Hana Hwy. Imp.

BENJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

RECEIVED
'98 MAY 13 P3:21
OFC. OF ENVIRONMENTAL
QUALITY CONTROL

IN REPLY REFER TO:
HWY-DD
2.9316

May 13, 1998

Mr. Gary Gill, Director
Office of Environmental Quality Control
220 South King Street, Suite 400
Honolulu, Hawaii 96813

Dear Mr. Gill:

Subject: *Finding of Significant Impact (FONSI) for Hana Highway Improvements At Milepost 14.39, Project No. 360A-04-95, TMK 1-1-01-44, Hana, Maui Hawaii*

The State Department of Transportation has reviewed the comments received during the 30-day public comment period which began on June 8, 1996. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the May 23, 1998, OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form and four copies of the final EA. Should you have any questions, please contact Ken Tatsuguchi at 587-2244.

Very truly yours,

Kazu Hayashida

KAZU HAYASHIDA
Director of Transportation

Enclosure

50

1998-05-23-MA-FEA-Hana Highway Improvements at Milepost 14.39

FINAL
ENVIRONMENTAL ASSESSMENT

HANA HIGHWAY IMPROVEMENTS AT MILEPOST 14.39

Prepared for

State of Hawaii
Department of Transportation
Highways Division

May 1998

CONTENTS

ATTACHMENTS

CHAPTER 1
PERTINENT DATA

APPLICANT:

State of Hawaii
Department of Transportation
Highways Division
869 Punchbowl Street
Honolulu, Hawaii 96813
Contact: Mr. Ken Tatsuguchi (587-2244)

PROJECT TITLE:

Hana Highway Improvements at Milepost 14.39
Project No. 360A-04-95

PROPOSED ACTION:

Realignment of Hana Highway to include a rock catchment area, gutters, replacement of existing guardrails and removal of existing concrete rubble masonry wall.

AGENCIES CONSULTED IN THE ASSESSMENT PROCESS:

Federal Government:

U.S. Department of Agriculture
Natural Resources Conservation Service
U. S. Department of the Interior Fish and Wildlife Service
U. S. Department of the Army

State of Hawaii:

State Department of Business, Economic Development and Tourism
Land Use Commission
State Department of Health
State Department of Land and Natural Resources
State Historic Preservation Division
Office of Hawaiian Affairs
Office of State Planning

County of Maui:

County of Maui Planning Department
County of Maui Public Works Department
Mayor's Hana District Advisory Council

Other:

Hana Business Council
Hana Community Association
Keanae Community Association
PacRim Research
Sierra Club Hawaii Chapter Maui Group
Various Private Citizens

CHAPTER 2
DESCRIPTION OF THE PROPOSED PROJECT

PROJECT LOCATION

The project is at a section of Hana Highway on the Northeast slope of Haleakala Crater, on the edge of a cliff (see Figure 1 - Map Of Area). The highway is predominantly a 2-lane highway with 1-lane in each direction. This highway has a varying roadway width and is the only developed roadway serving the Keanae and Hana communities on the Island of Maui. The existing travelway in this section is approximately 18 feet wide.

PROPOSED ACTION

The State of Hawaii, Department of Transportation, Highways Division is proposes to realign a 650 foot section of Hana Highway. This section of roadway is approximately 0.75 miles southeast of Kaumahina State Wayside Park (see Figure 2 - Location Map).

Earth movements beneath the roadway have caused extensive damage within the project area. A summary of the damage to the existing roadway facility are as follows: the asphalt concrete pavement surface has cracked up to 7 inches wide and has settled up to 6 inches; an existing 24-inch reinforced concrete drainage pipe has cracked beneath the existing roadway; an existing cement rubble masonry (CRM) wall has cracked at the top and along the bottom; and there is substantial soil erosion at the base of the CRM wall. (see Attachment A - Photographs)

Portable Concrete barriers are currently placed along the pavement cracks to prevent traffic from traversing the damaged area. This limits traffic to one lane and reduces the capacity of the highway.

The proposed project consists of realigning Hana Highway by moving the centerline approximately 15 feet mauka of the existing centerline. Other improvements include reconstructing the existing drainage system; installing a rock catchment area, gutters and guardrails; and removing damaged sections of the existing cement rubble masonry wall. (see Figures 3 - Typical Section and 4 - Plan)

The roadway realignment work will require excavation of an existing slope which is outside of the State Department of Transportation's Right-Of-Way. This slope is owned by the State Department of Land and Natural Resources and designated as conservation land. A construction parcel is required to do the slope excavation work. Land will be acquired to accommodate the roadway facilities extending outside the existing highway right-of-way. A Conservation District Use Permit will have to be obtained. The land on the "makai" side of Hana Highway where the existing cement rubble masonry wall is located extends beyond the

State Highway Right-Of-Way into the Special Management Area. Removal of the cement rubble masonry wall does not require a minor Special Management Area permit. (see Figure 5 - Letter from County of Maui Planning Department)

PROJECT SCHEDULE AND CONSTRUCTION COST

Construction for the proposed project is estimated to begin in August 1998 and be completed in 220 working days. The estimated construction costs for the proposed project is $4,000,000 for the State of Hawaii. The economic effects will be temporary and will be minimized by limiting the road closure to six and one half hours of the normal work day.

STATEMENT OF OBJECTIVES:

Hana Highway does not meet the current design standards for a rural highway due to the pavement failure on the "makai" side of the highway. Temporary concrete barriers are in use to shield the public from the area where the pavement has failed. Currently motorists must use Hana Highway in the vicinity of milepost 14.39 as a one-lane roadway.

The increased growth of traffic through the project site from Wailuku to Hana will call for a safer and more efficient roadway for the motoring public. Thus, this project also includes provisions for a rock catchment area on the "mauka" side of the roadway.

CHAPTER 3
ALTERNATIVE CONSIDERED

NO ACTION

The No Action alternative may lead to further cracking of the pavement and drainage pipe causing this portion of the highway to fail. Road closures would result in social and economic hardship to the Hana community and roadway users. Thus, the no action alternative was determined to be unacceptable because the benefits of providing the motoring public with a more reliable highway far outweigh the minor adverse impacts anticipated while constructing this project.

ALTERNATE DESIGNS

The following alternatives were discussed at public meetings held on December 19, 1996 with the Hana Community, January 9, 1997 with the Keanae Community and January 16, 1997 with the Hana Business Council.

Alternative Design One is to improve slide stability and provide for a one-lane highway. This alternative would have the section of Hana Highway at milepost 14.39 function as a one-lane highway. The upper portion of the sliding material, including the damaged CRM wall will be removed to improve slide stability. The remaining stable section of the roadway will be utilized to provide for a one-lane highway, and guardrails will be installed. Approximate Cost $500,000.

Alternative Design Two is provide a two-lane highway by using two-foot diameter drill shafts to function as a wall. The drill shafts would be placed adjacent to each other approximately 200 feet deep with tiebacks to hold the drill shafts in place for a length of 500 feet. This alternative would require a six month long soil investigation study and then design recommendations can be made. Tiebacks are needed to anchor the drill shafts. Construction would require 24-hour road closure to drill shafts. Approximate Cost $13 million.

Alternative Design Three is to provide a two-lane highway by using five-foot diameter drill shafts placed 12.5 feet on center approximately 200 feet deep for a length of 500 feet. This alternative would require a six month long soil investigation study and then design recommendations can be made. Construction would require 24-hour road closure to drill shafts. Approximate Cost $7 million.

Alternative Design Four is to construct a two-lane acrow panel bridge in two segments of approximately 250 feet in length to span the slide area. A six month long soil investigation study would be required to determine the soil for a foundation (two abutments and a pier). The foundation would consist of two-foot diameter drill shafts 200 feet deep. To construct the

foundation the road would have 24-hour road closures for approximately three months. Traffic can cross the construction site once the foundation is placed. Approximate Cost $6 million.

Another design considered constructing a one-lane acrow panel bridge but construction would require launching bridge segments in place which is not feasible for this project location.

Alternative Design Five is to provide a tunnel. This alternative was determined to be feasible but not acceptable due to the high cost, lengthy design and construction time required, and potential negative effects on the environment.

Alternative Design Six is to provide a two-lane highway by cutting the slope, realigning Hana Highway and providing a 30-foot rock catchment area. The existing mauka slope is 1:5. The new slope will be 1:5 but at a higher elevation.

After discussions with the citizens in the Hana and Keanae area, who concur with our staff recommendation of Alternative Design Six to provide a two-lane highway with a 30-foot rock catchment area. This design was also recommended in the Draft Environmental Assessment.

CHAPTER 4
SUMMARY DESCRIPTION OF THE AFFECTED ENVIRONMENT

PROJECT SITE

The project site is located on Hana Highway from Sta. 602+00 to Sta. 608+00. Hana Highway is the only developed roadway serving the towns from Hana to Paia. This highway is used primarily by residents commuting to jobs in Makawao, Kahului and Wailuku, and visitors traveling to and from Hana. There will be no displacement or relocation of residents. There are two vendors near the project area, one in Keanae and one in Wailua. The businesses will not be displaced or relocated.

The proposed project will not allow long periods of road closure during construction. A rock catchment area is included in the proposed realignment of the highway. This proposed realignment of Hana Highway will provide a more reliable highway for the traveling public.

ENVIRONMENTAL

The proposed project will require taking additional right-of-way on the mauka side of the highway. The toe of cut will be moved a maximum of 50 feet into the mountainside, the roadway will be realigned and a 30 foot wide rock catchment area will be created. Construction will extend a maximum of 170 feet mauka of the existing right-of-way. An estimated total of 40,000 cubic yards of material will be excavated. The Contractor is responsible to dispose the excavated material properly in accordance with the laws of the State. The Special Provisions will also require the Contractor to disclose the site for the excavated material prior to awarding the contract and this information will be made available to the public. Failure by the Contractor to follow the Special Provisions could be grounds to terminate the contract.

No unusual flora or fauna inhabit the project site. Flora along the ridges of the project site include: lehua, lauhala, kukui trees, bamboo trees, ferns and weeds. There are no known historical, cultural or archaeological sites within the project limits. (see Figure 6 - Letter from State Historic Preservation Office) Hana Highway will remain a two-lane facility upon completion of the project; therefore, air quality and noise levels will not be permanently affected.

All construction work will be designed so that the project will resemble the existing surroundings, thus no adverse visual impacts are anticipated. Best management practices will be implemented and no significant long term adverse affects on water quality are anticipated. Construction related materials shall be placed or stored in ways to avoid or minimize disturbance and runoff to the near shore environment. All construction materials shall be free of pollutants. Appropriate mitigation measures such as but not limited to concrete jersey

barriers with delineation or reflector markers and or rock berms will be utilized to minimize adverse environmental impacts during the construction of the project.

Minor impacts during construction are: dust, noise, traffic slowdown, and minor water quality impacts from silt and construction debris.

The proposed realignment of Hana Highway will produce a more reliable roadway while causing no significant long term adverse impacts. There are no endangered flora, fauna, critical habitats, historical/archaeological or cultural sites at the location of the proposed project. (see Figure 6 - Letter from State Historic Preservation Office, Figure 7 - Letter from U.S. Department of the Interior, and Figure 8 - Letter from U.S. Department of Agriculture - Natural Resources Conservation Service.

CHAPTER 5
IDENTIFICATION AND SUMMARY OF MAJOR IMPACTS AND PROPOSED MITIGATION MEASURES

SHORT-TERM IMPACTS

No significant short term adverse impact is anticipated to the following:

1. Air quality
2. Noise
3. Traffic
4. Historical/Archaeological
5. Flora
6. Fauna
7. Visual
8. Water Quality

LONG-TERM IMPACTS

No significant long term adverse impact is anticipated to the following:

1. Air quality
2. Noise
3. Traffic
4. Historical/Archaeological
5. Flora
6. Fauna
7. Visual
8. Water Quality

MITIGATION MEASURES

Air Quality: The generation of dust and noise are anticipated by the construction activities. Dust levels will be controlled by sprinkling the project site with water. The Contractor will be responsible for keeping adjacent areas free of mud and sediment by exercising water pollution control measures required by contract requirements.

Construction equipment will emit exhausts. However, such emissions are temporary and should be significantly less than levels generated by daily traffic on Hana Highway.

Noise: During construction, there will be a temporary increase in noise from the construction activities. Noise generated by the activity shall comply with noise provisions established by the State Department of Health.

Water Quality: The improvements will have minimal long term impact on existing water quality. Storm waters will be collected by a lined concrete gutter into a new drainage system. No new drainage runoff areas will be added to the drainage system, and no appreciable increase in runoff volume is anticipated. The primary temporary water pollution control measures that will be implemented during construction, include but are not limited to the construction of rock berms, concrete jersey barrier, slope drains, the usage of mulching, grassing and gravel packing. Excavated material shall be disposed of properly by the Contractor. The Special Provisions will require the Contractor to disclose the location of the disposal site prior to awarding the contract and this information will be made available to the public. If the Contractor fails to follow the Special Provisions this could be grounds for contract termination.

