue and 25th Street will be the establishments most positively affected by the proposed development.

With respect to employment of residents of the proposed development, although one wage earner in the household will be a military "employee" of Los Angeles Air Force Station, it is likely that the other adult in some of the households will seek part-time or full-time employment in the community. (In most instances this second wage-earner will be a woman whose children are all of school age.) Skills of those second wage-earners will be available to supplement the existing labor pool primarily in the San Pedro/ Long Beach area. Some workers, however, may be likely to commute longer distances to reach other portions of the Los Angeles job market.

(2) Effect on Service Systems/Utilities

The effect of the proposed project on local service systems and utilities has been expressed by several members of the local community as having the potential for negative impact. Representatives of both the Fire Department and the Police Department have stated that no additional cost of manpower would be required in the event the proposed project were constructed, see Appendix I. The military provides its own security and would make all necessary provisions to comply with fire and safety codes. The Air Force has its own refuse collection contract with a private firm and utilities are paid for at the same rates as those charged to private individuals. On-site infrastructure facilities, including streets and all utility lines, are paid for and maintained by the Air Force. The situation is somewhat analogous to a self-contained community with private streets maintained by a homeowners' association. The Air Force, as with all Department of Defense agencies, contributes monies for schools. Specific information on given public facilities, service systems, and utilities is found in Sections VI-5 and 6, which follow.

The overall impact of the proposed project on state finances is difficult to accurately estimate. Most military personnel pay state taxes to the state in which they are a legal resident, rather than the state in which they are stationed. This is in conformance with the provisions of the Soldiers and Sailors Relief Act of 1940 which states that the legal residence of a military member is the same as his legal residence upon entering the military, unless he or she takes action to change it. It is assumed that the relative number of Californians who are stationed in other states and use the tax base resources of the state in which they are stationed is proportional to out of state residents who use the California tax base resources.

c. Mitigation Measures

No mitigation measures are required.

5. Public Facilities

a. Schools

(1) Existing Environment

White Point is within the Los Angeles Unified School District, and is served by Point Fermin, Crestwood Street, White Point, and Park Western Elementary Schools, Dana Junior High School, and San Pedro High School. Table VI-6 shows existing enrollment at these schools, their size and capacity. School locations are shown on Figure VI-3.

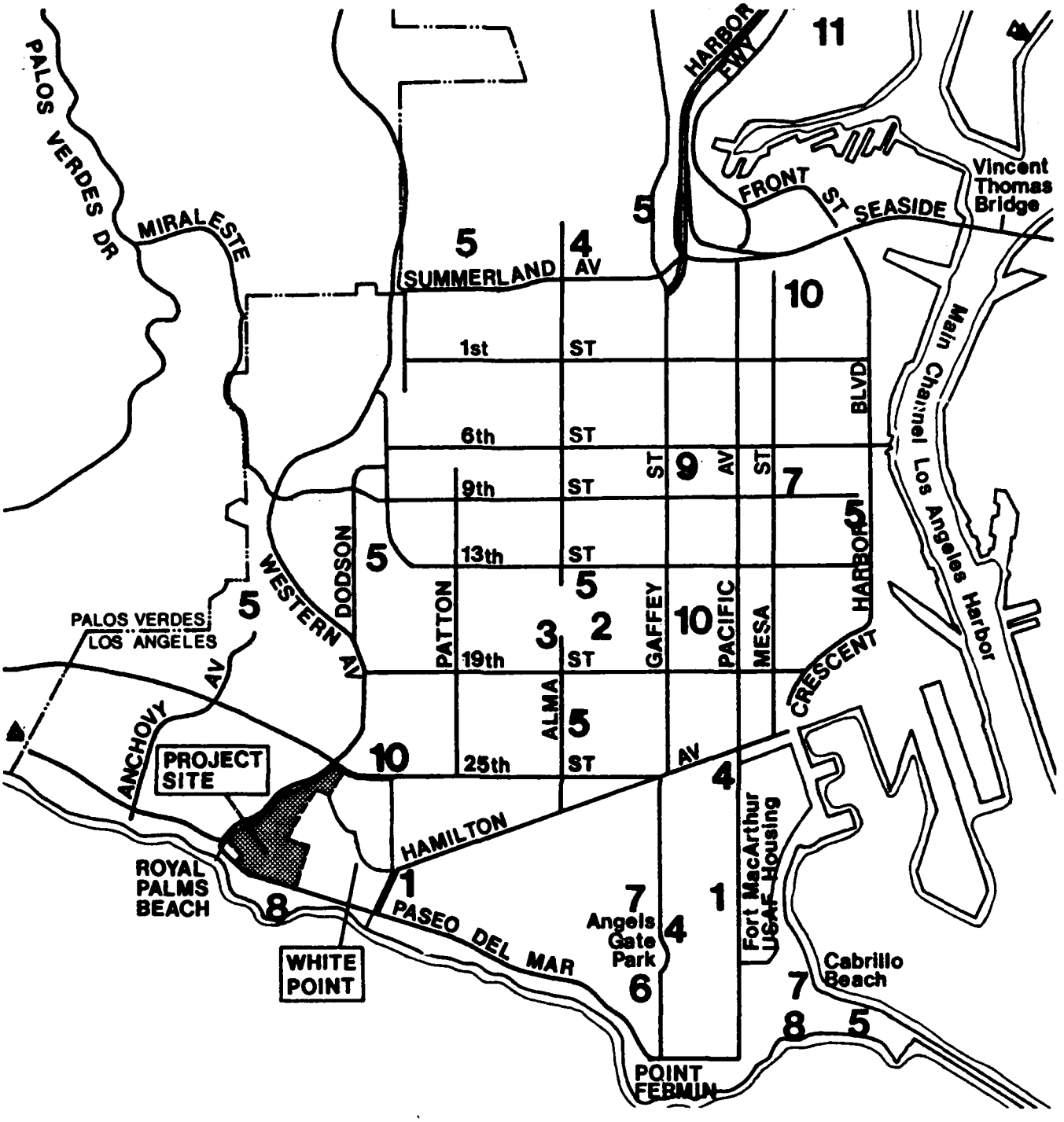
As Table VI-6 shows, none of these schools are currently operating at capacity. Although the Los Angeles Unified School District formerly made projections of future enrollment up to three years in advance, the District no longer makes these long-range projections. The District does, however, anticipate that there will be no capacity problems at either Dana Junior High School or San Pedro High School in the near future.

TABLE VI-6

PROFILE OF SCHOOLS
IN THE WHITE POINT ATTENDANCE AREA

Elementary	Oct. 1983 Enrollment	Total Capacity	Remaining Capacity
Point Fermin	400	427	27
Crestwood Street	277	409	132
White Point	318	513	195
Park Western	254	434	180
Total Elementary	1,249	1,783	534
Secondary			
Dana Point Jr. High	1,627	1,979	352
San Pedro High School	2,304	2,547	243

Source: Mr. Oscar Joiner, Los Angeles Unified School District, 3/26/84.



0 1 mile N

1 Elementary Schools
2 Junior High Schools
3 Senior High Schools
4 Neighborhood Parks
5 Community Parks
6 Regional Park
7 Specialized Facilities*
8 Beaches
9 Library
10 Fire Stations
11 Police

*These include the Cabrillo Beach Museum

USAF White Point Housing Environmental Analysis

Figure VI-3
COMMUNITY FACILITIES

SOURCE: Beland/Associates, Inc.

(2) Impact

Table VI-7 estimates the number and ages of school-age children expected from the proposed development. When compared to the general population, the development is expected to generate an unusually large percentage of high-school age children, and a relatively lower proportion of elementary and younger children. The project will house company and field rank officers, who are generally older than 35. It is anticipated that these older adults will have older children, resulting in relatively small numbers of primary school and younger children, and more secondary school age children.

TABLE VI-7

PROJECTED SCHOOL-AGE POPULATION

AGE/GRADE LEVEL	Children/ Unit	170-Unit Development # of Children
Children under 6 years	.20	34
Elementary (Grades K-6)	.25	43
Junior High (Grades 7-9)	.80	136
High School (Grades 10-12)	.62	106
Total	1.87	318

Source: Beland/Associates, Inc., S.D. Housing Office

A comparison of the data in the two preceding tables indicates that the present school system should be able to easily absorb the number of children generated by the project.

If all elementary school children attend White's Point School, the student population will rise from approximately 62 percent of capacity to 70 percent of capacity, while the Junior High School will increase from 82 percent to 89 percent of capacity, and the High School from 90 percent to 94 percent of capacity. The overall impact could be viewed as beneficial in helping provide for more efficient utilization of existing facilities. The influx of children from the Middle Reservation housing project kept at least one of the local

elementary schools from closing, thus preventing reassignment of some local children to schools outside of their neighborhood.

The federal government reimburses local school districts on a per capita basis for military dependents. The amount of money expended is based on the greater of either fifty percent of the state average per capita expenditure or fifty percent of the national average per capita expenditure. The national average, as reported by the Air Force, is currently $1,320 per child, while the State of California average for 1982-83 is reported at $1,295.05. The actual amount of money expended will depend on the actual number of children generated by the proposed project and the per capita figures at the time the project is occupied.

(3) Mitigation Measures.

None required.

b. Parks and Recreation

(1) Existing Environment

There are a wide variety of cultural/recreational facilities in the San Pedro area, including the Cabrillo Beach Marine Museum, San Pedro Maritime Museum in the renovated Ferry Terminal Building, Cabrillo Beach and Fishing Pier, Queen Mary, South Coast Botanical Gardens, Drum Barracks, Banning Mansion, Railroad Museum, Marineland, and Ports-O-Call Village. San Pedro and Wilmington also contain a variety of publicly maintained youth centers, parks and related facilities, a listing of which is presented on Table VI-8. Location of these facilities is shown on Figure VI-3.

Those portions of White Point south of Paseo del Mar are heavily used by the public. These include the bluff top overlooks, the Little League field, and especially the Royal Palms Beach. There is an access road from Paseo del Mar to the beach. No data on the number of persons using these areas were available. Observations made over several weekends and weekdays showed heavy use by both local residents and persons from outside the community. A number of persons were seen in the morning and evening walking and jogging along Paseo del Mar adjacent to the project site. Most of this pedestrian traffic is along the south side of Paseo del Mar.

(2) Impact

The project as currently designed includes a five- to seven-acre active recreation area, which would be available for public use. The proposed project would not impede existing public access to Royal Palms Beach, and would have no impact on the existing public garden and bluff area.

The California State Department of Parks and Recreation is currently considering the site for the development of a State Park. They have stated that construction of Air Force housing on a portion of the site could limit the development potential of a State Park at White Point (see Sections IV-F and V-13).

The San Pedro area has an excess of local park land. While the state has said that the development of the

of the White Point site for military housing would limit the desirability of the entire area for a State Park, it would not preclude park development on the remaining property. The Air Force has indicated that a five- to seven-acre portion of the site would be developed for active recreational uses, i.e., a track and athletic field area, which could be opened to the local community.

(c) Mitigation Measures

None required.

TABLE VI-8

EXISTING PARKS AND RECREATIONAL FACILITIES IN SAN PEDRO

FACILITY	ACRES	TYPE
Alma Park	2.25	Community Park
Anderson Memorial Senior Citizens Center	1.52	Specialized Facility
Angels Gate Park	64.58	Regional Park
Averill Park	10.56	Community Park
Cabrillo Beach/Park	55.00	Regional Park/Beach
Daniels Field Sports Center	3.60	Community Park
Harbor Highlands Park	5.40	Neighborhood Park
Harborview Memorial Park	2.84	Neighborhood Park
Leland Park & Recreation Center	14.69	Community Park
Lookout Point Park	1.42	Neighborhood Park
Peck Park & Recreation Center	74.70	Community Park
Point Fermin Park	37.31	Community Park/Beach
Rena Park	1.28	Neighborhood Park
Royal Palms Park	18.07	Beach
San Pedro Park & Recreation Center	13.57	Community Park
San Pedro Plaza Park	3.76	Community Park
White Point- Beach south of Royal Palms	19.50	Beach
Gaffey Street Swimming Pool	-----	Specialized Facility
Total Acreage	330.05	

Source: City of Los Angeles Department of Recreation and Parks.

c. Police Service

(1) Existing Environment

Police service at White Point is currently provided by the Los Angeles Police Department, Harbor Division. The City Police Department at the Harbor Division consists of approximately 187 sworn personnel, 29 civilian employees, and 56 vehicles.

Crime problems along the White Point and Royal Palms Beach area have been reported by local residents at public meetings as being a major concern. Crime statistics specific to this area were not available; however, the number and range of complaints indicate that a significant problem may exist. Concerns about crime center on gang-related activity; however, the police have stated that they have received few reports of criminal activity at Royal Palms Beach. Crime control by State Park Rangers, rather than City police and the County Sheriffs Office, has been expressed as a primary reason for developing the entire area as a State Park.

(2) Impact

Police protection for the proposed USAF housing project is expected to be provided in a manner similar to that currently in use at the Middle Reservation. This involves a contract between the Air Force and a civilian security service. When needed, the Los Angeles Police Department (LAPD) is on call to assist security personnel. This procedure is not significantly different from the relationship between the LAPD and civilian condominium developments employing private security services.

The LAPD has stated that population increases such as that resulting from the proposed development do not necessarily require additional police officers to provide adequate police protection (see Appendix J). With the use of on-site security guards, the impact of the proposed development on the police department is expected to be minimal. No additional equipment or manpower is expected to be necessary.

(3) Mitigation Measures

No mitigation measures appear necessary.

d. Fire Protection

(1) Existing Environment

Fire protection for White Point is currently provided by the City of Los Angeles Fire Department, Harbor Division.

There are three fire stations which can provide initial response to a call at White Point; these are:

- Fire Station 48 (Task Force)
  1601 South Grand Avenue, 3.0 miles from site;
- Fire Station 101 (Single-Engine Company)
  1414 25th Street, 0.4 miles from site; and
- Fire Station 53 (Single-Engine Company)
  438 North Mesa Street, 4.5 miles from site.

(2) Impact

Development of the proposed project will be governed by strict fire control standards, comparable with those used by the City of Los Angeles. These include fire flow of 4,500 gallons per minute, fire lanes of adequate width to accomodate ladder trucks, and adequate public fire hydrants. The actual determination of the number and placement of such features will be made during the development of the site plan.

It is expected that an agreement will be developed between the Fire Department and the Air Force, similar to the one involving the Middle Reservation. In the case of the Middle Reservation, there is an informal understanding that Fire Department vehicles will be given unrestricted access to the housing development.

(3) Mitigation Measures

No mitigation measures appear necessary.

e. Medical Facilities and Services

(1) Existing Environment

There are four general hospitals with a 567-bed capacity in the San Pedro area. The local community is served by approximately 82 physicians/surgeons, 38 dentists, ten optometrists, six chiropractors, four podiatrists and five veterinarians. There are a number of specialized health care facilities in the area, including the Harka Family Crisis Center, Harbor Health Center, Free Clinic, Red Cross and Harbor View House.

(2) Impact

The proposed project would house fewer than 700 people, and would not place an undue burden on existing medical facilities. Since the Department of Defense provides for medical services for both military members and their dependents, it is anticipated that any use of local facilities would be limited to emergencies and elective treatment.

(3) Mitigation Measures

No mitigation measures are needed.

6. Service Systems

Estimates of project-related utility consumption (i.e., electricity, natural gas, and water) and waste generation (i.e., sewage and solid waste) are presented on Table VI-9.

TABLE VI-9

Category		Utility Consumption/ Waste Generation
Utility Consump.	Electricity	1,204,800 KWH/Yr.
	Natural Gas	170,000 MCF/Month
	Water	82.025 GPD
Waste Generation	Sewage	42,500 GPD
	Solid Waste	1,326 Lbs./Day

Source: Beland/Associates, Inc., 4/84.

a. Water

(1) Existing Environment

Water is supplied to the San Pedro community by the City of Los Angeles Department of Water and Power. Average consumption for the San Pedro area is estimated at 38 million gallons of water per day, with a peak usage of approximately 57 million gallons per day.

At the present time, the only water being used at White Point is that used to water the half-acre community garden. No water is being used on the project site.

The following lines would supply water to the project site:

- 8" line in Western Avenue;
- 8" line in 25th Street.

[1] Assumes 90 three-bedroom and 80 four-bedroom housing units with a combined total of 251,000 gross square feet.

The Los Angeles Department of Water and Power also has two 5'6" x 10'4-1/2" water service vaults in 25th Street, roughly 360 feet and 1,020 feet east of the intersection of Western Avenue, on the south side of 25th Street.

Fire hydrants connect to the 8" DWP lines as follows:

Paseo Del Mar:

- 350 feet and 900 feet east of the intersection with Western Avenue, on north side.

Western Avenue:

- At intersection of Paseo Del Mar, on east side.

25th Street:

- 290 feet and 620 feet east of intersection of Western on north side;
- 570 feet east of Western on south side.

(2) Impact

Lines already in place, as detailed above, should be adequate to provide water to the proposed development. Data on the location and sizing of water lines serving individual housing units will not be available until site planning is completed.

The most important factor concerning water line siting is the need for adequate fire protection.

(3) Mitigation Measures

No mitigation measures appear necessary.

b. Sewer

(1) Existing Environment

Sewer services to San Pedro are provided by the City of Los Angeles Bureau of Sanitation, Department of Public Works, and Los Angeles County Sanitation District No. 2. Sewage is treated at the Terminal Island Plant, a primary treatment facility which accomodates peak flows in the order of ten million gallons per day with a capacity of 14 million gallons per day.

A 24" force main connects in Western Avenue to a lift station at the intersection of Western and Paseo Del Mar. The city also maintains an 8" vitrified clay pipe in 25th Street. No sewer lines are located in Paseo Del Mar south of the site.

(2) Impact

The location and sizing of on-site sewer lines necessary to serve the proposed project is not known at this time. As with water lines, it is possible that some existing mains and connections may be utilized. However, a determination of this cannot be made until site plans for the proposed housing units are prepared.

The proposed project is not expected to overburden existing sewer capacity.

(3) Mitigation Measures

No mitigation measures appear necessary.

c. Solid Waste

(1) Existing Environment

At the present time, the project site generates essentially no solid waste. Solid waste from the surrounding area is taken either to the privately operated B.K.K. Landfill in West Covina or to the Los Angeles County Sanitation District Puente Hills Landfill.

(2) Impact

The Air Force will provide refuse collection for the proposed development under contract with a private collection firm. Refuse from the area would be disposed of at either the B.K.K. Landfill in West Covina or the Los Angeles County Sanitation District Puente Hills Landfill. Either of the facilities is capable of handling the additional solid waste generated by the proposed project.

No adverse impacts associated with either the collection or disposal of solid waste is anticipated to result from development of the proposed project.

No hazardous wastes would be associated with any phase of the proposed project. There are no areas within the project site or surrounding area known to contain hazardous wastes.

(3) Mitigation Measures

No mitigation measures are required.

d. Natural Gas

(1) Existing Environment

The Southern California Gas Company maintains lines in the streets surrounding the site as follows:

- 4" line in 25th Street;
- 3" line in Paseo Del Mar.

(2) Impact

As with the water and sewer lines, the exact placement of the project's connections to existing natural gas mains in Paseo Del Mar and 25th Street cannot be determined at this time. It is not currently anticipated that the project will create an unacceptable burden on the gas supply system.

(3) Mitigation Measures

No mitigation measures are required.

e. Telephone Service

(1) Existing Environment

In addition to overhead lines along Western Avenue and Paseo Del Mar, telephone cables are located in 25th Street.

(2) Impact

The project should not adversely impact the existing telephone system, or require additional major infrastructure.

(3) Mitigation Measures

No mitigation measures are required.

f. Electricity

(1) Existing Environment

The Los Angeles Department of Public Works provides electric service to the White Point area and maintains a number of underground lines in Western Avenue and 25th Street.

(2) Impact

The project's projected demand for 1.2 million kilowatt hours per year should not require additional major infrastructure.

(3) Mitigation Measures

No mitigation measures are required.

g. Storm Drainage

(1) Existing Environment

A 48" reinforced concrete pipe storm drain extends roughly 200 feet north of the intersection of Western Avenue and Paseo Del Mar, leading to a catch basin on the west side of Western Avenue. This structure is designed to alleviate flooding of the intersection during heavy rains. A 30" CMP storm drain leads south onto White Point from 25th Street, roughly 440 feet from Western Avenue.

(2) Impact

The site's geology and topography may require on-site storm drainage. The paving of large areas for streets and other construction impacts will reduce percolation and increase runoff during periods of heavy rains. This increased storm runoff could adversely affect the already unstable geology along the cliff face south of Paseo Del Mar, and may require development of off-site storm drains. This will depend on finalized grading and development siting plans.

No impact on local water tables is anticipated since water percolated into the site is rapidly transferred to the sea along horizontal rock bedding planes.

(3) Mitigation Measures

Site plan design is proposed to include features to accomodate anticipated runoff and prevent erosion, both on and off the site. This may entail improvements to storm water control facilities south of Paseo Del Mar, depending on building layout and street design.

The design of storm drain and runoff control facilities will also take into consideration the potential effects of silt on tidal and offshore marine life.

7. Circulation/Transportation

A comprehensive review and evaluation of traffic factors related to the proposed project was prepared by Weston Pringle and Associates, Traffic and Transportation Consultants. This report is included in its entirety as Appendix K. The information presented in this section has been abstracted from that report.

a. Existing Environment

Western Avenue is a two-lane facility adjacent to the western border of the site with a steep grade from Paseo del Mar to 25th Street. There is limited direct access to Western Avenue in this section due to topography. Northerly of 25th Street, Western Avenue is a major arterial with two lanes in each direction, a median, signalized intersection and limited direct access. Daily traffic volumes on Western Avenue at 25th Street were 16,400 and at Paseo del Mar the daily volume dropped to approximately 5,000 in 1983 City of Los Angeles counts.

The northern boundary of the site is 25th Street. This street provides four lanes of travel plus turning lanes near the site. To the east, the street is reduced to a two-lane road. Current daily traffic on 25th Street at Western Avenue is 12,700 vehicles. At the east site boundary on 25th Street an access road to the adjacent Navy housing is provided.

Paseo del Mar is a four-lane facility on the southerly boundary of the site. This street provides access to beach and other recreational and coastal activities as well as residential areas. The 1983 daily traffic on Paseo del Mar was approximately 2,500 vehicles.

The intersection of Western Avenue and 25th Street is signalized and provides the best measure of existing traffic conditions in the area. AM and PM peak hour traffic counts were conducted by Pringle and Associates to provide a basis for the study found in Appendix . These count data were then utilized to complete Intersection Capacity Utilization (ICU) analyses. Analyses indicate an AM peak hour ICU value of 0.51 which is Level of Service A and a PM peak hour ICU value of 0.62 which is Level of Service B. On this basis, existing traffic conditions are at an acceptable Level of Service.

b. Impact

(1) Trip Generation

In order to examine the potential traffic impacts of the project, it is necessary to estimate the number of trips that would be generated. Trip generation rates and the estimated project trips based upon 170 dwelling units are listed in Table II-1. A daily trip generation of 1,700 trip ends with 130 occurring during the AM peak hour and 170 occurring during the PM peak hour is estimated for the project.

The trip generation estimates in Table VI-10 are for average single family residential developments. Since the proposed project is specifically for field grade and senior grade officers, all will be employed at the same location. In addition, on-site recreation is provided and other provisions unique to military housing apply. Current data for the Air Force housing at the Fort MacArthur Middle Reservation indicates that 75 percent car pool, 10 percent use the bus, and 15 percent drive. Due to the characteristics of this project, it has been assumed that 85 percent would car pool and 15 percent would drive. Utilizing this estimate, the trip generation estimates were adjusted as indicated in TableVI-11. The adjusted totals in Table VI-11 were utilized for the analyses in the traffic report.

TABLE VI-10

Trip Generation
White Point Air Force Housing

PERIOD	RATE(1)	TRIP ENDS
Daily	10.0	1700
AM Peak Hour		
In	0.21	35
Out	0.55	95
PM Peak Hour		
In	0.63	105
Out	0.37	65

(1) Trip ends per dwelling (Source: ITE "Trip Generation").

(2) Based upon 170 dwelling units.

Source: Weston Pringle and Associates, Inc., June 1984.

(2) Trip Distribution and Assignment

Due to the location of the site and the single work location of all residents, the project trip distribution pattern can be readily defined. All work trips will be to the Los Angeles Air Force Station in El Segundo. It has been assumed that these trips would utilize the Harbor and San Diego Freeways. Other trips, including shopping, recreation, medical, would also be oriented to the north and east of the site. A negligible number would be oriented to the west.

Based upon the general trip distribution factors and local street conditions, it was assumed that a majority of the trips would utilize Western Avenue- 1st Street- Gaffey Street to reach the freeway system. A minimal number would also utilize 9th and 25th Streets to reach Gaffey Street and the freeway.

It has been assumed that access to the project would be on Paseo Del Mar and that all trips would utilize Western Avenue southerly of 25th Street. With this assumption and the distribution (shown in Appendix K , Figure 1), AM and PM project trips were assigned to the Western Avenue/25th Street intersection. This assignment is included at the conclusion of Appendix K.

TABLE VI-11

Trip Generation Adjustment
White Point Air Force Housing

PERIOD	TRIP ENDS			
	Theoretical	Car Pool	Single Occupant	Adjusted Total
Daily	1700	720	260	980
AM Peak Hour	35	15	5	20
In	35	15	5	20
Out	95	40	15	55
PM Peak Hour				
In	105	45	15	60
Out	65	30	10	40

Source: Weston Pringle and Associates, Inc., June 1984.

(3) Analysis

In order to examine the ability of the street system to accomodate the project traffic, the projected project trips were combined with existing trips to simulate future conditions. ICU analyses were completed for the Western Avenue/25th Street intersection with the project traffic. These analyses are contained in Appendix K and summarized in Table VI-12. As indicated in Table VI-12, the Level of Service is unchanged by the addition of project traffic and the ICU value is increased by 0.01 during the AM peak hour and 0.02 during the PM peak hour.

TABLE VI-12

ICU Summary- Western/25th
White Point Air Force Housing

PERIOD	EXISTING		PROJECT	
	ICU	LOS	ICU	LOS
AM Peak Hour	0.51	A	0.52	A
PM Peak Hour	0.62	B	0.64	B

Source: Weston Pringle and Associates, Inc., June 1984.

Detailed analyses were not completed for other locations in the area; however, review of Figure indicates that traffic increases on the street system are minimal and would not be expected to result in operational or safety impacts. Most of the projected increases are within the accuracies of the traffic counting and analysis procedures.

Since a site plan is not available, access and on-site traffic circulation provisions could not be analyzed. As stated previously, it was assumed that vehicular access would be on Paseo Del Mar. It is recommended that this access be located to align with the current access to the Royal Palms Beach. If this is not possible, the access should be a minimum of 300 feet from the beach access intersection. It is also recommended that provisions for emergency vehicle access be provided from 25th Street in conjunction with the existing Navy housing access. The would eliminate the long cul-de-sac condition resulting from a single access on Paseo Del Mar.

c. Mitigation Measures

The Weston Pringle and Associates Traffic Analysis, see Appendix K , states no significant adverse impact on local or regional traffic conditions are anticipated. Recommendations contained in the Traffic Report's analysis section indicate that by following standard traffic engineering design practices, as well as incorporating the following features into the project design, specific traffic related mitigation measures are required.

- Due to the single employment location of the residents, car pooling should be encouraged.
- Vehicular access to the site should be on Paseo Del Mar and aligned with the beach access or offset a minimum of 300 feet.
- Emergency vehicle access should be provided from 25th Street via the existing Navy housing access.

8. Historic/Archaeologic

a. Historic

Consideration of historic factors is included in the Cultural Resources Survey prepared by ACT, Inc. for this study and included in Appendix I.

(1) Existing Environment

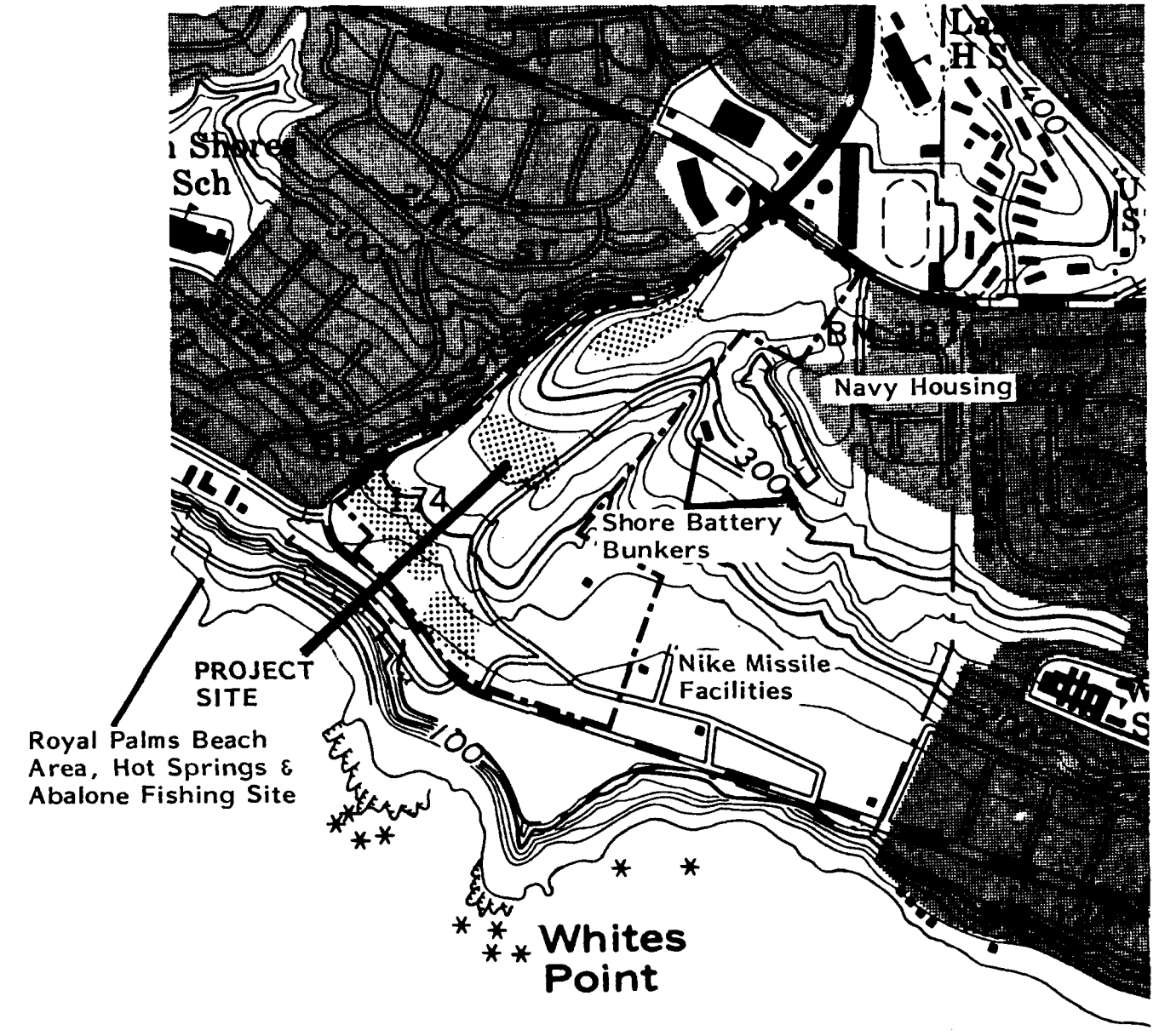
The only feature of possible historic interest on the project site itself is the site of a house which belonged to the family of Mr. Richard Wolf of San Pedro. The house was apparently constructed in the late 19th century and torn down sometime before World War II. It is reported to have been a small wood frame farmhouse. This structure was constructed directly on top of an archaeologic site (see Archaeologic Site Survey Record No. 6 in Appendix I; this archaeologic site is also recorded as LAn-152, UCLA Archaeological Survey). The site of the Wolf family home does not appear to be of sufficient historic interest to warrant additional investigation.

Several portions of White Point adjacent to the project site are of considerable historic interest. During World War II, the Army coast artillery occupied part of White Point. Two seacoast armament batteries for 16-inch rifles were built at White Point. After World War II, the seacoast guns were removed. However, the two massive bunkers remain.

In 1953-54, the Nike Air Defense Program established a missile launching facility at White Point. This facility was phased out in February of 1974. Portions of the abandoned launching structures and support buildings remain in the southern portion of White Point north of Paseo del Mar.

Seven wood-frame structures constructed by the Army during World War II located adjacent the Western Avenue/25th Street intersection were demolished several years ago.

The area south of Paseo Del Mar outside of the project site contains several features and sites of local historic interest. These include the site of White Point Village, an abalone industry locale operated by the Japanese in the 1880s, which was later the location of a hotel and



0 1000' NΔ

USAF White Point Housing Environmental Analysis

CONCENTRATIONS OF ARCHAEOLOGIC MATERIAL

Figure VI-4
HISTORIC AND ARCHAEOLOGIC SITES

SOURCE: USGS 7.5' Quadrangle, San Pedro, Los Angeles Co., California, 1964 rev. 1972 Beland/Associates, Inc., April 1984

hot springs. This site has been recommended by the San Pedro Historical Society for inclusion on the National Register of Historic Places. The hotel closed in the mid-1930s after the 1933 Long Beach earthquake sealed off the main sulfur-water spring.

(2) Impact

The proposed project is not expected to have an impact on any features of historic interest.

(3) Mitigation Measures

No mitigation measures appear necessary.

b. Archaeology

An archaeological survey of the project site was prepared by ACT, Inc. as part of a Cultural Resources Survey and is included in its entirety in Appendix I. This survey contains an overview of local prehistoric and historic Indian culture as well as presenting the findings of a comprehensive walkover survey of the project site. This survey includes consideration of a previous archaeological survey which covered the southern portion of the project site. This prior study was prepared by Dr. Hal Eberhart, Professor of Anthropology at California State University Long Beach in December, 1974. It is also included in Appendix I. A description of the findings and recommendations of the ACT, Inc. survey follows.

(1) Existing Environment

As would be expected from the historical background, the area has been disturbed by the construction of a variety of structures such as bunkers, support buildings, access roads and continual ground maintenance (i.e., mowing and disking for weed control and fire protection). A community garden is located southeast of the project area and may have had an adverse impact to archaeological deposits in the immediate area. Certain areas retain some semblance of the original environment and topography.

The field survey reveals that there are no clear boundaries between the deposits of artifacts. The evidence indicates that the entire project area and other undeveloped lands at White Point should be considered as a single site, an associated general use area. Concentrations of material do occur but can be best described as loci within a larger area. A map showing concentration of archaeologic material is presented as Figure VI-4.

No subsurface testing was conducted during this phase of fieldwork, but natural erosion from the terraces and drainages on the site suggest that there may be sub-surface components in some areas.

(2) Impact

Based upon archaeological survey and mapping, it is clear that the project area contains cultural material. Although some segregated loci are tentatively identified by patterns of distribution, the actual areas are difficult to draw. This is due in part to differential vegetational cover (ground visibility) and recent - historic surface disturbance.

Since the actual nature of the archaeologic deposits is not clearly understood, it is not possible to determine the significance of the project's impact on the cultural material. Cultural resource

procedures require a determination as to whether or not the site(s) are eligible for inclusion on the National Register of Historic Places. If the area is found to be eligible for inclusion on the National Register, a plan would be developed to mitigate adverse effects potentially resulting from a federally funded undertaking. The Air Force will work directly with the California Office of Historic Preservation and the Advisory Council on Historic Preservation and the to determine the significance of cultural resources in the project area and, if necessary, identify mitigation alternatives.

(3) Mitigation Measures

The United States Air Force Space Division is currently in the process of coordinating efforts with the California State Office of Historic Preservation (SHPO), (see Appendix I). This is being done to determine the next step in defining the archaeologic significance of the project site.

PAGES VI-56 THROUGH VI-57

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9. Visual

a. Existing Environment

The aesthetic and scenic view considerations relative to the proposed project relate to several specific considerations; these include: how the proposed development will affect scenic views from adjacent housing; how the proposed development will appear from surrounding areas; and will views from the project site be irrevocably lost through housing development rather than development of White Point as a public park.

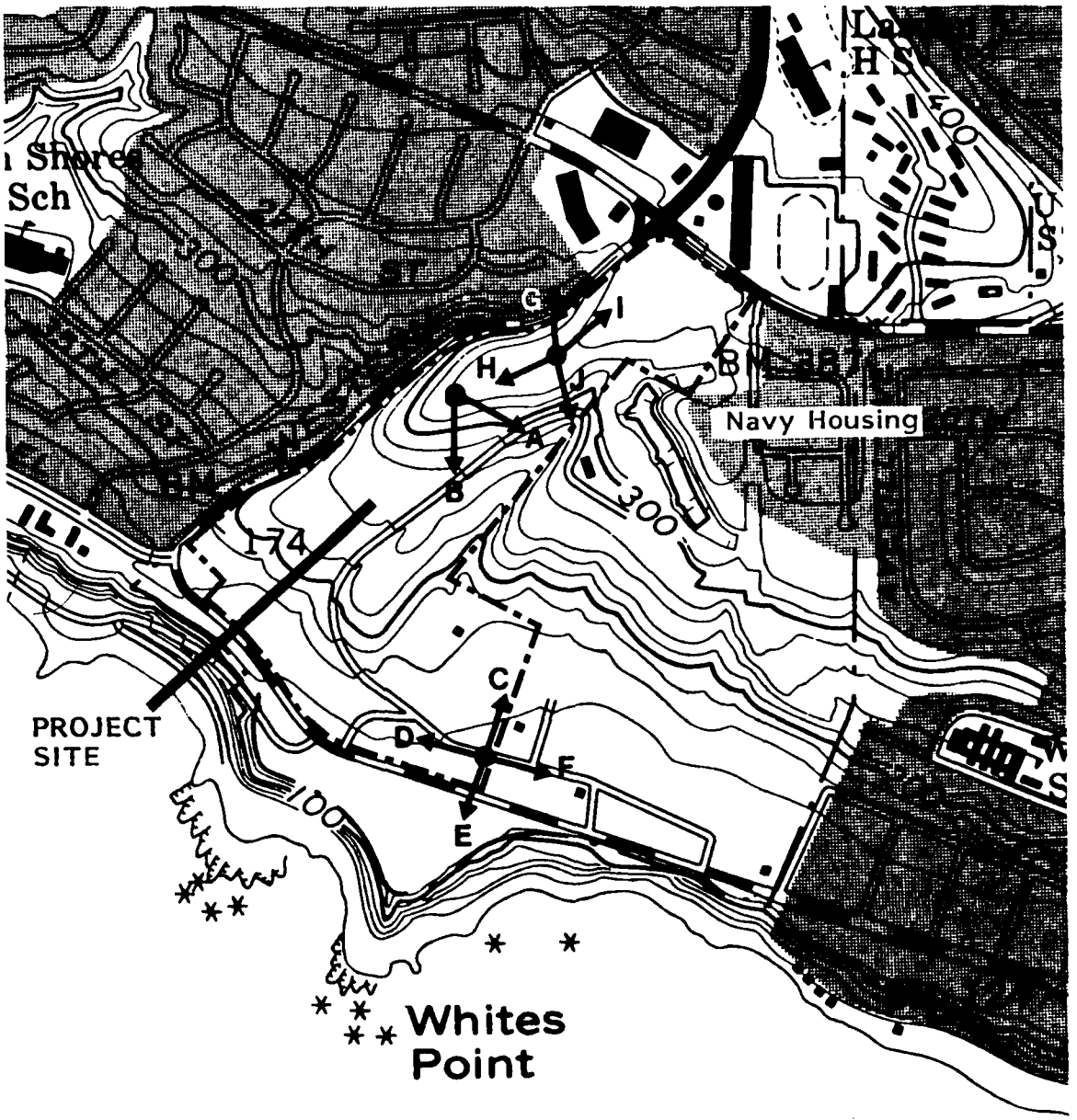
A series of photographs showing views both from and of the project site are found on Figures VI-5 through VI-10. A key map showing the location and direction of each photograph is presented on Figure VI-5 preceeding the photographs. Elevation profiles of the site and adjacent areas are presented on Figures VI-11 through VI-16.

It can be seen from Figures VI-6 through VI-10 that excellent views of the ocean, and on clear days, Catalina Island, can be obtained from many locales on the project site. These views have never been available to the general public because of the military activities on White Point and the lack of public access over the last seven years. Other portions of White Point also provide superb views of the sea, see Figures VI-6 and VI-10.

Figure VI-9 and the elevation profiles (Figures VI-11 to VI-16) show that there are few, if any, views of the ocean as seen from nearby residences looking across the project site. Such views are precluded by the site's topography.

b. Impact

The actual visual impact of the proposed project cannot be determined until the site plan and building elevations are completed. However, the photographs on the following pages indicate a number of factors affecting the project's impact. It does not appear that any ocean views from adjacent residences will be blocked, or views from areas which the public has access to, altered. The principal visual impact will be of the project itself. The overall impact is likely to be dramatic, since the project site has essentially always been vacant open space. Development of a housing project, regardless of the placement of buildings and scale, will undoubtedly be seen negatively by some persons who have always known the site as open space. The proposed project would not be substantially different in scale, building height, and land use density from the single family residential area to the north, east, and west.

