Final
Environmental Assessment/Initial Study
for the
North-South Road/Highway 218
Improvements Project

April 1999

Prepared for:

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Summary and Conclusions

This Environmental Assessment/Initial Study (EA/IS) has been prepared to assess the environmental impacts of a plan to reconstruct approximately 1,500 lineal feet of existing North-South Road on the former Fort Ord site near the City of Del Rey Oaks, California. The project consists of widening North-South Road, between South Boundary Road and Highway 218. The project portion of the roadway is currently gated to prohibit vehicular access. The roadway does not presently contain bike lanes, sidewalks, adequate shoulders, or drainage facilities, as required for traffic safety. The purpose of the proposed project is to upgrade North-South Road to current safety standards, and to provide access and adequate capacity in the project area.

Reconstruction of the road consists of the following elements: reconstruction and widening of the project portion of North-South Road; construction of bicycle lanes and a sidewalk; grading; improvement of drainage facilities; utility alterations; signage; striping; and minimal landscaping. The project also includes the installation of a traffic signal at the intersection of Highway 218 at North-South Road, and associated roadway modifications at this intersection. Completion of the project would result in opening of the existing gates at North-South Road and Highway 218, and North-South Road and Broadway, allowing through traffic to access the project area.

The Fort Ord Reuse Authority (FORA) has reviewed three alternatives in determining the proposed project. The alternatives considered were 1) the No Action Alternative, 2) the Increased Scale Alternative, and 3) the Realignment Alternative.

The design of the proposed project included extensive consultation with the resource agencies and has incorporated features to minimize the environmental impacts of project development and implementation.

Based on the information in the EA/IS, the proposed project does not constitute a major state or federal action that could significantly affect the environment or national security, necessitating preparation and distribution of an Environmental Impact Report/Environmental Impact Statement for public review. On this basis, a Negative Declaration/Finding of No Significant Impact (ND/FONSI) is attached.

Chapter 1. Purpose and Need for the Proposed Action

INTRODUCTION

This Environmental Assessment/Initial Study (EA/IS) has been prepared to assess the environmental impacts associated with the proposed reconstruction of approximately 1,500 lineal feet of the existing North-South Road, between South Boundary Road and Highway 218, on the former Fort Ord. The project also includes signalization and associated improvements to Highway 218. The purpose of the proposed project is 1) to upgrade the roadway to current safety standards, and 2) to provide adequate capacity to meet future demand generated by anticipated development in accordance with the Fort Ord Reuse Plan. Implementation of the project will include opening of the existing gates at North-South Road/Highway 218 and North-South Road/Broadway, allowing for through traffic into the project area.

ENVIRONMENTAL ASSESSMENT/INITIAL STUDY REQUIREMENT

This EA/IS has been prepared pursuant to the National Environmental Policy Act (NEPA), the regulations of the Federal Council on Environmental Quality (40 CFR Part 1500 et.seq.), the Department of the Army (Army Regulation [AR] 200-2), and the California Environmental Quality Act (CEQA).

The purpose of this EA/IS is to determine whether the proposed action is a major federal/state action that could significantly affect the environment, requiring the preparation and distribution of an Environmental Impact Statement/Environmental Impact Report for public review. A Finding of No Significant Impact/Negative Declaration (FONSI/ND) is issued if the environmental impacts of the project are not significant.

PUBLIC PARTICIPATION

This EA/IS has been distributed for review to the agencies and organizations listed in Chapter 9.

PURPOSE AND NEED OF THE PROPOSED ACTION

The project portion of the roadway is currently gated to prohibit vehicular access due to current roadway deficiencies and ongoing Army clearance activities for ordnance and explosives in the area. The project portion of roadway does not accommodate bike lanes, sidewalks, adequate shoulders, turning lanes, and drainage facilities. The purpose of the proposed project is to improve North-South Road and the intersection of Highway 218 to provide access and capacity to meet future traffic demand, and bring it up to current safety standards.

The proposed improvements to North-South Road, between South Boundary Road and Highway 218 are identified in the FORA Reuse Plan and the City of Del Rey Oaks General Plan. The proposed project is part of a larger series of traffic improvements required to implement the FORA and Del Rey Oaks circulation plans, developed to provide an adequate transportation system on the former Fort Ord site to serve planned uses, including the CSUMB campus, employment centers, and residences.

Chapter 2. Description of Proposed Action

PROJECT LOCATION

Fort Ord is a former U.S. Army infantry base encompassing approximately 27,900 acres, located about five miles north of the City of Monterey (refer to Figures 1 and 2). The former Fort Ord is surrounded by Monterey County, and the Cities of Marina, Monterey, Del Rey Oaks, Seaside, and Sand City. Most of the former Fort Ord is within the boundaries of unincorporated Monterey County (20,565 acres), with portions of the remaining land located within the cities of Marina and Seaside. Agencies now having land use jurisdiction on the former base include the California State University, Monterey Bay (CSUMB); the University of California Monterey Bay Education, Science, and Technology Center (UC-MBEST); the Bureau of Land Management; the U.S. Army Presidio of Monterey Annex; the U.S. Army Reserve Center; and other remaining military holdings. Other agencies involved with land conveyances include the Cities of Del Rey Oaks and Monterey; the Monterey Peninsula Unified School District (MPUSD); and Monterey Peninsula College (MPC).

The project is located on Army property, planned for transfer to Monterey County, with the exception of the Highway 218 corridor. A portion of the project site is located on land that is planned for transfer to the Monterey Peninsula Regional Parks District.

PROJECT ELEMENTS

The proposed project consists of reconstructing and widening approximately 1,500 lineal feet of North-South Road, between Highway 218 and South Boundary Road. The project also includes improvements at the intersections of North-South Road with Highway 218 and South Boundary Road. Implementation of the project will include opening of the existing gates at North-South Road/Highway 218 and North-South Road/Broadway.

The proposed project is addressed in this EA/IS. The project plans are presented in Figure 3. The proposed alignment will basically follow the existing roadway alignment. The proposed improvements consist of the following components:

- Widening/Repaving: North-South Road will be widened to allow for two 12-foot travel lanes and turning lanes (including acceleration/deceleration lanes) at the intersections of North-South Road and Highway 218, and North-South Road and South Boundary Road. The width of North-South Road will be a total of 44 feet, including travel lanes, bicycle lanes, sidewalk, and shoulder. The width of Highway 218 will be a total of 38 feet, including two travel lanes, paved shoulders, and unpaved shoulders. The addition of left turn storage and right turn lanes at the intersection with North-South Road will increase the total width to 60 feet. The project proposes to remove all pavement and repave the entire length of the project alignment with new asphalt. The improvements to Highway 218 included in the project are listed below:

  - Provide traffic and pedestrian signals at the intersection with North-South Road.
  - Provide a left turn lane and tapers at the intersection with North-South Road.
  - Provide a bus stop on the northwest corner of the intersection with North-South Road.
  - Repaving of Highway 218 for a distance of approximately 1,190 lineal feet.

- Bicycle/Pedestrian Facilities: The project would include the construction of bicycle lanes (5') along both sides of North-South Road, and a sidewalk (4') along the easterly side of North-South Road.

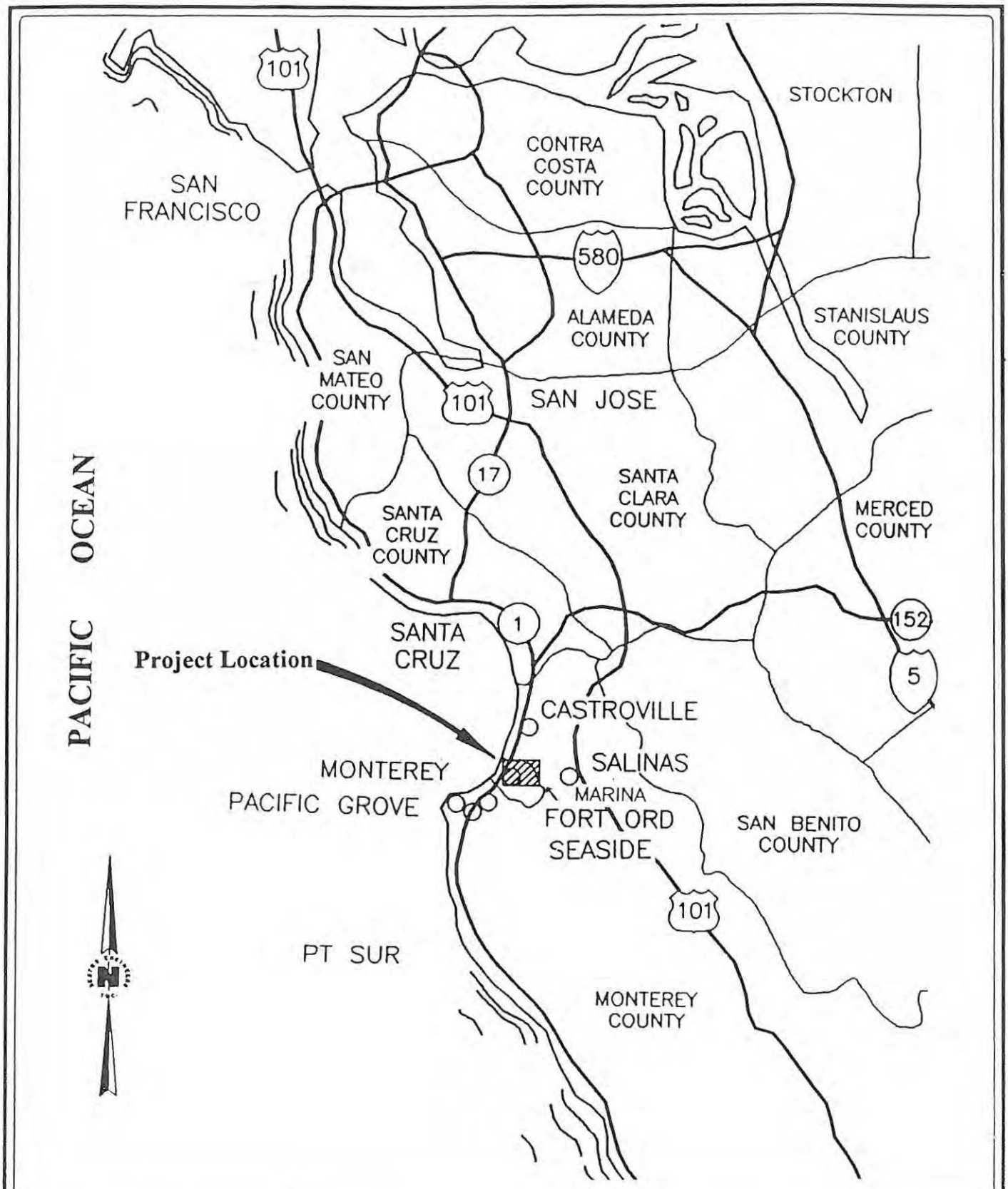
- Grading: The project proposes grading for the roadway reconstruction and widening. Approximately 1,500 cubic yards of material would be graded, to balance onsite. Grading and stabilization activities include the construction of a retaining wall along the east side of North-South Road to meet the existing slope.

- Drainage Facilities: The project proposes to construct curbs, gutters, and catch basins as required along the project alignment. The existing box culvert located at the intersection of North-South Road and Highway 218 would be extended, as shown in the project plans. The existing box culvert, which is approximately 9.5 feet wide by 8.5 feet high, would be extended but not enlarged.

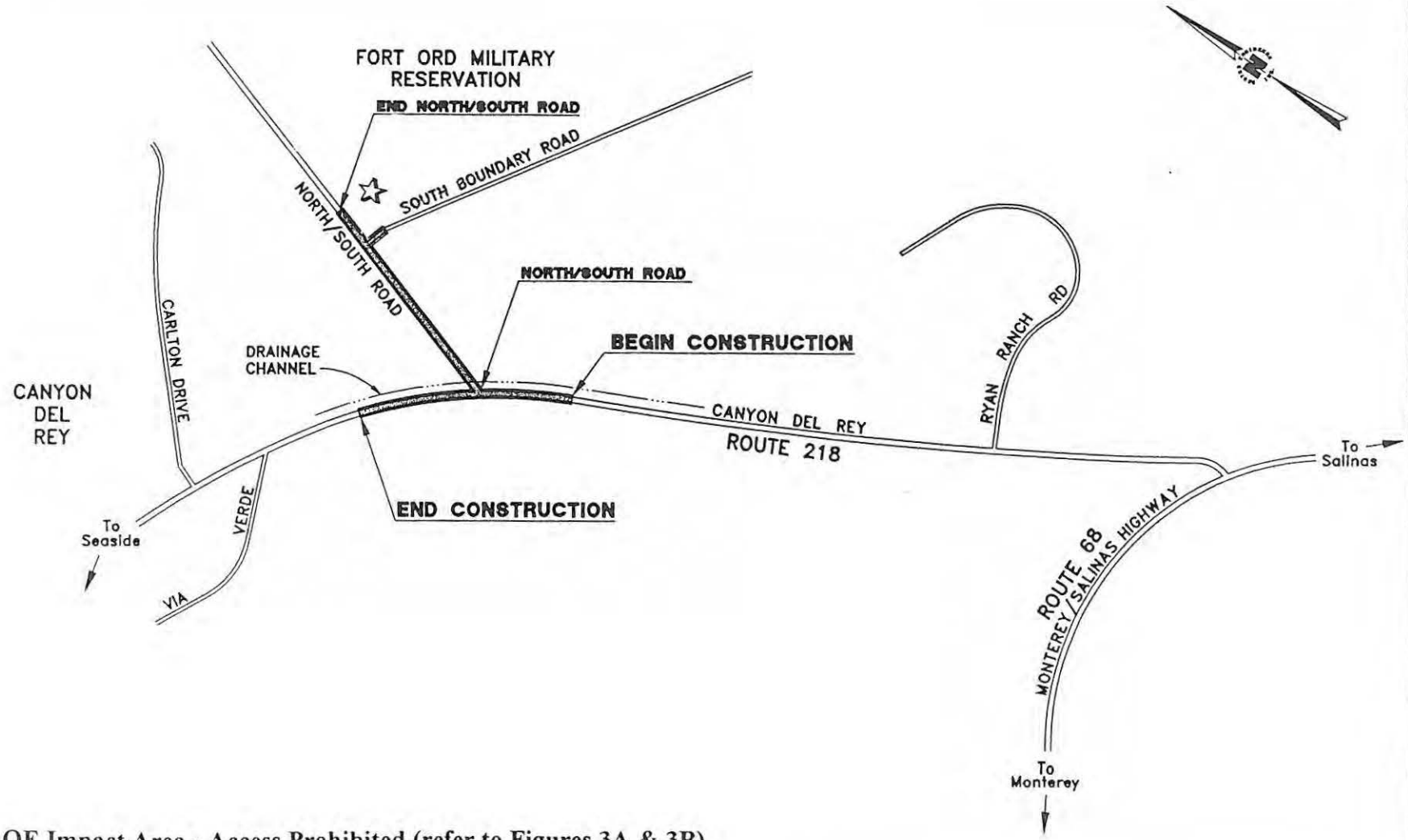
- Utilities: The project includes the installation of a 10-inch water line under the proposed box culvert extension.

- Signage/Striping: The project would provide all appropriate road striping and signage.

- Landscaping: The project proposes hydroseeding of all exposed areas with native species of grasses.



	REGIONAL LOCATION	Figure 1



☆ OE Impact Area - Access Prohibited (refer to Figures 3A & 3B)
Refer to text for further discussion.

VICINITY LOCATION

Figure 2

DENISE DUFFY & ASSOCIATES

Chapter 3. Alternatives Considered

FORA considered three possible alternatives in addition to the proposed project. These alternatives were 1) the No Action Alternative, 2) the Increased Scale Alternative, and 3) the Realignment Alternative. The following discussion provides a description of the other alternatives considered and their reasons for rejection.

NO-ACTION ALTERNATIVE

Under the No-Action Alternative, North-South Road would remain "as is" and improvements would not be constructed. Under this alternative, the subject portion of roadway would not meet current safety standards, including bike lanes, sidewalks, adequate shoulder width, turning lanes, and drainage facilities. In addition, the roadway would not be of adequate capacity for future traffic associated with development of former Fort Ord.

This alternative was considered and rejected because it would not meet the project objectives to improve the roadway consistent with the circulation plans of the FORA Reuse Plan and City of Del Rey Oaks.

INCREASED SCALE ALTERNATIVE

This alternative consists of widening the project portion of North-South Road to four lanes, with dedicated turn lanes at Highway 218 and a wider median. This alternative would meet the project objectives to increase the capacity of the roadway and upgrade it to current standards. However, this alternative would result in greater physical impacts associated with widening of the roadway. These include increased grading and ground disturbance and impacts on adjacent wetlands.

This alternative was considered and rejected because it would result in greater impacts on wetlands and raise additional concerns on biotic resources by the California Native Plant Society (CNPS). In addition, the roadway widening resulting from the increased scale alternative would not be warranted based on anticipated traffic volumes on the roadway.

REALIGNMENT ALTERNATIVE

This alternative consists of widening North-South Road and realigning it to the west. This alternative would meet the project objectives to increase the capacity of the roadway and upgrade it to current standards. However, it would result in greater physical impacts associated with widening of the roadway, including increased grading and ground disturbance. Realignment of the road to the west would result in greater impacts on existing wetlands (i.e., the Frog Pond) located to the west of the site and require the relocation of a PG&E 60 (kva) power line.

This alternative was considered and rejected because it would result in greater impacts on wetlands and require relocation of a major power line. In addition, the roadway widening under this alternative would not be warranted based on anticipated traffic volumes on the roadway.

CONCLUSION

The proposed project was developed to reduce impacts by scaling back the width of the roadway and is appropriately sized to meet the future traffic demand, based on traffic projections prepared by the Transportation Agency for Monterey County. In addition, the project minimizes impacts to wetland areas and special status species.

Chapter 4. Affected Environment

INTRODUCTION

The setting information contained in this chapter is based on site plan and field review, as well as cultural resource, traffic, and biological analyses prepared for the project. In addition, information is referenced from the environmental and other documentation prepared for Fort Ord, as listed in Chapter 6.

This chapter and Chapter 5 address the following pertinent issues:

- land use
- transportation
- visual resources
- cultural resources
- vegetation and wildlife
- hydrology and drainage
- public services and utilities
- noise
- hazardous materials
- air quality
- geology and soils
- water quality

LAND USE

The proposed roadway improvement project is located on the Fort Ord property, a former Army infantry base. The project site is located along the southwest boundary of the base, in an unincorporated area of Monterey County (refer to Figure 1). North-South Road is located in an area planned for annexation into the City of Del Rey Oaks. At this time, the project property remains under Army ownership.

Project activities would occur primarily within the existing 105 foot North-South Road right-of-way and a section of the Highway 218 Caltrans right-of-way on either side of the North-South Road intersection. The area immediately surrounding North-South Road is currently undeveloped, with the exception of existing roadways (i.e., existing North-South Road, South Boundary Road, and Highway 218). The project segment of North-South Road is currently gated to prohibit vehicular access. The Frog Pond Natural Area is located west of North-South Road. The 17-acre Frog Pond is a natural preserve, owned and operated by the Monterey Peninsula Regional Park District (MPRPD), and consists of a wetland area with nature trails. Single family residential uses are located on a bluff just south of, and overlooking, Highway 218.

A portion of the project site along the east side of North-South Road borders FORA Parcel 31a, identified for transfer to the MPRPD as a Natural Area Expansion (NAE) under the Fort Ord Habitat Management Plan (HMP). This parcel is referred to as Parcel L6 in the HMP. The project site also includes some privately owned land and a small section of existing MPRPD property adjacent to Canyon Del Rey Creek.

The land northeast of the intersection of North-South Road/South Boundary Road was formerly used by the Army as an impact area for mortars and artillery. This area is delineated by an existing barbed wire fence, and is identified by the Army as an ordnance and explosives (OE) impact area (refer to Figures 3A and 3B). Access to this area is strictly prohibited. Construction and grading for the project will be coordinated with the Army so that no access occurs in this area until all Army OE clearance activities are completed. This will require periodic road closures during OE clearance activities (e.g., controlled burns and OE detonation).

In addition, a maritime chaparral plant reserve is located south of South Boundary Road along the east side of North-South Road. This preserve was established through previous agreements between the Army and the California Native Plant Society (refer to Appendix D-1).

TRANSPORTATION

The project portion of North-South Road is a segment of a minor arterial/collector road providing access into the former Fort Ord. Improvements are proposed to provide additional capacity and safe access to meet future traffic demands in the area, in accordance with the circulation plans for the FORA Reuse Plan and City of Del Rey Oaks.

The existing roadways involved in the proposed project are described below:

State Route 218 (Canyon Del Rey Road) is a two-lane rural state highway providing access between Highway 1 and Highway 68, through Seaside and Del Rey Oaks. Most of Highway 218, including the intersection of Highway 218 and North-South Road, is located within the City of Del Rey Oaks.

North-South Road is a paved two-lane military road which extends through former Fort Ord, roughly between Third Street and Highway 218. North-South Road is gated between Broadway and Highway 218 to restrict vehicle access in this area.

South Boundary Road is a paved two-lane military road which extends through former Fort Ord between North-South Road and Laguna Seca Raceway.

The project addressed in this EA/IS includes the widening of North-South Road to allow for two 12-foot travel lanes and turning lanes (including acceleration/deceleration lanes) at the intersections of Highway 218 and South Boundary Road. Widening also includes the construction of five-foot bicycle lanes along both sides of North-South Road, and a four-foot sidewalk along the east side of North-South Road. The proposed improvements to Highway 218 include a traffic signal at North-South Road, a crosswalk, and a bus stop on the northwest corner of 218 and North-South Road. The entire project alignment would be repaved with new asphalt.

The improvement of North-South Road and signalization of its intersection with Highway 218 are identified in FORA's Reuse Plan, as well as the City of Del Rey Oak's General Plan, in order to provide access and adequate capacity for future traffic associated with planned development in former Fort Ord and Del Rey Oaks. The proposed improvements are consistent with the FORA Reuse Plan circulation network (i.e., Program B-11).

VISUAL RESOURCES

There are no significant visual resources along the project alignment. The project is not located along any designated scenic routes or vistas. The road extends through former Fort Ord, along areas containing oak woodland and chaparral. The Frog Pond Natural Area, located just west of North-South Road, is a MPRPD owned natural preserve. This area is mostly obscured from view along the roadway by thick vegetation.

CULTURAL RESOURCES

Former Fort Ord is located within the currently recognized ethnographic territory of the Costanoan (also known as the Ohlone) group. This Native American group followed a hunting/gathering subsistence pattern, with partial dependence on the natural acorn crop. Habitation is considered to have been semi-sedentary and occupation sites often occur at the confluence of streams, and along streams or near springs.

European settlement of the area occurred in the 1700s, and the Ohlone population and culture began its demise shortly thereafter. The former Fort Ord property was originally part of several ranches. The site became an active military base prior to World War II (*Fort Ord Reuse Plan Draft EIR*, FORA, May 1996).

A cultural resources investigation was prepared for the project by Archaeological Consulting in May 1998, and is contained in Appendix C. This investigation consisted of a background records search at the Northwest Regional Information Center (at Sonoma State) and a field reconnaissance of the project area. The records search showed no archaeological resources on the project site, although two sites were identified in the vicinity of the project (approximately 1,600 and 3,200 feet from the project site). A field reconnaissance was conducted by the archaeologist in May 1998. This survey consisted of a general surface reconnaissance of all areas which could reasonably be expected to contain visible cultural resources. None of the materials associated with prehistoric cultural resources in this area (e.g., dark soil, shell fragments, bone, broken or fire-altered rocks, flaked or ground stone, etc.) were noted during the survey of the site.