Erosion: Excavation will be a major construction activity at the project site. Short-term erosion during the construction activity will be minimized by temporary erosion control features. These measures include but are not limited to the following: concrete jersey barriers, constructing rock berms and slope drains, mulching, grassing, or other control devices or methods necessary to control erosion. Grassing of the denuded areas will be implemented on a cost-effective basis (e.g. areas where slopes

are steep and rocky will not be grassed since it is difficult to establish growth in such areas). Erosion over the long term will be limited. Hydro mulch seeding will be applied over excavated areas where feasible to control erosion.

Traffic: Vehicular traffic will be temporarily inconvenienced during construction. The Contractor will be required to minimize any impact on traffic. Lane and/or road closure will be permitted in accordance with the contract specifications. Lane closure will be allowed any day during the construction period. Road closure will be allowed only during the following hours: 7:30 a.m. to 10:00 a.m.
12:30 p.m. to 4:30 p.m.

Economic: Temporary road closure will not substantially affect the businesses near the project. However, the road work is needed to complete necessary improvements and minimize prolonged road closures due to slides and pavement failure which would have untimely and greater economic impacts on businesses. The economic effects will be temporary, and will be minimized by limiting the road closure to six and one half hours of the normal work day.

Archaeology: The project area does not contain any known archaeological sites. Should any archaeological features be encountered, work in the immediate area will cease immediately and proper historic authorities will be notified. (see Figure 6 - Letter from State Historic Preservation Office)

Permits Required Prior To Start Of Construction:

1. Conservation District Use Application, State of Hawaii, Department of Land and Natural Resources

2. Special Management Area Permit, County of Maui, Planning Department is exempt per letter from County of Maui, Planning Department dated April 1, 1996 (see Figure 5 - Letter from County of Maui Planning Department).

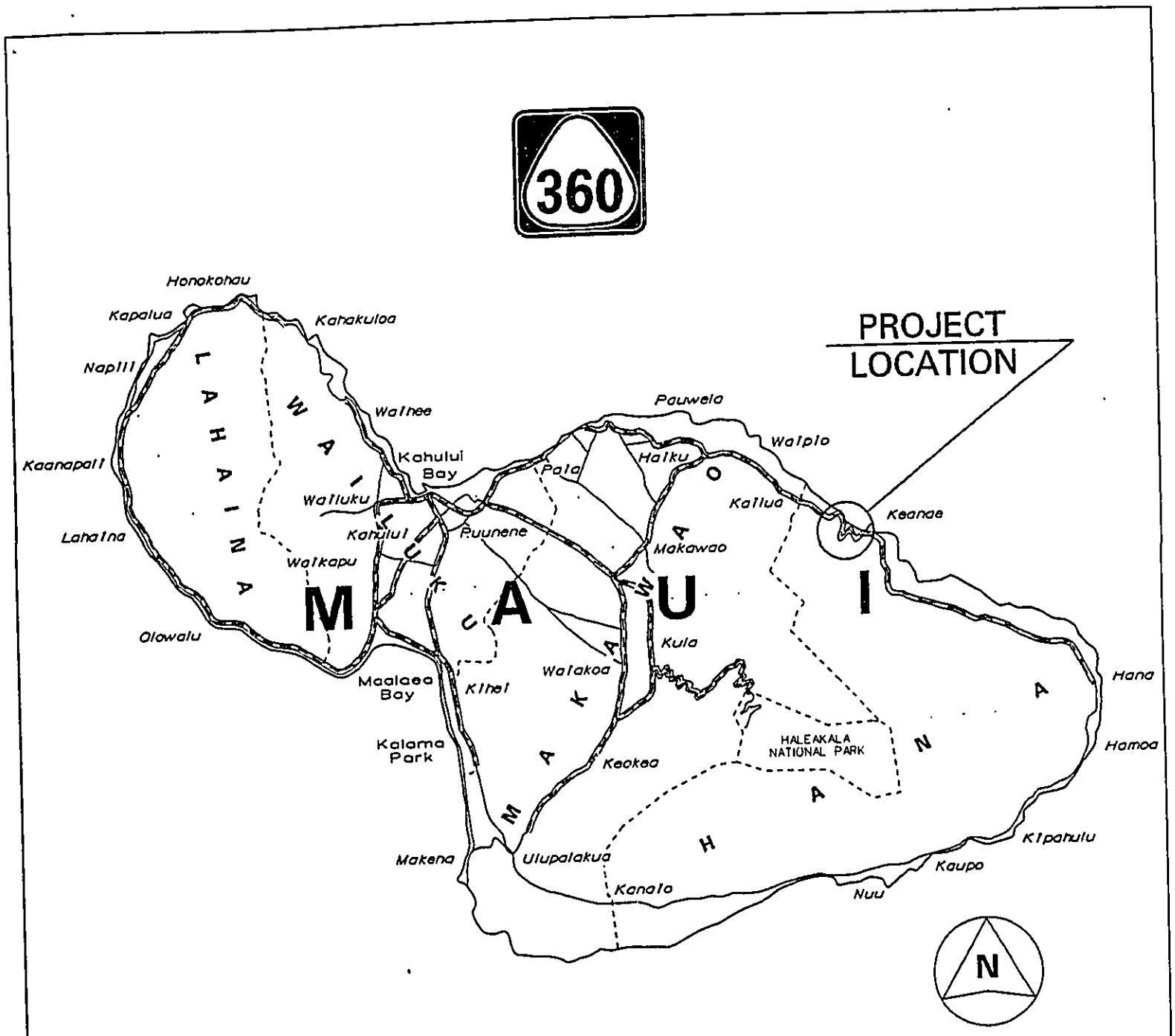


Figure 1

MAP OF AREA

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANA HIGHWAY

IMPROVEMENTS AT M.P. 14.39

PROJECT NO. 360A-04-95

ISLAND OF MAUI

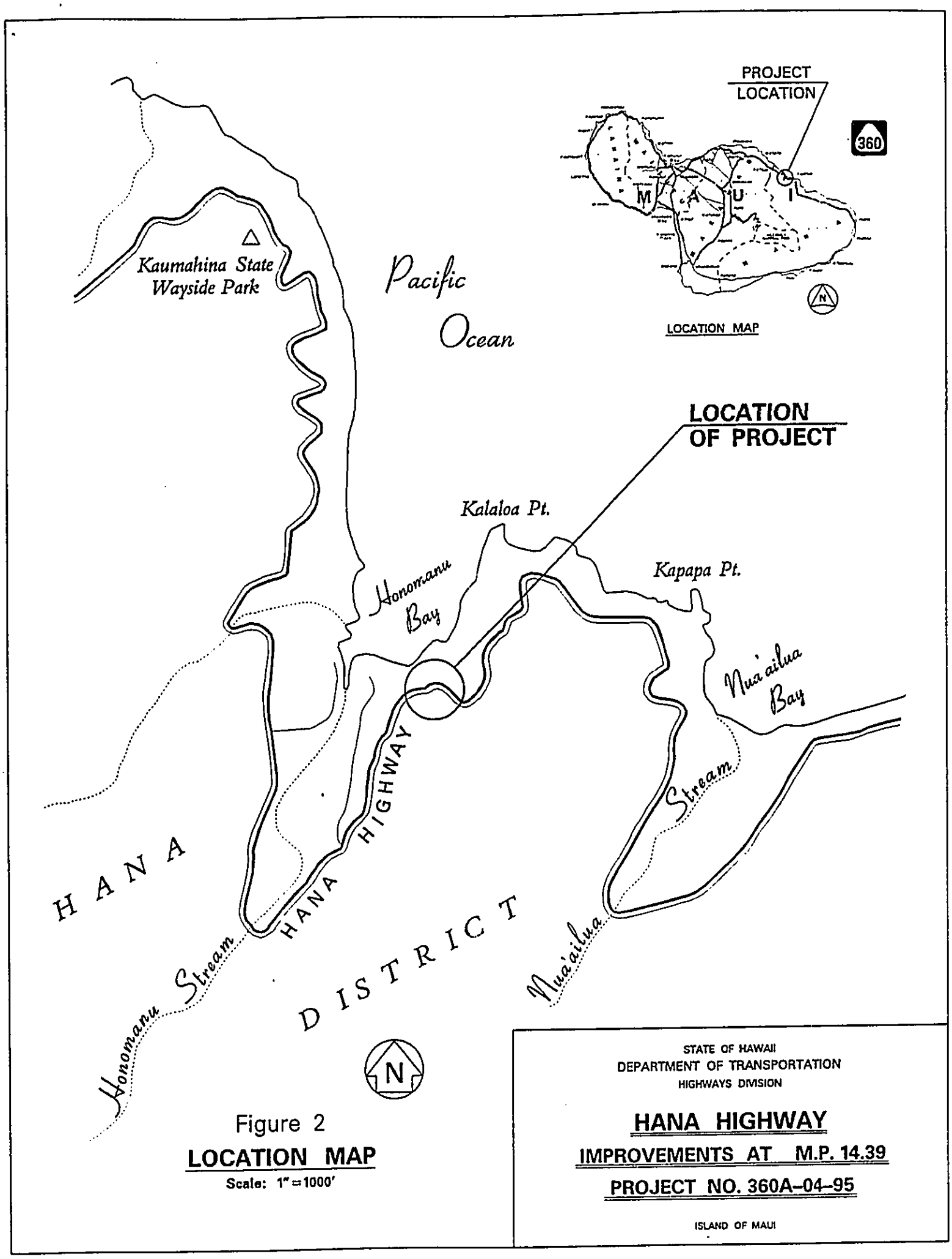


Figure 2

LOCATION MAP

Scale: 1" = 1000'

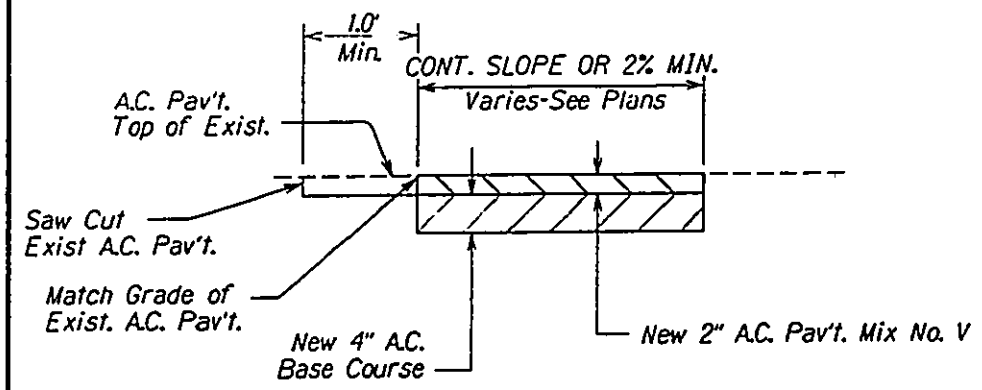
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANA HIGHWAY

