TO: GENEVIEVE SALMONSON
DIRECTOR OF ENVIRONMENTAL QUALITY CONTROL

FROM: KAZU HAYASHIDA
DIRECTOR OF TRANSPORTATION

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT (FONSI)
FUULOA ROAD IMPROVEMENTS, KAMEHAMEHA HIGHWAY TO
SALT LAKE BOULEVARD; PROJECT NO. STP-7310(1)

The State Department of Transportation (HDOT) has reviewed the comments received during
the 30-day public comment period which began on October 8, 1999. HDOT has determined
that the subject project will not have significant environmental effects and has issued a ✓
Finding of No Significant Impact (FONSI). Please publish this notice in the November 8,
2000 Office of Environmental Quality Control (OEQC) Environmental Notice.

We have enclosed a completed OEQC Publication Form, four copies of the Final
Environmental Assessment (EA), and the project summary disk.

The Final EA also satisfies the requirements of the National Environmental Policy Act. The
Federal Highway Administration (FHWA) has issued a FONSI for this project. The FHWA
FONSI is included in the Final EA.

Please direct any questions to Mr. Kevin Ito, Project Manager of the Highways Division,
Design Branch, Technical Design Services Section at 692-7548.

Enclosure
FINAL ENVIRONMENTAL ASSESSMENT

( PUULOA ROAD IMPROVEMENTS )
KAMEHAMEHA HIGHWAY TO SALT LAKE BOULEVARD
FEDERAL AID PROJECT NO. STP - 7310 (1)
HONOLULU, OAHU, HAWAII
TAX MAP KEY: 1 - 1 - 10 (First Division)

PROPOSING AGENCY:
STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION

AUGUST 2000

This Environmental Assessment has been prepared for the State of Hawaii, Department of Transportation, Highways Division.
Puuloa Road Improvements
Kamehameha Highway to Salt Lake Boulevard
Federal Aid Project No. STP - 7310 (1)
Honolulu, Oahu, Hawaii

Final Environmental Assessment
Submitted Pursuant to the National Environmental Policy Act (NEPA), 42 U.S.C. 4332(2), 49 U.S.C. 303, and Chapter 343, Hawaii Revised Statutes (HRS)

U.S. Department of Transportation
Federal Highway Administration
and
State of Hawaii Department of Transportation
Highways Division

10/25/00
Date of Approval

Kazu Hayashida, Director
Department of Transportation

10/5/00
Date of Approval

Abraham Wong, Division Administrator
Federal Highway Administration

The following persons may be contacted for additional information concerning this document:

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Division Administrator
Federal Highway Administration
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300 Ala Moana Boulevard
Honolulu, Hawaii 96850
Telephone Number (808) 541-2700

Mr. Kazu Hayashida
Director
State of Hawaii Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813
Telephone Number (808) 587-2150

ABSTRACT: The proposed project involves widening about 0.74 miles of Puuloa Road from Kamehameha Highway to Salt Lake Boulevard from a two-lane facility to a five-lane facility within the existing 120-foot wide right-of-way. The purpose of the proposed action is to complete that portion of the existing roadway to its planned function, as specified in the 2020 Oahu Regional Transportation Plan. Dedicated left turn lanes, bike lanes, sidewalks, street lighting, landscaping and an improved drainage system would also be provided. The three alternatives considered to the proposed action included: 1) No Action; 2) Transportation System Management; and 3) Puuloa Road Widening. Alternative No. 3 involved the following 2 options: to provide a two-way bike path on the Ewa side of the road or to provide a bike route combined with the sidewalk. Short-term impacts to air, noise, & traffic are expected during construction activities. In addition, the improved roadway is anticipated to increase traffic noise levels in the area for the long-term. As a result, noise mitigation measures will be implemented to sensitive receptor areas along Puuloa Road. In the long-term, the widened roadway would improve traffic flow and the aesthetic quality in the project area.
FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT (FONSI)
FOR THE
PUUOLA ROAD IMPROVEMENTS, KAMEHAMEHA HIGHWAY TO SALT LAKE
BOULEVARD
FAP NO. STP-7310(1)

The FHWA has determined that the proposed improvements will have no significant impact on the human environment. This FONSI is based on the attached EA which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. It provides sufficient evidence and analysis for determining that an EIS is not required. The FHWA takes full responsibility for the accuracy, scope and content of the attached EA.

10/5/00
Date

Abraham Wong, Division Administrator
Federal Highway Administration
# TABLE OF CONTENTS

I. PURPOSE AND NEED FOR ACTION ........................................... I-1
   A. Purpose ....................................................................... I-1
   B. Project Need ............................................................... I-1
   C. Existing Conditions ..................................................... I-5
   D. Proposed Action .......................................................... I-5
      1. Road Widening ....................................................... I-8
      2. Intersections ............................................................ I-8
      3. Bicycle Facility ....................................................... I-10
      4. Street Lighting ....................................................... I-10
      5. Retaining Walls ....................................................... I-10
      6. Noise Attenuation Barrier ....................................... I-15
      7. Landscaping ............................................................. I-15
      8. Utility Relocation .................................................... I-15
      9. Bus Stops / Pull-Outs ............................................. I-17
     10. Storm Drainage ...................................................... I-17
   E. Development Schedule and Cost ..................................... I-18
      1. Project Costs and Implementation ............................. I-18
      2. Project Funding ..................................................... I-18
      3. Project Schedule ................................................... I-18
   F. List of Potential Permits and Approvals ......................... I-18
      1. Federal Government ............................................... I-18
      2. State Government .................................................. I-18
      3. City and County of Honolulu ................................. I-19

II. ALTERNATIVES CONSIDERED ............................................. II-1
   A. No Action Alternative .................................................. II-1
   B. Transportation System Management Alternative ........... II-1
   C. Puuloa Road Widening Alternative ............................... II-2
      1. Option No. 1 ....................................................... II-2
      2. Option No. 2 ....................................................... II-2
      3. Option No. 3 ....................................................... II-4
   D. Preferred Alternative ................................................. II-4

III. ENVIRONMENTAL SETTING .............................................. III-1
TABLE OF CONTENTS

A. Geology / Soils .................................................. III-1
B. Rainfall ............................................................. III-3
C. Hydrology / Water Resource ................................. III-3
D. Surface Waters .................................................... III-3
E. Wetlands ............................................................. III-3
F. Coastal Zone Management (CZM) Areas ................... III-7
G. Flood Plains ......................................................... III-7
H. Air Quality .......................................................... III-8
I. Noise ................................................................. III-8
J. Aesthetic Quality .................................................... III-11
K. Flora ................................................................. III-12
L. Fauna ................................................................. III-13
M. Historic, Archaeological & Cultural Characteristics .... III-13
N. Socio-economic Characteristics ............................. III-13
O. Land Use ............................................................. III-14
P. Direct Highway Access ......................................... III-16
Q. Parking Within the Puuloa Road Right-of-Way ........... III-16
R. Existing Utilities .................................................... III-17
S. Traffic ............................................................... III-17
T. Storm Drainage ..................................................... III-21

IV. PROBABLE IMPACTS AND MITIGATION MEASURES .......... IV-1
TABLE OF CONTENTS

A. SHORT TERM IMPACTS ........................................ IV-1
   1. Hydrology / Water Resource .......................... IV-1
   2. Surface Waters ......................................... IV-1
   3. Flood Hazards .......................................... IV-2
   4. Air Quality ............................................. IV-2
   5. Noise Emission .......................................... IV-2
   6. Aesthetic Quality ...................................... IV-3
   7. Flora & Fauna ........................................... IV-3
   8. Historical, Archaeological & Cultural Characteristics .......................... IV-3
   9. Utilities ................................................ IV-4
  10. Traffic ................................................ IV-4
  11. Socio-economic Characteristics ........................ IV-5
  12. Grading Work .......................................... IV-5

B. LONG TERM IMPACTS ........................................ IV-6
   1. Hydrology / Water Resource .......................... IV-6
   2. Surface Waters ......................................... IV-6
   3. Air Quality ............................................. IV-7
   4. Noise Emission .......................................... IV-7
   5. Aesthetic Quality ...................................... IV-13
   6. Land Use ............................................... IV-14
   7. Direct Highway Access ................................ IV-14
   8. Parking Within the Right-of-way ..................... IV-15
   9. Utilities ................................................ IV-15
  10. Traffic ................................................ IV-15
  11. Storm Drainage ....................................... IV-16

V. ENVIRONMENTAL JUSTICE ..................................... V-1

VI. SIGNIFICANCE CRITERIA DETERMINATION .................. VI-1

VII. AGENCIES CONSULTED DURING THE PREPARATION OF THE EA .......... VII-1
    A. Federal Agencies ...................................... VII-1
    B. State Agencies ....................................... VII-1
    C. City and County of Honolulu ........................ VII-1
    D. Other Parties ........................................ VII-2
TABLE OF CONTENTS

REFERENCES

APPENDICES

Appendix A - Correspondence with the Outdoor Circle and the Aliamanu/salt Lake/Foster Village Neighborhood Board #18

Appendix B - Environmental Protection Agency Approval Letter of Sole Source Aquifer Review

Appendix C - Agency Correspondence During the Draft EA 30-Day Comment Period
# LIST OF EXHIBITS

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-1</td>
<td>Project Location Map</td>
<td>I-2</td>
</tr>
<tr>
<td>I-2</td>
<td>Project Vicinity Map</td>
<td>I-3</td>
</tr>
<tr>
<td>I-3</td>
<td>Existing Conditions - Inadequate Drainage System</td>
<td>I-6</td>
</tr>
<tr>
<td>I-4</td>
<td>Existing Conditions - Inadequate Street Lighting</td>
<td>I-7</td>
</tr>
<tr>
<td>I-5</td>
<td>Typical Road Section for the Proposed Action</td>
<td>I-9</td>
</tr>
<tr>
<td>I-6</td>
<td>General Plan</td>
<td>I-11 to I-14</td>
</tr>
<tr>
<td>II-1</td>
<td>Typical Road Sections for Puuloa Road Widening Alternative - Option No. 2</td>
<td>II-3</td>
</tr>
<tr>
<td>II-2</td>
<td>Typical Road Sections for Puuloa Road Widening Alternative - Option No. 3</td>
<td>II-5</td>
</tr>
<tr>
<td>III-1</td>
<td>Geologic Map</td>
<td>III-2</td>
</tr>
<tr>
<td>III-2</td>
<td>Southern Oahu Sole Source Aquifer Designated Boundaries</td>
<td>III-4</td>
</tr>
<tr>
<td>III-3</td>
<td>Honolulu District of the SOBA</td>
<td>III-5</td>
</tr>
<tr>
<td>III-4</td>
<td>USGS Map - Location of Surface Waters</td>
<td>III-6</td>
</tr>
<tr>
<td>III-5</td>
<td>Flood Insurance Rate Map</td>
<td>III-9</td>
</tr>
<tr>
<td>III-6</td>
<td>Zoning Map</td>
<td>III-15</td>
</tr>
<tr>
<td>III-7</td>
<td>Existing Average Daily Traffic</td>
<td>III-18</td>
</tr>
<tr>
<td>III-8</td>
<td>Existing LOS During Morning Peak Hour of Traffic</td>
<td>III-19</td>
</tr>
<tr>
<td>III-9</td>
<td>Existing LOS During Afternoon Peak Hour of Traffic</td>
<td>III-20</td>
</tr>
<tr>
<td>IV-1</td>
<td>Locations Where Noise Abatement Criteria is Expected to be Exceeded</td>
<td>IV-9</td>
</tr>
<tr>
<td></td>
<td>(Ewa Side of Puuloa Road R-O-W)</td>
<td></td>
</tr>
<tr>
<td>IV-2</td>
<td>Location Where Noise Abatement Criteria is Expected to be Exceeded</td>
<td>IV-12</td>
</tr>
<tr>
<td></td>
<td>(Diamond Head Side of Puuloa Road R-O-W)</td>
<td></td>
</tr>
<tr>
<td>IV-3</td>
<td>Year 2016 Average Daily Traffic</td>
<td>IV-17</td>
</tr>
<tr>
<td>IV-4</td>
<td>Year 2016 LOS During Morning Peak Hour of Traffic</td>
<td>IV-18</td>
</tr>
<tr>
<td>IV-5</td>
<td>Year 2016 LOS During Afternoon Peak Hour of Traffic</td>
<td>IV-19</td>
</tr>
<tr>
<td>Table</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>III-1</td>
<td>Existing (Year 1996) Traffic Noise Levels Along the Puuloa Road</td>
<td>III-10</td>
</tr>
<tr>
<td>III-2</td>
<td>FHWA and HDOT Noise Abatement Criteria</td>
<td>III-10</td>
</tr>
<tr>
<td>IV-1</td>
<td>Comparison of Existing (Year 1996) and Future (Year 2016) Traffic Noise Levels Along the Puuloa Road Project Route</td>
<td>IV-8</td>
</tr>
</tbody>
</table>
I. PURPOSE AND NEED FOR ACTION

A. Purpose

The purpose of the proposed action is to complete the portion of Pualoa Road corridor to its planned function as specified in the 2020 Oahu Regional Transportation Plan which recommends the widening of Pualoa Road from Kamehameha Highway to Salt Lake Boulevard (Kaku & Associates, 1995). The objective of this plan is to identify short range and long range priority projects that will contribute to the development of an efficient, intermodal transportation system for Oahu. According to the plan, Pualoa Road is considered to be a main roadway that is designated as a “baseline project” slated in the 1995-2000 list of State projects.

The proposed action would improve the Pualoa Road corridor from Salt Lake Boulevard to Kamehameha Highway as shown in Exhibits I-1 and I-2. The proposed project will widen Pualoa Road from a two lane facility to a five lane facility that includes two lanes on the mauka-bound (north-bound) side, and three lanes on the makai-bound (south-bound) side. Dedicated left turn lanes on the makai-bound Pualoa Road will also be provided for improved access to the existing side streets. In addition, bike lanes, sidewalks, street lighting, landscaping, bus pull-outs, and an improved drainage system will be installed along the Pualoa Road project route.

The addition of the bike lanes also meet the recommendations of the Bike Plan Hawaii Master Plan, dated April 1994. The objective of this bike plan is to serve as a guide for the implementation of bikeways in the State of Hawaii. The bikeway along Pualoa Road from Kamehameha Highway to Salt Lake Boulevard has been identified as a priority bikeway project on the island of Oahu (State Department of Transportation, 1994).

B. Project Need

Improvements to Pualoa Road are warranted due to the substandard features of the existing two-lane roadway. In addition, the proposed sidewalks are needed to improve pedestrian safety along the roadway and to comply with the requirements of the American with Disabilities Act (ADA). The development of residential subdivisions, schools, shopping centers, churches and recreational facilities since the inception of Pualoa Road has resulted in an increase of traffic volume in the area. Congestion during peak traffic hours mainly occurs near the intersections of makai-bound Pualoa Road with the side streets that lead to the Mapunapuna industrial area since no exclusive left turn lanes currently exist.
FEDERAL AID INTERSTATE PROJECTS PREVIOUSLY CONSTRUCTED OR UNDER CONSTRUCTION

PROJECT LOCATION

PROJECT LOCATION MAP

<table>
<thead>
<tr>
<th>Project: Puuoloa Road Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamehameha Highway to Salt Lake Boulevard</td>
</tr>
<tr>
<td>Honolulu, Oahu, Hawaii</td>
</tr>
<tr>
<td>Federal Aid Project No. STP - 7310(1)</td>
</tr>
</tbody>
</table>

EXHIBIT I-1
PROJECT LIMITS

MOANALUA STREAM

KAMEHAMEHA HIGHWAY

KAäl STREET

MAPUNAPUNA STREET

AHUA STREET

AHUMAULOA STREET

KAKOL STREET

PUULOA ROAD

KAAIHAKU STREET

MOANAULOA STREET

PAA STREET

PUULOA INTERCHANGE

SCALE IN HUNDRED FEET

PROJECT VICINITY MAP

Project: Puuola Road Improvements
Kamehameha Highway to Salt Lake Boulevard
Honolulu, Oahu, Hawaii
Federal Aid Project No. STP - 7310(1)

EXHIBIT

I-2
According to 1996 data from the Hawaii State Department of Transportation (HDOT), Highways Division, the existing average daily traffic (ADT) volumes on Puuloa Road ranged from approximately 22,300 vehicles per day (vpd) to 22,700 vpd. Recent field investigations conducted for the proposed project showed the number of vehicles traveling on Puuloa Road to be between 1,500 vehicles per hour (vph) and 1,700 vph during both the morning and afternoon peak hours of traffic.

Puuloa Road’s Level of Service (LOS) was also evaluated in a traffic study conducted by the Traffic Management Consultant. LOS ratings range from the highest level, “A” (denoting satisfactory free-flowing conditions) to the lowest level, “F” (denoting an unsatisfactory condition, volumes below capacity, frequent interruptions and breakdown of flow). The intersection of Puuloa Road with Salt Lake Boulevard/Pukoko Street was found to operate at an overall LOS “D,” (limited freedom for driver maneuverability while operating speeds are still tolerable) during the peak morning hour of traffic, and LOS “E” (unstable flow conditions) during the afternoon peak hour of traffic. Left turn movements from the intersections of Mokumoa Street and Mapunapuna Place onto Puuloa Road were determined to have a LOS “F” rating during both the peak morning and peak afternoon hours of traffic.

The design year selected for the proposed improvements to Puuloa Road was 2016. The ADT on Puuloa Road was forecasted to be approximately 23,500 vpd and the design hourly volume was projected at 2,465 vph, total for both directions. The projected morning peak hour of traffic at the intersection of Puuloa Road with Salt Lake Boulevard / Pukoko Street is expected to operate at an overall LOS “E,” while the projected afternoon peak hour of traffic is forecasted to operate at an overall LOS “F.” Left turn movements from the intersections of Mokumoa Street and Mapunapuna Place onto Puuloa Road are still projected to operate and LOS “F” during both the peak morning and peak afternoon hours of traffic.

The proposed project improves the overall access between the airport area and Moanalua Freeway. Intersections along Puuloa Road currently have unsatisfactory LOS ratings during both morning and afternoon peak traffic hours. Since projected traffic demands are expected to increase, congestion and traffic problems along Puuloa Road would only worsen if no action is taken to improve the existing conditions. Additional improvements along Puuloa Road will be needed in the near future to mitigate peak hour congestion that is projected for the year 2016.

Drainage improvements are needed due to the inadequacy of the existing drainage system along Puuloa Road. Heavy rain events often result in flooding of portions
of the roadway as shown in Exhibit I-3. The drainage improvements will provide enhanced safety for motorists and pedestrians by reducing the potential for flooding. Inadequate lighting also warrants the need to improve the street lighting system along the project route of Puuloa Road as shown in Exhibit I-4.

C. Existing Conditions

Puuloa Road was originally constructed in 1947 and currently serves as a minor arterial roadway connecting Moanalua Road to Kamehameha Highway, providing access to the Mapunapuna industrial area and the Salt Lake residential area. The existing design and posted speeds are 40 miles per hour (mph) and 35 mph, respectively.

Puuloa Road is fully channelized and signalized at the four-legged intersection with Salt Lake Boulevard and Puukolua Street. Mauka of Salt Lake Boulevard/Pukolua Street, Puuloa Road is an eight-lane divided roadway. Between Salt Lake Boulevard/Pukolua Street and Kamehameha Highway (project route), Puuloa Road is a two-way, two-lane roadway without provisions for exclusive turning lanes at the side streets. The intersections of Puuloa Road and Mokumoa Road, Mapunapuna Place, and Kilihau Street are all currently unsignalized.

There are currently no ADA provisions, sidewalks, bike lanes, or street lights along the project route of Puuloa Road. The existing pavement along this two lane roadway is worn and contains potholes, while the bus stops are currently located on unpaved shoulders. The aesthetic quality of the existing roadway is also poor and lacks any planned landscaping along both the Ewa (west) and Diamond Head (east) sides.

D. Proposed Action

The proposed project is located in the Mapunapuna area of Honolulu, on the island of Oahu as previously shown in Exhibits I-1 and I-2. The limits of the project route along Puuloa Road extend from Salt Lake Boulevard on the mauka side to Kamehameha Highway on the makai side and is approximately 0.74 miles in length. Reference Tax Map Keys (TMK) are 1-1-05, 1-1-07, & 1-1-10.