VEGETATION AND WILDLIFE

The following discussion of vegetation and wildlife is based on a biological investigation prepared for the project by Zander & Associates (May 1998). This study is contained in Appendix D of this EA/IS.

Most of the project site[1] is located within the boundaries of the installation wide, multi-species Habitat Management Plan for former Fort Ord, April 1997 (HMP) area. The HMP addresses impacts to biological resources through establishment of large contiguous habitat conservation areas and corridors, in order to compensate for future development and associated habitat loss in other areas of the former base. The HMP provides the framework for evaluating project related impacts to habitat resources, and is the primary mechanism for mitigating these impacts. An implementation agreement that would further secure the habitat conservation requirements set by the HMP has been developed. However, finalization and approval of this agreement is currently pending.

This project area is floristically diverse due to local variations in climate, topography, and soil composition. Five general vegetation communities/habitat types are represented on the project site. These are as follows: maritime chaparral, coast live oak woodland, willow scrub, riparian wetland, and ruderal/colonizing vegetation. The occurrence of these vegetation types on the project site is discussed below. A map showing the vegetation/habitat types on the site is presented in Figure 4. A list of plant species observed on the project site is contained in Appendix D.

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[1] With the exception of the Caltrans right-of way along Highway 218 and a small section of private land immediately adjacent to Highway 218.

Vegetation and Habitat Types

Maritime Chaparral

Maritime chaparral is characterized by evergreen, sclerophyllus shrubs such as shaggy-barked manzanita, chamise, and ceanothus. This vegetation type occurs within the right-of-way on the east side of North-South Road at the northern end of the project alignment, as well as on the north and south sides of the South Boundary Road segment. The southern end of this maritime chaparral zone intergrades with coast live oak woodland along North-South Road.

Maritime chaparral provides high quality habitat for wildlife, including ground- and shrub-nesting birds, small mammals, and reptiles. Maritime chaparral is considered sensitive by local and regional resource agencies, and has been specifically targeted for preservation by the HMP, because it supports several locally endemic and special-status plant and animal species.

Coast Live Oak Woodland

Coast live oak woodland is located on and adjacent to a small hill on the east side of North-South Road in the central section of the project alignment, and intergrades with maritime chaparral in the northern section of the site. On the south-facing hillside, xeric (dry) conditions prevail, resulting in a predominance of drought-tolerant understory species such as toyon, chamise, coffee berry, and coyote brush. The north-facing slope of the hill supports more mesic-adapted understory species such as blackberry, snowberry, and yerba buena.

Oak woodlands provide foraging resources and breeding habitats for a diverse assemblage of birds and mammals. Oak woodlands are considered important natural communities, and their conservation is a priority among local and regional resource agencies.

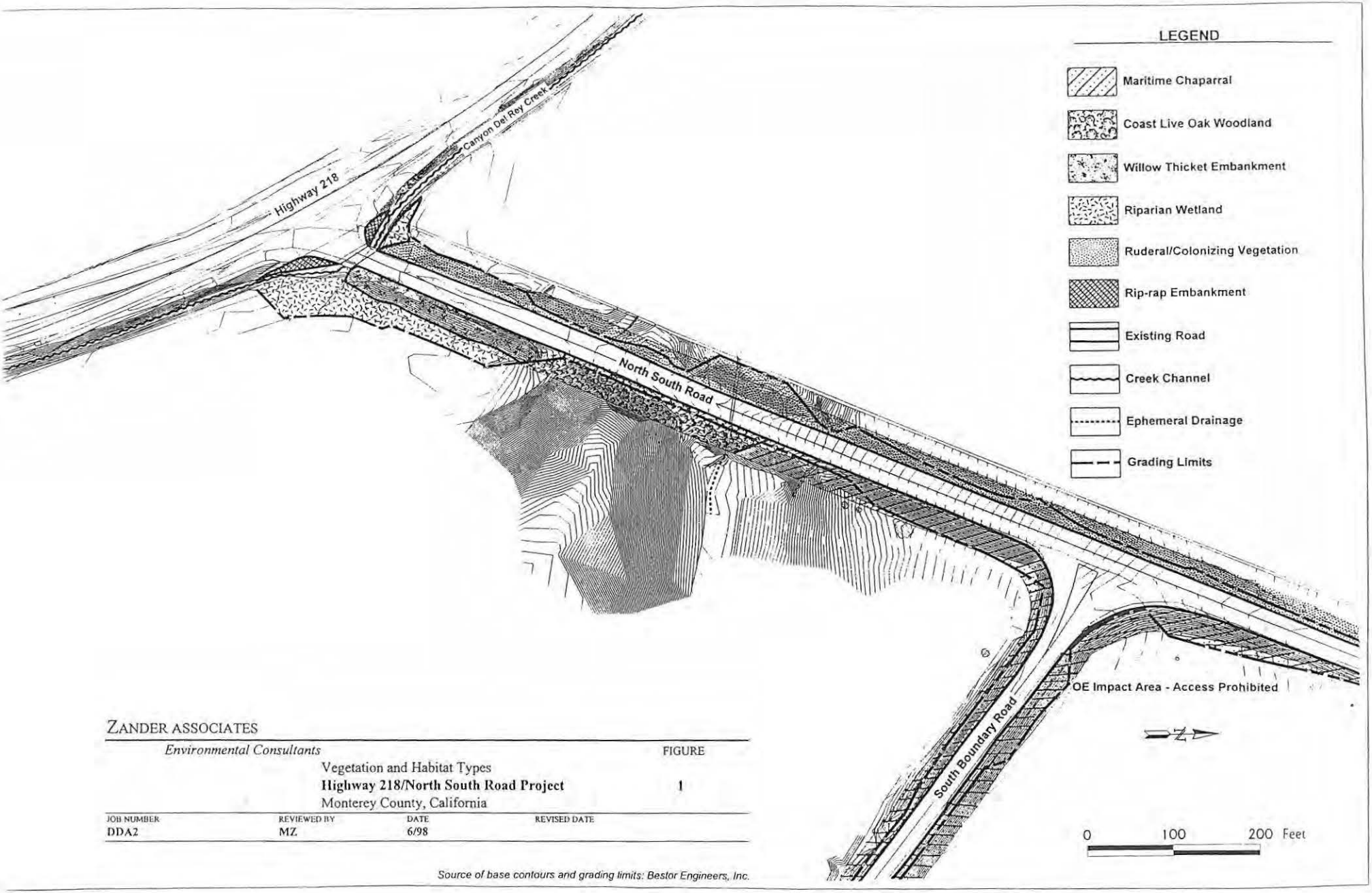
Willow Thicket

A dense willow thicket borders the southern section of North-South Road along its eastern edge from the entrance gate to a point about 220 feet north. Arroyo willow is the dominant species in this area and has colonized the fill slope of the North-South Road embankment from adjacent lower areas to the east. The willow thicket on the embankment may provide foraging or nesting habitat for birds found in the adjacent riparian wetland area, as well as rodents and other small mammals. Because of the steep slope and limited area of this fill embankment, this area probably provides limited wildlife habitat value.

Riparian Wetland

The lower ground at the toe of the embankment slope on the east side of North-South Road appears to function as an overflow area for the adjacent Canyon Del Rey Creek. In addition to dense arroyo willow, this area supports a variety of moisture-tolerant vegetation such as fleshy jaumea, fat hen, bulrush, and heliotrope.

Riparian areas are productive natural communities which support a variety of resident and migratory wildlife species. Riparian wetlands provide foraging and breeding habitat for amphibians and aquatic reptiles. The woodland canopy and understory vegetation provide cover and nesting habitat for a variety of birds. Riparian vegetation also functions to stabilize stream banks, provide shade, and improve water quality in stream zones.



ZANDER ASSOCIATES

Environmental Consultants

Vegetation and Habitat Types
Highway 218/North South Road Project
Monterey County, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
DDA2	MZ	6/98	

Source of base contours and grading limits: Bestor Engineers, Inc.

Ruderal/Colonizing Vegetation

Within the right-of-way, on the west side, North-South Road is a disturbed road cut and fill embankment that has been colonized by a mixture of ruderal (weedy) and native plant species. Vegetation in this zone is relatively fragmented, but includes components of maritime chaparral, coast live oak woodland, and willow thicket. The southern end of this area borders the MPRPD Frog Pond Natural Area.

This ruderal embankment area provides marginal wildlife habitat due to its small area, limited plant cover and generally degraded condition. However, this area could support some ground-foraging birds, small rodents, and common reptiles such as the western fence lizard.

Wetlands

Potential wetlands or "waters of the United States" on the project site include: 1) the section of Canyon Del Rey Creek in the area of the proposed North-South Road culverted crossing, both upstream and downstream of the existing culvert; 2) the riparian wetland zone on the north side of Canyon Del Rey Creek; and 3) a small ephemeral drainage adjacent to the hill on the east side of North-South Road. These areas are discussed below.

Canyon Del Rey Creek

Canyon Del Rey Creek is a partially channelized stream that parallels the Highway 218 corridor in the project area. The creek crosses North-South Road through a box culvert[2] at the entrance gate. The southern bank of the creek consists of a rip-rap stabilized embankment adjacent to Highway 218. The northern bank is comprised of natural alluvium and is less confined, which enables the creek to overflow during high water periods into adjacent riparian wetlands on both sides of the North-South Road crossing. The creek channel in the project construction zone has an average width of approximately 15 feet at the ordinary high water mark.

Riparian Wetland

The riparian wetland zone on the east side of North-South Road (described above) is bounded by the toe of the fill slope east of North-South Road, the top of northern bank of Canyon Del Rey Creek, and the base of the oak woodland-covered hill to the north. On the west side of North-South Road, the project site includes a small area of riparian wetland adjacent to the creek channel in the vicinity of the existing culvert outlet.

Ephemeral Drainage

A small ephemeral drainage course is located on the east side of North-South Road. This drainage receives runoff from a relatively localized area of adjacent oak woodland and maritime chaparral and exits the parcel through a small culvert under North-South Road. The drainage channel was dry during the September 1997 survey, but exhibited discernible scour and carried seasonal flow during the 1997-1998 winter storms. This drainage would not be affected by the project.

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[2] The existing box culvert is approximately 9.5 feet wide by 8.5 feet high.

Special Status Species

For the purposes of this EA/IS, sensitive species are those plants and animals in the HMP that have been identified or could potentially occur on the project site. These species include those listed, proposed for listing, or candidates for listing as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) under the Federal Endangered Species Act; those considered "species of concern" by the USFWS; those listed or proposed for listing as rare, threatened, or endangered by the California Department of Fish & Game (CDFG) under the California Endangered Species Act (CESA); plants occurring on lists 1B or 2 of the CNPS's *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 1994); and animals designated as "Species of Special Concern" by the CDFG. Sensitive species considered in this EA/IS are shown in Table 1.

The sensitive species in the project area have been well described in previous documentation for the site. One federally-listed threatened plant species, Monterey Spineflower and one state-listed endangered plant species, Seaside Bird's Beak, were previously reported in the area (Jones & Stokes, 1992). Individuals of Seaside Bird's Beak were observed growing alongside and through cracks in the roadway by Zander Associates during their September 1997 survey. Monterey Spineflower was not observed during this survey, probably because of the lateness of the season. Other special-status plant species identified on or in the vicinity of the site include Toro manzanita, sandmat manzanita, Eastwood's ericameria, and Monterey ceanothus. Another locally uncommon plant species, Curly-leafed monardella, could also occur on the site but was not observed during the September 1997 survey.

No sensitive animal species are known to occur on the project site. However, the maritime chaparral/oak woodland areas east of North-South Road could provide habitat for the federally-proposed endangered black legless lizard. The federally-listed threatened red-legged frog could also potentially occur in the vicinity of Canyon Del Rey Creek. Two non-listed sensitive mammal species, the Monterey ornate shrew and Monterey dusky-footed woodrat, may also occur in the project area. Although identified in other areas of Fort Ord, the California tiger salamander is not anticipated to occur on the project site due to lack of suitable breeding or aestivation habitat. The California tiger salamander is not listed as a potential species in the HMP for the project site.

PUBLIC SERVICES AND UTILITIES

The project area contains various public service/utility structures, including underground water lines, and above-ground power lines and street lights. An existing reinforced concrete box culvert extends below North-South Road on the east side of Highway 218.

HAZARDOUS MATERIALS

The entire former Fort Ord installation was placed on the National Priorities List of Hazardous Waste Sites (i.e., Superfund List) in 1990. Since then, numerous contaminated properties have been remediated and approved for transfer by the EPA. The project site does not contain any identified hazardous waste areas.

Table 1
Sensitive Plant and Animal Species Potentially Occurring on the North South Road / Highway 218 Project Site

Plant Species	Status[1] (Fed/CA/CNPS)	Habitat and Blooming Period	Findings[2]
Arctostaphylos hookeri ssp. *hookeri* (Hooker's manzanita)	--/--/1B	Sandy soils in coastal scrub, chaparral, and closed-cone forest habitats; evergreen (identifiable throughout the year)	Potentially occurring
Arctostaphylos montereyensis (Toro/Monterey manzanita)	SC/--/1B	Chaparral, coastal scrub and oak woodlands; evergreen (identifiable throughout the year)	Observed on site in September 1997 survey
Arctostaphylos pumila (Sandmat manzanita)	SC/--/1B	Sandy soils in coastal dune, coastal scrub, chaparral and closed-cone conifer forest habitats; evergreen (identifiable throughout the year)	Observed on site in 1997
Ceanothus cuneatus var. *rigidus* (Monterey ceanothus)	SC/--/4	Chaparral and closed-cone coniferous forest; evergreen (identifiable throughout the year)	Observed on site in 1997
Chorizanthe pungens var. *pungens* (Monterey spineflower)	T/--/1B	Variety of habitats, including coastal dune, coastal scrub, grasslands, chaparral, and oak woodlands; generally blooms from May-September	Reported in project area in 1992
Cordylanthus rigidus var. *littoralis* (Seaside bird's-beak)	--/E/1B	Occurs diffusely in sandy soils of dune, chaparral, coastal scrub, and close-cone pine forest habitats; generally blooms from May-September	Observed on site in 1997
Ericameria fasciculata (Eastwood's ericameria)	SC/--/1B	Coastal scrub, chaparral, and closed-cone forests; evergreen (identifiable throughout the year)	Observed on site in 1997
Monardella undulata (Curly-leafed monardella)	--/--/4	Sandy soils of chaparral, coastal dune, coastal scrub and Ponderosa pine sand hill habitats; generally blooms May-July	Not observed, but could potentially occur on site

Animal Species	Status[1] (Fed/CA)	Habitat	Findings[2]
Anniella pulchra nigra (Black legless lizard)	P/CSC	Loose sandy soils or thick duff or leaf litter in maritime chaparral and coastal dune habitats	Not observed, but could potentially occur on site
Rana aurora draytonii (California red-legged frog)	T/CSC	Lowlands and foothills in or near permanent sources of deep water; prefers backwater pools and shorelines with extensive emergent vegetation	Not observed, but could occur in vicinity of Canyon Del Rey Creek
Neotoma fuscipes luciana (Monterey dusky-footed woodrat)	SC/--	Woodlands and brushy understory habitats with moderate to dense cover and abundant dead wood for nest construction	Not observed, but could occur in oak woodland/chaparral on site
Sorex ornatus salarius (Monterey ornate shrew)	SC/--	Found in a variety of vegetation communities, typically associated with moist soils and/or riparian areas; requires thick ground cover and abundant invertebrate populations	Not observed, but could potentially occur in oak woodland or riparian areas on site

Table 1
Sensitive Plant and Animal Species Potentially Occurring on the North South Road / Highway 218 Project Site

NOTES & LEGEND

Federal (Fed):

E	=	listed as endangered under the federal Endangered Species Act.
T	=	listed as threatened under the federal Endangered Species Act.
P	=	proposed for listing as endangered or threatened under the federal Endangered Species Act
C*	=	candidate for listing as endangered or threatened under the federal Endangered Species Act. Includes species previously designated as "Category 1 Candidate" species by the U.S. Fish and Wildlife Service prior to February 1996.
SC*	=	"species of concern." Includes species previously designated as "Category 2 Candidate" species by the USFWS prior to February 1996.
--	=	no designation.

California State (CA):

E	=	listed as endangered under the California Endangered Species Act.
T	=	listed as threatened under the California Endangered Species Act.
R	=	Considered rare by the California Department of Fish and Game.
CSC	=	California Department of Fish and Game "species of special concern."
--	=	no designation.

California Native Plant Society (CNPS):

1B	=	plants listed as rare, threatened or endangered in California and elsewhere.
2	=	plants listed as rare, threatened or endangered in California, more common elsewhere.
4	=	watch list for plants of limited distribution.

[2] Findings presented here are based on literature review and September 30, 1997 field survey.

ORDNANCE AND EXPLOSIVES

Due to its former uses, ordnance and explosives (OE) may still exist at locations throughout the former military base. Extensive surveys have been and continue to be conducted by the Army to investigate suspect areas of OE, and removal activities are ongoing. These surveys, however, do not preclude the possible presence of OE. No OE sites have been identified along the majority of the project alignment. However, the land northeast of the intersection of North-South Road/South Boundary Road was formerly used as an impact area for mortars and artillery, and is presently identified by the Army as an OE impact area (Bill Collins, DENR, May 1998). The site is defined by an existing barbed wire fences and access is strictly prohibited (refer to Figures 3A and 3B). Construction and grading in this area is prohibited until all OE actions are completed in accordance with the Phase 2 EE/CA Action Memorandum (Bill Collins, DENR, July 1998). The Army plans to begin further removal actions for this area in 1999. The project proposes to phase construction so that work commences at the southernmost boundary of the project site. Construction will not encroach into the OE area until clearance activities are completed. Construction will be interrupted periodically for OE clearance which requires a safe setback. The roadway will be closed during these times via locked gates located at North-South Road/South Boundary Road, North-South Road/Broadway, and North-South Road/Highway 218.

All workers participating in onsite construction activities are required to receive an Army ordnance and explosives safety briefing. This briefing must be conducted prior to the commencement of construction activities and, as needed thereafter, for all workers.

GEOLOGY AND SOILS

The project site consists of paved roadway surrounded by vacant, vegetated land. Elevations on the project site range from approximately 88 to 145 feet above sea level. The geology of the project site is characterized by older, consolidated rock exposed at the ground surface (*Final Environmental Impact Report for the Fort Ord Reuse Plan*, FORA, June 1997). The project site is underlain by Pleistocene Stabilized Dunes, with overlying unconsolidated alluvial and fluvial deposits. The soil series on the site include Baywood and Arnold (*Fort Ord Disposal and Reuse Final EIS,* U.S. Army, June 1993).

The entire Monterey Bay area is located in a seismically active region and is subject to strong ground shaking during an earthquake on any of the regional fault systems. Three fault zones are located in the vicinity of Fort Ord which are considered active. The San Andreas fault is located within 25 miles of former Fort Ord; the Palo Colorado-San Gregorio fault is located 14 miles southwest; and the Monterey Bay fault zone is located directly offshore from former Fort Ord. The maximum credible earthquake magnitude is greater than 6.0 for the Monterey Bay fault zone, greater than 7.0 for the Palo Colorado-San Gregorio fault, and greater than 8.0 for the San Andreas fault.

NOISE

The major source of existing noise in the project area is motor vehicles traveling on nearby roads, particularly along Highway 218. The project site is also located within the noise contours of the Monterey Peninsula Airport and is subject to noise from overflight aircraft. The site is not located adjacent to any sensitive noise receptors (i.e., homes, hospitals, schools). However, the project alignment is located near the Frog Pond Natural Area, a regional public park preserve with nature trails. In addition, several residences are located on a bluff just south of Highway 218.

AIR QUALITY

The former Fort Ord is located in the North Central Coast Air Basin (NCCAB) of California. The NCCAB is contiguous with the Monterey Bay Unified Air Pollution Control District (MBUAPCD), which consists of Monterey, Santa Cruz, and San Benito Counties. The Monterey Bay area has a coastal climate characterized by warm dry summers and mild rainy winters.

The state and federal governments have established air quality standards for certain identified pollutants, in order to protect public health and welfare. The state and federal air quality standards are presented in Table 2 on the following page. Under the Clean Air Act, the NCCAB is designated as a moderate nonattainment area for the federal ozone standard. This designation was given in 1978 as a result of prior violations of the ozone standard. The ozone standard is attained when the expected number of days per calendar year for a three-year period, with maximum average concentrations above 0.12 part per million ozone, is equal to or less than one. The NCCAB has met the federal ozone standard since 1990; however, until the EPA formally redesignates the basin, it is classified as a nonattainment area. Under the California Clean Air Act (CCAA), the basin is a moderate attainment area for the state ozone standard. Further, the NCCAB is designated as a nonattainment area for the State PM_{10} (particulate) standard.

The MBUAPCD shares responsibility with the Air Resources Board (ARB) for ensuring that state and national air quality standards are achieved and maintained with the NCCAB. State law assigns local air districts the primary responsibility for control of air pollution from stationary sources, while reserving oversight functions to the ARB. The MBUAPCD is responsible for developing regulations governing emissions of air pollution, permitting and inspecting stationary sources of air pollution, monitoring of ambient air quality, and air quality planning activities, including implementation of transportation control measures.

In addition to meeting NCCAB requirements, all federal projects must conform with the U.S. EPA's general conformity rule, which requires all federal actions in federally designated nonattainment areas to conform with applicable implementation plans. The general conformity rule contains de-minimis emission thresholds that are based on the severity of air pollution in an area. Projects with nonattainment area pollutant emissions exceeding the de-minimis thresholds must be shown to conform to the applicable state implementation plans. In the NCCAB, the de-minimis thresholds equal 100 tons per year for ozone precursors, reactive organic gases, and oxides of nitrogen.

HYDROLOGY AND DRAINAGE

The project alignment consists of a paved road immediately adjacent to vacant land. The topography of the project portion of North-South Road ranges from 88 to 146 feet (above sea level) with an average gradient of approximately four percent. Storm water runoff along North-South Road flows to the west. Runoff from Highway 218 flows into Canyon Del Rey Creek, a partially channelized stream that extends along the east side of Highway 218. The creek crosses beneath North-South Road through a box culvert at the entrance gate. The southern bank of the creek consists of a rip-rap stabilized embankment adjacent to Highway 218. The northern bank consists of natural alluvium (deposits) and is less confined, which enables the creek to overflow during high water periods into adjacent riparian wetlands on both sides of the North-South Road crossing. The creek channel in the project construction zone has an average width of approximately 15 feet at the ordinary high water mark. The 100-year floodplain for Canyon Del Rey Creek is at elevation 85.1 north of the culvert and 86.0 south of the culvert.

In addition, a small ephemeral drainage course is located on the east side of North-South Road. This drainage receives runoff from a relatively localized area of adjacent oak woodland and maritime chaparral and exits the parcel through a small culvert under North-South Road. The drainage channel was dry during the September 1997 survey, but did exhibit discernible scour and carried seasonal flow during the 1997-1998 winter storms. This drainage would not be affected by the project.

Table 2
Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standard	State Standard
Ozone	1-Hour	0.12 PPM	0.09 PPM
Carbon Monoxide	8-Hour 1-Hour	9.0 PPM 35.0 PPM	9.0 PPM 20.0 PPM
Nitrogen Dioxide	Annual 1-Hour	0.053 PPM NA	NA 0.25 PPM
Sulphur Dioxide	Annual 24-Hour 1-Hour	0.03 PPM 0.14 PPM NA	NA 0.04 PPM 0.25 PPM
PM-10	Annual Average 24-Hour	50 ug/m^3 150 ug/m^3	30 ug/m^3 50 ug/m^3

ppm = parts per million ug/m^3 = micrograms per cubic meter NA = not applicable

Source: *CEQA Air Quality Guidelines*, MBUAPCD, October 1995.