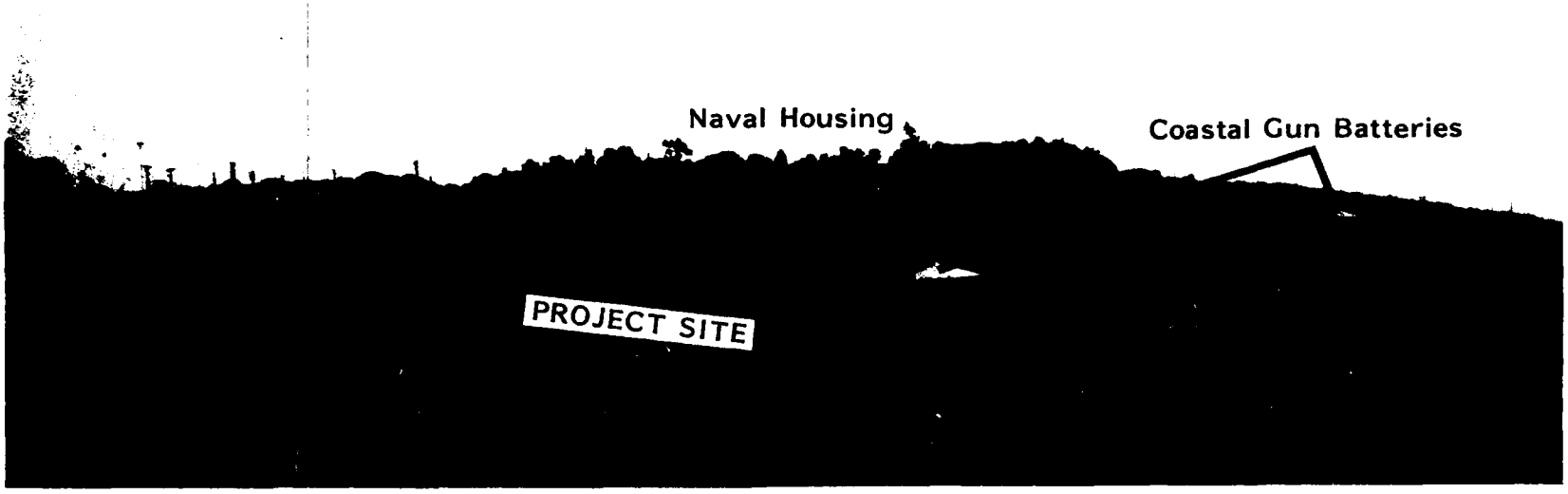


USAF White Point Housing Environmental Analysis

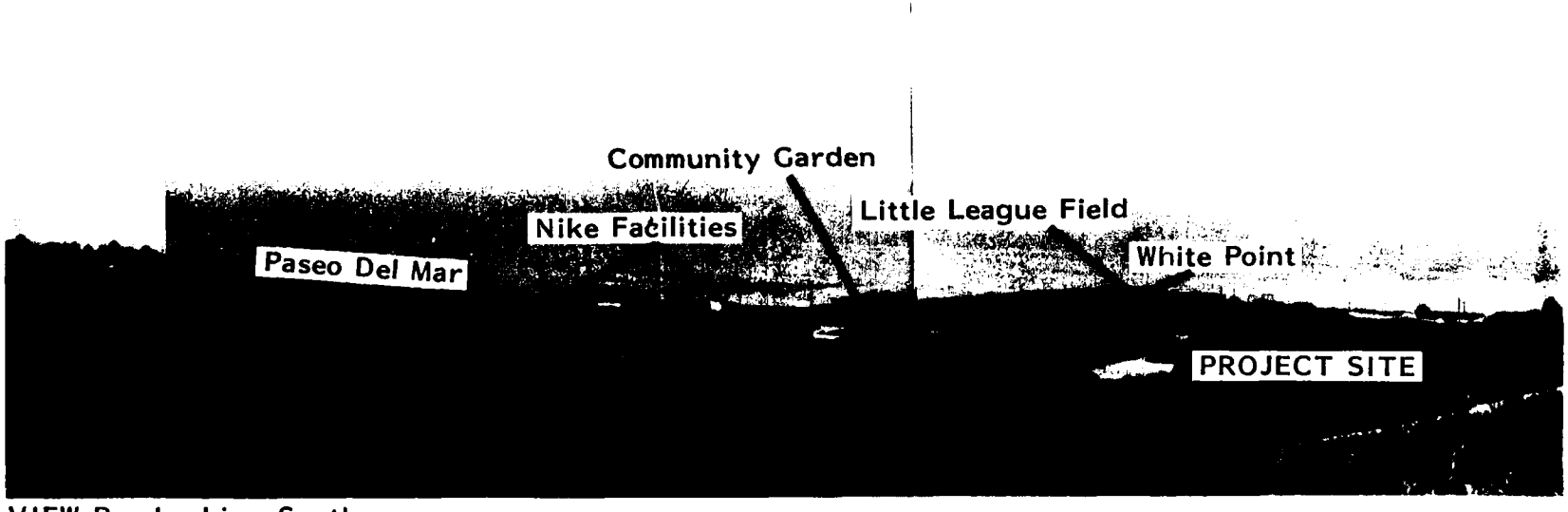
Views A & B - Figure VI-6
Views C & D - Figure VI-7
Views E & F - Figure VI-8
Views G & H - Figure VI-9
Views I & J - Figure VI-10

Figure VI-5
PHOTOGRAPH LOCATION KEY MAP

SOURCE: USGS 7.5' Quadrangle, San Pedro, Los Angeles Co., California, 1964 rev. 1972



VIEW A - Looking Northeast



VIEW B - Looking South

Figure VI-6
PROJECT SITE PHOTOGRAPHS

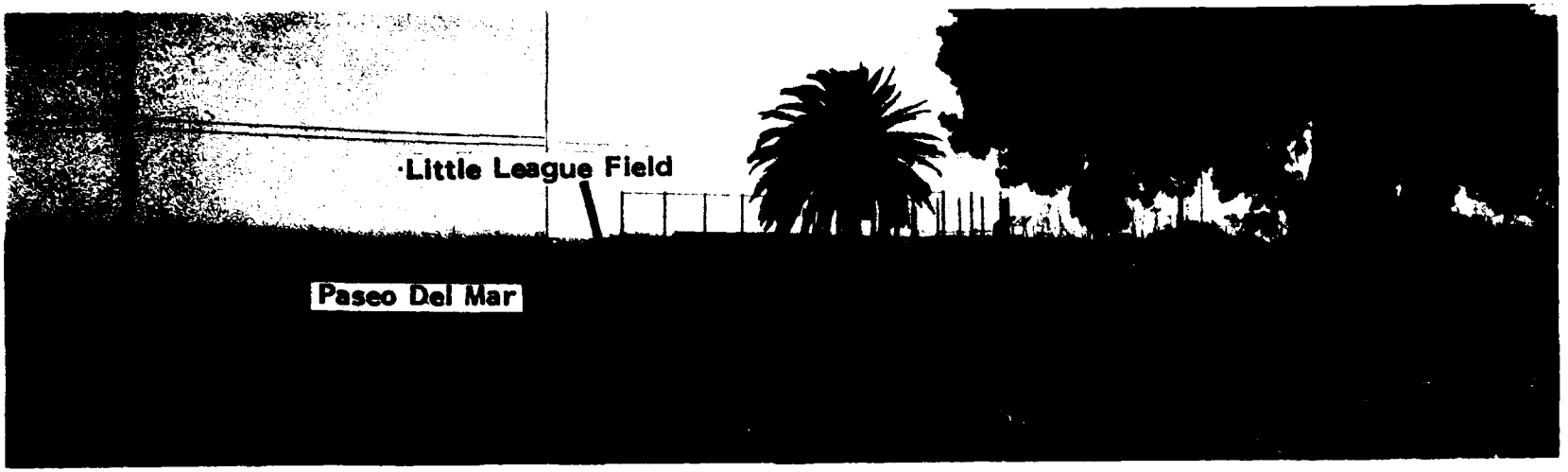
SOURCE: Beland/Associates, Inc., April 1984

VIEW C - Looking North

VIEW D - Looking West

Figure VI-7
PROJECT SITE PHOTOGRAPHS

SOURCE: Beland/Associates, Inc., April 1984



VIEW E - Looking South

VIEW F - Looking Northeast

Figure VI-8
PROJECT SITE PHOTOGRAPHS

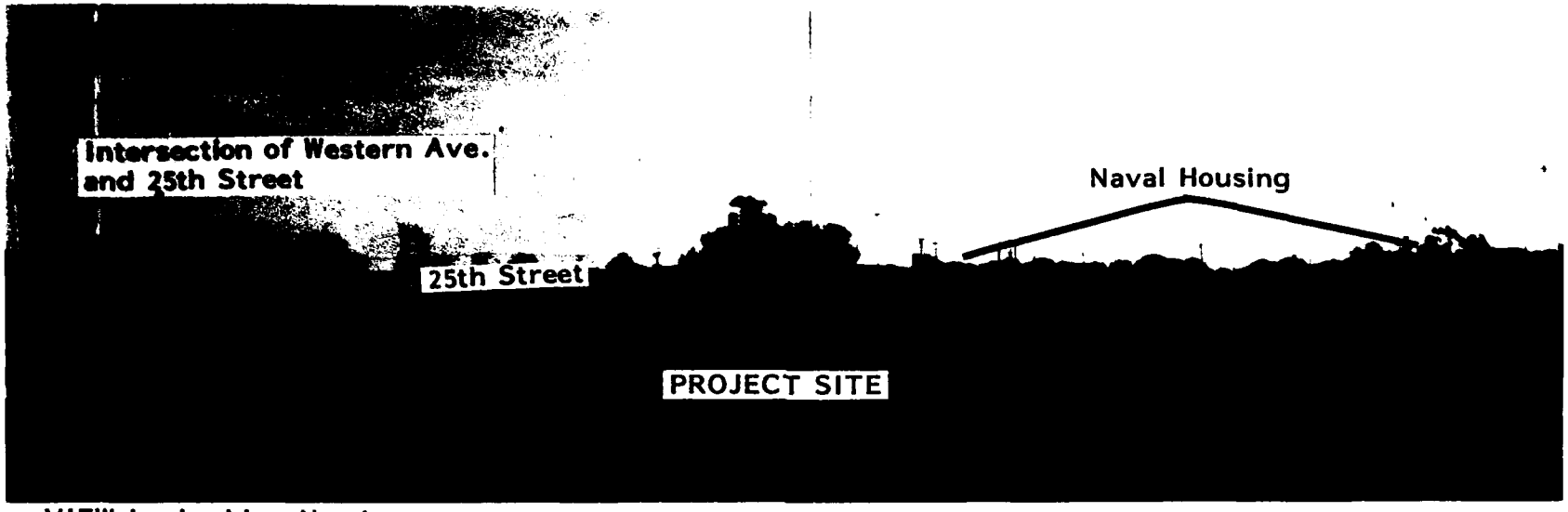
SOURCE: Beland/Associates, Inc., April 1984

VIEW G - Looking West

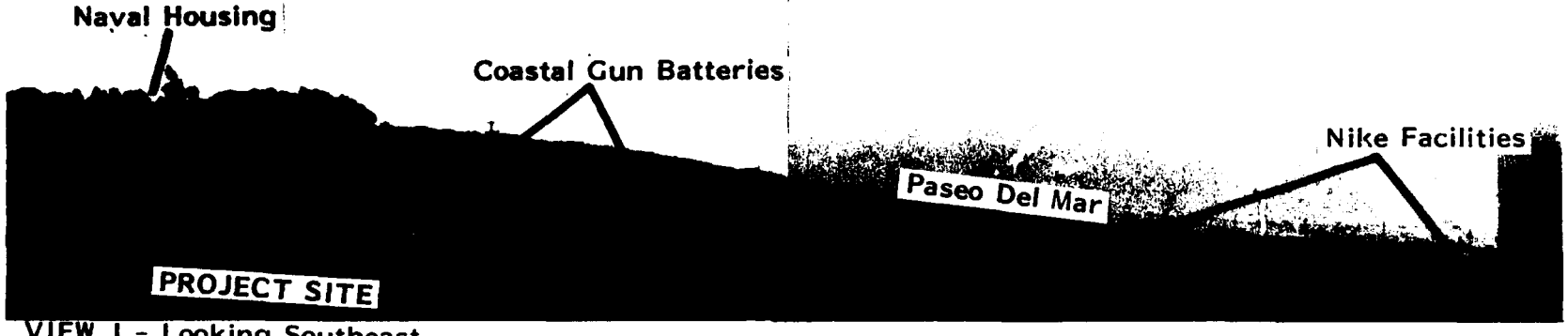
VIEW H - Looking Southwest

Figure VI-9
PROJECT SITE PHOTOGRAPHS

SOURCE: Beland/Associates, Inc., April 1984



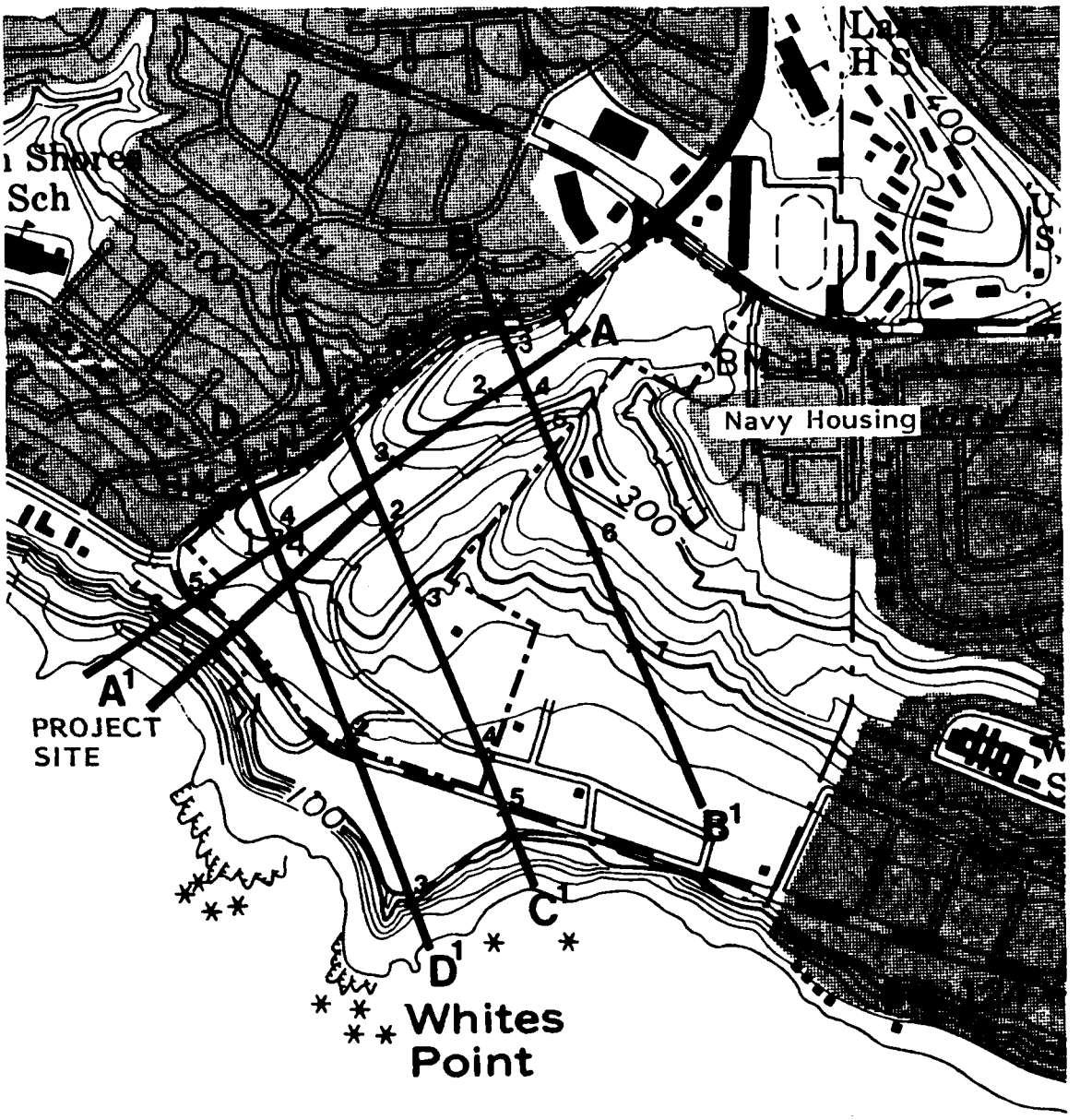
VIEW I - Looking North



VIEW J - Looking Southeast

Figure VI-10
PROJECT SITE PHOTOGRAPHS

SOURCE: Beland/Associates, Inc., April 1984



USAF White Point Housing Environmental Analysis

Figure VI-11
PROFILE KEY MAP

SOURCE: USGS 7.5' Quadrangle, San Pedro, Los Angeles Co. California, 1964 rev. 1972

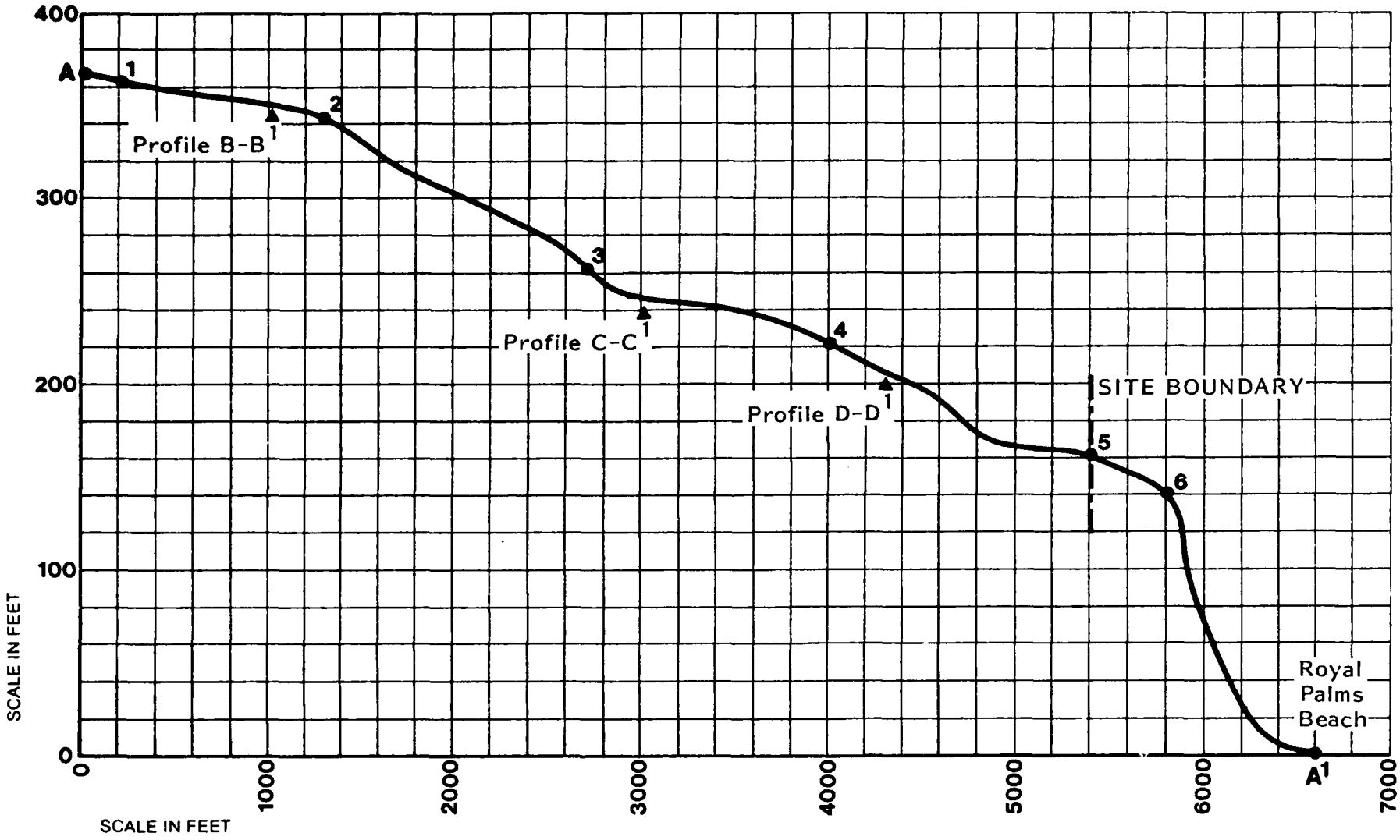


Figure VI-12

WHITE POINT AIR FORCE HOUSING SITE PROFILE A-A1

Note: See Figure VI-11 for Location Key

Source: Beland/Associates, Inc., 5/84

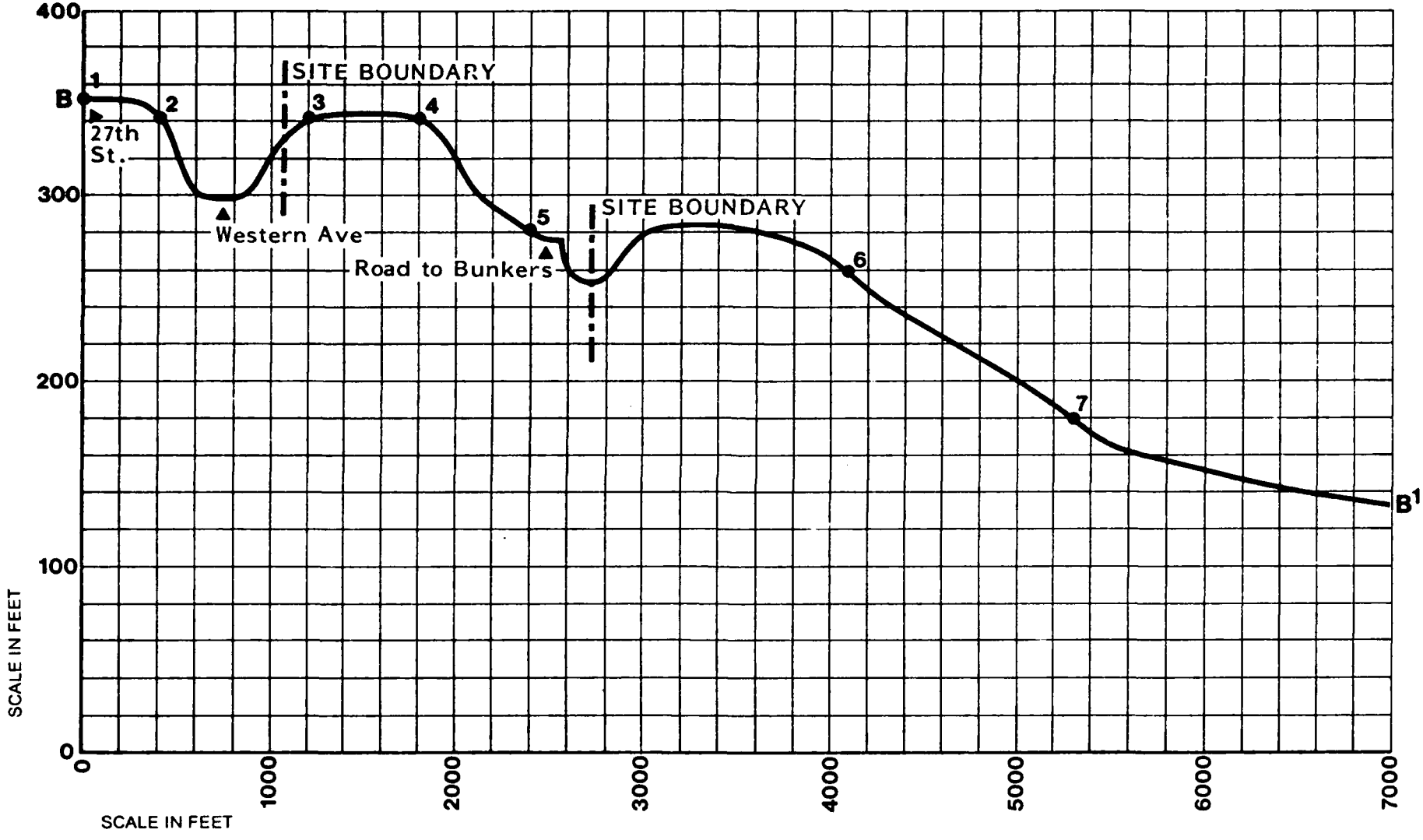


Figure VI-13

WHITE POINT AIR FORCE HOUSING SITE PROFILE B-B[1]

Note: See Figure VI-11 for Location Key

Source: Beland/Associates, Inc., 5/84

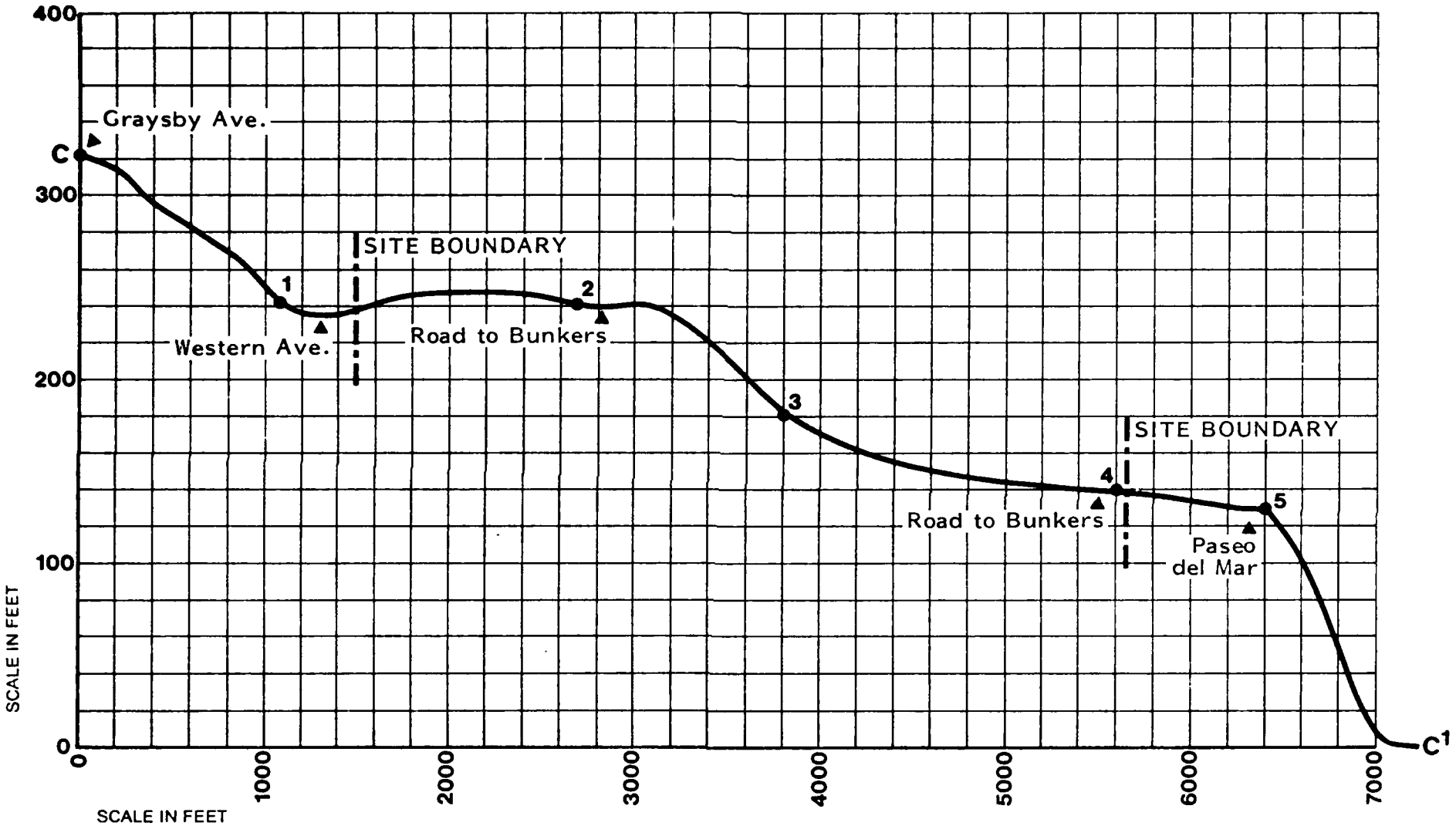


Figure VI-14

WHITE POINT AIR FORCE HOUSING SITE PROFILE C-C[1]

Note: See Figure VI-11 for Location Key

Source: Beland/Associates, Inc., 5/84

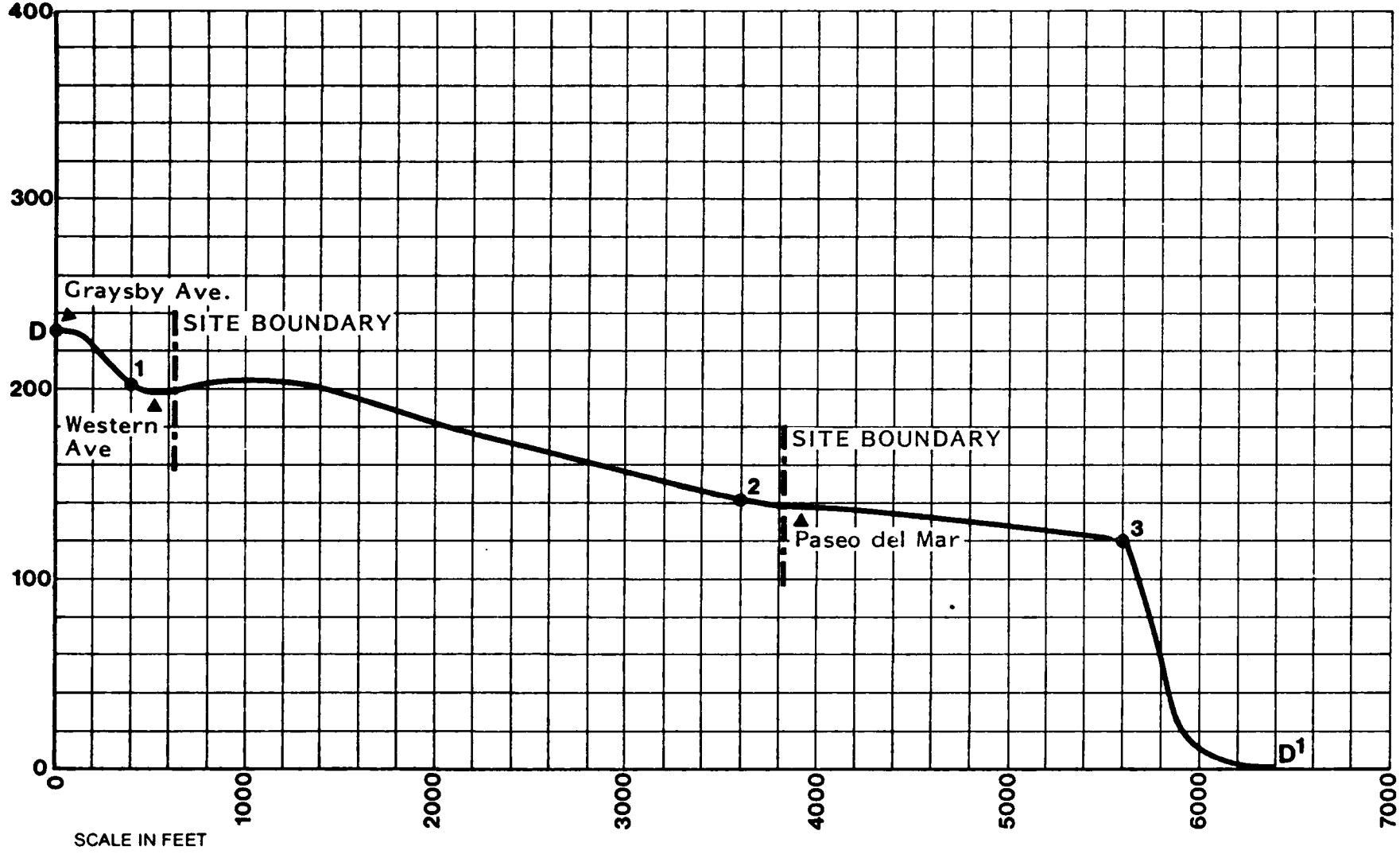


Figure VI-15

WHITE POINT AIR FORCE HOUSING SITE PROFILE D-D[1]

Note: See Figure VI-11 for Location Key

Source: Beland/Associates, Inc., 5/84

Glare from streetlights and other lights within the project should be minimal and no more adverse than in surrounding residential neighborhoods.

The general scale of the project as currently proposed, i.e., single-story detached residences, is in keeping with the nature of surrounding neighborhoods.

c. Mitigation Measures.

None required.

10. Energy

a. Existing Environment

In recent years it has become increasingly apparent that adequate energy supplies, and the general ecomonic stability of the country, depend largely on the efficient use of energy. As a result, conservation of natural energy resources is a high priority.

b. Impact

Because site plans and building designs for the proposed project have not yet been prepared, it is not possible to assess in detail the project's energy efficiency. This fact can prove to be of benefit in that it will allow incorporation of energy-efficient measures, where feasible, during initial design phases.

There are three major factors which influence the amount of energy buildings consume:

- Construction, including site orientation, building materials, ceilings, windows, walls, etc.;
- Equipment use, such as heating and cooling, water heating, clothes drying, lighting, etc.;
- Energy consumption , habitats of building occupants.

c. Mitigation Measures

Measures to reduce energy consumption which will be included in the proposed project can be divided into several categories:

- Energy-efficient construction, including attic and wall insulation, and reduced glass areas;
- Energy-efficient electrical equipment, such as fluorescent lighting fixtures; and
- Energy-efficient gas equipment, including pilotless ranges, energy-efficient water heaters, and thermostate with setback capability.

Current Air Force energy conservation programs for government housing will be aggressively implemented. Since the Air Force will pay utility bills for the proposed project, there may be less of an incentive for housing residents to conserve energy than if the residents themselves paid this cost.

The recently constructed Air Force housing units at the Fort MacArthur Middle Reservation have been constructed to R-19 insulation standards and take advantage of a passive solar orientation. This will also be the case for the current project.

APPENDIX A

ENVIRONMENTAL WORKSHOP NOTES, SPEAKERS

Beland/Associates, Inc.
April 11, 1984

AGENDA- USAF PROPOSED WHITE POINT HOUSING PROJECT WORKSHOP

Cabrillo Beach Museum Auditorium, San Pedro, CA

I. INTRODUCTION- R. Dale Beland, AIA, AICP, BelandAssociates, Inc.

7:00-7:10
- A. Purpose of the Workshop
- B. Proposed Action by USAF-HQ Space Division
- C. Relationship to previous Environmental Analysis

II. INITIAL DETERMINATION OF AREAS OF ENVIRONMENTAL CONCERN TO BE ASSESSED- Paul R. Secord, Beland/Associates, Inc.

7:10-7:30

A. Physical Environment
1. Topography/Geology
2. Seismology
3. Paleontology
4. Flora and Fauna
5. Air Quality and Climate
6. Noise

B. Man-Made Environment
1. Existing Land Use
2. Population
3. Housing
4. Employment/Economy
5. Public Facilities
6. Service Systems
7. Circulation/Transportation
8. Historic/Archaeologic
9. Visual

C. Relationship of the Proposed Project to Land Use Plans, Policies, and Programs

1. Previous Air Force and Department of Defense Housing Proposals
2. City of Los Angeles Fort MacArthur Planning Program, 1975
3. Transfer of White Point from the Federal Government
4. State Park Plans for White Point
5. San Pedro Community Plan
6. Zoning
7. San Pedro Specific Plan for the City of Los Angeles Local Coastal Program

D. Relationship of the Proposed Project to the State Coastal Act

III. COMMENTS FROM THE PUBLIC PERTAINING TO AREAS OF ENVIRONMENTAL CONCERN WHICH SHOULD BE ASSESSED
(Note: All those wishing to speak should submit a speaker's card.)
7:30-8:30

IV. ADJOURNMENT- R. Dale Beland, AIA, AICP
8:30

SPEAKER'S CARD
USAF PROPOSED WHITE POINT HOUSING PROJECT WORKSHOP- 4/11/84

Cabrillo Beach Museum Auditorium, San Pedro, CA

PLEASE FILL OUT AND SUBMIT THIS CARD IF YOU WISH TO SPEAK

So that everyone who wishes to comment can have an opportunity to be heard and have their concerns addressed during the environmental analysis process, we ask that you fill out and submit this speaker's card. Please restrict your comments to specific areas of concern which you feel need to be considered in the environmental analysis. Thank you.
Beland/Associates, Inc.

Name: _____

Address: _____

Representing: _____

Comment: _____

_____

_____

_____

_____

C113.8
USAF- White Point

Transcription of comments from "speakers' cards"; USAF Proposed White Point Housing Project Workshop, 4/11/84. Sections of the report which address specific comments are given in the margin.

I-C; VI-B-3 and 4.

Robert Goldstone
4050 Bluff Place, P. O. Box 225
Representing himself.
"No more military housing in this location."
Wanted details of Space Division's housing allowance.

IV-F; V; VI-1 and 9.

Alfred Sattler
835 W. 29th Place
San Pedro 90731
Representing himself.
"Removal of open space from community. Conflict with State Park proposal. Removal of recreation opportunities from community and State of California in general."

I-C; VI-1.

Dr. Penny Richardson
1801 Grenadier Drive
San Pedro 90732
Representing herself.
"Am against any housing on this irreplacable piece of coastal property."

IV-F; VI-1 and 9.

Jerry Gaines
2101 West 37th Street
San Pedro 90732
Representing South Shores Homeowners Association.
"1) Support open space recreation use of subject property. Rare coastal area; 2) How high are building structures to be built (1-story vs. 2-story)? Visual."

IV-F.

Dr. Hugh Pendleton
38 Silver Spring Drive
Rolling Hills Estates
Representing himself.
"The entire White Point area should be preserved for recreational use by all Californians and Americans. I am against development for (sic) any housing there."
Supports State Park plan.

III-A and B.

Stan Kieniarz
3565 Starline Drive
Representing himself.
"ALTERNATE AREAS should be considered."
Mayor's advisory council member??? Alternate sites: Los Alamitos; Western and Montgomery Drive; PVD- North/Navy; Terminal Island.

III-A and B.

Roger Groth
2549 Dolphin Avenue
San Pedro 90731
Representing: All the golfers who can't get an early starting time. "Would have liked to have an 18-hole regulation course but would settle for an 18-hole pitch and putt with a jogging track around it." Supports military housing.

VI-1 through 6.

E. A. Reilly
3602 S. Walker Avenue
San Pedro 90731
Representing herself. (Current VP Palisades Association of San Pedro.) "Economic obligation in supportive: School district; fire district; public services (infrastructure); how much dollar support per unit constructed does or will USAF pay annually to local government?"

Donna DiRocco
1325 Park Western Drive, #12
San Pedro 90732
No written comments; represents S. P. Homeowners Coalition; desires area to remain as open space.

John Kopczak
1700 Perch Street
Representing himself.
No written comments; felt meeting was rigged; supports military housing; anti-parks - tree impact on view.

IV-B, C, V, G, H, and I; V.

Noah F. Modisett
1700 Cumbre Drive
San Pedro 90732
Representing San Pedro Peninsula Homeowners Coalition (President).
No written comments. (8,000 homeowners through 12 owners' associations.)
Believes plan is a violation of community plan and zoning.

Goldie Otters
3811 Bluff Pl.
Pt. Fermin Resident's Association.
No written comments. Stated meeting conflicted with Historic Society Meeting.

IV-I; V.

Gregg Smith
3915 Carolina Street
Representing himself. (Also Warren Shiahan.)
No written comments. Recap of prior process, et. al. "No responsibility for solving military housing in San Pedro for 861st time. The only public hearing was for the consistency finding which was held in Monterey."

III; VI-1, 2, and 3.

Mary Belle Moore
526 W. 36th Street
San Pedro
Representing herself.
"I am opposed to Air Force housing at White Point, 1) for safety reasons because of the instability of that area, and 2) because there are safe , more appropriate sites elsewhere."

Gaylord L. Smith
4070 Bluff Place
San Pedro 90731
"Written comment only, I object to the construction of any additional military housing in the coastal area."

Ann D'Amato
638 Beacon Street, Room 200
San Pedro
Representing Councilwoman Joan Milke Flores - City of L. A.
"Office position supports recreational use of White Point site."
No comment.

Richard Hubacek
2127 General Street
Rancho Palos Verdes, CA 90732
"Do not wish to speak at this time but would like to make a written comments at a later time."

Georgiann Rudder
1760 Palos Verdes North
Harbor City 90710
Representing L. A. City Department of Parks and Recreation.
No written comments.

Olivia Maiser
555 E. Ocean Blvd., Suite 505 , Long Beach 90802
Representing Daniel E. Lungren, Congressman for 42nd District.
"We will not be commenting tonight. The Congressman's support of the project is well known."

APPENDIX B

PROPERTY TRANSFER AGREEMENT

It is Agreed and Understood by and between the Grantor and Grantee, and the Grantee by its acceptance of this deed, does acknowledge its understanding of the agreement, and does covenant and agree for itself, and its successors and assigns, forever, as follows:

RECEIVED
MAR - 1 1984
BELAND/ASSOCIATES, INC.

1. This property shall be used and maintained for the public purposes for which it was conveyed in perpetuity as set forth in the program of utilization and plan contained in the application, submitted by the Grantee on August 27, 1976 which program and plan may be amended from time to time at the request of either the Grantor or Grantee, with the written concurrence of the other party, and such amendments will be added to and become a part of the original application.

2. The Grantee shall, within 6 months of the date of the deed of conveyance, erect and maintain a permanent sign or marker near the point of principal access to the conveyed area indicating that the property is a park or recreation area and has been acquired from the Federal Government for use by the general public.