Physical improvements of the project include provisions for: new pavement structure, sidewalks, curb and gutters, traffic control systems (new duct bank lines to be installed beneath Puuloa Road for future traffic control systems), bike lanes,
street lighting, retaining walls, a noise attenuation barrier, landscaping, utility modifications, bus pull-outs, and a storm drainage system. The proposed design and posted speed limits will remain at 40 mph and 35 mph, respectively. A typical road section for the proposed project is shown in Exhibit I-5. Details of the proposed improvements to Puuloa Road are further discussed in the subsequent sections.

An abandoned Fluoridation Building on the Navy property on the Ewa side of Puuloa Road (approximate Sta. 27+00) will be demolished and removed to accommodate the grading required behind the proposed retaining wall. Demolition of the building has been coordinated with the Navy.

1. Road Widening

Puuloa Road will be widened from a two-lane facility to a five-lane facility that consists of two 12-foot mauka-bound lanes and three 12-foot makai-bound lanes. The proposed project involves widening Puuloa Road (from Salt Lake Boulevard to Kamehameha Highway) to a five-lane facility which includes two mauka-bound lanes and three makai-bound lanes. A raised landscaped median would separate the makai-bound and mauka-bound lanes. 8-foot wide concrete sidewalks as well as 6-foot wide bicycle lanes will be provided on each side of the road. The design is based on providing a desirable level of service and will control the access to the arterial roadway.

2. Intersections

The mauka-bound approach of Puuloa Road at the intersection with Salt Lake Boulevard/Pukoloa Road currently has an exclusive left turn lane, two through-only lanes and an exclusive right turn lane. The proposed improvements will provide one through-only lane and one shared through/right turn lane. In addition, the existing left turn lane onto Salt Lake Boulevard will be extended to accommodate traffic demands.

Exclusive left turn lanes will be provided along the makai-bound approach of Puuloa Road for access onto Mokumoa Street, and Mapunapuna Place.

The mauka-bound approach of Puuloa Road will be widened to two lanes at the intersection of Puuloa Road and Kamehameha Highway.
**TYPICAL ROAD SECTION FOR THE PROPOSED ACTION**

**Project:**  
Puuloa Road Improvements  
Kamehameha Highway to Salt Lake Boulevard  
Honolulu, Oahu, Hawaii  
Federal Aid Project No. STP - 7310(1)
3. Bicycle Facility

A 6-foot wide bicycle lane will be provided adjacent to the curb on each side of Puuolao Road. These proposed bike lanes will provide continuity for bicyclists traveling between Kamehameha Highway and Salt Lake Boulevard.

4. Street Lighting

The project route currently lacks street lighting along Puuolao Road. Thus, street lights along both the Ewa and Diamond Head sides of Puuolao Road will be provided at alternately spaced intervals, approximately 165 feet apart. The proposed light poles will have a mounting height of 35 feet with a combination of 10-foot bracket arms to be installed on the Ewa side, and 8-foot bracket arms to be installed on the Diamond Head side of the road. Glare shields will be used where appropriate to minimize illumination to the Navy’s adjacent Radford Terrace housing area on the Ewa side of the road.

5. Retaining Walls

The proposed road widening improvements will also require retaining walls on the Ewa side of Puuolao Road to support the cut slope or the roadway embankment. One of the options for the retaining wall is to construct the wall height following the contour of the cut slope at the right-of-way line. This option would involve the construction of wall heights up to approximately 20 feet in some sections.

Results from a recent project information meeting with the Alaimau/Salt Lake/Foster Village Neighborhood Board in March 1998 favored the option of a continuous-height retaining wall not more than eight feet in height with trees and planters. However, this option will require grading onto Navy property. Consequently, the transfer of lands from the Navy to the State (for grading purposes) is currently being coordinated. The land to be transferred is approximately 2.65 acres and is presently unused land that is overgrown with vegetation. The limits of transfer (new R/W) will be at varying offsets (10’ - 60’) from the existing R/W. See Exhibit I-6 for new R/W location. An Environmental Baseline Survey (EBS) is being prepared to identify the suitability of the land for transfer from the Navy to the State Department of Transportation. The EBS consists of a review of relevant historical and regulatory records, interviews with Navy and civilian personnel, and site reconnaissance. Soil sampling and testing was conducted to evaluate potential contamination from drums encountered during the reconnaissance in a vegetated ditch. PCBs and heavy oil range
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**PLAN**

SCALE: 1" = 40'
PLANT
SCALE: 1" = 40'

LIMITS OF GRAADING

DAVID'S CUSTOM ROOFING
A-1 BODY & FENDER SHOP
STAR COMM. SPORTS RADIO
KOWANS AUTO BODY

ALOHA RECYCLING
BIG KAHUNAS

EXISTING R/W

TWO LANE ROADWAY

20+00 (SEE SHEET B)

MATCH LINE STA.

U.S. NAVY
TMC: 1-1-10: 17

THE GAS COMPANY
TMC: 1-1-10: 20

M 1-1-05: 31
FANTASY AUTO BODY

M 1-1-05: 34
DANNY'S AIRLESS EQUIPMENT, INC.

M 1-1-05: 35
MOBIL AIR HAWAII

M 1-1-05: 36
SPORT BIKE HAWAII

M 1-1-05: 37
MOBIL AIR HAWAII

8-6

25
petroleum were reported in all samples; the oil and PCB contamination is distributed in such a way that it does not appear to be related to the drums and is more likely associated with historical spraying of used oil along the roadside for weed and dust control. Concentrations of PCBs, arsenic and lead in some of the soil samples exceed Preliminary Remediation Goals (PRGs) set by the EPA for these analytes. A risk assessment, conducted as part of the EBS, indicates that exposure pathways will be limited during and following construction, and that the contaminants do not provide an unacceptable risk to potentially exposed populations.

6. Noise Attenuation Barrier

Since the proposed improvements are expected to increase the traffic flow along Puuoloa Road, higher levels of traffic noise should also be anticipated. An acoustic study done for the project route by Y. Ebisu & Associates recommended noise attenuation measures which included a 5-foot high wall to be constructed along a portion of the Ewa side of the Puuoloa Road right-of-way adjacent to the existing Navy housing area. This 5-foot high noise attenuation wall would be of a constant height and would serve to shield excessive traffic noise from the adjacent playground in the Radford Terrace housing area.

7. Landscaping

Landscaping is proposed within the raised median and along the utility strip located on the Diamond Head side of the Puuoloa Road right-of-way, between the back of the sidewalk and property line. In addition, landscaping is proposed along the Ewa side of Puuoloa Road where the 8-foot high retaining wall and the 5-foot high noise attenuation wall will be constructed. Planters with Ficus vines will be placed intermittently to enhance the aesthetic quality of the retaining wall. These vines will eventually cover the entire wall. Landscaping beyond the walls along the slopes where grading is proposed on Navy lands will include grassed ground cover, native shrubs, and trees.

8. Utility Relocation

The existing utility lines owned by the Hawaiian Electric Company (HECO), Oceanic Cable, and GTE Hawaiian Tel are currently suspended on overhead utility poles on the Diamond Head side of Puuoloa Road. Due to cost constraints, management concerns and Public Utilities Commission issues, HECO and Oceanic Cable will remain overhead and relocate their
lines to a new utility corridor located on the Diamond Head side of Pualoa Road. The cost increase to install all utilities underground would exceed the State and Federal funds. A combination of new steel and wood poles will replace the existing wooden poles. Steel poles will be used along the curves so that guy poles would no longer be required. Oceanic Cable may also require the installation of two additional wooden poles, one at each end of the Pualoa Road project route, to transition from overhead lines to existing underground lines.

At the Aliamanu/Salt Lake/ Foster Village Neighborhood Board #18 meeting held on March 11, 1999, the board unanimously voted that all utilities on the project be undergrounded even if it results in potential delays and additional costs. Additionally, The Outdoor Circle (a non-profit organization) requested documentation from the State Department of Transportation (HDOT) citing specific findings for not installing utility lines underground. In response, HDOT stated that funding concerns is the primary reason for not undergrounding the utility lines. HDOT also cited that the proposed relocation of the utility lines from overhead to overhead is not expected to decrease the safety of motorist along Pualoa Road (see Appendix A - Correspondence with The Outdoor Circle and the Aliamanu/Salt Lake/ Foster Village Neighborhood Board #18).

GTE Hawaiian Tel proposes to relocate their existing overhead utility lines to a new underground system along the Ewa side of the Pualoa Road. GTE has determined the relocation of their existing facilities to a new overhead location was not feasible due to the following reasons:

- The replacement/repair of existing cables is virtually impossible since the current loading on the existing pole is already maximized.
- The relocation of the existing cables will require a very time consuming phased construction method.
- Guying across Pualoa road would be necessary for intermediate poles needed to augment the proposed pole spacing.
- Extensive labor will be required to cut out slack in the existing cables caused by the realignment of the pole line and additional time will be required to coordinate this effort with all affected customers with high capacity data services.
- Future growth requirements cannot be accommodated.
The Public Utilities Commission has approved GTE Hawaiian Tel's application for the Pualoa Road improvement project per Decision and Order No. 17082. Thus, GTE Hawaiian Tel will participate in funding the undergrounding of the affected telephone facilities.

9. Bus Stops / Pull-Outs

There are currently two existing bus stops along the makai-bound lane on the Ewa side of Pualoa Road, located across from the E.L. Pacific and Close Electric buildings, respectively. These two bus stops will be set back further toward the right-of-way line as part of the proposed project. Since the makai-bound lane will be widened to three lanes, no space will be available to construct bus pull-outs. Instead, the bus will use the third lane to load and unload passengers.

The mauka-bound lane of Pualoa Road currently has three bus stops fronting the Grabber Pacific Impact Hawaii, Bank of Hawaii and Nissan Motor Corporation building, respectively. The bus stop in front of the Grabber Pacific Impact Hawaii building will be relocated approximately 920 feet makai of the existing location to a new bus pull-out in front of the Delux Sheet Metal Work, Incorporated building. The bus stops in front of the Bank of Hawaii building and in front of the Nissan Motor Corporation building will be transformed into new bus pull-out areas.

10. Storm Drainage

The proposed drainage improvements along the Pualoa Road project route will provide adequate capacity for a 25 year storm, with conditions in accordance with HDOE's design criteria. The system will consist of underground drain lines ranging from 18" to 72" in diameter that would connect to the City's existing Mapunupuna drainage system. A cutoff ditch will also be constructed along the Ewa side of the Pualoa Road right-of-way line to intercept runoff from the adjacent Radford Terrace housing area. The ditch will convey these flows to the improved drainage system along Pualoa Road which connects to existing City drainage systems. No adverse impacts to the City's existing drainage system in the Mapunupuna area are expected from the proposed project.

The Pualoa Road drainage improvements assume that runoff from the adjacent Navy lands will remain constant. An increase in runoff flows from the Navy lands may negatively impact the Pualoa Road drainage system as
well as the connecting downstream systems. Initial discussions with the Navy’s Housing section have indicated that no new projects in the area are anticipated in the near future that would create additional runoff flows. However, should an increase of runoff occur, a detailed hydraulic study should be completed to verify the impacts to the adjoining system.

E. Development Schedule and Cost

1. Project Costs and Implementation

Probable Construction Cost Estimate for the three widening options considered are estimated to be between $16,000,000 and $22,000,000.

2. Project Funding

The proposed action is planned to be constructed with the assistance of 80% federal TEA-21 appropriations with approximately 20% State matching funds.

3. Project Schedule

- Complete Design - August 2000
- Advertise for Bids - February 2001
- Start Construction - July 2001
- Project Completion - June 2003

F. List of Potential Permits and Approvals

1. Federal Government

Department of Navy:
- Finding of Suitability to Transfer (FOST)
- Construction Plan Approval

2. State Government

Department of Health:
- Community Noise Permit for Construction Activities
- NPDES Construction Dewatering Permit
- NPDES Stormwater Construction Permit

Department of Transportation:
- Construction Plan Approval
3. City and County of Honolulu

Department of Planning and Permitting
  • Construction Plan Approval
  • Grading Permit

Department of Transportation Services
  • Street Usage Permit

Board of Water Supply
  • Construction Plan Approval
II. ALTERNATIVES CONSIDERED

The alternatives to the proposed action include the "No Action," "Transportation System Management," and "Puuloa Road Widening" alternatives. The Puuloa Road Widening Alternative also includes three different options regarding the proposed bicycle facility. All three alternatives are discussed in the following sections.

A. No Action Alternative

The "No Action" alternative would allow traffic congestion along Puuloa Road to worsen thereby adversely impacting the environment as well as residential and business areas along the Puuloa Road project route. Traffic is expected to increase along Puuloa Road between Kamehameha Highway and Salt Lake Boulevard due to the absence of exclusive left-turn lanes along the makai-bound section of Puuloa Road; the current use of the right-of-way on the Ewa side for parking; and the unauthorized access to properties within the Mapunapuna Industrial subdivision. An increase in traffic would consequently increase congestion in the area and time lost to motorists would constitute a negative impact. Furthermore, the substandard conditions of the existing roadway would adversely impact the safety of the motorists, pedestrians, and bicycle users. Drainage problems that are currently experienced will also persist due to the inadequate roadway drainage system along Puuloa Road.

The "No Action" alternative is also not feasible since the widening of Puuloa Road between Kamehameha Highway and Salt Lake Boulevard has already been planned in the 2020 Oahu Regional Transportation Plan by the Oahu Metropolitan Planning Organization. Support for the proposed improvements by the local community was exhibited at a project information meeting with the Aliamanu/Salt Lake/Foster Village Neighborhood Board in March of 1998.

B. Transportation System Management Alternative

Transportation System Management (TSM) applies to techniques focused at increasing the efficiency and capacity of existing facilities and rights of way (McShane et al., 1990). The TSM alternative would seek methods of making better use of the existing Puuloa roadway by measures such as traffic signal timing, car pooling, contraflow lanes, exclusive bus lanes, etc. The TSM alternative is not applicable to the proposed project since the purpose of the improvements is to complete the portion of Puuloa Road to its planned function as identified in the 2020 Oahu Regional Transportation Plan. In addition, the TSM alternative is not
feasible for the existing Puuola roadway since the implementation of such measures would not adequately improve the current roadway deficiencies.

C. Puuola Road Widening Alternative

The Puuola Road Widening Alternative includes three different options regarding the bicycle facility to be installed along the project route. These three options all include provisions for a multi-lane roadway (two mauka-bound travel lanes and three makai-bound travel lanes) and the same physical improvements for the proposed action as previously discussed in Section I (D). However, the basic difference of these three options is the location and type of bicycle facility to be provided that will connect the existing bike lanes from Salt Lake Boulevard to Kamehameha Highway.

1. Option No. 1

Option No. 1 is the preferred alternative / proposed action and involves the construction of a 6-foot wide bike lane on both the makai-bound and mauka-bound sides of Puuola Road. These bike lanes will be located adjacent to the travel way closest to the curb/sidewalk as previously shown in Exhibit I-5.

2. Option No. 2

Option No. 2 proposes a two-way bike path located on the Ewa side of Puuola Road. Pedestrian traffic would be restricted to the Diamond Head side of Puuola Road as illustrated in Exhibit II-1.

The environmental impacts of Option No. 2 are similar to the impacts of the proposed action. However, the location of the bicycle facility in Option No. 2 was not selected for the following reasons:

• Pedestrian use would be restricted to the Diamond Head side of Puuola Road.

• Poses conflict with bus passengers at bus stop.

• Transition to the existing bicycle route on Kamehameha Highway would be awkward and would conflict with pedestrian traffic near the intersection.
3. Option No. 3

Option No. 3 proposes a combination bike-pedestrian facility on each side of Puuola Road. Both bicyclists and pedestrians would share the same travel way as shown in Exhibit II-2.

Option No. 3 has similar environmental impacts as the proposed action. However, the location of the bicycle facility in Option No. 3 was discounted from further consideration for the following reasons:

- Poses conflict with pedestrian traffic.
- Driveways on the Diamond Head side pose a hazard to the bicycle traffic.

D. Preferred Alternative

Option No. 1 of the Puuola Widening Alternative has been considered by DOT-Highways Division to be the preferred alternative for the widening of Puuola Road between Kamehameha Highway and Salt Lake Boulevard. Although the bike lane is located adjacent to the vehicular travel lane, it minimizes the undesirable conflict between bike and pedestrian traffic as in Options No. 2 & 3.
SECTION @ BUS TURN-OUT & BUS STOP

SECTION @ LEFT TURN LANE

TYPICAL ROAD SECTIONS FOR PUULOA ROAD WIDENING ALTERNATIVE - OPTION NO. 3

Project: Puuola Road Improvements
Kamehameha Highway to Salt Lake Boulevard
Honolulu, Oahu, Hawaii
Federal Aid Project No. STP - 7310(1)
III. ENVIRONMENTAL SETTING

A. Geology / Soils

The project is located within Oahu’s southern coastal plain area. The sub-strata is composed mainly of consolidated calcareous marine sediment that are chiefly emerged coral reefs. Deposits resemble the various types of present calcareous beaches in the lithified form. The soil types that overlay the calcareous marine sediment deposits within the project area include Fill Land, mixed (FL), Ke'au stony clay 2 to 6 percent slopes (KmaB), Ewa silty clay loam, moderately shallow, 0 to 2 percent slopes (EmA), and Kawaihapa clay loam, 2 to 6 percent slopes (KIB) as shown in Exhibit III-1.

Mixed Fill Land is the most prevalent soil type within the project area and consists of material dredged from the ocean or hauled from nearby areas and other sources. Ke'au stony clay, and Ewa silty clay loam both overlay a portion of the project area just mauka of the Puuola Road / Kamehameha Highway intersection. The Ke'au stony clay is slightly alkaline in the surface and subsoil layers and moderately alkaline in the substratum. These soils developed in alluvium deposited over reef limestone or consolidated coral sand and is used for sugarcane and pasture lands. Ewa silty clay loam soils were developed in alluvium derived from basic igneous rock and are also commonly used for sugar cane, truck crops and pasture lands. Runoff for Ke'au stony clay and Ewa silty clay loam soils is considered to be slow and the erosion hazard for both soil types is considered to be no more than slight.

Kawaihapa stony clay overlays the mauka end of the project route, including the intersection of Puuola Road and Salt Lake Boulevard. Kawaihapa stony clay soils developed in alluvium derived from basic igneous rock located in humid uplands. Similar to the Ewa silty clay loam, these soils are also used for sugar cane, truck crops and pasture lands. Runoff over Kawaihapa stony clay soils is considered to be slow and the erosion hazard is slight.

The Ewa side of Puuola Road consists of slightly permeable volcanic tuff that is currently exposed. The soil is generally underlain by an intermittent layer of surface fill over volcanic cinders and variously weathered tuff (welded ash cinders). Thin layers of alluvial (water-deposited) soils are present between the fill and the underlying cinders and/or tuff in the southern third of the road segment. Lagoonal soils underlie the surface fill near the southern end of the project. On the Diamond Head side of the Puuola Road project route, the volcanic tuff is overlaid with Makalapa clay (MdB) surface soils (Geologic and Topographic Map of the Island of Oahu; Geology by Harold K. Stream, 1930-32; prepared in cooperation
with the U.S. Geological Survey, 1938). Rock Land (rRK), or areas where exposed rock covers 25 to 90 percent of the surface, is also found on the Diamond Head side of the project route.

B. Rainfall

The annual rainfall amounts to 20 to 40 inches in the Mapunapuna area. Most of the rain occurs between November and April, while dry periods generally occur during the summer months.

C. Hydrology / Water Resource

The Southern Oahu Basal Aquifer (SOBA) is designated as a sole or principal aquifer by the U.S. Environmental Protection Agency (EPA) and is shown in Exhibit III-2. The proposed project lies within the Honolulu district of the SOBA as shown in Exhibit III-3 and is underlain with caprock. Water in the caprock is brackish and not suitable for potable water development. The caprock constitutes a barrier that retards the seaward flow of groundwater and contains large quantities of water that accumulates from rainfall, return irrigation, and leakage from the artesian portion of the basaltic aquifer. Water levels are one to three feet above sea level in the coastal caprock area.