Chapter 5. Environmental Consequences of the Proposed Action

INTRODUCTION

This chapter addresses environmental consequences associated with the proposed action for the following areas:

- land use
- transportation
- visual resources
- cultural resources
- vegetation and wildlife
- hydrology and drainage
- public services and utilities
- noise
- hazardous materials
- air quality
- geology and soils
- water quality

Mitigation measures required, in addition to those described as part of the proposed action, are presented at the end of each issue, and are numbered consecutively throughout this chapter.

LAND USE

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- conflict with adopted goals of the community where it is located,
- disrupt or divide the physical arrangement of the community, or
- result in land use conflicts with nearby existing or planned uses.

The project proposes the improvement of an existing roadway to provide adequate capacity and upgrade it to current safety standards. The project will not result in any changes that will conflict with existing uses, with the exception of potential short-term construction impacts and restrictions imposed by the Army during ongoing OE clearance activities. The proposed project will be coordinated with the Army to ensure that construction does not result in any impacts to Army OE clearance activities. Issues associated with project construction and OE are addressed within their respective sections of this EA/IS.

A portion of the project site is located on land that is planned for transfer to the Monterey Peninsula Regional Parks District for habitat preservation, as identified in the HMP. The project will implement measures consistent with the HMP to protect habitat in this area. Please refer to the **Natural Resources** section of this EA/IS for additional discussion.

The proposed project will not result in any long-term impacts or conflicts with existing and proposed land uses. The project is consistent with local and regional goals and policies to upgrade the roadway system at the former Fort Ord. In addition, the project would not result in a loss of open space. Based on the above information, the project would not result in any significant land use impacts.

TRANSPORTATION

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system, or
- result in increased traffic-related hazards.

Circulation

The proposed improvements to North-South Road, between South Boundary Road and Highway 218 are identified in the FORA Reuse Plan and the City of Del Rey Oaks General Plan. These traffic improvements, including the installation of a traffic signal at Highway 218/North-South Road, are being funded by a grant received by FORA. The proposed project is part of a larger series of traffic improvements required to implement the above-referenced traffic circulation plans.

A traffic analysis for the project was conducted by Associated Transportation Engineers (ATE). This report is contained in Appendix E of this EA/IS. A traffic signal warrants analysis was completed to determine if the projected traffic volumes would require the installation of a traffic signal. Both short-term and long-term traffic volumes were considered, in consultation with FORA, the City of Del Rey Oaks, the City of Seaside, Transportation Agency of Monterey County (TAMC), and Caltrans.

Available information indicates that there would be little new development in the project area for the next three to five years.[3] However, it is anticipated that the roadway would be used as an alternate route for existing traffic from Seaside, Fort Ord, and Del Rey Oaks. The average daily traffic volumes for North-South Road are expected to be approximately 1,500, and the volumes for Highway 218 are projected at 11,900 vehicles (refer to Appendix E). These volumes are based on the existing development levels and estimation of diversion that would occur when North-South Road is connected to Highway 218 and the local streets. Based on these volumes, a traffic signal warrant would be met at the intersection of North-South Road and Highway 218 with the new traffic, based on Caltrans warrant criteria.

The Fort Ord Regional Transportation Study by JHK & Associates (May, 1996) identified North-South Road from Broadway (north of the project alignment) to Highway 218 as a vital link in the circulation system for the area. Traffic projections produced by TAMC for the year 2015 indicate an average daily traffic volume of 8,200 for the segment of North-South Road between Broadway and Highway 218. According to ATE, the traffic engineer, the two lane arterial proposed by the project would adequately accommodate the projected traffic volumes for North-South Road (refer to Appendix E). In addition, the installation of a traffic signal at Highway 218 is not expected to increase congestion or result in unacceptable levels of service at this intersection (Richard Poole, ATE, pers. comm., May, 1998). Implementation of the planned improvements on North-South Road are anticipated to improve circulation by improving the transportation system and providing an alternate east-west route through the project area.

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[3] The 3-5 year period was chosen because the traffic signal warrants need to be met within this time period in order to obtain an encroachment permit from Caltrans for the signal installation.

The construction and opening of North-South Road could be impacted by ongoing OE activities by the Army. OE activities include controlled burns and the detonation of explosives, and typically occur on very short notice. OE removal actions will require temporary closures of North-South Road and South Boundary Road. OE activities *outside* the immediate project area could also result in roadway closures after completion of the project. A detour and road closure plan will be developed as part of the project and implemented by the Army as needed prior to OE actions. This plan will include gate closures at North-South Road/Broadway, North-South Road/South Boundary Road, and North-South Road/Highway 218, and the provision of appropriate detour signage. These temporary road closures will result in potential traffic circulation impacts in the project area; however, these will not result in significant impacts with implementation of the proposed detour plan.

Safety

The proposed project is intended to improve street and traffic safety along the project alignment through road widening and reconstruction, the installation of a traffic signal, and the provision of bicycle and pedestrian facilities. Roadway closures during OE activities will eliminate any associated traffic hazards.

Mitigation

1. A road closure and detour plan will be developed by FORA, subject to review and approval by the Army. This plan will be implemented by the Army prior to OE activities affecting the project area.

VISUAL RESOURCES

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- have a substantial and demonstrable negative visual or aesthetic effect.

Improvements to North-South Road would result in the grading of approximately 1,500 cubic yards of material. Proposed grading would result in the removal of some existing trees and shrubs adjacent to the roadway, resulting in an alteration of the existing visual character of the immediate project vicinity. This does not represent a significant visual impact, however, due to the disturbed nature of the project area and the relatively minor disturbance proposed by the widening of the existing road. The project proposes to hydroseed[4] all exposed surfaces which would partially reduce visual impacts. Although not proposed by the project, future plans for the area will be required to provide appropriate landscaping.

[4] The hydroseed mix used would meet all Army DENR requirements.

CULTURAL RESOURCES

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- disrupt or adversely affect a prehistoric or historic archaeological resource, or
- disrupt or adversely affect a property of historic or cultural significance to a community, ethnic, or social group.

A cultural resources investigation was prepared for the project by Archaeological Consulting, which included an archival search for recorded archaeological resources in the area and a field reconnaissance of the project site. The records search did not identify any recorded archaeological sites within the project boundaries, nor did the field survey encounter any visible cultural resources on the site. Based on the background research and the surface reconnaissance, Archaeological Consulting concluded that the project area does not contain surface evidence of potentially significant cultural resources (refer to Appendix C). Because there is always a possibility of encountering unidentified cultural resources during construction of the project, the measures outlined below would be implemented as necessary to assure protection of any discovered cultural resources

The construction contractor and FORA are subject to 36 CFR 800 and SHPO requirements under any of the following circumstances:

a. If any person requests the Advisory Council on Historic Preservation to review the findings in accordance with 36 CFR 800.6(e); and

b. If the undertaking changes in ways that could affect historic properties (36 CFR 800.5[c]); and

c. If previously undocumented properties are discovered during implementation of the undertaking, or if a known historic property will be affected in an unanticipated manner (36 CFR 800.11); and

d. If a property that was to be avoided has been inadvertently or otherwise affected (36 CFR 800.4 [c]; 800.5); and

e. If any condition of the undertaking, such as a delay in implementation or implementation phases over time, may justify reconsideration of the current National Register status of properties within the undertaking's Area of Potential Effects (36 CFR 800.4[c]). Although not expected, archaeological resources could be uncovered during project construction. The following mitigation would eliminate any potential impacts to archaeological resources.

Mitigation

2. In the event that archaeological resources or human remains are discovered during construction, all work shall be stopped within 150 feet of the find until it can be evaluated by a qualified, professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be developed and implemented. In addition, the cultural resource coordinator at the Army DENR shall be contacted.

VEGETATION AND WILDLIFE

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- substantially diminish habitats (including wetlands) of native fish, wildlife or plants; or
- substantially affect special-status plant or animal species or the habitat of any such species; or
- interfere substantially with the movement of resident or migratory fish or wildlife species; or
- conflict with local, state, or federal policies relating to biological resources.

The following assessment of impacts is based on the project plans (Construction on State Highway 218 at the Intersection of North/South Road, Bestor Engineers, Inc., May 1998). The following discussion summarizes the findings of the biological investigation prepared for the project by Zander Associates, contained in Appendix D of this EA/IS.

The proposed project would involve road widening and associated improvements along an approximately 1,500 foot segment of North-South Road and an adjoining section of South Boundary Road; enlargement of the existing culverted crossing of Canyon Del Rey Creek; and repaving of an adjacent, flanking stretch of Highway 218.

With the exception of the Caltrans right-of way along Highway 218 and a small section of private land immediately adjacent to Highway 218, the project site is located within the boundaries of the installation-wide, multi-species Habitat Management Plan for the former Fort Ord, California (HMP) planning area. The HMP addresses impacts to biological resources through establishment of large contiguous habitat conservation areas and corridors, in order to compensate for future development in other areas of the former base. The HMP provides the framework for evaluating project related impacts to HMP resources, and provides the primary mechanism for mitigating these impacts. A portion of the project site is located on land that is planned for transfer to the Monterey Peninsula Regional Parks District as a habitat preservation area as identified in the HMP. An implementing agreement that will further secure the habitat preservation commitments made in the HMP has been developed, and finalization and approval of this agreement are currently pending. Additionally, measures are identified in this document to assure that all impacted habitat is adequately mitigated, in accordance with the requirements of the resource agencies.

Development of the project would result in removal of some vegetation, including maritime chaparral, willow thicket, and ruderal/colonizing vegetation, within the North-South Road and South Boundary Road rights-of-way. To reduce the grading footprint and minimize impacts to the adjacent hillslope and oak woodland, a retaining wall would be constructed along a 90 foot section of the alignment on the east side of North-South Road. The project would also involve repaving of an approximately 1,190 foot section of Highway 218 on both sides of the intersection with North-South Road. Because the Highway 218 improvements would be limited to the existing road surface and unpaved shoulder, they are not expected to substantially affect biological resources.

Grading for the new road embankment would encroach into the riparian wetland area east of North-South Road, resulting from the removal of some riparian vegetation and wetland habitat. Installation of the new culverted crossing of Canyon Del Rey Creek would also affect a short section of the creek channel and adjacent creekside wetlands at both ends of the existing culvert crossing.

The project would result in the removal of approximately 0.47 acre of ruderal/colonizing vegetation on the west side of North-South Road. The ruderal/colonizing vegetation occupies a disturbed roadside embankment formed as a result of cut and fill for construction of North-South Road. While some native plants have recolonized this area, it is dominated by ruderal, opportunistic species and provides limited habitat value for wildlife. Project impacts in this area would be confined to a narrow zone within an allowable roadside right-of-way, in conformance with the HMP and Fort Ord Reuse Plan, and would not affect adjacent contiguous natural habitats, therefore; this impact is not significant.

The project would result in removal of approximately 0.16 acre of willow thicket on the embankment along the east side of North-South Road. The willow thicket has colonized an engineered fill slope which was created during the original construction of North-South Road. Removal of the willow thicket would result in the loss of a small amount of edge habitat for birds and possibly other species that inhabit the adjacent riparian wetland area. However, similar colonization and revegetation (augmented as appropriate by replanting of willows and possibly other riparian margin vegetation) is expected to occur on the new road embankment. Therefore, this impact is not considered significant.

The project would result in the removal of maritime chaparral within road rights-of-way. Approximately 0.19 acre would be removed along the east side of North-South Road, and approximately 0.49 acre along the north side of South Boundary Road, which represents a potentially significant impact. The impacts to maritime chaparral in the developable areas of former Fort Ord were anticipated and are accommodated by the HMP. Large tracts of chaparral habitat were set aside as conservation areas to mitigate for such losses. The Army has determined, with concurrence by the U.S. Fish and Wildlife Service, that the proposed widening and associated improvements within the 105 foot right-of way along North-South Road and South Boundary Road are consistent with the allowable development footprint in the HMP (refer to Appendix D). Therefore, no further mitigation beyond that established by the HMP is required by USFWS to offset losses to central coast maritime chaparral habitat.

Through a previous arrangement between the Army and the California Native Plant Society, a maritime chaparral plant reserve was established south of South Boundary Road along the east side of North-South Road. According to the project plans, the proposed roadway improvements would affect approximately 0.33 acre within or directly adjacent to the CNPS reserve area. As a result of negotiations with the CNPS, FORA and the City of Del Rey Oaks agreed to preserve additional maritime chaparral habitat adjacent to the project site to compensate for potential conflicts with the existing CNPS reserve. Pursuant to this agreement, the mitigation measure set forth below would reduce this impact to a less-than-significant level.

Mitigation

3. A minimum of 2.0 acres of maritime chaparral habitat, located in the vicinity of the northeast corner of North-South Road and South Boundary Road, along with an adequate buffer to assure that golf course drainage will not impinge on the habitat, shall be preserved in perpetuity, as a CNPS native plant area. Markers shall be established by the City of Del Rey Oaks to assure that there is no misunderstanding about the location or condition of the preserved area. Before any grading is done in carrying out this project, the surveyor from Del Rey Oaks will meet with CNPS representatives in order to pinpoint and mark these locations. CNPS will be responsible for photographing the site. Requirements for this mitigation area are specified as follows. The habitat area shall be protected from fragmentation and degradation in perpetuity. No spraying or irrigation drainage shall be directed toward the habitat area. No development shall be permitted in the plant reserve. In the

event that the plant reserve is damaged contrary to the terms of the agreement, then the City of Del Rey Oaks, the developer, or successor owners shall restore the area by replanting with appropriate native species, using site-specific plant materials. If a disagreement arises on interpretation of the agreement, a mutually agreed upon consultant shall be engaged to resolve the dispute, with fees and costs paid one third by CNPS and two thirds by the City (or one third each by the City and the developer). If additional work is determined to be necessary to rectify problems, all required work shall be paid for by the City and/or developer.

Wetlands

The project would result in removal or alteration of riparian wetland habitat and streamzone adjacent to the improved section of North-South Road, which represents a potentially significant impact. Approximately 0.18 acre of riparian wetland on the east side of North-South Road, and 0.02 acre on the west side of the North-South Road/Highway 218 intersection, would be filled to accommodate the new embankment of North-South Road and improvements to the culverted crossing of Canyon Del Rey Creek. Construction of the culvert improvements would also result in filling or alteration of approximately 0.05 acre of the creek channel below the ordinary high water mark. The proposed improvements would include installation of upstream and downstream culvert extensions and new retaining walls, and grading/recontouring of the stream channel and banks in the installation area.

The streamzone and associated wetlands provide instream and riparian habitat, flood control, and water quality benefits, and are likely to be subject to jurisdiction of the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. Therefore, grading or filling of these areas would require permit authorization from the Corps and Section 401 Water Quality Certification (or waiver) from the State Regional Water Quality Control Board (RWQCB). These activities would also likely require a Streambed Alteration Agreement with the CDFG, pursuant to Sections 1601-1603 of the California Fish and Game Code. In addition to obtaining the required authorizations, implementation of the mitigation measures set forth below will reduce this impact to a less-than-significant level.

Mitigation

4. Loss of approximately 0.25 acre of riparian wetland habitat and streamzone shall ~~may~~ be offset by a combination of restoration and enhancement activities in and around the wetland area on the Natural Area Expansion (NAE) parcel. Such activities could include erosion control and slope rehabilitation in the watershed area along the northern and eastern boundary of this wetland, non-native species eradication and willow-sprigging in selected areas. Fire roads and trails upslope of the wetland have eroded into large gullies carrying high sediment loads into the area during storms. Unchecked, this sediment buildup could reduce the size and quality of the wetland area over time. Non-native species such as ice plant, French broom and pampas grass have colonized both the slope areas and the edges of the wetland itself (notably, large patches of iceplant at the wetland edge). Elimination of these invasive species and replacement with appropriate natives would enhance both upland and wetland habitat values. Willow sprigging (or wattling) would serve to stabilize bank areas and further restore wetland riparian habitat values.

5. To mitigate for the loss of 0.25 acre of riparian wetland, FORA may implement or fund the implementation of the following activities:

- Create rolling berms, dips, or other landscape features acceptable to the MPRPD in eroded gully areas within the watershed of the wetland area at the southwest corner of the NAE parcel. A minimum of 0.5 acre (a 2:1 ratio for wetland loss) of area shall be repaired and revegetated following standards currently in use by the Bureau of Land Management on its Natural Resource Management Area at former Fort Ord.

- Establish a minimum two-year program of non-native species eradication in the wetland area and within its immediate watershed. Target species for elimination may include, but not be limited to iceplant, pampas grass and French broom.

- Plant willow sprigs (and/or wattles) in key locations in and around the streamzone/wetland area following completion of roadway improvements to stabilize slopes and enhance habitat values. Such locations shall be determined in collaboration with a qualified biologist, MPRPD, and CNPS, and may include areas such as the riprap slopes of the new roadway embankment, the Canyon Del Rey streamzone, low-lying areas where non-native species are removed, stabilized gully areas adjacent to the wetland and other areas. A minimum three-year monitoring program to evaluate success of the willow sprigging program shall ~~may~~ be undertaken.

Special Status Species

The project would result in removal of individuals or habitats of special-status plant species, including seaside bird's beak, Monterey spineflower, Toro manzanita, sandmat manzanita and Eastwood's ericameria, which represents a potentially significant impact. Impacts to these sensitive plant species within the developable areas at Fort Ord are anticipated and accommodated by the policies in the HMP. These species all occur in maritime chaparral habitat, and large tracts of this habitat type have been set aside as conservation areas to mitigate for such losses. However, project-related impacts to Monterey spineflower (federally threatened) and seaside bird's beak (state endangered) require special consideration. Under Section 7 of the ESA, a federal agency that authorizes or carries out an action that could affect a federally-listed species must consult or confer with the USFWS to insure that the action is not likely to jeopardize the continued existence of such species. Similarly, state lead agencies are directed under Section 2090 of the CESA to consult with CDFG for actions that could affect state-listed species.

While the Army has consulted with the USFWS for property transfer, it has not done so for Army-authorized reuse actions in the southwest area of former Fort Ord. However, USFWS representatives have confirmed that formal consultation will not be necessary for the take of Monterey spineflower. The HMP Implementing Agreement, which is currently pending, will effectively eliminate the need for further state lead agency consultation with CDFG for impacts to state-listed species in HMP-allowable development areas. However, until this agreement is formally adopted, there is no binding arrangement between FORA (or any other state lead agency) and CDFG for the take of listed species on the former base. The following mitigation measure would resolve this issue, and would reduce this impact to a less-than-significant level.

Mitigation

6. The Army shall initiate informal consultation with the USFWS to seek a letter of concurrence that no additional mitigation would be required for the spineflower. FORA, as a state lead agency, shall initiate consultation with CDFG to establish a project-specific basis for incidental take of seaside bird's beak in compliance with CESA, prior to project construction. Since proposed activities are

in conformance with the HMP, the consultation process should be relatively straightforward, and no further mitigation (beyond standard plant material salvage prior to construction) should be required. However, the final determination of appropriate mitigation rests with CDFG.

The project could affect black legless lizards in maritime chaparral areas on the site, resulting in a potentially significant impact on this species. Grading and removal of vegetation could displace or directly impact individual black legless lizards, or result in loss of habitat for this species. Loss of potential habitat for the black legless lizard has been anticipated and accommodated by the HMP. However, potential direct effects of the project on individual lizards can be further reduced by implementation of the mitigation measure set forth below. This measure would reduce this impact to a less-than-significant level.

Mitigation

7. A qualified biologist shall be designated as a monitor to conduct pre-construction salvage activities for the black legless lizard. The monitor shall be present on the site at all times during the initial grading pass in areas with maritime chaparral vegetation (i.e., the east side of North South Road, and north and south sides of South Boundary Road). The monitor shall walk alongside the grading equipment in each new area of disturbance, and have the authority to halt construction temporarily if necessary to capture and relocate legless lizards. Any legless lizards captured in the grading zone shall be relocated as soon as possible to suitable habitat near the project site and outside the area of effect.

The project could affect California red-legged frogs in the vicinity of Canyon Del Rey Creek, resulting in a potentially significant impact. The partially channelized creek zone and associated riparian wetlands in the project area provide habitat for amphibians, possibly including the red-legged frog. The proposed improvements to the existing culvert and construction of new road embankments would affect a relatively small section of the creek zone and adjacent wetland, but could result in direct impacts to resident amphibians. Although there are no records of California red-legged frogs in the project area, and the creek does not provide suitable breeding habitat for this species, the possibility of this species occurring on the site cannot be entirely dismissed. Therefore, to insure that project activities minimize the risk of direct impacts to this species, implementation of the following mitigation measure will reduce this potential impact to a less-than-significant level.

Mitigation

8. Prior to initiation of construction in the creek zone, temporary fencing consisting of hardware cloth or durable plastic screening (0.5 inch mesh size) shall be erected around the affected reach of the creek channel and adjacent riparian wetland zone. A survey for California red-legged frogs shall be conducted by a qualified biologist in the affected area no more than one week prior to the onset of construction. If any red-legged frogs are found in this area, they shall be relocated outside of the fenced area to portions of the creek unaffected by construction. Any handling or other activities that might constitute harm to red-legged frogs will require an incidental take permit from the USFWS. Once construction is complete, fencing shall be removed from the affected area.

PUBLIC SERVICES AND UTILITIES

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- substantially degrade or deplete water resources, or
- directly affect a major utility line or facility, or
- substantially increase demands for public services.

The proposed action would not have long-term effects on police, fire, school, or recreational services, since it would not increase population or result in a change in land use. In addition, the project would not result in a substantial increase in wastewater or solid waste generation. Some water would be used during construction to control dust and adjust the moisture content of the soil. However, the amount of water used would not be significant, due to the size and scale of the project. The proposed action would not increase the demand for gas and electricity from current levels.

All alterations to public facilities (i.e., extension of the existing box culvert and construction of the water line) would be conducted in accordance with applicable standards and do not represent a significant impact upon public services and utilities.

NOISE

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- substantially increase the ambient noise levels for adjacent areas, or
- subject people to excessive noise levels.

Short-Term Impacts (Construction). Construction activities would cause a temporary increase in ambient exterior noise levels during clearing, excavation, pavement removal, and roadway preparation activities. The construction equipment expected to be used for the project is listed in Table 3 below:

Table 3
Construction Equipment for Project

Pick-up Trucks	Scraper/Paddle Wheel
Rubber Tire Loaders	Compactor/Roller
Motor Grader	Paver
Track Dozers	Track Mount Excavator
Tractor Backhoe	

Most types of diesel powered, heavy construction equipment (such as dump and cement trucks, pumps, and graders) produce noise levels of up to 80-85 decibels at a distance of 100 feet. Noise levels decrease at a rate of six decibels for each doubling of distance from the source. Construction noise would not result in a significant impact due to the short-term nature of the noise and the absence of sensitive receptors in the immediate area. The construction specifications would require that construction equipment use properly functioning mufflers to reduce noise levels.

Long-Term Impacts (Operational). The project would allow vehicle access on North-South Road between South Boundary Road and Highway 218.[5] The proposed improvements would increase capacity and attract new traffic on this presently unused roadway. The anticipated traffic volumes on North-South Road are projected to be 1,500 in the near-term and 8,200 in the year 2015. The traffic volumes on Highway 218 are projected to be approximately 12,000 in the near-term.

No residents, schools, hospitals, or other sensitive receptors are located along the project portion of North-South Road. The nearest residential uses are located on a bluff directly south of Highway 218. The traffic-generated noise from Highway 218 is currently audible along North-South Road and at the residents to the south. It is anticipated that traffic noise from Highway 218, which is projected to carry additional traffic in the future, would mask noise generated by new traffic on North-South Road. In addition, the proposed installation of a traffic signal at the intersection of North-South Road/Highway 218 would slow traffic speeds along Highway 218, which may somewhat decrease existing noise levels along this roadway.