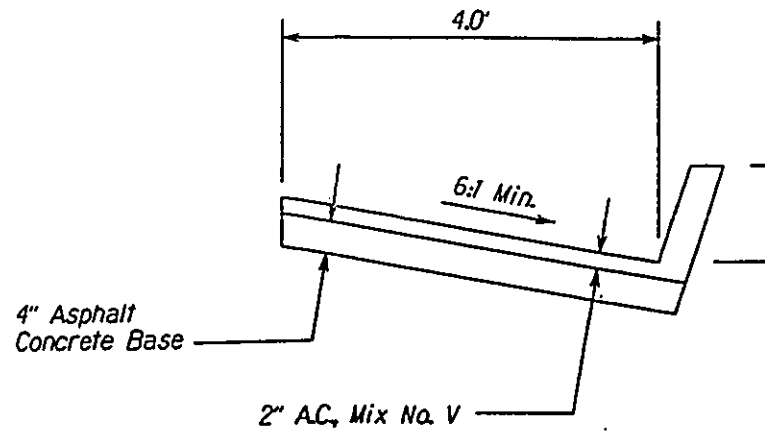
IMPROVEMENTS AT M.P. 14.39

PROJECT NO. 360A-04-95

ISLAND OF MAUI



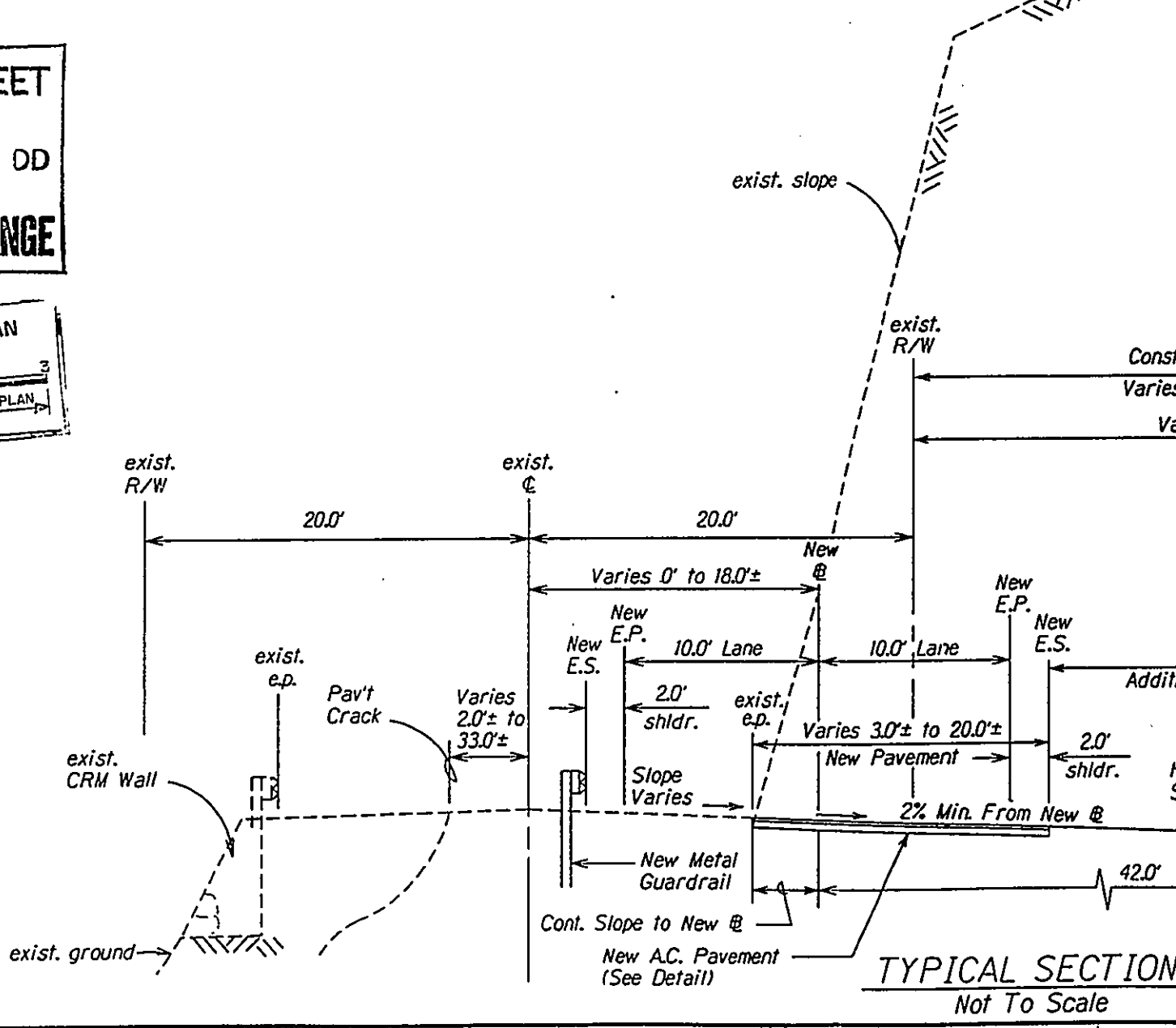
NEW A.C. PAVEMENT DETAIL
Not To Scale



GUTTER, TYPE 7961004)
DETAIL OF GUTTER, TYPE 7
Not To Scale

ADVANCE SHEET
HWY FEB 29 1996 DD
SUBJECT TO CHANGE

REDUCED PLAN
(HALF SIZE)
0 1 2 3
3 INCHES ON ORIGINAL PLAN



TYPICAL SECTION
Not To Scale

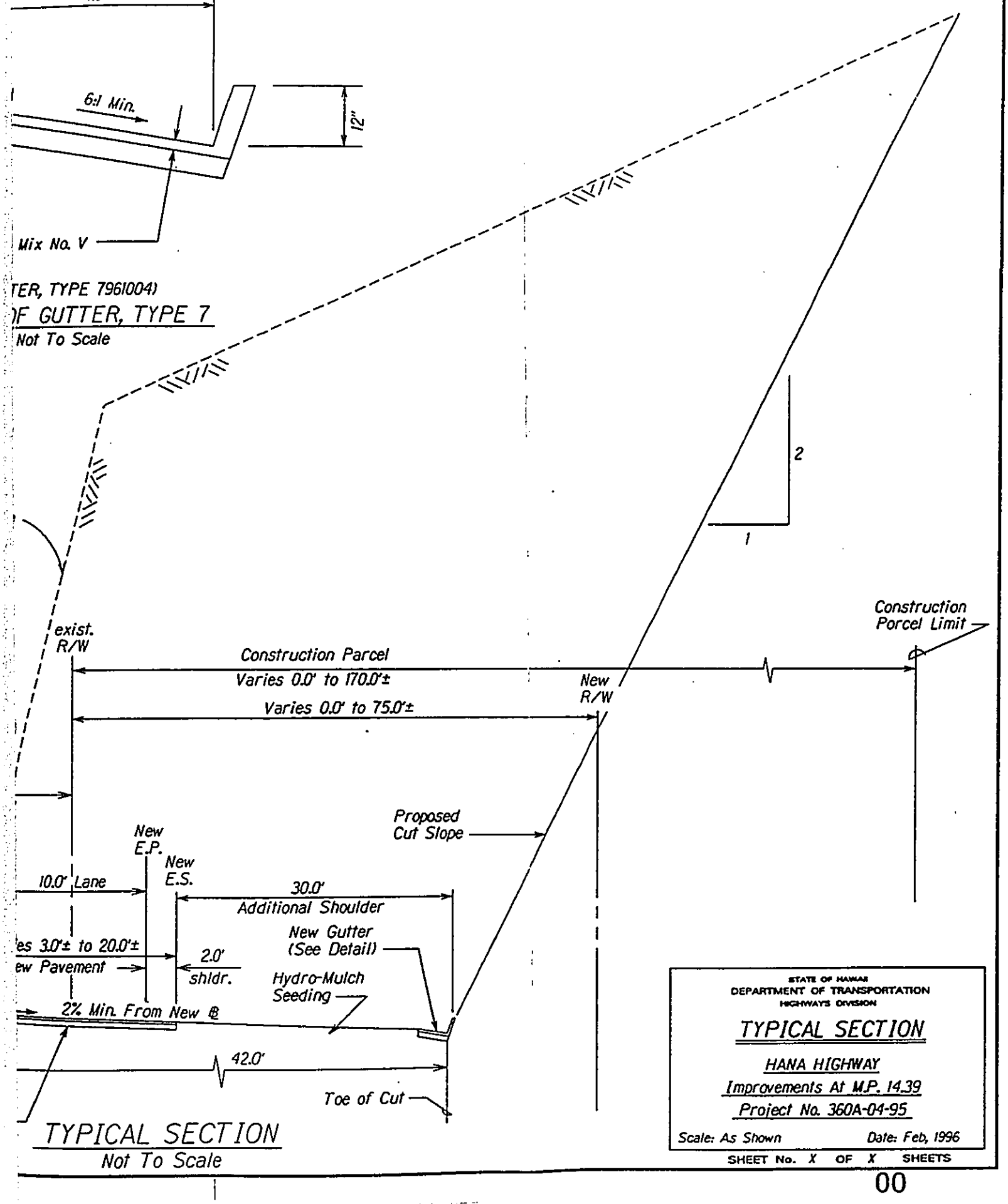
FIGURE 3

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	360A-04-95	1995	0	0

TER, TYPE 7961004)

F GUTTER, TYPE 7

Not To Scale



TYPICAL SECTION

Not To Scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL SECTION

HANA HIGHWAY
Improvements At M.P. 14.39
Project No. 360A-04-95

Scale: As Shown Date: Feb, 1996

SHEET No. X OF X SHEETS

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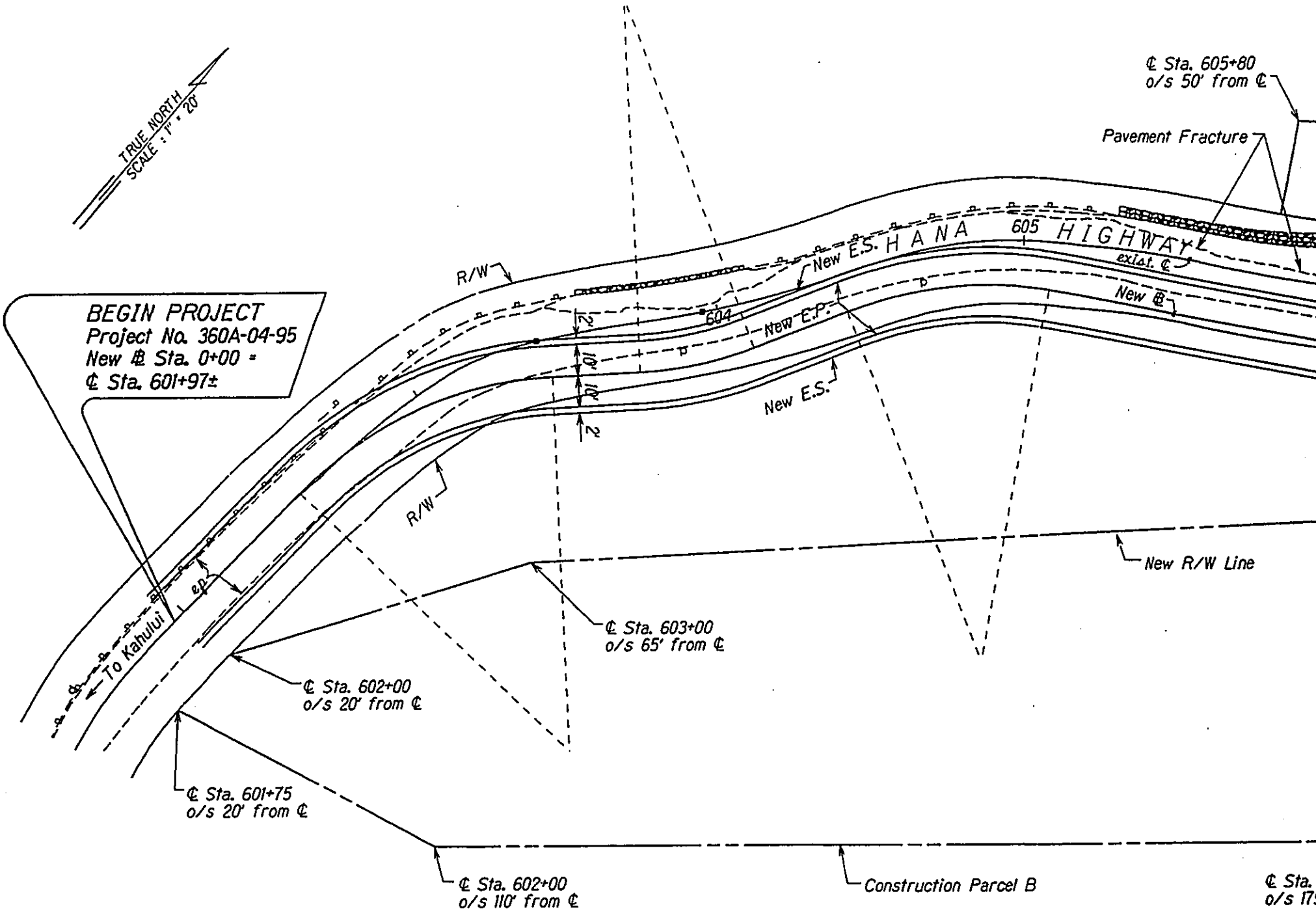