Caprock water is generally of fair to good quality but non-potable because of its high chloride content and is developed for irrigation and equipment purposes. In Honolulu, caprock water has been developed for irrigation and equipment cooling (U.S. Geological Survey - Water Resources Division, 1991).

D. Surface Waters

The project area for the Puuola Road improvements is located in the vicinity of Moanalua Stream as shown in Exhibit III-4. Moanalua Stream is considered to be a navigable water by the U.S. Coast Guard and discharges into Keahi Lagoon. The proposed drainage system would be connected to the existing City drainage network in the Mapunapuna area which ultimately discharges into Moanalua Stream.

E. Wetlands

According to the U.S. Fish and Wildlife Service, the Puuola Road project site is not located in a wetland area.
SOUTHERN OAHU BASAL AQUIFER (SOBA)

SOURCE: DEPT. OF HEALTH, SAFE DRINKING WATER BRANCH

SOUTHERN OAHU SOLE SOURCE AQUIFER DESIGNATED BOUNDARIES

<table>
<thead>
<tr>
<th>Project</th>
<th>EXHIBIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puulong Road Improvements</td>
<td>III-2</td>
</tr>
<tr>
<td>Kamehameha Highway to Salt Lake Boulevard</td>
<td></td>
</tr>
<tr>
<td>Honolulu, Oahu, Hawaii</td>
<td></td>
</tr>
<tr>
<td>Federal Aid Project No. STP - 7310(1)</td>
<td></td>
</tr>
</tbody>
</table>
HONOLULU DISTRICT OF THE SOBA

Project:
Puuloa Road Improvements
Kamehameha Highway to Salt Lake Boulevard
Honolulu, Oahu, Hawaii
Federal Aid Project No. STP - 7310(1)

EXHIBIT

III-3
F. Coastal Zone Management (CZM) Areas

(1) Recreational Resources - No recreational resources will be affected by this project.

(2) Historic Resources - No historic or archaeological resources are believed to be affected by the project. Should any be encountered during the course of the project, proper procedures will be followed to ensure the preservation of those resources.

(3) Scenic and Open Space Resources - The design of the Puuoloa Road Improvements attempts to minimize the unavoidable visual impacts of a road widening project. The proposed retaining and noise attenuation walls along the Ewa side of Puuoloa Road will be eventually covered with vines to reduce their visual impact. The Navy land beyond the proposed retaining walls will be graded to create pleasant slopes and landscaped with grassed ground cover, native shrubs, and trees.

(4) Coastal Ecosystems - No coastal ecosystems will be affected by this project.

(5) Economic Uses - The widening of Puuoloa Road will enhance the traffic flow in the Mapunapuna industrial area and improve the efficiency of activity in the area.

(6) Coastal Hazards - No coastal hazards will be developed by this project.

(7) Managing Development - The Puuoloa Road Widening Project will not involve any coastal development.

(8) Public Participation - Presentations at Neighborhood Board meetings have not exposed any coastal issues or conflicts with the public.

(9) Beach Protection - No public beaches will be affected by this project

(10) Marine Resources - No marine resources will be affected by this project.

G. Flood Plains

According to the Federal Emergency Management Agency (FEMA) 1990 Flood Insurance Rate Maps (FIRM) the middle section of the proposed project, approximately between Mapunapuna Place and Mokumoa Street, lies within the shaded flood area designated as Zone X (Areas of 500-year flood; areas of 100-year flood with average depths of less than 1-foot or with drainage areas of less than 1 square mile; and areas protected by levees from 100-year flood). The remaining areas
of the project route are located within the unshaded area of Zone X (Areas determined to be outside 500-year flood plain). The FIRM map for the project site is shown in Exhibit III-5 (FEMA Community Panel No. 150001 0115C).

II. Air Quality

The State of Hawaii, Department of Health monitors air quality at various locations around Oahu. The four monitoring stations for the project area are located as follows:

<table>
<thead>
<tr>
<th>Station</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearl City</td>
<td>864th Street</td>
</tr>
<tr>
<td>Liliha</td>
<td>1486 Aala Street</td>
</tr>
<tr>
<td>Honolulu</td>
<td>1250 Punchbowl Street</td>
</tr>
<tr>
<td>Waikiki</td>
<td>2132 Kalakaua Avenue</td>
</tr>
</tbody>
</table>

Neither the State nor the Federal carbon monoxide, particulate matter, sulfur dioxide, or lead standards have been exceeded in the past five years.

I. Noise

The primary source of noise in the project area is the vehicular traffic traveling on Pualoa Road and the local side streets of the Mapunapuna Industrial area. Areas susceptible to traffic noise include the commercial and light industrial establishments located along the Diamond Head side of the Pualoa Road project route, and the Radford Terrace housing area located on the Ewa side of the roadway.

Existing traffic and background ambient noise levels were measured for an acoustical study done for the project site from Salt Lake Boulevard to Kilihau Street in July of 1997. The traffic noise levels measured were used to calibrate a traffic-noise model which determined the Base Year and Future Year to be 1996, and 2016, respectively. The existing traffic noise levels (1996) along the project corridor are shown in Table III-1.
### TABLE III-1

EXISTING (YEAR 1996) TRAFFIC NOISE LEVELS ALONG THE PUULOA ROAD PROJECT ROUTE

(Morning Peak Hour of Traffic)

<table>
<thead>
<tr>
<th>PUULOA ROAD SEGMENT</th>
<th>SPEED (mph)</th>
<th>VEHICLE MIX* (%)</th>
<th>TOTAL VPH (vph)</th>
<th>Leq @ 100 ft (dB)</th>
<th>DISTANCE (ft) FROM CENTERLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt Lake Blvd. to Mokumoa St.</td>
<td>40</td>
<td>91 / 5 / 4</td>
<td>1,689</td>
<td>65.9</td>
<td>66 Leq 85 46 39</td>
</tr>
<tr>
<td>Mokumoa St. to Mapunapuna Pl.</td>
<td>40</td>
<td>91 / 5 / 4</td>
<td>1,550</td>
<td>65.5</td>
<td>67 Leq 80 43 37</td>
</tr>
<tr>
<td>Mapunapuna Pl. to Kilihau St.</td>
<td>40</td>
<td>91 / 5 / 4</td>
<td>1,602</td>
<td>65.7</td>
<td>71 Leq 82 34 38</td>
</tr>
</tbody>
</table>

* * vehicle mix denotes % automobiles / % medium trucks / % heavy trucks and buses
According to the findings of the acoustic study, existing traffic noise levels did not exceed FHWA and HDOT noise abatement criteria during the morning peak hour of traffic. Thus, no existing structure or land area was found to be adversely impacted by current traffic noise levels. FHWA and HDOT noise abatement criteria are shown in Table III-2 as follows:

<table>
<thead>
<tr>
<th>Activity Category</th>
<th>FHWA Leq (Exterior)</th>
<th>HDOT Leq (Exterior)</th>
<th>Description of Activity Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>57</td>
<td>56</td>
<td>Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the areas are to continue to serve their intended purpose.</td>
</tr>
<tr>
<td>B</td>
<td>67</td>
<td>66</td>
<td>Picnic areas, recreation areas, playgrounds, activity sports areas, parks, residences, motels, hotels, churches libraries, and hospitals.</td>
</tr>
<tr>
<td>C</td>
<td>72</td>
<td>71</td>
<td>Developed lands, properties, or activities not included in Categories A or B above.</td>
</tr>
<tr>
<td>D</td>
<td>--</td>
<td>--</td>
<td>Undeveloped lands</td>
</tr>
<tr>
<td>E</td>
<td>52</td>
<td>51</td>
<td>Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.</td>
</tr>
</tbody>
</table>

J. Aesthetic Quality

Because of the density of the buildings, the existing H-1 freeway viaduct and brush growth, there are no significant mountain or ocean views while traveling along Pualoa Road. Street parking also crowds the Pualoa road right-of-way, mainly during normal business hours.

The project route along Pualoa Road between Salt Lake Boulevard and Kamehameha Highway is currently lacking aesthetic quality. This section of roadway has no sidewalks or landscaping. The existing guy poles on the Ewa side tied to the utility poles on the Diamond Head side of the road further muddle the right-of-way.

During heavy storm events, the runoff tends to pond near the makai end of Pualoa Road. This large pool of water also contributes to the negative aesthetic quality along the existing roadway.
K. Flora

Since the proposed project area has already been extensively developed, no rare or endangered flora species are anticipated. Also, no “exceptional trees,” exist along the Puuola Road project route as defined by City Ordinances Numbers 78091 and 88-109, as amended.

Species of flora planted in the median and along either side of Puuola Road include the following:

In the median at the makai end of Puuola Road:

Naupaka shrubs. This is the only area with an irrigation system.

Diamond Head Side Puuola Road:

There are no endangered or threatened vegetation in the highway right-of-way. Few adjacent property owners have landscape strips planted with Wedilia ground cover and Hibiscus. There is also one large African Tulip tree on the makai end of Puuola Road.

Ewa Side of Puuola Road:

The most predominant vegetation is found here:

Large Trees:
- Monkeypod (Samanea Saman). There are approximately six Monkeypod trees located along the highway right-of-way or just within the adjacent Radford Terrace housing area on the makai end of Puuola Road.
- Kiawe (Prosopis Pallida). This is the most predominant vegetation within the highway right-of-way. There are approximately 20 to 30 trees varying in size from small to large.
- Chinese Banyan (Ficus Retusa). There is one large Chinese Banyan tree opposite of Mapunapuna Place.
- Opiuma (Pithecellobium Dulon). There are two Opiuma trees located on the makai end of Puuola Road.

Small Trees:
- Koa-Haole (Lelicanea Glaucu)
- Christmas-Berry (Schinus Terebinthifolius)
- Hau (Scaevola Frutescens)

These trees were growing in abundance along the length of the Ewa side of Puuola Road.
Shrubs and Ground Cover:

- Indian Pluchea (Indica). This is the most predominant shrub, especially in the mauka end of Puuloa Road.
- Ground cover consisted of a mixed assorted variety of weeds, grasses and brush. This was found throughout the length of the Ewa side of Puuloa Road and in some parts of the Diamond Head side.

Most of the vegetation, except for the Monkeypod, is probably the result of natural evolution.

L. Fauna

According to the U.S. Fish and Wildlife Service and the Nature Conservancy of Hawaii, the proposed project area lacks rare, threatened, or endangered species. Existing fauna species in the project area would most likely include mongoose, rats, field mice and feral cats.

M. Historic, Archaeological & Cultural Characteristics

According to records of the State Historic Preservation Division, the Mapunapuna Fishpond (State site 50-80-13-78) is located in the vicinity of the proposed project. However, this site has previously been in-filled and the surrounding area has been extensively developed.

N. Socio-economic Characteristics

Puuloa Road is located in the Mapunapuna Industrial Area and Salt Lake/Moanalua Neighborhood. The population on the Ewa side of Puuloa Road has increased from 3,109 in 1980 to 3,182 in 1990 (Census tract 69). Population on the Diamond Head side of Puuloa Road has increased from 0 in 1980 to 36 in 1990. Total occupied households in those areas have increased from 913 in 1980 to 926 in 1990. The average household size also increased from 3.4 in 1980 to 3.72 in 1990. According to the 1979 census tracts of the Department of Business and Economic Development, the average income was $14,766 and 8.3% of the residents were below the poverty level.
O. Land Use

The neighborhood on the Diamond Head (Mapuna puna) side of Puuloa Road is zoned for general industrial and community business use. There are also some restaurants and clubs in the area. The neighborhood on the Ewa side of Puuloa Road is predominantly zoned for military and federal preservation and consists mainly of the Radford Terrace housing complex. In addition, there are some businesses and restaurants near the Puuloa Road / Kamehameha Highway intersection.

The Ewa-Mauka area of the Salt Lake Boulevard / Puuloa Road intersection is zoned for residential and apartment use. The Moanalua High School and Moanalua Fire Station is also located in this area (Land Use Ordinance Zoning Map No. 6, Dept. of Land Utilization, 1992). The City and County of Honolulu Zoning Map for the project area has been included as Exhibit III-6.

On the Ewa side of Puuloa Road, an abandoned Fluoridation Building (on Navy property, approximate Sta. 27+00) will be demolished and removed to accommodate the grading required behind a proposed retaining wall. Demolition of the building has been coordinated with the Navy. The continuous-height retaining wall will require grading onto Navy property. Consequently, the transfer of lands from the Navy to the State (for grading purposes) is currently being coordinated. The land to be transferred is approximately 2.65 acres and is presently unused land that is overgrown with vegetation. The limits of transfer (new R/W) will be at varying offsets (10' - 60') from the existing R/W. See Exhibit I-6 for new R/W location.

An Environmental Baseline Survey (EBS) is being prepared to identify the suitability of the land for transfer from the Navy to the State Department of Transportation. The EBS consists of a review of relevant historical and regulatory records, interviews with Navy and civilian personnel, and site reconnaissance. Soil sampling and testing was conducted to evaluate potential contamination from drums encountered during the reconnaissance in a vegetated ditch. PCBs and heavy oil range petroleum were reported in all samples; the oil and PCB contamination is distributed in such a way that it does not appear to be related to the drums and is more likely associated with historical spraying of used oil along the roadside for weed and dust control. Concentrations of PCBs, arsenic and lead in a number of the soil samples exceed Preliminary Remediation Goals (PRGs) set by the EPA for these analyses. A risk assessment, conducted as part of the EBS, indicates that exposure pathways will be limited during and following construction, and that the contaminants do not provide an unacceptable risk to potentially exposed populations.
P. Direct Highway Access

Presently there are four (4) lots in the Mapunapuna Industrial Subdivision with permitted access to Puuloa Road. These parcels are as follows:

<table>
<thead>
<tr>
<th>TMK</th>
<th>Business Occupant</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) 1-1-05:21</td>
<td>Do-All Metal Works</td>
</tr>
<tr>
<td>b) 1-1-05:22</td>
<td>Likini Auto Repair</td>
</tr>
<tr>
<td>c) 1-1-05:31</td>
<td>Star Communication Sports Radio</td>
</tr>
<tr>
<td>d) 1-1-05:34</td>
<td>Aiea Recycling, Big Kahuna’s, and Kwon’s Auto Body</td>
</tr>
</tbody>
</table>

HDOT has a temporary access for TMK: 1-1-05:20 (El’s Auto Paint & Napa Auto Parts) and TMK: 1-1-05:19 (Sun Industries) due to the flooding that occurs on Mapunapuna Street during heavy storm events. The flooding inundates the only vehicular access to the businesses within TMK: 1-1-05:19 & 20. Access will be revoked when the Mapunapuna Street flooding problem is resolved by the City. No other properties fronting Puuloa Road are affected by the flooding on Mapunapuna Street.

All other parcels which currently have unauthorized access directly from Puuloa Road will not be provided with access following the proposed roadway improvements.

These parcels, which should be accessed via Mapunapuna Street are as follows:

<table>
<thead>
<tr>
<th>TMK</th>
<th>Business Occupant</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) 1-1-05:28</td>
<td>Close Electric Company</td>
</tr>
<tr>
<td>b) 1-1-05:29</td>
<td>Wasa Electric Company</td>
</tr>
<tr>
<td>c) 1-1-05:31</td>
<td>Fantasy Auto Body, A-1 Body Fender Shop,</td>
</tr>
<tr>
<td></td>
<td>&amp; David’s Custom Roofing</td>
</tr>
</tbody>
</table>

Q. Parking Within the Puuloa Road Right-of-Way

Presently, the unpaved portions within the Puuloa Road right-of-way is being utilized for parking private vehicles. Vehicles are parked both parallel and perpendicular to the Puuloa Road alignment in non-designated parking areas on both the Diamond Head and Ewa sides. The vehicles more than likely belong to people who work in the vicinity, possibly within the Mapunapuna Industrial subdivision.
The HDOT currently does not authorize parking on the Diamond Head side of the Puuloa Road right-of-way. Parking on the Ewa side of the roadway is unauthorized between the hours of 6 p.m. to 6 a.m.

R. Existing Utilities

Overhead electrical, cable and telephone lines owned by the Hawaiian Electric Company, Oceanic Cable, and GTE Hawaiian Tel, respectively are currently suspended from wooden utility poles located along the Diamond Head side of the Puuloa Road right-of-way. Guy poles, which serve to support the existing utility poles, are located on the Ewa side of the Puuloa Road right-of-way.

S. Traffic

Existing traffic conditions along Puuloa Road between Salt Lake Boulevard and Kamehameha Highway were analyzed in a traffic study by the Traffic Management Consultant (January 29, 1998) for the proposed project. Field investigations were conducted during morning (6:00 a.m. to 8:30 a.m.) and afternoon (3:00 p.m. to 5:30 p.m.) peak traffic periods. Traffic counts indicated that the morning peak hour of traffic on Puuloa Road occurs between 7:00 a.m. and 8:00 a.m.. The afternoon peak hour of traffic occurs between 3:15 p.m. and 4:15 p.m. During the peak morning and afternoon hours of traffic, Puuloa road carries approximately between 1,500 vehicles per hour (vph) and 1,700 vph. According to 1996 HDOT data, the existing average daily traffic (ADT) volumes on Puuloa Road ranged from approximately 22,300 vehicles per day (vpd) to 22,700 vpd as shown in Exhibit III-7.

The traffic study also evaluated the Level of Service (LOS) of Puuloa Road and the intersections within the project route. LOS is defined as "a qualitative measure describing operational conditions within a traffic stream" (The Traffic Management Consultant, 1998) and ranges from a rating of "A" (satisfactory, free-flowing condition) to "F" (unacceptable condition). During the peak morning hour of traffic, the intersection of Puuloa Road with Salt Lake Boulevard / Pukololo Street used over 80 percent of the roadway's capacity and was found to operate at an overall LOS "D" (limited freedom for driver maneuverability while operating speeds are still tolerable). During the afternoon peak hour of traffic, this intersection was found to operate at an overall LOS "D" and used over 90 percent of the roadway's capacity. Left turn movements from the intersections of Mokumoa Street and Mapunapuna Place onto Puuloa Road were rated at LOS "F" during the peak morning and peak afternoon hours of traffic. Results of the LOS analysis for both the existing morning and afternoon peak hours of traffic are shown in Exhibits III-8 and III-9, respectively.
EXISTING LOS DURING MORNING PEAK HOUR OF TRAFFIC

Project: Puuola Road Improvements  
Kamehameha Highway to Salt Lake Boulevard  
Honolulu, Oahu, Hawaii  
Federal Aid Project No. STP - 7310(1)

EXHIBIT

III-8
T. Storm Drainage

The project area is situated within the drainage basin of Moanalua Stream. Existing drainage facilities along Puuola Road between Salt Lake Boulevard and Kamehameha Highway connect to the City and County of Honolulu’s existing drainage system which services the Mapunapuna area. Off-site runoff that flows onto Puuola Road includes runoff from Salt Lake Boulevard and the adjacent Radford Terrace housing area.

The hydrologic areas that directly affect or are directly affected by activities within the project area total 147.84 acres. The existing drainage facilities that are located within the project area and that serve these hydrologic areas consist of a network of City and State owned systems. The State owns the H-1/Keeki Interchange System which includes six existing catch basins and one drain inlet located at the makai end of the project site. The State also owns a system of 48-inch drain lines beneath Puuola Road which were constructed to receive storm water runoff from the adjacent Navy property. Existing Navy drain lines as well as a few catch basins located on Puuola Road connect directly to this State system which conveys flows to the City’s Mokumoa Street box drain. The system of 48-inch drain lines is currently inadequate to handle the significant amounts of runoff flows from the adjacent Radford Terrace housing area. Consequently, frequent ponding occurs along Puuola Road.

Other City owned drainage facilities within the project area include a drain line that runs along Pukoloe Street near the mauka end of the project route. The two most upstream catch basins of this system receive storm flows from the mauka end of the project area. The Salt Lake Drainage Tunnel and Box Culvert system also crosses Puuola Road near the mauka end of the project route. This system consists of 8 ft. x 8 ft. box culvert sections as well as 10.5 ft. high tunnel sections which drains portions of the Salt Lake area.