The City of Del Rey Oaks General Plan identifies visitor-serving uses northeast of the intersection of North-South Road and South Boundary Road within an area proposed for annexation. Noise along the project portion of North-South Road could have adverse noise effects on these planned uses in the future (i.e., beyond 2015). However, since the project would be completed prior to development of visitor-serving or other uses in the area, mitigation for existing noise sources, such as traffic noise, would be the responsibility of new development.

For the reasons described above, no long-term noise impacts are expected from the proposed roadway improvements

AIR QUALITY

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- violate any ambient air quality standard, including the Monterey Bay Unified Air Pollution Control District thresholds for construction impacts,
- contribute substantially to an existing or projected air quality violation, or
- expose sensitive receptors to substantial pollutant concentrations.

Long-term Impacts. No operational impacts are associated with the project, since it would not create substantial additional roadway capacity. The project would, however, generate short-term air quality impacts during construction. Construction equipment to be used for the project is listed in Table 3.

[5]Please note that until completion of the Army's OE removal activities in the project area, the roadway will be subject to periodic road closures.

Short-term Construction Impacts. Construction of the proposed roadway improvements would result in a short-term adverse air quality impacts. Construction activities related to the project would generate particulate matter (i.e., dust), including inhalable particulates. Carbon monoxide and ozone precursors would also be emitted from construction vehicle exhaust. Emission rates for diesel-powered construction equipment are presented below in Table 4.

Table 4
Emission Rates for Diesel-Powered Construction Equipment

Equipment Type	Emission Rate (pounds/hour)				
	TOG	CO	NOx	PM10	SOx
Scraper	0.3	1.0	3.8	0.4	0.5
Motor Grader	0.1	0.2	0.7	0.1	0.1
Off-Highway Truck	0.2	1.8	4.2	0.3	0.5
Roller	0.1	0.3	0.1	0.1	0.1

TOG = Total Organic Gases
CO = Carbon Monoxide
NOx = Nitrogen Oxides
PM10 = Particulate Matter, 10 micro
SOx = Sulfur Oxides
Source: U.S. EPA, AP-42, Volume II, 1985.

Construction of the project would generate a maximum of 190 pounds per day of PM10 (particulates), based on the criteria set forth in the MBUAPCD's CEQA Air Quality Guidelines.[6] This assumes that all grading occurs in one day, generating 38 pounds of PM10 per day/acre. Grading is proposed on fewer than five acres per day for the duration of the project, resulting in a maximum of 50 lbs. per day of PM10, based on the generation of 10 lbs. of PM10 per day/acre. MBUAPCD thresholds of significance for construction impacts are 82 lbs per day for PM10 when construction activities occur near or upwind of sensitive receptors. Since the project is not located near sensitive receptors and the generation of PM10 would not exceed 82 lbs. per day, the increase in particulates resulting from the project would not result in a significant impact based on MBUAPCD's thresholds.

The project emissions would conform to the general conformity rule required for federal projects in accordance with the Clean Air Act, since no state or federal air quality standards would be exceeded due to the short-term nature of the construction impacts. The de minimis threshold emission calculations are provided in Appendix F.

[6] This criteria estimates 10 pounds per day/acre for minor grading, and 38 pounds per day/acre for excavation and earthmoving.

The short-term air quality impacts occurring during construction impact would be less-than-significant with implementation of the following standard construction practices, proposed as part of the proposed action:

- Apply water to all excavated or graded areas to prevent excessive dust.
- Cover or water all material transported offsite to prevent excessive dust release.
- Minimize the total construction area disturbed by clearing, earth moving, or excavation.
- Limit onsite construction vehicle speeds to 15 miles per hour.
- Clean loose soil from construction vehicles before existing the work site.
- Maintain all construction vehicles internal combustion engines according to manufacturer specifications.

GEOLOGY AND SOILS

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- expose people or structures to major geologic hazards.

The project proposes the grading of approximately 1,500 cubic yards of material for the roadway reconstruction. The grading of soil is proposed to balance onsite. In addition, a retaining wall is proposed along a 90 foot section of the alignment on the east side of North-South Road to reduce the grading footprint and minimize impacts to the adjacent slope and oak woodland.

Grading would result in increased erosion on the site. Other construction activities, including clearing, grading, and asphalt removal could result in increases in erosion. The project would implement an erosion control plan during construction to reduce temporary erosion impacts to a less-than-significant level. The measures proposed in the erosion control plan include conducting all construction during the dry season, providing straw bales or silt fences adjacent to the wetland area, and hydroseeding all exposed surfaces.

The project site would be subject to strong ground shaking in the event of a large magnitude earthquake on a regional fault. The proposed roadway would be designed with standard engineering techniques to minimize damage from seismic activity.

Mitigation

8. The project would implement an erosion control plan during construction of the proposed roadway, subject to review and approval by the Army.

HAZARDOUS MATERIALS

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- expose people to a significant risk from contaminated soils or groundwater, or
- expose people to a significant risk from the handling of toxic substances on the site or at nearby facilities.

The project site does not contain any contaminated soils or groundwater. In addition, the proposed action would not require the use of hazardous materials or the generation of hazardous waste.

ORDNANCE AND EXPLOSIVES

As explained in Chapter 4, OE could *potentially* exist on the former Fort Ord military base, despite extensive surveys conducted by the Army. All workers participating in onsite construction activities are required to receive an Army ordnance and explosives safety briefing from the Army Directorate of Environmental and Natural Resources Management. Should any suspect items be discovered during activities on the site, the following procedures must be followed:

- Immediately suspend actions which may affect the item.
- Do not disturb or touch the item.
- Clearly mark the location of the item.
- Immediately notify the Federal Police and Presidio of Monterey, Directorate of Environmental and Natural Resources Management.

No OE sites have been identified along the majority of the project alignment. However, the area northeast of the intersection of North-South Road/South Boundary Road was formerly used as an impact area for mortars and artillery, and is identified by the Army as an OE impact area. Construction and grading in this area is prohibited until all OE actions are completed in accordance with the Phase 2 EE/CA Action Memorandum and NOI (Bill Collins, DENR, July 1998).

The project proposes to phase construction by starting work at the southernmost point, to avoid encroachment into the OE impact area and clearance program. The proponent will coordinate with the Army prior to construction on the northeast side of the intersection of North-South Road/South Boundary Road to assure compliance with OE standards in this area. Construction will not encroach into the OE area until clearance activities are completed. Construction will be interrupted periodically for OE clearance activities, which include vegetation clearing, controlled burns, detonation of explosives, and the establishment of safety zones. OE sampling and removal activities require a safe setback distance during intrusive operations. During OE removal actions both in and around the project site, a detour and road closure plan will be implemented, including the closure of North-South Road/South Boundary Road, North-South Road/Broadway, and North-South Road/Highway 218 using locked gates.

HYDROLOGY AND DRAINAGE

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- increase runoff in excess of storm drain facilities,
- cause offsite drainage problems, or
- increase flooding hazards.

Drainage

The project would slightly increase impermeable surfaces by expanding paved portions of the roadway by approximately 18,000 square feet. As part of the project, the drainage facilities along the roadway would be upgraded. These improvements include the construction of curbs, gutters, and catch basins along the project alignment, in addition to the extension of the existing box culvert beneath North-South Road at the intersection of Highway 218. Proposed drainage facilities would contain runoff and generally improve drainage conditions.

Flooding

A small portion of the intersection of North-South Road and Highway 218 is located within the 100-year floodplain. The 100-year floodplain for Canyon Del Rey Creek is at elevation 85.1 feet north of the culvert (at North-South Road) and 86.0 feet south of the culvert. The minor amount of additional paving that would be added to the intersection of North-South Road/Highway 218 within the floodplain would not result in significant on- or off-site flooding impacts.

WATER QUALITY

Standards of Significance: For the purposes of this analysis, impacts resulting from the proposed project are considered significant if they would:

- result in potential water quality degradation, or
- lead to significant increases in erosion or sedimentation.

Storm water runoff from the roadway could contain urban pollutants such as grease and oil that could impact water quality in local drainages receiving runoff. The roadway improvements could also result in erosion during construction activities, including clearing, grading, and asphalt removal. This erosion could result in the degradation of surface water quality by increasing sedimentation. The project would design and implement an erosion control plan during construction to reduce temporary erosion impacts to a less-than-significant level, as described above under **Geology and Soils**. In addition, the project would implement best management practices (BMPs) to minimize long-term impacts from pollutants entering surface waters, as required.

Chapter 6. Protection from Environmental Health Risks and Environmental Justice

Pursuant to Presidential Executive Order 13045 dated April 21, 1997 the proposed action/project adheres to the guidelines for the protection of children from environmental health and safety risks.

In accordance with Presidential Executive Order 12898 dated February 11, 1994 the proposed action/project is consistent with the guidelines established for federal actions to address environmental justice in minority and/or low-income populations. Principles set forth in the report on the National Performance Review require the action/project will not result in a "*disproportionately high and adverse human health or environmental effects of its programs, policies, activities on minority populations and low-income populations...*"

The U.S. Army has developed an agency-wide environmental justice strategy that corresponds with the above-referenced Executive Order. This strategy promotes enforcement of health and environmental statutes in areas with minority and/or low-income populations; ensures a greater level of public participation in the planning and decision making processes; improves research and data collection relating to the environmental health of minority and low-income populations; and identifies differential patterns of natural resources consumed by minority and low-income populations. In addition, the environmental justice strategy shall include, where appropriate, a timetable for undertaking identified revisions and consideration of socio-economic implications of the revisions.

Chapter 7. Agencies and Persons Consulted

DEPARTMENT OF THE ARMY

Robert Guidi	Directorate of Environmental and Natural Resources Management
Bill Collins	Directorate of Environmental and Natural Resources Management

FORT ORD REUSE AUTHORITY

Jim Arnold	Project Manager, FORA

OTHER CONTACTS

John M. Van Zander	Bestor Engineers, Inc.

PRINTED REFERENCES

Archaeological Consulting, *Preliminary Cultural Resources Reconnaissance for Roadway Improvements On and Adjacent to North-South Road and Highway 218*, May 1998.

Associated Transportation Engineers, *North-South Road Traffic Signal Warrant Analysis*, March 25, 1998 and letter dated April 23, 1998.

City of Del Rey Oaks, *Final Environmental Impact Report for the Del Rey Oaks General Plan Update Project*, May 16, 1997.

Fort Ord Reuse Authority, *Final Environmental Impact Report for the Fort Ord Reuse Plan*, June 1997.

U.S. Army Corps of Engineers. *Final Environmental Impact Statement for Fort Ord Disposal and Reuse*. June 1993.

U.S. Army Corps of Engineers. *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord*. April 1997.

U.S. Army Engineering and Support Center. *Final Engineering Evaluation /Cost Analysis Phase I for Former Fort Ord*. September 1997.

Zander Associates, *Highway 218/North-South Road Natural Resources Investigation*, May 28, 1998.

Chapter 8. List of Preparers

This report has been prepared by staff members of Denise Duffy & Associates, Inc., in cooperation with the Army, and Bestor Engineers.

DEPARTMENT OF THE ARMY

Rober Guidi	Directorate of Environmental and Natural Resources Management

DENISE DUFFY & ASSOCIATES

Denise Duffy	Principal
Leianne Humble	Senior Planner
Cindy Boyce	Administration

BESTOR ENGINEERS INC.

John M. Van Zander	Registered Civil Engineer, California

Chapter 9. Distribution List of Agencies and Organizations

The Environmental Assessment/Initial Study and Mitigated Negative Declaration/FONSI will be sent to the following agencies and entities:

STATE AND FEDERAL

California Department of Fish & Game
California Department of Transportation
California Office of Planning & Research
Honorable Sam Farr, U.S. Representative, 17th District
Honorable Henry Mello, California State Senate, 15th District
Honorable Bruce McPherson, California State Assembly, 27th District
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency, Region IX
U.S. Fish & Wildlife Service

LOCAL

Association of Monterey Bay Area Governments
California Native Plant Society
Central Coast Regional Water Quality Control Board
City of Del Rey Oaks
City of Monterey
City of Seaside
County of Monterey, Planning Department
Monterey Bay Unified Air Pollution Control District
Monterey Public Library
Monterey Peninsula Regional Park District
Monterey Peninsula Water Management District
Monterey Regional Water Pollution Control Agency
Monterey Salinas Transit
Seaside Library
Marina Library
Transportation Agency for Monterey County

APPENDIX A
ENVIRONMENTAL CHECKLIST

ENVIRONMENTAL CHECKLIST

1. Project Title: North South Road/Highway 218 Project

2. Lead Agency: Fort Ord Reuse Authority (Local)
U.S. Army Directorate of Environmental and Natural Resources Management (Federal)

3. Contacts and Phone Numbers: Jim Arnold, Fort Ord Reuse Authority 831/883-3672
Bob Guidi, U.S. Army 831/242-7928

4. Project Location: Former Fort Ord Military Base, Monterey County, California

5. Project Sponsor's Name and Address: Fort Ord Reuse Authority
100 12th Street Building 2880
Marina, CA 93933
831/883-3672

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially impacted by the proposed project, as indicated by the checklist on the following pages. Measures are included in the project to mitigate all significant environmental impacts to a less-than-significant level.

☐ Land Use and Planning	■ Transportation/Circulation	☐ Public Services
☐ Population & Housing	■ Biological Resources	■ Utilities & Service Systems
■ Geological Problems	☐ Energy/ Mineral Resources	☐ Aesthetics
■ Water	■ Hazards	☐ Cultural Resources
■ Air Quality	☐ Noise	☐ Recreation
	■ Mandatory Findings of Significance	

Explanation for responses in this checklist are addressed in this EA/IS.

DETERMINATION:

On the basis of this initial evaluation:

I find that the proposed project WOULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ■

I find that although the proposed project could have a significant effect on the environment, there will not ne a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION will be prepared. ☐

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project. ☐

Denise Duffy for 10/19/98

signature (Executive Officer, Fort Ord Reuse Authority) date

DENISE DUFFY

printed name

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. LAND USE AND PLANNING. Would the proposal:				
a) Conflict with general plan designation or zoning?	☐	☐	☐	■
b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project?	☐	☐	☐	■
c) Be incompatible with existing land use in the vicinity?	☐	☐	☐	■
d) Affect agricultural resources or operations (e.g., impact to soils or farmlands, or impacts from incompatible land uses?	☐	☐	☐	■
e) Disrupt or divide the community (including low-income or minority community)?	☐	☐	☐	■
II. POPULATION AND HOUSING. Would the proposal:				
a) Cumulative exceed official regional or local population projections?	☐	☐	☐	■
b) Induce substantial growth in an area either directly or indirectly?	☐	☐	☐	■
c) Displace existing housing, especially affordable housing?	☐	☐	☐	■
III. GEOLOGICAL HAZARDS. Would the proposal result in or expose people to potential impacts involving:				
a) Fault rupture?	☐	☐	☐	■
b) Seismic ground shaking?	☐	☐	■	☐
c) Seismic ground failure, including liquefaction?	☐	☐	☐	■
d) Seiche, tsunami, or volcanic hazard?	☐	☐	☐	■
e) Landslide or mudflows?	☐	☐	☐	■
f) Erosion, changes in topography, or unstable soil conditions from excavation, grading, or fill?	☐	■	☐	☐
g) Subsidence of the land?	☐	☐	☐	■

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
h)	Expansive soils?	☐	☐	☐	■
I)	Unique geologic or physical features?	☐	☐	☐	■
IV.	**WATER**. Would the proposal result in:				
a)	Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	☐	☐	■	☐
b)	Exposure of people or property to water related hazards such as flooding or tidal waves?	☐	☐	☐	■
c)	Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	☐	☐	■	☐
e)	Changes in currents, or the course or direction of water movements?	☐	☐	☐	■
f)	Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	☐	☐	☐	■
g)	Alteration of the direction or rate of flow of ground waters?	☐	☐	☐	■
h)	Impacts to ground water quality?	☐	☐	☐	■
I)	Substantial reduction in the amount of water otherwise available for public water supplies?	☐	☐	☐	■
V.	**AIR QUALITY**. Would the proposal result in:				
a)	Violate any air quality standards or contribute to an existing projected air quality violation?	☐	☐	■	☐
b)	Expose sensitive receptors to pollutants?	☐	☐	■	☐
c)	Alteration of air movement, moisture, or temperature, or any change in climate.	☐	☐	☐	■
d)	Creation of objectionable odors?	☐	☐	☐	■

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VI.	**TRANSPORTATION**. Would the proposal result in:				
a)	Increased vehicle trips or traffic congestion?	☐	☐	☐	■
b)	Hazards to safety from design features?	☐	☐	☐	■
c)	Inadequate emergency access or access to nearby uses?	☐	☐	☐	■
d)	Insufficient parking capacity onsite or offsite?	☐	☐	☐	■
e)	Hazards or barriers for pedestrians or bicyclists?	☐	☐	☐	■
f)	Conflicts with adopted policies supporting transportation?	☐	☐	☐	■
g)	Alterations to waterborne, rail or air traffic?	☐	☐	☐	■
VII.	**BIOLOGICAL RESOURCES**. Would the proposal result in:				
a)	Endangered, threatened or rare species or their habitats?	☐	■	☐	☐
b)	Locally designated species?	☐	■	☐	☐
c)	Locally designated natural communities?	☐	■	☐	☐
d)	Wetland habitat?	☐	■	☐	☐
e)	Wildlife dispersal or migration corridors?	☐	■	☐	☐
VIII.	**ENERGY AND MINERAL RESOURCES**. Would the proposal result in:				
a)	Conflict with adopted energy conservation plans?	☐	☐	☐	■
b)	Use non-renewable resources in a wasteful and inefficient manner?	☐	☐	☐	■
c)	Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State?	☐	☐	☐	■
IX.	**HAZARDS**. Would the proposal involve:				
a)	A risk of accidental explosion or release of hazardous substances?	☐	☐	■	☐

		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
b)	Possible interference with an emergency response plan or emergency evacuation plan?	☐	☐	☐	■
c)	The creation of any health hazard or potential health hazard?	☐	☐	☐	■
d)	Exposure of people to existing sources of potential health hazards?	☐	☐	■	☐
e)	Increased fire hazard in areas with flammable brush, grass or trees?	☐	☐	☐	■

X. NOISE. Would the proposal result in:

a)	Increases in the existing noise levels?	☐	☐	■	☐
b)	Exposure of people to severe noise levels?	☐	☐	■	☐

XI. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:

a)	Fire Protection?	☐	☐	☐	☐
b)	Police Protection?	☐	☐	☐	☐
c)	Schools?	☐	☐	☐	■
d)	Maintenance of public facilities, including roads?	☐	☐	■	☐
e)	Other government services?	☐	☐	☐	■

XII. UTILITIES AND SERVICE SYSTEMS. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:

a)	Power or natural gas?	☐	☐	☐	■
b)	Communications systems?	☐	☐	☐	■
c)	Local or regional water treatment or distribution facilities?	☐	☐	☐	■
d)	Sewer or septic tanks?	☐	☐	☐	■
e)	Storm water drainage?	☐	☐	■	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Solid waste disposal?	☐	☐	☐	■
g) Local or regional water supplies?	☐	☐	☐	■
XIII. AESTHETICS. Would the proposal:				
a) Affect a scenic vista or scenic highway?	☐	☐	☐	■
b) Have a demonstratable negative aesthetic effect?	☐	☐	☐	■
c) Create light or glare?	☐	☐	☐	■
XIV. CULTURAL RESOURCES. Would the proposal:				
a) Disturb paleontological resources?	☐	☐	■	☐
b) Disturb archaeological resources?	☐	☐	■	☐
c) Affect historical resources?	☐	☐	☐	■
d) Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	☐	☐	☐	■
e) Will the proposal restrict existing religious or sacred uses within the potential impact area?	☐	☐	☐	■
XV. RECREATION. Would the proposal:				
a) Increase the demand for neighborhood or regional parks or other recreational facilities?	☐	☐	☐	■
b) Affect existing recreational opportunities?	☐	☐	☐	■
XVI. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate	☐	■	☐	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

important examples of the major periods of California history or prehistory?

b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.) ☐ ☐ ☐ ■

c) Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of current projects, and the effects of probable future projects). ☐ ☐ ☐ ■

d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? ☐ ☐ ☐ ■

APPENDIX B
FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Finding of No Significant Impact/Negative Declaration

Based upon the analysis provided in the attached *Environmental Assessment (EA) and Initial Study (IS) for the North-South Road/Highway 218 Project*, the proposed action would have no significant impact on human health and the physical environment. All potentially significant environmental impacts will be reduced to a less-than-significant level by incorporating required mitigation measures as part of the proposed project.

Description of Proposed Action

The proposed project consists of reconstructing approximately 1,500 linear feet of North-South Road located on the former Fort Ord military installation. The project area lies between State Highway 218, adjacent to the City of Del Rey Oaks, and South Boundary Road. Modifications include widening the existing Army roadway to conform with current public street specifications, accommodating the projected vehicular traffic, providing added capacity for future development, grading, drainage culverts, utility alterations, landscaping, incorporating transportation/safety features such as bicycle lanes, sidewalks, signage, and striping. The project includes a signalized intersection, additional roadway modifications and turn lanes at State Highway 218 as required by the California Department of Transportation (CALTRANS).

North-South Road is currently scheduled for transfer to the Fort Ord Reuse Authority (FORA) under an economic development conveyance. Presently vehicular access on this roadway is restricted. Access to property located northeast of South Boundary and North-South Road is off-limits until further notice by the Army (see project plan). An environmental site investigation for potential ordnance and explosives in this area is scheduled for later in fiscal year 1999.

The roadway improvement project is funded under a grant from the United States Department of Commerce, Economic Development Administration and local finances. FORA is the project proponent and lead agency responsible for the roadway improvements. The attached EA/IS serves to fulfill the requirements under both the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA).

Alternatives Considered

- No Action Alternative consisted of North-South Road remaining as a two lane roadway. This action would avoid all potential environmental impacts associated with sensitive habitats and species, wetlands, grading, and the possible presence of ordnance and explosives. A key transportation corridor identified in the FORA Reuse Plan and City of Del Rey Oaks General Plan, Transportation Circulation Element would not be fully implemented. Plus, public roadway and safety standards would not be incorporated.

- Increased Scale Alternative consisted of widening the project area to four lanes, with turn lanes at Highway 218 and a wider median. This alternative would result in a greater level of environmental impacts associated with more ground disturbance and encroachment into wetlands. This alternative would have required extensive offsetting mitigation measures.

- Realignment Alternative consisted of widening North-South Road and realigning it to the west. This alternative would result in increased environmental impacts to adjacent wetlands, additional grading, and relocation of a primary electrical transmission line.

Environmental Effects

The environmental effects of the proposed project consist of the following primary impacts:

- construction impacts from road widening
- disturbance to biotic resources from roadway widening near wetlands and sensitive habitat
- impacts associated with construction in or near areas that may contain ordnance/explosives

Conclusion

The analysis provided in the attached EA/IS determines the proposed project is not a major federal/state action that could significantly affect the environment, and does not require the preparation and distribution of an Environmental Impact Statement/Environmental Impact Report. All potentially significant environmental impacts will be reduced to a less-than-significant level with appropriate mitigation measures as identified in the document.