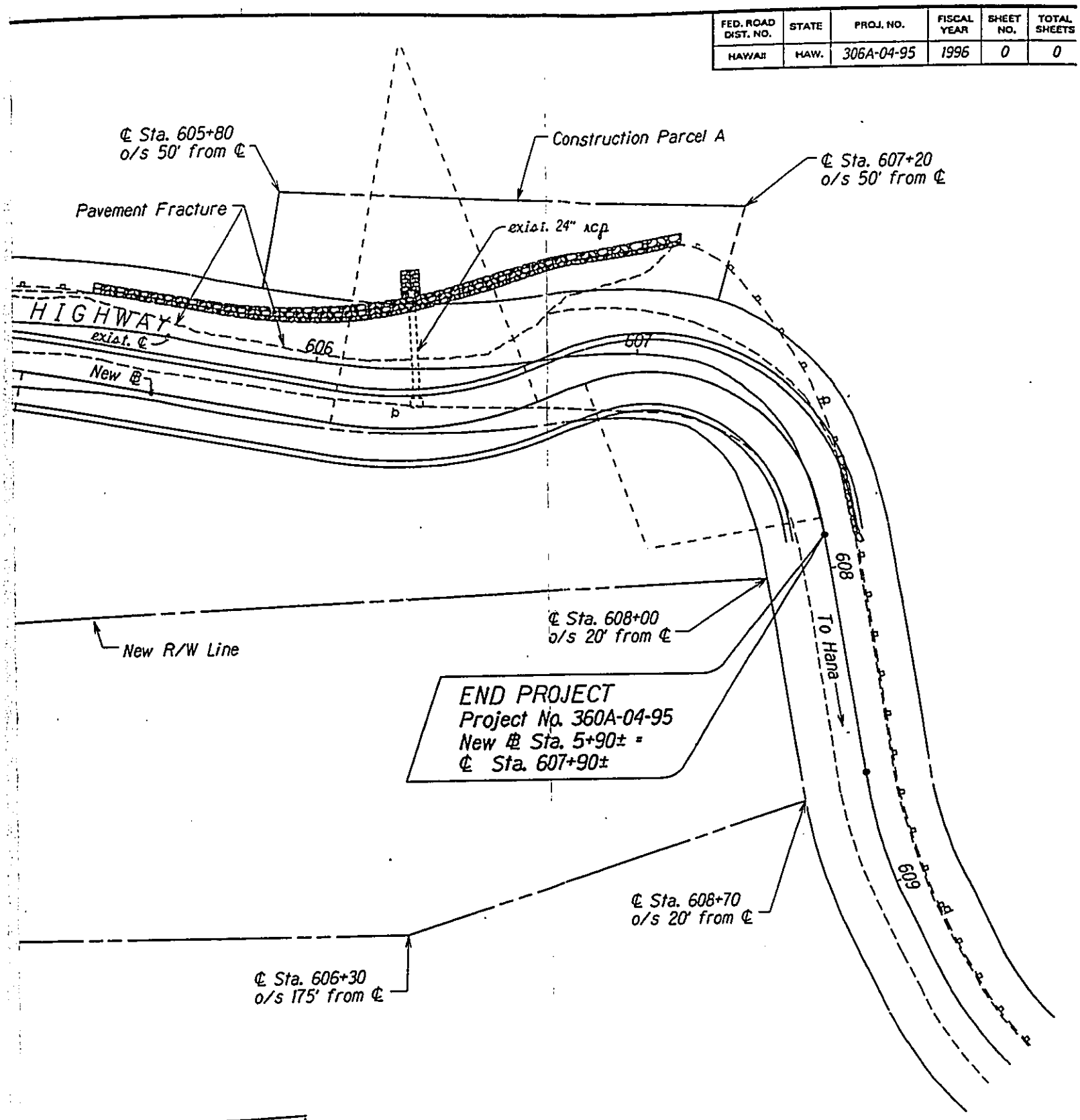
ADVANCE SHEET

HWY FEB 29 1996 DD

SUBJECT TO CHANGE

FIGURE 4

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	306A-04-95	1996	0	0



ADVANCE SHEET

HWY FEB 29 1996 DD

SUBJECT TO CHANGE

REDUCED PLAN
(HALF SIZE)

0 1 2 3

3 INCHES ON ORIGINAL PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLAN

HANA HIGHWAY
IMPROVEMENTS AT M.P. 14.39
Project No. 360A-04-95

Scale: 1"=20' Date: Feb, 1996

SHEET No. 1 OF 1 SHEETS

LINDA CROCKETT LINGLE
Mayor

DAVID W. BLANE
Director

GWEN OHASHI HIRAGA
Deputy Director

COUNTY OF MAUI
PLANNING DEPARTMENT
250 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793

April 1, 1996

Mr. Hugh Y. Ono
State Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Ono:

Re: Environmental Assessment for Hana Highway Improvements at Milepost 14.39, TMK: 1-1-01:1, Project No. 360A-04-95

Please be advised that the Maui Planning Department has previously reviewed a Special Management Area (SMA) Assessment application for a portion of this project. This application was for the removal of a cement rubble masonry (CRM) wall which is located within the SMA. The Maui Planning Department has determined that the removal of the wall is not a development, and therefore, does not require an SMA permit.

The Maui Planning Department has no further comments. Should you require further clarification, please contact Mr. Joseph W. Alueta, staff planner, of this office at 243-7735.

Very truly yours,

Gwen Ohashi Hiraga

DAVID W. BLANE
Planning Director

DWB:JWA:osy
xc: Clayton Yoshida, AICP, Acting Program Manager, Land Use Management
Joseph W. Alueta, Staff Planner
LUCA (3)
Project File
(z:\planning\all\jwa\josey)

Figure 5

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY
GILBERT COLOMA-AGARAN

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DEPT. OF TRANSPORTATION
HIGHWAYS DIV.

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HIGHWAYS DIVISION
DEPARTMENT OF TRANSPORTATION

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
CONSERVATION AND ENVIRONMENTAL AFFAIRS
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION DIVISION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

April 16, 1996

Mr. Hugh Y. Ono, Administrator
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii

LOG NO: 16717 ✓
DOC NO: 9604KD03

Dear Mr. Ono:

SUBJECT: **Historic Preservation Review a Draft Environmental Assessment for Hana Highway Improvements at Milepost 14.39, Honomanu, Hana District, Maui**
TMK: 1-1-01: 44 (Project No. 360A-04-95)

Thank you for the opportunity to review the draft Environmental Assessment (EA) for a proposed improvement project along Hana Highway at Honomanu. The project will include the realignment of the highway around a curve area where a portion of the roadbed has fractured and is no longer functional. The project will involve acquisition of lands and excavation into the slope of the cliff on the *mauka* side of the highway.

Our records indicate that no previous archaeological surveys or site inspections have occurred within or near the project area, and that there are no known historic sites within the project area. The nearest known historic sites are in the Honomanu Bay area, to the north and downslope from Hana Highway.

A field inspection of the area to be excavated was conducted by State Historic Preservation Division staff. Only the lower portions of the proposed impact area could be accessed, due to the extremely steep terrain and loose soil and stones. Attempts were made to climb to the top of the slope on both sides of the project area, with no success. No evidence of sites was observed in the portions of the impact area that were examined. Based on the ruggedness and steepness of this area, it is not likely that historic sites are present in the remainder of the project area.

The draft EA states on page three that there are no known historical, cultural, or archaeological sites within the project limits. We agree with this assessment. However, we wish to point out that historic sites are present downslope from the project

Figure 6

area. These sites could be impacted if soil is pushed over the side of the slope, or if it is taken into the Honomanu Bay area for stockpiling.

The draft EA does not indicate where the excavated soil is to be taken. We believe that this aspect of the project should be discussed in the final EA, due to the potential for adverse effects to sites from stockpiled or pushed soil and stones.

Please contact Ms. Theresa K. Donham at 243-5169 if you have any questions.

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

KD:jen

c: Dean Uchida, Land Division (File No. EADOT36A.0495)

Figure 6

United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS ECOREGION
300 ALA MOANA BOULEVARD, ROOM 3108
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

MAR 13 1996

In Reply Refer To: MRL

Mr. Hugh Y. Ono
Administrator, Highways Division
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813-5097

Re: Project No. 360A-04-95, Hana Highway Improvements at Milepost 14.39.

Dear Mr. Ono:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Environmental Assessment (EA) for the realignment of the existing Hana Highway. The applicant is the State of Hawaii, Department of Transportation. This letter has been prepared under the authority of and in accordance with provisions of 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 Department of the Interior concern for environmental values. These comments are also consistent with the National Environmental Policy Act of 1969 [42 U.S.C. 4321 *et seq.*; 83 Stat. 852], as amended. Based on these authorities, the Service offers the following comments for your consideration.

The applicant proposes to realign a 650-foot section of the Hana Highway by moving the centerline approximately 12 feet south of the existing centerline. The realignment area is located approximately 0.75 miles southeast of Kaumahina State Wayside Park on the island of Maui. Construction will involve excavation of an existing slope and removal of an existing cement rubble mansonary wall.

Based on the information provided in the Draft EA, we do not anticipate direct adverse impacts to fish and wildlife resources to result from the proposed project. The Service is concerned that the proposed project may cause indirect adverse impacts to nearshore water quality. We support the recommendations outlined in the Draft EA to minimize erosion and protect water quality. In addition, we recommend that: (1) all construction-related materials be placed or stored in ways to avoid or minimize disturbance and runoff to the nearshore environment and (2) all

construction-related materials be free of pollutants.

The Service appreciates the opportunity to comment. We look forward to seeing the final environmental assessment. If you have questions regarding these comments, please contact Fish and Wildlife Biologist Michael Lusk at 808/541-3441.

Sincerely,

Brooks Harper

Brooks Harper
Field Supervisor
Ecological Services

cc: DAR, Honolulu
DAR, Maui
DLNR, Honolulu
CWB, Honolulu
CZMP, Honolulu

Figure 7

3/27 aw HO

United States Department of Agriculture

Natural Resources Conservation Service

P. O. Box 50004
Honolulu, HI
96850-0001

March 25, 1996

Mr. Hugh Ono, Administrator
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Mr. Ono:

Subject: HWY-DD 2.8972 - Hana Highway Improvements at Milepost 14.39;
Project No. 360A-04-95; Hana, Maui, Hawaii

We have reviewed the above-mentioned document and have no comments to offer at this time.

We thank you for the opportunity to review this document.

Sincerely,

ACTING
KENNETH M. KANESHIRO
State Conservationist

Figure 8

RF[illegible]

'96 JUL 18 P2:58

DESIGN BRANCH
HIGHWAYS DIVISION
DEPT. OF TRANSPORTATION

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813-5249
PHONE (808) 594-1888
FAX (808) 594-1865

RECEIVED
JUL 13 / 12 PM '96
DEPT. OF TRANSPORTATION
HIGHWAYS DIVISION
DESIGN BRANCH

June 27, 1996

Mr. Hugh Y. Ono, Administrator
Highways Division
Department of Transportation
859 Punchbowl St.
Honolulu, HI 96813-5097

Dear Mr. Ono:

Thank you for the opportunity to review the Draft Environmental Assessment (DEA) for the Hana Highway Improvements at Milepost 14.39, Island of Maui. The Department of Transportation is planning to realign a 650 foot section of Hana Highway. This proposed realignment will provide a more reliable and safe highway to the motoring public.

Following a careful review of the DEA, the Office of Hawaiian Affairs has no objections to the proposed realignment. Based on the information contained in the DEA, the realignment apparently bears no significant long-term adverse impacts on adjacent ecosystems nor upon existing farmlands and rural settlements. Furthermore, no known archaeological remains exist and the proposed improvement will neither significantly affect scenic resources nor air quality or noise level. Please contact me, or Linda K. Delaney, the Land and Natural Resources Division Officer (594-1938), or Luis A. Manrique (594-1755), should you have any questions on this matter.

Sincerely yours,

Martha Ross
Deputy Administrator

LM:lm

Figure 9

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

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APR 15 2 33 PM '96
DESIGN BRANCH
HIGHWAYS DIVISION
DEPT. OF TRANSPORTATION

DIRECTOR'S OFFICE
DEPT. OF
TRANSPORTATION
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JJ1

MICHAEL D. WILSON
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY
GILBERT S. COLOMA-AGARAN

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P.O. BOX 621
HONOLULU, HAWAII 96809

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND ENVIRONMENTAL AFFAIRS
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT
WATER RESOURCE MANAGEMENT

APR 10 1996

REF:DOTEAH.DREA

Honorable Kazu Hayashida
Director of Transportation
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

RECEIVED
APR 15 9 48 AM '96
DEPT OF TRANSPORTATION
HIGHWAYS DIVISION

Dear Mr. Hayashida:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT FOR REALIGNMENT OF HANA HIGHWAY AT MILEPOST 14.39, LOCATED ON THE ISLAND OF MAUI, HAWAII: PROJECT NO.360A-04-95

We have received your department's transmittal relevant to the subject matter.

The informational materials were distributed to our divisions for their review and comments. As a result, the following comments were received by our Division of land Management:

Forestry and Wildlife:

(a) "Inasmuch as soil erosion will be imminent during construction, it behooves the applicant to prevent any soil from reaching the ocean."

(b) "The citizens in the nearby village of Keanae should be informed of the project PRIOR to construction."

(c) "We have no objections to the proposed project."

The Department of Land and Natural Resources has no other comments on the Department of Transportion's proposed realignment of that portion of Hana Highway as described in the Preliminary Draft Environmental Assessment.

Figure 10

Thank you for presenting the Draft Environment Assessment to us. We appreciate the opportunity to review and comment on the Department of Transportation's projects.