3. The Grantee agrees that, in the event cultural deposits are unearthed during any future site development or construction activities, the State Historic Preservation Officer for the State of California will be notified immediately; and further agrees that construction in the "find" area will be suspended until a scientific assessment of the area's importance is made.

4. The property shall not be sold, leased, assigned, or otherwise disposed of except to another eligible governmental agency that the Secretary of the Interior agrees in writing can assure the continued use and maintenance of the property for public park or public recreational purposes subject to the same terms and conditions in the original instrument of conveyance. However, nothing in this provision shall preclude the Grantee from providing related recreational facilities and services compatible with the approved application, through concession agreements entered into with third parties, provided prior concurrence to such agreements is obtained in writing from the Secretary of the Interior.

5. From the date of this conveyance, the Grantee, its successors and assigns, shall submit biennial reports to the Secretary of the Interior, setting forth the use made of the property during the preceding two-year period, and other pertinent data establishing its continuous use for the purposes set forth above, for 10 consecutive reports and as further determined by the Secretary of the Interior.

6. If at any time the Grantor shall determine that the premises herein conveyed, or any part thereof, are needed for the national defense, all right, title and interest in and to said premises, or part thereof determined to be necessary to said national defense, shall revert to and become the property of the Grantor.

7. As part of the consideration for this Deed, the Grantee covenants and agrees for itself, its successors and assigns, that: (1) the program for or in connection with which this Deed is made will be conducted in compliance with, and the Grantee, its successors and assigns, will comply with all requirements imposed by or pursuant to the regulations of the Department of the Interior as in effect on the date of this Deed (43 C.F.R. Part 17) issued under the provisions of Title VI of the Civil Rights Act of 1964; (2) this covenant shall be subject in all respects to the provisions of said regulations; (3) the Grantee, its successors and assigns, will promptly take and continue to take such action as may be necessary to effectuate this covenant; (4) the United States shall have the right to seek judicial enforcement of this covenant; (5) the Grantee, its successors and assigns, will (a) obtain from each other person (any legal entity) who, through contractual or other arrangements with the Grantee, its successors or assigns, is authorized to provide services or benefits under said program, a written agreement pursuant to which such other person shall, with respect to the services or benefits which he is authorized to provide, undertake for himself the same obligations as those imposed upon the Grantee, its successors and assigns, by this covenant, and (b) furnish a copy of such agreement to the Secretary of the Interior, or his successor; (6) this covenant shall run with the land hereby conveyed, and shall in any event, without regard to technical classification or designation, legal or otherwise, be binding to the fullest extent permitted by law and equity for the benefit of, and in favor of the Grantor and enforceable by the Grantor against the Grantee, its successors and assigns; and (7) the Grantor expressly reserves a right of access to and entrance upon, the above described property in order to determine compliance with the terms of this conveyance.

8. In the event that there is a breach of any of the conditions and covenants herein contained by the Grantee, its successors and assigns, whether caused by the legal or other inability of the Grantee, its successors and assigns, to perform said conditions and covenants, or otherwise, all right, title and interest in and to the said premises shall revert to and become the property of the Grantor at its option which in addition to all other remedies for such breach shall have the right of entry upon said premises, and the Grantee, its successors and assigns, shall forfeit all right, title and interest in said premises and in any and all of the tenements, hereditaments and appurtenances thereunto belonging; provided, however, that the failure of the Secretary of the Department of the Interior to require in any one or more instances complete performance of any of the conditions or covenants shall not be construed as a waiver or relinquishment of such future performance, but the obligation of the Grantee, its successors and assigns, with respect to such future performance shall continue in full force and effect;

9. In the event of reversion of title, the Grantee shall be required to provide protection and maintenance for the property until such time as the title reverts to the Grantor, including the period of any notice of intent to revert.

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed in its name and on its behalf this the 14th day of July, 1978.

UNITED STATES OF AMERICA
Acting by and through the
Secretary of the Interior

By _____
Frank E. Sylvester
Regional Director
Pacific Southwest Region
Heritage Conservation and
Recreation Service

COUNTY OF SAN FRANCISCO)
) ss.
STATE OF CALIFORNIA)

On this 14th day of July, 1978, before me, Faye Gaines a Notary Public in and for the City and County of San Francisco, State of California, personally appeared Frank E. Sylvester, known to me to be the Regional Director, Pacific Southwest Region, Heritage Conservation and Recreation Service, of the United States Department of the Interior, San Francisco, California, and acknowledged that he executed the within instrument on behalf of the United States of America, acting by and through the Secretary of the Interior.

Faye Gaines
NOTARY PUBLIC

My Commission Expires:

OFFICIAL SEAL
FAYE GAINES
NOTARY PUBLIC - CALIFORNIA
CITY AND COUNTY OF SAN FRANCISCO
My Commission Expires July 20, 1981

The foregoing conveyance is hereby accepted and the undersigned agrees, by this acceptance, to assure and be bound by all the obligations, conditions, convenants and agreements therein contained.

By
SECRETARY, BOARD OF RECREATION
AND PARK COMMISSIONERS

AUG 8 1978

APPENDIX C

MAYOR'S COMMITTEE RECOMMENDATIONS

WILLIAM LUSBY,

To: Mayor Tom Bradley

From: Acting Chairman William Lusby

Subject: Military Family Housing Alternative Sites Study
Los Angeles Final Report

Your advisory committee convened on April 5, 1982 for the first time in the Mayor's Conference Room. Subsequent meetings were held on April 22, May 6, May 13, and May 19, 1982 in the 5th floor conference room of Los Angeles Harbor Department.

After many hours of discussion, the following recommendations are forwarded to your offices:

1. The Department of Defense be allowed to reclaim the 49 acre Palos Verdes Public Quarters on Palos Verdes Drive North, excluding the site of the Recreation and Parks district maintenance yard and military be allowed to build up to 700 units on this property. The Youth Hostel to be moved west of the Recreation and Parks facility.
2. The Department of Defense be allowed to build to a R-2 density on 3.5 acres of a former Navy fire training site on Western Avenue.
3. The Air Force be allowed to build 369 family townhouse units on the Middle Reservation of Fort MacArthur and there to be no further construction for homes on this site.

4. Department of Defense be allowed to reclaim a portion of the former nike missile site in San Pedro that would extend west from the present Navy housing on 25th Street to Western Avenue and then south along Western Avenue along a narrow ridge of land approximately 600 ft. wide for a distance of about 2100 ft. Further this property be developed as an R-1 zone allowing for about 150 military family units.

5. Department of Defense be requested to work with the Recreation and Parks Department, owner of land, in White Point Park to develop the remainder of the property for community recreation facilities.

6. Department of Defense not be permitted to build housing at Angels Gate Park, which was the former upper reservation of Fort MacArthur.

Your committee is submitting these recommendations at this time, if we can be of any further assistance please don't hesitate to call us.

Very truly yours,

WILLIAM LUSBY

APPENDIX D

STATE PARKS WHITE POINT FEASIBILITY STUDY AND LAND USE MAP SUMMARY

2-22-84 File- C113.8

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BELAND/ASSOCIATES, INC.

WHITE POINT PROJECT FEASIBILITY STUDY
Summary of Findings and Recommendations

LOCATION: (See attached map) the site is within the City of Los Angeles in Los Angeles County bounded between the Pacific Ocean on the south, 25th Street on the North, Western Avenue on the West and Weymouth Avenue on the East. The project site is situated on the San Pedro bluff overlooking the Pacific Ocean and Catalina Island. Royal Palms State Beach is just below the bluff to the southwest and adjacent to the site. The San Pedro Bay and Los Angeles harbor lies immediately downcoast of White Point.

ACCESS: The nearest major freeway connection is the Harbor Freeway (Hwy 11) about 8 kilometers (5 miles) to the north and it is easily accessible from Western Avenue via 25th Street and Paseo Del Mar.

LANDSCAPE PROVINCE: Coastal Strip

SIZE: Two parcels totalling 59 hectares (145.8 acres). The Los Angeles County Department of Beaches and Parks owns the oceanfront parcel (30.83 acres between Paseo Del Mar and the ocean), and the City of Los Angeles owns the upland parcel (114.99 acres between Paseo Del Mar and 25h Street).

TOPOGRAPHY AND SEASHORE FEATURES: The site has a steep ocean bluff and an upland area that includes an abandoned Nike missile installation and Army Reserve Facility. Immediately adjacent to either side of Paseo Del Mar is a flat plateau extending to the inland bluffs. There are several terraces on the inland bluffs that rise to an elevation of about 115.8 meters (380 feet) above sea level at the northernmost portion of the site.

The White Point to Royal Palms seashore area has a rocky southfacing beach that includes three coves: the western cove at Royal Palms State Beach, just west of the lifeguard stand; the central cove, just east of the lifeguard stand, and the eastern cove, the next cove east of the central cove and just west of the White Point prominence.

CLIMATE: January temperatures at White Point range from 7.8°C (46°F) to 16.7°C (62°F). July temperatures range from 15.6°C (60°F) to 23.3°C (74°F). Rainfall in the area averages about 40.6 centimeters (16 inches) annually, while the average warm season rainfall (April to September) is less than 5 centimeters (2 inches).

BIOTIC COMMUNITIES: The vacant land is covered primarily with coastal annual grasses, some scattered shrubbery and a few exotic trees. The habitat at White Point support such animals as hares, red tailed hawks, white tail kites, pheasant and a variety of rodents and reptiles. White Point, which is included in the Palos Verdes Peninsula, contours out like a thumb into the Pacific Ocean, and thus makes an excellent stopping off point for birds migrating for the winter.

The White Point coastal area includes a diverse subtidal ecosystem easily accessible to recreational divers and to the oceanographic community. It has an unusual off-shore, sulfur-water vent coming from the earth's crust and giving life to some unusual bacteria that generates an underwater botanic garden.

SEISMOLOGY: Located on the southern flank of the Palos Verdes Uplift, this site is less susceptible to seismic damage than 75 percent of the South Bay Region. The closest known fault trace, the Cabrillo Fault, passes adjacent to the northeastern boundary of the property. The Cabrillo Fault shows no evidence of Quarternary displacement; however, the active Palos Verdes Fault passes approximately three miles to the northeast. If a seismic event of large magnitude were to occur, it would cause severe settlement and sliding along the sea cliffs and coastal bluff area.

SOCIOCULTURAL INFLUENCES: The San Pedro Historical Society has recommended White Point Village, an 1880 vintage Japanese abalone industry site, and later the location of a hotel and hot springs, for inclusion in the National Register of Historic Places.

The 1933 Long Beach earthquake sealed off the main sulfur-water spring, eventually leading to the final demise of the resort. Remnants of the concrete outlet (including the original fountain) from the spring still are visable. Although the main vent was closed deep underground by the earthquake, there are offshore vents from which sulfur water still bubbles.

After the military evacuation of Japanese from the San Pedro area at the start of World War II, the Army took over the White Point Beach.

The massive concrete gun batteries still extant on the inland bluff bring to mind vintage memories of the preparations for the defense of the coastline before, during, and after World War II.

UTILITIES: Water, sewerage, gas, and electricity are available along Paseo Del Mar. Water and sewerage appear to be available on the upper (northeastern edge of the site). Electricity and water are provided by the Los Angeles Department of Water and Power, gas is provided by the Southern California Gas, and sewerage is provided by the Los Angeles Department of Public Works. Storm drainage facilities exist along Paseo Del Mar.

OWNERSHIP: In 1976, after being deactivated, the 46.5 hectare (114.9 acre) Nike site and Army Reserve Facility was deeded to the City of Los Angeles Department of Recreation and Parks for park purposes, however, lack of funds have prevented the City's department from developing the site for park purposes. A stipulation to the deed provided that in the case of national emergency the land could revert to the Federal Government. The County's 12.5 hectare (30.83 acre) bluff parcel was deeded to them in 1978 for the same purpose.

The Air Force is currently seeking approval from the Department of Interior to revert 20 hectares (50 acres) of White Point property from the City to construct 170 single-family housing units for senior officers. If approved, construction could be underway by spring of 1986.

CURRENT USE: The site is located in a residential area characterized by low density, high cost, single family homes with the exception of a small enclave of medium density housing at Western Avenue and Paseo Del Mar, and a small commercial development at Western Avenue and 25th Street. Navy family housing is located on the northeastern edge of the site.

Although zoned for recreational and park use, White Point has had very little recreational activity, due to lack of local funding. A community run garden occupies 1/2 acre on the upland parcel, and a little league baseball diamond is located on the County's ocean front parcel on the south side of Paseo Del Mar. A model airplane club was using the area until neighbors' complaints compelled the City to discontinue this use. The ocean front property is being operated by Los Angeles County Beaches for lifeguard and beach maintenance services.

POTENTIAL USE: As an adjunct to Royal Palms State Beach, which is currently operated by the County, White Point could offer to its visitors educational and recreational diving, oceanic research, whale watching, fishing, nature study, bird watching, and picnicking. In addition, it has flat areas and inland canyons suitable for camping. (See attached map - Proposed Land Use and Facilities Map). An Interpretive Center and historical exhibits could be planned around the abandoned gun batteries with tours of the former Nike Missile Defense center.

Portions of the vintage Japanese abalone industry site and subsequent Sepulveda hotel resort could be restored to reflect the area's rich cultural heritage.

EVALUATION AND RECOMMENDATIONS: According to the City and County of Los Angeles' deed to the property, reversion to the federal government could happen in case of national emergency. With the failure to develop the area for recreational use, however, the United States Air Force is now applying to the Department of Interior for reversion of the land to provide personnel housing on the City's upland parcel.

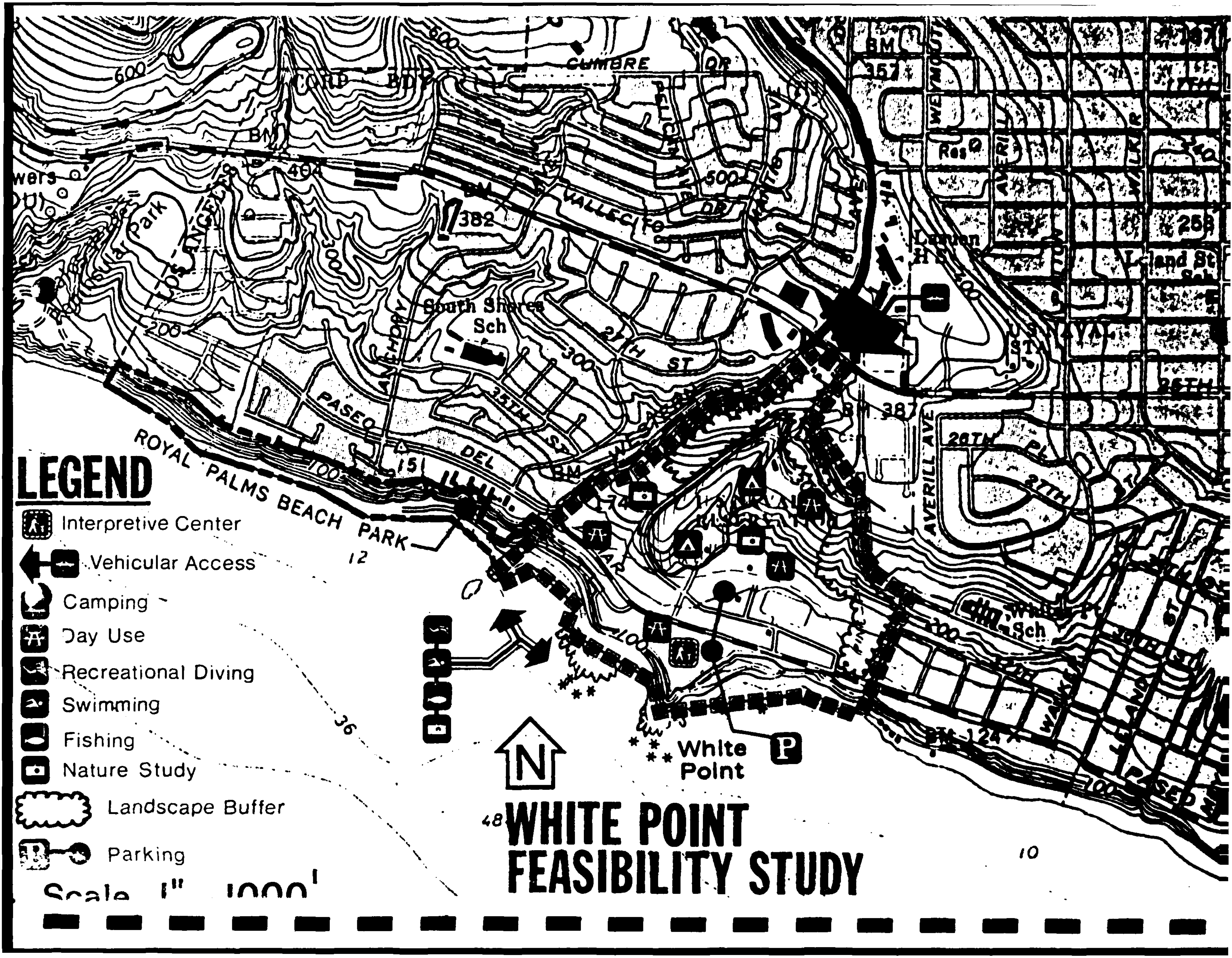
The City could lose deed to the property if the site is not developed as originally intended. Therefore, rather than lose this open space so vitally needed in Los Angeles, the California Department of Parks and Recreation recommends transferring land management of White Point to the State Park System for day use, camping, nature study, and historic interests.

There is some community interest expressed for developing of a golf course on White Point, however, there appears to be a stronger public sentiment for keeping the site designated for state park system purposes.

In view of the law enforcement difficulties currently being experienced at the county-operated Royal Palms State Beach, State take-over of White Point Park is recommended only if it would be operated by the State. Despite heavy police surveillance and nightly gate-locking, Royal Palms is considered by the local neighborhood as unsafe, and the noise from unruly visitors disturbs the community.

It is felt that State Park Ranger law enforcement is needed in this urban area to maintain the proper setting of a State Park.

Senate Concurrent Resolution No. 9 has been inacted by the Legislature directing DPR to do a Recreational Use Study (Park Plan) of White Point with the participation of the Coastal Conservancy, the County and City of Los Angeles and other private and public entities associated with the project. Study to be completed by March 31, 1984.


LEGEND
Interpretive Center
Vehicular Access
Camping
Day Use
Recreational Diving
Swimming
Fishing
Nature Study
Landscape Buffer
Parking
Scale 1" 1000'
WHITE POINT
FEASIBILITY STUDY
White Point
ROYAL PALMS BEACH PARK
PASEO DEL MAR
South Shores Sch
VALLECITO DR
CUMBRE DR
AVERILL AVE
27TH ST
35TH ST
28TH PL
27TH
Los Angeles
Park
BM 382
BM 387
BM 357
Res
Leland St Sch
Weymouth

APPENDIX E

SAN PEDRO CHAMBER OF COMMERCE POSITION PAPER

APPENDIX F

WHITE POINT GEOLOGIC RECONNAISSANCE

ENGINEERING GEOLOGY CONSULTANTS, INC.

CONSULTING GEOLOGISTS
14054 VICTORY BOULEVARD
VAN NUYS, CALIFORNIA 91401

AREA CODE 213 787-4555 785-0835

December 10, 1974

TO: Wilsey and Ham
1631 Huntington Drive
P.O. Box 430
South Pasadena, California 91030

Attn: Allan M. Shoff

SUBJECT: Preliminary Geologic Investigation of Proposed Housing Site, Whites Point Area of Fort MacArthur, San Pedro, California

INTRODUCTION

A preliminary geologic investigation of the site and adjacent areas has been completed by this office. The investigation included surficial geologic mapping, review of pertinent available published data, and review of a previous geologic report which included the westerly sector of the current site. The prior report, prepared by James E. Slosson and Associates, Consulting Geologists, is entitled:

> Geologic Investigation of Proposed Naval Housing Site 4, Whites Point, San Pedro, California, dated November 14, 1972

Although the current investigation did not include any subsurface exploration, five (5) bucket-auger borings from the above referenced prior report were located within the westerly sector of the subject site. Approximate locations of these previous borings and pertinent geologic data derived from them are indicated on the accompanying Geologic Map.

All geologic data developed from this investigation has been plotted on a 1":200' scale topographic base map provided by Wilsey and Ham. In addition, representative geologic cross-sections are attached to this report to illustrate inferred subsurface geologic conditions. It must be recognized that this report is only preliminary in nature and is intended to provide tentative geologic criteria relative to a Candidate Environmental Statement. A more detailed geologic investigation and a complete soil engineering investigation both involving subsurface exploration, should be accomplished prior to final design and development of the site.

PHYSIOGRAPHY

The general physiography of the Palos Verdes area involves a gently rolling, terraced, upland which slopes downward to an irregular coastline. The coastline consists of several resistant headlands with intervening pocket coves. Whites Point is one of these headlands. The upland region beyond the coastline has several relatively level terrace areas which are separated by moderate slopes. These terrace areas are marine in origin and are considered to have been formed during Pleistocene time (11,000 to 2.5 million years ago). Thirteen (13) of these terraces are recognized in the Palos Verdes Hills. One of these terrace areas involves a major portion of the site and a second, higher, terrace area apparently occurs along the extreme northwest edge of the site.

The site itself is bordered on the west and southwest by Western Avenue, on the south by Paseo Del Mar, on the east by Weymouth Avenue, and on the north by ascending natural slopes. Most of the easterly two-thirds of the property is relatively level to very gently sloping but the northerly boundary locally extends onto the lower edges of moderately steep natural slopes. These slopes extend upward beyond the approximate site boundary at average gradients of 2:1 to 4:1 and typically involve vertical heights of 75' to 100'±. The westerly one-third of the site is situated on the broadened lower end of a southwest trending ridge and is characterized by moderate to gentle natural slope gradients ranging from 3:1 to 6:1. Maximum topographic relief within the site is approximately 100'.

The tops of coastal sea cliffs border Western Avenue opposite the southwest site boundary and also border Paseo Del Mar opposite the southeast edge of the site. These steep natural slopes (sea cliffs) are about 125' in vertical height and have average gradients on the order of 1:1 (45°), although many local areas are near-vertical. Minimum lateral distances between portions of the southerly site boundary and the tops of these overly steep natural slopes range from 40'± to 100'±.

DRAINAGE

There is no permanent surface water on the site. Periodic surface water derives from precipitation falling directly on the property and surface runoff from adjacent slopes to the north. A small canyon, or ravine, drains onto the relatively level west-central sector of the site from the north and may transmit moderate amounts of surface runoff during intense storms. All other offsite runoff onto the property is expected to be relatively minor.

Periodic surface runoff from the site is primarily via sheet flow and minor swales or fills. The direction of flow is toward the southwest and south to Western Avenue and Paseo Del Mar. In the relatively level portions of the site, surface drainage appears to be rather poorly developed and temporary minor ponding of water may occur in local areas. Development of the site should include correction of any anomalous drainage to assure positive flow of runoff toward adjacent streets. In addition, offsite runoff from the small canyon in the north-central sector should be intercepted and channelled through the site by an approved drainage device.

GEOLOGIC ENVIRONMENT

Most of the site is covered by a veneer of surficial earth materials including non-engineered fill, thick topsoil, slopewash, and possibly some Terrace Deposits. These surficial materials are underlain by structurally complex sedimentary bedrock. Several small landslides and slumps appear to exist on the natural slopes immediately north of the site and along the sea cliffs south of the site.

EARTH MATERIALS

Fill (nef)

Limited areas of old fill appear to be scattered throughout the easterly two-thirds of the property. The largest of these are estimated to be some 10' to 15'± thick and are indicated on the Geologic Map. However, there appear to be a number of other, more minor, fills which could not be accurately plotted on the map. Since this office has no prior knowledge of the original fill placement, all of the fills are assumed to be non-engineered and would probably require removal and recompaction where encountered in areas of development. The fill materials appear to consist of local soil, slopewash, and bedrock fragments and are probably moderately expansive.

Topsoil

Topsoil mantles most of the site and is estimated to range from 2' to 4'± in thickness. It typically consists of dark brown to black silty clay with occasional scattered bedrock fragments. This material ranges from loose to poorly consolidated and moderately to highly expansive. In general, the topsoil will probably require removal and recompaction beneath any proposed building sites or engineered fills.

Slopewash-Terrace Deposits (Qsw-Qt)

The relatively level to gently sloping areas comprising most of the easterly two-thirds of the site and the southerly part of the west one-third are apparently underlain by this material. Previous borings B-12, B-13, and B-14 in the west sector encountered surficial deposits classified as "talus-slopewash" to depths of 15' to 23' below ground surface. This material was generally described as brown to black silty clay with varying amounts of bedrock fragments averaging several inches in diameter but including some larger fragments up to 12 to 14 inches. Similar thicknesses (up to 25'±) and types of material are assumed to underlie the easterly portion of the site.

This type of accumulation is fairly common with respect to the ancient marine terraces in the Palos Verdes area. It apparently represents a prolonged accumulation of soil and slopewash carried down from adjacent slopes and deposited on level to gently sloping wave cut platforms. In some cases, a few feet of fairly clean sand containing shell fragments occurs beneath the slopewash and represents a true marine Terrace Deposit. This condition was reportedly observed on an upper terrace level north of the site and may also occur beneath the slopewash in the easterly sector of the site.

In general, the slopewash-terrace materials appear to be expansive, firm and moderately consolidated. Although specific soil tests will be necessary for confirmation, it is expected that most of this material should be suitable for support of normal structural foundations or engineered fills.

Bedrock (Tma)

Sedimentary bedrock beneath the site is a portion of the Altamira Member of the Monterey Formation. This unit consits of interbedded silty, cherty, and diatomaceous shale, silty sandstone, and siliceous siltstone. Geologically, the shale and siltstone strata are moderately lithified to well cemented, whereas the sandstone ranges from uncemented and friable to well cemented. Color of the bedrock ranges from white, chalky appearing, weathered material to gray and/or brown (with occasional orange staining) fresh material. The bedrock is generally slightly moist to moist. Individual bedrock strata are usually thin but include occasional massive beds as thick as one and one-half feet. Jointing and shearing are common throughout the local bedrock. In some cases, the upper few feet of bedrock have apparently been effected by creep of the overlying surficial materials and are even more highly fractured.

Within the normally occurring bedrock materials are occasional beds of siliceous siltstone, cherty shale, bentonitic shale and seams of gypsum. The siliceous siltstone layers range from about one-half to one and one-half feet thick. These beds are well cemented and massive. The hard, brittle cherty shale and expansive bentonitic shale to not appear to be as wide spread as the siliceous siltstone. Gypsum seams are also relatively rare and occur primarily as thin fillings along bedding planes, joints and shears.

If grading is undertaken in this bedrock, the resistant siltstone beds may require heavy duty ripping and will probably produce some blocky material. However, this material should be only a small percentage of that total material excavated. Cut slopes exposing bentonitic shale will probably require corrective action to preclude expansion of the bentonite and subsequent slope stability problems. Also, cut slopes exposing friable sandstone may be subject to erosion.

MASS MOVEMENT

No evidence of surficial slumps or landslides was observed within the site boundaries. However, there are several apparent slumps (Qs) and possibly one small landslide (Qls) on the natural slopes immediately north of the easterly half of the site. Estimated limits of these features are indicated on the Geologic Map. Subsurface exploration would be necessary to verify the nature of these features and determine maximum thicknesses. As a tentative estimate, the slumps may be on the order of 10'± thick and the apparent small landslide may range from 20' to 25'± in thickness. Since these features are offsite, they should not significantly affect site development. However, design of the site should include provisions that no permanent structures will be located within at least 50' of these features unless they are either disproven through subsurface exploration or corrected by remedial grading.

The several small landslides observed along the sea cliffs south of the site are not a direct hazard to the property. They are, however, examples of the continual deterioration and mass wasting of the overly steep sea cliffs.

Slow downslope creep of the clayey surficial soils appears to be prevalent on most of the moderate to steep natural slopes within and adjacent to the site. Such soil creep is a relatively common condition and would not represent a major problem with respect to development. However, soil creep would require consideration relative to any buildings, retaining walls, or other structures proposed on natural slopes.

GEOLOGIC STRUCTURE

The prevailing regional bedrock structure in this general sector of the Palos Verdes Hills involves relatively gentle south to southwest dips of 5° to 15°±. This basic trend is evident in the upslope areas north of the site, although there appear to be many broad local flexures, or undulations, within the bedding. In sharp contrast, bedrock exposed in the sea cliffs around Whites Point is intensely folded and sheared. This intense structural deformation involves a complex series of northwest trending "fan" folds, recumbent folds, and shears comprising a broad zone which apparently extends into the southwest sector of the site. The central and easterly portions of the site are believed to be underlain by less deformed bedrock more comparable to the gently dipping regional trend.

Geologic Cross-sections A-A' through D-D' illustrate the inferred structural trends with respect to the site and adjacent slopes. Based on these preliminary interpretations, it appears that bedding orientations are primarily favorable with respect to both existing natural south-facing slopes in the westerly sector of the site and the sea cliff south of this sector (Cross-sections A-A' and B-B'). However, bedding in the northerly half of this sector is roughly parallel to the existing natural slopes. Consequently, any south-facing cut slopes associated with grading in this area would probably expose adverse bedding requiring stabilization in the form of buttresses or designed retaining walls.

Most of the easterly two-thirds of the site is very gently sloping to level and covered by thick slopewash-terrace materials. Consequently, the underlying bedrock structure cannot be verified unless subsurface exploration (borings) is undertaken. For the purposes of this preliminary study, however, bedding trends observed in the natural slopes north of the site and in the sea cliffs to the south have been projected beneath this area to permit tentative structural interpretations as shown on Cross-sections C-C' and D-D'. Based on these trends, average bedding orientations appear to be adverse relative to the offsite slopes north of the site and to the easterly portion of the sea cliff south of the site. In addition, a local portion of the east-facing slope located between the west and east sectors of the site apparently exposed adverse bedding.

With regard to the adverse slopes north of the site, a 50' wide restricted use zone (no permanent structures) extending south from the toes of the slopes would be adequate to avoid any hazards to residential development on the site. Similarly, the east-facing slope along the west edge of the easterly sector could be readily avoided by a 50' restricted use area or, since it is within the site, could be corrected by remedial grading. A far more extensive adverse condition appears

to involve the steep sea cliffs immediately south of the easterly third of the site. As indicated by Cross-section D-D', adverse bedding exposed in this segment of the sea cliff may project northward beneath the entire easterly sector of the site. Average dip components and true bedding dips range from 5° to 15°± with respect to both the sea cliff on the south and the slopes north of this area. Consequently, an average southerly bedding dip of some 10° has been assumed beneath the area. This basic structural pattern and the associated bedrock materials are similar to those that were involved in the large Portugese Bend Landslide, located some 3 miles westerly of the site. Consequently, this entire easterly sector is tentatively designated on the Geologic Map as a "Restricted Area" which should not be considered for permanent structures on the basis of currently available data. A more complete evaluation of the inferred adverse conditions would require detailed geologic and soil investigations based on extensive subsurface exploration.

CONCLUSIONS

The entire site is underlain by sedimentary bedrock comprising a portion of the Altamira Member of the Monterey Formation. This Miocene age bedrock consists of shale, siltstone, and some sandstone. The bedrock is overlain by slopewash-terrace deposits (Qsw-Qt), estimated to range from 15' to 25'± thick, on the relatively level to gently sloping areas which include most of the easterly two-thirds of the site and part of the westerly third. These deposits, as well as bedrock on the surrounding natural slopes, are in turn locally covered by non-engineered fills and surficial soil.

The principal geologic factor affecting potential site development is the local bedrock structure in relation to existing slopes and sea cliffs adjacent to the site. On this basis, two tentative "Restricted Areas" have been designated on the accompanying Geologic Map. No permanent structures should be planned for these areas unless the apparent adverse conditions are corrected or more detailed investigations clearly indicate suitable stability. The largest "Restricted Area" includes the entire easterly sector of the site and involves unsupported bedding exposed in the sea cliff south of the site which is inferred to extend upward beneath this easterly sector. If valid, this structural pattern could be conducive to future major landslides and probably could not be economically corrected. The second, much smaller, "Restricted Area" involves apparent adverse bedding on an east-facing natural slope in the west-central sector of the site. This local adverse condition could be readily avoided in developing the area or corrected by moderate remedial grading.

On the basis of available data, it therefore appears from a geologic standpoint that approximately two-thirds of the site should be suitable for a military housing complex. This suitable area includes most of the central and westerly sectors of the site. The central sector is primarily level to very gently sloping and sould be readily developed with relatively minor grading, as long as the "Restricted Areas" were avoided. Most of the westerly sector is characterized by moderate natural slopes and probably would require substantial grading for development. Most cut slopes resultant from such grading could be expected to expose adverse bedding which would then require buttress support or substantial flattening of the cut slope gradient. Although not uncommon in hillside development, this type of grading could be quite costly in comparison to the minor grading that would be needed in the central sector.

In addition to the above, the following general items should be considered in reviewing development potential of the site.

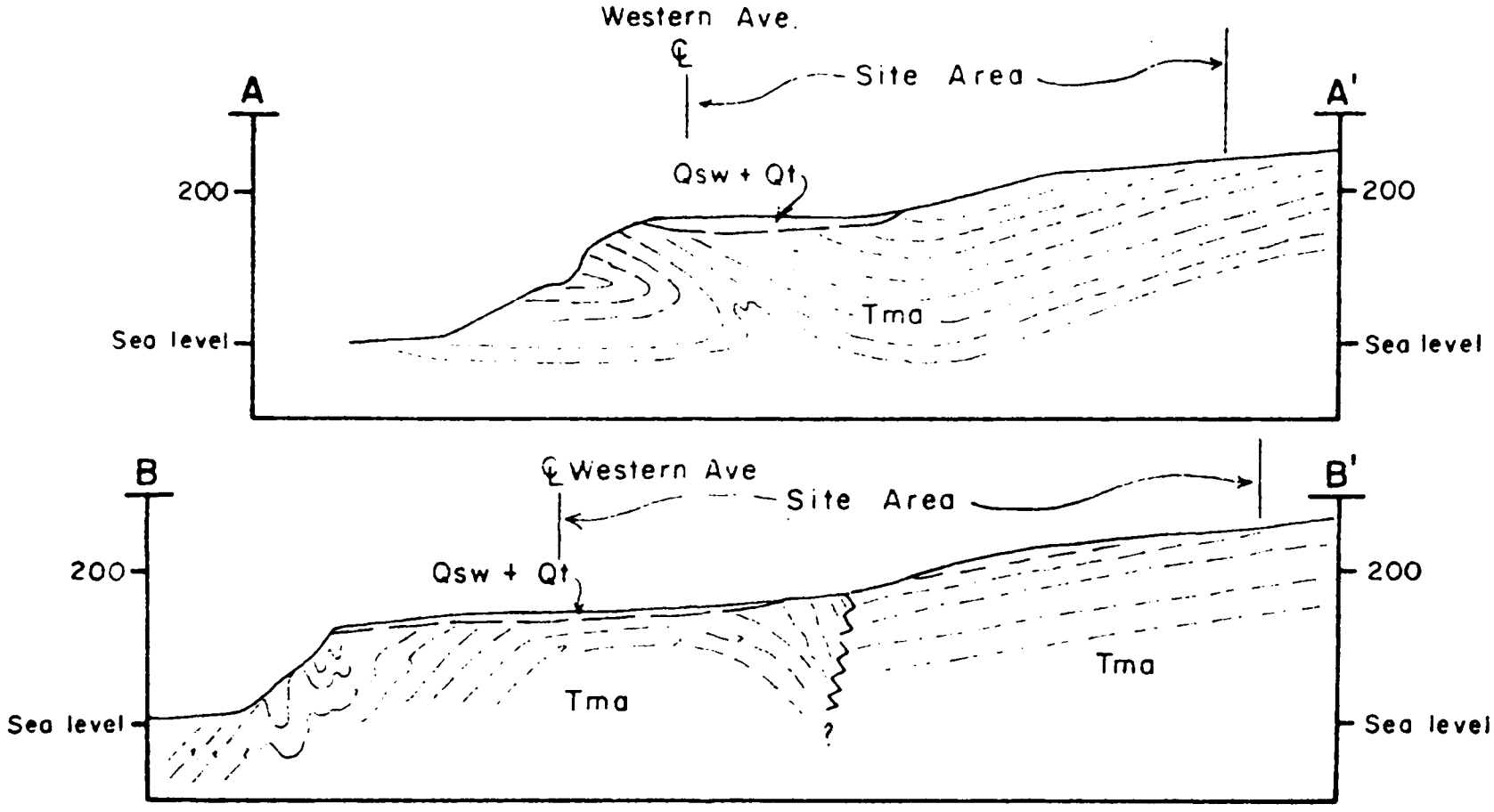
1. Earth materials on the site are apparently expansive and would therefore require special foundation design considerations.

2. Topsoil, non-engineered fill, and propably the upper few feet of the slopewash-terrace deposits on the site will likely require removal and recompaction beneath proposed permanent structures or engineered fills.

3. There are no known major faults within or adjacent to the site. Minor faults, or shears, appear to be prevalent in association with the zone of intense folding and deformation along the southerly edge of the site but these appear to be directly related to the folding and are considered inactive. The nearest known potentially active fault is the Palos Verdes Fault located about 3½ miles north of the site and the active Newport-Inglewood Fault Zone is about 9½ miles northeast of the site.

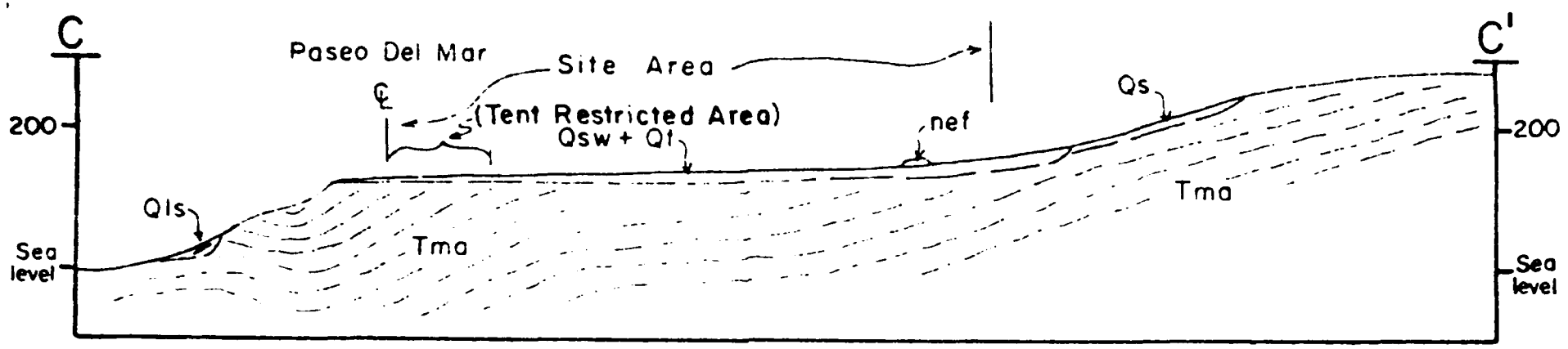
4. An abandoned underground Nike missile site is located in the level east-central sector of the site. The site is presently covered and the size of the excavation is therefore unknown to this office. However, the site would have to be permanently abandoned and the excavation properly back-filled according to recommendations of a qualified Soil Engineer if this local area is used for development.