Public Availability and Comment Period

The document referenced above is available for public review at the locations as follows:

- City of Monterey Library, Reference Division, 625 Pacific Street
- County of Monterey, Seaside Branch Library, 550 Harcourt Avenue
- City of Del Rey Oaks, City Clerk's Office, 650 Del Rey Oaks Road
- Presidio of Monterey Directorate of Environmental and Natural Resources, Gigling Road, Building #4463, Presidio of Monterey Annex

The public review/comment period will extend 30 days from the date of notification in the local newspaper. Please submit comments by November 23, 1998 to the address as follows:

Commander, DLIFLC & POM
Mail Stop ATZP-EP (ATTN: Mr. Robert Guidi)
Presidio of Monterey, California 93944-5006

Col, GSC/Acting Inst Cdr
for Daniel D. Devlin, Colonel, AR

date 16 Oct 98

Michael A. Houlemard Jr.
Executive Officer, FORA

date 16 October 98

APPENDIX C
ARCHAEOLOGICAL INVESTIGATION

ARCHAEOLOGICAL CONSULTING

P.O. BOX 3377
SALINAS, CA 93912
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PRELIMINARY CULTURAL RESOURCES RECONNAISSANCE FOR ROADWAY IMPROVEMENTS ON AND ADJACENT TO NORTH-SOUTH ROAD AND HIGHWAY 218, DEL REY OAKS, MONTEREY COUNTY, CALIFORNIA

by

Anna Runnings, M.A., and Trudy Haversat, *SOPA*

May 22, 1998

Prepared for

Leianne Humble
Denise Duffy & Associates

SUMMARY: PROJECT 2604
RESULTS: NEGATIVE
ACRES: LINEAR
SITES: NONE
UTMG: NW 6.0436/40.5014, NE 6.0469/40.5033, S 6.0462/40.4968
MAP: USGS 7.5 MINUTE SEASIDE QUADRANGLE

Note: *SOPA* indicates certification by the Society of Professional Archaeologists.

INTRODUCTION

In April 1998 Archaeological Consulting was authorized by Leianne Humble of Denise Duffy & Associates to prepare a Preliminary Archaeological Reconnaissance for roadway improvements on Highway 218 and North-South Road in Del Rey Oaks, Monterey County, California.

As part of our methodology in the preparation of this report, we have conducted: 1) a background records search at the Northwest Regional Information Center of the California Archaeological Inventory, located at Sonoma State University, Rohnert Park; and 2) a field reconnaissance of the project area. The following report contains the results of these investigations as well as our conclusions and recommendations.

PROJECT LOCATION AND DESCRIPTION

The project area is located on Highway 218, extending along the highway approximately 0.15 mile on either side of North-South Road into the Fort Ord Military Reservation, 0.25 mile north along North-South Road, and about 200 feet along South Boundary Road in the Fort Ord Military Reservation near Del Rey Oaks, Monterey County, California (see Map 1). The Universal Transverse Mercator Grid (UTMG) coordinates for the approximate endpoints of the linear project area are NW 6.0436/40.5014, NE 6.0469/40.5033, and S 6.0462/ 40.4968 on the USGS 7.5 minute Seaside Quadrangle (1947, photorevised 1983). The area surveyed is approximately 0.5 mile in length.

At the time of the reconnaissance soil visibility in the project area was highly variable. There was fill and gravel obscuring the areas immediately adjacent to the road, and dense vegetation along the stream channel adjacent to Highway 218. However, there was intermittent soil visibility in the stream banks, road cuts, and gopher burrows throughout the area, and overall, ground surface visibility was considered adequate for the purposes of this reconnaissance.

PROJECT METHODOLOGY

The methodology used in the preparation of this report included two primary steps, as follows:

Background Research

The background research for this project included an examination of the archaeological site records, maps, and project files of the Northwest Regional Information Center of the California Archaeological Inventory, located at Sonoma State University, Rohnert Park, California. In addition, our own extensive personal files and maps were examined for supplemental information, such as rumors of historic or prehistoric resources within the general project area.

The Regional Information Centers have been established by the California Office of Historic Preservation as the local repository for all archaeological reports which are prepared under cultural resource management regulations. The background literature search at the appropriate Regional Information Center is required by state guidelines and current professional standards. Following completion of the project, a copy of the report also must be deposited with that organization.

These literature searches are undertaken to determine if there are any previously recorded archaeological resources within the project area, and whether the area has been included within any previous archaeological research or reconnaissance projects.

Field Reconnaissance

The field reconnaissance was conducted by Anna Runnings, M.A. and Kathy Owens on May 19, 1998. The survey consisted of a "general surface reconnaissance" of all areas which could reasonably be expected to contain visible cultural resources, and which could be viewed without major vegetation removal or excavation.

RESULTS OF THE RECONNAISSANCE

Background Research

The record search of the files at the Northwest Regional Information Center showed that no archaeological resources have been previously identified within the project area, and though there are two sites within one kilometer (1/2 mile), both sites are near the periphery of that area, 1/2 to 1 kilometer from the current project. Three previous studies (Breschini and Haversat 1978, Hampson and Breschini 1986 and Parkman 1978) and two cultural resources overviews (Chavez 1978 and Zahniser and Roberts 1980) covered some portions of the project area, but there had not previously been a physical inspection of the entire project area.

In addition, the California Inventory of Historical Resources (March 1976), California Historical Landmarks, and the National Register of Historic Places were checked for cultural resources which might be present in the project area, but which were not recorded with the Regional Information Center.

The project area lies within the currently recognized ethnographic territory of the Costanoan (often called Ohlone) linguistic group. Discussions of this group and their territorial boundaries can be found in Breschini, Haversat, and Hampson (1983), Kroeber (1925), Levy (1978), Margolin (1978), and other sources. In brief, the group followed a general hunting and gathering subsistence pattern with partial dependence on the natural acorn crop. Habitation is considered to have been semi-sedentary and occupation sites can be expected most often at the confluence of streams, other areas of similar topography along streams, or in the vicinity of springs. These original sources of water may no longer be present or adequate. Also, resource gathering and processing areas, and associated temporary campsites, are frequently found on the coast and in other locations containing resources utilized by the group. Factors which influence the location of these sites include the presence of suitable exposures of rock for bedrock mortars or other milling activities, ecotones, the presence of specific resources (oak groves, marshes, quarries, game trails, trade routes, etc.), proximity to water, and the availability of shelter. Temporary camps or other activity areas can also be found along ridges or other travel corridors.

Field Research

None of the materials frequently associated with prehistoric cultural resources in this area (dark soil, shell fragments, bone, broken or fire-altered rocks, flaked or ground stone, etc.) were noted during the survey.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the background research and the surface reconnaissance, we conclude that the project area does not contain surface evidence of potentially significant cultural resources. Because of this, we make the following recommendation:

- The proposed project should not be delayed for archaeological reasons.

Because the possibility always exists that unidentified cultural resources may be found during construction, we recommend that the following standard language, or the equivalent, be included in any permits issued within the project area:

- If archaeological resources or human remains are accidentally discovered during construction, work shall be halted within 50 meters (150 feet) of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented.

REFERENCES

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1978 **Cultural Resources Evaluation of the Laureles Grade Area, Monterey County, California.** Northwest Regional Information Center, Rohnert Park (S-05436).

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Levy, R.
1978 Costanoan. Pp. 485-495 in **Handbook of North American Indians, Vol. 8, California.** Smithsonian Institution, Washington, D.C.

Margolin, M.
1978 **The Ohlone Way.** Heyday Books, Berkeley.

Parkman, E. Breck
1978 **Archaeological Survey of an 18+ acre parcel near Del Rey Oaks, Monterey County, CA (letter report).** Northwest Regional Information Center, Rohnert Park (S-03586).

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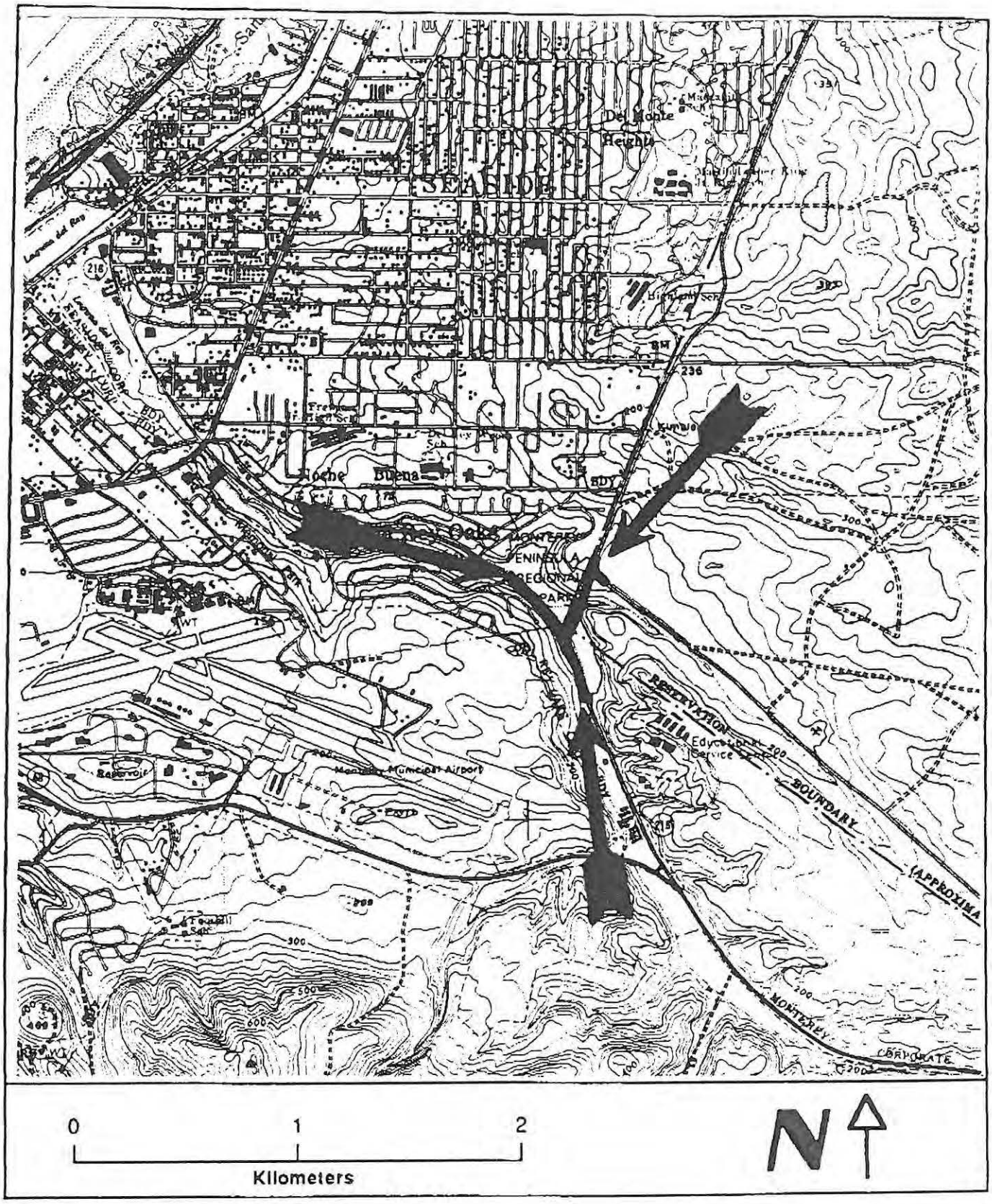
1980 **Cultural Resources literature Search and Overview, Fort Ord, California.** Northwest Regional Information Center, Rohnert Park (S-03671).



Map 1. Project Location.

APPENDIX D
BIOLOGICAL INVESTIGATION

NATURAL RESOURCES (VEGETATION AND WILDLIFE)

The following section was prepared by Zander Associates. Information contained in this section is based on background documents on biotic resources in the project area and a reconnaissance-level survey of the project site conducted by Zander Associates on September 26, 1997.

The biological resources in the project area have been well characterized in previous environmental documents, including the *Flora and Fauna Baseline Study of Fort Ord, California* (Jones & Stokes Associates, Inc. and U.S. Army Corps of Engineers, December 1992); *Final Environmental Impact Statement, Fort Ord Disposal and Reuse* (U.S. Army Corps of Engineers, June 1993); *Fort Ord Reuse Plan Draft Environmental Impact Report* (EDAW, Inc. and EMC Planning Group, Inc., May 1996); and the *Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California* (HMP) (U.S. Army Corps of Engineers, April 1997). This section provides a brief summary of vegetation, wildlife, and sensitive species that have been identified or could potentially occur on the project site. For a more detailed discussion of these biological resources, the reader is referred to the documents cited above.

The project site is located at the southwest corner of former Fort Ord along State Highway 218, approximately 0.8 mile west of the intersection with State Highway 68. Project activities will occur primarily within the existing 105-foot North South Road right of way (ROW) and a section of the Highway 218 Caltrans ROW on either side of the North South Road intersection. Part of the proposed alignment on the east side of North South Road borders Fort Ord Reuse Authority (FORA) Parcel 31a (HMP Parcel L6), which has been designated for transfer to the Monterey Peninsula Regional Park District (MPRPD) as a Natural Area Expansion (NAE). The project site also includes some privately owned land and a small section of existing MPRPD property adjacent to Canyon Del Rey Creek.

Vegetation and Habitat Types

This project area is floristically diverse due to local variations in climate, topography, and soil composition. Five general vegetation communities/ habitat types are represented on the project site. These include central maritime chaparral, coast live oak woodland, willow scrub, riparian wetland, and ruderal/colonizing vegetation. Characteristics of these biotic communities have been well described in the previous documents cited above. The occurrence of these vegetation types on the project site is discussed below, and their location and extent are shown on Figure 1. Plant species observed on the site during the September, 1997 survey are listed in Table 1.

Maritime Chaparral

Maritime chaparral is characterized by evergreen, sclerophyllus shrubs such as shaggy-barked manzanita (*Arctostaphylos tomentosa*), chamise (*Adenostoma fasciculatum*), and ceanothus (*Ceanothus cuneatus*). This vegetation type occurs within the ROW on the east side of North South Road at the northern end of the project alignment, as well as on the north and south sides of the South Boundary Road segment. The southern end of this maritime chaparral zone intergrades with coast live oak woodland along North South Road.

Maritime chaparral provides high quality habitat for wildlife, including ground- and shrub-nesting birds, small mammals, and reptiles. Central coast maritime chaparral is considered sensitive by local and regional resource agencies, and has been specifically targeted for preservation by the HMP, because it supports several locally endemic and special-status plant and animal species.

Coast Live Oak Woodland

Coast live oak woodland is located on and adjacent to a small hill on the east side of North-South Road in the central section of the project alignment, and intergrades with maritime chaparral in the northern section of the site. On the south-facing hillslope, xeric (dry) conditions prevail, resulting in a predominance of drought-tolerant understory species such as toyon (*Heteromeles arbutifolia*), chamise, coffee berry (*Rhamnus californicus*), and coyote brush (*Baccharis pilularis*). The north-facing slope of the hill supports more mesic-adapted understory species such as blackberry (*Rubus ursinus*), snowberry (*Symphoricarpos mollis*), and yerba buena (*Satureja douglasii*).

Oak woodlands provide foraging resources and breeding habitats for a diverse assemblage of birds and mammals. Oak woodlands are considered important natural communities, and their conservation is a priority among local and regional resource agencies.

Willow Thicket

A dense willow thicket borders the southern section of North South Road along its eastern edge from the entrance gate to a point about 220 feet north. Arroyo willow (*Salix lasiolepis*) is the dominant species in this area and has colonized the fill slope of the North South Road embankment from adjacent lower areas to the east.

The willow thicket on the embankment may provide foraging or nesting habitat for birds found in the adjacent riparian wetland area, as well as rodents and other small mammals. Because of the steep slope and limited area of this fill embankment, this area probably provides limited wildlife habitat value.

Riparian Wetland

The lower ground at the toe of the embankment slope on the east side of North South Road appears to function as an overflow area for the adjacent Canyon Del Rey Creek. In addition to dense arroyo willow, this area supports a variety of moisture-tolerant vegetation such as fleshy jaumea (*Jaumea carnosa*), fat hen (*Atriplex triangularis*), bulrush (*Scirpus robustus*), and heliotrope (*Heliotropum curassavicum*).

Riparian areas are productive natural communities which support a variety of resident and migratory wildlife species. Riparian wetlands provide foraging and breeding habitat for amphibians and aquatic reptiles. The woodland canopy and understory vegetation provide cover and nesting habitat for a variety of birds. Riparian vegetation also functions to stabilize stream banks, provide shade, and improve water quality in stream zones.

Ruderal/Colonizing Vegetation

The ROW on the west side of North South Road consists of a disturbed roadcut and fill embankment that has been colonized by a mixture of ruderal (weedy) and native plant species. Vegetation in this zone is relatively fragmented, but includes components of maritime chaparral, coast live oak woodland, and willow thicket. The southern end of this area borders the MPRPD Frog Pond Natural Area.

This ruderal embankment area provides marginal wildlife habitat due to its small area, limited plant cover and generally degraded condition. However, this area could support some ground-foraging birds, small rodents, and common reptiles such as the western fence lizard.

Wetlands

Potential wetlands or "waters of the United States" on the project site include: 1) the section of Canyon Del Rey Creek in the area of the proposed North South Road culverted crossing, both upstream and downstream of the existing culvert; 2) the riparian wetland zone on the north side of Canyon Del Rey Creek; and 3) a small ephemeral drainage adjacent to the hill on the east side of North South Road. These areas are discussed below.

Canyon Del Rey Creek

Canyon Del Rey Creek is a partially channelized stream that parallels the Highway 218 corridor in the project area. The creek crosses North-South Road through a box culvert at the entrance gate. The southern bank of the creek consists of a rip-rap stabilized embankment adjacent to Highway 218. The northern bank is comprised of natural alluvium and is less confined, which enables the creek to overflow during high water periods into adjacent riparian wetlands on both sides of the North South Road crossing. The creek channel in the project construction zone has an average width of approximately 15 feet at the ordinary high water mark.

Riparian Wetland

The riparian wetland zone on the east side of North South Road (described above) is bounded by the toe of the fill slope east of North South Road, the top of northern bank of Canyon Del Rey Creek, and the base of the oak woodland-covered hill to the north. On the west side of North South Road, the project site includes a small area of riparian wetland adjacent to the creek channel in the vicinity of the existing culvert outlet.

Ephemeral Drainage

A small ephemeral drainage course is located on the east side of North-South Road. This drainage receives runoff from a relatively localized area of adjacent oak woodland and maritime chaparral and exits the parcel through a small culvert under North-South Road. The drainage channel was dry during the September 1997 survey, but did exhibit discernible scour and carried seasonal flow during the 1997-1998 winter storms. This drainage would not be affected by the project.

Special Status Species

For the purposes of this assessment, sensitive species are those plants and animals considered in the HMP that have been identified, or could potentially occur, on the project site. These species include those listed, proposed for listing, or candidates for listing as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) under the Federal Endangered Species Act (ESA); those considered "species of concern" by the USFWS; those listed or proposed for listing as rare, threatened, or endangered by the CDFG under the California Endangered Species Act (CESA); plants occurring on lists 1B or 2 of the CNPS's *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 1994); and animals designated as "Species of Special Concern" by the CDFG. Sensitive species considered in this review are listed in Table 2.

The sensitive species in the project area have been well described in previous documents (cited above). One federally-listed threatened plant species, Monterey spineflower (*Chorizanthe pungens var. pungens*) and one state-listed endangered plant species, seaside bird's beak (*Cordylanthus rigidus* ssp. *litoralis*), were previously reported from the area by Jones and Stokes Associates (1992). Individuals of seaside bird's beak were observed growing alongside and through cracks in the roadway by Zander Associates during the September 1997 survey. Monterey spineflower was not observed during this survey, probably because of the lateness of the season. Other special-status plant species identified on or in the vicinity of the site include Toro manzanita (*Arctostaphylos montereyensis*), sandmat manzanita (*A. pumila*), Eastwood's ericameria (*Ericameria fasciculata*), and Monterey ceanothus (*Ceanothus cuneatus* var. *rigidus*). Another locally uncommon plant species, curly-leafed monardella (*Monardella undulata*), could also occur on the site but was not observed during the September 1997 survey.

No sensitive animal species have been documented to occur on the project site. However, the maritime chaparral/oak woodland areas on the east side of North South road could provide habitat for the federally-proposed endangered black legless lizard (*Anniella pulchra nigra*). The federally-listed threatened red-legged frog (*Rana aurora draytoni*) could also potentially occur in the vicinity of Canyon Del Rey Creek. Two non-listed sensitive mammal species, the Monterey ornate shrew (*Sorex ornatus salarius*) and Monterey dusky-footed woodrat (*Neotoma fuscipes luciana*), might also occur in the project area. Although identified in other areas of Fort Ord, the California tiger salamander (*Ambystoma tigrinum californiense*) is not anticipated to occur on the project site due to lack of suitable breeding or aestivation habitat. The California tiger salamander is not listed as a potential species in the HMP for the project site.

IMPACTS AND MITIGATION

Standards of Significance

For the purposes of this analysis, impacts to biological resources resulting from the proposed North South Road / Highway 218 Improvement Project are considered significant if they would:

- substantially diminish habitats (including wetlands) of native fish, wildlife or plants;
- substantially affect special-status plant or animal species or the habitat of any such species;

- interfere substantially with the movement of resident or migratory fish or wildlife species;
- conflict with local, state, or federal policies relating to biological resources.

Summary of Impacts

The following assessment of impacts is based on the Project Plans for Construction on State Highway [218] at the Intersection of North/South Road (Bestor Engineers, Inc., May 1998).

The proposed project would involve road widening and associated improvements along an approximately 1,200-foot segment of North South Road and an adjoining section of South Boundary Road; enlargement of the existing culverted crossing of Canyon Del Rey Creek; and repaving of an adjacent, flanking stretch of Highway 218.

With the exception of the Caltrans ROW along Highway 218 and a small section of private land immediately adjacent to Highway 218, the project site is located within the boundaries of the former Fort Ord HMP planning area. The HMP addresses impacts to biological resources through establishment of large, contiguous habitat conservation areas and corridors to compensate for future development in other areas of the former base. Therefore, the HMP provides the framework for evaluating project-related impacts to HMP resources, and provides the primary mechanism for mitigating these impacts. An Implementing Agreement that will further secure the habitat preservation commitments made in the HMP has been developed, and finalization and approval of this agreement are currently pending.

Development of the project would result in removal of some vegetation, including maritime chaparral, willow thicket, and ruderal/colonizing vegetation, within the North South Road and South Boundary Road rights of way. To reduce the grading footprint and minimize impacts to the adjacent hillslope and oak woodland, a retaining wall would be constructed along a 90 foot section of the alignment on the east side of North South Road. The project will also involve repaving of an approximately 1175-foot stretch of Highway 218 on both side of the intersection with North South Road. Because the Highway 218 improvements would be limited to the existing road surface and unpaved shoulder, they are not expected to substantially affect biological resources and therefore are not discussed further in this section.

The grading/filling zone for the new road embankment would encroach into the riparian wetland area east of North South Road, with resulting removal of some riparian vegetation and wetland habitat. Installation of the new culverted crossing of Canyon Del Rey Creek would also affect a short section of the creek channel and adjacent creekside wetlands at both ends of the existing culvert crossing. A discussion of specific impacts and recommended mitigation measures follows.

Vegetation and Habitat Types

Impact: The project would result in removal of approximately 0.47 acre of ruderal/colonizing vegetation on the west side of North South Road.

The ruderal/colonizing vegetation occupies a disturbed roadside embankment formed as a result of cut and fill for construction of North South Road. While some native plants have recolonized this area, it is dominated by ruderal, opportunistic species and provides limited habitat value for wildlife. Seaside's bird beak occurs within this area, and is addressed below under Special Status Species.

Project impacts in this area would be confined to a narrow zone within an allowable roadside ROW, in conformance with the HMP and Fort Ord Reuse Plan, and would not affect adjacent, contiguous natural habitats. Therefore, this impact is not significant. No mitigation is required.

Impact: The project would result in removal of approximately 0.16 acre of willow thicket on the embankment along the east side of North South Road.