For the purpose of expediting our responses to you in a timely manner on any future Department of Transportation projects; we respectfully request that your office provide to us one (1) original informational package and 7 copies with maps and exhibits reduced to standard sheet size.

Should you or your staff have any questions pertaining to our comments, please feel free to contact Mr. Nicholas A. Vaccaro of the Land Division at 587-0438.

Aloha, /s/ Gilbert S. Coloma-Agaran

for MICHAEL D. WILSON
Chairperson

Attachment(s)

C: Michael H. Nekoba
Colbert M. Matsumoto
Hawaii District Land Office

Figure 10

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HANA COMMUNITY ASSOCIATION
P.O. BOX 202
HANA, MAUI, HAWAII 96713

'96 JUL -8 P1:26

DESIGN BRANCH
HIGHWAYS DIVISION
DEPT. OF TRANSPORTATION

July 5, 1996

State of Hawaii Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813
Attention: Mr. Allan Nishimura

Office of Environmental Quality Control
Mr. Gary Gill, Director
220 S. King Street
Honolulu, Hawaii 96813

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT HANA HIGHWAY IMPROVEMENTS AT MILEPOST 14.39

To Whom It May Concern

The Hana Community Association Board of Directors supports the proposed highway improvements, but feels there is a lack of critical information in the Draft EA. Our Board is willing to help gather the additional information needed for the EA and to sponsor Community meetings in Hana and Keanae to help expedite this process. In the past, the Hana Community Association has worked cooperatively with the Department of Transportation.

Comments on the Draft Environmental Assessment:

ECONOMIC: The Draft EA. is seriously deficient in this area. The timing of the road closures is critical to the economy of Hana. The EA does not examine economic impacts upon Hana, only stating "..the closure will not substantially affect the businesses near the project" (Page 6). This appears to refer to the Half Way to Hana and Uncle Harry's "fruit stands". However, it is our understanding that even those businesses were impacted by the road closures scheduled during the last major excavation because visitors would feel behind schedule and hurry on toward Hana.

Businesses in Hana which the timing of the road closures could seriously impact include Hasegawa's General Store, the Hana Ranch Restaurant, Hana Gardenland, the Hana Store, Tutus, Hana Treasures, Hana Tropicals, members of the Maui Flower Growers Association, members of the Hana Business Council, Federal Express, the U.S. Post Office, the Hotel Hana Maui, other providers of visitor accommodations, Island Air, Hana Equipment, Uncle Bill's Lunch Wagon, several building contractors and both gas stations. Feedback from the business community suggests a consensus can be reached on the timing of road closures through a working meeting in Hana.

It should be noted that the new Hana Village Marketplace may be in operation during this highway improvement project. The Marketplace will be mostly start up Hawaiian owned businesses. It would be a tragedy after years of planning and serious financial risk by the businesses if the timing of the road closures would impact this project. Even short term impact on these businesses could make the difference between success and failure.

Feedback from the business community also raised concern that the past road closure schedules were not always followed, making arrangements with visitors and tour drivers uncertain.

The Environmental Assessment should discuss possible alternative plans for road closures including early morning and night time work. Any agreed upon solutions for timing of road closures need to be written into the bid/contract process.

A plan to inform visitors of the road closures schedule and "situation" needs to be addressed. This is a good opportunity for the Department of Transportation, the Maui Visitors Bureau and the community to work cooperatively. This potentially negative situation could be turned into a positive economic promotion. Could an informational/promotional brochure be budgeted into the project to help mitigate economic impacts?

ENVIRONMENTAL: The EA should include a detailed plan to properly dispose of the estimated 40,000 cubic yards of material to be excavated. Will the contractor be required to follow existing bridge weight limitations during the disposal process? These aspects of the plan should not be left to the discretion of the contractor and should be written into the bid/contract process.

As with the last major excavation in this area, there is concern of possible runoff impact upon reefs. The Draft EA states "minor water quality impacts from silt..." (Page 3). Is there any documentation to justify that statement ?

OTHER CONSIDERATIONS: The EA should disclose if there is any other road/bridge work scheduled by the State of Hawaii on the Hana Highway during this project that could further complicate the timing of road closures. The EA should also disclose if the County of Maui has any road/bridge work scheduled during this project that would limit alternative access to Hana via Kaupo.

We look forward to your response. We suggest informational/working meetings in Keanae and Hana as soon as possible. Sometime this month would be possible. Again, we are willing to help facilitate this process.

Sincerely yours

John Blumer-Buell Eric Kanakaole

John Blumer-Buell, Eric Kanakaole Co-Chairs
on behalf of the Hana Community Association Board of Directors

Figure 11

PacRim Research *Information and Allied Services*

- Ecological Research
- Environmental Assessment
- Statistical Analyses
- Systems Modeling
- Database Development and Management

July 6, 1996

Mr. Allan Nishimura
Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813

Re: Project No. 360A-04-95, Hana Highway Improvements at Milepost 14.39

Dear Mr. Nishimura,

I have reviewed the Draft Environmental Assessment (EA) for the realignment of the existing Hana Highway. The applicant is the State of Hawaii, Department of Transportation.

A very similar project was conducted at Milepost 16.13 in 1992-93. That project resulted in large quantities of soil and other debris being dumped and washed into the ocean throughout much of the project.

The nearshore marine ecosystem along the coast directly below and to either side of both this past and the current project sites is of very high quality. This ecosystem was detrimentally impacted by this past project. Unless the implementation of this present project differs substantially from that of the past project, a similar significant detrimental impact to the nearshore marine ecosystem will be the result. In addition, because of the proximity of the current proposed project to the mouth of Honomanu Stream, detrimental impacts to the brackish and freshwater amphidromous communities of Honomanu can be expected.

I support the recommendations to minimize erosion and protect water quality made for this project by the US Fish and Wildlife Service in their March 13, 1996 letter to Mr. Hugh Ono, Administrator, Highways Division, DOT. In addition, given the implementation of the past project, it is apparent that for the current project the DoT must maintain a closer communication and oversight link with the contractor to ensure that erosion and impact to water quality is indeed minimized. I suggest that in the Final EA the DoT identify the formal schedule of communication with and oversight of

internet: march@aloha.net
1061 Kokomo Road, Ha'ikū, Maui, Hawai'i 96708 • (808) 573-2267

Figure 12

the contractor which the DoT shall implement to ensure compliance by the contractor. This schedule should be open to direct and immediate public review and comment, and should be linked with an explicit contract mechanism for termination of the contract if the contractor fails to maintain those nearshore waters affected by the project in compliance with Department of Health Water Quality Standards as identified in Hawaii Administrative Rules Chapter 11 *et seq.*

I look forward to reviewing the Final EA.

If you have any questions, or are in need of *pro bono* assistance in the designing of a water quality monitoring program to ensure compliance by the contractor with the DoH standards identified above, please feel free to contact me.

Sincerely,

Marc Hodges
Aquatic Biologist

Figure 12

HWY 1324

HANA BUSINESS COUNCIL
P.O. BOX 507
HANA, MAUI, HAWAII 96713
PH. 248-7002
FAX 248-7270

July 6, 1996

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

Re: Draft Environmental Assessment For
Proposed Hana Highway Improvements At
Milepost 14.39

Aloha:

On behalf of the 25 business who currently constitute the membership of the Hana Business Council, I am writing to express our deep concern over the schedule of road closing proposed for the above project. While we certainly agree that there is a critical need for this project to proceed, we feel that community input is absolutely essential to the timing of any road closings which it will necessitate. Most of our members business activities are extremely dependent on a reliable flow of visitor traffic, and we are equally concerned about maintaining viable deliveries of the goods and services we need in order to operate.

We urge you to consider scheduling public meetings in both Keanae and Hana regarding this highly important matter, and would be pleased to offer our organization's assistance in any way that may help to bring this about. If you have any questions, or if we may offer any more detail regarding our concerns, please do not hesitate to let me know.

Mahalo Nui,

Carl Lindquist
President

cc: Mr. Bob Siarot
Maui District Office
Highways Division

Mr. John Blumer-Buell
Mr. Eric Kanaka'ole
Hana Community Association

Figure 13

Sierra Club - Maui Group
Executive Committee
P. O. Box 2000
Kahului, HI 96732
July 6, 1996

Hugh Y. Ono, Administrator, Highways Division
State of Hawaii
Department of Transportation
869 Punchbowl Street,
Honolulu, HI 96813-5097

Dear Mr.Ono:

The Executive Committee of the Sierra Club, Maui Group has examined the details of the Draft Environmental Assessment for the Hana Highway Improvements at Milepost 14.39, Project No. 360A-04-95. The following are items that we believe warrant consideration.

There is no discussion of cite inspection or attention paid to the need for an inspector to be present **at all times** during operations, and that the inspector be empowered to cite violations and impose fines.

Based on the environmental disasters that recently took place at road repairs just a few miles away from the cite under consideration, it is all too evident that major short term (if not long term) impacts will result from this project. It is folly to presume that there will be no short term impacts on traffic, on historical/archaeological cites (as attested to in the letter of April 16, 1996 from Don Hibbard), on flora and fauna, and, especially, on water quality. Simply stating that there will be no impact, **without detailed discussion** of how this conclusion was reached, is insufficient. It amounts to sweeping crucial issues under the rug.

Since the EA 1) does not clearly spell out **how** dirt removed from the cite will be dealt with, 2) does not provide any assurances that dirt will not be pushed over the side of the cliff regardless of circumstance, and 3) does not adequately address in detail how runoff will be contained during the project, it cannot be logically maintained that there will be no major impacts from this project.

Further, there is no discussion of alternatives to a 30' buffer zone other than a "No Action" alternative. This is perfunctory. A huge environmental price is going to be paid for a 30' buffer, not to mention the fact that such a buffer may actually exacerbate erosion and further landslides.

There **will** be significant impacts from this project notwithstanding assertions to the contrary in the draft EA. While it is not the intent of the Sierra Club, Maui Group to delay the badly needed repairs in question, it is our contention that because significant impacts will result from this project, a formal Environmental Impact Statement must be prepared. All impacts must be seriously addressed and full discussed, mitigative measures proposed, and assurances made that mitigative measures will be carried out.

Respectfully,

Robert Coffey,
Chair

Figure 14

KI

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DESIGN BRANCH
HIGHWAYS DIVISION
DEPT. OF TRANSPORTATION

SR 93 Ke'anae
Ha'iku, Hawai'i 96708
July 7, 1996

Allan Nishimura
Department of Transportation
869 Punchbowl
Honolulu, Hawai'i 96813

RE: Draft Environmental Assessment for Hana Highway Improvements at Milepost 14.39

Dear Mr. Nishimura:

I appreciate that the Department of Transportation (DOT) has at least filed a before-the-fact DEA for this project. My hope is that this process will allow sufficient public input so that the project can be carefully planned and that potential problems can be anticipated and dealt with in a way that is sensitive to the need to do the job safely and the needs of the community and the environment.

We who live in the Hana District--particularly Ke'anae, Nahiku and Hana--have had a recent, lengthy experience with a similar project, the highway repairs and creation of a 30 foot wide rock catchment area at Milepost (M.) 16.13, from September, 1992 to June, 1993. I had expected that the DEA would anticipate that similar problems may be encountered during this job, and suggest solutions. However, DOT has chosen to ignore the lessons of the past. I will, in my discussion, refer frequently to the job at M. 16.13, often calling it "the last time".

The DEA is also remarkably deficient in its failure to distinguish the two separate parts of this project, and the alternatives. It is obvious that the road is failing and must be repaired. The situation was worsened by the most recent repairs, where the fill which supports the roadbed was drilled into, thus destabilizing it further. I do not believe that anyone will argue that the road should be left as it is.

ROCK CATCHMENT AREA (BUFFER ZONE)

The proposal to create a 30 foot wide rock catchment area is, however, an entirely different matter, and should be considered separately. No justification for this action is presented in the DEA, and no alternatives at all are discussed.

Figure 15

The justification given last time was that M. 16.13 was an area that was frequently subject to landslides, and the buffer zone would catch the inevitable landslides that will occur in the future. We were told that this would have two benefits: (1) the danger of property damage, injury or death from falling rocks would be greatly decreased and (2) the necessity of closing the road to clear up from a landslide would be eliminated.

Since the last job was done without the benefit of any public review in the planning process, we were given these justifications orally after the decisions had been made and the contract had been let. This time, however, the discussion should take place ahead of time.

A cost-benefit analysis should be made, and the risks analyzed. I assume the benefits would be the two listed above. But what are the risks and the costs? Some of the questions which should be answered in the Draft Environmental Impact Statement (DEIS) (or Final EA) are: In the seventy year history of the Hana Highway, how many deaths or serious injuries from landslides have occurred? When? Where? I know of one death in the past 25 years (at a different location). How many times has the road been closed for more than a day because of landslides? When? Where? Again, I know of only one time in the past 25 years, at M. 16.13 in April, 1989. I believe this is the only long closure in over 50 years. Is M. 14.39 an area particularly prone to landslides? Not that I can remember (unlike M. 16.13, which is). What is the economic cost per day of a road closure?