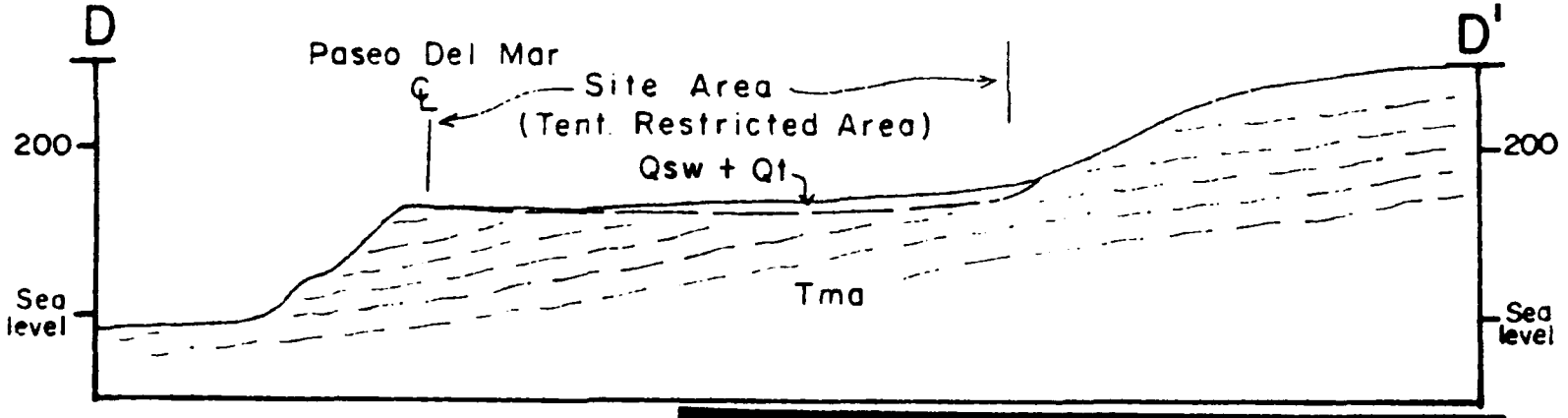
Raymond D. Murphy
Project Engineering Geologist
C.E.G. 574



F-10

ENGINEERING GEOLOGY CONSULTANTS, INC.				
CROSS SECTION A-A' & B-B' OF PROPOSED HOUSING AREA				
JOB NO.	GEOLOGY BY	SCALE 1" = 200'	DRAWN BY GH	DATE 12-10-74



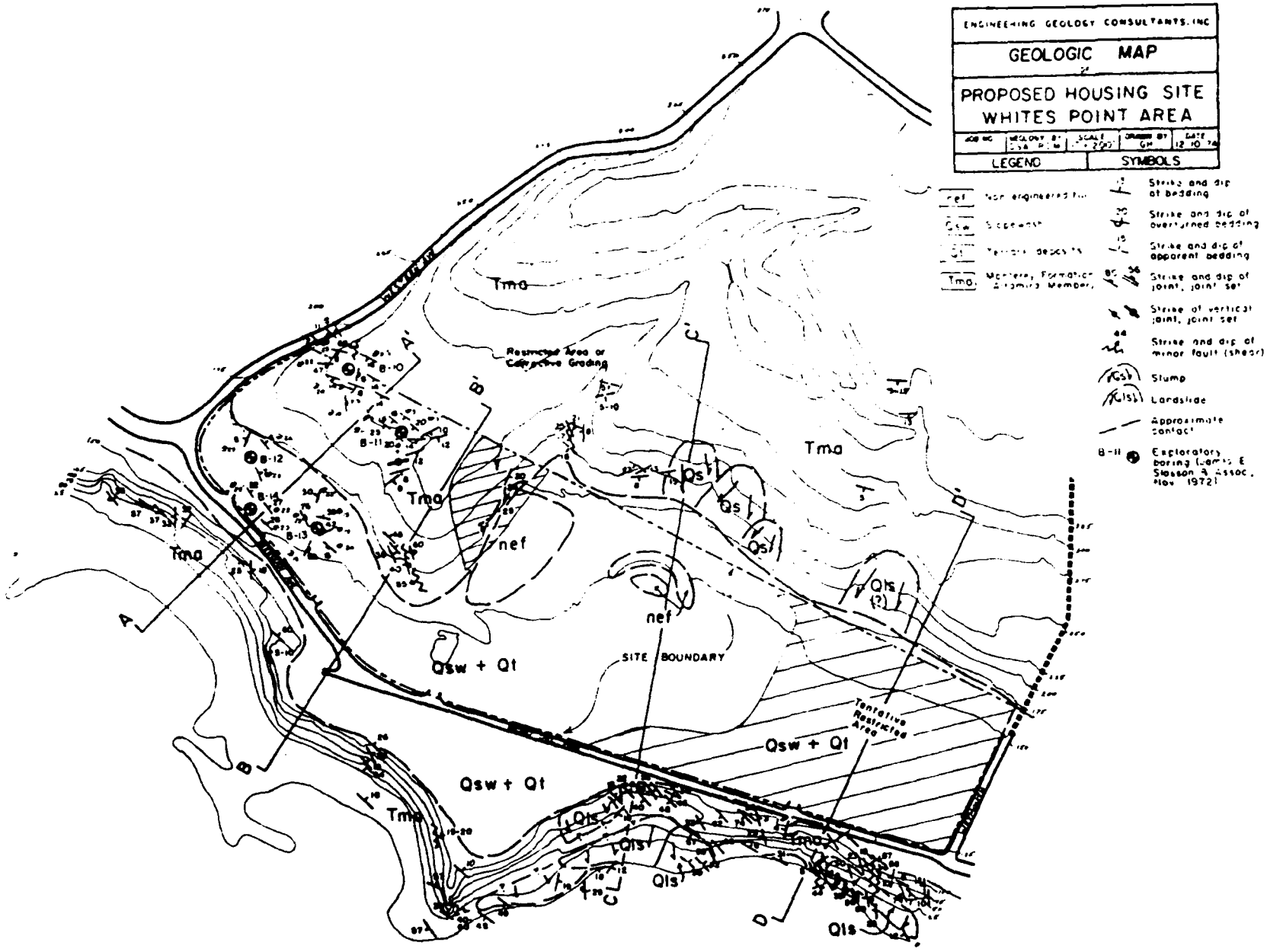


F-11

ENGINEERING GEOLOGY CONSULTANTS, INC

CROSS SECTION C-C' & D-D'
OF
PROPOSED HOUSING AREA

JOB NO.	GEOLOGY BY	SCALE	DRAWN BY	DATE
	DAS-RDM	1" = 200'	GH	12-10-75


ENGINEERING GEOLOGY CONSULTANTS, INC
GEOLOGIC MAP
PROPOSED HOUSING SITE
WHITES POINT AREA
LEGEND
SYMBOLS
nef
Qsw
Qls
Tma
Strike and dip of bedding
Strike and dip of overturned bedding
Strike and dip of apparent bedding
Strike and dip of joint, joint set
Strike of vertical joint, joint set
Strike and dip of minor fault (shear)
Stump
Landslide
Approximate contact
Exploratory boring (Lowell E Stetson & Assoc., Nov. 1972)
HAMPTON
Restricted Area or Cohesive Grading
Tma
nef
Qs
Qls
Qls (?)
Qsw + Qt
SITE BOUNDARY
Tentative Restricted Area
A
A'
B
B'
C
C'
D
D'
B-10
B-11
B-12
B-13

ENGINEERING GEOLOGY CONSULTANTS, INC.

CONSULTING GEOLOGISTS
14054 VICTORY BOULEVARD
VAN NUYS, CALIFORNIA 91401

AREA CODE 213 787-4555 785-0835

September 15, 1975

Wilsey and Ham
P.O. Box 430
South Pasadena, California 91030

Attention: Mr. Paul Secord

Re: Whites Point Area, Central Sector (E.G.C.I. No. 753025)

Dear Paul,

Attached are final copies of the Reconnaissance Geologic Map and Cross-sections for the Central Sector of Whites Point. As you know, this mapping was done primarily to fill in the gap between previous reports covering adjacent parts of the Whites Point Area. This letter and attached drawings, per our previous agreement, is not intended as even a preliminary geologic report but merely provides our tentative conclusions based on very limited surface mapping and observation of the area.

Earth materials in this Central Sector are essentially the same types as described in the prior reports. There are apparent extensive accumulations of slopewash (Qsw) and non-engineered fill (nef) over much of the area. In addition, there are the possible slump (Qs) and landslide (Qls) features along the southerly slope which were described in our December 10, 1974 report. All of these materials plus a general 2' to 4'± thick topsoil cover are of questionable quality for support of fills or permanent structures. Thus, most would probably have to be removed and recompacted in areas of development. Possibly some portions of these materials would prove firm enough to be left in place but this cannot be clearly determined without specific sampling and testing by a Soils Engineer.

The principal geologic problem, however, is the orientation of bedding planes within the local Monterey Formation bedrock. Although bedrock exposures are rather widely scattered over most of this sector and bedding is generally undulant as well as locally variable, there appears to be a general southerly dipping trend ranging from 5 to 20°±. This pattern is indicated on Cross-sections A-A' and B-B' and is generally unfavorable with respect to the south-facing slopes in the area.

Where the bedding dips or dip components are relatively low angle (5 to 10°±), it is quite possible that comprehensive geologic and soils engineering investigations would determine that stability should be adequate for development or could be made so with moderate corrective grading. Where steeper dips on the order of 15 to 20°± are adversely exposed in the slopes, it is more likely that major remedial grading would be necessary to assure adequate stability.

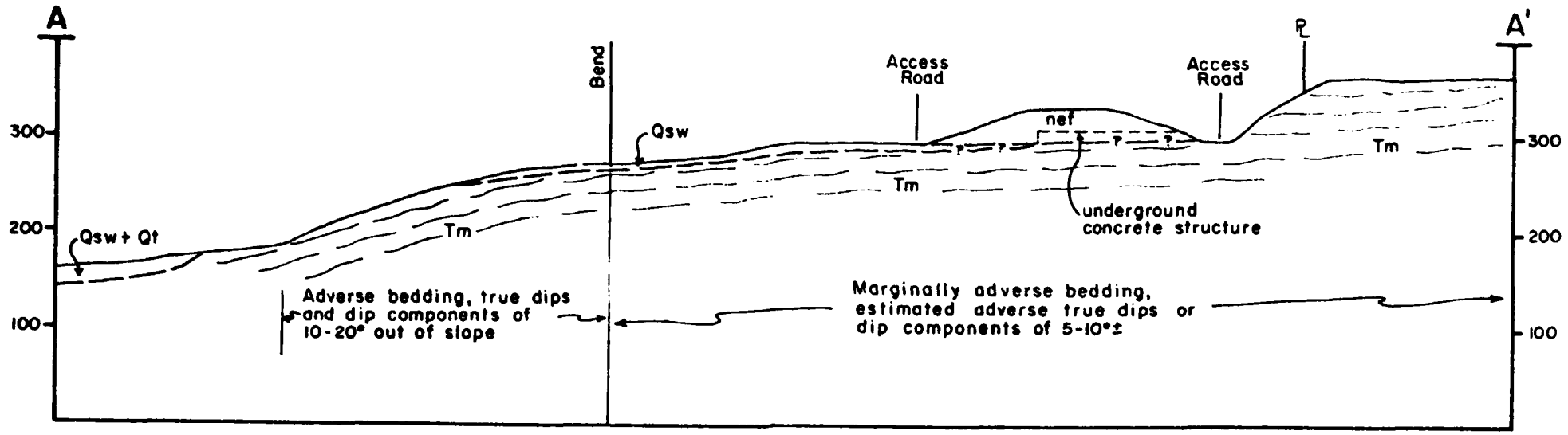
In summary, it appears that most of the Central Sector should tentatively be considered unsuitable for permanent development in its current condition. There is only one area that does appear useable for permanent structures, from a geologic standpoint, without significant grading. This area is along the gently sloping ridgecrest at the west edge of the Central Sector and is designated on the Geologic Map. It must be recognized, however, that other substantial portions of this Central Sector could possibly also be satisfactorily developed with varying degrees of corrective grading. Such grading would primarily involve removal and recompaction of unsuitable earth materials (fill, topsoil, slopewash, etc.) and stabilization of slopes exposing adverse bedding.

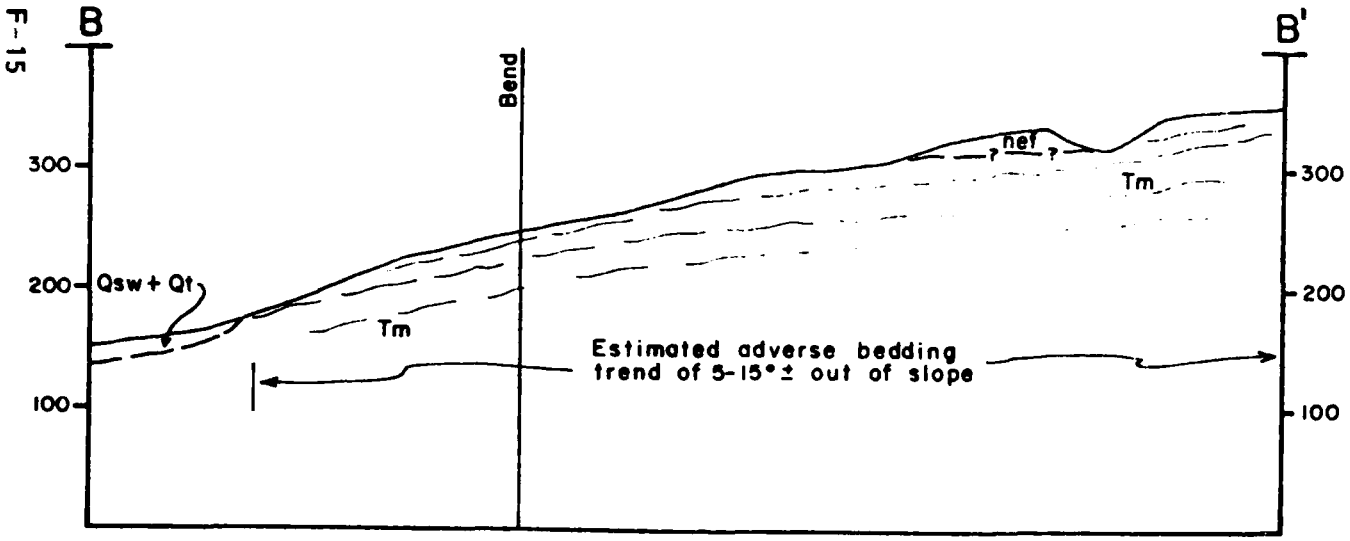
If you have any further questions, please call.

Very truly yours,

Raymond D. Murphy

Raymond D. Murphy





F-15

ENGINEERING GEOLOGY CONSULTANTS, INC.				
CROSS SECTION A-A' & B-B' OF WHITES POINT				
JOB NO	GEOLOGY BY RDM	SCALE 1" = 100'	DRAWN BY GH	DATE 9-15-75

Converse Consultants

Geotechnical Engineering
and Applied Sciences

RECEIVED
JUL 19 1984
BELAND/ASSOCIATES, INC.

PHASE I - GEOTECHNICAL EVALUATION
PROPOSED U. S. AIR FORCE
WHITE POINT HOUSING DEVELOPMENT
SAN PEDRO, CALIFORNIA

Conducted For:

BELAND/ASSOCIATES, INC.
Singer Building, Suite 204
16 South Oakland Avenue
Pasadena, California 91101

Project No. 84-1227-01
July 6, 1984

Converse Consultants, Inc.
2855 Pullman Street
Santa Ana, California 92705
Telephone (714) 261-2414

Converse Consultants

Geotechnical Engineering
and Applied Sciences

July 6, 1984

Beland/Associates, Inc.
Singer Building, Suite 204
16 South Oakland Avenue
Pasadena, California 91101

Attention: Mr. Paul R. Secord, Vice President

Subject: Phase I - Geotechnical Evaluation
Proposed U. S. Air Force White
Point Housing Development
San Pedro, California
(CCI Project No. 84-1227-01
Beland Reference No. C113.8)

Gentlemen:

This report presents the results of our geotechnical evaluation performed for the referenced project. This work was conducted in accordance with our proposal dated 31 May 1984, and your authorization.

Thank you for this opportunity of working with you on this project. Please do not hesitate to call if we can help you further.

Yours very truly,

CONVERSE CONSULTANTS, INC.

Dennis L. Hannan, C.E.G. 953
Managing Vice President

HSA/MEB/DLH:bl

Dist: (4) Addressee

Converse Consultants, Inc.
2855 Pullman Street
Santa Ana, California 92705
Telephone (714) 261-2414

TABLE OF CONTENTS

INTRODUCTION

This report presents the results of our preliminary (Phase I) geotechnical evaluation for the proposed U.S. Air Force White Point housing development at San Pedro, California. The site is situated northeast of the intersection of Western Avenue and Paseo Del Mar near the coast at Whites Point. The proposed development entails construction of 170 single-family units, recreation areas and roadways on an approximate 50-acre site.

The purpose of our services for this project was to compile all available geologic and soil data pertaining to the subject site, evaluate the site with respect to proposed development, and submit a written report containing our findings to assist you in the environmental analysis of the property. It is our understanding that this data will be used in preparation of an environmental report. For convenience, specific conditions, impacts and possible mitigation measures for major site constraints are provided in the Appendix.

Background Information

The site was first studied by James E. Slosson and Associates in November 1972, based on reports provided to us. Subsurface exploration consisted of drilling 5 bucket auger borings in the southerly part of the site. Later, the site was studied by Engineering Geology Consultants, Inc. (EGC) in December 1974. No subsurface exploration was performed by EGC for their study. All pertinent geologic data derived from these sources has been included on the accompanying geologic map and referenced in later discussions.

Scope of Work

The scope of services performed has included:

- Review of available geologic and soil reports pertaining to the subject White Point project, as well as file documents, geologic reports, aerial photos, and information related to the surrounding area;

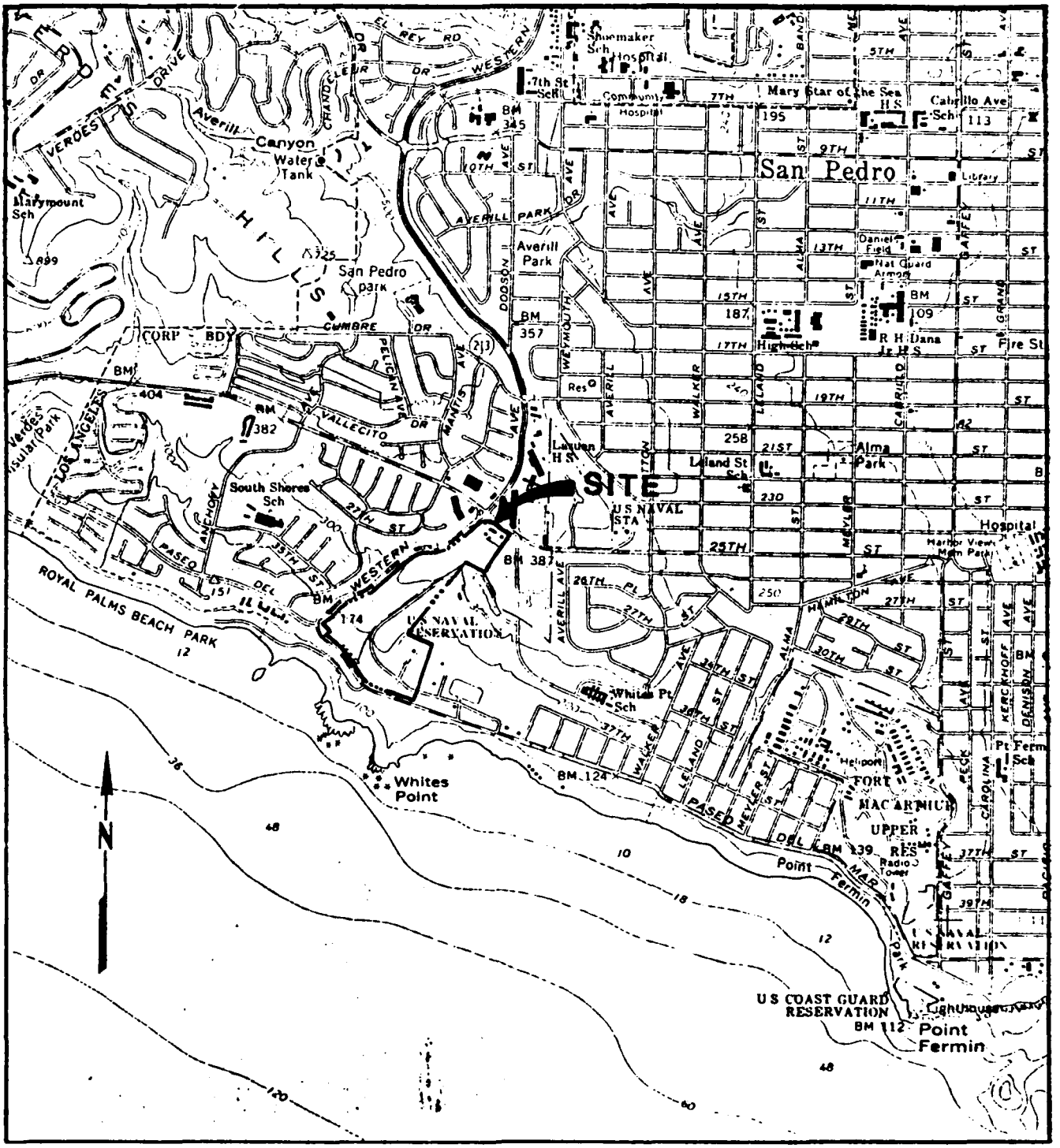
- Geologic reconnaissance mapping of the project site on the east side of Western Avenue. No subsurface exploratory work was performed during this phase of the study;
- Evaluation of the results of the field reconnaissance mapping and our analysis of the available reports and documents reviewed; and
- Preparation of this report containing our findings and conclusions developed during the study and present our opinions on the feasibility of developing this project.

This study should be regarded as a reconnaissance-level study and is, therefore, not intended for use as a site specific geotechnical report. As you are aware, a more detailed geologic/soils investigation, including subsurface exploration and appropriate testing, should be conducted if a decision is made to proceed, and site plans are prepared for the project.

Site Description

The site is on a portion of land formerly part of the Army's Fort MacArthur Military Reservation. Reportedly, the White Point area is a discrete tract of property, separate from other portions of Fort MacArthur. We understand that this area has been under the control of the City and County of Los Angeles since White Point was excessed by the Army seven years ago (Beland/Associates, EIR 1984).

The 50-acre site is located along the southern coast of the Palos Verdes Peninsula at Whites Point, northeast of the intersection of Western Avenue and Paseo Del Mar (see Figure 1, Vicinity Map, following page). Immediately off-site to the east are existing military structures, being abandoned coastal gun emplacements, abandoned Nike Missle installation, and several small buildings.



REFERENCE: U.S.G.S. 7.5 MINUTE SAN PEDRO QUADRANGLE 1964, (PHOTOREVISED 1981)

SCALE 1:24,000

VICINITY MAP

U. S. AIR FORCE
WHITE POINT HOUSING DEVELOPMENT
SAN PEDRO, CALIFORNIA

Project No.
84-1227-01

Figure No.
1

Converse Consultants Geotechnical Engineering and Applied Sciences

Topographically, most of the property is characterized by natural ground that slopes approximately 4° to 8°, or less than 7:1 (horizontal to vertical) towards the ocean from a maximum altitude of about 380 feet to a minimum altitude of about 130 feet. The site features two terrace areas that are marine in origin, a lower terrace which involves roughly the southern quarter of the site, and an upper terrace ridge which occupies roughly the northwestern quarter of the site. The height of the sea cliff south of the property ranges from 120 to 150 feet above mean sea level.

A small drainage coarse trends to the southwest along the easterly most part of the site. The ravine drains onto the lower terrace area and may transmit minor amounts of surface runoff during intense storms. All other site runoff is mainly by sheet flow to the ravine or runoff from slopes to the lower terrace. The ravine has been used as dumping grounds for various exported materials.

Proposed Development

The proposed project will consist of 170 single-family detached housing units and a 5- to 7-acre recreation area on a site of 50± acres. This results in a gross dwelling unit per acre density of approximately four units per acre, excluding the recreation area (Beland/Associates, EIR 1984). Development of the project will require some cut and fill grading, with minor importation of soil materials should significant amounts of on-site soils prove unsuitable for compacted fills.

Field Reconnaissance

Field reconnaissance geologic mapping was conducted to supplement previous geologic data gathered at the site by others. This mapping was plotted on a 1" = 100' scale topographic base map provided by the City

of Los Angeles. One day was spent field mapping, but no subsurface exploration was performed. Geologic sections at a horizontal and vertical scale of 1" = 100' were prepared using the data from the topographic base map, geologic data obtained, and boring data from Slosson & Associates (1972). These geologic sections were used to depict the subsurface structure of the site with respect to geologic features observed, primarily as a result of our field mapping.

GEOLOGIC SETTING

The Palos Verdes Peninsula is characterized structurally as a doubly-plunging anticline trending northwest-southeast that has been uplifted on the southwest side of the Palos Verdes fault since Late Pliocene. During uplift of the peninsula and with changes in sea level, marine (abrasion) terrace platforms were eroded into the flanks of the hills. The marine Miocene Altamira Shale member of the Monterey Formation constitutes the exposed bedrock over most of the peninsula. Surficial units that overlie the bedrock generally consists of marine sands and cobbles, and continental deposits of variable soil (sand, silt, and clay) compositions.

Geologic Units

The dominant geologic units identified on site are bedrock of the Altamira Shale member (Tma), terrace deposits (Qt), and thick accumulations of slopewash (see Drawings 1 and 2). The drainage coarse located in the easternmost part of the site has been used for local dumping of noncompacted fill materials. Characteristics of these units are described below:

Bedrock - Consists of interbedded siltstones, shales, sandstones, and bentonitic tuffs. Some areas are sites of local silicification resulting in chert and silicified siltstones. The bedrock is generally white, gray and brown with orange brown staining on

weathered surfaces, moist, soft to hard, slightly to moderately weathered, slightly fractured to very fractured, and thinly bedded to thickly bedded. Site grading in this bedrock may require heavy duty ripping, although such is expected to comprise a small percentage of overall site excavation.

Terrace Deposits - The terrace deposits generally consist of marine and nonmarine (continental) deposits located mainly along the southern quarter of the site. The soils are mainly sands, sandy silts, and clayey silts. They are tan, light to dark brown, black, dry to slightly moist, loose to medium dense, moderately consolidated, and contain fragments of siltstone and shale derived from the bedrock. These deposits range in depth from 15 to 23 feet below the ground surface at Borings B-12, B-13, and B-14 (Slosson, 1972). Terrace deposits may also exist in the central part of the site between contours 225 and 300, but the thickness may vary from a few to many feet.

Slopewash - In general, slopewash deposits have accumulated over most of the site, but they have not been delineated separately on the Geologic Map (Drawing 1). They occur in greatest thickness, probably 5 feet, on gentle slopes and former terrace platforms. These deposits generally consist of dark brown to black clayey silt that is stiff, slight moist, and contains numerous fragments of shale and siltstone derived from the bedrock.

Noncompacted Fill - Areas of old dump fill or noncompacted fill are limited to the drainage coarse located near the eastern boundary of the site. These fills may range up to 15 feet thick and consist of slopewash deposits and bedrock fragments, as well as some possible deleterious material.

Geologic Structure

The regional bedrock structure in this area of the Palos Verdes Peninsula is generally homoclinal with a gentle 5° to 20° dip to the south. This bedding orientation is reflected in the overall ground surface (dip slope) shape of the site. The beds, however, are also folded into broad open flextures with local tight folding creating vertical beds and overturned folds. An anticline (fold) axis projects through the northerly part of the site from where Cleveland (1976) had mapped it. This anticlinal fold essentially does not affect the overall orientation of on-site bedding, and may be considered to be flattening out in an easterly direction from Western Avenue. Geologic sections A-A' and B-B' (Drawing 2) show the structural trend of bedding at the site and at the sea cliff below the site.

Because of the lack of definitive subsurface data, the underlying subsurface structure at depth can not be verified unless additional subsurface exploration is performed.

Faults and Seismicity

No faults were observed at the site. The principal faults considered most likely to rupture and possibly cause strong ground shaking at the site during the useful life of the proposed construction are tabulated below:

Fault Name	Minimum Distance To Site (Miles)	Total Fault Length (Miles)	Maximum Credible Earthquake Magnitude	Age of Most Recent Displacement
Palos Verdes	3	50	7.0	Late Quaternary
Newport-Inglewood	11	50	7.0	Historic (1933)

The maximum credible earthquake magnitudes given above for these faults are believed to be relatively good approximations, based on direct geologic evidence. These faults could produce maximum credible ground accelerations on the order of 0.3g to 0.6g (Seed and Idriss, 1982).

LANDSLIDES

No landslides were observed on the subject site. Surficial landslides have been noted off-site. These landslides are limited in extent and should not affect ground stability at the subject site. The site does not appear to have been affected by deep-seated landslides.

GROUND WATER

No springs nor evidence of unusual moisture conditions were noted at the site. Ground water is probably at considerable depth beneath the existing ground surface of the site. Based on the site's relative position to the Pacific Ocean and our experience with other coastal areas of the Palos Verdes Peninsula, ground water is probably at least 50 to 100 feet deep.

GEOTECHNICAL CONSIDERATIONS

Site Stability

The primary geologic factor affecting site development is the local bedrock structure. The bedrock beds dip gently downslope, or are basically adversely oriented, throughout the site and along the sea cliff below the site. In general, any planned south-facing cut slopes should be analyzed for stability prior to finalization of development plans and site grading. Overall gross stability should also be checked based on subsurface exploration and laboratory testing.

Expansive Soils

The bedrock materials that have potential for expansion are the shale and bentonitic tuff units. Topsoil rich in bentonitic clays are undoubtedly expansive. Soils derived from both bedrock or surficial deposits

may be regarded as being moderately to highly expansive. Soil expansitivity should be confirmed by laboratory testing and analysis to determine their suitability as foundation materials.

Settlement Potential

The potential for settlement is expected to be minimal in fill areas within the site, provided the vertical thickness of compacted fills does not exceed about 50 feet. In any case, such fill settlement is not unusual and should not adversely affect the proposed construction. The potential for settlement of the existing slopewash and terrace deposits should be evaluated during subsequent studies. All compressible soils should be removed prior to fill placement.

Liquefaction Potential

Based on our evaluation of the regional geology, the bedrock and subsoils present at the site, and the relatively deep ground-water conditions, it is our opinion that the site liquefaction potential is very low and such should pose no hazard to the proposed construction.

Site Grading

A generalized geotechnical evaluation map (Drawing 3) of the site has been prepared to delineate the practical limitations and extent of on-site grading to reduce or eliminate potential slope instability conditions. Three zones that may mandate alternative and/or corrective grading procedures have been recognized at the site. Parameters which permitted the division of the site into three zones included geologic units present, bedrock lithology (type), and geologic structure.

Zone A - This zone is located at the southernmost part of the site and comprises a terrace surface (see Geologic Map, Drawing 1). Because of the underlying deposits in this area, minor remedial grading to remove any unsuitable topsoil or terrace deposits may be

required, particularly before placing fill. Relatively shallow cuts in this zone would probably be grossly stable within the terrace deposits.

Zone B - This zone is located in the central part of the site and exposes bedrock units that dip about 5-10° to the southwest and south. Because of the bedrock lithology and the known geologic structure in this zone, it is apparent that south and southwest-facing cut slopes will daylight adversely dipping beds. To eliminate the need for slope stabilization, planned cut slopes could be graded to a north-south orientation with either east or west-facing slopes not greater than a 2:1 (horizontal to vertical), or plan much flatter slopes if southerly-facing directions are needed. Compacted fill buttresses, or other stabilization methods, would have to be designed to support any daylighted condition.

Zone C - Zone C is located in the northernmost part of the site, and like Zone B, exposes adversely dipping bedrock beds. These beds dip approximately 10° to 30° downslope. Development of this zone will require orientating cut slopes to trend from northwest to north-south with east- or west-facing slopes, or possibly slope stabilization. Minimizing slope height or tilting the slope face back to the local bedding angle (i.e., 15°) may reduce or eliminate the need for slope support.

LIMITATIONS

The findings and recommendations of this report are based on the results of our field reconnaissance and data review combined with interpolation and extrapolation of soil and bedrock conditions between and beyond limited borings. There may be subsurface conditions not disclosed by this study. In our opinion, this geotechnical evaluation is adequate for your environmental analysis.

Professional services in connection with this geotechnical report have complied with generally accepted practice in the fields of soil mechanics, foundation engineering, and engineering geology. We make no other warranty, either express or implied.

Respectfully submitted,

CONVERSE CONSULTANTS, INC.

Mark E. Bryant

Mark E. Bryant, C.E.G. 1046
Senior Geologist

HSA/MEB:bl

DATA REVIEWED

Aerial photographs, 1929, Flight C300, 1"=2,000' (Geotronics); 1972, Sheet 785E, 1"=100' (City of Los Angeles).

Beland/Associates, Inc., 1984, Portion of USAF White Point Housing Environmental Analysis.

Cleveland, G.B., 1976, Geology of the northeast part of the Palos Verdes Hills, Los Angeles County, California, CDMG Map Sheet 27.

Engineering Geology Consultants, Inc., December 10, 1974, Preliminary geologic investigation of proposed housing site, White Point area of Fort MacArthur, San Pedro, California.

Seed, H.B., and Idriss, I.M., 1982, Ground motions and soil liquefaction during earthquakes: Earthquake Engineering Research Institute, 127p.

Woodring, W.P., Bramlette, M.N., and Kew, W.S.W., 1946, Geology and paleontology of Palos Verdes Hills, California: U.S. Geological Survey Professional Paper 207, 145 p.

APPENDIX

APPENDIX

Specific geotechnical constraints have been evaluated with regard to site development. Conditions, impacts, and possible mitigation for major site constraints which were considered in this study are outlined below.

FAULTS AND SEISMICITY

No faults were observed at the site. The closest known active faults to the site are the Palos Verdes and Newport-Inglewood, located approximately 3 and 11 miles away, respectively.

The potential for ground rupture at the site due to faulting is considered unlikely. Maximum credible ground accelerations on the order of 0.3 - 0.6g are possible as a result of seismic activity on a nearby active fault. Because of geologic and geographic conditions at the site, secondary effects of seismic activity (e.g., tsunami or liquefaction) are considered very low.

No special mitigation measures are considered necessary to minimize fault/seismic risk for one- and two-story wood-frame structures. Unified Building Code (UBC) and local City building codes should be followed. If higher structures are planned, site specific earthquake engineering and seismic design studies should be conducted.

LANDSLIDES

No landslides were observed at the site. Surficial landslides have occurred on natural slopes east of the site.

The site does not appear to have been affected by landsliding.

No special mitigation measures are deemed necessary.

GROUND WATER

No springs nor evidence of unusual moisture conditions were noted at the site. Ground water is probably at considerable depth (i.e., 50-100 feet) beneath the ground surface. After development and installation of irrigation systems, however, localized near-surface seepage may occur on graded slopes and some pad areas, depending on the height of slopes and type of earth materials.

Adverse seepage and/or surficial instability, as well as possible gross instability, may result within graded areas.

The site should be explored by way of borings, or other appropriate methods, and evaluated with respect to planned development to obtain information on potential post-grading seepage. Where a relatively high potential for such seepage exists, appropriate drainage devices should be designed and installed (e.g., french drains and buttress drains).

SETTLEMENT

Normally compressible topsoil, slopewash, noncompacted fill and near-surface terrace deposits exist at the site.

Settlement potential is expected to be minimal in fill areas, provided the vertical thickness of compacted fills does not exceed about 50 feet, and all compressible soils are removed before placing compacted fill.

Potentially compressible soil (e.g., slopewash, terrace deposits, etc.) deposits in planned fill areas should be explored and evaluated. Thicker fill areas should be constructed early in the grading operation to minimize post- grading settlement, although most settlement is expected to occur during grading. An additional

mitigation measure could consist of installation of survey monuments on the fill surface to provide a means to monitor and evaluate any settlement.

EXPANSIVE SOILS

For the most part, all earth materials at the site, including slopewash, terrace deposits, and bedrock, are expansive.

Expansive soils can have an adverse effect on structures by cracking and significant damage to slabs-on-grade, foundations, pool shells, and concrete/brick decks.

Potential for expansitivity should be checked by laboratory tests during subsequent studies and after rough grading has been completed. Possible mitigation measures include the use of post-tensioned slabs-on-grade, properly designed conventional foundation systems, or removal of expansive soils beneath planned footings, slabs-on-grade and decks, and replacement with generally nonexpansive soils.

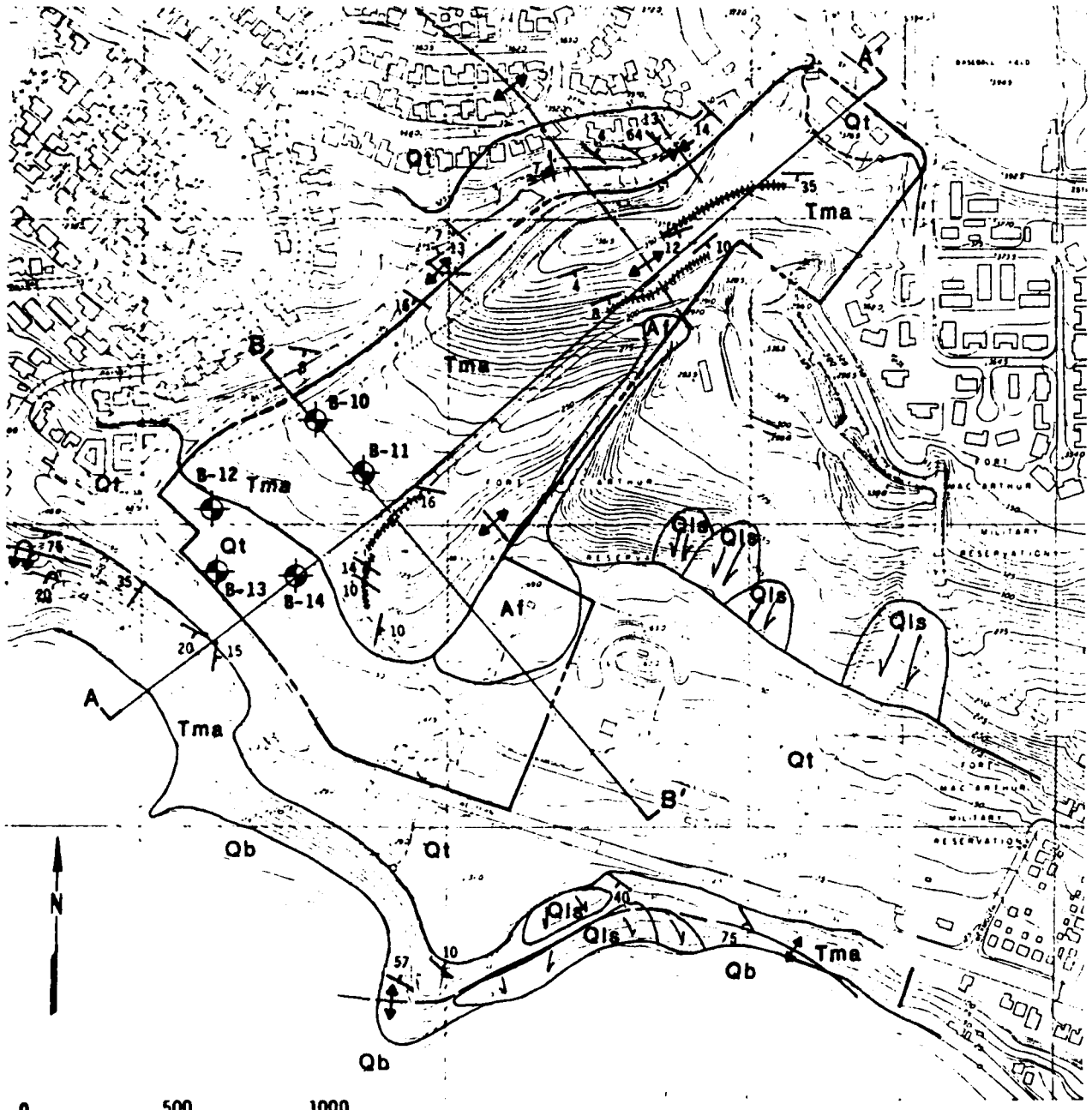
SITE STABILITY

Bedrock beds exposed throughout the site dip generally within the range of 5° to 30° to the southwest and south (seaward).

Potential instability for any planned south- to southwest-facing cut slopes exists.

If generally south- to southwest-facing cut slopes are required, stabilization fills (i.e., buttress with subdrains) could be constructed to provide slope support. To eliminate the need for such support, graded cut slopes could be oriented in a north-south direction, or south-facing slopes could be graded at the angle of bedding (i.e., 15°).

GENERALIZED GEOLOGIC MAP



EXPLANATION

GEOLOGIC UNITS

QUATERNARY

- Af — NONCOMPACTED FILL.
- Qb — BEACH DEPOSITS.
- Qls — LANDSLIDE DEPOSITS.
- Qt — TERRACE DEPOSITS

UPPER MIOCENE

- Tma — MONTEREY FORMATION—ALTAMIRA SHALE MEMBER.

SYMBOLS

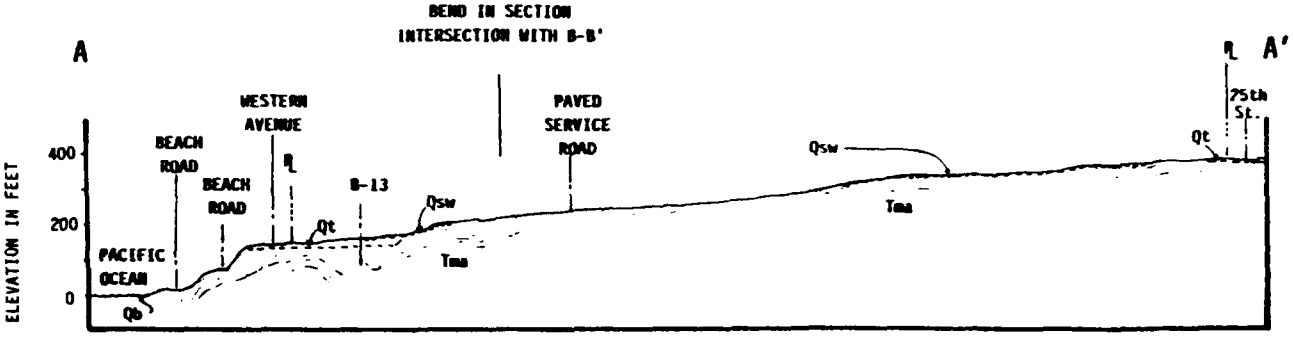
- GEOLOGIC CONTACT, DASHED WHERE APPROXIMATELY LOCATED.
- SHEAR, DASHED WHERE APPROXIMATELY LOCATED.
- 18 — STRIKE AND DIP OF BEDDING.
- 20 — STRIKE AND DIP OF OVERTURNED BEDDING.
- AXIS OF ANTICLINE, DASHED WHERE APPROXIMATELY LOCATED.
- AXIS OF SYNCLINE, DASHED WHERE APPROXIMATELY LOCATED.
- AXIS OF OVERTURNED ANTICLINE, DASHED WHERE APPROXIMATELY LOCATED.
- RESISTANT BEDS, MAINLY SILICIFIED SHALE.
- APPROXIMATE DIRECTION OF MOVEMENT OF LANDSLIDES.
- B-14 — EXPLORATORY BORINGS BY SLOSSON AND ASSOCIATES, 1972.
- PROPERTY LINE, APPROXIMATELY LOCATED.
- B B' — GEOLOGIC SECTION (DRAWING 2).