The willow thicket has colonized an engineered fill slope which was created during construction of North South Road. Removal of the willow thicket would result in the loss of a small amount of edge habitat for birds and possibly other species that inhabit the adjacent riparian wetland area. However, similar colonization and revegetation (augmented as appropriate by replanting of willows and possibly other riparian margin vegetation) is expected to occur on the new road embankment. Therefore, this impact is not significant. No additional mitigation is required.

Impact: The project would result in the removal of approximately 0.68 acre of central coast maritime chaparral within the road rights of way along the east side of North South Road and adjacent to both sides of South Boundary Road. This is a potentially significant impact.

Impacts to maritime chaparral in developable areas of former Fort Ord were anticipated and accommodated by the HMP. Large tracts of chaparral habitat were set aside as conservation areas to mitigate for such losses. The Army has determined, with concurrence by the U.S. Fish and Wildlife Service, that the proposed widening and associated improvements within the 105 ft. ROW along North South Road and South Boundary Road are consistent with the allowable development footprint in the HMP.[1,2] Therefore, no further mitigation beyond that established by the HMP is required by USFWS to offset losses to central coast maritime chaparral habitat.

However, through a previous arrangement between the Army and the California Native Plant Society, a maritime chaparral plant reserve was established south of South Boundary Road along the east side of North-South Road. According to the project plans, the proposed roadway improvements would affect approximately 0.33 acre within or immediately adjacent to the CNPS reserve area. As a result of negotiations with the CNPS, FORA and the City of Del Rey Oaks have agreed to preserve additional maritime chaparral habitat adjacent to the project site to compensate for potential conflicts with the existing CNPS reserve.[3] Pursuant to this agreement, the mitigation measure set forth below will reduce this impact to a level of insignificance.

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[1] Letter from Daniel D. Devlin, U.S. Army, to Diane K. Noda, USFWS. April 23, 1998.
[2] Letter from Diane K. Noda, USFWS, to James M. Arnold, FORA. May 13, 1998.
[3] Letter from Robert L. Branson, CNPS, to FORA. April 22, 1998.

Mitigation:

1. A minimum of 2.0 acres of maritime chaparral habitat, located in the vicinity of the northeast corner of North South Road and South Boundary Road, shall be preserved as a CNPS native plant area. Requirements for this mitigation area are specified as follows: The habitat area shall be protected from fragmentation and degradation in perpetuity. No spraying or irrigation drainage shall be directed toward the habitat area. No development shall be permitted in the plant reserve. In the event that the plant reserve is damaged contrary to the terms of the agreement, then the City of Del Rey Oaks, the developer, or successor owners shall restore the area by replanting with appropriate native species, using site-specific plant materials. If a disagreement arises on interpretation of the agreement, a mutually agreed upon consultant shall be engaged to resolve the dispute, with fees and costs paid on third by CNPS and two thirds by the City (or one third each by the City and the developer). If additional work is determined to be necessary to rectify problems, all required work shall be paid for by the City and/or developer.

Wetlands

Impact: The project would result in removal or alteration of approximately 0.25 acre of riparian wetland habitat and streamzone adjacent to the improved section of North South Road. This is a potentially significant impact.

Approximately 0.18 acre of riparian wetland on the east side of North South Road, and 0.02 acre on the west side of the North South Road / Highway 218 intersection, would be filled to accommodate the new embankment of North South Road and improvements to the culverted crossing of Canyon Del Rey Creek. Construction of the culvert improvements would also result in filling or alteration of approximately 0.05 acre of the creek channel below the ordinary high water mark. The proposed improvements would include installation of upstream and downstream culvert extensions and new retaining walls, and grading/recontouring of the stream channel and banks in the installation area.

The streamzone and associated wetlands provide instream and riparian habitat, flood control and water quality benefits, and are likely to be subject to jurisdiction of the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. Therefore, grading or filling of these areas would require permit authorization from the Corps and Section 401 Water Quality Certification (or waiver) from the State Regional Water Quality Control Board (RWQCB). These activities would also likely require a Streambed Alteration Agreement with the CDFG, pursuant to Sections 1601-1603 of the California Fish and Game Code. In addition to obtaining the required authorizations, implementation of the mitigation measures set forth below will reduce this impact to a level of insignificance.

Mitigation:

2. Loss of approximately 0.25 acre of riparian wetland habitat and streamzone may be offset by a combination of restoration and enhancement activities in and around the wetland area on the NAE parcel. Such activities could include erosion control and slope rehabilitation

in the watershed area along the northern and eastern boundary of this wetland, non-native species eradication and willow-sprigging in selected areas. Fire roads and trails upslope of the wetland have eroded into large gullies carrying high sediment loads into the area during storms. Unchecked, this sediment buildup could reduce the size and quality of the wetland area over time. Non-native species such as ice plant, French broom and pampas grass have colonized both the slope areas and the edges of the wetland itself (notably, large patches of iceplant at the wetland edge). Elimination of these invasive species and replacement with appropriate natives would enhance both upland and wetland habitat values. Willow sprigging (or wattling) will serve to stabilize bank areas and further restore wetland riparian habitat values.

To mitigate for 0.25 acre of riparian wetland loss, FORA shall implement or fund the implementation of the following activities:

- Create rolling berms, dips, or other suitable landscape features acceptable to the Monterey Regional Park District in eroded gully areas within the watershed of the wetland area at the southwest corner of the NAE parcel. A minimum of 0.5 acre (a 2:1 ratio for wetland loss) of eroded watershed area shall be repaired and revegetated following standards currently in use by the Bureau of Land Management on its NRMA areas at former Fort Ord.

- Establish a minimum two-year program of non-native species eradication in the wetland area and within its immediate watershed. Target species for elimination shall include, but not be limited to iceplant, pampas grass and French broom.

- Plant willow sprigs (and/or wattles) in key locations in and around the streamzone/wetland area following completion of roadway improvements to stabilize slopes and enhance habitat values. Such locations shall be determined in collaboration with a qualified biologist and may include areas such as the riprap slopes of the new roadway embankment, the Canyon Del Rey streamzone, low-lying areas where non-native species are removed, stabilized gully areas adjacent to the wetland and other areas. A minimum three-year monitoring program to evaluate success of the willow sprigging program shall be undertaken.

Special Status Species

Impact: The project would result in removal of individuals or habitats of special-status plant species, including seaside bird's beak, Monterey spineflower, Toro manzanita, sandmat manzanita and Eastwood's ericameria. This is a potentially significant impact.

Impacts to these sensitive plant species within developable areas at Fort Ord are anticipated and accommodated by the HMP. These species all occur in maritime chaparral habitat, and large tracts of this habitat type have been set aside as conservation areas to mitigate for such losses.

However, project-related impacts to Monterey spineflower (federally threatened) and seaside bird's beak (state endangered) require special consideration. Under Section 7 of the ESA, a

federal agency that authorizes or carries out an action that could affect a federally-listed species must consult or confer with the USFWS to insure that the action is not likely to jeopardize the continued existence of such species. Similarly, state lead agencies are directed under Section 2090 of the CESA to consult with CDFG for actions that could affect state-listed species.

While the Army has consulted with the USFWS for property transfer, it has not done so for Army-authorized reuse actions in the southwest area of former Fort Ord. However, USFWS representatives have confirmed that formal consultation will not be necessary for the take of Monterey spineflower. The HMP Implementing Agreement (in preparation) will effectively eliminate the need for further state lead agency consultation with CDFG for impacts to state-listed species in HMP-allowable development areas. However, until the IA is completed and signed, there is no binding arrangement between FORA (or any other state lead agency) and CDFG for take of listed species on the former base. The following mitigation measure will resolve this issue, and will reduce this impact to a level of insignificance

Mitigation:

3. The Army shall initiate informal consultation with the USFWS to seek a letter of concurrence that no additional mitigation would be required for the spineflower. FORA, as a state lead agency, shall initiate consultation with CDFG to establish a project-specific basis for incidental take of seaside bird's beak in compliance with CESA, prior to project construction. Since proposed activities are in conformance with the HMP, the consultation process should be relatively straightforward, and no further mitigation (beyond standard plant material salvage prior to construction) should be required. However, the final determination of appropriate mitigation rests with CDFG.

Impact: The project could affect black legless lizards in maritime chaparral areas on the site. This is a potentially significant impact.

Grading and removal of vegetation could displace or directly impact individual black legless lizards, or result in loss of habitat for this species. Loss of potential habitat for the black legless lizard is anticipated and accommodated by the HMP. However, potential direct effects of the project on individual lizards can be further reduced by implementation of the mitigation measure set forth below. Implementation of this measure will reduce this potential impact to a level of insignificance.

Mitigation:

4. A qualified biologist shall be designated as a monitor to conduct pre-construction salvage activities for the black legless lizard. The monitor shall be present on the site during the initial grading pass in areas with maritime chaparral vegetation (i.e., the east side of North South Road, and north and south sides of South Boundary Road). The monitor will walk alongside the grading equipment in each new area of disturbance, and will have the authority to halt construction temporarily if necessary to capture and relocate legless lizards. Any legless lizards captured in the grading zone shall be relocated as soon as possible to suitable habitat near the project site and outside of the area of effect.

Impact: The project could affect California red-legged frogs in the vicinity of Canyon Del Rey Creek. This is a potentially significant impact.

The partially channelized creek zone and associated riparian wetlands in the project area provide habitat for amphibians, including possibly the red-legged frog. The proposed improvements to the existing culvert and construction of new road embankments would affect a relatively small section of the creek zone and adjacent wetland, but could result in direct impacts to resident amphibians. Although there are no records of California red-legged frogs in the project area, and the creek does not provide suitable breeding habitat for this species, the possibility of this species occurring on the site can not be entirely dismissed. Therefore, to insure that project activities minimize the risk of direct impacts to this species, implementation of the following mitigation measure is recommended and will reduce this potential impact to a level of insignificance.

Mitigation:

5. Prior to initiation of construction in the creek zone, temporary fencing consisting of hardware cloth or durable plastic screening (0.5 inch mesh size) shall be erected around the affected reach of the creek channel and adjacent riparian wetland zone. A survey for California red-legged frogs shall be conducted by a qualified biologist in the affected area no more than one week prior to the onset of construction. If any red-legged frogs are found in this area, they shall be relocated outside of the fenced area to portions of the creek unaffected by construction. Any handling or other activities that might constitute harm to red-legged frogs will require an incidental take permit from the USFWS. Once construction is complete, fencing shall be removed from the affected area.

LITERATURE CITED

California Native Plant Society. Inventory of Rare and Endangered Vascular Plants of California. The California Native Plant Society, February 1994.

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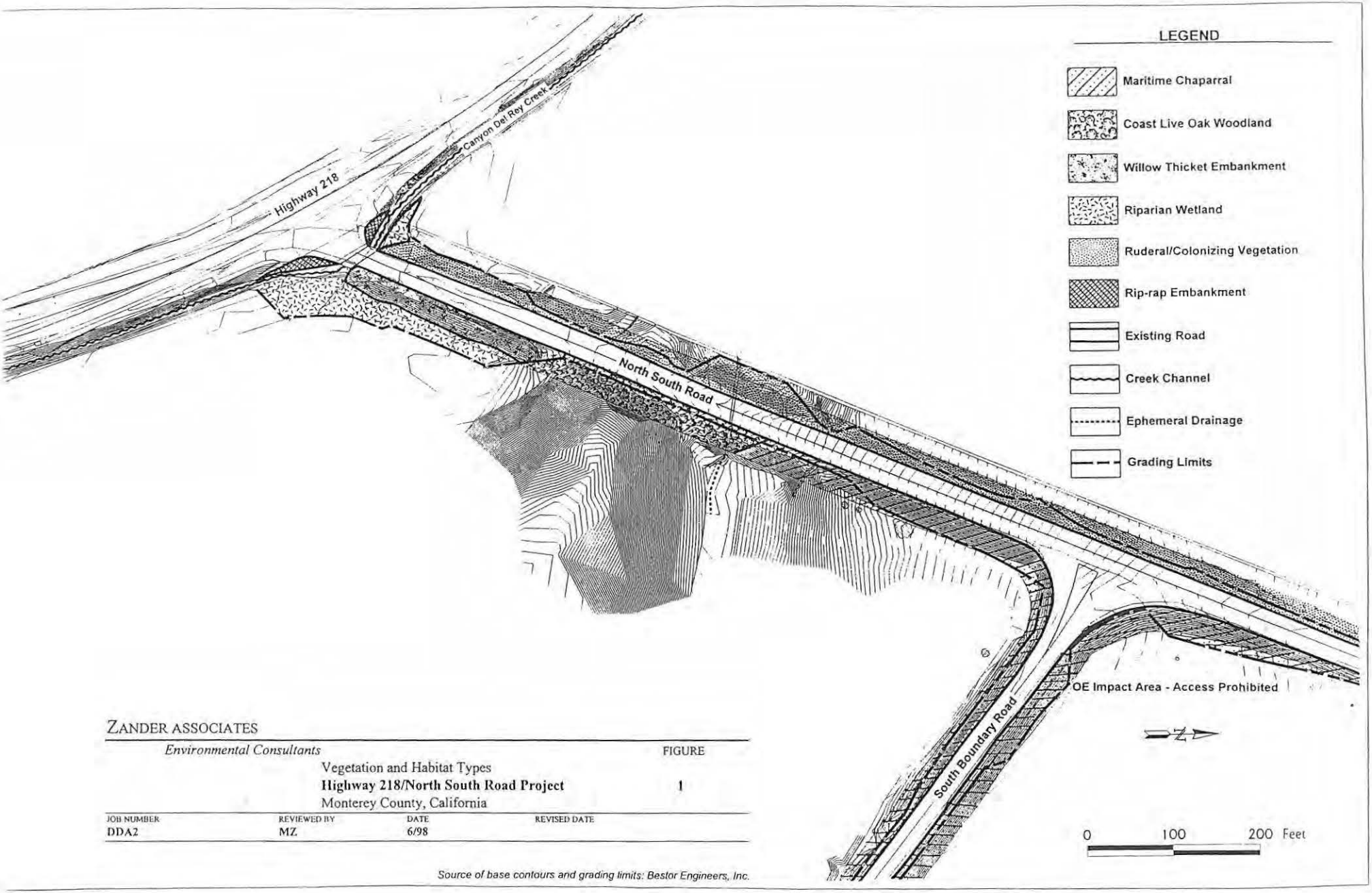
U.S. Army Corps of Engineers. Final Environmental Impact Statement, Fort Ord Disposal and Reuse. June, 1993.

U.S. Army Corps of Engineers. Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, California. April, 1997.



ZANDER ASSOCIATES

Environmental Consultants

Vegetation and Habitat Types
Highway 218/North South Road Project
Monterey County, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
DDA2	MZ	6/98	

Source of base contours and grading limits: Bestor Engineers, Inc.

Table 1: Plant Species Observed on the North South Road / Highway 218 Project Site September 26, 1997

Scientific Name	Common Name
TREES AND SHRUBS:	
Adenostoma fasciculatum	chamise
Arctostaphylos tomentosa ssp. *tomentosa*	shaggy-bark manzanita
Arctostaphylos montereyensis	Toro manzanita
Arctostaphylos pumila	sandmat manzanita
Artemesia californica	California sagewort
Baccharis pilularis	coyote brush
Baccharis salicifolia	mule fat
Ceanothus cuneatus var. *rigidus*	Monterey ceanothus
Ericameria ericoides	mock heather
Ericameria fasciculata	Eastwood's golden bush
Eriophyllum confertiflorum	golden yarrow
Garrya elliptica	silk tassel
Genista monspessulana	French broom
Heteromeles arbutifolia	toyon
Lupinus albifrons	blue bush lupine
Lupinus arboreus	yellow bush lupine
Mimulus aurantiacus	sticky monkey flower
Quercus agrifolia	coast live oak
Rhamnus californicus	coffeeberry
Ribes californicum	hillside gooseberry
Rosa californica	California wild rose
Salix lasiolepis	arroyo willow
Salvia mellifera	black sage
Toxicodendron diversilobum	poison oak
HERBS:	
Apium sp.	celery
Artemesia douglasiana	Douglas' mugwort
Atriplex triangularis	fat hen
Callitriche heterophyla	water starwort
Cardionema ramosissima	sand mat
Carpobrotus edulis	iceplant
Cirsium vulgare	bull thistle
Cordylanthus rigidus ssp. *littoralis*	Seaside bird's beak

Table 1 (continued):

Scientific Name	Common Name
HERBS:	
Erechtites prenanthoides	burnweed
Galium californicum	California bedstraw
Gnaphalium californicum	California everlasting
Helianthemum scoparium	rush rose
Heliotropum curassavicum	heliotrope
Hemizonia corymbosa	coast tarweed
Heterotheca grandiflora	telegraph weed
Horkelia cuneata ssp. *cuneata*	wedge-leaved horkelia
Hydrocotyle ranunculoides	marsh pennywort
Jaumea carnosa	fleshy jaumea
Lessingia filaginifolia	corethrogyne
Lotus scoparius	deerweed
Navarretia atractyloides	navarretia
Oenanthe sarmentosa	water hemlock
Polygonum punctatum	water smartweed
Rorripa nasturtium-aquatica	water cress
Rubus ursinus	California blackberry
Rumex acetosella	sheep sorrel
Rumex crispus	curly dock
Satureja douglasii	yerba buena
Symphoricarpos mollis	snowberry
Typha angustifolia	narrow leaved cattail
Urtica dioica ssp. *holosericea*	stinging nettles
GRASSES/ RUSHES/ SEDGES:	
Avena barbata	slender wild oats
Briza maxima	rattlesnake grass
Briza minima	little rattlesnake grass
Bromus diandrus	ripgut brome
Bromus hordeaceous	soft chess
Carex obnupta	slough sedge
Carex subbracteata	small-bracted sedge
Cyperus eragrostis	nutsedge
Eleocharis macrostachya	spike rush
Elymus glaucus	western ryegrass
Holcus lanatus	velvet grass

Table 1 (continued):

Scientific Name	Common Name
GRASSES/ RUSHES/ SEDGES:	
Juncus effusus	common rush
Juncus patens	spreading rush
Juncus phaeocephalus	brown-headed rush
Nassella cernua	needle grass
Pennisetum clandestinum	kikuyu grass
Polypogon monspeliensis	rabbit's foot grass
Scirpus robustus	prairie bulrush
FERNS:	
Dryopteris arguta	wood fern
Pteridium aquilinum	bracken

Table 2: Sensitive Plant and Animal Species Potentially Occurring on the North South Road / Highway 218 Project Site Monterey County, California

Plant Species	Status[1] (Fed/CA/CNPS)	Habitat and Blooming Period	Findings[2]
Arctostaphylos hookeri ssp. *hookeri* (Hooker's manzanita)	--/--/1B	Sandy soils in coastal scrub, chaparral, and closed-cone forest habitats; evergreen (identifiable throughout the year)	Potentially occurring
Arctostaphylos montereyensis (Toro/Monterey manzanita)	SC/--/1B	Chaparral, coastal scrub and oak woodlands; evergreen (identifiable throughout the year)	Observed on site in September 1997 survey
Arctostaphylos pumila (Sandmat manzanita)	SC/--/1B	Sandy soils in coastal dune, coastal scrub, chaparral and closed-cone conifer forest habitats; evergreen (identifiable throughout the year)	Observed on site in 1997
Ceanothus cuneatus var. *rigidus* (Monterey ceanothus)	SC/--/4	Chaparral and closed-cone coniferous forest; evergreen (identifiable throughout the year)	Observed on site in 1997
Chorizanthe pungens var. *pungens* (Monterey spineflower)	T/--/1B	Variety of habitats, including coastal dune, coastal scrub, grasslands, chaparral, and oak woodlands; generally blooms from May-September	Reported in project area in 1992
Cordylanthus rigidus var. *littoralis* (Seaside bird's-beak)	--/E/1B	Occurs diffusely in sandy soils of dune, chaparral, coastal scrub, and close-cone pine forest habitats; generally blooms from May-September	Observed on site in 1997
Ericameria fasciculata (Eastwood's ericameria)	SC/--/1B	Coastal scrub, chaparral, and closed-cone forests; evergreen (identifiable throughout the year)	Observed on site in 1997
Monardella undulata (Curly-leafed monardella)	--/--/4	Sandy soils of chaparral, coastal dune, coastal scrub and Ponderosa pine sand hill habitats; generally blooms May-July	Not observed, but could potentially occur on site

Animal Species	Status[1] (Fed/CA)	Habitat	Findings[2]
Anniella pulchra nigra (Black legless lizard)	P/CSC	Loose sandy soils or thick duff or leaf litter in maritime chaparral and coastal dune habitats	Not observed, but could potentially occur on site
Rana aurora draytonii (California red-legged frog)	T/CSC	Lowlands and foothills in or near permanent sources of deep water; prefers backwater pools and shorelines with extensive emergent vegetation	Not observed, but could occur in vicinity of Canyon Del Rey Creek
Neotoma fuscipes luciana (Monterey dusky-footed woodrat)	SC/--	Woodlands and brushy understory habitats with moderate to dense cover and abundant dead wood for nest construction	Not observed, but could occur in oak woodland/chaparral on site
Sorex ornatus salarius (Monterey ornate shrew)	SC/--	Found in a variety of vegetation communities, typically associated with moist soils and/or riparian areas; requires thick ground cover and abundant invertebrate populations	Not observed, but could potentially occur in oak woodland or riparian areas on site

Table 2 (continued)

[1] Status Explanations

Federal (Fed):

E	=	listed as endangered under the federal Endangered Species Act.
T	=	listed as threatened under the federal Endangered Species Act.
P	=	proposed for listing as endangered or threatened under the federal Endangered Species Act
C*	=	candidate for listing as endangered or threatened under the federal Endangered Species Act. Includes species previously designated as "Category 1 Candidate" species by the U.S. Fish and Wildlife Service prior to February 1996.
SC*	=	"species of concern." Includes species previously designated as "Category 2 Candidate" species by the USFWS prior to February 1996.
--	=	no designation.

California State (CA):

E	=	listed as endangered under the California Endangered Species Act.
T	=	listed as threatened under the California Endangered Species Act.
R	=	Considered rare by the California Department of Fish and Game.
CSC	=	California Department of Fish and Game "species of special concern."
--	=	no designation.

California Native Plant Society (CNPS):

1B	=	plants listed as rare, threatened or endangered in California and elsewhere.
2	=	plants listed as rare, threatened or endangered in California, more common elsewhere.
4	=	watch list for plants of limited distribution.

[2] Findings presented here are based on literature review and September 26, 1997 field survey.

APPENDIX D-1

LETTER AGREEMENT BETWEEN CNPS AND FORA

Monterey Bay Chapter

California Native Plant Society

April 22, 1998

Fort Ord Reuse Authority
100 12th Street
Building 2880
Marina, CA 93933

This letter describes an agreement that CNPS offers to the City of Del Rey Oaks/FORA in regards to the road widening project that impinges on Plant Reserve #1 at Fort Ord. The plant reserve is protected by the December 1989 agreement between the Army and CNPS as mitigation for loss of habitat caused by construction. CNPS will accept the habitat loss in exchange for permanent protection of comparable habitat across South Boundary Road.

On previous field trips the representative of FORA and the City of Del Rey Oaks have agreed to minimize the area of maritime chaparral that will be removed by the proposed North South Road widening. The amount is estimated at 0.2 acres of chaparral. This number is approximate. The area affected contains the best example of maritime chaparral in the preserve.

The chapter agrees that preservation of a minimum of two acres of comparable maritime chaparral located approximately at the northeast corner of South Boundary Road and North-South Road, will compensate for the loss of chaparral, provided there is an adequate buffer to assure that golf course drainage will not impinge on the habitat, and that the area will be protected from fragmentation and degradation in perpetuity. The boundaries must avoid road widening that would affect the reserve. Any future widening which would effect the habitat, would require renegotiation of this agreement. In addition, no spraying or irrigation drainage should be directed towards the habitat area. No development would be permitted in the plant reserve.