On the other hand, what are the costs and risks of the job? Those most at risk are the workers on the job, who are in a very dangerous situation. Obviously, the longer they are on the job, the higher the risk. Also, the longer the job, the more risk of property damage, injury and death to those driving the road under the unsafe conditions that exist while the job is being done. Many suffered property damage, and, tragically, one life was lost the last time. The death resulted from unsafe conditions which were allowed to persist at the site, despite numerous complaints.

Since the finished slope at M. 16.13 is too steep for existing soil conditions, the risk of landslides there now is even greater than it was before the job was done (see below). There is also now an increased risk, particularly to tourists, as the buffer zone provides a heavily used parking area. Also the additional blasting and excavation that would be done to create the buffer zone may in itself help to further destabilize the remaining mountainside.

Figure 15

And what is the economic cost of providing this buffer--both in terms of the cost of the job and the cost to the businesses such as the fruit stands which had a huge decrease in business last time (see below)? What is the environmental cost of this larger job in terms of the likelihood that much more dirt will go over the cliff (see below). What is the cost of the additional road repairs that will have to be done to the highway because of the truck traffic carrying thousands of tons of dirt and rocks out of the area?

What is the long-term plan of the DOT? Is it to provide a 30 foot buffer zone along the entire length of the Hana Highway. wherever there are cliffs? If so, the cumulative impacts of this policy need to be analyzed.

Only when we know the answers to these questions can we analyze the costs, benefits and risks of creating or not creating this buffer zone. I am not convinced, based on present information, that this part of the job is justified. I am personally willing to accept a four day road closure every 25 years rather than accept the various costs and risks involved in putting a 30 foot buffer zone along the length of the Hana Highway--or even in this one spot. To me, based on present information, the risk of death from unsafe conditions at the job site is greater than the risk of death from falling rocks at this particular spot, and so I would like for the job to be done more quickly by eliminating the buffer zone.

Obviously there needs to be more information presented and opinions heard before a decision is made on this matter. There should be a thorough discussion of the alternatives.

Figure 15

PLANNING

The DEA states that an estimated total of 40,000 cubic yards (cu. yd.) of material will be excavated. There is no distinction made between dirt and rocks. I am concerned about the accuracy of this estimate, and the composition of the material.

The original DEA for the M. 16.13 job (published after the fact) estimated the excavation at 75,500 cu. yd.. In fact, according to The Maui News (TMN) (June 29, 1993), quoting project engineer Dick Walker, the total was 136,000 cu. yd. Out of this, only 6-7,000 cu. yd. was rock, although the state had estimated there would be 55,000 cu. yd. of rock. (Conversation with Walker, April 20, 1993) It turned out that instead of being mostly rock, the slope was about 95% dirt.

The effect of this misinformation is that the job was done at the wrong slope. A rock slope can safely be two to four times as steep as a dirt slope. Since the job was done at the steeper, inappropriate slope, it is a certainty that there will be future landslides there. (Conversation with Walker, Janaury 5, 1993)

I am not a geologist, and I am not familiar with the technology that is used to make these estimates. But I would hope that the best technology available is used, so that the most accurate estimate can be made. And if it is not possible to accurately predict the content of the mountain, it would seem to be more sensible to follow the conservative course, and use the more gradual slope specified for dirt.

DISPOSAL OF EXCAVATED MATERIAL

The DEA contains one sentence on this most important subject: "The excavated material will be properly disposed of by the Contractor." This is not adequate, especially considering the numerous problems the last time.

Although no dirt was suppossed to be pushed over the side at M. 16.13, in fact it was a routine occurrence. Workers told us that at the beginning of the job there were only 2 or 3 trucks hauling dirt and that more was pushed over the side than was hauled away. After numerous complaints about the dirt in the ocean were made, there were 12 trucks on the job.

Walker told us that in order to reopen the road on schedule after closure periods, they would dump over the side, particularly if a landslide occurred--which happened almost daily. Despite numerous complaints, and instructions from the state to close up open cuts in the dirt berms along the cliff edge, these cuts remained open, allowing dirt to be pushed into the ocean daily. It was through one of these cuts that a Hana many drove off the cliff in May, 1993 and died. The traffic investigator characterized the area as "very dangerous" (THM May 19, 1993).

Figure 15

M. 14.39 DEA/p. 5

The DEA specifies the "construction of berms" as a water pollution control measure. Actually the berms themselves cause pollution, since in this area of high rainfall (average 150" a year) the berms themsleves wash downslope. Another material should be chosen for this job.

Walker told us that up to 10% of blasted material may go over the cliff. No mitigation technology was required last time. Blasting mats or netting should be considered to contain the blasted material.

The coastal waters in the area are among the most pristine in Hawai'i. Fishing and gathering of 'opihi, 'opae, hihiwai and limu are important activities, both for subsistance and income. Any dirt entering the ocean would have a very detrimental effect on the water quality and the ocean life.

The State Historic Preservation Division (SHPD) pointed out that historic sites are present downslope from the project area, and could be impacted if soil is pushed over the side of the slope, or if it is taken into the Honomanu Bay area for stockpiling. However the DEA does not incorporate these remarks in the body of the document, and ignores SHPD's request that the area where the excavated soil is to be taken be specified.

The contract should include requirements for a water quality and a historic sites monitoring program, with mechanisms for termination of the contract if the water quality exceeds Dept. of Health standards or the impact on historic sites is documented by SHPD. An independent monitoring archaeologist should be hired by the contractor to identify historic sites and monitor them throughout the job.

Also, state inspectors should be present at the job site at <u>all</u> times when the job site is open. Last time they appeared only during "normal working hours", so that night work went unmonitored. Also inspections should be frequent and thorough. The first full inspection at M. 16.13 did not take place until three months after the job began.

Because of the work on the makai side of the road and the potential impacts downslope, the project area should include the area downslope, including the coastline, and a Special Management Area (SMA) permit should be required.

Will access to Honomanu Bay be restricted during the project? Is there a danger of debris falling on the road to the bay? This should be discussed. Honomanu is a very important local fishing, surfing and camping site.

Figure 15

ADDITIONAL IMPACTS OF EXCAVATION

The DEA states that "there are no endangered flora, fauna, critical habitats, historical/archaeological or cultural sites at the location of the proposed project", but no evidence is presented to support this claim. The letter from SHPD clearly states that there are no known historic sites and that it is not likely that any are present, and that no surveys of the project area have been done.

The assertion that "no adverse visual impacts are anticipated" disregards the reality of the moonscape at M. 16.13. Three years after the completion of the job, most of the slope is still bare, and what little vegetation there is is mostly moss. Although the contract specified limits on bared slopes and required remedial action, there has been no enforcement. The bare cliffs add to the danger of erosion and landslides. They are also incredibly ugly.

The drainage system that was installed at M. 16.31 to drain the water off the hillside to stabilize the area has never been properly installed. Low quality plastic tubing which collapsed easily was attached to some of the pipes. Others drip directly onto the lower part of the slope. The PVC collector pipe was never glued together, and has fallen apart. Whatever water is conducted by the pipes inside the mountain simply contributes to erosion below.

TRAFFIC AND ROAD CLOSURES

The statements that "vehicular traffic will be temporarily inconvenienced during construction...temporary road closure will not substantially affect the businesses near the project" and that "no significant short term adverse impact is anticipated to...traffic" completely ignore what the real, extensive impacts were at M. 16.31 and will surely be on this job.

Of course the road must be closed in order for the job to be done. That is not the issue. But if DOT continues to ignore the true significant impact of those closures, the necessary consultation and planning which should take place in order to minimize the impacts will once again be ignored.

Figure 15

A schedule of road closures needs to be determined which will enable the contractor to work safely, efficiently and in an manner which does the least damage possible to the environment. At the same time, the needs of those traveling the road, especially residents of the Hana District, should be considered, as well as the interests of the local businesses which are affected. Again, a cost/benefit/risk analysis should be done. The first thing we need to know is how long the job is expected to take. The DEA is silent on this issue. At M. 16.13, we were told at the beginning of the job by the contractor that they would finish in three months. After three months we were told it would be two more months. In fact the job took nine months.

If we had known at the beginning that the job would last that long, we might have made different decisions about the schedule. The schedule proposed in the DEA allows for only a 4½ hour workday, with three closure periods. We learned after-the-fact last time that one of the costs we paid for having several (rather than one long) closures was that each time the road was reopened, if they were unable to clear the road in time to reopen on time by trucking out the material, then they dumped it over the side. This was particularly true if a landslide occurred--and they occurred almost daily.

This routine dumping should be prohibited by the contract. We should not be forced into this trade-off. I personally, however, would favor a closure schedule of 10 a.m.-4 p.m., seven days a week.

The contractor last time estimated that it cost $2,500-$3,000 each time the road was opened.

On the other hand, the businesses argued for shorter closures. The last job had a significant economic impact on businesses in Ke'anae and Hana. The Waianu Fruit Stand estimated a loss of $18,000 for the first five months of the job. This is a large amount of money for a small business, however, it is a tiny amount compared to the contract price of $4 million. There should be discussion of whether local businesses could be compensated for at least some of their economic losses. That might make them more agreeable to longer closure periods. It could result in overall savings to get the job done in half the time.

Figure 15

Obviously, this issue should be subjected to extensive public discussion. The DOT should hold meetings in both Ke'anae and Hana before the DEIS or EA are filed in order to get community input. Notice of the meetings should be sent by mail to each person living in Ke'anae. Nahiku and Hana. The meetings should be held on different days of the week to maximize attendance. They should be conducted by an independent facilitator. Last time the after-the-fact meetings conducted by the contractor were extremely intimidating.

The meetings should be held before the contract specs are drawn up. A series of followup meetings should be held after the DOT has considered the community input in order to report back. I believe that by doing this advance planning, many problems can be avoided.

Once a schedule is determined, it is imperative that the contractor adhere to it. There should be penalties built into the contract for failing to do so. Last time it was not uncommon to rush to make an opening, only to find the the road had been closed early. Often the road was closed longer than scheduled. Of course there will be emergencies when this in inevitable, but it should not happen as normal practice.

The closures put enormous stress on the residents. Last time, for nine months we lived our lives by the clock of the road. Hopefully this time the experience can be made less stressful.

When the road is opened after a closure period, local traffic should always go first. That means traffic headed toward central Maui in the morning and back home in the afternoon. We are trying to get to work and to doctor's appointments. We shouldn't have to wait while 200 or more tourist cars pass in the opposite direction.

It would, in fact, be most advisable to keep tourists off the road all together during the job. I know this would not be popular with the businesses, but it would make the job so much easier and faster. Again, compensation to businesses should be considered.

At the very least, flyers should be distributed to travel agents, hotels, car rentals and other tourist businesses strongly discouraging people from using the Hana Highway. There should be signs posted just outside Kahului with accurate information about the status of the road closures. A good idea would be signs posting scheduled closing times and a series of electrically activated "early warning" signals beginning at the outskirts of Kahului.

Figure 15

It is essential that there be a human being available by telephone at all times during the job. This person should be on the job site or have immediate access to it, and should be able to give the caller up to the minute, accurate information about the work and closure schedule. Two phone lines may be necessary--one for incoming calls, and one to call the job site, if the person is not on-site. There should also be a 24-hour hot line (tape) which is updated at least daily with the same information. These requirements should be specified in the contract and there should be penalties imposed for failure to comply. Last time the information provided was totally inadequate. The signs and the messages on the tape had nothing to do with the real status of the job and closures, and making telephone contact was difficult. The contractor should be required to be accessible by phone at the site.

COMMENT PERIOD

I was informed by TMN reporter Tim Hurley on June 28, 1996 that he was unable to find the DEA in the Maui public libraries.

Consideration should be given to extending the comment period in order to accomodate those other persons who may not have been able to locate the DEA. If a DEIS is prepared then perhaps this is not as necessary.

CONCLUSION

The DEA is inadequate in its content and does not fulfill the requirements of the statute and the rules. It is obvious that the project would have many significant impacts on the environment --both short and long-term--and that an EIS should be prepared.

Thank you for this opportunity to comment.

Sincerely,

Elaine S. Wender

Figure 15

HWY 1327

PO Box 330973
Kahului, Hi 96733
July 8, 1996

RECEIVED
JUL 5 11 44 AM '96
DEPT. OF TRANSPORTATION
HIGHWAYS DIVISION

RECEIVED
'96 JUL 10 P5:20
DESIGN BRANCH
HIGHWAYS DIVISION
DEPT. OF TRANSPORTATION

RE: DRAFT E.A.
HANA HIGHWAY IMPROVEMENTS
PROJECT # 360A-04-95

DEAR MR. NISHIMURA,

The residents of Keanae-Wailua Nui are grateful that the repair of this very dangerous section of Hana Highway is imminent.