The City’s 36-inch Puuola Road Relief Drain begins at its sole inlet on the Ewa side of the project route where it receives runoff flows from the existing unlined drainage ditch. This 36-inch line crosses Puuola Road near the intersection with Salt Lake Boulevard and follows the horizontal alignment of the Salt Lake Drainage Tunnel and Box Culvert to Moanalua Stream. During heavy rain events when the capacity of the inlet is exceeded, stormwater ponds in the nearby ditch and adjacent low spots and can overflow onto Puuola Road.

A single drain inlet within the project area is also connected to the City’s Kilihau Street Storm Drain located near the makai end of the project route, on the Diamond Head side of the roadway. Some stormwater runoff from the adjacent Radford Terrace housing area sheet flows across Puuola Road and into this City.
drainage system. Runoff is often retained in several low spots in the area, thereby creating undesirable ponding conditions.

The limited drainage facilities and lack of curbs throughout the Puuloa Road project route also causes excess runoff to sheet flow into the adjacent properties in the Mapunapuna Industrial Subdivision. The Mapunapuna area, which lies between Puuloa Road and Moanalua Stream, is subject to frequent flooding problems not only because of its low elevation, but also because the area is heavily influenced by tidal conditions. During high tides, flooding is often experienced even in the absence of stormwater runoff. Thus, the combination of stormwater runoff during high tide produces substantial flooding.
IV. PROBABLE IMPACTS AND MITIGATION MEASURES

A. SHORT TERM IMPACTS

Short term impacts are those impacts that are of a temporary nature and are typical of site preparation and other construction activities. These impacts are temporary conditions that can be mitigated through compliance of applicable regulations/rules or the appropriate permit conditions, and through the application of current construction techniques and best management practices.

1. Hydrology / Water Resource

Confirmation of any permit requirements will be made after preliminary plans are completed. Construction of the drainage facilities will require a 6 to 10 foot excavation depth that could intersect the ground water table in some locations. Should dewatered groundwater need to be discharged into nearby Moanalua Stream, the appropriate NPDES permit will be secured from the State Department of Health. Compliance with the provisions of the NPDES permit minimizes any adverse impacts to the receiving water body.

The potential for accidental spills along Puuloa Road during and after construction could result in impacts to the Southern Oahu Basal Aquifer (SOBA). Thus, spill prevention measures for construction-related spills will be addressed in the project’s site-specific Best Management Practices Plan.

2. Surface Waters

Since the proposed project will not involve construction activities in or near to Moanalua Stream, no impacts to U.S. waters are expected. According to the Army Corps of Engineers, the proposed project will not require a Department of the Army permit since work will not be performed in or near to Moanalua Stream.

The State will acquire during the design phase of the project the required NPDES (National Pollutant Discharge Elimination System) permit(s) which include general permits for construction dewatering activities, and stormwater runoff during construction. The contractor shall take appropriate measures during construction to prevent fuel, oil and cement products from discharging or leaching into nearby surface waters and the ocean. Approval of the contractor's Best Management Practice (BMP) which may include on-site containment and/or downstream control of ocean tributary is also required.
CORRECTION

THE PRECEDING DOCUMENT(S) HAS BEEN REPHOTOGRAPHED TO ASSURE LEGIBILITY
SEE FRAME(S) IMMEDIATELY FOLLOWING
IV. PROBABLE IMPACTS AND MITIGATION MEASURES

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3. Flood Hazards

According to the Flood Insurance Rate Map, a portion of the project route, approximately between Mapunapuna Place and Mokumoa Street, lies within a flood area designated as Zone X (areas of 500-year flood; areas of 100-year flood with average depths of less than 1-foot or with drainage areas of less than 1 square mile; and areas protected by levees from 100-year flood). The proposed project is not expected to adversely impact this flood area and will comply with the rules and regulations of the National Flood Insurance Program and all applicable County Flood Ordinances.

4. Air Quality

During construction, the air quality around the project area is expected to be affected by exhaust fumes from construction equipment and automobiles congested in the area. The discharge of dust into the atmosphere may cause concerns while grading, trenching and backfilling activities are performed. Earth material deposited on the roads from trenches, trucks or equipment may also cause dust problems when agitated by traffic.

Adequate and proper maintenance of construction equipment and vehicles will help to reduce emissions. Contractors will be required to have all heavy machinery equipped with proper air pollution abatement devices. Frequent watering of exposed dirt areas and equipment travel ways will help to control fugitive dust concerns. Immediate paving of completed areas of construction will also help to control fugitive dust. As required by ordinance, open body trucks must be covered at all times while transporting materials. Other types of dust controls shall be implemented by the Contractor as required to minimize air borne particles that may cause health problems and/or property damage.

Standard erosion control measures will be applied during construction to meet the requirements of applicable National Pollution Discharge Elimination System (NPDES) permit(s). All the mitigation measures to be used shall comply with the State Department of Health Administrative Rules, Title 11, Chapters 59 and 60, as well as all applicable County ordinances relating to excavation and stockpiling procedures.

5. Noise Emission

Noise from construction equipment and activities may be a nuisance to nearby residents of the Radford Terrace housing complex as well as to the adjacent businesses located along the Diamond Head side of Paulea Road.
Unnecessary noise should be reduced through the use of mufflers on construction equipment/trucks, and through the adequate and proper maintenance of construction equipment and vehicles. Although the noise level increase during construction is unavoidable, construction activities will be restricted to normal daylight working hours. The community will be given ample notice of construction activities and the elevated noise levels to be anticipated.

The Contractor will be required to obtain a Community Noise Permit pursuant to Chapter 46 of the State Public Health Regulations and will comply with the provisions of Chapter 42, Vehicular Noise Control for Oahu.

6. Aesthetic Quality

The short-term presence of construction equipment and materials near the project site may contribute to adverse visual impacts along Puuola Road. However these visual impacts will be temporary and no unnecessary clearing and grubbing of vegetation will be allowed.

7. Flora & Fauna

According to the U.S. Fish and Wildlife Service and the Nature Conservancy of Hawaii, no direct adverse impacts to fish and wildlife resources are anticipated from the improvements to Puuola Road since the proposed project area lacks rare, threatened, or endangered species.

The existing Kiawe trees on the Ewa side of the Puuola road right-of-way will be removed. No relocation of these trees are planned since landscaping along the median and the retaining wall on the Ewa side is proposed for the project. The tree species to be used for landscaping will be selected during the design phase.

8. Historical, Archaeological & Cultural Characteristics

According to the State Historic Preservation Division, the proposed project should have no effects on historic sites since the area has already been extensively developed and ground disturbance during construction should not extend below fill soils. However, should evidence of historic sites be encountered during construction, all activities in the area of the find shall cease, and the State Historic Preservation Division shall be notified immediately. The Division shall be provided sufficient time to assess the find and recommend appropriate mitigation measures. Any archaeological
data recovery work that may be recommended by the Division shall be completed by a qualified archaeologist prior to the commencement of work in the area of the find. Completion of the mitigation work shall be confirmed by the Division, and a report of the findings shall be prepared and submitted to the Division for review and acceptance. If human skeletal remains are inadvertently encountered during construction, procedures outlined in the Hawaii Revised Statutes 6E-43.6 shall be followed.

9. Utilities

The existing overhead utilities along the Diamond Head side of the project route will need to be relocated due to the widening of Puuola Road. Electrical and cable utilities will be relocated overhead to new utility poles along the Diamond Head side of the right-of-way, and the telephone lines will be installed underground. The proposed project is currently being coordinated with these utility companies to minimize any disruptions in service during the relocation.

10. Traffic

Traffic flow will be impeded during the construction period due to detours and construction activities. Temporary traffic congestion should be anticipated in the Mapunapuna area since Puuola Road serves as an arterial roadway between Moanalua Freeway and Kamehameha Highway. An approved traffic control plan will be implemented to ensure the most efficient movement of traffic through the project area. The contractor will be required to maintain at least two travel lanes, one lane of traffic in each direction, at all times. When required by construction activities, the contractor may provide one lane of traffic, controlled by flaggers or police officers. The travel corridor will be delineated and signed to promote safety in a construction work zone according to regulation standards. Police, fire and emergency services will be notified of construction activities and scheduling ahead of time to deter use of streets with anticipated delays.

Access to some of the businesses located along the Diamond Head side of Piuola Road will be affected during construction. Traffic congestion may discourage potential customers from entering the general area. Mitigation concerning vehicular access include minimizing the amount of construction time at each affected location.
11. Socio-economic Characteristics

The proposed project will provide temporary employment opportunity during the construction period. These workers will probably commute from their present residences rather than relocate to the surrounding areas. Local material suppliers and dining establishments may benefit from the project due to their proximity and the increased amount of construction workers in the area.

12. Grading Work

On the Ewa side of Puuoa Road, an abandoned Fluoridation Building on the Navy property (approximate Sta. 27+00) will be demolished and removed to accommodate the grading required behind the proposed retaining wall. The continuous-height retaining wall will require grading onto Navy property. Grading behind the proposed walls will be at a 2:1 slope and landscaped with grassed ground cover, native shrubs, and trees. Consequently, the transfer of lands from the Navy to the State (for grading purposes) is currently being coordinated. The land to be transferred is approximately 2.65 acres and is presently unused land that is overgrown with vegetation. The limits of transfer (new R/W) will be at varying offsets (10' - 60') from the existing R/W. See Exhibit I-6 for new R/W location.

An Environmental Baseline Survey (EBS) is being prepared to identify the suitability of the land for transfer from the Navy to the State Department of Transportation. The EBS consists of a review of relevant historical and regulatory records, interviews with Navy and civilian personnel, and site reconnaissance. Soil sampling and testing was conducted to evaluate potential contamination from drums encountered during the reconnaissance in a vegetated ditch. PCBs and heavy oil range petroleum were reported in all samples; the oil and PCB contamination is distributed in such a way that it does not appear to be related to the drums and is more likely associated with historical spraying of used oil along the roadside for weed and dust control. Concentrations of PCBs, arsenic and lead in a number of the soil samples exceed Preliminary Remediation Goals (PRGs) set by the EPA for these analyses. A risk assessment, conducted as part of the EBS, indicates that exposure pathways will be limited during and following construction, and that the contaminants do not provide an unacceptable risk to potentially exposed populations.
B. LONG TERM IMPACTS

No significant long term adverse impact is anticipated as result of the construction of the proposed project, especially in the following:

1. Hydrology / Water Resource

Since the proposed project is located within the Honolulu district of the Southern Oahu Basal Aquifer (SOBA), Section 1424 (c) Review (Safe Drinking Water Act) was initiated through FHWA in accordance with the 1984 Sole Source Aquifer Memorandum of Understanding between FHWA and EPA. A Sole Source Aquifer Review was prepared and submitted to the EPA for review. Approval was granted on April 15, 1999 (see Appendix B - EPA Approval Letter of Sole Source Aquifer Review). Construction activities and regular traffic along Pualoa Road could generate pollutants that may be picked up and transported by stormwater runoff. The SOBA could be potentially impacted since the polluted runoff could be transported over areas where infiltration may occur due to the permeable characteristics of the caprock in the project area.

However, the proposed project is expected to have minimal impacts to the SOBA since the improved drainage system will direct and transport runoff more efficiently into the City's Mapunapuna drainage system. The existing drainage ditch along the Ewa side of Pualoa Road will be eliminated and replaced with underground drainage lines. As a result, the potential for the runoff to travel over areas where it may infiltrate the SOBA is considerably reduced. To further minimize infiltration into the SOBA, a permeable layer and underdrain system will be installed beneath the new pavement surface. Surface run-off that infiltrates the pavement will flow along the permeable layer and enter the slotted pipes of the underdrain system which are connected to catch basins.

2. Surface Waters

Storm water runoff currently sheet flows across Pualoa Road and into existing grated inlets that connect to the City's drainage system and eventually discharges into Moanalua Stream. The proposed improvements will eliminate sheet flows across Pualoa Road and will direct storm water runoff along the project route into the existing drainage system more efficiently. The additional runoff anticipated from the proposed increase in paved surfaces are considered to be negligible. Thus, no substantial increase in flows to Moanalua Stream are anticipated. Consequently, the waterway users of the stream should not be affected.
3. Air Quality

Long-term air quality impacts would be directly related to the vehicular traffic using this section of Puuloa Road and the adjacent side streets which include Kilihau Street, Mapunapuna Place, Mokumoa St, Pukoloa St., and Salt Lake Boulevard. If the proposed improvements are completed along Puuloa Road, the future (year 2016) air quality along the project route is expected to be better than the future air quality if no improvements were made.

4. Noise Emission

Long-term noise impacts are associated with the relationship of vehicular traffic to sensitive receptors located in the vicinity of Puuloa Road. In most areas of the project route, noise levels should remain the same or decrease with more efficient traffic movement. Stop-and-go traffic is generally more noisy than free-flowing traffic, especially when heavy vehicles are a significant portion of the vehicle mix.

However, future traffic noise levels are expected to increase in certain areas along the project corridor due to the construction of additional lanes in the widened right-of-way. A comparison of the existing traffic noise conditions to the expected future (Year 2016) conditions during the peak morning hour of traffic along the project route is shown in Table IV-1. The necessary setback distances for future development are also shown in this table. According to HDOT’s “Noise Analysis and Abatement Policy, June 1997,” a traffic noise impact occurs when the predicted traffic noise levels “approach” (meaning at least 1 dBA less than noise abatement criteria) or exceed FHWA/HDOT noise abatement criteria, or “substantially exceed” the existing noise levels (meaning an increase of at least 15 dBA).

Potential noise impacts associated with the proposed action were evaluated in the project’s acoustic study completed by Y. Ebisu & Associates. In this study, the 2016 future traffic noise levels are expected to increase approximately 3.4 dBA to 3.9 dBA at sensitive receptor areas located along the Puuloa Road project corridor. The areas where traffic noise impacts are anticipated include the playground (67.5 Leq) and the living unit of Building #1036 of the Radford Terrace housing area (66.6 Leq) located on the Ewa side of the right-of-way as shown in Exhibit IV-1. Portions of the Radford Terrace playground within 63 feet of the project’s Ewa side right-of-way are predicted to have traffic noise levels that exceed the HDOT 67 Leq noise abatement criteria by approximately 0.5 dBA. The
### TABLE IV-I

**COMPARISON OF EXISTING (YEAR 1996) AND FUTURE (YEAR 2016) TRAFFIC NOISE LEVELS ALONG THE PUULOA ROAD PROJECT ROUTE**

(Morning Peak Hour of Traffic)

<table>
<thead>
<tr>
<th>PUULOA ROAD SEGMENT</th>
<th>SPEED (mph)</th>
<th>VEHICLE MIX* (%)</th>
<th>TOTAL VPH (vph)</th>
<th>Leq @ 100 ft (dB)</th>
<th>66 Leq</th>
<th>67 Leq</th>
<th>71 Leq</th>
<th>72 Leq</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt Lake Blvd. to Mokumoa St.</td>
<td>40</td>
<td>91 / 5 / 4</td>
<td>1,689</td>
<td>65.9</td>
<td>99</td>
<td>85</td>
<td>46</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>91 / 5 / 4</td>
<td>2,437</td>
<td>68</td>
<td>130</td>
<td>114</td>
<td>69</td>
<td>59</td>
</tr>
<tr>
<td>Mokumoa St. to Mapunapuna Pl.</td>
<td>40</td>
<td>91 / 5 / 4</td>
<td>1,550</td>
<td>65.5</td>
<td>93</td>
<td>80</td>
<td>43</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>91 / 5 / 4</td>
<td>2,166</td>
<td>67.5</td>
<td>123</td>
<td>107</td>
<td>64</td>
<td>56</td>
</tr>
<tr>
<td>Mapunapuna Pl. to Kililau St.</td>
<td>40</td>
<td>91 / 5 / 4</td>
<td>1,602</td>
<td>65.7</td>
<td>95</td>
<td>82</td>
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<tr>
<td></td>
<td>40</td>
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<td>2,072</td>
<td>67.3</td>
<td>119</td>
<td>104</td>
<td>62</td>
<td>54</td>
</tr>
</tbody>
</table>

* * * vehicle mix denotes % automobiles / % medium trucks / % heavy trucks and buses

** represents Year 2016
### LOCATIONS WHERE NOISE ABATEMENT CRITERIA IS EXPECTED TO BE EXCEEDED (EWA SIDE OF PUULOA R-O-W)

<table>
<thead>
<tr>
<th>Project: Puuola Road Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kamehameha Highway to Salt Lake Boulevard</td>
</tr>
<tr>
<td>Honolulu, Oahu, Hawaii</td>
</tr>
<tr>
<td>Federal Aid Project No. STP - 7310(1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXHIBIT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IV-1</strong></td>
</tr>
</tbody>
</table>

IV-9
future traffic noise level at the Diamond Head end of Building #1036 “approach” the HDOT noise abatement criteria since it is only 0.4 dBA less than 67 Leq.

HDOT’s criteria of “greater than 15 dB increase above existing background noise levels” was also used as a noise abatement threshold for the proposed project. This “>15 dB increase” is not expected to be exceeded since no substantial change in traffic noise levels should occur.

Noise abatement measures must be considered at the sensitive receptor sites where future traffic noise levels are anticipated to approach or exceed the HDOT noise abatement criteria. However, noise abatement measures must be deemed “reasonable” and “feasible” according to the criteria specified in HDOT’s “Noise Analysis and Abatement Policy, June 1997.” This “reasonableness and feasibility criteria” is summarized as follows:

1. Amount of noise reduction provided: noise abatement measures shall be made to achieve substantial noise reductions of at least 5 dBA.
2. Cost of abatement: abatement costing $35,000/residence or less is considered a reasonable cost.
3. Number of residences protected: residences should include all dwelling units.
4. Views of the impacted residents: a highway noise barrier will not be constructed if a majority of the impacted residents do not want the barrier. Informal procedures shall be used as needed to gather input from impacted residences.
5. Future noise levels: HDOT will give greater consideration to residential areas where high absolute traffic noise levels are expected to occur (>70 dBA) or where large increases over existing noise levels are anticipated (>20 dBA increase).
6. Development along the highway: HDOT will give greater consideration to (1) residential areas along highways on new location, (2) residential areas that were constructed before an existing highway, and (3) residential areas that have been in place along an existing highway for an extended period of time.
7. Environmental impacts of abatement construction: when considering the construction of noise abatement measures, HDOT will consider any potential positive effects of noise reduction during highway construction.

Recommended noise mitigation measures include providing a noise attenuation wall along the Ewa side of the Puuoa Road right-of-way which fronts the existing playground on the Navy’s property as previously shown.
in Exhibit IV-1. In order to reduce future traffic noise to acceptable levels, the proposed noise attenuation wall will be 5 feet in height and approximately 445 feet in length. Two separate sound receptors located within the playground setback and approximately 40 feet from the Ewa side right-of-way show that the proposed 5-foot noise barrier is expected to reduce noise levels from 67.5 Leq to 61.1 Leq and from 67.5 Leq to 62.0 Leq, respectively. These noise levels satisfy the 66.0 Leq and the 5 dBA reduction criteria.

A 5-foot noise attenuation barrier at Building #1036 would not satisfy the 66.0 Leq criteria or the mandatory 5 dBA noise level reduction. To satisfy both requirements, a 9-foot high by 400-foot long noise wall would be required. HDOT’s Noise Analysis and Abatement Policy considers $35,000 per residence to be a “reasonable” abatement cost. The cost to construct a 9-feet high wall for a length of 400-feet is not considered to be “reasonable” since it is expected to exceed $35,000.

Although the installation of a noise wall along the Ewa right-of-way fronting Building #1036 is not feasible, a 5-foot high by 150-foot long wall will be constructed for barrier protection and aesthetic purposes. Barrier protection is required due to the considerable drop from the new roadway to the existing ground. Instead of installing a railing, the proposed 150-foot long wall will connect a 5-foot high by 430-foot long retaining wall to a 5-foot high by 445-foot long noise wall fronting the playground. Thus, the continuity of the wall structures will be maintained. The installation of a 5-foot high wall will also help in reducing the noise level at building #1036. Recent discussions with the Navy have indicated that the Navy Housing Section may master plan the housing area adjacent to Puuola Road. Further discussions between the Navy and HDOT will be needed to evaluate potential noise mitigation measures and the future plans of the area.