If the plant reserve should be damaged in a manner contrary to the terms of this agreement, then the City of Del Rey Oaks, the developer, or successor owners will restore the area by replanting with site-specific plant materials to the original configuration. The area involved will be documented with photographs by CNPS and markers established by the City of Del Rey Oaks to assure that there is no misunderstanding about the location or condition of the preserved areas. If a disagreement arises on interpretation of this agreement, a mutually agreed upon consultant shall be engaged to resolve the dispute, with fees and costs paid one third by CNPS and two-thirds by the City (or one third each by the City and Developer). If the disputed issue is upheld

and work is required to rectify the problem, all required work and consultant time shall be paid by the City, and/or Developer, including CNPS's share of the initial consultation fee, and the work shall take place in the manner recommended by the consultant .

Sincerely Yours'

Ronald L. Branson M.D.

Ronald L. Branson, M.D., President

Mary Ann Matthews

Mary Ann Matthews, Conservation Chair

Joel D. Barlow

City of Del Rey Oaks

April 22, 1998

Date

FORA Representative

April 23, 1998

Date

APPENDIX E
TRAFFIC ASSESSMENT

ASSOCIATED TRANSPORTATION ENGINEERS
100 N. Hope Avenue, Suite 4, Santa Barbara, CA 93110 • FAX (805) 682-8509 • (805) 687-4418

Maynard Keith Franklin, P.E.
Robert L. Faris, P.E.
Richard L. Pool, P.E.
Scott A. Schell, AICP

March 25, 1998 98027L01.RPT

Mr. John Van Zander
Bestor Engineers, Inc.
9701 Blue Larkspur Lane
Monterey, California 93940

RE: NORTH-SOUTH ROAD TRAFFIC SIGNAL WARRANT ANALYSIS

As part of the conversion of Fort Ord from military to civilian uses, a connection of North-South Road to Highway 218 has been planned. The improvement of North-South Road from South Boundary Road to Highway 218 including the installation of a traffic signal at the Highway 218 intersection is being funded through a grant received by FORA. In order to obtain an encroachment permit from Caltrans for the installation of the traffic signal, it is necessary to show that the projected traffic volumes will meet traffic signal warrants as contained in Chapter 9, Caltrans Traffic Manual.

I discussed my preliminary traffic volume with Julie Gonzales, Caltrans Electrical Operations and she suggested that Figure 9-4 (Planning Warrant), Caltrans Traffic Manual be used for the analysis, since for traffic volume purposes, this intersection does not exist (that is we cannot obtain current traffic volumes). Associated Transportation Engineers (ATE) staff has contacted persons at FORA, City of Del Rey Oaks, City of Seaside, TAMC and Caltrans for information related to the potential for traffic to utilize North-South Road when the connection is made. The available information for current conditions is minimal and the prognosis is that there will be very little if any "new" development in this area within the next 3 to 5 years. The 3 to 5 year period was chosen, since the traffic signal warrants need to be met within this time period in order to obtain an encroachment permit for the signal installation. ATE did obtain some traffic data from Caltrans for Highway 218/Carlton Drive and from FORA for Broadway at the Broadway Avenue Gate. We have been informed that the City of Seaside is planning on connecting some of the city streets to North-South Road in the near term. The Hilby Avenue connection along with the existing Broadway Avenue connection will be the connections that will contribute to the traffic on North-South Road at Highway 218. As part of our analysis, ATE staff made a site visit and drove the streets in and around the area, thus developed some idea of the practicality of traffic diversions

when North-South Road is connected to Highway 218 and the local street connections are made.

The projected directional daily traffic volumes along North-South Road from Highway 218 to north of Broadway Avenue are illustrated in Figure 1. These volumes are based upon the existing development level and an estimation of diversion that will occur when North-South Road is connected to Highway 218 and the local streets.

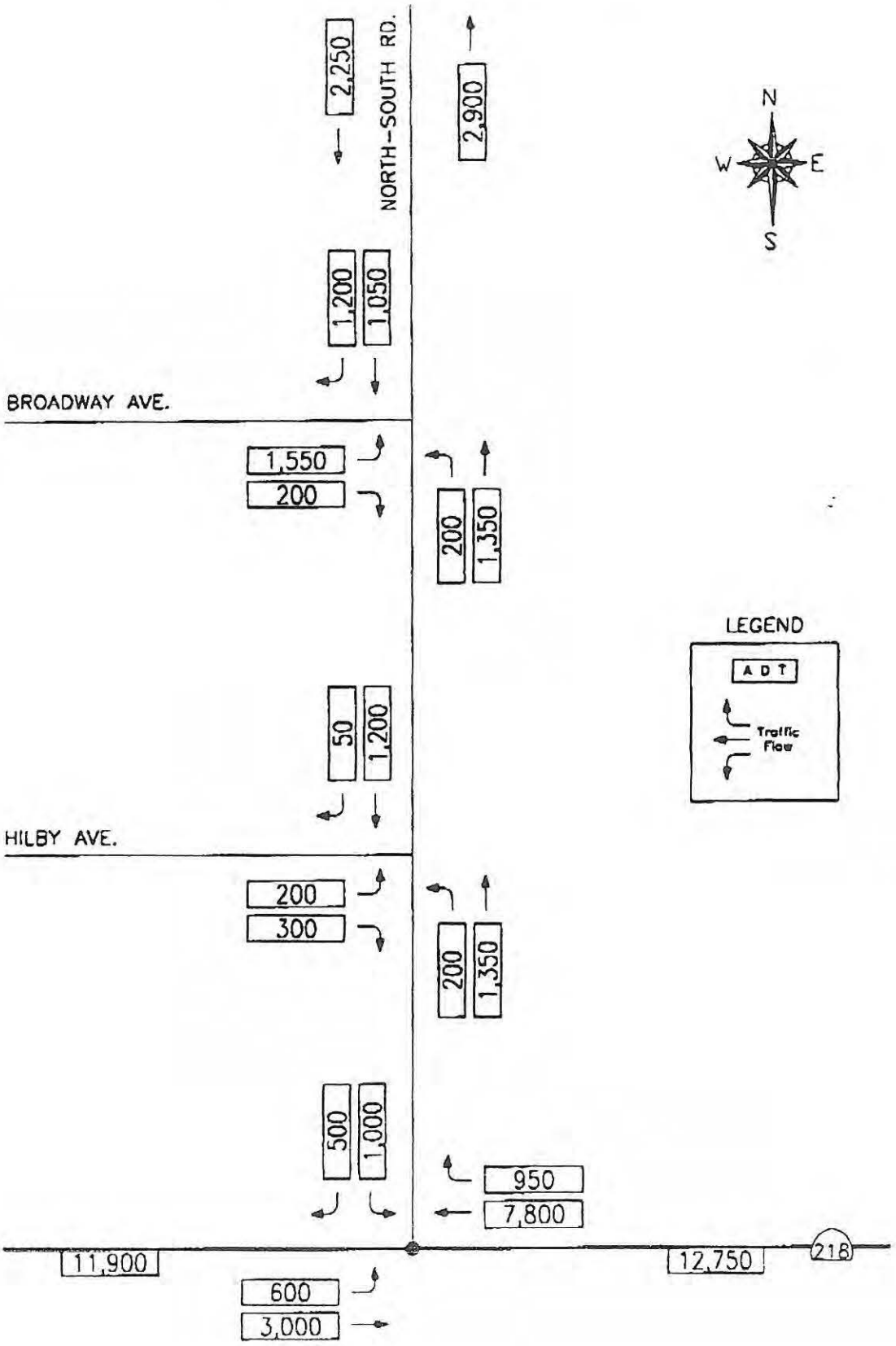
On Figure 9-4 we have indicated the projected volumes for each of the warrants. Warrant #1 is 80% satisfied and Warrant #2 is satisfied. Warrant #3, Combination Warrant is satisfied. Thus, the projected volumes at the Highway 218/North-South Road intersection meets the planning warrant by satisfying 2 warrants (Warrant #2 and #3). Figure 9-4 is attached.

In summary, based upon existing development and traffic volumes, traffic signal warrant (Figure 9-4, Warrants 2 and 3) will be met within 2 years of construction. The City of Del Rey Oaks and FORA are supportive of the traffic signal installation during the intersection construction.

Associated Transportation Engineers

By: Richard L. Pool, P.E.
President

RLP/wp



ASSOCIATED TRANSPORTATION ENGINEERS

HIGHWAY 218/NORTH-SOUTH ROAD
PROJECTED AVERAGE DAILY TRAFFIC VOLUMES

FIGURE 1

Figure 9-4
TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic - See Note)

URBAN ..... RURAL ..X..	Minimum Requirements EADT	
1. Minimum Vehicular Satisfied _____ Not Satisfied __X__	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor street approach (one direction only)
Number of lanes for moving traffic on each approach Major Street ..... Minor Street	Urban / Rural	Urban / Rural
1 ..11,800.. 1 ..1500..	8,000 / 5,600	2,400 / 1,680
2 or more 1	9,600 / 6,720	2,400 / 1,680
2 or more ..... 2 or more	9,600 / 6,720	3,200 / 2,240
1 ..... 2 or more	8,000 / 5,600	3,200 / 2,240
2. Interuption of Continuous Traffic Satisfied __X__ Not Satisfied _____	Vehicles per day on major street (total of both approaches)	Vehicles per day on higher-volume minor street approach (one direction only)
Number of lanes for moving traffic on each approach Major Street ..... Minor Street	Urban / Rural	Urban / Rural
1 ..11,800.. 1 ..1500..	12,000 / 8,400	1,200 / 850
2 or more 1	14,400 / 10,080	1,200 / 850
2 or more ..... 2 or more	14,400 / 10,080	1,600 / 1,120
1 ..... 2 or more	12,000 / 8,400	1,600 / 1,120
3. Combination Satisfied __X__ Not Satisfied _____ No one warrant satisfied, but following warrants fulfilled 80% or more 89% (1) 100% (2)	2 Warrants	2 Warrants

NOTE: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

Highway 218 & North-South Road
Del Rey Oaks

3/25/98
RLP

ASSOCIATED TRANSPORTATION ENGINEERS

100 N. Hope Avenue, Suite 4, Santa Barbara, CA 93110 • FAX (805) 682-8509 • (805) 687-4418

Maynard Keith Franklin, P.E.
Robert L. Faris, P.E.
Richard L. Pool, P.E.
Scott A. Schell, AICP

April 23, 1998

98027L01.LTR

Ms. Leianne Humble
Denise Duffy & Associates
546-A Hartnell
Monterey, California 93940

RE: NORTH-SOUTH ROAD - FORT ORD REUSE AREA - DEL REY OAKS

The Fort Ord Regional Transportation Study by JHK & Associates identified North-South Road as an important collector/minor arterial street. North-South Road from Broadway to State Highway 218 (Canyon Del Rey) is a vital link in this system. The Transportation Agency for Monterey County has developed a computer traffic model for the Monterey Regional Area. Traffic projections for the year 2015 indicate an 8,200 ADT for the segment of North-South Road between Broadway and Canyon Del Rey. The two lane arterial will adequately accommodate the projected traffic volume.

Associated Transportation Engineers

By: Richard L. Pool, P.E.
President

RLP/wp

cc: John Van Zander, Bestor Engineers, Inc.

APPENDIX F
DE-MINIMUS CALCULATIONS

1. RUBBER TIRE LOADERS

8 HOURS/DAY x 45 DAYS = 360 HOURS
ROG's 360 HOURS x 0.25 lb/HR = 90 lb
NO_x 360 HOURS x 1.89 lb/HR = 680 lb
PM_{10} 360 HOURS x 0.172 lb/HR = 62 lb

2. TRACK MOUNT EXCAVATOR

8 HOURS/DAY x 10 DAYS = 80 HOURS
ROG's 80 HOURS x 0.282 lb/HR = 22.6 lb
NO_x 80 HOURS x 3.840 lb/HR = 307 lb
PM_{10} 80 HOURS x 0.406 lb/HR = 32 lb

3. MOTOR GRADER

8 HOURS/DAY x 90 DAYS = 720 HOURS
ROG's 720 HOURS x 0.040 lb/HR = 29 lb
NO_x 720 HOURS x 0.713 lb/HR = 513 lb
PM_{10} 720 HOURS x 0.61 lb/HR = 44 lb

4. TRACK DOZER

8 HOURS/DAY x 30 DAYS = 240 HOURS
ROG's 240 HOURS x 0.192 lb/HOUR = 46 lb
NO_x 240 HOURS x 4.17 lb/HOUR = 1001 lb
PM_{10} 240 HOURS x 0.256 lb/HOUR = 61 lb

5. SCRAPER/PADDLE WHEEL

8 HOURS/DAY x 15 DAYS x 2 UNITS = 240 HOURS
ROG's 240 HOURS x 0.282 lb/HOUR = 68 lb
NO_x 240 HOURS x 3.840 lb/HOUR = 922 lb
PM_{10} 240 HOURS x 0.406 lb/HOUR = 97 lb

6. COMPACTOR/ROLLER

8 HOURS/DAY x 15 DAYS = 120 HOURS
ROG's 120 HOURS x 0.067 lb/HOUR = 8 lb
NO_x 120 HOURS x 0.862 lb/HOUR = 103 lb
PM_{10} 120 HOURS x 0.050 lb/HOUR = 6 lb

7. TRACTOR BACK-HOE

8 HOURS/DAY x 45 DAYS = 360 HOURS

ROG's	360 HOURS x 0.121 lb/HOUR =	44 lb
NO_x	360 HOURS x 1.26 lb/HOUR =	454 lb
PM_{10}	360 HOURS x 0.112 lb/HOUR =	40 lb

8. PAVER

10 HOURS/DAY x 4 DAYS = 40 HOURS

ROG's	40 HOURS x 0.15 lb/HOUR =	6 lb
NO_x	40 HOURS x 1.86 lb/HOUR =	74 lb
PM_{10}	40 HOURS x 0.132 lb/HOUR =	5 lb

TOTALS

ROG's	1.384 lb/HOUR
NO_x	18.435 lb/HOUR
PM_{10}	2.144 lb/HOUR

ROG's = REACTIVE ORGANIC COMPOUNDS

NO_x = NITROGEN OXIDES

PM_{10} = PARTICULATE MATTER (10 MICRONS)

APPENDIX G
AMENDMENT TO THE EA/IS
CONSISTING OF COMMENTS, RESPONSES TO COMMENTS & TEXT REVISIONS

AMENDMENT TO THE ENVIRONMENTAL ASSESSMENT/INITIAL STUDY FOR THE NORTH-SOUTH ROAD/HIGHWAY 218 IMPROVEMENTS PROJECT CONSISTING OF COMMENTS, RESPONSES TO COMMENTS, & TEXT REVISIONS

MARCH, 1999

Prepared for:

Fort Ord Reuse Authority
and
U.S. Army Presidio of Monterey
Directorate of Environmental & Natural Resources Management

Prepared by:

Denise Duffy & Associates
947 Cass Street, Suite 5
Monterey, CA 93940
831/373-4341

SECTION I. RESPONSE TO COMMENTS

Introduction

The following document responds to comments received on the Draft Environmental Assessment/Initial Study for the North-South Road/Highway 218 Improvements Project. The Draft EA/IS was circulated to the public from October 26 to November 25, 1998. This document consists of the comment letters received during the 30-day public review period, in addition to those received after close of the circulation period, responses to the comments, and revisions to the text of the EA/IS.

Comment Letters and Response to Comments

A list of the comment letters received on the EA/IS, and the dates that these letters were submitted is provided below.

Agency/Individual	**Date Received**
State Agencies	
A. California Department of Transportation	12/14/98
B. California Governor's Office of Planning and Research	12/8/98
Local Agencies	
C. Monterey Bay Unified Air Pollution Control District	10/29/98
D. Monterey Peninsula Regional Park District	12/4/98
E. Transportation Agency of Monterey County (TAMC)	11/24/98
Affiliations & General Public	
F. California Native Plant Society	12/4/98

Comment letters are attached. Individual comments in each letter are numbered. Correspondingly numbered responses to each comment are provided following each letter.

STATE OF CALIFORNIA — BUSINESS, TRANSPORTATION AND HOUSING AGENCY PETE WILSON, Governor

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5114
TELEPHONE: (805) 549-3111
TDD (805) 549-3259

December 14, 1998

5-Mon-218-1.2
Draft IS/EA

Fort Ord Reuse Authority
Attn.: Jim Arnold
100 12th Street, Bldg. 2880
Marina, CA 93933

Dear Mr. Arnold:

Caltrans District 5 staff has completed its review of the Draft Initial Study/Environmental Assessment (IS/EA) for the North-South Road/Highway 218 Improvements Project. We offer the following comments for your consideration:

1. Any improvement at North-South Road/Highway 218 must include provisions for bike lane facilities on State Route 218. A1

2. The City of Seaside should plan for the connection of local streets such as Plumas, Hilby, or Kimbell. A2

3. Road closures or detours on State facilities as a result of this project must be approved by Caltrans Traffic Operations. A3

4. Any work done within the State right of way will require an approved Caltrans Encroachment Permit. Please be advised that prior to obtaining an encroachment permit, design plans must be reviewed by this office accompanied by an approved environmental document. Biological and.archaeological surveys must specifically address impacts in the state right-of- way. Should you have any further questions regarding encroachment permits, please contact Steve Senet, Permits Engineer, at (805) 549-3152. A4

I hope this letter gives your agency a better understanding of Caltrans' concerns with this proposed project. Please contact me at (805) 549-3131 if you have questions. Thank you for the opportunity to comment.

Sincerely,

Charles Larwood

Charles Larwood
District 5
Intergovernmental Review Coordinator

cc: Delicia Winn, SCH
N. Papadakis, AMBAG
J. Lopez, TAMC
File, S. Chesebro, S. Strait, D Murray, D Heumann, J Ponce, J Gonzalez

LETTER A: RESPONSE TO COMMENT LETTER FROM CALIFORNIA DEPARTMENT OF TRANSPORTATION

A1: Class 2 bike paths currently exist on each side of State Route 218. These paths are approximately five feet in width. FORA has incorporated in its design five foot wide bike paths on either side of State Route 218.

A2: Both the City of Seaside and the City of Del Rey Oaks are informed of the FORA plan to open North-South Road to SR 218. The City of Seaside has informed FORA representatives that it intends to move forward with plans to establish additional points of connection (e.g., Hilby Avenue) to North-South Road.

A3: FORA, through its contract for construction of this project, will require its construction contractor to 1) conform with Caltrans Manual of Uniform Traffic Control, 2) provide a traffic control plan in advance of effecting any traffic control, and 3) seek Caltrans approval of such traffic control plan under anticipated terms of the Caltrans Encroachment Permit.

A4: FORA has applied to Caltrans for an Encroachment Permit to allow construction of the project. The completion and certification of the environmental document is anticipated in January, 1999. A copy of the Final EA/IS will be provided to Caltrans representatives Dave Murray and Steve Senet immediately following certification by the FORA Board.

STATE OF CALIFORNIA

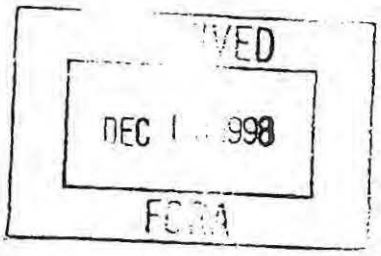
Governor's Office of Planning and Research

1400 TENTH STREET SACRAMENTO, CALIFORNIA 95812-3044

Pete Wilson
GOVERNOR

Paul F Miner
DIRECTOR

December 8, 1998



Jim Arnold
Fort Ord Reuse Authority
100 12th St., Bldg 2880
Marina, CA 95933

Subject: North - South Road Highway 218 Improvements Projects
SCH#: 98101077

Dear Jim Arnold:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,

Antero A. Rivasplata

Antero A. Rivasplata
Chief, State Clearinghouse

Form A: Notice of Completion

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916/445-0613

See NOTE below
SCH # 98101077

Project Title: North-South Road / Highway 218 Improvements Projects
Lead Agency: Fort Ord Reuse authority — Contact Person: Jim Arnold
Street Address: 100 12th St, Bldg 2880 — Phone: 831/883-3672
City: Marina, CA — Zip: 93933 — County: Monterey

Project Location
County: Monterey — City/Nearest Community: Fort Ord / DelRey Oaks / Monterey
Cross Streets: South Boundary Rd. — Zip Code: — Total Acres:
Assessor's Parcel No. — Section: — Twp. — Range: — Base:
Within 2 Miles: State Hwy #: SR 218 — Waterways:
Airports: — Railways: — Schools:

Document Type
CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☐ Draft EIR ☐ Supplement/Subsequent ☐ EIR (Prior SCH No.) ☐ Other
NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☒ FONSI
Other: ☐ Joint Document ☐ Final Document ☐ Other

Local Action Type
☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☐ Site Plan
☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, Parcel Map, Tract Map, etc.)
☐ Annexation ☐ Redevelopment ☐ Coastal Permit ☐ Other

Development Type
☐ Residential: Units Acres
☐ Office: Sq.ft. Acres Employees
☐ Commercial: Sq.ft. Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational
☐ Recreational
☐ Water Facilities: Type MGD
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type Watts
☐ Waste Treatment: Type
☐ Hazardous Waste: Type
☐ Other:

Project Issues Discussed in Document
☐ Aesthetic/Visual ☐ Agricultural Land ☐ Air Quality ☐ Archeological/Historical ☐ Coastal Zone ☐ Drainage/Absorption ☐ Economic/Jobs ☐ Fiscal
☐ Flood Plain/Flooding ☐ Forest Land/Fire Hazard ☐ Geologic/Seismic ☐ Minerals ☐ Noise ☐ Population/Housing Balance ☐ Public Services/Facilities ☐ Recreation/Parks
☐ Schools/Universities ☐ Septic Systems ☐ Sewer Capacity ☐ Soil Erosion/Compaction/Grading ☐ Solid Waste ☐ Toxic/Hazardous ☐ Traffic/Circulation ☐ Vegetation
☐ Water Quality ☐ Water Supply/Groundwater ☐ Wetland/Riparian ☐ Wildlife ☐ Growth Inducing ☐ Landuse ☐ Cumulative Effects ☐ Other

Present Land Use/Zoning/General Plan Use

Project Description Reconstructing approx. 1,500 linear feet of North-South Road located on ~~Fort Ord~~ former Fort Ord to conform to current public street specs.

State Clearinghouse Contact: Ms. DeLicia Wynn (916) 445-0613

State Review Began: 10-26-98
Dept. Review to Agency 11-18-98
Agency Rev to SCH 11-23-98
SCH COMPLIANCE 11-25-98

Please note State Clearinghouse Number (SCH#) on all Comments

SCH#: 98101077

Please forward late comments directly to the Lead Agency

AQMD/APCD 20 (Resources: 10 / 24)

Project Sent to the following State Agencies

- X Resources
- ___ Boating
- X Coastal Comm
- ___ Coastal Consv
- ___ Colorado Rvr Bd
- ___ Conservation
- X Fish & Game # 3
- ___ Delta Protection
- ___ Forestry
- ___ Historic Preservation
- X Parks & Rec
- ___ Reclamation
- ___ Bay Cons & Dev Comm
- ___ DWR
- ___ OES

Bus Transp Hous
- ___ Aeronautics
- X CHP
- X Caltrans # 5
- X Trans Planning
- ___ Housing & Devel
- ___ Food & Agriculture
- ___ Health & Welfare

State/Consumer Svcs
- ___ General Services

Cal EPA
- X ARB
- ___ CA Waste Mgmt Bd
- ___ SWRCB: Clean Wtr Prog
- ___ SWRCB: Delta Unit
- ___ SWRCB: Wtr Quality
- ___ SWRCB: Wtr Rights
- X Reg. WQCB # 3
- ___ Toxic Sub Ctrl-CTC

Yth/Adlt Corrections
- ___ Corrections

Independent Comm
- ___ Energy Commission
- X NAHC
- ___ Public Utilities Comm
- ___ Santa Monica Mtns
- X State Lands Comm
- ___ Tahoe Rgl Plan

- ___ Other:
- ___ Other:

LETTER B: RESPONSE TO COMMENT LETTER FROM CALIFORNIA OFFICE OF PLANNING & RESEARCH

No response required.