Converse Consultants — Geotechnical Engineering and Applied Sciences

U. S. AIR FORCE
WHITE POINT HOUSING DEVELOPMENT
SAN PEDRO, CALIFORNIA

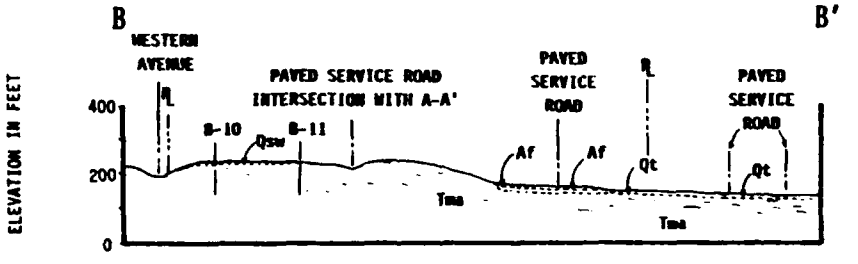
Project No 84-1227-01
Drawing No 1

GENERALIZED GEOLOGIC SECTIONS



SECTION A-A'

SCALE AS SHOWN



SECTION B-B'

SCALE AS SHOWN

0 500

SCALE IN FEET

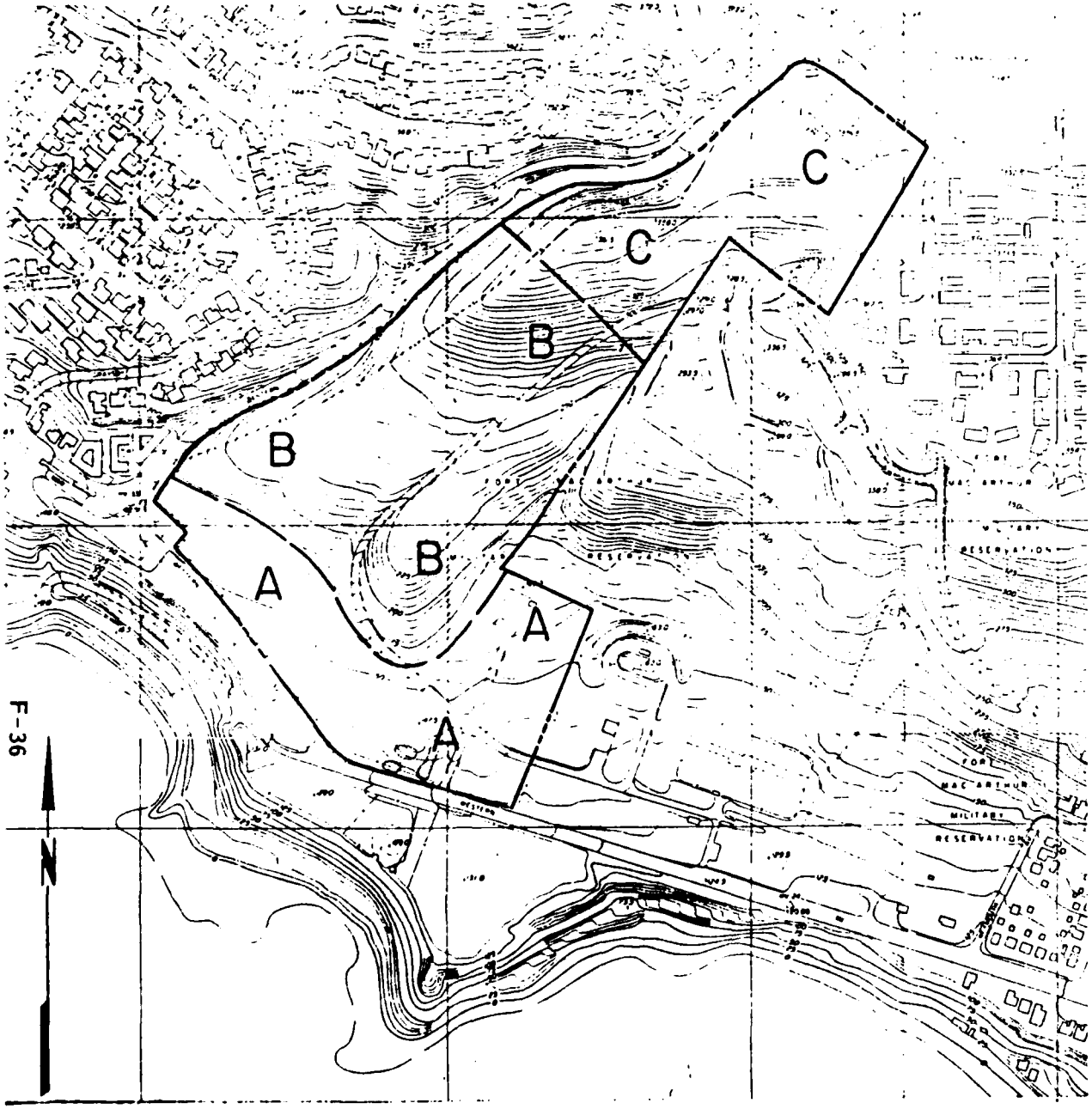
U. S. AIR FORCE
WHITE POINT HOUSING DEVELOPMENT
SAN PEDRO, CALIFORNIA

Project No
84-1227-01

Drawing No
2

Converse Consultants
Geotechnical Engineering and Applied Sciences

GENERALIZED GEOTECHNICAL EVALUATION MAP



EXPLANATION

C — EVALUATION ZONE (SEE TEXT).

ZONE BOUNDARY (SEE TEXT).

PROPERTY LINE, APPROXIMATELY LOCATED.

0 500 1000

SCALE IN FEET

U. S. AIR FORCE
WHITE POINT HOUSING DEVELOPMENT
SAN PEDRO, CALIFORNIA

Project No
84-1227-01

Drawing No
3

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APPENDIX G

FLORA AND FAUNA

State of California
The Resources Agency
DEPARTMENT OF FISH AND GAME

DISTRIBUTION, LIFE HISTORY, AND STATUS OF THREE CALIFORNIA LEPIDOPTERA PROPOSED AS ENDANGERED OR THREATENED SPECIES[1/]

by

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March 1981

[1/] Final report prepared for California Department of Fish and Game under contract No. S-1620 as part of U. S. Fish and Wildlife Service Endangered Species Act grant-in-aid project, California E-F-3. The conclusions expressed herein are those of the author and do not necessarily represent those of the Department of Fish and Game.

Copies of this report are available for limited distribution from the California Department of Fish and Game, Inland Fisheries Branch, 1416 Ninth Street, Sacramento, California 95814.

INTRODUCTION

Three California Lepidoptera were recently proposed as endangered or threatened species by the U. S. Fish and Wildlife Service (FR 43:28938-45, July 3, 1978), in accordance with the Endangered Species Act of 1973. Two butterflies, the Palos Verdes blue (*Glaucopsyche lygdamus palosverdesensis* Perkins and Emmel), and the callippe silverspot [*Speyeria callippe callippe* (Bdv.)], were proposed for endangered status, while the San Francisco tree lupine moth (*Grapholitha edwardsiana* Kft.) was proposed for threatened status. Each of these essentially coastal species is confined to remnant habitats or ecological islands, formerly larger in distribution but now greatly reduced in size due to human activities (Figure 1). Critical Habitat was proposed for the callippe silverspot and the San Francisco tree lupine moth (FR 43:28938-45, July 3, 1978).

This report summarizes the distribution, biology, and threats to survival of each taxon based on field studies conducted in 1979 and 1980. Preliminary recommendations with respect to the Office of Endangered Species' proposed status and essential or critical habitats for each taxon are given.

PALOS VERDES BLUE
(*Glaucopsyche lygdamus palosverdesensis*)

Glaucopsyche lygdamus palosverdesensis Perkins and Emmel, is distinguished by its wing color and maculation pattern. It occurs only on the Palos Verdes Peninsula, Los Angeles County, California where it inhabits cool, fog-shrouded seaward canyons and terraces with a predominant flora of the coastal sage-scrub plant community (Perkins and Emmel 1977). Adults are closely associated with the larval foodplant, a locoweed, *Astragalus trichopodus* (Nutt.) Gray spp. *leucopsis* (Torr.) T. & G. (Leguminosae).

Distribution

Four colonies were inspected in February, March, and August 1979, and March 1980 (Figures 2 and 3). Colony #1, the type locality, occurred on a formerly large, undisturbed terrace west of Hawthorne Boulevard in Rancho Palos Verdes (Figure 2). It was extirpated by a housing development in 1978. A new road, Alta Vista Way, was recently constructed as part of the development and grading and other construction activities completely destroyed the habitat. No specimens of the larval foodplant could be located in 1979 or 1980.

Colony #2 in Rancho Palos Verdes, is west of Hawthorne Boulevard at Lochlema Lane (Figure 2). This is a recently designated recreational facility known as Frank Hesse Memorial Park. Two adults, one male, and one female, were observed here in February 1979. At that time, the larval foodplant was abundant, but fire-preventive rototilling in June or July severely altered the habitat and presumably extirpated the butterfly. Nonetheless, on March 14, 1980, several adults were observed flying at the site and the three remaining larval food plants, growing near the sidewalk, were covered with hundreds of eggs. Some eggs were transferred to plants growing at colony #3.

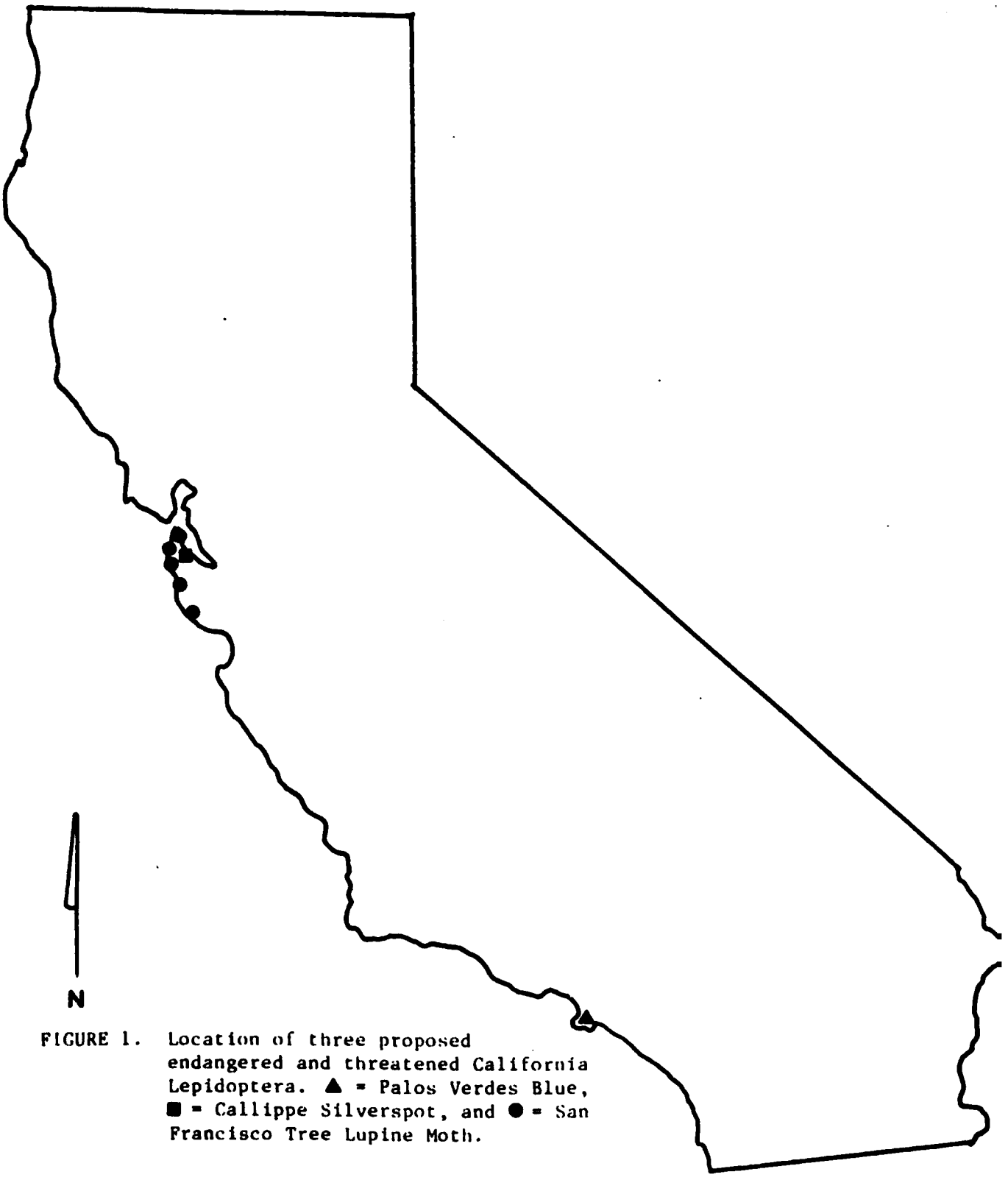

FIGURE 1. Location of three proposed endangered and threatened California Lepidoptera. ▲ = Palos Verdes Blue, ■ = Callippe Silverspot, and ● = San Francisco Tree Lupine Moth.

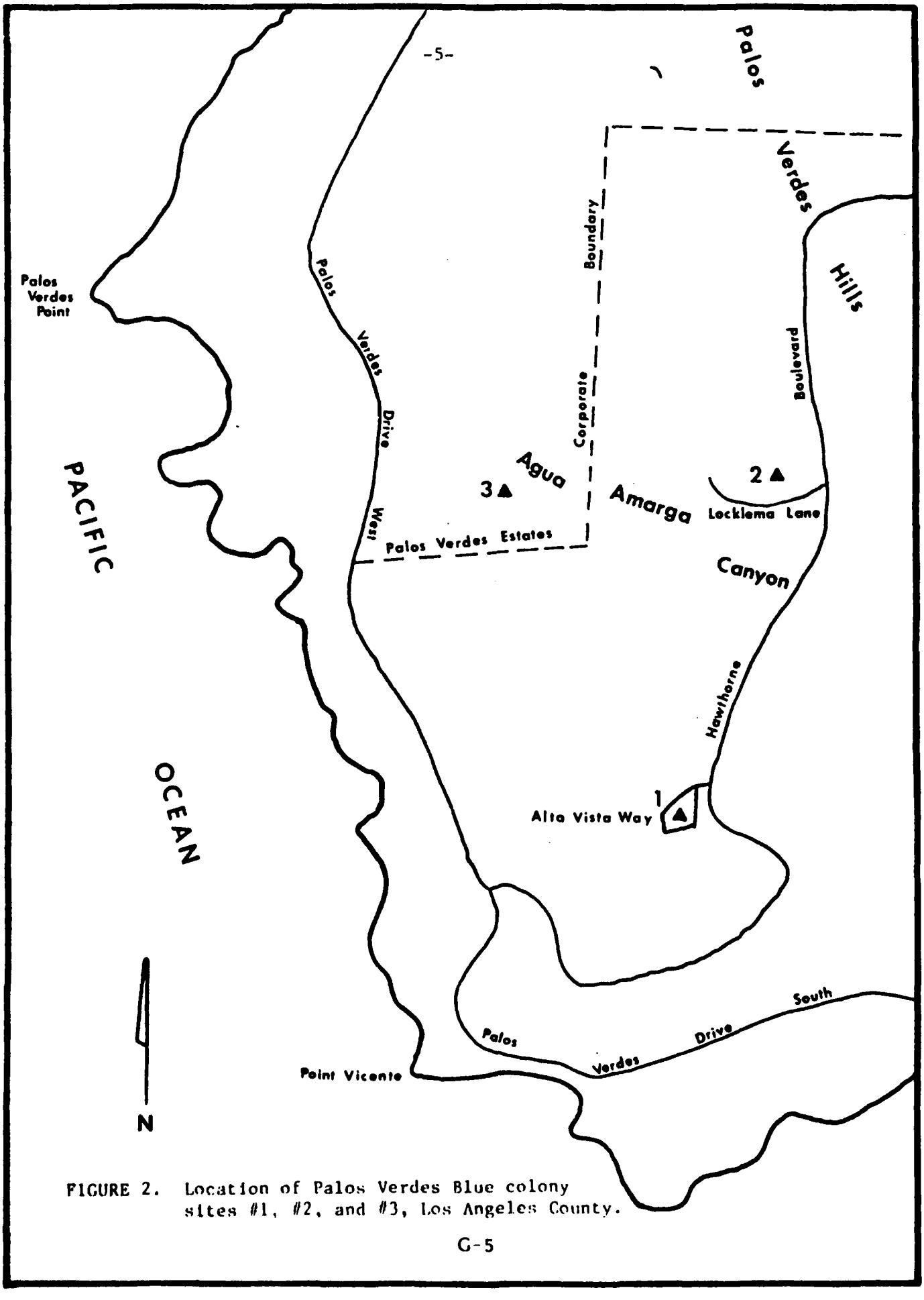

FIGURE 2. Location of Palos Verdes Blue colony sites #1, #2, and #3, Los Angeles County.

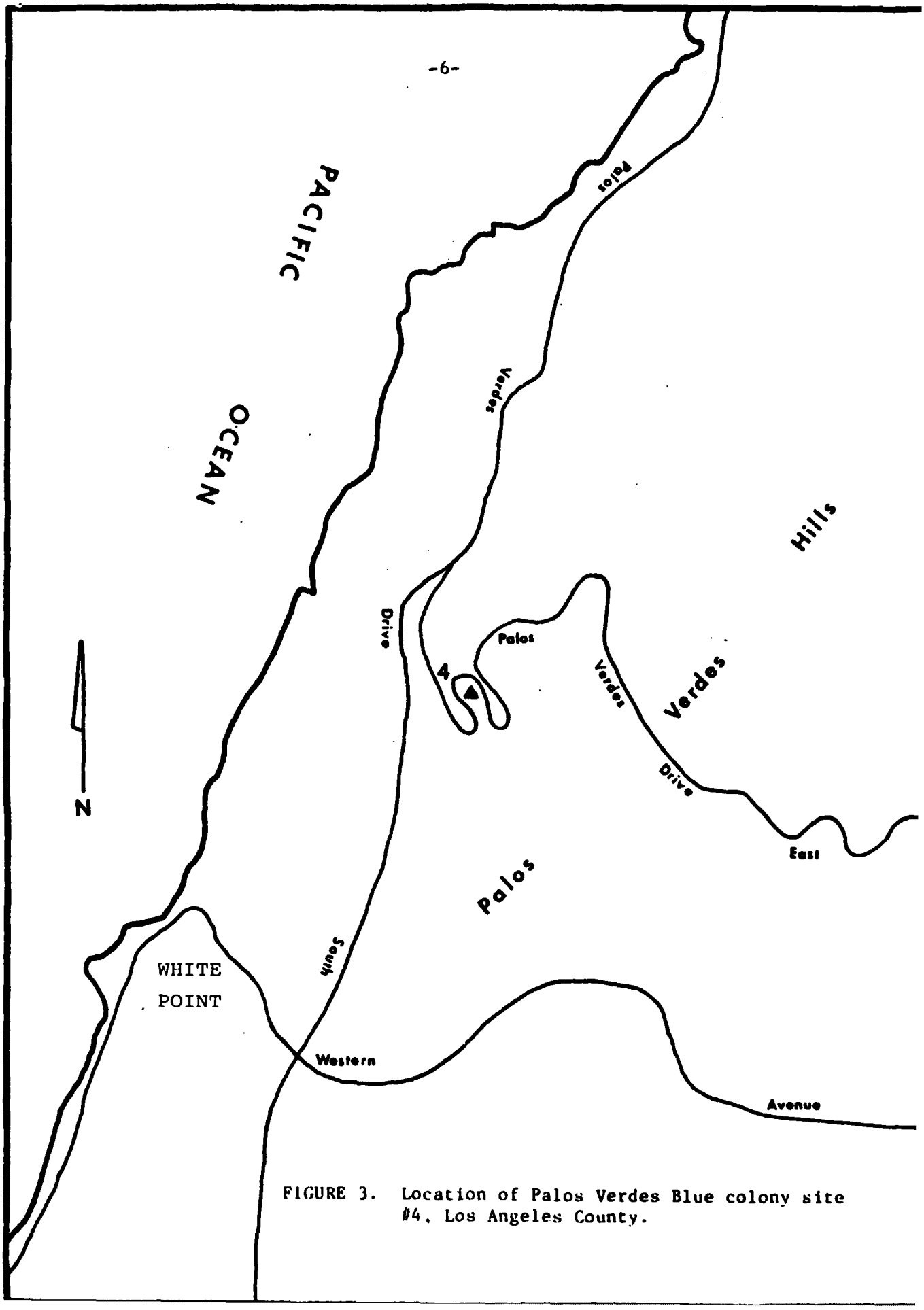

FIGURE 3. Location of Palos Verdes Blue colony site #4, Los Angeles County.

Colony #3 occurs in Agua Amarga Canyon, in Palos Verdes Estates (Figure 2). This colony is located about 0.4 km up the Canyon and is not in immediate danger of destruction by man. However, gophers and several weeds have invaded the site and the *Astragalus* plants appear to be under considerable stress due to disruption of the substrate and competition. Many of the weeds were shading the *Astragalus*. Simple management techniques could easily prevent these problems. One adult, a male, was spotted on the wing in 1979. No adults or eggs were located here in 1980. Only about six plants were located in 1980. These were covered by vines and other dense vegetative growth.

Colony #4 occurs in the Rancho Palos Verdes area west of Marymount (St. Mary's) College, on Palos Verdes Drive East in the area of an S-curve (Figure 3). This site was rototilled in June or July 1979. No butterflies were observed here in 1979, but several hundred eggs were found on March 10, 1980 and adults were observed on March 15.

Life History

Although rearing data are incomplete, a tentative life history of *G. l. palosverdesensis*, based on field data and knowledge of related taxa, is presented.

Adults fly in late February and early March. Oviposition occurs throughout the flight season. Eggs are laid on the flower buds and leaves. Larvae emerge in about 7 to 10 days, feed on the sepals and gynoecia and eventually bore into the seed pods where they complete their development foraging on the seeds and dermal tissue of the pod. There are at least four larval instars, possibly five. Early instar larvae may be tended by ants. In April, the mature larvae crawl down to the base of the plant and pupate in the duff.

Adults are seldom numerous, although about 20 were observed on March 15, 1980 at Colony #2. Therefore, some specialized mate-locating behavior must be employed. Hilltopping would be a logical mechanism due to the terrain. However, since adults are always found in association with the larval foodplant, proximity to the foodplant may be the key to mate location.

Recommendations

As mentioned above at least one colony, #1, and possibly two others, colonies #2 and #3, may have been extirpated. Colony #2 could probably be restored by planting the locoweed at the Park, enclosing it by a fence to prevent accidental rototilling, and negotiating a cooperative agreement with local governmental authorities. Once the foodplant was reestablished, larvae from Colony #4 could be transplanted. This effort would probably require several years to produce a self-sustaining population. Colony #3 could be similarly reestablished. At present Colony #4 is the only viable colony.

Other colonies may exist in the remaining canyons and terraces along the Palos Verdes coastline. Most of these lands are in private ownership. Roadside observations did not reveal any new colonies. The entire length

of Agua Amarga Canyon and several other canyons in Rancho Palos Verdes should be surveyed. Present data strongly support the classification of Palos Verdes blue as endangered.[2/]

Summary

The Palos Verdes blue is known only from a few sites on the Palos Verdes Peninsula near Los Angeles. The only viable colony is located on Palos Verdes Drive East near Marymount College in Rancho Palos Verdes. At least one and possibly as many as three colonies of the butterfly have been extirpated by conditions unsuitable for larval foodplant survival. The larval foodplant is *Astragalus trichopodus leucopsis*. Adults fly in February and March, and are found on or near the larval foodplant.

SAN FRANCISCO TREE LUPINE MOTH
(*Grapholitha edwardsiana* Kft.)

Grapholitha edwardsiana Kft., an olethreutid moth, is endemic to several remnant sand dunes along the San Francisco peninsular coastline. It was discovered in San Francisco during the 1880's (Powell 1979), but with the destruction of most of the City's dune systems, the moth was believed extinct until 1960, when it was rediscovered near Baker Beach on the Presidio. In 1977-78, Dr. Jerry A. Powell found the moth on three dune remnants: 1) southeast of Baker Beach, San Francisco County, 2) southern margin of Lake Merced, San Francisco County, and 3) base of Guadalupe Canyon Parkway, San Bruno Mountain, San Mateo County (Powell 1979). Each of these colonies is extremely small, with no more than 150 individuals of the larval foodplant, *Lupinus arboreus* Sims, at each site.

Distribution

During our 1979 field work, Dr. Powell and I discovered the moth at several dune remnants:

1. Lobos Creek, San Francisco. One airline km southeast of Baker Beach (Figure 4). The moths were fairly common here on May 10, especially at the west end of the *L. arboreus* colony, which contains about 70 mature and several immature plants.

2. Baker Beach, San Francisco (Figure 4). The moths were more numerous than at site #1 on May 10. About 60 *L. arboreus* plants were in bloom between Lincoln and Washington boulevards. Two to four moths were flying around each bush. About 80 *L. arboreus* plants were in bloom on the bluffs below the road, above the Beach, and in the gullies, mostly near Lincoln Boulevard.

3. Mountain Lake, San Francisco (Figure 4). A few moths were observed flying in a compact stand of about 25 *L. arboreus* at the southeast end of the Lake on May 10.

[2/] This species has been designated an Endangered species by the U. S. Fish and Wildlife Service (FR 45:44939-44942, July 2, 1980).

Biological Resources and Impact of Development of Upper Fort MacArthur and Whites Point Sites Los Angeles Co., California

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Botanist
Independent Environmental Consultants

David Soltz, Ph.D.
Vertebrate Biologist

Biological surveys of the Upper Fort MacArthur and Whites Point sites were made on 7 December, 1974 by walking extensively through both areas and recording species observed from direct and secondary evidences. Check-lists of all plants and animals observed in each area are presented in the appendix tables. The survey was made during the winter season when annual plants of the previous season were dried out and new seedlings of the current season were just developing, while summer-fall flowering herbs were still intact. It was possible to identify many spring-flowering species from seedlings and fragmentary materials of the previous season. The check-lists of plants on the two sites include only those actually observed. Plant nomenclature follows Munz, 1969 (A California Flora and Supplement) for native species and Bailey, 1951 (Manual of Cultivated Plants) for cultivated species. The check-lists of mammals, birds, reptiles and amphibians are based on actual observations and indirect evidence, e.g., tracks, fecal droppings, burrows, etc. and also include species expected to occur on the sites as well. Mammal nomenclature follows Engles, 1971 (Mammals of the Pacific States), bird nomenclature follows the American Ornithologist Union 1972 supplement to the Checklist of North American Birds, while that of amphibians and reptiles follow Stebbins, 1966 (Amphibians and Reptiles of Western North America).

A survey of this nature has obvious limitations placed upon it, as many of the animals expected to occur on the sites were not active during the period of examination. While it is realized that the actual abundance of the terrestrial fauna on the sites cannot be definitely determined without an extensive trapping and marking program, information obtained from a one-day survey of the vertebrate fauna and the vegetation

does make it possible to produce hypothetical lists of those animals known to occur in the area and habitat. Animals actually observed on the sites were relatively few, primarily due to the season. Therefore, it is necessary to rely on an estimate of the expected abundance of species which is provided in the appendix. These estimates (see appendix) give an indication of the abundance and diversity of the vertebrate fauna on the site and are not intended to be exhaustive.

UPPER FORT MACARTHUR SITE

Vegetation: The Upper Fort MacArthur parcel is a developed site containing numerous buildings, landscaped lawns and paved areas as well as several open fields in which a weed-dominated vegetation develops after winter-spring rains. Vegetation on the site consists of various cultivars around the buildings and a weedy grassland in the open undeveloped fields. The early spring flora on these fields consists entirely of ubiquitous weedy annuals dominated by black mustard (Brassica nigra), wild oats (Avena barbata), ripgut grass (Bromus diandrus) and contains a number of other species in lesser frequency such as the sweet clover (Melilotus indicus), wild radish (Raphanus sativus) and barley (Hordeum vulgare). This dense vegetation is then disked under in the late spring, following general weed and fire control ordinances; and a second summer-fall flora develops, but this is much more open, consisting of only scattered individuals. These summer maturing species include Russian thistle (Salsola pestifera), pigweed (Amaranthus graecizans), the cultivated beet (Beta vulgaris), Australian saltbush (Atriplex semibaccata), sweet clover (Melilotus indicus), as well as cheeseweed (Malva parviflora), spurge (Euphorbia peplomarginata) and many others. Only one of the species

California ground squirrel (Citellus beecheyi) burrows were occasionally seen, but the plowing of the slopes have prevented this rodent from establishing a significant population. Although the ubiquitous deer mouse (Peromyscus maniculatus) would be present, the house mouse (Mus musculus) which is always closely associated with human dwellings would predominate. No native terrestrial carnivores would be expected to occur on the site. Feral house cats (one was seen) are commonly associated with uninhabited or little-used dwellings and would be common on this site. Although about 30 species of birds would be expected to occur on the site during a year, the only abundant species were the typical "suburban" birds, such as pigeons, starlings, Brewer's blackbirds, house finches and house sparrows. The scattered eucalyptus trees, which form a small grove on the northeast corner of the site, provide perching sites for sparrow hawks, nesting and foraging areas for the resident Anna's hummingbird, and resting and foraging sites for migrants, such as sparrows and warblers.

WHITES POINT

Vegetation: The Whites Point parcel is an abandoned Nike missile site and consists primarily of a large tract of disturbed mustard-dominated grassland but also contains a number of paved roads, buildings and other developments. Most of the site consists of open fields only a portion of which is disked over after the winter-spring growing season. Early spring flora consists of black mustard (Brassica nigra), wild oats (Avena barbata), ripgut grass (Bromus diandrus), foxtail chess (Bromus rubens) as well as tocalote (Centaurea melitensis) and a number of other, less frequent species. These form very dense vegetation with black

mustard reaching up to 7 feet in height. In areas not disked this vegetation remains throughout the year drying out with the oncoming of summer. In areas disked some additional species develop a more scattered summer vegetation. These include a number of widespread species as Russian thistle (Salsola pestifera), cultivated beet (Beta vulgaris), bermuda grass (Cynodon dactylon) and Australian saltbush (Atriplex semibaccata). In some low areas St. Augustine grass (Stenotaphrum secundatum) is particularly well developed. The grass-dominated slopes also contain two native species of shrubs both of which are widespread in the Los Angeles basin. These are the seep willow (Baccharis glutinosa) as well as goldenbush (Happlopappus venetus ssp. vernonioides) which is common on one small ridge on the western portion of the site. The Whites Point site also contains a number of cultivated species around the existing buildings and in previously landscaped areas. In one area nearest Whites Point an old building site is marked by a row of olive trees (Olea europea) and scattered trees of Brazilian pepper trees (Schinus terebinthifolius), Canary Island date palm (Phoenix canarensis) as well as a colony of tuna cactus (Opuntia ficus indicus hybrids), century plant (Agave americana) and a Myoporum (M. laetum).

While the Whites Point site represents an extensive tract of undeveloped land, the vegetation on the site is representative of highly disturbed areas consisting almost entirely of naturalized weedy species. Only six of the 56 species observed on the site are native. Of these, all are widespread species occurring throughout Southern California and none of the native species are common on the site.

Wildlife: Since the Whites Point site consists primarily of a rather homogeneous grass-dominated vegetation it is able to support a much less

diverse vertebrate fauna than would native coastal sage scrub vegetation or a habitat containing more trees. Annual disking of some of the flat areas for fire control have further reduced the habitat available for terrestrial vertebrates. Numerous abandoned structures on the site provide "habitat" for a few introduced species that are always closely associated with human habitation, e.g., house mouse (Mus musculus), black rat (Rattus rattus) and the predatory, feral house cat (Felis catus). Larger native carnivores, such as the coyote (Canis latrans) and grey fox (Urocyon cinereoargenteus), would be very uncommon on the site due to extensive development of the surrounding areas. However, the long-tailed weasel (Mustela frenata) and stripped skunk (Mephitis mephitis) may be common and would find abundant prey in the California vole (Microtus californicus) whose runways are readily observable in the dense grass on the slopes. The open-country condition of the site provides good habitat for a number of small mammals, such as Audubon's cottontail (Sylvilagus auduboni), California ground squirrel (Citellus beecheyi) and Botta pocket gopher (Thomomys bottae) all of which appear to be common on the site from indirect evidence. Only one white-footed mouse, the ubiquitous deer mouse (Peromyscus maniculatus), would be common on the site. The relatively high density of small rodents would provide abundant prey and should support a sizable population of carnivorous vertebrates on and foraging over the site.

Approximately 60 species of birds are predicted to occur on the site. This estimate does not include all possible migrants such as certain species of sparrows and warblers that briefly occur in the area. Because of the lack of shrubby vegetation the site does not provide significant

nesting habitat for song birds. The weedy vegetation does provide a significant food resource for seed-eating birds, many of which are "suburban" birds from adjacent developed areas, e.g., domestic pigeons, mourning doves, house finches, and starlings all of which were seen in large numbers during the survey. Five female ring-necked pheasants were seen in a brushy ravine in the northwest portion of the site. They are apparently remnants of a population introduced by the gun club. The site is heavily used by raptorial birds (one red-tailed hawk, five sparrow hawks, five loggerhead shrikes and numerous owl pellets were seen) which would prey on the large rodent and rabbit populations. Burrowing owls would also be common as they nest in ground squirrel burrows which are common on the site.

The weedy vegetation does not provide good habitat for most species of lizards. The side-blotched lizard (Uta stansburiana) would be the most common lizard on the site and the western fence lizard (Sceloporous occidentalis) would be common near the fences and poles of debris. The gopher snake (Pituophis melanoleucus), common kingsnake (Lampropeltis getulus) and coachwhip (Masticophis flagellum), all of which feed heavily on small mammals, would be common on the site.

The Whites Point site drains into the Pacific Ocean along its southern border and development of the site may have an effect on the flora and fauna of the adjacent ocean bluffs and marine and intertidal habitats. The biological resources present in these habitats are discussed below.

Vegetation on the steep sandstone bluffs is very open and consists of a weedy association of wind-swept shrubs and grasses. The most common

species observed on the protected areas on the bluffs are annual grasses as foxtail chess (Bromus rubens), wild oats (Avena barbata) which occur with the ubiquitous annual iceplant (Mesembryanthemum crystalinum) and a number of weedy species including bassia (Bassia hyssopifolia) and Russian thistle (Salsola pestifera). Some shrubby species also are frequent on the bluffs including the Australian saltbush (Atriplex semibaccata), and a number of native species including the California sunflower (Encelia californica), bladder pod (Isomeris arborea), sea-blite (Suaeda californica var. pubescens), and tuna cactus (Opuntia cf. littoralis). None of the native species occurring on the bluffs are restricted to the site rather all are wide-ranging species occurring in coastal areas all along the southern California coast.

There is an extensive rocky intertidal area below the bluffs which is heavily used by fishermen, beachcombers and tidepoolers who are attracted to the site by the public road and the availability of parking below the bluffs. The marine and intertidal habitats however are not in a highly natural state.

All of the outfalls from the Los Angeles County Sanitation District sewage treatment plants are located from one to two miles offshore of Whites Point. Sewage effluent has been released into the ocean in the area continuously since 1937 and has resulted in decreased diversity of the subtidal and intertidal communities there. The extent of the influence of sewage effluent on the marine environment in the area is presently under intensive investigation by SCCWRP. However, the Whites Point intertidal area is sufficiently rich to attract heavy recreational use, which in turn tends to further decrease the diversity of the area due to

excessive collecting of invertebrates. As a result abalone, crabs, octopi and clams (i.e., most edible invertebrates) are rare in the intertidal zone. When new regulations on collecting intertidal invertebrates are enforced the rare species will be able to recolonize the intertidal if there is not further environmental degradation from other sources. Fishermen at Whites Point reported catching good number of opaleye (Girella nigricans) and surfperch (numerous species of the family Embiotocidae) and occasionally sea bass (Paralabrax sp.) and Cabezon (Scorpaenichthys marmoratus).

IMPACT OF DEVELOPMENT

Upper Fort MacArthur Site: The Upper Fort MacArthur site is an extensively developed site and all open areas have been subjected to continual disturbance. No vestiges of native flora are present on the site and the flora consists almost entirely of introduced naturalized weeds and cultivated species. Only one natural occurring native species was observed on the site, a spurge (Euphorbia albomarginata) and this is a very weedy species common in weedy areas throughout Southern California. The site contained no rare or endangered species in the wild state.

Extensive redevelopment of the area into a housing project will result in the removal of most of the open weedy habitat and this will be replaced with landscaped areas and houses. Resident animals will also be displaced at this time and will have to move out of the site. There is little possibility that the displaced resident species would be able to compete successfully with animals resident in adjacent areas. For this reason and because most of the surrounding area is already highly developed it is doubtful that resident species displaced from the site will be able to migrate and successfully establish themselves in adjacent habitats. However, the avian fauna on the site now consists primarily of "suburban" bird species such as pigeons, starlings, house finches, house sparrows, etc. which would be able to reoccupy the area after development. A somewhat more natural and aesthetically desirable avian and terrestrial fauna would be present after redevelopment only if the eucalyptus trees, particularly the grove in the northeast corner, are not removed during development.

Whites Point Site: The Whites Point site is also a highly disturbed

area. Vegetation consists of a rather uniform mustard-dominated weedy grassland in the fields and a number of cultivated species around buildings. Only six native species occur on the site and none of these are widespread on the site but all are common in Southern California. No rare or endangered species were observed or are expected to occur on the site.

Although the habitat on this site is highly disturbed there are significant resident populations of a number of small mammal species and some birds. The development of housing on the site would force displacement of resident individuals and species. If displacement occurs there is little probability that the resident animals (with the possible exception of birds) would be able to migrate and successfully establish themselves in the remaining undeveloped habitat to the north of the site. This is due both to the general low movability of small mammals and reptiles and the problem for all displaced animals of competing with the established fauna in adjacent areas. Development would destroy an important food resource (seeds) for both "suburban" birds in adjacent developed areas and for numerous migratory species that temporarily use the area. While the typical "suburban" birds would reoccupy the development, the carrying capacity of the general area for seed-eating and perhaps insectivorous birds would be decreased. Perhaps most importantly, the elimination of the large rodent and rabbit populations on the site would further decrease the already severely limited prey resource for the raptorial birds (hawks and owls) on the Palos Verdes Peninsula.

Care should be taken during construction to prevent excessive amounts of silt laden runoff from entering the marine environment at Whites Point.

Greatly increased discharge of both freshwater and silt could have a detrimental effect on the intertidal and subtidal organisms. High silt loads in the intertidal could be particularly harmful to filter-feeding invertebrates and to newly settled larvae in the area. This could further disrupt the ecological balance of the intertidal and subtidal communities around Whites Point that already have been negatively influenced by offshore sewage outfalls. In its present condition the Whites Point intertidal area is heavily used by fishermen, beachcombers and tidepoolers. Significant further deterioration of the intertidal and subtidal environment may greatly decrease the value of the area for recreational activities. After development of the site the increased runoff from watering of landscaped areas and paving of extensive areas should be released at reduced speed and dispersed over a wide area to ameliorate effect of long term input of additional freshwater and silt into the coastal marine environment at Whites Point.

Vascular Plants of the Whites Point Site

		A, Annual; P, Perennial; S, Shrubs; T, Trees	Disturbed grasslands	Cultivated
CONIFERATA				
CUPRESSACEAE - Cypress Family				
*Cupressus sp.	Cypress	T		R
MONOCOTYLEDONEAE				
AGAVACEAE - Agave Family				
*Agave americana	Century plant	P		R
*Dracena sp.	Dracena	T		R
*Phormium tenax	New Zealand flax	P		R
ARECACEAE - Palm Family				
*Phoenix canariensis	Canary Island date palm	T		R
*Washingtonia robusta	Washington palm	T		I
POACEAE - Grass Family				
*Avena barbata	Wild oats	A	C	
*Bromus diandrus	Ripgut grass	A	C	
*Bromus rubens	Foxtail chess	A	C	
*Cynodon dactylon	Bermuda grass	A	F	
*Hordeum vulgare	Barley	A	C	
*Stenotaphrum secundatum	St. Augustine grass	P	F	

*Indicates introduced, non-native species. Relative frequencies: C, common; F, frequent; I, infrequent; R, rare.