Future traffic noise levels are also expected to exceed HDOT 72 Leq noise abatement criteria at four commercial structures located along the Diamond Head side of the Puuola Road right-of-way. All four properties have a building structure with a zero setback from the right-of-way line. These sites include Mobil Air Hawaii, Mr. Sandman, Inc., Delux Sheetmetal Work, Inc., and Sun Industries as shown in Exhibit IV-2. Noise impacts are not expected at these four properties since there are no exterior activities that will be affected by traffic noise. According to the FHWA’s noise abatement policy, exterior areas are primarily considered when determining and abating traffic noise impacts. Abatement measures are
typically necessary only where frequent human use occurs and a lowered noise level would be of benefit. Although interior noise levels may be similar to exterior levels, HDOT does not consider interior uses to be noise sensitive for commercial and industrial properties.

5. Aesthetic Quality

The proposed project will improve the aesthetics of the existing conditions along Pualoa Road. The overgrown vegetation and unsightly debris that currently exist along the right-of-way will be removed and replaced with planned landscaping. Trees or shrubbery would be planted along the raised roadway median and along the utility corridor located in the right-of-way of the Diamond Head side of Pualoa Road.

The project also involves the construction of an 8-foot high retaining wall and a 5-foot high noise wall on the Ewa side of Pualoa Road. The height of the retaining wall will be minimized by grading portions of the adjacent Navy property (to be transferred to the State) and landscaping these graded slopes with grassed ground cover, native shrubs and trees. The visual impact of the proposed retaining wall will also be minimized by painting it a natural color to help subdue the wall’s concrete appearance. Planters with Ficus vines, which should eventually cover the entire wall surface, will also be placed intermittently along the length of the wall to enhance its aesthetic quality. The application of an anti-graffiti coating to the surfaces of both the retaining and noise wall is also being considered. This special coating will not only provide a permanent, impenetrable barrier to common graffiti materials such as paint, ink and marking pens, but will also help to protect the wall surface from weather, chemicals, and pollution. Should graffiti occur on the coated wall surface, an erasol remover is applied, the affected area is brushed, and the graffiti is rinsed away.

Overhead electrical and cable television lines will need to be relocated to a new utility corridor located along the Diamond Head side of the Pualoa Road right-of-way. The relocated utility poles may alter view planes of the adjacent businesses on a small scale. View planes should not be impacted from the widening to Pualoa Road since most of these improvements would occur at the existing grade. The relocation of the telephone lines to a new underground system would help to reduce the visual clutter on the utility poles. Eliminating the parking along the Pualoa Road right-of-way would also improve the aesthetic quality of the roadway.
6. **Land Use**

Most of the right-of-way for the proposed project was acquired during the original construction of Pualoa Road. HDOT is conducting preliminary right-of-way engineering work to acquire a 10-foot strip of land on the Diamond Head side of Pualoa Road between EI's Auto Paint shop and the Nissan Motor Corporation building from Damon Estates (Pualoa Road Improvements Right-of-Way Map, August 15, 1996). Also, HDOT is currently proceeding with preliminary right-of-way engineering work to acquire a land transfer from the Navy so that grading and landscaping of the area behind the retaining wall can be provided. The limits of transfer (new R/W) will be at varying offsets (10' - 60') from the existing R/W. See Exhibit 1-6 for new R/W location.

The proposed widening of Pualoa Road will not displace any businesses or homes and no additional right-of-way acquisition will be required. The existing land use patterns will remain the same after the project is completed. The project should have no long-term effects on property values or the local tax base.

7. **Direct Highway Access**

The parcels along the project route that currently have permitted access to Pualoa Road will be provided with standard concrete apron driveways as part of the proposed improvements. Parcels 21 & 22, as well as parcels 31 & 34 of TMK 1-1-05 will each share a single apron driveway since the access straddles the pair of adjacent lots.

HDOT has a temporary access for TMK: 1-1-05:20 (EI's Auto Paint & Napa Auto Parts) and TMK: 1-1-05:19 (Sun Industries) due to the flooding that occurs on Mapunapuna Street during heavy storm events. The flooding inundates the only vehicular access to the businesses within TMK: 1-1-05:19 & 20. Access will be revoked when the Mapunapuna Street flooding problem is resolved by the City. No other properties fronting Pualoa Road are affected by the flooding on Mapunapuna Street.

The other parcels fronting the project route (TMK 1-1-05: 28, 29, and 31) will not be provided with access to Pualoa Road. These parcels currently have unauthorized access to Pualoa Road and should be accessed via Mapunapuna Street.
8. Parking Within the Right-of-way

Since the proposed roadway improvements would fully utilize the right-of-way, vehicles will not be able to park along the roadway. Access control is necessary to provide a safe and efficient arterial roadway. Parking decreases capacity, impedes traffic flow, and increases the potential for accidents. All individual lessees of the Damon Trust Estate along Pualoa Road between Kililau Street and Pukoloa Street were notified that all unauthorized parking along Pualoa Road would be eliminated in a letter from HDOT dated June 6, 1997.

9. Utilities

Existing overhead electrical and cable television lines owned by HECO and Oceanic Cable, respectively, will be relocated to new steel and wood utility poles to be installed within the Diamond Head side of the Pualoa right-of-way. The new steel poles will be stronger than the existing wooden poles and would be able to handle additional loads. In addition, the steel poles would eliminate the need for guying poles on the Ewa side of the Pualoa Road right-of-way.

GTE Hawaiian Tel intends to relocate the existing overhead telephone lines to a new underground system. Relocating the telephone lines underground will allow GTE to accommodate future growth requirements and will also help to reduce the crowded conditions on the overhead utility poles. As an underground utility, the relocated telephone lines would be shielded from high winds which could potentially damage overhead lines.

10. Traffic

The proposed widening of Pualoa Road from two lanes to five lanes is expected to improve traffic flow in the area. Traffic flow will also be enhanced by the new pavement structure and the improved drainage system. The provisions of exclusive left-turn lanes on the makai-bound side of Pualoa Road for access to the side streets, in addition to the installation of bus pull-outs on the mauka-bound side will also reduce congestion of traffic on this roadway. Although no bus pull-outs will be installed on the makai-bound side of Pualoa Road, the bus will be able to stop in the third lane which would still allow motorists to freely use two of the makai-bound lanes without obstruction.
The proposed improvements were designed for the year 2016. The ADT for Puuloa Road was forecasted to be approximately 23,500 vpd (as shown in Exhibit IV-3) and the design hourly volume was projected as roughly 2,465 vph, total for both directions. The projected morning peak hour of traffic at the intersection of Puuloa Road with Salt Lake Boulevard / Pukolua Street is expected to operate at an overall LOS “E,” while the projected afternoon peak hour of traffic is forecasted to operate at an overall LOS “F.” Left turn movements from the intersections of Mokumoa Street and Mapunapuna Place onto Puuloa Road are still projected to operate and LOS “F” during both the peak morning and peak afternoon hours of traffic. The projected LOS results for both the morning and afternoon peak hours of traffic are shown in Exhibits IV-4 and IV-5, respectively.

The proposed project improves the overall access between the airport area and Moanalua Freeway. Intersections along Puuloa Road currently have unsatisfactory LOS ratings during both morning and afternoon peak traffic hours. Since projected traffic demands are expected to increase, congestion and traffic problems along Puuloa Road would only worsen if no action is taken to improve the existing conditions. Additional improvements along Puuloa Road will be needed in the near future to mitigate peak hour congestion that is projected for the year 2016.

11. Storm Drainage

Although extensive drainage improvements are required for the Puuloa Road project route, no negative impact to the existing downstream drainage systems are anticipated. The proposed drainage improvements would reduce the potential for flooding along the roadway and not only enhance safety to pedestrians, but also reduce the likelihood of hydroplaning for motorists.

The proposed drainage improvements along Puuloa Road should not adversely affect the existing flooding problems within the Mapunapuna Industrial Subdivision. The new cut-off ditch will intercept the large amounts of stormwater runoff from the Navy’s Radford Terrace housing area which will then be conveyed to the improved State drainage facilities. The flooding problems may be alleviated since the proposed drainage improvements along Puuloa Road are expected to cause a minor decrease in flows to the existing drainage system in the Mapunapuna area.
YEAR 2016 LOS DURING MORNING PEAK HOUR OF TRAFFIC

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<td>Kamehameha Highway to Salt Lake Boulevard</td>
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IV-18
YEAR 2016 LOS DURING AFTERNOON PEAK HOUR OF TRAFFIC

Project: Puuloa Road Improvements
Kamehameha Highway to Salt Lake Boulevard
Honolulu, Oahu, Hawaii
Federal Aid Project No. STP - 7310(1)

EXHIBIT

IV-5

IV-19
Initial discussions with the Navy's Housing section have indicated that no new projects in the area are anticipated in the near future that would create additional runoff flows. Thus, the proposed Puuloa Road drainage improvements were designed under the assumption that runoff from the adjacent Navy lands will remain constant. An increase in runoff flows from the Navy lands could adversely impact the Puuloa Road drainage system as well as the connecting downstream systems. If an increase in runoff is anticipated in the future, a detailed study should be completed to verify the impacts to the adjoining drainage systems.
V. ENVIRONMENTAL JUSTICE

The area of the proposed action is abutted by Industrial and Business uses on the makai and Diamond Head side, a school on the mauka end, and Navy Housing on the Ewa side, as previously shown in the zoning map of Exhibit III-5. The proposed action is an integral part of the master planned development of the area and is consistent with City & County and State guidelines and will provide an improved connection between the adjacent communities.

This document is in compliance with U.S. DOT and FHWA policies to determine whether a proposed project will have induced socio-economic impacts or any adverse impacts on minority or low-income populations and it meets the requirements of Executive Order on Environmental Justice 12898 - "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations." Neither minority nor low-income populations would receive disproportionately high or adverse impacts as a result to the preferred alternative.
VI. SIGNIFICANCE CRITERIA DETERMINATION

Evaluation of the potential impacts of the proposed project on the environment was based on the following significance criteria in accordance with the Hawaii Administrative Rules 11-200-12:

- **The proposed action does not involve an irrevocable commitment or loss of or destruction of unique natural or cultural resources:**

  According to the State Historic Preservation Division, construction of the proposed project is not anticipated to impact historic sites. The project area has previously been in-filled and the surrounding area has been extensively developed. Construction of the proposed project will be confined to road right-of-ways and portions of the adjacent Navy lands to be transferred to the State that have previously been disturbed. Consequently, there is a low probability of encountering important historical sites and no unique natural or cultural resource should be destroyed or loss as a result of the proposed project. Should evidence of historic sites be encountered during construction, all activities in the area of the find shall cease, and the State Historic Preservation Division shall be notified immediately.

- **The proposed action does not curtail the range of beneficial uses of the environment:**

  The proposed project is will be compatible with the uses of the surrounding area and the existing land use patterns will remain the same after the project is completed. However, access to properties adjacent to the project site will be temporarily affected by construction activities. Businesses along the project route as well as motorists traveling along Pualoa Road may be inconvenienced from traffic congestion. An approved traffic control plan will be used to ensure efficient movement through the construction area.

- **The proposed action is in concert with the State’s long-term environmental policies, goals and guidelines as expressed in Chapter 343, HRS, and any revisions and amendments thereto, court decisions and executive orders:**

  The proposed project is consistent with the State’s Land Use Plan which is in concert with all applicable policies, goals and guidelines. The proposed project does not conflict with the State’s long-term environmental policies or goals and guidelines as expressed in Chapter 343 of the Hawaii Revised Statutes.

VI-1

Reason Supporting the Determination
Final EA - August 2000
The State’s environmental policy is to conserve the natural resources and enhance the quality of life. Since the existing roadway configuration is inadequate to handle projected current traffic demands, the proposed improvements would help enhance traffic flow through the area and improve the overall access between the airport area and Moanalua Freeway. In addition, the proposed drainage improvements will enhance safety for motorists by reducing the potential for flooding. The addition of sidewalks will improve pedestrian safety along the roadway and meet the requirements of the American with Disabilities Act (ADA).

The proposed improvements will complete the portion of the Pualoa Road corridor to its planned function as specified in the 2020 Oahu Regional Transportation Plan which recommends the widening of Pualoa Road from Kamehameha Highway to Salt Lake Boulevard (Kaku & Associates, 1995).

- **The proposed action does not substantially affect the economic or social welfare of the community or State:**

Traffic flow is expected to be temporarily impeded along Pualoa Road during the construction of the widened roadway. As a result, residents in the neighboring area, businesses located along the project route, and motorists traveling along Pualoa Road may be temporarily inconvenienced from traffic congestion. An approved traffic control plan will be implemented to ensure the most efficient movement of traffic through the project area.

Local material suppliers and dining establishments may benefit from the project due to their proximity and increased amount of construction workers in the area. Another positive economic impact is the short-term production of construction related jobs. Upon completion of the project, the economic situation should return to the existing condition. Thus, no substantial impacts to the economic or social welfare of the community or State are anticipated.

The proposed improvements will greatly contribute to the social, economic and environmental well being of the Moanalua / Salt Lake community. No residences or businesses will be displaced by this project. Public safety for both motorists and pedestrians will be greatly enhanced and the widened roadway will improve traffic flow through the area.

- **The proposed action does not involve substantial secondary impacts, such as population changes or effects on public facilities:**

The proposed project will not directly result in an increase of population in the area. The proposed improvements are needed since the existing two-lane roadway is inadequate to serve the growing needs of the surrounding communities.
The proposed action does not substantially affect public health:

Construction activities will generate short-term impacts with the potential for affecting public health. Such short-term impacts include noise and dust which will be minimized through the implementation of the mitigative measures previously identified in Section IV. Short term impacts associated with construction activities are addressed and regulated through the permit processes established by the appropriate regulatory agencies. In addition, the contractor will be directed to communicate with the community and businesses in the area mitigate public concerns during construction.

The proposed action does not involve a substantial degradation of environmental quality:

The proposed project does not involve a substantial degradation of environmental quality since the existing physical aspects of the surrounding area will be preserved. Short term impacts that are typical of site preparation and other construction activities such as dust, noise, and vehicle emissions can be mitigated through compliance with applicable regulations/rules in addition to the appropriate implementation of current construction techniques and best management practices.

If the proposed improvements are completed along Pauleo Road, the future (year 2016) air quality along the project route is expected to be better than the future air quality if no improvements were made. In addition, the proposed drainage improvements will not only enhance safety for motorists, but will also reduce the potential for flooding in the area.

The proposed action is individually limited and cumulatively, does not have a considerable adverse effect upon the environment or involve a commitment for larger actions:

The proposed action, either individually or cumulatively, will not have a considerable adverse effect on the environment. The proposed project will complete that portion of the Pauleo Road corridor to its planned function as specified in the 2020 Oahu Regional Transportation Plan, which recommends the widening of Pauleo Road from Kamehameha Highway to Salt Lake Boulevard (Kaku & Associates, 1995). Although short term impacts are expected on the environment during construction, these impacts will be mitigated through compliance of applicable regulations/rules in addition to the appropriate implementation of current construction techniques and best management practices.
The proposed action does not substantially affect rare, threatened or endangered species or habitats:

According to the U.S. Fish and Wildlife Service, the project area lacks any known rare, threatened or endangered species or wetlands. Construction of the proposed project will be confined to road right-of-ways and portions of the adjacent Navy lands that are areas that have previously been disturbed.

The proposed action does not detrimentally affect air or water quality or ambient noise levels:

Short-term impacts on air and water quality, as well as noise, may occur during the construction period. However, these short term impacts will be mitigated through normal construction practices and will be regulated by the project plans and specifications. Construction and use of the proposed widened road would not have measurable effects on water quality. Vehicular traffic traveling along the improved roadway would generate emissions that would modify air pollutant concentrations, but values are predicted to remain within established state and federal standards. Although noise levels are expected to increase from the increase in traffic flow, these impacts will be reduced through the implementation of appropriate noise mitigation measures as previously discussed in Section IV.B.4.

The proposed action does not affect an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary or coastal waters:

According to the Flood Insurance Rate Map, a portion of the project route, approximately between Mapunapuna Place and Mokumoa Street, lies within a flood area designated as Zone X (areas of 500-year flood; areas of 100-year flood with average depths of less than 1-foot or with drainage areas of less than 1 square mile; and areas protected by levees from 100-year flood). The remaining sections of the project route are located within areas determined to be outside the 500-year flood plain. The proposed project will comply with the rules and regulations of the National Flood Insurance Program and all applicable County Flood Ordinances.

The project area is not located within a tsunami zone or on unique geologically hazardous lands. No adverse impacts on fresh or coastal waters are expected.
The proposed action does not substantially affect scenic vistas and viewplanes identified in county or state plans or studies:

No scenic vistas or viewplanes should be affected by the proposed widening of Puuloa Road. Instead, the visual quality of the roadway improvements from the perspective of motorists and businesses in the area will be enhanced. The overgrown vegetation and unsightly debris that currently exist along the right-of-way will be removed and replaced with planned landscaping. Trees or shrubbery would be planted along the raised roadway median and along the utility corridor located in the right-of-way of the Diamond Head side of Puuloa Road. In addition, a portion of the adjacent Navy lands (to be transferred to the State) on the Ewa side of the project route will be graded and landscaped to eliminate the need for high retaining walls.

The proposed action does not require substantial energy consumption:

During the construction period, a substantial amount of energy would not be required for the construction activities. Following construction, the widened roadway will have a negligible effect upon energy consumption.

FINDINGS

In accordance with NEPA, Chapter 343, Hawaii Revised Statues, and the significance criteria in Section 11-200-12 of Title 11, Chapter 200, it has been determined that the proposed improvements will not have significant environmental effects, and that a Finding of No Significant Impact (FONSI) is issued.
VII. AGENCIES CONSULTED DURING THE PREPARATION OF THE EA

The following agencies were consulted during the preparation of the Draft EA. A copy of the responses received during the Draft EA 30-day comment period are included in Appendix C. Agencies that responded during Draft EA comment period are marked with a "✓"

A. Federal Agencies
✓ U.S. Department of the Navy
✓ U.S. Department of the Interior, Fish & Wildlife Service

B. State Agencies
✓ Department of Health, Environmental Management Division
✓ Department of Land and Natural Resources
✓ Department of Land and Natural Resources, Division of Aquatic Resources
✓ Department of Land and Natural Resources, Land Division
✓ Department of Land and Natural Resources, State Historic Preservation Division
✓ Department of Transportation, Highways Division
✓ Office of Hawaiian Affairs
✓ Office of Environmental Quality Control
✓ University of Hawai'i, Environmental Center

C. City and County of Honolulu
✓ Department of Planning and Permitting
✓ Department of Design and Construction
✓ Department of Transportation Services
✓ Department of Parks and Recreation
✓ Department of Environmental Services
✓ Board of Water Supply
✓ Neighborhood Board No. 18
✓ Fire Department
✓ Police Department
D. Other Parties

✓ GTE Hawaiian Telephone
✓ Hawaiian Electric Company
Oceanic Cable
Salt Lake/Alamana/Foster Village Neighborhood Board #18
The Gas Company
Councilmember Donna Mercado Kim
Representative Bob McDermott, 32nd Representative District
Representative Nathan Suzuki, 31st Representative District
✓ Senator Norman Sakamoto, 16th Senatorial District
APPENDIX A
CORRESPONDENCE WITH THE OUTDOOR CIRCLE AND
THE ALIAMANU/SALT LAKE/FOSTER VILLAGE
NEIGHBORHOOD BOARD #18
April 19, 1999

Mr. Kazu Hayashida, Director
State Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813

RE: Puuloa Road Widening

Dear Mr. Hayashida:

The Outdoor Circle has long been an advocate of underground wiring. Therefore, we were thrilled when the Governor signed Act 84, in June 1996. Act 84 requires the director of transportation to "arrange for the installation of utility cables and facilities below the ground" for any new or existing federal-aid highway project.

It has come to our attention, through representations made to the Aliamanu/Salt Lake/Foster Village Neighborhood Board No. 18 on March 11, 1999, that "utilities will not be undergrounded" despite the fact that two-thirds ($12 million) of the cost of the project will be paid with funds provided by the Federal Government.

We believe that the Puuloa Road Widening project clearly falls within the scope of Act 84. Again, Act 84 acknowledges that utility poles are unsightly and present unsafe highway conditions. As such, the Director of Transportation must make several specific findings before determining that utility lines will not be placed underground during construction. The Outdoor Circle would like copies of these findings, or at the very least, copies of the agency's rules regarding application of Act 84.