I would like to comment that this draft EA doesn't paint an accurate picture of the scope of this project, nor address the dangers involved. Fresh in our memories is the last multimillion dollar repair which was done to the Highway about a mile from this one. For almost a year our daily lives were impacted. Fear prevailed – Fear for the lives of the construction workers, Truck drivers, residents who had to drive through daily and the tourists, fear of what it was doing to the ocean, and fearing it would never end.

PR with the local residents might illeviate some of this. Businesses in Keanae and Hana will certainly be impacted and need to prepare

Figure 16

The only mention of the "mountain" of dirt that is to be removed is that it will be "properly disposed" of by the contractor. This needs to be addressed specifically. Local knowledge of that point of land that part of the highway was built on land-fill, and look what keeps happening, the road slides down the cliff. Moving the centerline in 12 feet doesn't seem adequate. 20 feet would be safer.

Safety measures along the cliff edge during the night need to be specified, and certainly something stronger than cones or lighted stanchions.

Safety measures for the contractor should include planning this job during the summer months to hopefully avoid the heaviest of the rainy season.

We are looking forward to having community meeting's in preparation for this.

Thank you.

Sincerely,

Gladys Kanon

Figure 16

cc: OEQC

DEPT OF TRANSPORTATION
STATEWIDE TRANS.
PLANNING OFFICE

JUL 9 3 27 PM '96

946

BENJAMIN J. CAYETANO
GOVERNOR

DIRECTOR'S OFFICE
DEPT. OF
TRANSPORTATION

JUL 9 10 36 AM '96

GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

220 SOUTH KING STREET
FOURTH FLOOR
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

July 8, 1996

RECEIVED
JUL 10 2 02 PM '96
DEPT. OF TRANSPORTATION
HIGHWAYS DIVISION

The Honorable Kazu Hayashida, Director
Department of Transportation
State of Hawai'i
869 Punchbowl Street
Honolulu, Hawai'i 96813

Dear Mr. Hayashida:

We wish to submit for your response (required by Section 343-5(b), Hawaii Revised Statutes) the following comments on a draft environmental assessment ("DEA") entitled "Hana Highway Improvements at Milepost 14.39, Project No. 360A-04-95" dated May 15, 1996. Notice of this draft environmental assessment was published in the June 8, 1996, and the June 23, 1996, editions of the Environmental Notice.

1. Please consult with affected communities of your proposed project.

2. After the consultation in item 1 above, please include in the final environmental assessment a table showing the proposed phasing and timing of various project elements along with an expected completion date for the proposed project.

Please include this letter and your response in the final environmental assessment for this project. If there are any questions, please call Mr. Leslie Segundo, Environmental Health Specialist, at 586-4185. Thank you for the opportunity to comment.

Sincerely,

GARY GILL
Director

RECEIVED
'96 JUL 11 P1:30
DESIGN BRANCH
HIGHWAYS DIVISION
DEPT. OF TRANSPORTATION

Figure 17

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858-5440

RECEIVED
'96 NOV 18 P3:33

REPLY TO ATTENTION OF:

November 14, 1996

Operations Branch

DESIGN BRANCH
HIGHWAYS DIVISION
DEPT. OF TRANSPORTATION

Ms. Karen Chun
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Ms. Chun:

This letter is written in response to your October 16, 1996 letter to Ms. Lolly Silva regarding the Hana Highway Improvements at Milepost 14.39, Hana, Maui.

Initial review of the documents and a phone conversation between Ms. Silva and yourself on November 14, 1996 has concluded that a Department of the Army (DA) permit is not required for the highway improvements. Work to extend the highway by one lane, will consist of excavating the mountain side slope and all work will be occurring above the ordinary high water mark. Therefore, this work is not within the Corps jurisdiction.

In the future, should the highway design or construction methods be modified to impact waters of the United States, please notify our office for a determination whether a DA permit may be required.

If you have questions or need additional information, please call Ms. Lolly Silva at 438-9258, extension 17.

Sincerely,

Linda M. Hihara-Endo, Ph.D., P.E.
Acting Chief, Operations Branch

Figure 18

HWY 1326
HWY-DD
2.2159

October 9, 1996

Mr. Carl Lindquist
Hana Business Council
P. O. Box 507
Hana, Hawaii 96713

Dear Mr. Lindquist:

Thank you for letter dated July 6, 1996 regarding the draft environmental assessment for Hana Highway Improvements at milepost 14.39.

Our staff is currently analyzing traffic counts to determine a proposed road closure schedule for Hana Highway. Once the schedule is completed, we will conduct public meetings with the Keanae and Hana communities to receive input on the proposed timing of road closures. The communities' concerns will be considered in finalizing the road closure schedule and the schedule will be included in the final environmental assessment.

Mr. Robert Siarot, Maui District Engineer, will contact your organization for assistance in scheduling the community meetings.

Thank you for your interest in this project.

Very truly yours,

HUGH Y. ONO
Administrator
Highways Division

KC:lq

bc: HWY-M
HWY-DD

Figure 19

DIR 946
HWY-DD
2.1483

AUG 1 8 1996

TO: MR. GARY GILL, DIRECTOR
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

FROM: for MR. KAZU HAYASHIDA, DIRECTOR
DEPARTMENT OF TRANSPORTATION

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL ASSESSMENT FOR HANA HIGHWAY IMPROVEMENTS AT MILEPOST 14.39, PROJECT NO. 360A-04-95

Thank you for your letter dated July 8, 1996 regarding the subject project. We are in the process of consulting the Hana and Keanae communities. After consultation, we will include a table showing the proposed roadway closure times along with the expected start and completion date for the proposed project in our final environmental assessment.

If you have any questions, please call Kevin Ito at 587-2244.

KC:ay/lq

bc: HWY-DD (KC)

Figure 20

HWY-DD
2.9059

April 28, 1998

Mr. John Blumer-Buell
Mr. Eric Kanakaole
Hana Community Association
P. O. Box 202
Hana, Hawaii 96713

Dear Messrs. Blumer-Buell and Kanakaole:

Thank you for your letter dated July 5, 1996 concerning the Draft Environmental Assessment for Hana Highway Improvements at Milepost 14.39. Public meetings were held to discuss the project with the Hana Community on December 19, 1996, Keanae Community on January 9, 1997, and the Hana Business Council on January 16, 1997. Our Maui District Engineer will continue to conduct meetings with the community to inform them about the project status.

The following design alternatives were presented at above meetings which provide for:

1. A one-lane highway and improve slide stability;
2. A two-lane highway using two-foot diameter drill shafts and tie back walls;
3. A two-lane highway using five-foot diameter drill shafts and tie back walls;
4. A two-lane highway using acrow panel bridge;
5. A one-lane highway using acrow panel bridge;
6. A two-lane highway with 30-foot rock catchment areas by excavating the slope; and
7. A two-lane highway with no rock catchment by excavating the slope.

The public meetings showed support for our design recommendation to provide a two-lane highway with a 30-foot rock catchment area.

The EA will discuss the road closure schedules proposed at the public meetings to help mitigate the impact on businesses. As a compromise, road closures will be from 7:30 a.m. to 10:00 a.m. and 12:30 p.m. to 4:30 p.m. The special provisions will include this road closure schedule which the Contractor shall adhere to.

There is no funding to provide a promotional brochure for this project. The Contractor is required to place a notice-to-motorist ad in the newspaper explaining the road closure schedules. The Contractor will notify Maui Visitors Bureau about the road closure schedule. Advance traffic warning signs will be posted during construction to notify motorist of road closures.

The EA will state that the Contractor will be responsible for disposing of the excavated fill in accordance with the environmental laws of the State. We will include a provision requiring the Contractor to disclose the location of the disposal site as a condition to awarding the contract. This information will be made available to the public. Failure by the Contractor to comply with the provisions of the contract could lead to termination of the contract.

Figure 21

Dirt berms will not be permitted. In lieu of this concrete jersey barriers or rock berms will be used to prevent water pollution. The contract provisions require the Contractor to cease operations if they affect water quality. The Contractor is also required to follow the bridge load limitations when hauling material from the project site.

To our knowledge, there are no County or State projects scheduled to conflict with the road closure schedule project.

If you have any questions, please call Ms. Karen Chun at 587-2125.

Very truly yours,

PERICLES MANTHOS
Administrator
Highways Division

KC:ra

bc: HWY-DD
HWY-M

Figure 21

HWY 1327
HWY-DD
2.8336

May 13, 1998

Ms. Gladys Kanoa
P. O. Box 330973
Kahului, Hawaii 96733

Dear Ms. Kanoa:

Thank you for your letter dated July 5, 1996 concerning the Draft Environmental Assessment for Hana Highway Improvements at Milepost 14.39. Public meetings were held to discuss the project with the Hana Community on December 19, 1996, Keanae Community on January 9, 1997, and the Hana Business Council on January 16, 1997. Our Maui District Engineer will continue to conduct meetings with the community to inform them about the project status.

The following design alternatives were presented at above meetings which provide for:

1. A one-lane highway and improve slide stability;
2. A two-lane highway using two-foot diameter drill shafts and tie back walls;
3. A two-lane highway using five-foot diameter drill shafts and tie back walls;
4. A two-lane highway using acrow panel bridge;
5. A one-lane highway using acrow panel bridge;
6. A two-lane highway with 30-foot rock catchment areas by excavating the slope; and
7. A two-lane highway with no rock catchment by excavating the slope.

The public meetings showed support for our design recommendation to provide a two-lane highway with a 30-foot rock catchment area. In addition, the highway alignment will be moved 15-feet "mauka" in the critical section of the roadway.

The EA will discuss the road closure schedules proposed at the public meetings to help mitigate the impact on businesses. As a compromise, road closures will be from 7:30 a.m. to 10:00 a.m. and 12:30 p.m. to 4:30 p.m. The special provisions will include this road closure schedule which the Contractor shall adhere to. The option of having at least one lane open to traffic during construction is not feasible because of the type of construction work involved.

There is no funding to provide a promotional brochure for this project. The Contractor is required to place a notice-to-motorist ad in the newspaper explaining the road closure schedules. The Contractor will notify Maui Visitors Bureau about the road closure schedule. Advance traffic warning signs will be posted during construction to notify motorist of road closures.

The EA will state that the Contractor will be responsible for disposing of the excavated fill in accordance with the environmental laws of the State. We will include a provision requiring the Contractor to disclose the location of the disposal site as a condition to awarding the contract. This information will be made available to the public. Failure by the Contractor to comply with the provisions of the contract could lead to termination of the contract.

Figure 22

Dirt berms will not be permitted. In lieu of this concrete jersey barriers or rock berms will be used to prevent water pollution. The contract provisions require the Contractor to cease operations if they affect water quality. The Contractor is also required to follow the bridge load limitations when hauling material from the project site.

The concrete barriers are also used to prevent motorists from going over the cliff. Also, the concrete barriers will either have delineation (steady burning lights) or reflector markers to warn motorists.

The Contractor is required to follow safety precautions under OSHA during construction. At night we will have concrete barriers with temporary lights. The estimated construction time for this project is 220 working days.

We will attempt to schedule construction during periods of low rainfall. If you have any questions, please call Ms. Karen Chun at 587-2125.

Very truly yours,

for PERICLES MANTHOS
Administrator
Highways Division

KC:ra

bc: HWY-DD
HWY-M

Figure 22

HWY 2872
HWY-DD
2.8834

April 28, 1998

Ms. Elaine Wender
SR 93 Keanae
Haiku, Hawaii 96708

Dear Ms. Wender:

Thank you for your letter dated July 7, 1996, concerning the Draft Environmental Assessment for Hana Highway Improvements at Milepost 14.39. Public meetings were held to discuss the project with the Hana Community on December 19, 1996, Keanae Community on January 9, 1997, and the Hana Business Council on January 16, 1997. Our Maui District Engineer will conduct meetings with the community to inform them about project status.

The following design alternatives were presented at above meetings which provide for:

1. A one-lane highway and improve slide stability;
2. A two-lane highway using two-foot diameter drill shafts and tie back walls;
3. A two-lane highway using five-foot diameter drill shafts and tie back walls;
4. A two-lane highway using acrow panel bridge;
5. A one-lane highway using acrow panel bridge;
6. A two-lane highway with 30-foot rock catchment areas by excavating the slope; and
7. A two-lane highway with no rock catchment by excavating the slope.

The public meetings showed support for our design recommendation to provide a two-lane highway with a 30-foot rock catchment area.