Vascular Plants of the Whites Point Site

		A, Annual; P, Perennial; S, Shrubs; T, Trees	Disturbed grasslands	Cultivated
DICOTYLEDONEAE				
AIZOACEAE - Ice Plant Family				
*Mesembryanthemum crystalinum	Annual Ice plant	A	I	
*Mesembryanthemum edule	Ice plant	P	F	I
AMARANTHACEAE - Amaranthus Family				
*Amaranthus graecizans	Amaranthus	A	I	
ANACARDIACEAE - Cashew Family				
*Schinus molle	California pepper tree	T		I
*Schinus terebinthifolius	Brazilian pepper tree	T		I
APIACEAE - Parsley Family				
*Foeniculum vulgare	Sweet fennel	P	C	
APOCYNACEAE - Dogbane Family				
*Carissa grandiflora	Natal plum	S		R
*Nerium oleander	Oleander	S		R
ASCLEPIADACEAE - Milkweed Family				
Asclepias fascicularis	Milkweed	P	I	
ASTERACEAE - Sunflower Family				
*Baccharis glutinosa	Seep willow	S	R	
*Centaurea melitensis	Tocalote	A	F	
Haplopappus venetus ssp. vernonioides	Goldenbush	S	F	

Vascular Plants of the Whites Point Site

		A, Annual; P, Perennial; S, Shrubs; T, Trees	Disturbed grasslands	Cultivated
ASTERACEAE - continued				
Malacothrix saxatilis	Malacothrix	P	R	
*Picris echioides	Ox-tongue	A	F	
*Sonchus asper	Sow-thistle	A	F	
*Sonchus oleraceus	Sow-thistle	A	F	
*Taraxicum officinale	Dandelion	P	F	
BRASSICACEAE - Mustard Family				
*Brassica nigra	Wild mustard	A	C	
*Raphanus sativa	Wild radish	A	I	
CACTACEAE - Cactus Family				
*Opuntia ficus-indica hybrids	Tuna cactus	S		I
CHENOPODIACEAE - Goosefoot Family				
*Atriplex semibaccata	Australian saltbush	P	F	
*Beta vulgaris	Cultivated beet	P	I	
*Chenopodium murale	Goosefoot	A	I	
CONVOLVULACEAE - Morning-glory Family				
*Convolvulus arvensis	Hedge-bindweed	P	I	
CRASSULACEAE - Stonecrop Family				
*Crassula argentea	Jade plant	S		R

Vascular Plants of the Whites Point Site

		A, Annual; P, Perennial; S, Shrubs; T, Trees	Disturbed grasslands	Cultivated
EUPHORBIACEAE - Spurge Family				
Euphorbia albomarginata	Spurge	P	F	
FABACEAE - Bean Family				
Astragalus trichopodus ssp. leucopsis	Loco weed	P	R	
Lupinus succulentus	Lupine	A	R	
*Melilotus indicus	Sweet clover	A	I	
GERANIACEAE - Geranium Family				
*Erodium cicutarium	Storksbill	A	I	
*Erodium obtusiplicatum	Storksbill	A	F	
*Pelaragonum X hortorum	Cultivated geranium	P		R
LAMIACEAE - Mint Family				
*Marrubium vulgare	Horehound	S	R	
LAURACEAE - Laurel Family				
*Persea indica	Canary Island avocado	T		R
MALVACEAE - Mallow Family				
*Malva parviflora	Cheeseweed	A	I	
*Sida hederacea	Alkali mallow	P	I	
MYOPORACEAE				
*Myoporum laetum	Myoporum	S		I

Vascular Plants of the Whites Point Site

		A, Annual; P, Perennial; S, Shrubs; T, Trees	Disturbed grasslands	Cultivated
OLEACEAE - Olive Family				
*Olea europea	Olive tree	T		I
ONAGRACEAE - Evening Primrose Family				
*Fuchsia cf. hybrida	Fuchsia	S		R
OXALIDACEAE - Oxalis Family				
*Oxalis pes-caprae	Oxalis	P	F	
PITTOSPORACEAE - Pittosporum Family				
*Pittosporum tobira	Japanese Pittosporum	S		R
*Pittosporum undulatum	Victorian box	T		R
POLYGONACEAE - Buckwheat Family				
*Rumex crispus	Curly dock	P	I	
SOLANACEAE - Nightshade Family				
*Nicotiana glauca	Tree tobacco	S	I	

Amphibians and Reptiles of the Whites Point Site

		Presence Determined	Expected Abundance*	
			Site	Southern California
AMPHIBIANS				
Pacific slender salamander	Batrachoseps pacificus	hypo.	C	C
Western toad	Bufo boreas	hypo.	U	A
Western spadefoot	Scaphiopus hammondi	hypo.	U	C
REPTILES - Lizards				
Western fence lizard	Sceloporus occidentalis	hypo.	C	A
Side-blotched lizard	Uta stansburiana	hypo.	C	A
California horned lizard	Phrynosoma coronatum	hypo.	U	C
Southern alligator lizard	Gerrhonotus multicarinatus	seen	C	C
Western whiptail	Cnemidophorus tigris	hypo.	U	C
REPTILES - Snakes				
Ringneck snake	Diadophus punctatus	hypo.	C	C
Racer	Coluber constrictor	hypo.	U	U
Striped racer	Masticophis lateralis	hypo.	U	C
Coachwhip	Masticophis flagellum	hypo.	C	C

*All abundance terms are relative to normal density of the species. A = abundant, very numerous and easily verified; C = common, moderate numbers and verifiable; U = uncommon, infrequently found; E = endangered, as listed on the 1974 United States List of Endangered Species.

Amphibians and Reptiles of the Whites Point Site

		Presence Determined	Expected Abundance*	
			Site	Southern California
REPTILES - Snakes (continued)				
Gopher snake	Pituophis melanoleucus	Lseen	C	A
Western terrestrial garter snake	Thamnophis elegans	hypo.	U	C
California kingsnake	Lampropeltis getulus	hypo.	C	C
Western rattlesnake	Crotalus viridis	hypo.	U	C

Birds of the Whites Point Site

		Number Actually Observed	Expected Abundance on Site*	
			Resident/ Breeding	Foraging/ Migrant
Turkey vulture	Cathartes aura			U
Red-tailed hawk	Buteo jamaicensis	1	C	
Cooper's hawk	Accipiter cooperi		U	
Sparrow hawk	Falco sparverius	2	C	
California gull	Larus californicus	~30 overhead		C
California quail	Lophortyx californius		U	
Mourning dove	Zenaidura macroura	32	A	
Domestic pigeon	Columba livia	100+	A	
Barn owl	Tyto alba		U	
Great horned owl	Buoo virginianus		U	
Burrowing owl	Speotyto cunicularia	1	C	
White-throated swift	Aeronautes saxatalis		U	
Killdeer	Charadrius vociferus	1	C	
Anna's hummingbird	Calypte anna	1	C	
Allen's hummingbird	Selasphorus rufus			U

*All abundance terms are relative to normal density of the species. A = abundant, very numerous and easily verified; C = common, moderate numbers and verifiable; U = uncommon, infrequently found; R = rare, as listed by California Department of Fish and Game; E = endangered, as above.

Birds of the Whites Point Site

		Number Actually Observed	Expected on Site* Resident/ Breeding	Foraging/
Ring-necked pheasant	Phasianus colchicus	5	U	
Say's phoebe	Sayornis saya		U	
Cliff swallow	Petrochelidon pyrrhonota		C	
Raven	Corvus corax			
Common bushtit	Psaltriparis minimus		U	
Wrentit	Chamaea fasciata		U	
Mockingbird	Mimus polyglottos	1	C	
Loggerhead shrike	Lanius ladoricianus	5	C	
Robin	Turdus migratorius		C	
Starling	Sturnus vulgaris	75+	A	
Audubon's warbler	Dendroica auduboni			
House sparrow	Passer domesticus		C	
Western meadowlark	Sturnella neglecta	17	A	
Brewer's blackbird	Euphagus cyanocephalus		C	
House finch	Carpodacus mexicanus	150+ in flocks	A	
Lessor goldfinch	Spinus psaltria		U	
Brown towhee	Pipilo fuscus	1	U	
Savannah sparrow	Passerculus sandwichensis	2	C	
White-crowned sparrow	Zonotrichia leucophrys			
Oregon junco	Junco oreganus			

Mammals of the Whites Point Site

		Presence Determined	Expected Abundance*	
			Site	Southern California
Opposum	Didelphis marsupialis	hypo.	C	C
Ornate shrew	Sorex ornatus	hypo.	U	C
Broad-footed mole	Scapanus latimanus	hypo.	C	C
California myotis	Myotis californicus	hypo.	U	U
Pallid bat	Antrozous pallidus	hypo.	U	C
Brush rabbit	Sylvilagus bachmani	runs	C	C
Audubon cottontail	Sylvilagus audubonii	1 seen runs	A	A
California ground squirrel	Citellus beecheyi	skulls in owl pellets	A	A
		burrows--1 recent kill seen		
Botta pocket gopher	Thomomys bottae	burrows	A	A
California pocket mouse	Perognathus californicus	hypo.	U	U
Western harvest mouse	Reithrodontomys megalotis	hypo.	U	U
House mouse	Mus musculus	hypo.	C	C
Black rat	Rattus rattus	hypo.	U	U
Deer mouse	Peromyscus maniculatus	hypo.	C	A

*All abundance terms are relative to normal density of the species. A = abundant, very numerous and easily verified; C = common, moderate numbers and verifiable; U = uncommon, infrequently found; R = rare, as listed by California Department of Fish and Game; E = endangered, as above.

Mammals of the Whites Point Site

		Presence Determined	Expected Abundance*	
			Site	Southern California
California mouse	Peromyscus californicus	hypo.	U	C
California vole	Microtus californicus	runs	C	A
Coyote	Canis latrans	hypo.	U	C
Gray fox	Urocyon cinereo-argenteus	hypo.	U	C
Long-tailed weasel	Mustela frenata	hypo.	U	C
Striped skunk	Mephitis mephitis	1 road kill tracks	C	C
Spotted skunk	Spilogale putorius	hypo.	C	C
Feral house cat	Felis catus	1 seen	C	C

C113.8

JESS MORTON

787 W. FOURTH STREET, SAN PEDRO, CALIFORNIA 90731 (213) 832-5601

June 10, 1984

Paul Secord
Beland/Associates, Inc.
16 South Oakland Avenue, Suite #204
Pasadena, CA 91101

RECEIVED
JUN 14 1984
BELAND/ASSOCIATES, INC.

Dear Mr. Secord,

This letter is intended to document the results of our visit of June 6, 1984 to the White Point Park area in San Pedro which is currently being considered for use as a site for housing by the U.S. Air Force. The purpose of that visit was to establish a basis for determining the status of the endangered Palos Verdes blue butterfly, Glaucopsyche lygdamus palosverdesensis, on the property.

The White Point area is typical of the parts of the Palos Verdes Peninsula in which the Palos Verdes blue butterfly occurs. It consists of terraces and moderate slopes with a rather loose soil which allows for good drainage. Its position on the south side of the peninsula and its moderate elevation seem to give it the full sun exposure, tempered by regular marine breezes, that appear to be the required habitat for the butterfly.

Because of the life cycle of this species, it is not possible to directly determine the status of the insect during the month of June. The butterfly flies only during the months of early Spring and is therefore not to be seen at this time of year. The pupal stage, which is the phase of the life cycle present during the Summer months, is spent in the ground which makes it virtually impossible to locate. Therefore, secondary information must be gathered if a basis is to be found for the determination of the population of the butterfly.

The larva of the Palos Verdes blue butterfly is known to feed on a single species of plant, the ocean milk-vetch which is popularly known as locoweed or rattleweed. This plant is variously referred to scientifically as Astragalus leucopsis and Astragalus trichopodus ssp. leucopsis, depending on the author. This plant was once quite common on the Palos Verdes Peninsula, but has become uncommon in recent years because of the development of the area and because of the commonly used methods of fire control. Since this is the sole foodplant utilized by the butterfly larvae, the butterfly has disappeared along with the plant.

By looking for the existence of the Astragalus on the White Point property, some inferences may be drawn about the existence of the butterfly on the property. If no Astragalus can be found in a given area, then there is no likelihood that that area is critical habitat for the insect. On the other hand, a large population of the plants would suggest that the area might be extremely important to the butterfly.

The result of our search was, however, equivocal. Two plants were located at about the three hundred foot level, area A on the accompanying map, and two others near the southwest corner of the property, map area B. None of the plants were large and robust, although that is to be expected at this time of year. Indeed, this plant thrives during the Winter and Spring months and is often difficult to detect later in the year, even when its location is known. The plant tends to die back in Summer leaving dried stalks which closely resemble those of several weed species that are common in the same area. Thus, it is quite possible that some plants were missed in our census of the area.

The larvae of the Palos Verdes blue butterfly feed within the seed pods of the Astragalus, as do the larvae of two other distantly related butterflies. Thus indications of the earlier presence of these butterflies can be gotten by examining seed pods of the Astragalus for the entry holes that the larvae bored. The search at White Point turned up only a single seed pod and this did not show an entry hole. Any other seed pods had evidently been stripped from the plants earlier in the year.

To summarize then, the search of the White Point area on June 6 did not turn up any direct evidence of the existence of the Palos Verdes blue butterfly on the property. A few of the larval foodplant, Astragalus trichopodus ssp., were located, but these did not show any indications of the presence of the butterfly. However, the White Point property is appropriate habitat for the insect so it is possible that a small colony of the butterfly exists here.

Sincerely yours,

Jess Morton

Jess Morton

8 JUL 1984

Mr Gail C. Kobetich
U.S. Department of the Interior
Fish and Wildlife Service
Endangered Species Office
2800 Cottage Way, Rm. E-2720
Sacramento, CA 95825

Dear Mr Kobetich

The Department of the Air Force, Headquarters Space Division, Los Angeles, CA, is proposing to construct 170 single family detached homes for senior Air Force Officers on approximately 50 acres of the area known as White Point in San Pedro, CA (see map). This area is typical of the Palos Verdes Peninsula which may provide habitat for the Palos Verdes blue butterfly (Glaucopsyche lygdamus palosverdesensis) an endangered species. In accordance with the Endangered Species Act, Section 7 (a) (2) as amended, we request an immediate consultation with your office.

Attached is a copy of the report prepared by Dr. Richard Arnold for the California Department of Fish and Game which identified the distribution, biology and threat to the Palos Verdes Blue Butterfly and two other species (Atch #1). This report document that the proposed location is in the general area of previously identified habitat. Due to the possibility that White Point may provide habitat for the species we determined that a survey of the area was warranted. Chris Nagano of the Los Angeles County Natural History Museum, recommended that we have Mr Jess Morton conduct the survey to determine if the species or its habitat was found at the proposed location. The findings of the survey are attached (Atch #2).

The survey has two major findings:

a) There was no direct evidence of the existence of the species at the proposed area.

b) The single food source for the larva (Astragalus trichopodus ssp leucopsis) was not found to be extensive (only four plants in the project area) or robust; therefore, the area does not appear to provide critical habitat.

As stated by Mr Morton, these findings may be influenced to a certain degree, by the time of the year (June) in which the survey was conducted. However, based on this survey the existence of the species at the proposed location is questionable. To verify this, the Air Force will conduct a follow-on survey of the area in the Spring of 1985 at the time when the adults are expected to be active.

Based on the survey by Mr Morton which indicates that the area does not provide adequate habitat (i.e. lack of food source), the report of Dr Arnold

which indicated the immediate threat to existing habitat while not including the White Point location, and recent events; we are of the opinion that the proposed action to construct 170 homes at White Point is not likely to jeopardize the continued existence of the species or result in destruction or adverse modification of critical habitat.

Request your immediate consultation based on the available information. If you have any question or need additional information please contact Mr Robert Mason of my staff at (213) 643-0930.

We appreciate your cooperation on this matter and look forward to working with your office on this project.

SIGNED

JOHN D. PEARMAN, Colonel, USAF
Director of Civil Engineering

2 Atch
1. March 81 Report, Dr Richard Arnold
2. June 84 Survey, Mr Jess Morton

APPENDIX H

SAN PEDRO AIR QUALITY AND CLIMATE DATA

1982

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Source/ Receptor Area No.	Location of Air Monitoring Station	Carbon Monoxide					Ozone			Nitrogen Dioxide		Hydrocarbons	
		Max.Conc. in PPM 1-Hour	No. Days Standard Exceeded[a] Federal > 9 PPM 8-Hours	Federal > 35 PPM 1-Hour	State > 9 PPM 8-Hours	State > 20 PPM 1-Hour	Max. Conc. in PPM 1-Hour	No. Days Standard Exceeded Federal > .12 PPM 1-Hour	State ≥ .10PPM 1-Hour	Max. Conc. in PPM 1-Hour	No. Days Std. Exceeded State ≥ .25 PPM 1-Hour	Max. Conc. in PPM 1-Hour	No. Days Std. Exceeded Federal .24 PPM (6-9 a.m.)[b]
1	Los Angeles	15	9	0	9	0	.40	48	91	.41	8	12.8	122
2	W. Los Angeles	21	19	0	19	1	.28	20	70	.39	5	14.6	233
3	Lennox	26	50	0	50	5	.16	2	10	.34	4	17.0	262
4	Long Beach	14	5	0	5	0	.22	6	18	.30	4	12.3	175
5	Whittier	15	8	0	8	0	.31	44	67	.30	4	NM	NM
6	Reseda	26	27	0	27	2	.22	66	121	.24	0	10.4	242
7	Burbank	21	33	0	33	1	.25	63	109	.26	3	NM	NM
8	Pasadena	20	9	0	9	0	.37	89	138	.34	1	6.8[c]	76[c]
9	Azusa	9	0	0	0	0	.36	104	143	.30	3	11.8	148
10	Pomona	12	0	0	0	0	.31	66	112	.32	2	NM	NM
11	Pico Rivera	13	6	0	6	0	.39	66	108	.29	2	NM	NM
12	Lynwood	27	47	0	47	7	.26	13	37	.24	0	17.3	252
13	Newhall	NM	NM	NM	NM	NM	.26	94	129	NM	NM	NM	NM
14	Lancaster	10	0	0	0	0	.16	25	82	.14	0	6.4	65
16	La Habra	19	8	0	8	0	.32	39	66	.28	1	14.5	NA
17	Anaheim	13	2	0	2	0	.26	28	53	.20	0	NM	NM
17	Los Alamitos	NM	NM	NM	NM	NM	.23	10	28	NM	NM	NM	NM
18	Costa Mesa	21	2	0	2	1	.18	6	25	.23	0	NM	NM
19	El Toro	8	0	0	0	0	.17	18	38	NM	NM	NM	NM
22	Norco-Corona	NM	NM	NM	NM	NM	.35	67	118	NM	NM	NM	NM
23	Riverside	8	0	0	0	0	.31	96	145	.16	0	9.9	NA
24	Perris	NM	NM	NM	NM	NM	.28	90	140	NM	NM	NM	NM
29	Banning	NM	NM	NM	NM	NM	.24	58	92	NM	NM	NM	NM
30	Palm Spring	5	0	0	0	0	.19	37	88	.15	0	5.0	NA
30	Indio	NM	NM	NM	NM	NM	.17	18	76	NM	NM	NM	NM
32	Upland	9	0	0	0	0	.32	113	152	.20	0	10.0	NA
34	Fontana	8	0	0	0	0	.31	96	132	.18	0	NM	NM
34	San Bernardino	10	0	0	0	0	.30	111	144	.19	0	5.5	NA
35	Redlands	5	0	0	0	0	.29	103	139	NM	NM	NM	NM
37	Lake Gregory	NM	NM	NM	NM	NM	.32	121	160	NM	NM	NM	NM

PPM - Parts by volume per million parts of air.

ug/m^3 - Micrograms per cubic meter of air.

NM - Pollutant not monitored.

ND - No data available.

NA - Not applicable (total hydrocarbons monitored only).

a) The revised State standards for carbon monoxide were adopted September 22, 1982. The counts reflect the new standards for the entire year.

b) Reactive hydrocarbons (total hydrocarbons minus methane).

c) Based on 3-months data (January-March).

South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 Flair Drive
El Monte, California 91731

Source/ Receptor Area No.	Location of Monitoring Station	Sulfur Dioxide			Particulates (Hi-Vol)				Lead (Hi-Vol)			Sulfate (Hi-Vol)		Visibility	
		Max. Conc. in PPM 1-Hour	No. Days Standard Exceeded[d] Federal > .14 PPM 24-Hours	No. Days Standard Exceeded[d] State 1-Hour & 24-Hours[e]	Total Samples Collected	Max. Conc, ug/m^3	No. Samples Exceeded Standard Federal > 260 ug/m^3 24-Hours	No. Samples Exceeded Standard State $\geq$ 100 ug/m^3 24-Hours	Max. Conc, ug/m^3	No. Occasions Standard Exceeded Federal 1.5 ug/m^3 Qrtly Avg	No. Occasions Standard Exceeded State 1.5 ug/m^3 Mo. Avg.	Max. Conc, ug/m^3	No. Samples Ex. Stand. State $\geq$ 25 ug/m^3 24-Hours	Location	Days Not Meeting State Standard[f]
1	Los Angeles	.05	0	0	57	177	0	17	1.87	0	0	27.7	2	L. A.	ND
2	W. Los Angeles	.03	0	0	56	165	0	3	1.58	0	0	26.0	2	Bur. AP	205
3	Lennox	.08	0	0	58	200	0	14	2.34	1	3	37.3	2	LAX AP	196
4	Long Beach	.09	0	0	59	192	0	13	1.25	0	0	30.4	1	LB AP	189
5	Whittier	.09	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM		
6	Reseda	.03	0	0	60	170	0	9	2.05	0	0	29.2	3		
7	Burbank	.09	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM		
8	Pasadena	.04	0	0	53	156	0	21	1.22	0	0	26.6	2		
9	Azusa	.06	0	0	59	193	0	26	1.15	0	0	26.2	1		
10	Pomona	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
11	Pico Rivera	.05	0	0	58	215	0	27	1.89	0	0	30.8	2		
12	Lynwood	.06	0	0	60	216	0	16	2.76	0	1	36.8	2		
13	Newhall	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
14	Lancaster	NM	NM	NM	55	113	0	1	0.59	0	0	11.7	0		
16	La Habra	.04	0	0	61	248	0	18	1.52	0	0	28.8	1	El Toro MCAS	346
17	Anaheim	.04	0	0	59	188	0	9	1.58	0	0	22.6	0		
17	Los Alamitos	.08	0	0	57	218	0	19	1.98	0	0	24.5	0		
18	Costa Mesa	.06	0	0	NM	NM	NM	NM	NM	NM	NM	NM	NM		
19	El Toro	NM	NM	NM	59	262	1	2	0.61	0	0	13.4	0		
22	Norco-Corona	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	March AFB	170
23	Riverside	.02	0	0	55	252	0	37	0.82	0	0	23.1	0		
24	Perris	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM		
29	Banning	NM	NM	NM	60	197	0	16	0.40	0	0	22.9	0		
30	Palm Springs	.01	0	0	58	129	0	2	0.31	0	0	11.4	0		
30	Indio	NM	NM	NM	58	210	0	10	0.27	0	0	11.7	0		
32	Upland	.09	0	0	38[g]	163	0	24	ND	ND	ND	ND	ND		
34	Fontana	.14	0	0	59	272	2	31	0.83	0	0	32.5	3	Ont. AP	241
34	San Bernardino	.02	0	0	60	191	0	32	1.09	0	0	29.6	2	Nor. AFB	203
35	Redlands	NM	NM	NM	60	216	0	21	0.59	0	0	28.5	1		
37	Lake Gregory	NM	NM	NM	59	116	0	2	0.40	0	0	13.3	0		

d) The Federal (3-hours >.50 ppm) and State (1-hour > .50 ppm) standards were not exceeded.
e) Twenty-four hours > .05 ppm with 1-hour ozone > .10 ppm, or with 24-hours TSP > 100 ug/m^3.
f) Visibility standard is 10 miles or greater on days when relative humidity is less than 70%.
g) Sampling initiated on May 23, 1982.

South Coast
AIR QUALITY MANAGEMENT DISTRICT
9150 Flair Drive
El Monte, California 91731

- over -

APPENDIX I

ARCHAEOLOGIC SURVEY

The following is a report of the nature of archeological resources on and adjacent to Fort MacArthur Upper Reservation and Fort MacArthur Military Reservation, Whites Point. Central areas of concern are those labeled "study area" on maps furnished by Wilsey and Ham.

Study Method

No archeological survey of the Palos Verdes Hills, in which the study areas are located, has been published, although more or less systematic searches for archeological sites have been made in previous years, notably by F. H. Racer, D. L. True, W. J. Wallace, and the Archaeological Research Associates. Records of these surveys on standard site survey forms, as well as manuscripts, available in the Department of Anthropology, California State University, Los Angeles, have been examined. In addition, the Archaeological Survey, University of California, Los Angeles, was consulted by telephone. This facility kindly supplied descriptions of sites on and near the reservations from their files, including sites recorded by N. C. Nelson. On December 1 and 7, 1974, I conducted a general surface reconnaissance of the study areas and made a brief examination of the surrounding region. On December 7, I was assisted by Warren Wasson, M.A., an experienced field archeologist.

Conditions Affecting Observation

Both study areas have experienced surface modification and development. The Upper Reservation, in fact, has undergone rather massive alteration. There is some evidence of terracing there, and reportedly extensive subterranean installations. Nearly all areas level enough to have supported aboriginal occupation are covered with asphalted roads and parking lots, structures, and lawns. The Whites Point reservation is less disturbed but contains asphalt roads and a few buildings and other developments. Apparently, a good deal of earth has been moved in the north central part of the study area. The top of Whites Point south of Paseo del Mar houses two baseball diamonds and appurtenances, fences, and access roads. Much of the open ground on both reservations has recently been disked, but the northwestern corner of the Whites Point study area was covered with a dense stand of dry weeds. Vegetation cover did not seriously hamper the study, but no observations could be made under asphalt and cement covers.

Archeological Resources Identified

Nine archeological deposits, representing prehistoric camps or villages, are situated in the two study areas (see maps and site survey forms for descriptions and locations). All are marked only by food shells; no artifacts, bone scrap, or undoubted chipping waste could be

found. These stations are numbered serially as recorded.

Sites No. 1, No. 2, and No. 3 (Upper Reservation) and Site No. 6 (Whites Point area) are apparently so disturbed by historic construction activities as to be essentially destroyed and worthless for preservation or salvage.

Site No. 4 (Upper Reservation) and sites No. 5 and No. 9 (Whites Point area) consist of very, very light scatterings of shell, with just slightly heavier concentrations in restricted areas. These seemingly have no depth and probably represent temporary camps perhaps scattered by disking or plowing.

Site No. 8 on Whites Point itself is badly disturbed but of some value. Permanent preservation is impossible because it is eroding into the ocean along the steep bluff. Some salvage is possible if the site is to be further destroyed by construction.

Site No. 7, in the Whites Point area near Western Avenue and Paseo del Mar, should be sampled by controlled excavation if it is to be removed by construction--unless it can be demonstrated that it, too, has been irretrievably harmed by historic earth moving activities. Many years ago Nelson recorded this site as a three foot deep midden, 50 by 100 feet in extent, containing shells, animal bones, and artifacts. Mr. Wasson and I estimate its dimensions as 75 by 100 feet and we were able to verify a depth of two feet. An adequate sample of cultural material could be obtained by excavation of a 100 square foot area of this site.

Adjacent Archeological Resources

Two sites have been recorded in Point Fermin Park just south of the Upper Reservation. Both were considered "largely destroyed" by their recorders in 1955. Aboriginal occupation areas have been reported in a restricted area immediately north of 25th Street and east of Western Avenue. All these sites appear to be on public land with controlled access and presumbaly would not be affected by the proposed development of Fort MacArthur.

MANUSCRIPTS CONSULTED

1) "Archaeological Survey of Palos Verdes Section of Los Angeles County, Calif." by Richard Van Valkenburgh.

2) "Camp Sites in Harbor District" /Twenty-one sites recorded by F. H. Racer/

3) "Partial List of Indian Village Sites in Lost /sic/ Angeles County, with a Few in Orange Co. (Information from Eugene Robinson, handwritten, in 'Reconnaissance Sites- 15F' looseleaf notebook of Mr. E. F. Walker, Southwest Museum, Los Angeles, Calif.)"

ARCHEOLOGICAL SITE SURVEY RECORD

Site No. 5 **Map** San Pedro 7-1/2' **County** Los Angeles

Twp. 5S **Range** 14W ; ____ ¼ of the ____ ¼ of Sec. ____

Location Ft. MacArthur Military Reservation, Whites Point. On first high terrace 1200 feet north of Paseo del Mar, 1200 ft. east of Western Avenue, 150 feet south of two concrete "tunnels." **Elevation** 225-275 feet

Previous designations ____

Owner, address, phone ____

Tenant, address, phone ____

Attitudes toward excavation ____

Site description Temporary camp(s). Sparce scatter of shell with very slightly heavier concentrations on east and west ends.

Area 600 feet east-west, 50 ft. N-S **Depth** Surface

Vegetation A few grasses and weeds **Nearest water** Unknown

Site soil Tan sandy loam, rocky **Surrounding soil** Same

Previous excavation ____

Cultivation Disked **Erosion** None

Structures, etc. None. "Tunnels," quonset hut, black top road near north edge.

Surface features None

Burials None

Artifacts None; food shell only

Remarks Perhaps two temporary camps.

Published references None

Artifact accession No. ____ **Photo Nos.** ____

Date December 7, 1974 **Recorder** Hal Eberhart/Warren Wasson

ARCHEOLOGICAL SITE SURVEY RECORD

Site No. 6 **Map** San Pedro 7-1/2' **County** Los Angeles

Twp. 5S **Range** 14W ; ____ ¼ of the ____ ¼ of Sec. ____

Location Fort MacArthur Military Reservation, Whites Point. East and west of low (artificial ?) mound 50 feet north of Paseo del Mar at west gate, directly north of Whites Point, 1200 feet southeast of B.M. 174 **Elevation** 140 feet

Previous designations LAn-152 (UCLA Archaeological Survey)

Owner, address, phone ____

Tenant, address, phone ____

Attitudes toward excavation ____

Site description Small shell midden or temporary camp. A few shells also found off to northwest toward Site No. 7 (LAn-142, UCLA, AS).

Area 75 feet east-west, 50 ft. N-S **Depth** Surface ?

Vegetation Cactus, century plant, olive, palm **Nearest water** Unknown

Site soil Sandy, rocky, tan **Surrounding soil** Same

Previous excavation ____

Cultivation Disked **Erosion** None

Structures, etc. Access road to reservation. Fish pond(?). Apparently an old house site; some historic debris.

Surface features None

Burials None

Artifacts None, shell only.

Remarks Described by Nelson as "refuse heap." Probably a small, shallow site. Now badly disturbed by recent activities.

Published references ____

Artifact accession No. ____ **Photo Nos.** ____

Date December 7, 1974 **Recorder** Hal Eberhart/Warren Wasson

ARCHEOLOGICAL SITE SURVEY RECORD

Site No. 7 **Map** San Pedro 7-1/2' **County** Los Angeles

Twp. 5S **Range** 14W ; ____ ¼ of the ____ ¼ of Sec. ____

Location Ft. MacArthur Military Reservation, Whites Point. 200 feet north of Paseo del Mar adjacent to east side of Western Avenue at about B.M. 174.

Elevation 175 feet

Previous designations LAn-142 (UCLA, Archaeological Survey)

Owner, address, phone ____

Tenant, address, phone ____

Attitudes toward excavation ____

Site description Small shell midden

Area 50 to 75 ft. N-S, 100 ft. E-W **Depth** 2 to 3 feet

Vegetation A few grasses **Nearest water** Unknown

Site soil Tan to dark gray, rocky **Surrounding soil** Tan to gray, rocky

Previous excavation ____

Cultivation Disked **Erosion** None

Structures, etc. Some sort of underground installation about 100 feet south. Probably touched by Western Ave. on west.

Surface features None

Burials None

Artifacts None. Nelson reported shell, animal bone, and artifacts.

Remarks Probably only site on Reservation north of Paseo del Mar that still contains undisturbed deposit

Published references ____

Artifact accession No. ____ **Photo Nos.** ____

Date December 7, 1974 **Recorder** Hal Eberhart/Warren Wasson

ARCHEOLOGICAL SITE SURVEY RECORD

Site No. 8 **Map** San Pedro 7-1/2' **County** Los Angeles

Twp. 5S **Range** 14W ; ____ ¼ of the ____ ¼ of Sec. ____

Location Fort MacArthur Military Reservation, Whites Point. On top of Whites Point between bluff edge and Paseo del Mar. Best portion of site along bluff edge northwest of point. **Elevation** 125 feet

Previous designations LAn-143 (UCLA Archaeological Survey); PV 16 (W. J. Wallace ?)

Owner, address, phone ____

Tenant, address, phone ____

Attitudes toward excavation ____

Site description Shell midden. Described by Nelson as camp near bluff. Shell scatter over area of 1200 ft. E-W x 400 ft. N-S but shell concentration along 400 ft. (or less) of bluff northwest of point.

Area ____ **Depth** Perhaps 3 feet

Vegetation Lawn over part **Nearest water** Unknown

Site soil "Greasy" along part of bluff **Surrounding soil** ____

Previous excavation ____

Cultivation Lawn on ball diamonds **Erosion** Serious along bluff edge; much of site probably has fallen into ocean

Structures, etc. Recent overburden northwest of point. Two baseball diamonds, bleachers, backstops, access roads, fences

Surface features None

Burials None

Artifacts None. Nelson reported chipping waste.

Remarks Badly disturbed and eroded site of potential importance.

Published references ____

Artifact accession No. ____ **Photo Nos.** ____

Date December 7, 1974 **Recorder** Hal Eberhart/Warren Wasson

ARCHEOLOGICAL SITE SURVEY RECORD

Site No. 9 Map San Pedro 7-1/2' County Los Angeles

Twp. 5S Range 14W ; ____ % of the ____ % of Sec. ____

Location Ft. MacArthur Military Reservation, Whites Point. Very light shell scatter over southeast corner of Reservation from Weymouth Ave. on east west to present gate and starting 50 to 400 feet north of Paseo del Mar Elevation 150 feet

Previous designations ____

Owner, address, phone ____

Tenant, address, phone ____

Attitudes toward excavation ____

Site description Possibly one or more temporary camps now marked by traces of shell.

Area 1200 ft. E-W, 400 ft. N-S maximum Depth Surface

Vegetation Lawn in places, mostly barren Nearest water Unknown

Site soil Tan, rocky sandy Surrounding soil Same

Previous excavation ____

Cultivation Part disked Erosion None

Structures, etc. Perhaps extends under lawns, buildings, road on south

Surface features None

Burials None

Artifacts None, just a scattering of shell

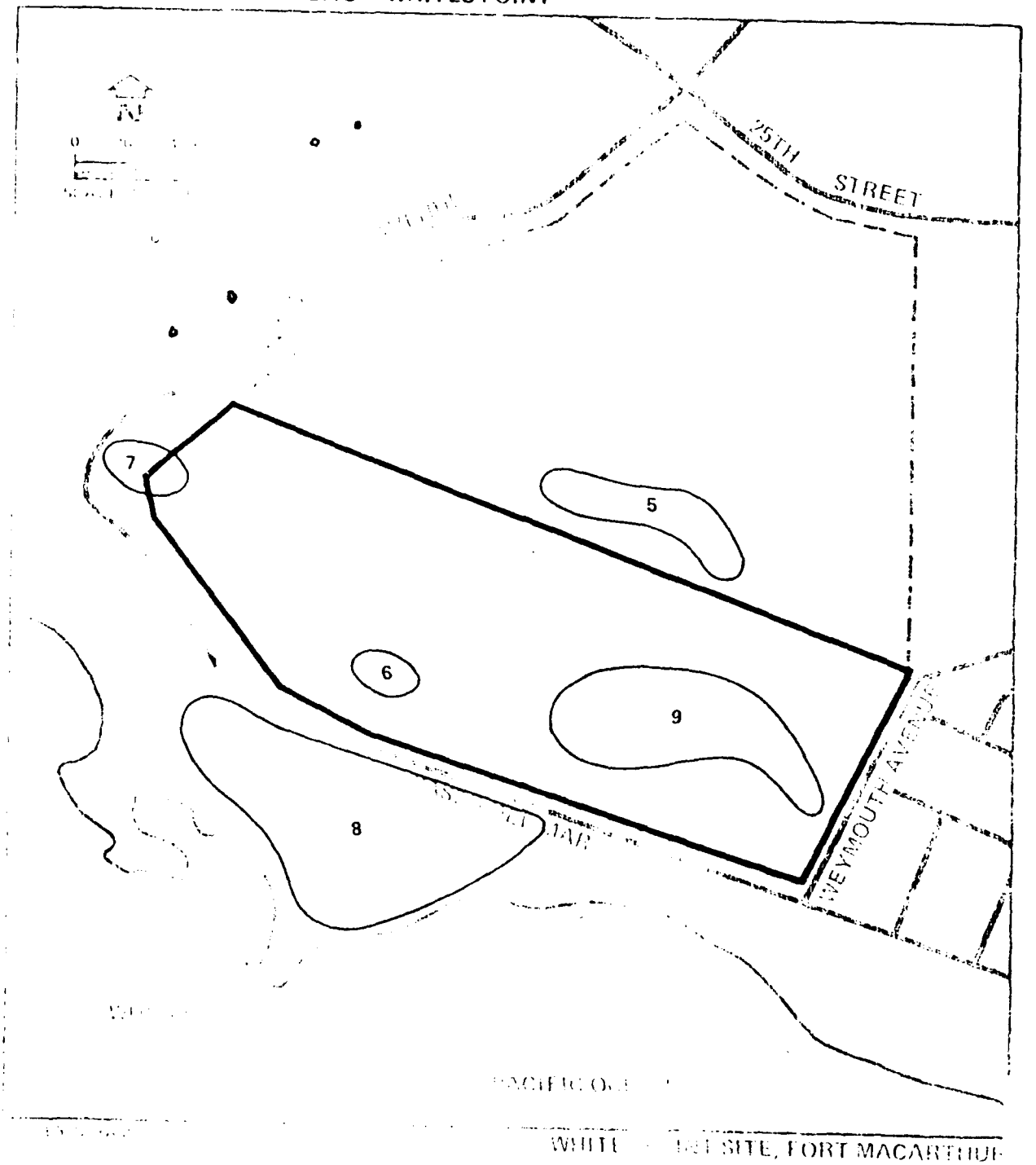
Remarks ____

Published references None

Artifact accession No. ____ Photo Nos. ____

Date December 7, 1974 Recorder Hal Eberhart/Warren Wasson

FIGURE 17
ARCHAEOLOGICAL DEPOSITS – WHITES POINT



Area of Proposed Development

SOURCE: Hal Eberhart, Ph.D., Professor of Anthropology
California State University, Los Angeles

CULTURAL RESOURCE SURVEY
PROPOSED USAF WHITE POINT
HOUSING PROJECT

Edward B. Weil
and
Jill Weisbord

prepared by

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16 S. Oakland Ave.
Pasadena, California 91101

July 19, 1984

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INTRODUCTION

The following report documents the results of a cultural resource survey of the proposed United States Air Force White Point Housing Project. Applied Conservation Technology, Inc. (ACT) has completed this study under subcontract to Beland/ Associates, Inc., Pasadena, California, which is preparing the comprehensive environmental impact statement (EIS) for the project.

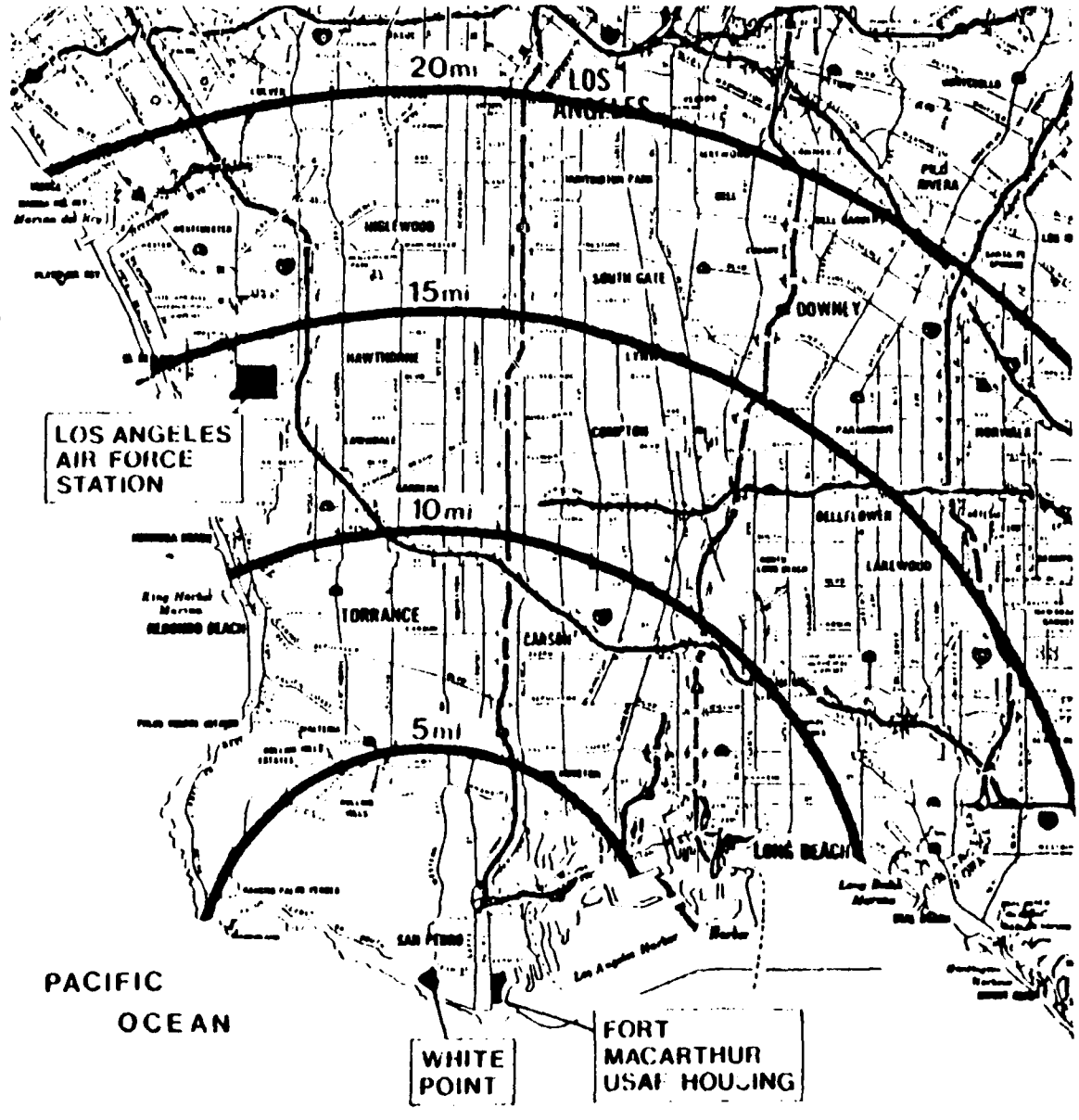
The current cultural resource survey was designed to locate cultural resources within the project area, evaluate them with regard to configurational integrity and scientific potential, assess potential impacts and provide recommendations for further study or mitigation procedures. In this manner, the USAF is meeting preliminary legal obligations as mandated by the National Environmental Policy Act of 1969; the National Historic Preservation Act of 1966 (as amended 1981); Executive Order 11593 and the Archaeological Resources Protection Act of 1979. The results of this study provide a basis for further evaluation and compliance.