The Outdoor Circle is not alone in advocating for undergrounding the existing utility lines. The Aliamanu/Salt Lake/Foster Village Neighborhood Board unanimously voted that "all utilities on the project should be undergrounded even if it results in potential delays and additional cost." March 11, 1999 Minutes, page 4.

The best time to underground existing utility lines is during road widening or similar construction. I look forward to your response regarding DOT's specific findings on the applicability of Act 84 to the Puuloa Road Widening Project.

Sincerely,

Mary Steiner
Chief Executive Officer

cc: Aliamanu/Salt Lake/Foster Village Neighborhood Board # 18
Cheryl Soon, City and County of Honolulu, Dept. of Transportation Services
Ms. Mary Steiner, CEO
The Outdoor Circle
1314 South King Street, Suite 306
Honolulu, Hawaii 96814

Dear Ms. Steiner:

Subject: Puuloa Road Improvements, Kamehameha Highway to Salt Lake Boulevard
Federal-Aid Project No. STP-7310(1)

Thank you for the letter dated April 19, 1999, concerning the undergrounding of existing utilities for the subject project.

Act 84 amended Chapter 264, Hawaii Revised Statutes, by adding a new subsection “264-33.5 Underground installation of utility facilities along federal-aid highways; when required; when waived.” In accordance with subsection 264-33.5, we have made a determination that an exception to the underground installation of utilities is appropriate due to the following criteria:

1. Management concerns - Funding for the Puuloa Road Improvements project including underground installation of utilities is inadequate. The project cost, including underground utility installation, would exceed the total State and Federal funding by an estimated amount of $3,270,000. The underground installation of the cable and electric facilities is estimated at $1,204,000 and $3,015,000 respectively. Furthermore, $880,000 of the total estimated cost to underground the electric facilities is required to provide underground electric service to commercial properties located on private property along Puuloa Road. Federal and State funds cannot be used for private property improvements.
2. Safety - Improvement in safety due to installation of underground utilities within the project limits is not expected to be significant. The accident rate involving utility poles along Puuloa Road is low. For the two-year period from 1994 to 1996, a total of 66 accidents was recorded within the project limits. Two of the accidents involved utility poles and both accidents were not fatal. The project improvements include installing concrete curb and gutters with raised sidewalks. The relocated utility poles would be placed a minimum of 10 feet from the face of the concrete curb, a distance which exceeds the recommended minimum of 1.5 feet.

We would like to mention the project is located along the Mapunapuna business area, which is zoned for commercial use and where existing utilities were placed overhead.

Thank you again for your continued concern in our highways program. If you have any questions or concerns, please contact Kevin Ito, Project Engineer, and reference HWY-DS 2.3835 as noted above.

Very truly yours,

KAZU HAYASHIDA
Director of Transportation

KKtra

bc: HWY-DS(KKI)
Mr. Mark Taylor, Chair  
Aliamanu/Salt Lake/Foster Village  
Neighborhood Board No. 18  
c/o Neighborhood Commission  
City Hall, Room 400  
Honolulu, Hawaii 96813

Dear Mr. Taylor:

Subject: Puuloa Road Improvements, Kamehameha Highway to Salt Lake Boulevard  
Federal-Aid Project No. STP-7310(1)

This letter is a follow up to the Department of Transportation (DOT) presentation on the subject project given at the March 11, 1999, Board meeting.

The DOT is unable to support the underground installation of all existing utilities within the project limits, an area zoned for commercial and industrial use. The estimated cost for the overhead to underground relocation of the cable facilities is $1,204,000, which is approximately 22 times more than an overhead to overhead relocation cost of $55,500. The cost estimate for the overhead to underground relocation of the electric facilities is $3,015,000, which is around three and one-half times greater than an overhead to overhead relocation cost of $893,500. It is economically unfeasible to underground the electric and cable utilities, and the electric and cable companies are unable to justify participating in the significantly higher underground costs when the overhead to overhead relocation is feasible to construct. Also, federal and state funds are not available to pay for the cost differential between underground and overhead facilities. For those reasons collectively, the electric and cable facilities will remain overhead.

However, the aesthetic impacts of the overhead facilities were considered and will be improved by reducing the number of utility poles and overhead lines. The overhead to overhead utility relocation design will reduce the amount of existing utility poles from 56 to 24, and the amount of existing utility lines from 22 to 10.
As mentioned at the meeting, the telephone facilities will be relocated from overhead to underground. The telephone company determined that an overhead to overhead relocation of their facilities would be unfeasible to construct, and therefore proposed an overhead to underground relocation.

Thank you for your continued support and interest in this project.

Please direct any questions or correspondence on this subject project to Kevin Ito at 692-7548.

Very truly yours,

Kazu Hayashida  
Director of Transportation

KKI:ra

cc:  Senator Norman Sakamoto  
Representative Bob McDermott  
Representative Nathan Suzuki
APPENDIX B
ENVIRONMENTAL PROTECTION AGENCY APPROVAL LETTER OF
SOLE SOURCE AQUIFER REVIEW
April 15, 1999

Mr. Steven Fong, P.E.
U.S. Department of Transportation
Federal Highway Administration
Hawaii Division
300 Ala Moana Blvd., Room 3-306
Box 50206
Honolulu, HI 96850

Re: Sole Source Aquifer Post Designation Review
Puuleo Road Improvements, Honolulu, Oahu, Hawaii
Federal Aid Project No. STP-7310(1)

Dear Mr. Fong:

Thank you for providing information regarding the mentioned project located within the SOBA Sole Source Aquifer designation. Under provisions of the Safe Drinking Water Act, Section 1424(e), EPA is charged with review of projects that receive federal financial assistance and are located in Sole Source Aquifer areas. This program is designed by Congress to assure that projects receiving federal financial assistance are constructed to prevent contamination of drinking water resources.

With the mitigation measures mentioned in your letter of April 1, 1999 met, it appears unlikely that the project will significantly impact the Sole Source Aquifer. Therefore, EPA approves of federal financial assistance for this project under provisions of the Safe Drinking Water Act, Section 1424(e).

If you have questions, do not hesitate to contact me at (415) 744-1890.

Sincerely,

Hillary Hecht
Hydrogeologist
Ground Water Office

RECEIVED
APR 21 1999
HAWAII DIVISION
APPENDIX C
AGENCY CORRESPONDENCE DURING THE
DRAFT EA 30-DAY COMMENT PERIOD
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November 1, 1999

Mr. Kevin Ito
State Department of Transportation
Highways Division
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Ito:

Re: Draft Environmental Assessment for the Pualoa Road
Improvements - Kamehameha Highway to Salt Lake Boulevard
Honolulu, Oahu, Hawaii (TMK: 1-1-10)
Federal Aid Project No.: STP - 7310(1)

We have reviewed the above-referenced document and request that the consultant also submit the project's preliminary landscape working drawings for our review.

The plans should depict an automatic irrigation system, plants specifically suitable to that local, and the plans should also adhere to sound xerophytic design principals.

Please identify the agency designated responsible for maintaining the landscaping as well as irrigation system.

Thank you for the opportunity to review this draft environmental assessment. Should you need further information, please contact Mr. Stanley Oka, Horticulture Administrator, at 971-7159.

Sincerely,

WILLIAM D. BALFOUR, JR.
Director
Mr. William D. Balfour, Jr., Director
Department of Parks and Recreation
City and County of Honolulu
650 South King Street, 10th Floor
Honolulu, Hawaii 96813

Dear Mr. Balfour:

Subject: Response to Comments on the Draft Environmental Assessment for the Puuola Road Improvements - Kamehameha Highway to Salt Lake Boulevard
Honolulu, Oahu, Hawaii (TMK: 1-1-10)
Federal Aid Project No. STP-7310(1)

Thank you for your letter regarding the Puuola Road Improvements, Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment. We offer the following responses to your comments:

COMMENT: "We have reviewed the above-referenced document and request that the consultant also submit the project’s preliminary landscape working drawings for our review.

The plans should depict an automatic irrigation system, plants specifically suitable to that local, and the plans should also adhere to sound xerophytic design principals.

Please identify the agency designated responsible for maintaining the landscaping as well as irrigation system."

RESPONSE: The proposed improvements to Puuola Road are located within the State Department of Transportation (DOT) highway right-of-way. Thus, the State DOT will be the agency responsible for maintaining the landscaping along the Puuola Road project route.
According to a telephone conversation with Mr. Stanley Oka on March 17, 2000, a City and County of Honolulu Department of Parks and Recreation (DPR) review of the landscaping plans will not be necessary. However, per Mr. Oka's request, a copy of the final landscaping plan will be sent to the City and County DPR for informational purposes.

Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.

Very truly yours,

KAZU HAYASHIDA
Director of Transportation
November 9, 1999

Mr. Kevin Ito  
Department of Transportation-Highways Division  
State of Hawaii  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Mr. Ito:

Subject: Draft Environmental Assessment for the Puuola Road Improvements - Kamehameha Highway to Salt Lake Boulevard  
Honolulu, Oahu, Hawaii (TMK: 1-1-10)  
Federal Aid Project No.: STP-7310(1)

We received the letter from Akinaka & Associates, Ltd., dated September 27, 1999, regarding the Puuola Road Improvements project.

The Honolulu Fire Department requests that you comply with the following:

1. Maintain fire apparatus access throughout the construction site for the duration of the project.
2. Notify the Fire Communication Center (523-4411) of any interruption in the existing fire hydrant system during the project.

Should you have any questions, please call Acting Battalion Chief Lloyd Rogers of our Fire Prevention Bureau at 831-7778.

Sincerely,

ATTILIO K. LEONARDI  
Fire Chief

AKL/LR:jf

cc: Barry Muranaka, Akinaka & Associates, Ltd.
August 1, 2000

Mr. Attilio K. Leonardi  
Chief, Honolulu Fire Department  
City and County of Honolulu  
3375 Koapaka Street, Suite H425  
Honolulu, Hawaii 96819-1869

Subject: Response to Comments on the Draft Environmental Assessment for the Puuloa Road Improvements, Kamehameha Highway to Salt Lake Boulevard  
Honolulu, Oahu, Hawaii (TMK:1-1-10), Federal Aid Project No. STP-7310(1)

Dear Mr. Leonardi:

Thank you for your letter regarding the Puuloa Road Improvements, Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment. We offer the following responses to your comments:

COMMENT: "Maintenance of fire apparatus access throughout the construction site for the duration of the project."

RESPONSE: Fire apparatus access along the length of the project route will be maintained throughout the construction period. Construction plans will be submitted to the Fire Department for review.

COMMENT: "Notify Fire Communication Center (523-4411) of any interruption in the existing fire hydrant system during the project."

RESPONSE: The Fire Communication Center shall be contacted prior to and following completion of work should any interruptions in the existing fire hydrant system be anticipated during construction.
Mr. Attilio K. Leonardi
August 1, 2000
Page 2

Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design
Services Office, Design Branch, Highways Division.

Very truly yours,

[Signature]

RONALD F. TSUZUKI
Acting Administrator
Highways Division
In Re: Review for Puuloa Road Improvements, Kamehameha Highway to Salt Lake Boulevard, Honolulu, Hawaii

Dear Mr. Ito:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Assessment (DEA) for improvements to Puuloa Road from Kamehameha Highway to Salt Lake Boulevard, Honolulu, Hawaii. The project sponsors are the City and County of Honolulu Department of Design and Construction and the U.S. Department of Transportation Federal Highway Administration. This letter has been prepared under the authority of and in accordance with provisions of the National Environmental Policy Act of 1969 [42 U.S.C. 4321 et seq.; 83 Stat. 852], as amended, the Fish and Wildlife Coordination Act of 1934 [16 U.S.C. 661 et seq.; 48 Stat. 401], as amended, the Endangered Species Act of 1973 [16 U.S.C. 1531 et seq.; 87 Stat. 884], as amended, and other authorities mandating Service concern for environmental values. Based on these authorities, the Service offers the following comments for your consideration.

The length of the proposed project is 0.74 miles and includes expansion of the existing Puuloa Road from two lanes to five; construction of bikeways, sidewalks, a storm drainage system, retaining walls, a noise attenuation barrier, curb and gutters, bus pull-outs; landscaping; and the installation of street lights and traffic signals.

The Service has previously corresponded with your office concerning the above referenced project. In our letter dated, April 8, 1996, we reviewed the information provided as well as information contained in our files and determined that the affected area lacked rare, threatened, or endangered species and wetlands.
Draft EA for Puuloa Road Improvements
Honolulu, Oahu, Hawaii

The Service believes the DEA adequately describes the scope of the proposed project and correctly identifies the absence of significant fish and wildlife resources in the proposed immediate project area. The DEA also identifies reasonable alternatives to the preferred action, and we believe that the least environmentally damaging, practicable alternative has been selected as the preferred action. Accordingly, the Service concurs with a Finding of No Significant Impact (FONSI) determination for the proposed project.

The Service appreciates the opportunity to comment on the DEA. We applaud the efforts to use native species of shrubs and trees for landscaping on Navy lands within the project area and encourage its use for all landscaping associated with the project. If you have any questions regarding these comments, please contact Fish and Wildlife Biologist Leila Gibson by telephone at (808) 541-3441 or by facsimile transmission at (808) 541-3470.

Sincerely,

[Signature]
Robert P. Smith
Pacific Islands Manager

cc: FHWA, Honolulu
Akinaka and Associates, Ltd.
Mr. Kazu Hayashida, Director  
Department of Transportation  
State of Hawaii  
869 Punchbowl Street  
Honolulu, HI 96813

Attention: Kevin Ito (Highway Division)

Dear Mr. Hayashida:

Subject: Draft Environmental Assessment (DEA)  
Puuloa Road Improvements, Kamehameha Highway-Salt Lake Boulevard  
TMK: 1-1-10

We have reviewed the subject DEA and have no comments to offer at this time.

Should you have any questions, please contact Alex Ho at 523-4150.

Sincerely,

[Signature]

KENNETH E. SPRAGUE  
Director

cc: Akinaka and Associates, Ltd. (Barry Muranaka)
November 4, 1999

Mr. Sheldon Yamasato  
Akinaka and Associates, Ltd.  
250 North Beretania Street, Suite 300  
Honolulu, Hawaii 96817

Dear Mr. Yamasato:

Subject: Your Letter of September 27, 1999 Regarding the Draft Environmental Assessment for Pauleoa Road Improvements-Kamehameha Highway to Salt Lake Boulevard, Honolulu, Oahu, TMK: 1-1-10

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the proposed road improvements project.

We have no objections to the proposed project. The construction plans are presently under review by Board of Water Supply staff.

If there are any questions, please contact Barry Usagawa at 527-5235.

Very truly yours,

CLIFFORD S. JAMILE  
Manager and Chief Engineer
LD-NAV
Ref.: DOT73101.RCM

Mr. Sheldon T. Yamasato, P.E
Senior Vice President
Akinaka & Associates, Ltd
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

Dear Mr. Yamasato:

SUBJECT: Draft Environmental Assessment for the Pualoa Road
Improvements - Kamehameha Highway to Salt Lake
Boulevard, Honolulu, Hawaii TMK: 1st/1-1-10

This is a follow-up to your letter dated September 27, 1999, requesting our department's review of the subject draft
environmental assessment for the subject proposed project.

Attached herewith is a copy of our Land Division Engineering
Branch's comments related to water allocation for the proposed
project.

Should you have any questions, please feel free to contact
Nicholas Vaccaro of the Land Division's Support Services Branch
at 808-587-0438.

Very truly yours,

[Signature]

DEAN Y. UCHIDA
Administrator

C: Oahu District Land Office
MEMORANDUM:

TO: Division of Aquatic Resources
Division of Forestry & Wildlife
Division of State Parks
Division of Boating and Ocean Recreation
Historic Preservation Division
Commission on Water Resource Management
Land Division Branches of:
Planning and Technical Services
XXX Engineering Branch
XXX Oahu District Land Office
Shoreline Processing Services

FROM: Dean Y. Uchida, Administrator
Land Division

SUBJECT: Draft Environmental Assessment for the Puuloa Road Improvements - Kamehameha Highway to Salt Lake Boulevard Honolulu, Island of Oahu, Hawaii TMK: 1st/1-1-10

Please review the attached:

DRAFT ENVIRONMENTAL ASSESSMENT

and submit your comments (if any) on Division letterhead within the time requested above. Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0438.

If this office does not receive your comments on or before the suspense date, we will assume there are no comments.

( ) We have no comments.

Comments attached.

Signed: Andrew Al موشنر, CHIEF ENGINEER

Date: 10/21/99
Ref: DOT73101.CMT

COMMENTS

Our current projects and programs are not affected by the proposed project.

We confirm that the project site, according to FEMA Community Panel Number 150001 0115 C is located in Zone X (Shaded and Unshaded). Shaded area is an area of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood. Unshaded area is an area determined to be outside 500-year flood plain.

Project must comply with rules and regulations of the National Flood Insurance Program (NFIP) and all applicable County Flood Ordinances. If there are questions regarding the NFIP, please contact the State NFIP Coordinator, Sterling Yong, of the Department of Land and Natural Resources at 587-0248. If there are questions regarding flood ordinances, please contact the applicable County representative.

The Final Environmental Assessment should include the water demands for the proposed project and source of water.

For your information, if there is an increase in water demands (gpd) for the project site, then a water allocation from the Engineering Branch (EB) is required to obtain a building permit and/or water meter. Please provide the water demands (gpd) and water demand calculations to EB, Land Division.
August 2, 2000

TO:        DEAN Y. UCHIDA  
ADMINISTRATOR, LAND DIVISION  
DEPARTMENT OF LAND AND NATURAL RESOURCES  

FROM:      GARY C. P. CHOY  
ACTING ADMINISTRATOR, HIGHWAYS DIVISION  

SUBJECT:   RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PUUOIA ROAD IMPROVEMENTS, KAMEHAMEHA HIGHWAY TO SALT LAKE BOULEVARD  
HONOLULU, OAHU, HAWAII (TMK: 1-1-10)  
FEDERAL AID PROJECT NO. STP-7310(1)  

Thank you for your letter regarding the Puuola Road Improvements, Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment. We offer the following responses to your comments:

COMMENT:  "Our current projects and programs are not affected by the proposed project.

We confirm that the project site, according to FEMA Community Panel Number 150001 0115 C is located in Zone X (Shaded and Unshaded). Shaded area is an area of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood. Unshaded area is an area determined to be outside 500-year flood plain.

Project must comply with rules and regulations of the National Flood Insurance Program (NFIP) and all applicable County Flood Ordinances. If there are questions regarding the NFIP, please contact the State NFIP Coordinator, Sterling Yong, of the Department of Land and Natural Resources at 587-0248. If there are questions regarding flood ordinances, please contact the applicable County representative."
RESPONSE: The proposed project will comply with the rules and regulations of the National Flood Insurance Program and all applicable County Flood Ordinances. The City's DPP Subdivision Branch has confirmed that a flood certification will not be required for the proposed project.

COMMENT: "The Final Environmental Assessment should include the water demands for the proposed project.

For your information, if there is an increase in water demands (gpd) for the project site, then a water allocation from the Engineering Branch (EB) is required to obtain a building permit and/or water meter. Please provide the water demands (gpd) and water demand calculations to EB, Land Division."

RESPONSE: The proposed project includes landscaping. If the proposed landscaping requires an increase in water demands, then a water allocation from the Engineering Branch will be requested from the Engineering Branch during the project’s design phase.

Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.
Beyond the call

October 25, 1999

Department of Transportation – Highways Division
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Attention: Mr. Kevin Ito

Subject: Draft Environmental Assessment for the Puuloa Road Improvements
Kamehameha Highway to Salt Lake Boulevard
Federal Aid Project No. STP – 7310 (1)

Thank you for the opportunity to review and comment on the above subject project.

Presently, GTE Hawaiian Telephone Company, HTCo, has aerial facilities on the Diamond Head side of Puuloa Road. HTCo proposes to relocate the existing overhead utility lines to a new underground system along the Ewa side of Puuloa Road.

The Public Utilities Commission (PUC) has issued Decision and Order No. 17082 approving GTE Hawaiian Telephone Company’s application for the Puuloa Road Improvement project. Therefore, HTCo will participate in funding the undergrounding of the affected telephone facilities.