MONTEREY BAY
Unified Air Pollution Control District
serving Monterey, San Benito, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER
Douglas Quetin

24580 Silver Cloud Court • Monterey, California 93940 • 831/647-9411 • FAX 831/647-8501

October 28, 1998

Jim Arnold
FORA
100 12th Street, Building 2880
Marina, CA 93933

SUBJECT: ND FOR NORTH-SOUTH ROAD/HIGHWAY 218 IMPROVEMENTS PROJECT

Dear Mr. Arnold:

Staff has reviewed the referenced document and has the following comments:

1. Page 20. The District was redesignated to a maintenance/attainment area for the federal ozone standard in March 1997.

2. Page 21, Table 2. The 1-hour federal ozone standard no longer applies to the North Central Coast Air Basin. The applicable standard is the 8-hour standard. Also, there is a new federal standard for $PM_{2.5}$. This table should be revised accordingly (attached). C1

3. Page 33. Since the proposed project is a local project rather than a federal project, the General Conformity Rule is not applicable, and all references to General Conformity should be deleted. C2

Thank you for the opportunity to review the document. Please do not hesitate to call if you have any questions.

Sincerely,

Janet Brennan

Janet Brennan
Supervising Planner
Planning and Air Monitoring Division

Enc.

TABLE 2-2
AMBIENT AIR QUALITY STANDARDS[a]

Pollutant	Averaging Time	California Standards[b]		National Standards[c]			
		ppm	µg/m³	Primary[d]		Secondary[e]	
				ppm	µg/m³	ppm	µg/m³
Ozone	1 hour	0.09	180				
	8 hour			0.08		0.08	
Carbon Monoxide	8 hours	9.0	10,000	9.0	10,000	9.0	10,000
	1 hour	20.0	23,000	35.0	40,000	35.0	40,000
Nitrogen Dioxide	Annual			0.053	100	0.053	100
	1 hour	0.25	470				
Sulfur Dioxide[f]	Annual			0.03	80		
	24 hours	0.04	105	0.14	365		
	3 hours					0.5	1,300
	1 hour	0.25	655				
PM_{10}[g]	Annual		30		50		50
	24 hours		50		150		150
$PM_{2.5}$[g]	Annual				15		15
	24 hours				65		65
Lead[g]	Calendar quarter				1.5		1.5
	30-day avg		1.5				
Sulfate[g]	24 hours		25				
Hydrogen Sulfide	1 hour	0.03	42				
Vinyl Chloride	24 hours	0.010	26				
Visibility Reducing Particles	8 hours (10 a.m.-6 p.m.)	In sufficient amounts to reduce prevailing visibility to <10 miles when relative humidity is <70% w/equivalent instrument method					

[a] Standards first promulgated in ppm concentrations except where noted. Equivalent µg/m³ concentrations based on reference temperature of 25°C and reference pressure of 760 mm of mercury.

[b] California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide, nitrogen dioxide, PM_{10}, and visibility reducing particles are values not to be exceeded.

[c] National standards, other than ozone and those based on annual averages, are not to be exceeded more than once a year.

[d] Designed to protect human health with an adequate margin of safety

[e] Designed to protect public welfare (i.e., prevent damage to vegetation, property, visibility)

[f] Federal standards first promulgated in µg/m³.

[g] Standards promulgated in µg/m³ only.

LETTER C: RESPONSE TO COMMENT LETTER FROM MONTEREY BAY UNIFIED AIR POLLUTION DISTRICT

C1: Thank you for providing this updated air quality information, which is hereby included in the environmental record for the EA/IS

C2: Although the project is considered local, according to the Army it is subject to the General Conformity rule due to its location on federal land.

LAW OFFICES OF
STEWART, GREEN & McGOWAN
26415 CARMEL RANCHO BOULEVARD
CARMEL, CALIFORNIA 93923

W. K. STEWART
N. W. GREEN
ANNE D. McGOWAN

TELEPHONE
(408) 624-6473
FACSIMILE
(408) 624-6639

December 4, 1998

Commander, DLIFLC & POM
Mail Stop ATZP-EP (ATTN: Mr. Robert Guidi)
Presidio of Monterey, California 93944-5006

RE: **Draft Assessment/Initial Study for the North-South Road/Highway 218 Improvement Project**

Dear Commander:

The following comments are submitted on behalf of the Monterey Peninsula Regional Park District. Thank you for allowing us additional time to respond.

The District believes that certain adverse impacts of the project must be considered, and either mitigated or dealt with in a full EIR. The Initial Study should be revised to reflect the following impacts.

1. Land Use Conflict–FORA agreement to restrict road width to 105 feet. The earlier FORA agreement among the involved public entities specifically limits any taking of the property assigned to the Park District to a width of 105 feet. Figure A of the proposed Negative Declaration clearly shows a site plan with grading planned to exceed the 105 feet. The project planner must address this issue. Is there a plan to make up the extra footage on the Park District's planned property to the east? This issue must be addressed prior to project approval. D1

2. Transportation Safety–No safe access to trail on Park District properties on either side of North-South Road. The FORA plan calls for use of the proposed parking lot to the east of the District Frog Pond property as a trailhead parking lot for persons who wish to go from east to west on the District property, across North-South Road. There is an existing trail which connects the two properties, crossing North-South Road about 300 feet from its intersection with Route 218. Presently, there is little enough traffic on North-South Road, so that crossing the road causes no safety problem. With an expected ADT of 8200 trips per day on this main access to CSUMB and to Laguna Seca, however, the trail access becomes a real safety issue. D2

   Trail users simply will not walk 300 feet down the one side of the road, cross North-South Road at the cross walk at the intersection, and then travel 300 feet up the other side to meet up with the trail on the other side. Moreover, the trail crossing cannot be moved down to the crosswalk at Route 218 because this would require the filling in of riparian habitat to bring the paths on each side up to grade level.

   The District requests a redesign of the plan to provide for improvements which would provide access at the trail crossing, preferably by means of a below-grade

level tunnel. An above the road walkway would not allow for use of the crossing by the disabled.

3. Wetlands Mitigation--Vague description of mitigation for disturbance to wetlands. The proposed negative declaration discusses possible mitigation measures for the anticipated removal or alteration of wetlands during construction of the road improvement. The project planners should discuss this with the District, which has not heard any plans for avoiding or replacing disturbed wetlands. The District is adamant that the improvement not encroach on valuable existing and future Frog Pond riparian habitat. Any and all mitigation measures must be designed prior to project approval. This has not happened. The District request that all impacts and mitigation measures be fully delineated and identified, prior to project approval and that the District and the Native Plant Society be actively involved in formulating the specific mitigation measures. D3

4. Conclusion. At this time, the District is not demanding a full EIR for the project. It does request, however, that the above issues be adequately addressed in a mitigated negative declaration.

Please contact me at the above number, or Tim Jensen at the District office at 659-4488, to discuss this further.

Sincerely,

Anne D. McGowan

Anne D. McGowan
Attorney for the Monterey Peninsula Regional Park District

cc: Jim Arnold, Fort Ord Reuse Authority, 100 12th Stre6t Bldg 2880, Marina, CA 93933
Mary Ann Matthews, Fax No. 659-0304

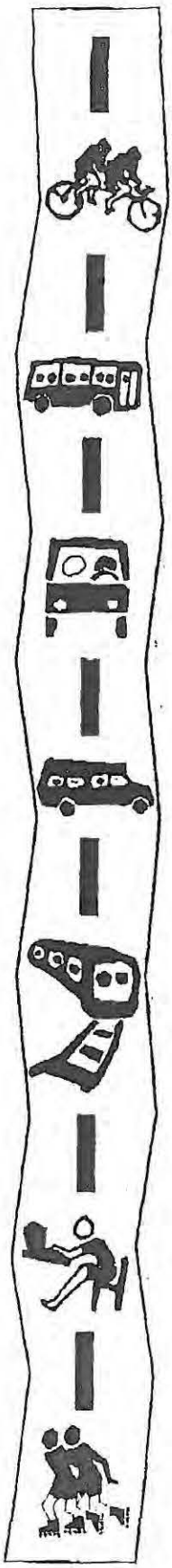
LETTER D: RESPONSE TO COMMENTS RECEIVED FROM MONTEREY PENINSULA REGIONAL PARK DISTRICT

D1: The agreement negotiated between MPRPD, FORA, Del Rey Oaks, and Monterey stipulated a road right-of-way of 105 feet in width. Development of a road within this right-of-way requires grading to facilitate roadway design. The proposed fill slope will be similar to the existing fill slope that supports North-South Road at its present width. The new slope face will be available for plant restoration. The footprint of the slope will overlay a portion (approximately 5,650 square feet) of the riparian wetlands at the toe of the existing slope. Mitigation for this impact is identified in the EA/IS, requiring enhancement of the wetland portion of the NAE parcel east of North-South Road. The impact and mitigation were developed in consultation with Gary Tate, the former Executive Director of the MPRPD, during the period between June 1997 and January 1999. Final mitigation details will be developed based on continued consultation with the resource agencies and ultimate permitting requirements.

D2: During the lengthy development of the plans for this project, FORA evaluated the probable costs associated with the development of a "below-grade level tunnel." Ownership of any such sub-grade structure would belong to the jurisdiction that assumes ownership of the roadway. High costs, combined with police department and other safety concerns associated with such a structure made it an undesirable, and ultimately infeasible option.

Due to the existing grades at either side of North-South Road, Americans with Disabilities Act (ADA) access is not possible at a point 300 feet north of SR 218 on North-South Road. A pedestrian crosswalk (at road station 4+60) with pedestrian warning signs for north and southbound traffic on North-South Road and ADA curb ramps will provide both pedestrian safety and ADA access at the proposed point of crossing.

D3: FORA redesigned the original project and added a retaining wall in the area of the wetlands so that the effects of the project would be minimized. The mitigation measures for wetland impacts identified in the EA/IS were developed in collaboration with Gary Tate, the former Executive Director of the MPRPD. No *permanent* encroachment into existing or future Frog Pond habitat is expected to result from this project. Mitigation measures presented in the EA/IS are adequate for the purposes of CEQA and NEPA. However, these measures were presented at a conceptual level in anticipation of further collaboration with MPRPD and CNPS to identify specific locations on the ground, and to formulate specific habitat restoration procedures acceptable to these organizations (refer to the responses to Letter F). As stated previously, the final mitigation details will be developed based on continued consultation with the resource agencies and ultimate permitting requirements.



TAMC • TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Regional Transportation Planning Agency • Congestion Management Agency • Local Transportation Commission
Road Safety Authority • Monterey County Service Authority for Freeways & Expressways • E-Mail: tamc1@ix.netcom.com
312 East Alisal Street, Salinas, California 93901-4371 • (831) 755-4812 / 647-7777 / FAX (831) 755-4957

November 23, 1998

Jim Arnold
Fort Ord Reuse Authority
100 12th Street, Bld. 2880
Marina, CA 93933

SUBJECT: Comments on North-South Road/Highway 218 Improvements MND

Dear Mr. Arnold:

The subject document is a Mitigated Negative Declaration (MND) by the Fort Ord Reuse Authority (FORA) on the proposed North-South Road/Highway 218 Improvements Project. The project project consists of the widening of North-South Road between South Boundary Road and Canyon Del Rey Boulevard (Highway 218). Bicycle lanes would be constructed on both sides of North-South Road and a sidewalk along the easterly side of the roadway. The project also provides turn lanes, a traffic signal, and a bus turnout at the intersection of North-South Road and Highway 218. Completion of the project would result in the opening of the existing gates at North-South Road/Highway 218 and North-South Road/Broadway Avenue to allow through traffic to access the project area. The proposed improvements are consistent with the FORA Reuse Plan and the City of Del Rey Oaks General Plan.

The staff of the Transportation Agency for Monterey County (TAMC) has reviewed the MND and offers the following comment:

1. The proposed project should be evaluated for consistency with the level of service (LOS) standards in the Monterey County Congestion Management Program (CMP). Highway 218 is included on the CMP system. Therefore, the traffic analysis in the MND should indicate if the proposed project is consistent with the CMP standard of LOS D for this state highway. In addition, the MND should include a LOS analysis for the intersection of North-South Road and Highway 218. E1

We appreciate the opportunity to review this MND document. If you have any questions, please contact Mike Galizio of my staff at 755-4835.

Sincerely,

Joe Lopez
Transportation Planning Supervisor

cc: Charles Larwood, Caltrans District 5
Nicolas Papadakis, AMBAG
Douglas Quetin, MBUAPCD
Frank Lichtanski, MST

TAMC File: E9812

LETTER E: RESPONSE TO COMMENT LETTER FROM TRANSPORTATION AGENCY OF MONTEREY COUNTY LETTER

E1: In response to TAMC's comments, the level of service (LOS) for the intersection of Highway 218/North-South Road was analyzed using methodology from the Highway Capacity Manual signalized intersection analysis (using the Synchro 3.2 program). The results of this analysis indicate that the intersection will operate at LOS A, under cumulative conditions during the PM peak hour, which is considered the worst-case scenario. The level of service is consistent with the Monterey County Congestion Management Program standard of LOS D or better. The technical documentation for this analysis is attached in Section II.

California Native Plant Society

Monterey Bay Chapter

P. O. Box 381
Carmel Valley, CA 93924
Dec. 4, 1998

Mr. Jim Arnold
Fort Ord Reuse Authority
100 12th St., Bldg. 2880
Marina, CA 93933

Dear Mr. Arnold:

Thank you for sending the copy of the Draft Environmental Assessment/Initial Study for the North-South Road/Highway 218 Improvements Project and for extending the comment time to include this week. After consulting with members of our board, I would like to make the following comments on behalf of the Monterey Bay Chapter of CNPS.

Regarding the impacts on Maritime Chaparral, we support the mitigations based on our agreement of April 14, 1998. However, there are several omissions that need to be corrected. 1) The agreement provides that the two acres on the northeast corner of the intersection of North-South Road and South Boundary Road will compensate for the loss of chaparral, provided there is an "adequate buffer to assure that golf course drainage will not impinge on the habitat." We ask that the quoted material be added to the document. The provision that "no spraying or irrigation will be directed toward the habitat area" is meaningless if the golf course is allowed to come within a few feet of the preserve. 2) The agreement calls for markers to be established by the City of Del Rey Oaks "to assure that there is no misunderstanding about the location of condition of the preserved areas." Please add to the mitigations that "before any grading is done in carrying out this project, the surveyor from DRO will meet with CNPS representatives in order to pinpoint and mark these locations"; then CNPS will be responsible for photographing the sites. F1

On the wetland impacts, we did not pursue specific mitigations at the time of our agreement because we understood that there were time constraints involving the road funding. Also, most of the wetlands are in the jurisdiction of the Regional Park District (RPD). After examining the EA/IS we are concerned that the area of the RPD Natural Area Expansion, which includes the Native Plant Reserve, lacks firm mitigations to assure at least a 2 to 1 restoration area. Item 4 on p. 28 states that FORA "*may implement or fund* ... the following activities..." in contrast to the biologists' report, which used the word *shall*.. We do note that the document states that a "minimum of 0.5 acre *shall* be repaired and revegetated..." but with this exception, the language throughout the wetland mitigations is optional. Although it is specified that the various activities are to be acceptable to the Regional Park District, the location of the restored area within wetland habitat is not identified. Upland restoration does not mitigate for loss of wetlands. On proposed plantings "in and around the streamzone/wetland area...in collaboration with a qualified biologist," please add "RPD and CNPS." The two- or three-year monitoring programs proposed for these areas are too short to assure success and also appear to be only optional. We ask that a five-year monitoring program be required for all mitigations involving revegetation. It is also important to draw a distinction between *revegetation*, which is simply planting plants, presumably from an agreed-upon list, and *restoration*, which is planting species that are native to the site in order to reestablish a functioning community. The latter is more difficult, but is essential to meet the mitigation requirements. F2

Thank you for your attention to these issues. We hope to continue to work with the various entities involved in this project to assure a first-class result.

Sincerely yours,

Mary Ann Matthews
Conservation Chair

Dedicated to the preservation of California native flora

LETTER F: RESPONSE TO COMMENT LETTER FROM CALIFORNIA NATIVE PLANT SOCIETY

F1: Thank you for your comments and input on the EA/IS. With reference to your first comment, the intent of the mitigation identified in the EA/IS is to assure protection of chaparral habitat. In order to further strengthen this mitigation, the following language is added to the text of the EA/IS, as presented in Section II:

> A minimum of 2.0 acres of maritime chaparral habitat, located in the vicinity of the northeast corner of North-South Road and South Boundary Road, along with an adequate buffer to assure that golf course drainage will not impinge on the habitat, shall be preserved in perpetuity as a CNPS native plant area. Markers shall be established by the City of Del Rey Oaks to assure that there is no misunderstanding about the location or condition of the preserved area. Before any grading is done in carrying out this project, the surveyor from Del Rey Oaks will meet with CNPS representatives in order to pinpoint and mark these locations. CNPS will be responsible for photographing the site. (Existing text follows.)

F2: Please refer to Responses D1 and D3. The EA/IS mitigation identified for wetland impacts was developed in collaboration with Gary Tate, the former Executive Director of the MPRPD. Restoration of a minimum area of 0.5 acres along the northern and eastern edge of the existing wetland represents 2:1 replacement mitigation, is considered feasible, and will result in direct benefits to wetland values. The word "may" has been replaced with the word "shall" in the referenced mitigation to clarify that the wetland mitigation is required (see Section II of this Amendment). The location of the mitigation was intentionally left undefined so that specific locations could be determined in the field in collaboration with MPRPD and CNPS. Although the mitigation program will involve some upland restoration, the type of restoration (e.g., erosion control measures to stop sediment from compromising wetland conditions) will directly benefit wetland values. The text of the EA/IS is revised to include collaboration with MPRPD and CNPS (refer to Section II of this Amendment).

A five year monitoring program will be required for all mitigation measures requiring revegetation. Restoration of the area will involve planting species that are native to the site in order to reestablish a functioning community. This requirement will be included in the mitigation monitoring program for the project.

SECTION II. TEXT REVISIONS

Introduction

The following section includes revisions to the text of the Draft EA/IS, in amendment form. The revisions are listed by page number. All additions to the text are underlined and all deletions from the text are ~~stricken~~.

Revisions to the Text of the Draft EA/IS

Page 27, Mitigation 3, the text is revised as follows:

> A minimum of 2.0 acres of maritime chaparral habitat, located in the vicinity of the northeast corner of North-South Road and South Boundary Road, along with an adequate buffer to assure that golf course drainage will not impinge on the habitat, shall be preserved in perpetuity as a CNPS native plant area. Markers shall be established by the City of Del Rey Oaks to assure that there is no misunderstanding about the location or condition of the preserved area. Before any grading is done in carrying out this project, the surveyor from Del Rey Oaks will meet with CNPS representatives in order to pinpoint and mark these locations. CNPS will be responsible for photographing the site. Requirements for this mitigation area are specified as follows. The habitat area shall be protected from fragmentation and degradation in perpetuity. No spraying or irrigation drainage shall be directed toward the habitat area. No development shall be permitted in the plant reserve. In the event that the plant reserve is damaged contrary to the terms of the agreement, then the City of Del Rey Oaks, the developer, or successor owners shall restore the area by replanting with appropriate native species, using site-specific plant materials. If a disagreement arises on interpretation of the agreement, a mutually agreed upon consultant shall be engaged to resolve the dispute, with fees and costs paid one third by CNPS and two thirds by the City (or one third each by the City and the developer). If additional work is determined to be necessary to rectify problems, all required work shall be paid for by the City and/or developer.

Page 28, Mitigation 4, the first sentence is revised as follows:

> To mitigate for the loss of 0.25 acres of riparian wetland, FORA shall ~~may~~ implement or fund the implementation of the following activities.

Page 29, third paragraph, the text is revised as follows:

> Plant willow sprigs (and/or wattles) in key locations in and around the streamzone/wetland area following completion of roadway improvements to stabilize slopes and enhance habitat values. Such locations shall be determined in collaboration with a qualified biologist, MPRPD and CNPS, and may include areas such as the riprap slopes of the new roadway embankment, the Canyon Del Rey streamzone, low-lying areas where non-native species are removed, stabilized gully areas adjacent to the wetland and other areas. A minimum three-year monitoring program to evaluate success of the willow sprigging program shall ~~may~~ be undertaken.

APPENDIX A

LEVEL OF SERVICE ANALYSIS
HIGHWAY 218/NORTH SOUTH ROAD

ASSOCIATED TRANSPORTATION ENGINEERS
100 N. Hope Avenue, Suite 4, Santa Barbara, CA 93110 • FAX (805) 682-8509 • (805) 687-4418

Maynard Keith Franklin, P.E.
Robert L. Faris, P.E.
Richard L. Pool, P.E.
Scott A. Schell, AICP

December 17, 1998 98027L02.LTR

Mr. Jim Arnold
Fort Ord Reuse Authority
100 12th Street, Bld. 2880
Marina, CA 93933

SUBJECT: Response to Comments on North-South Road/Highway 218 Improvements MND

Dear Mr. Arnold:

In response to comments made by Mr. Joe Lopez with TAMC in his letter to you of November 23, the level of service (LOS) of the subject intersection was analyzed using methodology from the Highway Capacity Manual signalized intersection analysis with Synchro 3.2 software. It was found that the intersection will operate at LOS A, which is consistent with the Monterey County Congestion Management Program (CMP) standard of LOS D minimum. The LOS analysis is attached.

Associated Transportation Engineers

Richard Pool, PE
President

RLP/KKR

cc: John M. Van Zander, Bestor Engineers, Inc.
Denise Duffy, Denise Duffy & Associates

attachment

Lanes, Volumes, Timings

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)		0%	0%		0%	
Storage Length (ft)	100			160		150
First Detector (ft)	60	475	475	20	60	20
Last Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15			9	15	9
Right Turn on Reds				Yes		Yes
Frt Protected				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Frt Perm.				0.850		0.850
Flt Perm.	0.098				0.950	
Satd. Flow (perm)	183	1863	1863	1583	1770	1583
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	60	350	900	95	50	100
Confl. Peds. (#/hr)						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)		0%	0%		0%	
Adj. Flow (vph)	63	368	947	100	53	105
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	63	368	947	100	53	105
g/c Ratio	0.63	0.63	0.63	0.91	0.28	0.28
V/C Ratio	0.55	0.31	0.81	0.07	0.11	0.24
Uniform Delay, d1	5.1	4.2	6.8	0.1	13.3	13.8
Actuated G/C Ratio	0.78	0.78	0.78	0.92	0.14	0.14
Actuated V/C Ratio	0.44	0.25	0.65	0.07	0.21	0.47
Percentile St Delay	7.0	2.2	3.9	0.1	14.9	15.7
Percentile LOS	B	A	A	A	B	C

Area Type: Other
Cycle Length: 65
Control Type: Actuated-Uncoordinated
Lost Time: 6
Sum of Critical V/S Ratios: 0.57
Intersection V/C Ratio: 0.63
Intersection Percentile Stopped Delay: 4.5
Intersection Percentile LOS: A