Dr. Edward B. Weil, ACT Principal Investigator and Associate Professor of Anthropology at California State University Dominguez Hills was in direct charge of the cultural resource survey, report preparation and development of recommendations. Assisting Dr. Weil with field work and report preparation were

Rod Brown, Field Director, and staff archaeologists Jill Weisbord, Cory Christensen and Melanie Beckman. Mike Macko, ACT's Cultural Resource Specialist, also contributed to the field survey.

PROJECT LOCATION AND DESCRIPTION

Figures 1, 2 and 3 illustrate the location of the proposed USAF White Point Housing Project in San Pedro (City of Los Angeles), Los Angeles County, California. The project area is bordered by 25th Street to the north, Western Avenue to the west and Paseo del Mar to the south; it is the western part of a larger property owned by the military until 1976 when portions were deeded to the City and County of Los Angeles. The lands (50 acres) under study here are currently owned by the City of Los Angeles Department of Recreation and Parks yet have remained unaltered and generally unused due to lack of development funds. The Air Force is currently seeking approval to revert the 50 acres from the City to construct 170 single-family housing units for senior officers working out of Space Division offices in El Segundo. A complete project description and environmental assessment will appear in the project EIS to which this report is a technical appendix.



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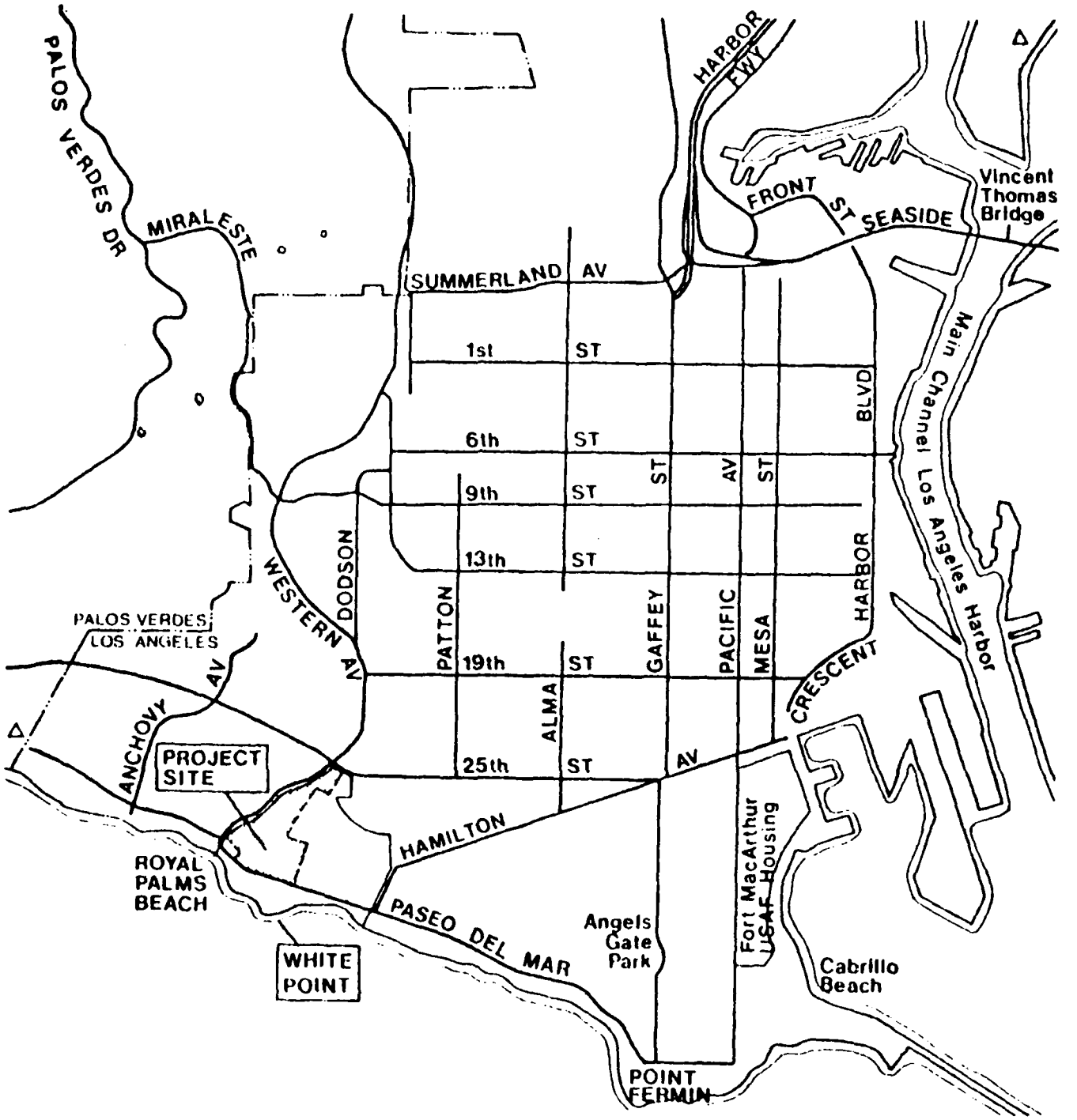
USAF White Point Housing Project

I-15 **Figure 1.** REGIONAL LOCATION

SOURCE: Beland/Associates, Inc.



USAF White Point Housing Project

Figure 2. VICINITY MAP

SOURCE: Beland/Associates, Inc.

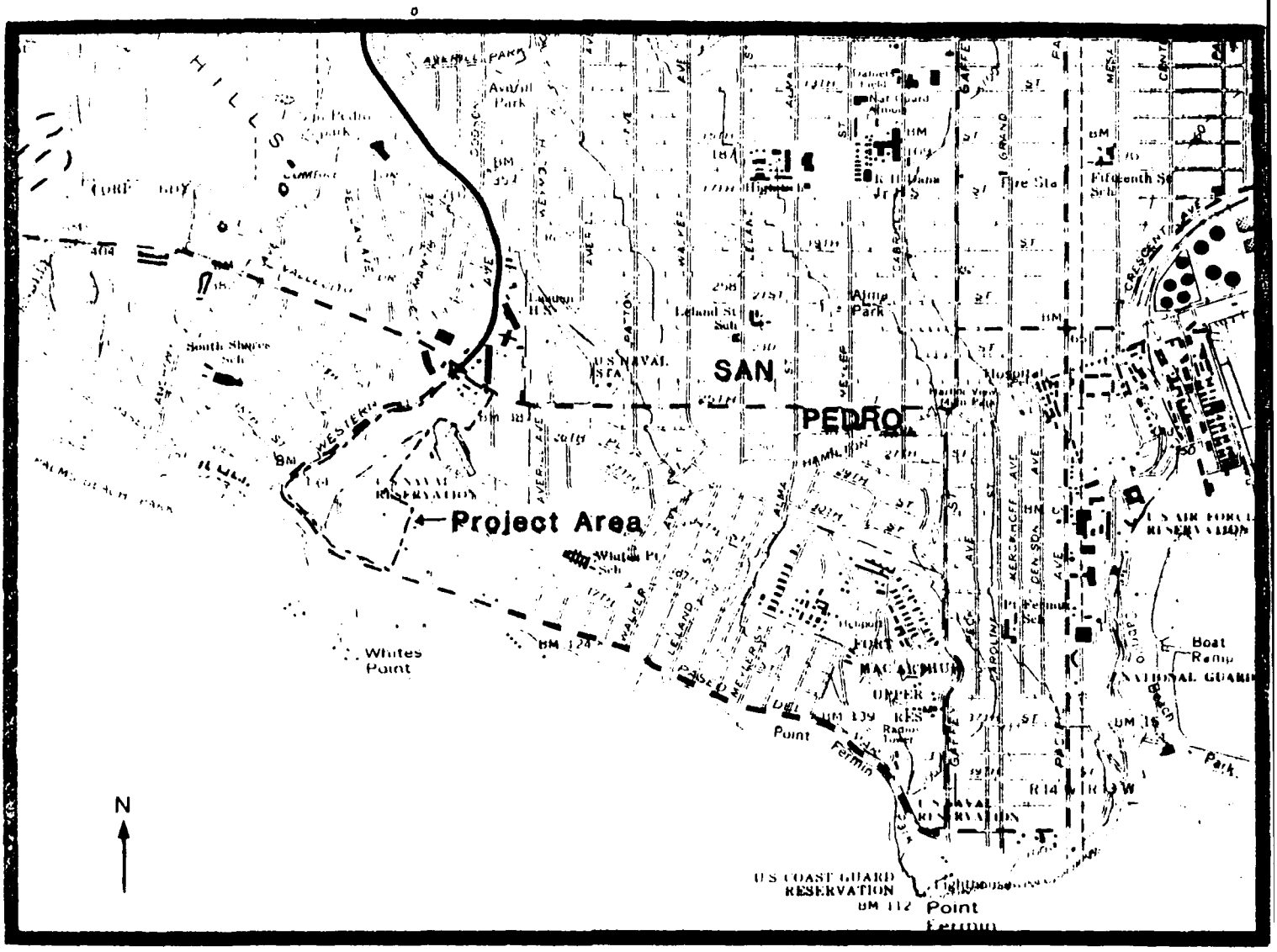


Figure 3. **Project Location**
USAF White Point Housing Project
San Pedro, 7.5' USGS Topographic Map

REGIONAL CULTURE HISTORY

The following brief description of a developmental sequence of the prehistoric societies in the White Point area is based on the incomplete and continually diminishing archaeological resources in the Greater Los Angeles area. It will illustrate the type of materials which can be expected at undisturbed archaeological sites in the south coast areas. This summary is based on a report submitted by Stickel (1978) to the U.S. Army Engineer District, Los Angeles, California, and a summary of the most recent Indian occupations in the Los Angeles Basin (Bean and Smith 1978). A comprehensive survey of cultural resources in the Los Angeles Basin is currently being prepared for the U.S. Army Corps of Engineers by Archaeological Resources Management, Inc. which will provide a basis for evaluating known resources, potential for unidentified resources and research directions.

The Early Systems Period (50,000? to 7,000 years ago)

Recent dates derived by using a method called amino acid dating have placed human bones in the San Diego area at 50,000 years ago. These, like other bones, have placed human occupation within stratigraphic contexts associated with Pleistocene fauna. Although these dates have been questioned, they repre-

sent research directions in identifying late Pleistocene and early Holocene human occupations along the southern coast of California.

The Malaga Cove site (Walker 1951), located at the base of the Palos Verdes Penninsula, contains a long chronological and geological sequence (27 feet). It illustrates the types of artifacts to be expected during the earlier periods. Found in the earliest level was a collection of stone artifacts including microliths (small bladelike tools), knives, scrapers, convex-based projectile points and a collection of stone debitage and hammerstones from the manufacture of these tools. Modified abalone shells, clam shell beads and bone beads were also collected. A diet of shellfish, fish, local animals and plants are the proposed subsistence base.

The Millingstone Period (7,000 to 3,500 years ago)

The presence of ground stone tools could demonstrate a major change in food technology. These tools were manufactured by grinding and polishing rocks to form the desired shapes. The most common are manos, metates, mortars, pestles and soapstone objects. At Malaga Cove, level 2, in addition to those mentioned, the assemblage included artifacts called "doughnut stones" and "cogstones" named for their shapes as they would be interpreted by contemporary American culture.

Their function is unknown. Bone awls, beads and fishhooks were collected, as well as evidence of basket-weaving technology. In addition, level 2 at Malaga Cove includes a burial complex consisting of flexed, extended and reburied configurations.

The grinding stone technology is indicative of a subsistence based in part on seed collection and shellfish. Less hunting and fishing is evidenced by a smaller collection of organic remains of these kinds and a smaller collection of the tools related to these activities.

The Hunting Period (3,500 to 1,200 years ago)

This period sees a proportional increase in the number of mortars and pestles as compared with manos and metates. It is during this period that the staple of many recent California Indian societies, the acorn, becomes a major component of the prehistoric diet although traditional food gathering techniques of hunting and fishing are continued. A collection of a large variety of faunal materials in level 3 at Malaga Cove demonstrates this mixed resource base.

The Late Prehistoric Period (1,200 to 434 years ago; A.D. 1542)

The artifact assemblage for this period at Malaga Cove (level 4) includes arrowheads, antler flakes, mortars, pestles,

bone tools and ornaments, shell fishhooks and ornaments and incised stones. Gamestones, painted, flat water-rounded pebbles, were present in this level. Their function is unknown. The faunal collection represents an "intensive hunter-fisher-gatherer ecology" (Stickel 1978:9). Particularly representative of this phase are soapstone bowls, pipes, tubes and carved animal figures. This latest prehistoric period can be examined in contrast to cultural changes which took place after European contact or in the Ethnohistorical Period.

The Gabrielino Indians (Ethnohistorical Period)

> "The Gabrielino first met the Europeans only 50 years after Columbus' initial voyage to America. The explorer Juan Cabrillo sailed along our coast in 1542 and saw these Indians on the islands. Later, the sea expedition of Vizcaino in 1602 and especially the land expedition of Portola in 1779 led to the slow but increased occupation by the Spanish and later by the Mexicans and the Americans. Each invader brought his own plants, animals, missionaries and alien lifeways. Most destructively, the invaders also brought diseases to which the local natives had no biological resistance . . . The cultural shock of the alien lifeways and the impact of fatal diseases quickly withered the highly adapted cultural system of the Gabrielino." (Stickel, 1978:14)

Information concerning this Indian society comes largely from the ethnohistorical writings of Father Geronimo Boscana ("Historical Account of the San Juan Capistrano Indians of Southern California [1812-1826]") and Hugo Reid's letters printed in the Los Angeles Star in the 1800's (Heizer 1968).

Further information on the Gabrielino can be found in "California's Gabrielino Indians" by Bernice Eastman Johnston (1962) and in a summary article by Bean and Smith (1978). It should be mentioned that the term "Gabrielino" is not of traditional origin but derived from Indian association with the Mission San Gabriel Archangel. It is indicative of the cultural loss undergone by these people.

The settlement system of the historic Gabrielino group is depicted on a map (Figure 4) taken from Stickel's recent report (1978:15). It can be seen that major villages were located within San Pedro, close to the project area under consideration in this report. The villages Harasagna or Tovemungna are indicated to be located near to or within the project area (Heizer 1968). Similarly, a list of Gabrielino sites in the Bureau of American Ethnology's (1952) Indian Tribes of North American describes villages in the San Pedro area. According to Hudson (1971) Gabrielino settlement pattern was dichotomized north and south along the coast from San Pedro. Between San Pedro and Newport Beach coastal settlements were secondary gathering camps complementing inland villages. Between San Pedro and Topanga Canyon primary villages were located on the coast with secondary subsistence camps inland.

The technological complex of Gabrielino culture includes those items listed in the previous period plus material items observed in use by the ethnohistorical and ethnographic writers. This included several types of structure, canoes, baske-

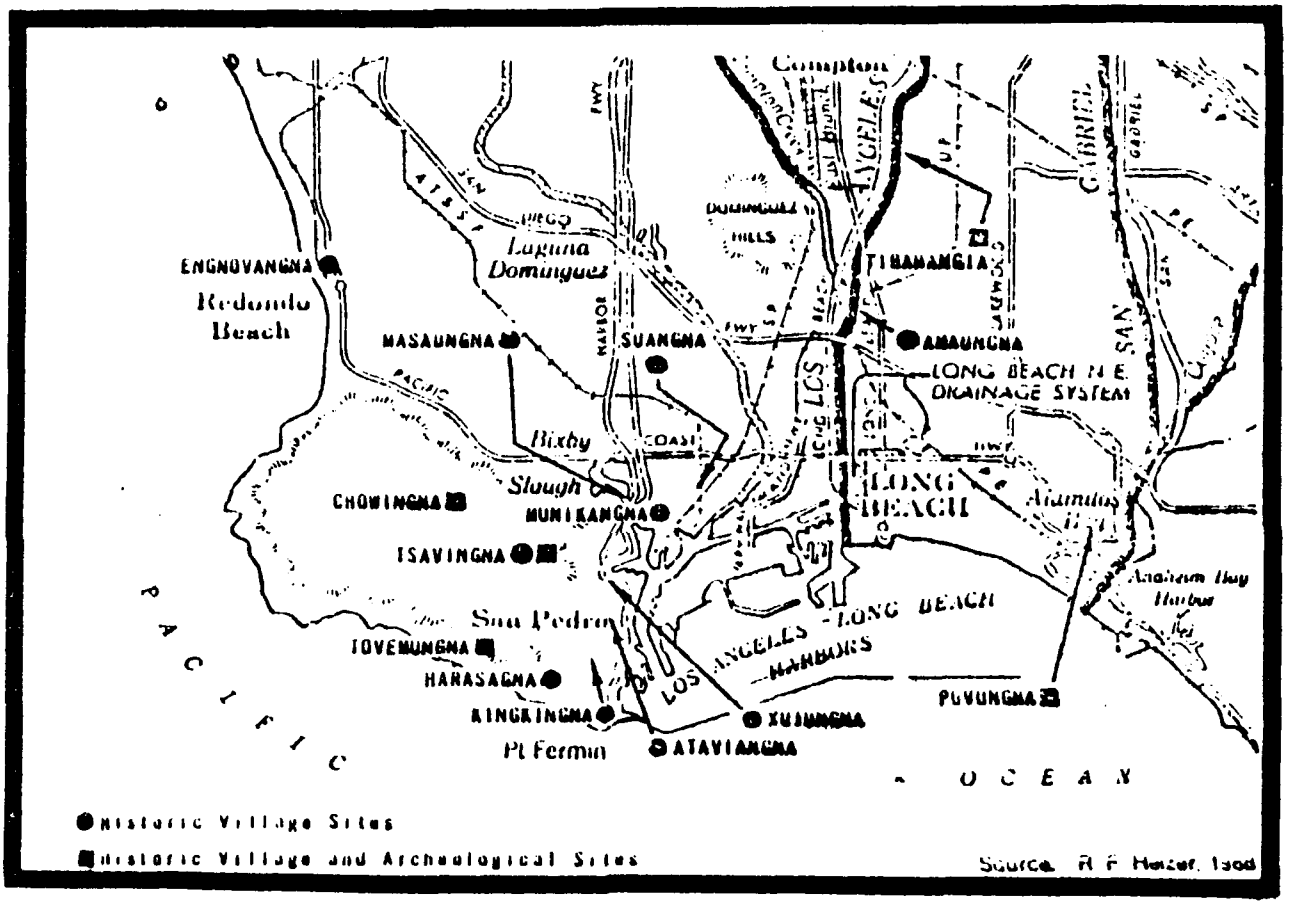


Figure 4. Distribution of Known Gabrielino Village Sites in the San Pedro

try and ceremonial objects. An industry of soapstone objects is particularly significant. The subsistence base was diverse including acorns, chia (sage seeds), wild fruits, large and small animals, and shellfish. Social and political organization was both kinship based and hierarchical with each autonomous village having a prominent chief (Bean and Smith 1978: 543). It is interesting to note that, in San Pedro, the largest village was politically central to other nearby villages, its chief the political leader. Serving as curers, diviners, guardians, locators of lost items, collectors of poisons and rain makers were the village shamans. Although it is not the purpose of this report to describe the nature of Gabrielino culture, it should be noted that external relationships (Bean and Smith 1978:546-548) involving warfare, feuding, trade, intermarriage and religion are significant variables in the anthropological study of settlement, subsistence and demographics. The rich culture of the Gabrielino and their prehistoric predecessors are a significant component in the cultural resources of the Greater Los Angeles region. Their impact on the local environment, cultural heritage and developing economy cannot be overlooked. This brief summary of culture history has only outlined the cultural development. Only further research utilizing existing resources can fill in the details.

Historic Period

Comprehensive histories of the San Pedro area and Los Angeles Port are described in two major volumes. Ludwig's (n.d.) early history contains extensive discussions of early settlements including Native American, Spanish, Mexican and American periods. More recently Vickery (1979) has updated the port history including much of the twentieth century military activities. These references should be used for more detail concerning events and personalities.

According to Vickery (1979:145-6), White Point was occupied between the 1890s and World War II by Japanese abalone fisherman and, later, resort managers. The abalone fishing was most productive during the 1900's during which jetties, abalone racks and storage sheds were constructed. Subsequently, the Japanese-Americans ran a successful health spa with natural hot sulphur pools and a 2-story hotel and restaurant. This was abandoned prior to World War II during which the structures were used for gunnery practice by the Navy. These structures were probably outside the project area on White Point.

The project area was occupied by the military during most of the twentieth century. During World War I, the Army coast artillary constructed armanent batteries at White Point and other nearby locations; these were expanded prior to World War II. The bunkers still remain just outside the project area.

It is likely that construction activities disturbed lands within the current project area.

Between 1953 and 1954 Nike missile launching facilities were constructed at White Point and remained in operation until 1974. Abandoned launching structures and other buildings still remain east of the project area.

In 1976, the project area and other military lands were donated to the City and County of Los Angeles.

PREVIOUSLY RECORDED CULTURAL RESOURCES

Prior to the current survey, five sites had been previously recorded on or adjacent to White Point. Dr. Hal Eberhart, California State University, Los Angeles, completed a survey of proposed Air Force Housing facilities at Fort MacArthur Upper Reservation and White Point in 1974 (Wilsey and Ham 1975). The five sites are located on Figure 5.

Site 5 is described as a "temporary camp(s)" with a sparse scatter of shell and heavier concentrations on the east and west sides; no other artifacts were identified. Site 6 (designated officially at CA-LAn-152) is described as a shell midden or temporary camp as well as an historic site - the former location of a house on an artifical mound with a possible concrete fish pond. Site 7 (CA-LAn-142) is described as a small shell midden; although Eberhart did not locate any mater-

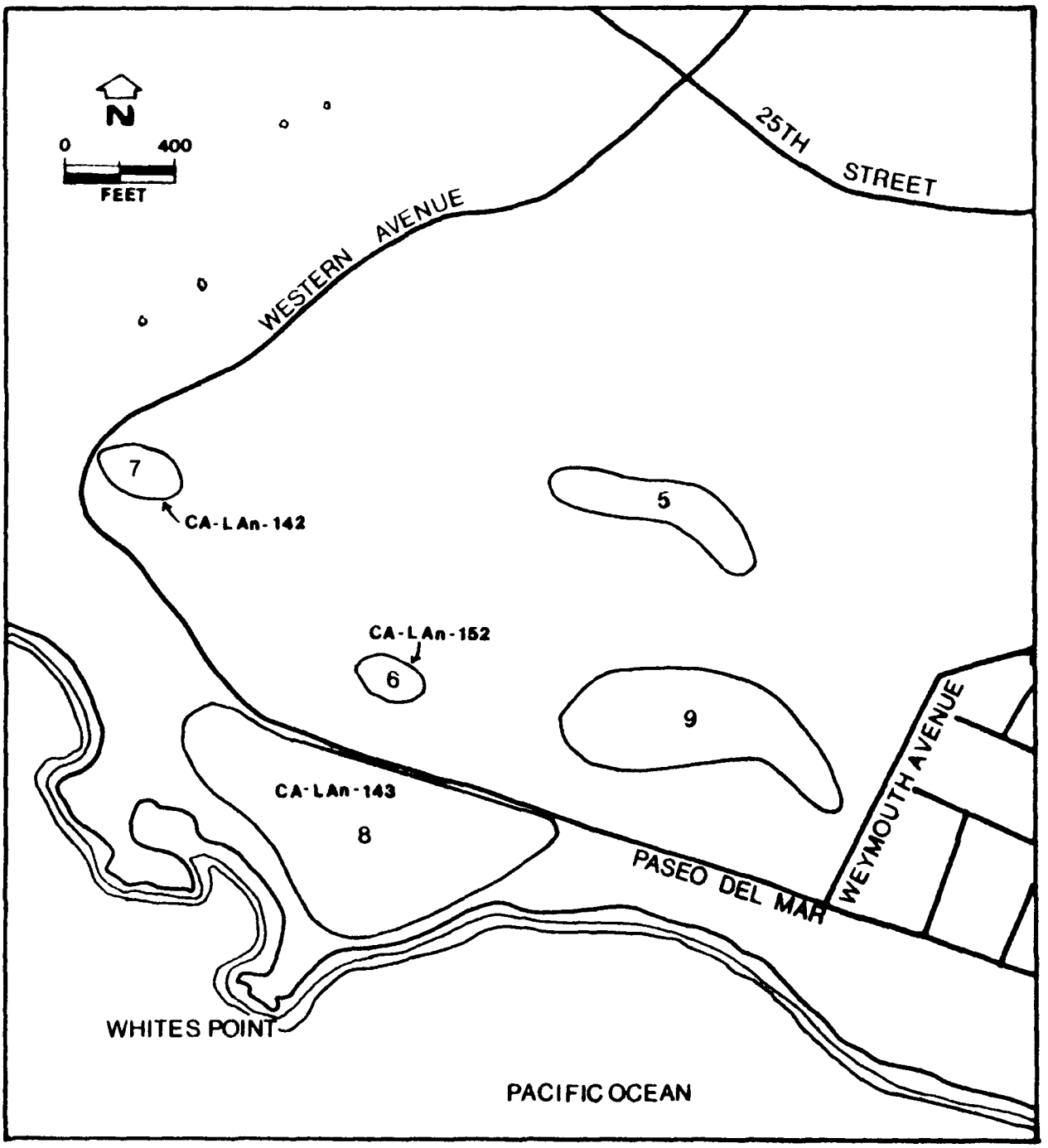


Figure 5. Location of Previous Recorded Sites at Whites Point

SOURCE: Wilcoy and Ham, 1975

ial but shell, N.C. Nelson had previously described the presence of animal bone and artifacts.

Site 8 (CA-LAn-143) is located on the top of White Point between the bluff and Paseo del Mar which is currently the location of two baseball fields; shell is scattered over an extensive area in association with dark, "greasy" midden soil. Nelson reported chipping waste but none was identified by Eberhart. Site 9 is described as "one or more temporary camps now marked by traces of shell."

Of these previously recorded "sites", or as they will be referred to below "loci", only Site 6 and 7 are within the current project area. However, these loci, in toto, could represent the location of a prehistoric/ethnographic village such as "Harasagna" as described above.

The historic features at Site 6 (CA-LAn-152) were apparently associated with a small wood frame farmhouse constructed in the late 19th century and torn down before World War II. Ceramic, glass, metal and concrete debris as well as land modifications remain as indications of the historic occupations.

It should also be noted that the area south of Paseo del Mar was occupied by White Point Village which was, after 1882, the location of abalone collection, and later a hotel and hot springs. This site has been recommended for inclusion on the National Register of Historic Places by the San Pedro Historical Society although no standing structures remain.

FIELD PROCEDURES

On June 21 and 22, 1984 a surface field survey and mapping of cultural resources at the project site was carried out by personnel at ACT.

The field crew, which numbered 6 people, walked parallel transect ten meters apart over the entire project area. Visibility of the ground was restricted by heavy undergrowth and grass in most areas. Special attention was paid to tailings of burrowing animals, cut banks, bulldozed areas and to any other surface exposures. In addition, grasses were occasionally cleared with trowels, to gain visibility.

As cultural material was encountered it was flagged using color coded pin flags to facilitate the subsequent mapping task. Cultural material is defined as artifacts, flakes or ground stone, shell and bone, and historical material such as ceramics, glass and metal. Cultural features that were encountered in the project area were also recorded.

Once the surface survey and flagging of cultural material was concluded, a mapping datum was established. Horizontal and vertical angles were measured using a one second theodolite and a electronic distance measurer (EDM) which recorded each flagged item or concentration of the cultural material. Four mapping stations were set up at strategic points so that all areas of the site could be recorded; these were triangulated to

permanent prominent landmarks. Data derived from this procedure were used to plot artifact distributions as illustrated by Figure 6. This map provides the basis for interpretation of the project area and for developing recommendations.

DESCRIPTION OF FINDINGS

As would be expected from the historical background, the area has been disturbed by the construction of a variety of structures such as bunkers, support buildings and access roads. A community garden is located southeast of the project area and may have had an adverse impact to archaeological deposits in the immediate area. Nevertheless, certain areas retain some semblance of the original environment and topography, and can be expected to contain relatively undisturbed archaeological deposits.

The field survey reveals that there is no clear boundaries between the deposits of artifacts. The evidence indicates that the entire project area and other undeveloped lands at White Point should be considered as a single site, an associated general use area. Concentrations of material do occur but can be best described as loci within a larger occupation area.

The first loci that was encountered on the field survey was in the southeast portion of the project area parallel to Paseo del Mar. Shell, chipped stone and flakes, groundstone and

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHEOLOGICAL SITE MAP

Page 4 of 7.

Permanent Trinomial: _____ / _____
mo. yr.

Temporary Number: ACT-1

Agency Designation: _____

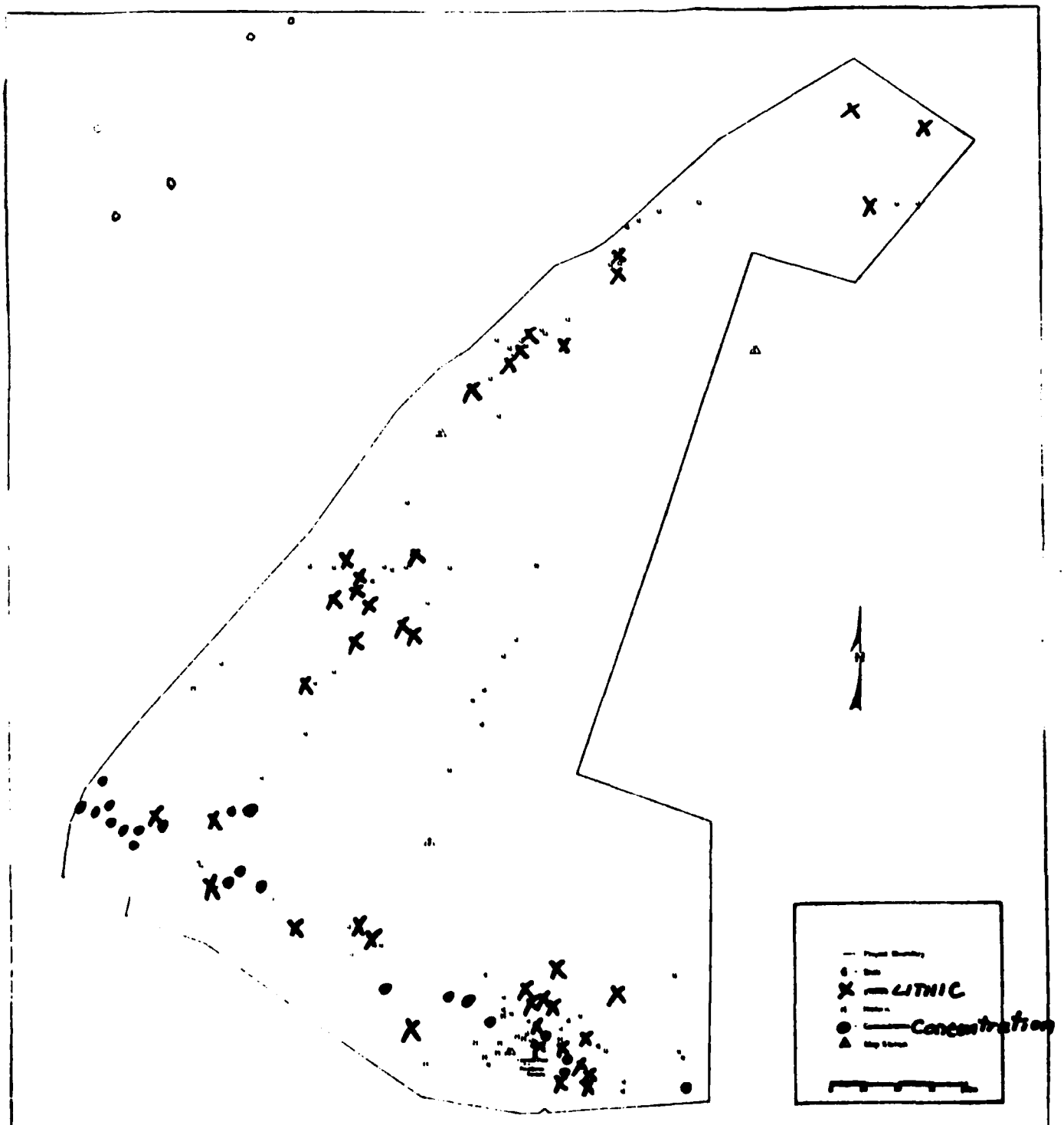


FIG. 6

Artifact Distribution Map, Surface Survey Results USAF White Point Housing Project

DPR 422F (Rev. 8/82)

historic material were scattered over a fairly large area which included the artificial mound believed to be the site of the historic Wolf farmhouse which was reported by Eberhart to have been constructed on top of an archaeological site. The remains of the house itself were not easily identifiable but an associated hexagonal concrete pond, and a adjacent retangular concrete foundation still exists. Various historical debris is scattered around the knoll area and several olive trees stand nearby.

The archaeological site on which the house was apparently built was orginally recorded as LAn-152 (UCLA Archaeological Survey). Eberhart identified the site as #6 in his report on the area and records finding only shell. From the distribution of artifacts encountered by the ACT field survey, CA-LAn-152 may actually represent the northwest extension of the area referenced as site #8 by Eberhart and recorded as CA-LAn-143 located on the south side of Paseo del Mar (Figure 5).

Cultural material in lesser concentration was encountered all along the lower terrace parallel to Paseo del Mar as far west as Western Avenue, where another loci or area of more concentrated material occur. This area coincides with Eberhart's site #7, recorded as CA-LAn-142, but the boundaries of the site as described previously are in error. This site was described by Eberhart as a small shell midden, but materials located by ACT included chipped stone artifacts; the area

of concentration is larger than indicated. The deposit of cultural material was, in fact almost continuous from the previous loci, CA-LAn-143.

Two other areas within the project boundary exhibit denser concentrations of artifacts than the rest of the site. These occur on the top of two terraces, one located in the northern portion of the project area and the other below it was toward center. The top, or northern terrace appears to have been truncated along its eastern edge by removal of a large amount of soil probably for construction of and contouring for the bunkers. The archaeological deposit in this area has probably been destroyed but remain relatively in tact along Western Avenue. An examination of Figure 6 demonstrates the nature of the concentrations as well as the area of soil removal, where no artifacts were located.

No subsurface testing was conducted during this phase of fieldwork, but natural erosion from the terraces and drainages on the site suggest that there may be subsurface components in some areas.

RECOMMENDATIONS

Based upon archaeological survey and mapping, it is clear that the project area contains an extensive deposit of cultural material. Although some segregated loci are tentatively iden-

tified by patterns of distribution, the actual boundaries of separate prehistoric sites or activity areas are difficult to draw. This is due in part to differential vegetational cover (ground visibility) and disturbances.

For clearinghouse purposes only, ACT has recorded a new site on the upper two terraces within the project area between the 240 and 360 foot elevations (see site form in Appendix A). This "site" will be designated with an official site number. However, we reiterate that there actually exists a continuous distribution of material in the project area (except where soils have been removed) with indications of perhaps four loci, one of which has historic and prehistoric components.

Based upon the substantial extent of the deposit and the likelihood of some generally undisturbed archaeological components, ACT considers the project area to contain significant cultural resources. However cultural resource procedures generally require that a thorough evaluation, for purposes of National Register eligibility determinations, include site testing to establish configurational integrity and the presence of analyzable data appropriate for scientific research. Further, to establish the significance of historic archaeological components, documentation research can supplement testing. Upon meeting the criteria for eligibility for inclusion of a cultural resource in the National Register, a plan would be

developed to mitigate adverse effects potentially resulting from a federally funded or licensed undertaking.

In order to complete the evaluation of cultural resources within the project area, ACT recommends a program of site evaluation to include: (1) additional point provenience mapping of exposed archaeological materials; (2) stratification of the project area based upon artifact distribution patterning; (3) testing excavations using a stratified systematic unaligned sampling scheme of small test units (e.g., 50 cm by 50 cm), and (4) the excavation of a series of larger test units to determine the presence, the extent and the integrity of subsurface archaeological features (e.g., fire hearths, living areas, shell middens). In addition, documentation should be examined to determine whether the project area is the location of the previously cited ethnohistoric village of Harasagna or another ethnothistoric village. Contemporary Gabrielino groups should be contacted to illicit any religious or social concerns about the project area.

Data should be gathered and analyzed at a level sufficient to file National Register documentation with the Keeper of the Register, California Office of Historic Preservation and the Advisory Council or Historic Preservation. These offices will determine the significance of cultural resources in the project area and, if necessary, identify mitigation alternatives.

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APPENDIX A

SITE RECORD

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHEOLOGICAL SITE RECORD

Permanent Trinomial: _____ Supplement ☐

Temporary Number: ACT #1

Page 1 of 7.

Agency Designation: _____

DRAFT

1. County Los Angeles

2. USGS Quad: _____ (7.5') X (15') _____ Photorevised _____

3. UTM Coordinates: Zone _____ / _____ Easting / _____ Northing ( )

4. Township 5S Range 14W ¼ of _____ ¼ of _____ ¼ of _____ ¼ of Section _____ Base (Mer.) _____ ( )

5. Map Coordinates: 0 mmS _____ mmI (from NW corner of map) 6. Elevation _____

7. Location: On second and third terraces above White Point along ridge parallel to Western Ave. on City of Los Angeles land donated by military in 1976 for use as a park/open space. West and north of paved access roads to bunker complex. ( )

8. Prehistoric X Historic _____ Protohistoric _____ 9. Site Description: Shell and lithic scatter concentrated along relatively flat portions of the terraces. Extent of deposit is difficult to assess due to extensive vegetation. ( )

10. Area: 200 m(length) x 110 m(width) 22000 m^2. Method of Determination: Distribution mapping with theodolite and EDM ( )

11. Depth: Unknown cm Method of Determination: - ( )

12. Features: No feature encountered during surface survey although subsurface features are possible. ( )

13. Artifacts: Flake stone debitage of chert, chalcedony and fused shale; shell including abalone, chione, haliotis, mytilus. ( )

14. Non-Artifactual Constituents: Soil coloration indicative of the extent of the occupations ( )

15. Date Recorded: June 21, 1984 16. Recorded By: E. Weil, R. Brown, J. Weisbord ( )

17. Affiliation and Address: Applied Conservation Technology, Inc. 223 E. Imperial Hwy. #156 Fullerton, CA 92635 ( )

DPR 422A (Rev. 8/82)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHEOLOGICAL SITE RECORD

Permanent Trinomial: ____ / ____ (mo. / yr.)