If you have any questions or concerns, please call Jill Lee at 840-5884.

Sincerely,

Jay Furukawa
Section Manager
Access Design & Construction

Cc: 1300 8F001AA
Akinaka & Associates, Ltd.
August 1, 2000

Mr. Jay Furukawa, Section Manager
Access Design and Construction
GTE Hawaiian Telephone
P.O. Box 2200
Honolulu, Hawaii 96841

Subject: Response to Comments on the Draft Environmental Assessment for the Puuoa Road Improvements, Kamehameha Highway to Salt Lake Boulevard Honolulu, Oahu, Hawaii (TMK:1-1-10), Federal Aid Project No. STP-7310(1)

Dear Mr. Furukawa:

Thank you for your letter regarding the Puuoa Road Improvements, Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment. We offer the following responses to your comments:

COMMENT: "Presently, GTE Hawaiian Telephone Company, HTCo, has aerial facilities on the Diamond Head side of Puuoa Road. HTCo proposes to relocate the existing overhead utility lines to a new underground system along the ewa side of Puuoa Road.

The Public Utilities Commission (PUC) has issued Decision and Order No. 17082 approving GTE Hawaiian Telephone Company’s application for the Puuoa Road Improvement project. Therefore, HTCo will participate in funding the undergrounding of the affected telephone facilities."

RESPONSE: We acknowledge that GTE Hawaiian Telephone Company will be relocating the existing overhead telephone lines to a new underground system along the Ewa side of the Puuoa Road project route."
Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.

Very truly yours,

RONALD F. TSUZUKI
Acting Administrator
Highways Division
State of Hawaii' Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii' 96813

September 30, 1999

Department of Transportation-Highways Division
State of Hawaii'
869 Punchbowl Street
Honolulu, Hawaii' 96813
Attention: Mr. Kevin Ito

Re: Draft Environmental Assessment for the Pualoa Road Improvements-
Kamehameha Highway to Salt Lake Boulevard
Honolulu, Oahu, Hawaii' (TMK: 1-1-10)
Federal Aid Project No.: STP - 7310(1)

(EIS #322)

Dear Mr. Ito,

Thank you allowing us to comment on the Draft Environmental Assessment (EA) for the Pualoa Road Improvements-Kamehameha Highway to Salt Lake Boulevard project.

According to the Draft EA, the proposed project involves widening 0.74 miles of Pualoa Road from Kamehameha Highway to Salt Lake Boulevard from a two-lane facility within the existing 120-foot wide right of way.

Upon review, the proposed road improvement project does not appear to impact the Office of Hawaiian Affairs (OHA) or Native Hawaiian communities. Therefore, we have no comment on the project. If you have any questions, please contact Mark A. Mararagan, Policy Analyst at 594-1945.

Sincerely,

C. Sebastian Alcot
Hawaiian Rights Division Director

cc: OHA Board of Trustees
Mr. Barry Muranaka – Akinaka and Associates
October 21, 1999

Mr. Kevin Ito
Department of Transportation
Highways Division
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Ito:

SUBJECT: Chapter 6E-8 Historic Preservation Review -- Draft Environmental Assessment (DEA) for Puuloa Road Improvements - Kamehameha Highway to Salt Lake Boulevard (Federal Aid Project No. STP-73101) Moanalua, Kona, O'ahu

Thank you for the opportunity to comment on the DEA for the Puuloa Road Improvements Project Phase 2 from Kamehameha Highway to Salt Lake Boulevard. The project includes widening a 0.74 mile section of Puuloa Road from a two-lane facility to a five-lane facility within the existing 120-foot wide right-of-way. The DEA includes in Section IV.A.8 and in Appendix C our earlier comments that it is unlikely that historic sites remain in the project area and that we believe that this project will have "no effect" on historic sites. Thank you for the opportunity to review the DEA for this project.

If you have any questions please call Elaine Jourdane at 692-8027.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

BJ.1m

cc: Barry Muranaka, Akinaka & Associates, Ltd., 250 N. Beretania Street, Suite 300, Honolulu, Hawaii 96813
Mr. Kevin Ito
Department of Transportation – Highways Division
State of Hawaii
869 Punchbowl Street
Honolulu, HI 96813

Dear Mr. Ito:

Subj: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR THE PUULOA ROAD IMPROVEMENTS – KAMEHAMEHA HIGHWAY TO SALT LAKE BLVD
HONOLULU, OAHU HAWAII (TMK: 1-1-10) FEDERAL AID PROJECT NO.: STP-7310(1)

Thank you for the opportunity to review the subject EA. The following comments are provided for your consideration in preparing the Final EA:

a. Page I-10, 5. Retaining Walls. The preferred continuous-height retaining wall option involves acquiring and regrading Navy property. Describe the limits of acquisition required as well as the extent of the proposed regrading work.

b. Page I-10, 5. Retaining Walls. There are currently unresolved issues regarding the State’s proposed use of Navy property along Puuola Road. These issues are currently under discussion between the Navy and the State. The State will be required to prepare separate NEPA documentation if Navy property is utilized.

c. Page IV-6, 3. Air Quality. The last sentence of the EA implies that the proposed project will result in future year 2016 air quality, which is equal to or better than current conditions. While the improved traffic flow rate will result in lower emissions per vehicle due to reduced idling time, increased year 2016 traffic volume may result in increased total daily emissions as compared to current conditions.

d. Page IV-6, 4. Noise Emission. The EA considers the construction of a 9-foot high wall as a noise mitigation measure at Building #1036. However, the EA concludes the wall is not a “reasonable” abatement measure due to cost. The EA should discuss other feasible noise attenuation measures for Building #1036, including improvements to the building and biological barriers such as trees or hedges.
We appreciate the opportunity to participate in your review process. The Navy’s point of contact is Mr. Randy Miyashiro at 471-1171, extension 233.

Sincerely,

C. K. YOKOTA
REC Engineer
Regional Environmental Department
By direction of
Commander, Navy Region Hawaii

Copy to:
Akinaka and Associates, Ltd.
Attn Mr. Barry Muranaka
250 North Beretania Street, Suite 300
Honolulu, HI 96817
August 23, 2000

Mr. C.K. Yokota, REC Engineer
Regional Environmental Department
Department of the Navy
Navy Region Hawaii
517 Russell Avenue
Pearl Harbor, Hawaii 96860-4884

Subject: Response to Comments on the Draft Environmental Assessment for the
Puuloa Road Improvements, Kamehameha Highway to Salt Lake Boulevard
Honolulu, Oahu, Hawaii (TMK:1-1-10)
Federal Aid Project No. STP-7310(I)

Dear Mr. Yokota:

Thank you for your letter regarding the Puuloa Road Improvements, Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment (EA). We offer the following responses to your comments:

1. COMMENT: "a. Page 1-10, 5. Retaining Walls. The preferred continuous-height
retaining wall option involves acquiring and regrading Navy property.
Describe the limits of acquisition required as well as the extent of the
proposed regrading work."

RESPONSE: The following will be incorporated into the Final EA.

The proposed limits of acquisition of Navy property required for the
proposed continuous-height retaining wall option and regrading activities
are located along the length of the ewa side of the project route.

Acquisition limits span from the following stations:
STA 6+60.17 (across from Sun Industries and the Nissan building) to
STA 23+15.81 (near existing gas tanks).
STA 24+35 (near existing gas tanks) to STA 180+72.45
(at Salt Lake Boulevard).
The new right-of-way (R/W) will offset the existing R/W by distances ranging from 10 feet to 60 feet. See the attached Exhibit for location of the new R/W.

Within these limits of acquisition, the proposed locations of the retaining walls along the ewa side of the roadway are described as follows:

- **Eight (8)-foot high retaining wall, approximately 856 feet in length:** located from an area roughly across the existing E.L. Pacific building (TMK 1-1-07:03) to an area located across of the existing Mobil Air Hawaii building (TMK 1-1-5:35);

- **Five (5)-foot high retaining wall, approximately 1025 feet in length:** located from an area roughly across the existing David's Custom Roofing building (TMK 1-1-05:31) to an area located across the existing MidPac Lumber building (TMK 1-1-5:24);

- **Retaining wall (varied height) with three (3)-foot high railing, approximately 420 feet in length:** located from an area roughly across the existing MidPac Lumber building (TMK 1-1-5:24) to an area located across the existing El's Auto Paint building (TMK 1-1-5:20).

Reggrading behind the proposed walls will be at a 2:1 (horizontal:vertical) slope. The graded area will be landscaped with ground cover and native shrubs.

2. **COMMENT:**
   "b. Page I-10. 5. Retaining Walls. There are currently unresolved issues regarding the State's proposed use of Navy property along Pualoa Road. These issues are currently under discussion between the Navy and the State. The State will be required to prepare separate NEPA documentation if Navy property is utilized."

2. **RESPONSE:**
   Discussions regarding the proposed use of Navy property along Pualoa Road are ongoing between the State Department of Transportation (SDOT) and the Navy. SDOT will provide the necessary NEPA documents for the acquisition of Navy property.
3. **COMMENT:** "c. Page IV-6, 3. Air Quality. The last sentence of the EA implies that the proposed project will result in future year 2016 air quality, which is equal to or better than current conditions. While the improved traffic flow rate will result in lower emissions per vehicle due to reduced idling time, increased year 2016 traffic volume may result in increased total daily emissions as compared to current conditions."

**RESPONSE:** The text in Section IV.B.3 "Air Quality" has been revised to compare anticipated emissions from the future traffic flow after the Pualoa Road improvements with the anticipated emissions from future traffic flow if no improvements are made to Pualoa Road. The future (year 2016) air quality along the project route with the Pualoa Road improvements is expected to be better than the future air quality along the project route without any improvements.

4. **COMMENT:** "d. Page IV-6, 4. Noise Emission. The EA considers the construction of a nine (9)-foot high wall as a noise mitigation measure at Building #1036. However, the EA concludes the wall is not a "reasonable" abatement measure due to cost. The EA should discuss other feasible noise attenuation measures for Building #1036, including improvements to the building and biological barriers such as trees or hedges."

**RESPONSE:** Although the installation of a noise wall along the ewa R/W fronting Building #1036 is not feasible, a five (5)-foot high by 150-foot long wall will be constructed for barrier protection and aesthetic purposes. Barrier protection is required due to the considerable drop from the new roadway to the existing ground. Instead of installing a railing, the proposed 150-foot long wall will connect a five (5)-foot high by 430-foot long retaining wall to a five (5)-foot high by 445-foot long noise wall fronting the playground. Thus, the continuity of the wall structures will be maintained. The installation of a five (5)-foot high wall will also help in reducing the noise level at Building #1036. Biological barriers such as trees or hedges will not be able to reduce traffic noise to acceptable levels for Building #1036. The SDOT’s noise policy does not allow building improvements for noise abatement measures."
Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.

Very truly yours,

GARY C. P. CHOY
Acting Administrator
Highways Division

Attachment
November 8, 1999

Mr. Kevin Ito
Highways Division
State Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Ito:

Subject: Draft EA for the Puleoa Road Improvements - Kamehameha Highway to Salt Lake Boulevard, Honolulu, Oahu, Hawaii (TMK: 1-1-10), Federal Aid Project No.: STP - 7310(1)

We have reviewed the subject document and have the following comments.

During the construction phase of road widening, complaints relative to dust, odors, and noise will be inevitable. Further, because Puleoa Road is such a well-traveled thoroughfare, traffic flow during construction will be a source of complaints.

After construction is completed, we are concerned that the absence of parking provisions along the roadway will have an impact on the services to be provided by this department.

If there are any questions, please call me at 529-3255 or Lieutenant Russell Miyada of District 5 at 842-7737.

Sincerely,

LEE D. DONOHUE
Chief of Police

EUGENE UEKURA
Assistant Chief
Support Services Bureau

cc: Mr. Barry Murakana
Akinaka and Associates, Ltd.
Mr. Lee D. Donohue, Chief of Police
Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, Hawaii 96813

Dear Mr. Donohue:

Subject: Response to Comments on the Draft Environmental Assessment for the Puuoloa Road Improvements - Kamehameha Highway to Salt Lake Boulevard Honolulu, Oahu, Hawaii (TMK: 1-1-10)
Federal Aid Project No. STP - 7310(1)

Thank you for your letter, regarding the Puuoloa Road Improvements, Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment. We offer the following responses to your comments:

1. COMMENT: "During the construction phase of road widening, complaints relative to dust, odors, and noise will be inevitable. Further, because Puuoloa Road is such a well-traveled thoroughfare, traffic flow during construction will be a source of complaints."

RESPONSE: Although short term impacts such as noise, fugitive dust and traffic congestion are anticipated during construction activities, these impacts are temporary in nature and will be mitigated as best as possible through appropriate measures. The selected contractor shall be required to comply with all applicable Department of Health requirements relating to fugitive dust and noise during construction activities. A Traffic Control Plan that is pre-approved by the City and County of Honolulu's Department of Transportation Services and the State Department of Transportation (SDOT) will be included as a part of the construction plans. This Traffic Control Plan will be administered during construction.
2. COMMENT: "After construction is completed, we are concerned that the absence of parking provisions along the roadway will have an impact on the services to be provided by this department."

RESPONSE: Since the proposed roadway improvements would fully utilize the right-of-way, vehicles will not be able to park along the roadway. Access control is necessary to provide a safe and efficient arterial roadway. Parking decreases capacity, impedes traffic flow, and increases the potential for accidents. All individual lessees of the Damon Trust Estate along Puuloa Road between Kililau Street and Pukoloa Street were notified that all unauthorized parking along Puuloa Road would be eliminated in a letter from SDOT dated June 6, 1997.

Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.

Very truly yours,

GARY C.P. CHOY
Acting Administrator
Highways Division
Department of Transportation-Highways Division  
State of Hawaii  
869 Punchbowl Street  
Honolulu, HI 96813  
Attention: Mr. Kevin Ito

Dear: Mr. Ito

Subject: Puuloa Road Improvements-Kamehameha Highway to Salt Lake Boulevard

Thank you for the opportunity to comment on your September 1999 Draft EA for the Puuloa Road Improvements, as proposed by the Department of Transportation-Highways Division. We have reviewed the subject document and have the following comment:

Page I-11, Section 8 Utility Relocation, First Paragraph: The statement that "The PUC does not consider aesthetics to be a condition that requires utilities to be installed underground." is not and accurate one. When HECO has submitted application requesting PUC approval of projects involving overhead 138 kV transmission or 46 kV subtransmission lines, the PUC has considered the visual impact of the overhead lines in deciding whether the line should be constructed overhead or underground. The PUC has also considered other factors such as whether there are benefits that outweigh the costs to place the lines underground, whether there is a commitment from funds by the government or private parties to pay for the additional costs of undergrounding, and if there are any other relevant factors.

HECO shall reserve further comments pertaining to the protection of existing powerlines bordering the project area until construction plans are finalized. Again, thank you for the opportunity to comment on this DEA.

Sincerely,

[Signature]

for S. Seu

cc: Akinaka ans Associates, Ltd.  
250 North Beretania Street, Suite 300  
Honolulu, HI 96817  
Atten: Mr. Barry Muranaka

WINNER OF THE EDISON AWARD  
FOR DISTINGUISHED INDUSTRY LEADERSHIP
August 1, 2000

Mr. Scott W. H. Seu, P.E., Manager
Environmental Department
Hawaiian Electric Company, Inc.
P.O. Box 2750
Honolulu, Hawaii 96840-0001

Subject: Response to Comments on the Draft Environmental Assessment for the
Paauoa Road Improvements, Kamehameha Highway to Salt Lake Boulevard
Honolulu, Oahu, Hawaii (TMK:1-1-10) Federal Aid Project No. STP-7310(1)

Dear Mr. Seu:

Thank you for your letter regarding the Paauoa Road Improvements, Kamehameha Highway to
Salt Lake Boulevard Draft Environmental Assessment. We offer the following responses to your
comments:

1. COMMENT: “Page I-11, Section 8 Utility Relocation, First Paragraph: The
statement that ‘The PUC does not consider aesthetics to be a
condition that requires utilities to be installed underground.’ is not an
accurate one. When HECO has submitted application requesting
PUC approval of projects involving overhead 138 kV transmission
or 46 kV subtransmission lines, the PUC has considered the visual
impact of the overhead lines in deciding whether the line should be
constructed overhead or underground. The PUC has also considered
other factors such as whether there are benefits that outweigh the
costs to place the lines underground, whether there is a commitment
from funds by the government or private parties to pay for the
additional costs of undergrounding, and if there are any other
relevant factors.”

RESPONSE: The above mentioned statement has been removed and the text has
been revised to correctly reflect the view of the PUC.
2. COMMENT:  "HECO shall reserve further comments pertaining to the protection of existing powerlines bordering the project area until construction plans are finalized."

RESPONSE:  We acknowledge that HECO reserves further comments regarding the protection of existing powerlines around the project area until construction plans are finalized.

Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.

Very truly yours,

RONALD F. TSUZUKI
Acting Administrator
Highways Division
Mr. Kazu Hayashida, Director
State Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

Subject: Draft Environmental Assessment for the Pu'ula Road Improvements, Kamehameha Highway to Salt Lake Boulevard, Oahu

Thank you for the opportunity to review the subject document. We have the following comments.

1. The proposed noise wall may be as high as 20 feet and degrade the visual quality of the site. Therefore, please analyze the visual impacts of wall. Photos of existing conditions taken from public view points are helpful in evaluating visual impacts. Renderings of future structures superimposed on photos of existing views should be provided. We recommend constructing and painting the walls with materials and colors that blend with the surroundings. We also recommend landscaping with native Hawaiian plants to reduce the visual impacts.

2. Please describe why HECO and Oceanic Cable cannot participate and share costs with GTE Hawaiian Tel to underground all the utilities.

3. Please coordinate the schedule of the other projects in the area (such as the Salt Lake Boulevard improvements) to minimize impacts on traffic and the residents.

4. Please discuss the findings and reasons for supporting the FONSI determination based on the significant criteria listed in §11-200-12 of the EIS rules. Please see the enclosed example.

5. Please include the list of permits required for the project in the final environmental assessment.
6. The project will eliminate parking along Puuloa Road that employees heavily use. What is the impact to the neighboring area (Mapunapuna) which is substandard to city standards for road width and improvements?

Should you have any questions, please call Jeyan Thirugnanam at 586-4185. Thank you.

Sincerely,

Signature

Genevieve Salmonson
Director

Enclosure

C: FHWA
    Akinaka and Associates
TO: GENEVIEVE D. SALMONSON, DIRECTOR  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  

FROM: KAZU HAYASHIDA  
DIRECTOR OF TRANSPORTATION  

SUBJECT: RESPONSE TO COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PUULOA ROAD IMPROVEMENTS- KAMEHAMEHA HIGHWAY TO SALT LAKE BOULEVARD  
HONOLULU, OAHU, HAWAII (TMK: 1-1-10)  
FEDERAL AID PROJECTS NO. STP-7310(1)  

August 3, 2000  

Thank you for your letter, regarding the Puuloa Road Improvements, Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment (Draft EA). We offer the following responses, to your comments:  

1. COMMENT: "The proposed noise wall may be as high as 20 feet and degrade the visual quality of the site. Therefore, please analyze the visual impacts of wall. Photos of existing conditions taken from public view points are helpful in evaluating visual impacts. Renderings of future structures superimposed on photos of existing views should be provided. We recommend constructing and painting the walls with materials and colors that blend with the surroundings. We also recommend landscaping with native Hawaiian plants to reduce the visual impacts."

RESPONSE: The project will construct an eight-foot high retaining wall and a five-foot high noise wall on the ewa side of Puuloa Road. The height of the retaining wall is minimized by grading portions of the adjacent Navy property (to be transferred to the State) and landscaping these graded slopes with grassed ground cover, native shrubs and trees.
In order to minimize the visual impacts, the proposed retaining wall will be painted a neutral color, to subdue the walls concrete appearance. Appropriate landscaping will also be provided along the project route to minimize the visual impacts of the proposed retaining wall. Planters with ficus vines will be placed intermittently along the wall to enhance its aesthetic quality. The ficus vines should eventually cover the entire wall surface. However, in the meantime, the retaining walls are subject to potential vandalism and graffiti. Thus, the application of an anti-graffiti coating to the surfaces of both the retaining and noise wall is also being considered. This special coating will not only provide a permanent, impenetrable barrier to common graffiti materials, but also to help protect the wall surface from weather, chemicals, and pollution.

2. COMMENT: “Please describe why HECO and Oceanic Cable cannot participate and share costs with GTE Hawaiian Tel to underground all the utilities.”

RESPONSE: GTE Hawaiian Tel determined to relocate their existing overhead telephone lines underground because the relocation of the telephone lines to a new overhead location was not feasible (reasons cited in the Draft EA, Section I.D.8). HECO and Oceanic Cable will not be relocating their existing utilities underground since this option is not economically feasible.

3. COMMENT: “Please coordinate the schedule of the other projects in the area (such as the Salt Lake Boulevard improvements) to minimize impacts on traffic and the residents.”

RESPONSE: Coordinating the schedules of other projects in the area will be done to the extent feasible. The City’s Visioning Team for the Salt Lake Boulevard Improvement project has been in contact with the State DOT.

4. COMMENT: “Please discuss the findings and reasons for supporting the FONSI determination based on the significant criteria listed in Section 11-200-12 of the EIS rules. Please see the enclosed example.”

RESPONSE: The “Findings and Reasons for Supporting the FONSI Determination” will be included in the Final Environmental Assessment.
5. COMMENT: "Please include the list of permits required for the project in the final environmental assessment."

RESPONSE: A list of permits will be provided in the Final Environmental Assessment.

6. COMMENT: "The project will eliminate parking along Puleoa Road that employees heavily use. What is the impact to the neighboring area (Mapunapuna) which is substandard to City standards for road width and improvements?"

RESPONSE: Since the proposed roadway improvements would fully utilize the right-of-way, vehicles will not be able to park along the roadway. Access control is necessary to provide a safe and efficient arterial roadway. Parking decreases capacity, impedes traffic flow, and increases the potential for accidents. All individual lessees of the Damon Trust Estate along Puleoa Road between Kilihi Street and Pukaloa Street were notified that all unauthorized parking along Puleoa Road would be eliminated in a letter from HDOT dated June 6, 1997.

The State DOT will not be improving the side streets within the adjacent Mapunapuna area since these streets are owned by the City and County of Honolulu and are therefore outside of the State’s jurisdiction.

Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.
November 8, 1999

Mr. Kevin Ito  
Highways Division  
Department of Transportation  
State of Hawaii  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Mr. Ito:

Subject: Puuloa Road Improvements - Kamehameha Highway to Salt Lake Boulevard

In response to the September 27, 1999 letter from Akinaka & Associates, Ltd., the draft environmental assessment (EA) for the subject project was reviewed. The following comments are the result of this review:

1. The discussion of the proposed action in Section I.D. (Pages I-6 to I-13) is confusing. On Page I-8, the proposed project is described as resulting in two mauka-bound lanes and three makai-bound lanes. However, on Page I-12, the project is described as providing two makai-bound lanes and an auxiliary lane. To clarify the work involved, existing and proposed plan views of the roadway should be included in the draft EA.

2. The project area includes five bus stops. At each of these bus stops, a minimum sidewalk clear space of 8 feet by 26 feet should be provided to install a bus shelter and to allow for wheelchair lift deployment. Also, street lights should be installed near the bus stops for the safety of waiting passengers.

3. It is recommended that the wheelchair clearance around barriers, such as utility poles, electric boxes, etc., exceed the minimum 36-inch clearance width.
4. Section III.P. (Page III-13) identifies several lots that currently have direct access to Pualoa Road. It is strongly suggested that those businesses that will not be provided with this direct access to Pualoa Road after the completion of the project be notified in advance.

5. Construction and traffic control plans should be submitted to the City's Department of Planning and Permitting for review if streets under City jurisdiction will be impacted.

6. As suggested in our April 4, 1996 letter to your department, an updated construction project schedule should be coordinated with this department and other affected agencies to avoid having major roadway construction occur in the vicinity of this project at the same time.

Should you have any questions regarding these comments, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

Cheryl D. Soon
Director

CC: Mr. Barry Muranaka
Akinaka & Associates, Ltd.
Ms. Cheryl D. Soon, Director  
Department of Transportation Services  
City and County of Honolulu  
711 Kapiolani Boulevard, Suite 1200  
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject:  Response to Comments on the Draft Environmental Assessment for the  
Puuloa Road Improvements - Kamehameha Highway to Salt Lake Boulevard  
Honolulu, Oahu, Hawaii (TMK: 1-1-10)  
Federal Aid Project No. STP - 7310(1)

Thank you for your letter, dated November 8, 1999, regarding the Puuloa Road Improvements -  
Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment (EA). We offer  
the following responses to your comments:

1. COMMENT:  "The discussion of the proposed action in Section I.D. (Pages I-6 to I-13) is confusing.  
On Page I-8, the proposed project is described as resulting in two mauka-bound lanes and three makai-bound lanes.  
However, on Page I-12, the project is described as providing two makai-bound lanes and an auxiliary lane.  
To clarify the work involved, existing and proposed plan views of the roadway should be included in  
the draft EA."

RESPONSE:  The text has been revised to clarify the work involved.  A plan view of  
the proposed improvements (showing the auxiliary lane) has been attached for your reference.

The proposed project involves widening Puuloa Road (from Salt Lake Boulevard to Kamehameha Highway) to a five-lane facility which  
includes two mauka-bound lanes and three makai-bound lanes.  The design is based on providing a desirable level of service and will  
control the access to the arterial roadway.
2. COMMENT: "The project area includes five bus stops. At each of these bus stops, a minimum sidewalk clear space of 8 feet by 26 feet should be provided to install a bus shelter and to allow for wheelchair lift deployment. Also, street lights should be installed near the bus stops for the safety of waiting passengers."

RESPONSE: The proposed relocation of the existing bus stops on both the Ewa Diamond Head sides of the project route will be coordinated with the Department of Transportation Services to allow for wheelchair lift deployment. Bus shelters will not be provided by the State Department of Transportation (DOT) due to the lack of available funding. DOT will consider the feasibility of installing street lights near the bus stops.

3. COMMENT: "It is recommended that the wheelchair clearance around barriers, such as utility poles, electric boxes, etc., exceed the minimum 56-inch clearance width."

RESPONSE: The proposed improvements will be designed to comply with the requirements of the American With Disabilities Act. Wheelchair clearance exceeding the minimum 56-inch clearance width will be provided if space is available.

4. COMMENT: "Section III.P. (Page III-13) identifies several lots that currently have direct access to Pualoa Road. It is strongly suggested that those businesses that will not be provided with this direct access to Pualoa Road after the completion of the project be notified in advance."

RESPONSE: The existing businesses that will not be provided with direct access to Pualoa Road following the completion of the road improvements were previously notified.

5. COMMENT: "Construction and traffic control plans should be submitted to the City’s Department of Planning and Permitting for review if streets under City jurisdiction will be impacted."

RESPONSE: Upon completion, construction and traffic control plans shall be submitted to the City’s Department of Planning and Permitting for review.
6. COMMENT: "As suggested in our April 4, 1996 letter to your department, an updated construction project schedule should be coordinated with this department and other affected agencies to avoid having major roadway construction occur in the vicinity of this project at the same time."

RESPONSE: The project's bid documents will require the contractor to notify the City's Department of Transportation Services as well as the appropriate utility companies of the project's updated construction schedule.

Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.

Very truly yours,

\[signature\]

KAZU HAYASHIDA
Director of Transportation
November 8, 1999

Department of Transportation
Highways Division
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Attention: Mr. Kevin Ito

Gentlemen:

Draft Environmental Assessment for the Pualoa Road Improvements
Kamehameha Highway to Salt Lake Boulevard
Honolulu, Oahu, Hawaii (TMK: 1-1-10)
Federal Aid Project No.: STP7310(1)

The following responds to your request for comments on the above. We note that the work for this project is being performed by the State Department of Transportation and will primarily affect roadways which are under their jurisdiction.

Our Wastewater Branch has no objections to the project. However, it should be noted that there are existing municipal sewer lines between Salt Lake Boulevard and Mokumoa Street. The consulting engineer should submit design plans for review and approval. A location map of the sewer lines along Salt Lake Boulevard can be made available, upon request. Questions may be referred to Scott Gushi at 523-4886.

Our Subdivision Branch indicated that subdivision plans need to be processed if easements are created or if land acquisition is required along Pualoa Road. Questions may be referred to Mario Siu-Li at 523-4247.

Our Traffic Review Branch has no objections to the proposed improvement project. However, the following should be incorporated into the design of the roadway during the progress of the project:
1. Construction plans for work affecting the City's road right-of-way and/or infrastructure should be submitted for review and approval. The jurisdictional and maintenance limits should be shown and/or established on the plans during the design of the project. Traffic control plans during construction should also be submitted, as required, for work on or affecting City's streets.

2. The design and final location of City bus stops along Puleoa Road should be coordinated with the Department of Transportation Services - Public Transit Division.

If there are further questions, please contact Mel Hirayama at 523-4119.

Very truly yours,

[Signature]

JAN NAOE SULLIVAN
Director of Planning and Permitting

JNS:fm
/cc: Akinaka and Associates, Ltd.

puleoa.fm
Mr. Randall Fujiki, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Subject: Response to Comments on the Draft Environmental Assessment for the Pualoa Road Improvements - Kamehameha Highway to Salt Lake Boulevard Honolulu, Oahu, Hawaii (TMK: 1-1-10)
Federal Aid Project No.: STP-7310(1)

Dear Mr. Fujiki:

Thank you for your comment letter, dated November 8, 1999, during the 30-day comment period for the Pualoa Road Improvements - Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment. We offer the following responses to your comments:

1. COMMENT: "Our Wastewater Branch has no objections to the project. However, it should be noted that there are existing municipal sewer lines between Salt Lake Boulevard and Mokumaa Street. The consulting engineer should submit design plans for review and approval. A location map of the sewer lines along Salt Lake Boulevard can be made available, upon request. Questions may be referred to Scott Gushi at 523-4886."

RESPONSE: Upon completion, final plans shall be submitted to the Department of Planning and Permitting, Wastewater Branch for review and approval.

2. COMMENT: "Our Subdivision Branch indicated that subdivision plans need to be processed if easements are created or if land acquisition is required along Pualoa Road. Questions may be referred to Mario Siu-Li at 523-4247."

July 20, 2000
RESPONSE: Subdivision plans will be submitted by the State Department of Transportation for the acquisition of land along the proposed project route.

3. COMMENT: "Our Traffic Review Branch has no objections to the proposed improvement project. However, the following should be incorporated into the design of the roadway during the progress of the project:

1. Construction plans for work affecting the City's road right-of-way and/or infrastructure should be submitted for review and approval. The jurisdictional and maintenance limits should be shown and/or established on the plans during the design of the project. Traffic control plans during construction should also be submitted, as required, for work on or affecting City's streets.

2. The design and final location of City bus stops along Pualoa Road should be coordinated with the Department of Transportation Services - Public Transit Division."

RESPONSE: Upon completion, final construction plans as well as the project's traffic control plan shall be submitted to the Department of Planning and Permitting, Traffic Review Branch for review and approval. Maintenance within the State Right-of-Way will be done by the State DOT.

Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.

Very truly yours,

KAZU HAYASHIDA
Director of Transportation
Mr. Sheldon T. Yamasato, P.E.
Senior Vice President
Akinaka & Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817-4716

Dear Mr. Yamasato:

Subject: Draft Environmental Assessment (DEA)  
Puuloa Road Improvements - Kamehameha Highway to Salt Lake Boulevard  
(Federal Aid project No. STP-7310(1))  
Honolulu, Hawaii  
TMK: 1-1-10

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:

Noise

Chapter 11-43 “Community Noise Control” was incorrectly referenced on page IV-3 of the Draft Environmental Assessment. Chapter 11-43 was superseded by Chapter 11-46, Hawaii Administrative Rules, “Community Noise Control” on September 23, 1996.

1. Activities associated with the construction of the project must comply with the Department of Health’s Administrative Rules, Chapter 11-46, “Community Noise Control.”

   a. The contractor must obtain a noise permit if the noise levels from the construction activities are expected to exceed the maximum permissible sound levels of the regulations as stated in Section 11-46-6(a).
b. Construction equipment and on-site vehicles requiring an exhaust of gas or air must be equipped with mufflers as stated in Section 11-46-6(b)(1)(A).

c. The contractor must comply with the requirements pertaining to construction activities as specified in the rules and the conditions issued with the permit as stated in Section 11-46-7(d)(4).

Should there be any questions on this matter, please call Mr. Jerry Haruno, Environmental Health Program Manager, Noise, Radiation and Indoor Air Quality Branch at 586-4701.

**Control of Fugitive Dust**

For the proposed project, there is a significant potential for fugitive dust to be generated during all phases of construction activities. The Draft Environmental Assessment states that construction activities would occur in close proximity to existing businesses and along roadways, thereby exacerbating potential dust problems. It is suggested that a dust control management plan be developed which identifies and addresses activities having a potential to generate fugitive dust. Implementation of adequate dust control measures during all phases of the project is warranted. Construction activities must comply with the provisions of Chapter 11-60.1, Hawaii Administrative Rules, "Air Pollution Control," section 11-60.1-33 on Fugitive Dust.

The contractor should provide adequate measures to control dust from road areas and during the various phases of construction activities. These measures include but are not limited to:

a. planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing material transfer points and on-site vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;

b. providing an adequate water source at site prior to start-up of construction activities;

c. landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;

d. controlling of dust from shoulders, project entrances, and access roads; and

e. providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities.
If you have any questions regarding fugitive dust, please contact Mr. Timothy Carvalho of the Clean Air Branch at 586-4200.

Sincerely,

[Signature]

GARY GILL
Deputy Director for Environmental Health

c: NR&IAQB
   CAB
   OEQC
TO: GARY L. GILL  
DEPUTY DIRECTOR FOR ENVIRONMENTAL HEALTH  
DEPARTMENT OF HEALTH  

FROM: RONALD F. TSUZUKI  
ACTING ADMINISTRATOR, HIGHWAYS DIVISION  

SUBJECT: RESPONSE TO COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT FOR THE PUUOIA ROAD IMPROVEMENTS, KAMEHAMEHA HIGHWAY TO SALT LAKE BOULEVARD  
HONOLULU, OAHU, HAWAII (TMK:1-1-10)  
FEDERAL AID PROJECT NO. STP-7310(1)  

August 1, 2000  

Thank you for your letter regarding the Puuola Road Improvements, Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment. We offer the following responses to your comments:  

1. COMMENT: “Noise. Chapter 11-43 ‘Community Noise Control’ was incorrectly referenced on page IV-3 of the Draft Environmental Assessment. Chapter 11-43 was superseded by Chapter 11-46, Hawaii Administrative Rules, ‘Community Noise Control’ on September 23, 1996. Activities associated with the construction of the project must comply with the Department of Health’s Administrative Rules, Chapter 11-46, ‘Community Noise Control.’  
   a. The contractor must obtain a noise permit if the noise levels from the construction activities are expected to exceed the maximum permissible sound levels of the regulations as stated in Section 11-46-6(a).  
   b. Construction equipment and on-site vehicles requiring an exhaust of gas or air must be equipped with mufflers as stated in Section 11-46-6(b)(1)(A).
c. The contractor must comply with the requirements pertaining to construction activities as specified in the rules and the conditions issued with the permit as stated in Section 11-46-7(d)(4). 

RESPONSE: The text has been edited to correctly reference Chapter 11-46, "Community Noise Control."

Bid documents will require the contractor to obtain a noise permit in accordance with Chapter 11-46. Unavoidable short-term noise impacts are expected during construction activities. However, these noise impacts will be minimized through compliance with the provisions of Chapter 11-46 and 11-42. Unnecessary noise will be reduced by adequate and proper maintenance of construction equipment and vehicles.

2. COMMENT: "Control of Fugitive Dust. For the proposed project, there is a significant potential for fugitive dust to be generated during all phases of construction activities. The Draft Environmental Assessment states that construction activities would occur in close proximity to existing businesses and along roadways, thereby exacerbating potential dust problems. It is suggested that a dust control management plan be developed which identifies and addresses activities having a potential to generate fugitive dust. Implementation of adequate dust control measures during all phases of the project is warranted. Construction activities must comply with the provisions of Chapter 11-60.1, Hawaii Administrative Rules, 'Air Pollution Control,' section 11-60.1-33 on Fugitive Dust.

The contractor should provide adequate measures to control dust from road areas and during the various phases of construction activities. These measures include but are not limited to:

a. planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing material transfer points and on-site vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;
b. providing an adequate water source at site prior to start-up of construction activities;

c. landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;

d. controlling of dust from shoulders, project entrances, and access roads; and

e. providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities."

RESPONSE: A dust control management plan which identifies and addresses activities having a potential to generate fugitive dust shall be developed by the contractor. The contractor shall implement adequate dust control measures during all phases of the project. All dust control measures to be used shall comply with HAR, Title 11, Chapters 59 and 60, as well as all other applicable county ordinances.

Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.
November 3, 1999

Abraham Wong
U.S. Department of Transportation
Federal Highway Administration
300 Ala Moana Blvd., Box 50206
Honolulu, Hawaii 96850

Dear Mr. Wong,

RE: PUULOA ROAD IMPROVEMENTS - KAMEHAMEHA HIGHWAY TO SALT LAKE BOULEVARD

This project will greatly improve the safety and traffic flow in this area.

Based on the plans, only a portion of the overhead lines will be undergrounded. We are in support of efforts to underground the utility lines, and the Aliamanu/Salt Lake Neighborhood Board continues to request undergrounding of all the lines.

Another concern is the current use of Puuloa Road for employee's parked cars in the area. During the workday, the Salt Lake side of the street is lined with parked cars. Consideration should be given to allow for parking after the improvements are made and until such a time when makai-bound traffic counts warrant full use of all lanes. The bike path could be striped along the parking lane. 

Thank you for your time and consideration.

Sincerely,

Norman Sakamoto
Senator, 16th District
The Honorable Norman Sakamoto  
Senator, 16th District  
State Capitol; Room 207  
Honolulu, Hawaii 96813

Dear Senator Sakamoto:

Subject: Response to Comments on the Draft Environmental Assessment for the  
Puoloa Road Improvements - Kamehameha Highway to Salt Lake Boulevard  
Honolulu, Oahu, Hawaii (TMK: 1-1-10)  
Federal Aid Project No. STP-7310(1)

Thank you for your letter, regarding the Puoloa Road Improvements, Kamehameha Highway to Salt Lake Boulevard Draft Environmental Assessment (EA). We offer the following responses to your comments:

COMMENT: "Based on the plans, only a portion of the overhead lines will be undergrounded. We are in support of efforts to underground the utility lines, and the Aliamanu/Salt Lake Neighborhood Board continues to request undergrounding of all the lines."

RESPONSE: We acknowledge that undergrounding existing overhead utilities is a preferred method. GTE Hawaiian Tel determined to relocate their existing overhead telephone lines underground because the relocation of the telephone lines to a new overhead location was not feasible (reasons cited in the Draft EA, Section I.D.8). HECO and Oceanic Cable will not be relocating their existing utilities underground since this option is not economically feasible.
COMMENT: "Another concern is the current use of Puuloa Road for employee's parked cars in the area. During the workday, the Salt Lake side of the street is lined with parked cars. Consideration should be given to allow for parking after the improvements are made and until such a time when makai-bound traffic counts warrant full use of all lanes. The bike path could be striped along the parking lane."

RESPONSE: Since the proposed roadway improvements would fully utilize the right-of-way, vehicles will not be able to park along the roadway. Access control is necessary to provide a safe and efficient arterial roadway. Parking decreases capacity, impedes traffic flow, and increases the potential for accidents. All individual lessees of the Damon Trust Estate along Puuloa Road between Kilihau Street and Pukoloe Street were notified that all unauthorized parking along Puuloa Road would be eliminated in a letter from the State Department of Transportation dated June 6, 1997.

Should you have any questions, please contact Mr. Kevin Ito at 692-7548, Technical Design Services Office, Design Branch, Highways Division.

Very truly yours,

[Signature]

KAZU HAYASHIDA
Director of Transportation