Temporary Number: ACT-1

Agency Designation: ____

18 Human Remains: None ( )

19. Site Integrity: The site has been disturbed by military activities. It appears that the northeastern portion of the site has been truncated by soil removal during the construction of bunker facilities. ( )

20. Nearest Water(type, distance and direction): Pacific Ocean (south, 3000') ( )

21. Largest Body of Water within 1 km (type, distance and direction): Pacific Ocean (south, 3000') ( )

22. Vegetation Community (site vicinity): Coastal annual grasses [Plant List ( )] ( )

23. Vegetation Community (on site): Coastal annual grasses [Plant List ( )] ( )

References for above: USAF White Point Housing Development EIS ( )

24. Site Soil: ( ) 25. Surrounding Soil: ( )

26. Geology ( ) 27. Landform: ( )

28. Slope: ( ) 29. Exposure: ( )

30. Landowner(s) (and/or tenants) and Address: City of Los Angeles Department of Recreation and Parks ( )

31. Remarks: Could be location of or associated with village: Harasagna (X)

32. References: Johnston 1962, Stickel 1978 (X)

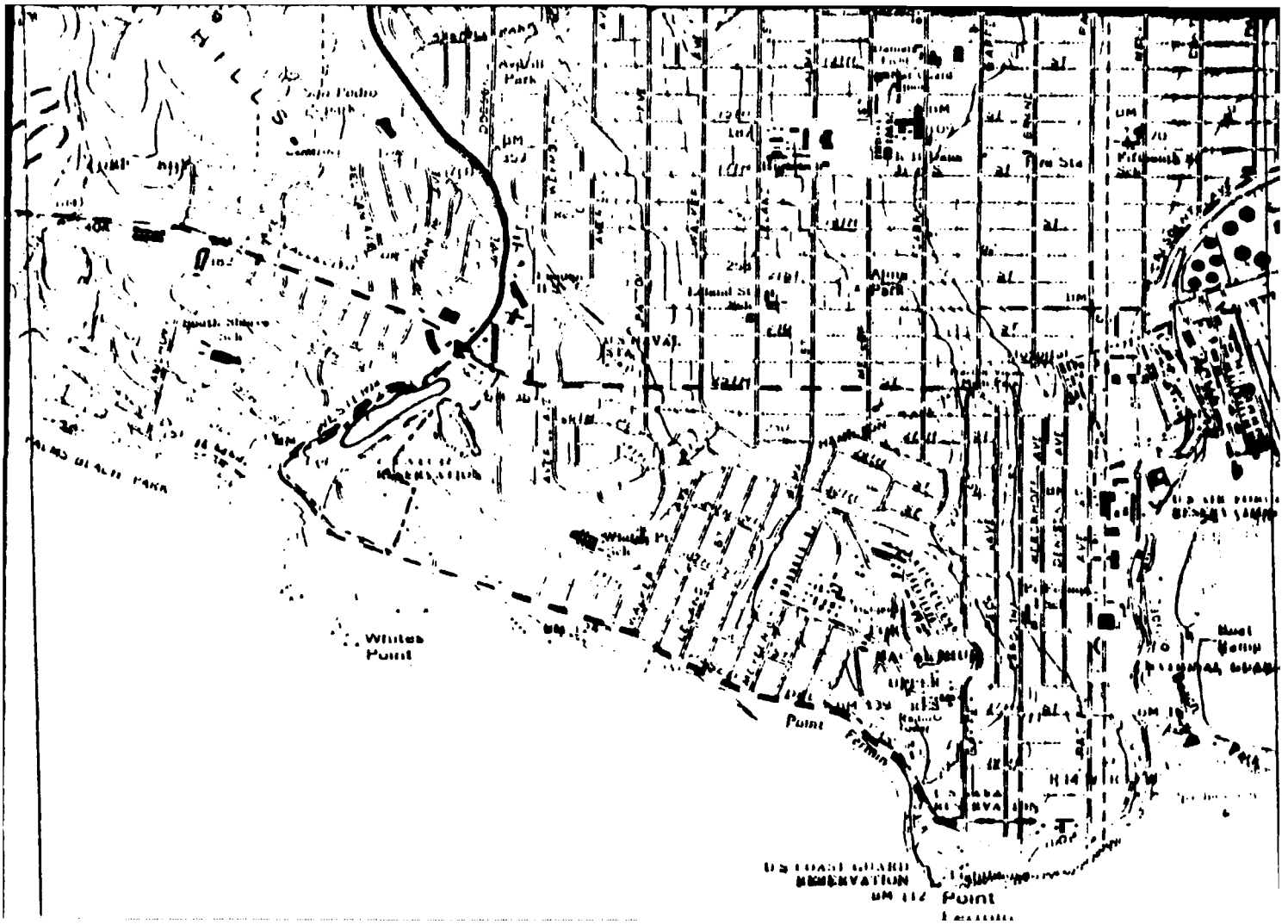
33. Name of Project: USAF White Point Housing Development ( )

34. Type of Investigation: Surface survey ( )

35. Site Accession Number: - Curated At: - ( )

36. Photos: ____ Taken By: E. Weil ( )

37. Photo Accession Number: L.A.-White Point Project Files At: ACT ( )


Whites
Point
Point
Point

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

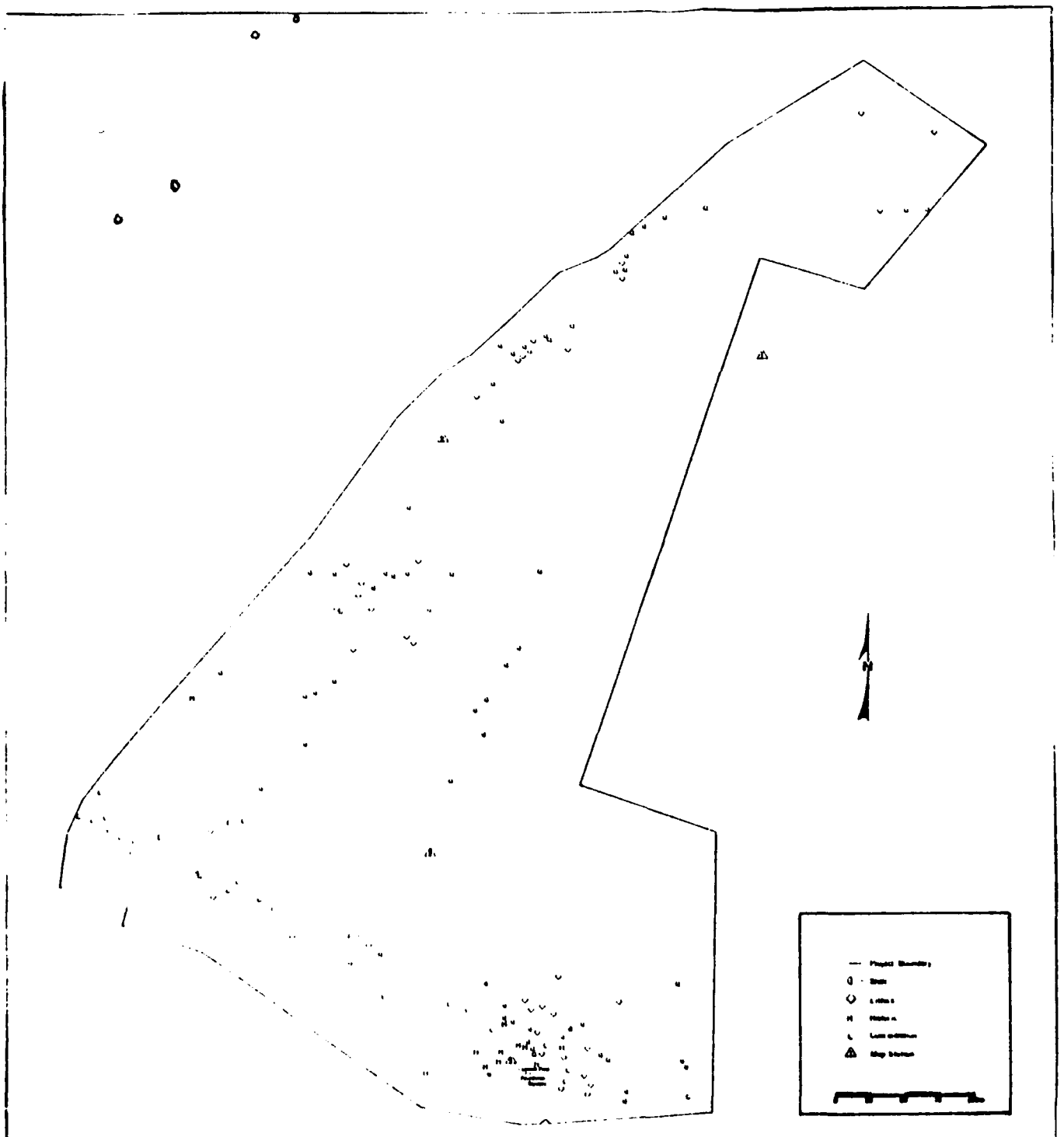
ARCHEOLOGICAL SITE MAP

Page 4 of 7.

Permanent Trinomial: _____ / _____
mo. yr.

Temporary Number: ACT-1

Agency Designation: _____



Artifact Distribution Map Surface Survey Results USAF White Point Housing Project

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHEOLOGICAL PHOTOGRAPHIC RECORD

Page 5 of 7.

Permanent Trinomial: _____ / _____ (mo. / yr.)

Temporary Number: ACT - 75-1

Agency Designation: _____

Camera and Lens Type: Roll #75-1 Pentax

Film Type and Speed: Panatomic-X

Year: 1984

USAF White Point Housing Development

Mo.	Day	Time	Exp./Frame	Subject/Description	View Tow.	Accession Number
				Overview from Datum 1		
6	21	4 PM	1	Road between bunkers	E	
			2	Road between bunkers	E	
			3	Road between bunkers; quanset hut	ESE	
			4	Quanset hut	SE	
			5		S	
			6	Principal load through project area	SSW	
			7	Principal load through project area	SSW	
			8	Principal load through project area	SSW	
			9	Principal load; Location of Datum 2	SSW	
			10		SW	
			11		W	
			12		WNW	
			13		NW	
			14	Drainage	N	
			15	Drainage	NNE	
				Overview from Datum 2		
			16	Bunker; location of Datum 1	NE	
			17	Eastern bunker; quanset hut	ENE	
			18	Nike site; principal road; drainage	SE	
			19	Nike site; principal road; com. garden	SE	
			20	White Point	SSE	
			21		S	

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHEOLOGICAL PHOTOGRAPHIC RECORD

Page 6 of 7.

Permanent Trinomial: _____ / _____ (mo. / yr.)

Temporary Number: ACT - 75-1

Agency Designation: _____

Camera and Lens Types: Roll 75-2 Pentax

Film Type and Speed: Panatomic-X

Year: 1984

Mo.	Day	Time	Exp./Frame	Subject/Description	View Tow.	Accession Number
				USAF White Point Housing Development Project		
6	21	5 PM		Overview from Datum 3		
			3	Looking to Datum 2	NE	
			4	Looking to Datum 1	ENE	
			5	Eastern bunker	EWE	
			6	Nike base; community garden	E	
			7	Community garden	ESE	
			8	White Point; Site 6 (LAn-152)	SE	
			9	White Point; Site 6 (LAn-152)	SE	
			10		S	
			11	Site 7 (LAn-142)	S	
			12	Site 7 (LAn-142)	SSW	
			13	Site 7 (LAn-142)	SW	
			14		W	
			15		WNW	
			16		NW	
			17	At Site 6 (LAn-152) foundation		
			18	Possible fish pond (LAn-152)		
			19	Opuntia at LAn-152 (Site 6)		
			20	Metate fragment-LAn-152		
			21	Looking to Datum 3 from LAn-152	NE	

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHEOLOGICAL SITE RECORD
Continuation Sheet

Page 7 of 7 .

Permanent Trinomial: _____ / _____
mo. yr.

Temporary Number: 75-1

Agency Designation: _____

Item No.	Continuation

Roll 75-1 Frame 10

Roll 75-1 Frame 9

OPR 422C (Rev. 8/82)

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS SPACE DIVISION (AFSC)
LOS ANGELES AIR FORCE STATION, PO BOX 92960, WORLDWAY POSTAL CENTER
LOS ANGELES, CA 90009

19 JUL 1984

Ms. Marion Mitchell-Wilson
State of California
Historic Preservation Office
P.O. Box 2390
Sacramento, CA 95812

Dear Ms. Mitchell-Wilson;

The Department of the Air Force, Headquarters Space Division, Los Angeles, CA, is proposing to construct 170 single family homes for Air Force officers on approximately 50 acres of the area known as White Point in San Pedro, CA (see map, Atch 1). As part of the environmental documentation process for this project, we have conducted an analysis of the archaeological/historical resources in the project area.

This analysis consisted of an archaeological survey report prepared by Dr. Hal Eberhart (California State University, Los Angeles) and Mr. Warren Wasson, dated Dec 1974 (Atch 2) ; and a resurvey of the project area and the preparation of a survey report by Applied Conservation Technology (ACT) under the direction of Dr. Edward Weil in Jun 1984 (Atch 3).

The 1974 Eberhart report covered an area larger than the current project area. Of the sites identified in the report, there was only one within the current project area which Dr. Eberhart felt had potentially sufficient value to warrant further investigation (Site 7, designated as LAn-142). Dr. Eberhart rasied the distinct possibility that recent historic construction activities has resulted in surface modification, which may have disturbed the site to such a degree as to reduce its scientific value. It should be noted that within the boundaries of Eberhart's Site 7, a Sewage Lift Station has been constructed in the recent past (exact date unknown). This construction undoubtly caused considerable disturbance to the site.

The project area was under the control of the U.S. Army until 1978 at which time it was transferred to the City of Los Angeles. The area was used for various military functions including a Nike Missile site. Over the years considerable military construction has occurred on the property as well as continuous grounds maintenance (ie: mowing and disking for weed control and fire protection). Construction activities and ground maintenance has resulted in extensive surface modification which has a direct impact on the continuity of any archaeological data. Based on these factors it would seem that any cultural value of the location would have been destroyed by previous activities.

The 1984 survey by Applied Conservation Technology was conducted specifically to analyze the archaeological/historical resources associated

with the current Air Force project at White Point. Only the actual project area (approx. 50 acres) was surveyed. This survey agrees with Dr. Eberhart that cultural remains are scattered over the entire site. This is not surprising considering the use of the area by the Army for a number of year and the associated construction and ground maintenace activities. Both survey reports discounted the significance of the historic farmhouse and neither attempted to discuss the significance of the White Point area to local or regional archaeology.

The issue is confused to a certain degree by recent statements made by Mr. Jim Heiner of the California Department of Parks and Recreation (San Pedro News Pilot, 16 Jul 1984, Atch 4). Mr. Heiner, referring to Dr. Eberhart 1974 report, indicated that the area had been extensively disturbed by recent historic earth movement and that with the possible exception of Eberhart's Site 7 (LAn-142), that the area does not warrant preservation from an archaeological/historical perspective. The article erroneously locates Site 7 in the southeast corner of the area rather than in the northwest corner where it is actually located (see map in Eberhart's report).

We request an immediate consultation with your staff to determine whether there is anything of archaeological significance on the proposed housing site and whether the level of disturbance from recent earth movement has negated all cultural value.

Mr. Robert Mason of my staff discussed this issue with Mr. Dwight Dutschke of your staff on 18 Jul 1984. It is our intent to include the results of this consultation in the environmental documentation for the White Point Project. In order that we may keep the preparation of this documentation on schedule, request that this consultation be completed by the end of Jul 1984.

We appreciate your cooperation on this issue and look forward to working with your staff. The Air Force is committed to meetings its requirements under the National Environmental Policy Act of 1969, the National Historic Preservation Act of 1966 as amended and Executive Order 11593. If there is additional data required of if you wish to arrange a site visit please contact Mr. Robert Mason of my staff at (213) 643-0933.

Sincerely

John Pearman

JOHN D. PEARMAN, Colonel, USAF
Director of Civil Engineering

4 Atch
1. Location Map
2. 1974 Eberhart Report
3. 1984 ACT Report
4. Newspaper Article

APPENDIX J

POLICE DEPARTMENT STATEMENT

1.PRS ✓
2. C113.8

DARYL F. GATES
Chief of Police

TOM BRADLEY
Mayor

P. O. Box 30158
Los Angeles, Calif. 90030
Telephone:
(213)- 548-7601
Ref #: 5.3

RECEIVED
JUL 10 1984
BELAND/ASSOCIATES, INC.

June 28, 1984

Colonel John D. Pearman
United States Air Force
Director of Civil Engineering
Los Angeles Air Force Station
P.O. Box 92960
Worldway Postal Center
Los Angeles, CA 90009

Dear Colonel Pearman:

In response to your letter, it is believed that the proposed housing project will not adversely affect police service in the Harbor Area.

There are, however, several crime-prevention measures which you should consider incorporating in the design of your project. Some of these would include: 1) proper deadbolt locks; 2) placement of door hinges on the inside of doors; 3) adequate outside lighting; and 4) proper size and placement of shrubbery. A thorough and detailed list of recommendations could best be presented by one of our Crime Prevention Specialists, who could "walk through" the plans with you or your representative.

If you wish to arrange for this service or you require any further information, please feel free to contact Sergeant Bill Antkiewicz of our Community Relations Office at (213) 548-7600.

Thank you for contacting my office with your concerns.

Very truly yours,

DARYL F. GATES
Chief of Police

R. A. McVEY, Captain
Commanding Officer
Harbor Area

AN EQUAL EMPLOYMENT OPPORTUNITY—AFFIRMATIVE ACTION EMPLOYER

APPENDIX K

TRAFFIC STUDY

Weston Pringle and Associates

TRAFFIC & TRANSPORTATION ENGINEERING

July 3, 1984

Mr. Paul Secord
Beland/Associates, Inc.
16 S. Oakland Avenue, Suite 204
Pasadena, CA 91101

RECEIVED
JUL - 5 1984
BELAND/ASSOCIATES, INC.

Dear Mr. Secord:

This letter summarizes our review of traffic factors related to the proposed development of 170 residential units on the White Point area of San Pedro. The study is based upon information provided by you, previous studies and field studies by our staff.

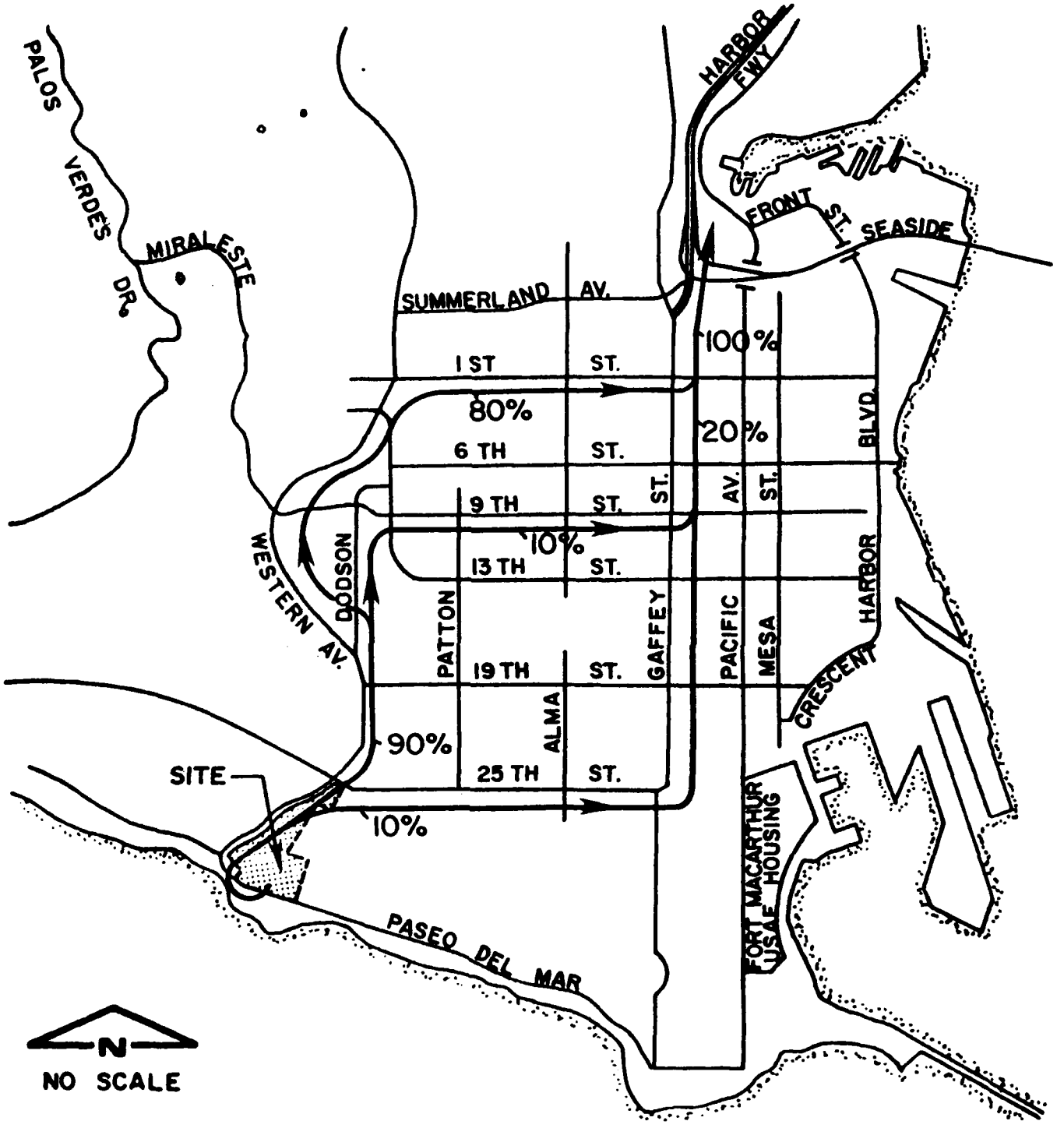
The project consists of the development of 170 single family residenital units to serve Air Force personnel stationed at the Los Angeles Air Force Station in El Segundo. This housing would be for officers (major through colonel) and include three and four bedroom units. In addition to the housing a five to seven acre recreation area is proposed for the 50 acre site. The site is located easterly of Western Avenue between 25th Street and Paseo del Mar in San Pedro. Figure 1 illustrates the site location.

EXISTING CONDITIONS

Western Avenue is a two-lane facility adjacent to the site with a steep grade from Paseo del Mar to 25th Street. There is limited direct access to Western Avenue in this section due to topography. Northerly of 25th Street, Western Avenue is a major arterial with two lanes in each direction, a median, signalized intersection and limited direct access. Daily traffic volumes on Western Avenue at 25th Street were 16,400 and at Paseo del Mar the daily volume dropped to approximately 5,000 in 1983 City of Los Angeles counts.

The northern boundary of the site is 25th Street. This street provides four lanes of travel plus turning lanes near the site. To the east, the street

2651 EAST CHAPMAN AVENUE • SUITE 110 • FULLERTON, CALIFORNIA 92631 • (714) 871-2931



DIRECTIONAL DISTRIBUTION

WESTON PRINGLE AND ASSOCIATES

FIGURE 1

is reduced to a two-lane road. Current daily traffic on 25th Street at Western Avenue is 12,700 vehicles. At the east site boundary on 25th Street an access road to the adjacent Navy housing is provided.

Paseo del Mar is a four-lane facility on the southerly boundary of the site. This street provides access to beach and other recreational and coastal activities as well as residential areas. The 1983 daily traffic on Paseo del Mar was approximately 2,500 vehicles.

The intersection of Western Avenue and 25th Street is signalized and provides the best measure of existing traffic conditions in the area. AM and PM peak hour traffic counts were conducted by our staff to provide a basis for this study. These count data were then utilized to complete Intersection Capacity Utilization (ICU) analyses. (The ICU methodology and relationship of ICU to Level of Service are described in Appendix A.) Existing AM and PM peak hour volumes and the related ICU analyses are contained in Appendix B. These analyses indicate an AM peak hour ICU value of 0.51 which is Level of Service A and a PM peak hour ICU value of 0.62 which is Level of Service B. On this basis, existing traffic conditions are at an acceptable Level of Service.

TRIP GENERATION

In order to examine the potential traffic impacts of the project, it is necessary to estimate the number of trips that would be generated. Studies have been conducted by government agencies and consultants to determine trip generation characteristics of various land uses. The rates utilized in this study are listed in Table 1 and are based upon the Institute of Transportation Engineers publication "Trip Generation". Also listed in Table 1 are the estimated project trips based upon 170 dwelling units. A daily trip generation of 1,700 trip ends with 130 occurring during the AM peak hour and 170 occurring during the PM peak hour is estimated for the project.

The trip generation estimates in Table 1 are for average single family residential developments. Since this project is specifically for field grade and senior

Table 1

TRIP GENERATION

White Point Air Force Housing

PERIOD	RATE(1)	TRIP ENDS
Daily	10.0	1700
AM Peak Hour		
In	0.21	35
Out	0.55	95
PM Peak Hour		
In	0.63	105
Out	0.37	65

(1) Trip ends per dwelling (Source: ITE "Trip Generation")

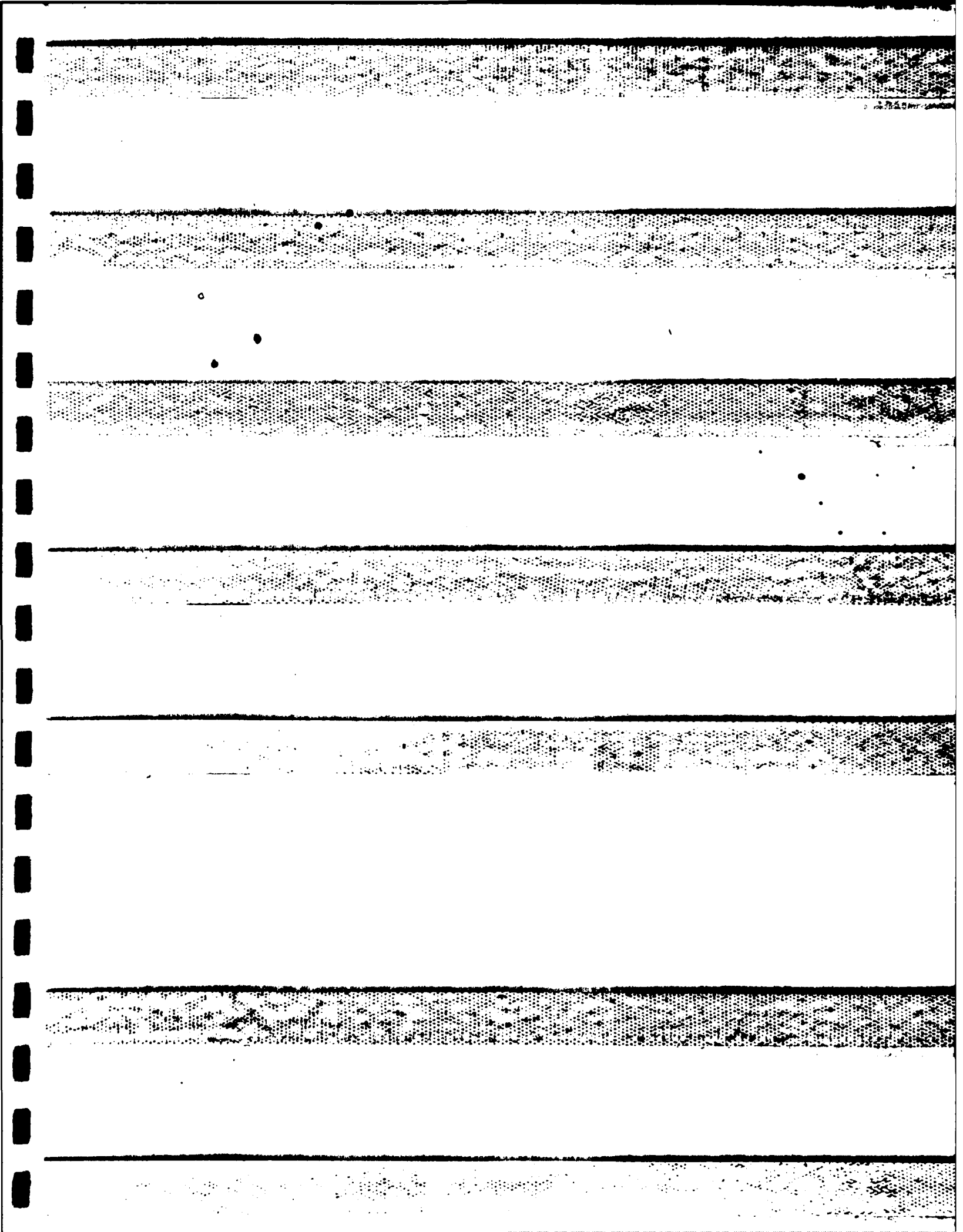
(2) Based upon 170 dwelling units.

Table 2

TRIP GENERATION ADJUSTMENT

White Point Air Froce Housing

PERIOD	TRIP ENDS			
	Theoretical	Car Pool	Single Occupant	Ajusted Total
Daily	1700	720	260	980
AM Peak Hour	35	15	5	20
In	35	15	5	20
Out	95	40	15	55
PM Peak Hour				
In	105	45	15	60
Out	65	30	10	40



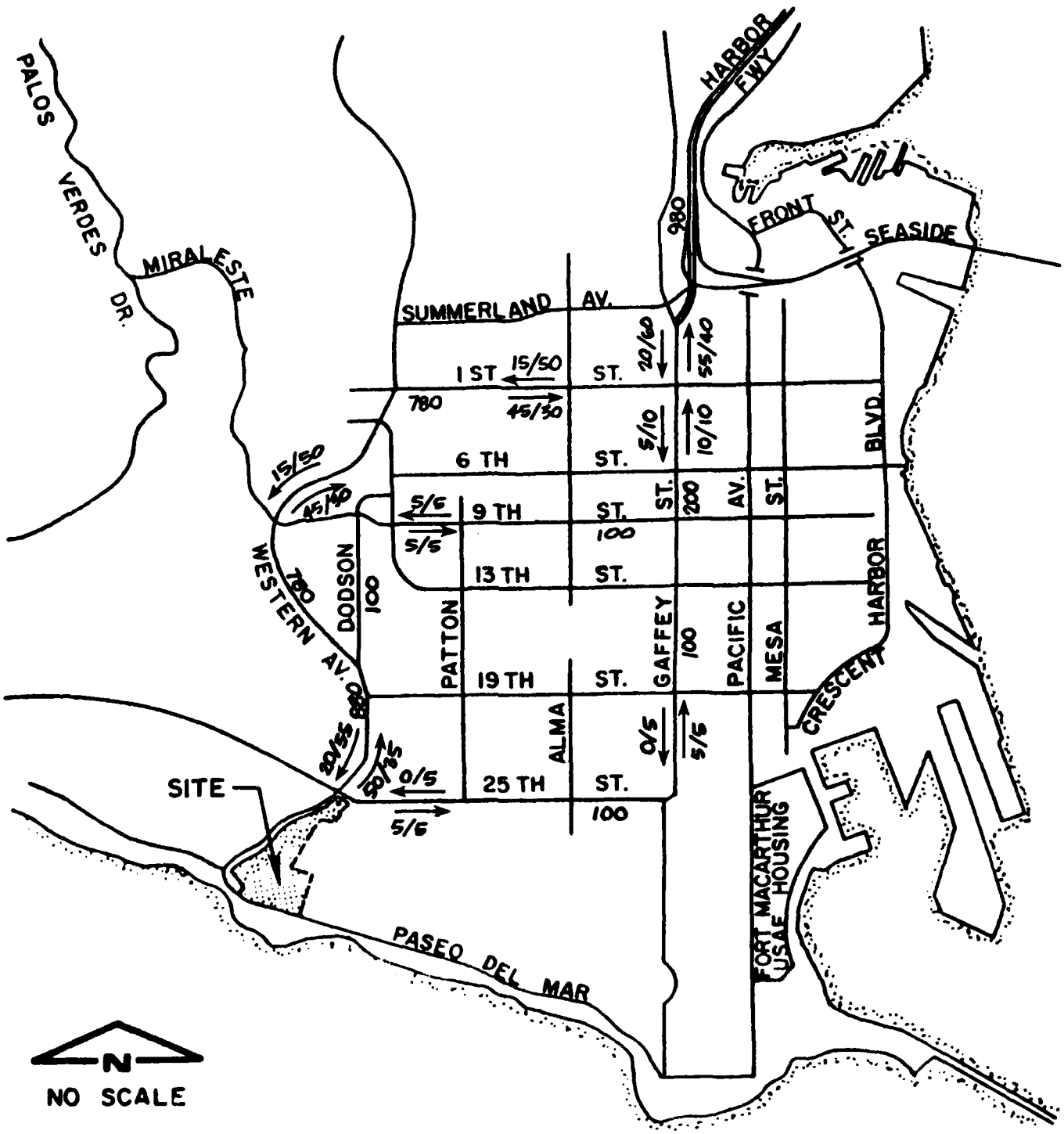
grade officers, all will be employed at the same location. In addition, on-site recreation is provided and other provisions unique to military housing apply. Current data for the Air Force housing at the Fort Mac Arthur Middle Reservation indicates that 75 percent car pool, 10 percent use the bus and 15 percent drive. Due to the characteristics of this project, it has been assumed that 85 percent would car pool and 15 percent would drive. Utilizing this estimate, the trip generation estimates were adjusted as indicated in Table 2. The adjusted totals in Table 2 were utilized for the analyses in this report.

TRIP DISTRIBUTION AND ASSIGNMENT

Due to the location of the site and the single work location of all residents, the project trip distribution pattern can be readily defined. All work trips will be to the Los Angeles Air Force Station in El Segundo. It has been assumed that these trips would utilize the Harbor and San Diego Freeways. Other trips, including shopping, recreation, medical, would also be oriented to the north and east of the site. A negligible number would be oriented to the west.

Based upon the general trip distribution factors and local street conditions, it was assumed that a majority of the trips would utilized Western Avenue - 1st Street - Gaffey Street to reach the freeway system. A minimal number would also utilize 9th and 25th Streets to reach Gaffey Street and the freeway. This distribution is illustrated on Figure 1. By applying the distribution factors to the estimated daily trip generation, project traffic was assigned to the street system. Estimated project generated daily traffic is indicated on Figure 2.

It has been assumed that access to the project would be on Paseo del Mar and that all trips would utilize Western Avenue southerly of 25h Street. With this assumption and the distribution on Figure 1, AM and PM project trips were assigned to the Western Avenue/25th Street intersection. This assignment is indicated in Appendix B.



LEGEND

100 = DAILY TRIPS

50/35 = AM PK HR / PM PK HR →

PROJECT TRAFFIC

WESTON PRINGLE AND ASSOCIATES

FIGURE 2

ANALYSIS

In order to examine the ability of the street system to accommodate the project traffic, the projected project trips were combined with existing to simulate future conditions. ICU analyses were completed for the Western Avenue/25th Street intersection with the project traffic. These analyses are contained in Appendix B and summarized in Table 3. As indicated in Table 3, the Level of Service is unchanged by the addition of project traffic and the ICU value is increased by 0.01 during the AM peak hour and 0.02 during the PM peak hour.

Table 3
ICU SUMMARY - WESTERN/25th
White Point Air Force Housing

PERIOD	EXISTING		PROJECT	
	ICU	LOS	ICU	LOS
AM Peak Hour	0.51	A	0.52	A
PM Peak Hour	0.62	B	0.64	B

Detailed analyses were not completed for other locations in the area; however, review of Figure 2 indicates that traffic increases on the street system are minimal and would not be expected to result in operational or safety impacts. Most of the projected increases are within the accuracies of the traffic counting and analysis procedures.

Since a site plan is not available, access and on-site traffic circulation provisions could not be analyzed. As stated previously, it was assumed that vehicular access would be on Paseo Del Mar. It is recommended that this access be located to align with the current access to the Royal Palms Beach. If this is not possible, the access should be a minimum of 300 feet from the beach access intersection. It is also recommended that provisions for emergency vehicle access be provided from 25th Street in conjunction with the existing

Navy housing access. This would eliminate the long cul-de-sac condition resulting from a single access on Paseo del Mar.

SUMMARY

This study has examined traffic factors related to the proposed development of 170 single family residential units for Air Force officers in the White Point area of San Pedro. Existing conditions were quantified and estimates made of future trips from the project. Adjustments are made to reflect the unique characteristics of the project. Analysis of anticipated traffic conditions with the project did not indicate potential traffic impacts. Recommendations were developed relative to site access provisions.

The following are principal findings of the study:

1. The project would generate an estimated 980 daily trip ends with 75 occurring during the AM peak hour and 100 during the PM peak hour.

2. The ICU values at Western Avenue and 25th Street would increase from 0.51 to 0.52 during the AM peak hour and from 0.62 to 0.64 during the PM peak hour with the project.

3. Project traffic would result in minor increases on the existing road system in the area.

MITIGATION MEASURES

The following are recommended to mitigate potential traffic impacts of the project.

1. Due to the single employment location of the residents, car pooling should be encouraged.

2. Vehicular access to the site should be on Paseo del Mar and aligned with the beach access or offset a minimum of 300 feet.

3. Emergency vehicle access should be provided from 25th Street via the existing Navy housing access.

We trust that this study will be of assitance to you in the preparation of an EIR for the project. If you have any questions or require additional information, please contact us.

Respectfully submitted,
WESTON PRINGLE & ASSOCIATES

Weston S. Pringle, P.E.
Registered Professional Engineer
State of California Numbers C16828 & TR565

WSP:bas
#84450

APPENDIX A

EXPLANATION OF INTERSECTION CAPACITY UTILIZATION

LEVEL OF SERVICE DESCRIPTIONS

EXPLANATION OF INTERSECTION CAPACITY UTILIZATION

The capacity of a street is nearly always greater between intersections and less at intersections. The reason for this is that the traffic flows continuously between intersections and only part of the time at intersections. To study intersection capacity, a technique known as Intersection Capacity Utilization (ICU) has been developed. ICU analysis consists of (a) determining the proportion of signal time needed to serve each conflicting movement, (b) summing the times for the movements, and (c) comparing the total time required to the time available. For example, if for north-south traffic the northbound traffic is 1,000 vehicles per hour, the southbound traffic is 800 vehicles per hour, and the capacity of either approach is 2,000 vehicles per hour of green, then the northbound traffic is critical and requires 1,000/2,000 or 50 percent of the signal time. If for the east-west traffic, 40 percent of the signal time is required, then it can be seen that the ICU is 50 plus 40, or 90 percent. When left-turn phases exist, they are incorporated into the analysis. As ICU's approach 100 percent, the quality of traffic service approaches Level of Service (LOS) E, as defined in the Highway Capacity Manual, Special Report 87, Highway Research Board, 1965.

Level of Service is used to describe quality of traffic flow. Levels of Service A to C operate quite well. Level of Service D is typically the Level of Service for which an urban street is designed. Level of Service E is the maximum volume a facility can accommodate and will result in possible stoppages of momentary duration. Level of Service F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration. A description of the various levels of service appears on the following page.

The ICU calculations assume that an intersection is signalized and that the signal is ideally timed. Although calculating ICU for an unsignalized intersections is not valid, the presumption is that a signal can be installed and the calculation shows whether the geometrics are capable of accommodating the expected volume. It is possible to have an ICU well below 1.0, yet have severe traffic congestion. This would occur because one or more movements is not getting enough time to satisfy its demand with excess time existing on other moves.

Capacity is often defined in terms of roadway width. However, standard lanes have approximately the same capacity whether they are 11 foot or 14 foot lanes. Our data indicates a typical lane, whether a through lane or left-turn lane has a capacity of approximately 1600 vehicles per lane per hour or green time. The Highway Capacity Manual found capacity to be about 1500 vehicles per lane per hour of green for through lanes and 1200 vehicles per lane per hour of green for left-turn lanes. However, the capacity manual is based on pre-1965 data, and recent studies and observations show higher capacities in the southern California area. For this study a capacity of 1600 vehicles per lane has been assumed for through traffic, and 1600 vehicles per lane for turning lanes.

APPENDIX A.

LEVEL OF SERVICE DESCRIPTIONS

Level of Service	TRAFFIC QUALITY	Nominal Range of ICU (a)
A	Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.	0.00 - 0.60
B	Operating speeds beginning to be affected by other traffic; between one and ten percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.	0.61 - 0.70
C	Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; recommended ideal design standard.	0.71 - 0.80
D	Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods; often used as design standard in urban areas.	0.81 - 0.90
E	Capacity; the maximum traffic volume an intersection can accommodate; restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.	0.91 - 1.00
F	Long queues of traffic; unstable flow; stoppages of long duration; traffic volume and traffic speed can drop to zero; traffic volume will be less than the volume which occurs at Level of Service E.	Not Meaningful

(a) ICU (Intersection Capacity Utilization) at various level of service versus level of service E for urban arterial streets.

Source: Highway Capacity Manual, Highway Research Board Special Report 87, National Academy of Sciences, Washington D.C., 1965, page 320.

APPENDIX B

INTERSECTION CAPACITY UTILIZATION CALCULATIONS

INTERSECTION CAPACITY UTILIZATION ANALYSIS

INTERSECTION: 25th STREET / WESTERN AVENUE (AM PEAK HOUR)

MOVEMENT	EXISTING LANES	EXISTING CAPACITY	EXISTING VOLUME	PROJECT VOLUME	EXISTING V/C	E+P V/C
NL	1	1600	14		0.01	0.01
NT	2	3200	106	50	0.04	0.05
NR	0	0	10	5	0.00	0.00
SL	1	1600	44		0.03	0.03
ST	2.5	4000	56	20	0.01	0.02
SR	1.5	2400	174		0.07	0.07
EL	1	1600	486		0.30	0.30
ET	2	3200	174		0.06	0.06
ER	0	0	4		0.00	0.00
WL	1	1600	10		0.01	0.01
WT	2	3200	152		0.09	0.09
WR	0	0	140		0.00	0.00
NORTH/SOUTH CRITICAL SUMS =					0.07	0.08
EAST/WEST CRITICAL SUMS =					0.39	0.39
CLEARANCE =					0.05	0.05
ICU =					0.51	0.52
LOS =					A	A

N=NORTHBOUND,S=SOUTHBOUND,E=EASTBOUND,W=WESTBOUND
L=LEFT,T=THROUGH,R=RIGHT

25WESTAM

INTERSECTION CAPACITY UTILIZATION ANALYSIS

INTERSECTION: 25th STREET / WESTERN AVENUE (PM PEAK HOUR)

MOVEMENT	EXISTING LANES	EXISTING CAPACITY	EXISTING VOLUME	PROJECT VOLUME	EXISTING V/C	E+P V/C
NL	1	1600	62		0.04	0.04
NT	2	3200	122	35	0.06	0.07
NR	0	0	58	5	0.00	0.00
SL	1	1600	186		0.12	0.12
ST	1.5	2400	179	55	0.07	0.10
SR	1.5	2400	432		0.18	0.18
EL	1	1600	53		0.03	0.03
ET	2	3200	264		0.12	0.12
ER	0	0	109		0.00	0.00
WL	1	1600	341	5	0.21	0.22
WT	2	3200	323		0.12	0.12
WR	0	0	55		0.00	0.00
	NORTH/SOUTH CRITICAL SUMS =				0.24	0.25
	EAST/WEST CRITICAL SUMS =				0.33	0.34
	CLEARANCE =				0.05	0.05
	ICU =				0.62	0.64
	LOS =				B	B

N=NORTHBOUND,S=SOUTHBOUND,E=EASTBOUND,W=WESTBOUND
L=LEFT,T=THROUGH,R=RIGHT

25WESTPM