Our Maui District maintenance records does not show any incidence of rockfall due to the existing slope. However, our geotechnical staff recommends we provide a 30-foot wide rock catchment area to prevent a future rockfall problem due to weathering of the proposed slope. The rock catchment area which you refer to as a "buffer zone" is individually designed for each project site based upon the slope, height and size of falling rocks from the mountainside. Our geotechnical staff analyzes the stability of the soil formation when making their recommendation for the final slope. The estimate for the amount of excavated soil to achieve the final slope was based on topographic surveys of the area.

The Contractor determines the construction method used to excavate the mountain. If blasting is used, we will require the Contractor to provide mitigation measures such as blasting mats to prevent the blasted material from affecting the environment.

Figure 23

The Contractor will be responsible for disposing of the excavated fill in accordance with the environmental laws of the State. We will include a provision requiring the Contractor to disclose the location of the disposal site as a condition to awarding the contract. This information will be made available to the public. Failure by the Contractor to comply with the provisions of the contract could lead to termination of the contract.

Dirt berms will not be permitted. In lieu of this concrete jersey barriers or rock berms will be used to prevent water pollution. The contract provisions require the Contractor to cease operations if they affect any historical sites or water quality. We will not hire an independent monitoring archaeologist for this project because there are no known historic sites in the project area.

We will have an inspector on the project to monitor the Contractor's work. However, due to limited staff, the inspector may not be at the project site at all times. If you or any concerned citizen notice a problem during construction, you may contact our Maui District construction office for further assistance.

Businesses will not be compensated for economic loss during construction. Road closure schedules were discussed at public meetings to help mitigate the impact on businesses. As a compromise, road closures will be from 7:30 a.m. to 10:00 a.m. and 12:30 p.m. to 4:30 p.m.

There is no funding to provide a promotional brochure for this project. The Contractor is required to place a notice- to-motorist ad in the newspaper explaining the road closure schedules. The Contractor will notify Maui Visitors Bureau about the road closures schedule. Advance traffic warning signs will be posted during construction to notify motorists of road closures. The estimated construction time for this project is 220 working days.

Access to Honomanu Bay will not be restricted under this project. We have an upcoming drainage improvement project at MP 16.13 which will remove the plastic pipes on the mountain and install a swale to handle water flowing from the horizontal drains.

In conclusion, we feel the impacts to the public were addressed at the public meetings and a final environmental assessment will be available for review at the Maui Public Library.

Please attention any correspondence to Ms. Karen Chun. If you have any questions, please call Ms. Karen Chun at 587-2125.

Very truly yours,

PERICLES MANTHOS
Administrator
Highways Division

KC:ra

bc: HWY-DD

Figure 23

HWY 1325
HWY-DD
2.9070

May 13, 1998

Mr. Robert Coffey
Sierra Club-Maui Group
P. O. Box 2000
Hana, Hawaii 96732

Dear Mr. Coffey:

Thank you for your letter dated July 6, 1996 concerning the Draft Environmental Assessment for Hana Highway Improvements at Milepost 14.39. Public meetings were held to discuss the project with the Hana Community on December 19, 1996, Keanae Community on January 9, 1997, and the Hana Business Council on January 16, 1997. Our Maui District Engineer will continue to conduct meetings with the community to inform them about the project status.

The following design alternatives were presented at above meetings which provide for:

1. A one-lane highway and improve slide stability;
2. A two-lane highway using two-foot diameter drill shafts and tie back walls;
3. A two-lane highway using five-foot diameter drill shafts and tie back walls;
4. A two-lane highway using acrow panel bridge;
5. A one-lane highway using acrow panel bridge;
6. A two-lane highway with 30-foot rock catchment areas by excavating the slope; and
7. A two-lane highway with no rock catchment by excavating the slope.

The public meetings showed support for our design recommendation to provide a two-lane highway with a 30-foot rock catchment area.

Our geotechnical staff recommends we provide a 30-foot wide rock catchment area to prevent a future rockfall problem due to weathering of the proposed slope. The rock catchment area which you refer to as a "buffer zone" is individually designed for each project site based upon the slope, height and size of falling rocks from the mountainside. Our geotechnical staff analyzes the stability of the soil formation when making their recommendation for the final slope.

The EA will state that the Contractor will be responsible for disposing of the excavated fill in accordance with the environmental laws of the State. We will include a provision requiring the Contractor to disclose the location of the disposal site as a condition to awarding the contract. This information will be made available to the public. Failure by the Contractor to comply with the provisions of the contract could lead to termination of the contract.

Dirt berms will not be permitted. In lieu of this concrete jersey barriers or rock berms will be used to prevent water pollution. The contract provisions require the Contractor to cease operations if they affect water quality. The Contractor is also required to follow the bridge load limitations when hauling material from the project site.

Figure 24

We will have an inspector on the project to monitor the Contractor's work. However, due to limited staff, the inspector may not be at the project site at all times. If you or any concerned citizen notice a problem during construction, you may contact our Maui District construction office for further assistance.

The Final EA will not include a detailed description of the traffic, historical/archaeological, flora, fauna and water quality in the area. We have letters from agencies such as the Forestry and Wildlife and State Historic Preservation Division supporting our conclusion that the impacts to the environment will be minimal.

In conclusion, we feel the impacts to the public were addressed at the public meetings and a final environmental assessment will be available for review at the Maui Public Library.

If you have any questions, please call Ms. Karen Chun at 587-2125.

Very truly yours,

for PERICLES MANTHOS
Administrator
Highways Division

KC:ra

bc: HWY-DD
HWY-M

Figure 24

HWY 2876
HWY-DD
2.9069

May 13, 1998

Mr. Marc Hodges
PacRim Research Information
and Allied Services
1061 Kokomo Road
Haiku, Hawaii 96708

Dear Mr. Hodges:

Thank you for your letter dated July 6, 1996 concerning the Draft Environmental Assessment for Hana Highway Improvements at Milepost 14.39. Public meetings were held to discuss the project with the Hana Community on December 19, 1996, Keanae Community on January 9, 1997, and the Hana Business Council on January 16, 1997. Our Maui District Engineer will continue to conduct meetings with the community to inform them about the project status.

The following design alternatives were presented at above meetings which provide for:

1. A one-lane highway and improve slide stability;
2. A two-lane highway using two-foot diameter drill shafts and tie back walls;
3. A two-lane highway using five-foot diameter drill shafts and tie back walls;
4. A two-lane highway using acrow panel bridge;
5. A one-lane highway using acrow panel bridge;
6. A two-lane highway with 30-foot rock catchment areas by excavating the slope; and
7. A two-lane highway with no rock catchment by excavating the slope.

The public meetings showed support for our design recommendation to provide a two-lane highway with a 30-foot rock catchment area.

The EA will state that the Contractor will be responsible for disposing of the excavated fill in accordance with the environmental laws of the State. We will include a provision requiring the Contractor to disclose the location of the disposal site as a condition to awarding the contract. This information will be made available to the public. Failure by the Contractor to comply with the provisions of the contract could lead to termination of the contract.

Dirt berms will not be permitted. In lieu of this concrete jersey barriers or rock berms will be used to prevent water pollution. The Contractor will adhere to Best Management Practices (BMP's) which are pollution control guidelines and requirements that are project specific that pertain to water quality. These BMP's are approved by the Department of Health prior to construction. Also, the contract provisions require the Contractor to cease operations if the water is polluted by the Contractor's work. The Contractor is also required to follow the bridge load limitations when hauling material from the project site.

Figure 25

We will have an inspector on the project to monitor the Contractor's work. However, due to limited staff, the inspector may not be at the project site at all times. If you or any concerned citizen notice a problem during construction, you may contact our Maui District construction office for further assistance.

In conclusion, we feel the impacts to the public were addressed at the public meetings and a final environmental assessment will be available for review at the Maui Public Library.

Thank you for offering pro bono assistance but we will have our construction personnel monitor the water quality during construction. If you have any questions, please call Ms. Karen Chun at 587-2125.

Very truly yours,

for PERICLES MANTHOS
Administrator
Highways Division

KC:ra

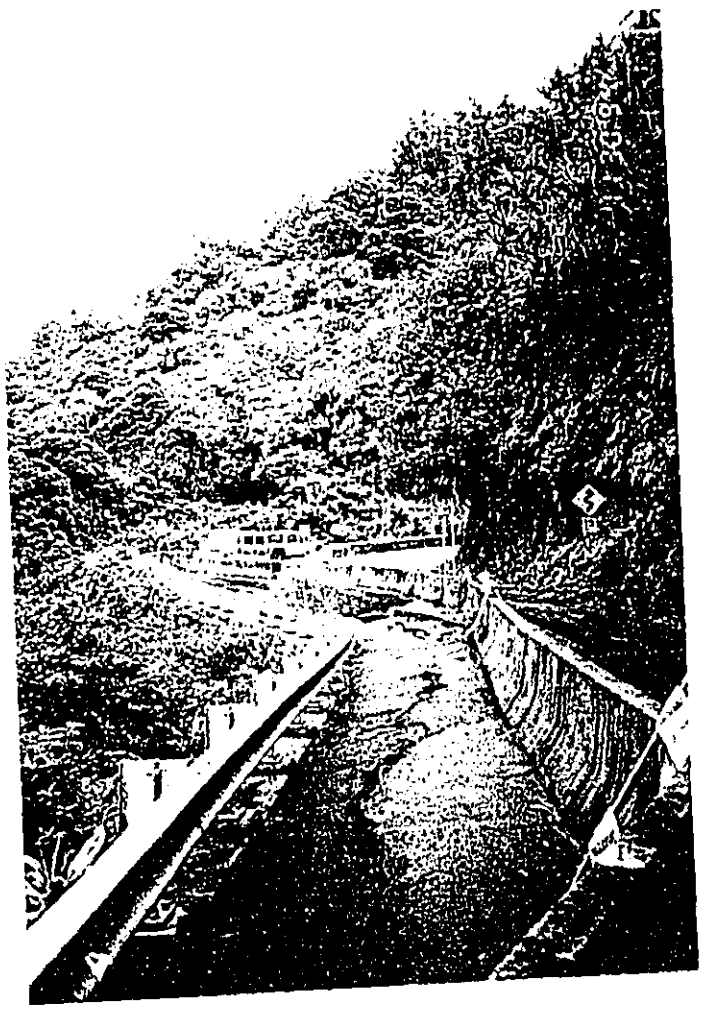
bc: HWY-DD
HWY-M

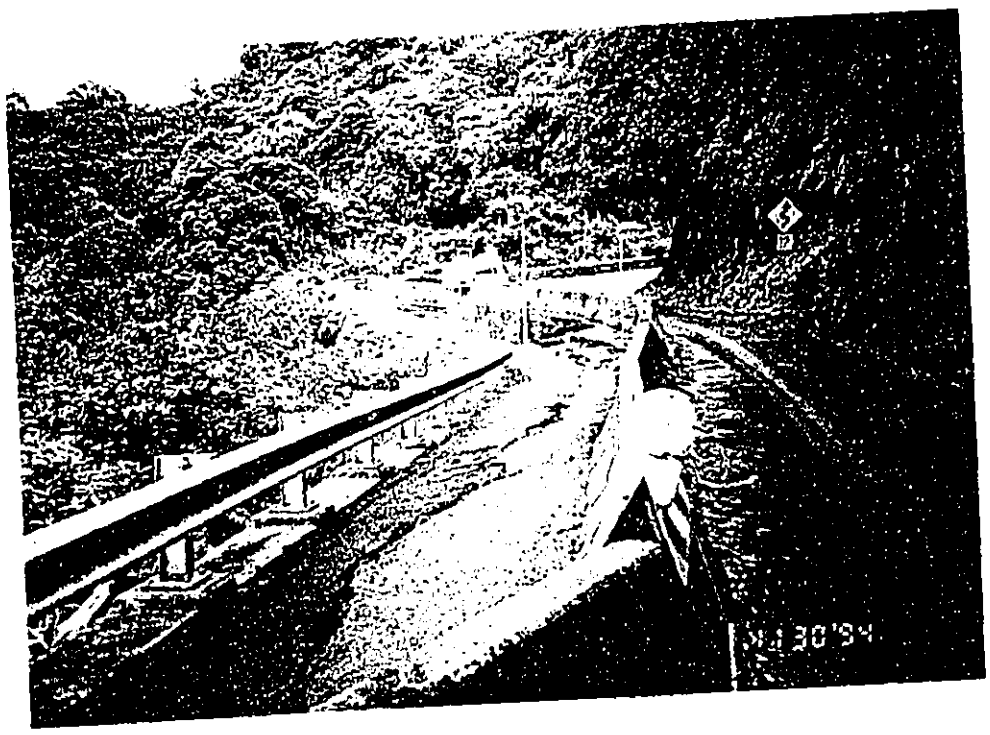
Figure 25

ATTACHMENT A

HANA HIGHWAY IMPROVEMENTS AT MILEPOST 14.39
PROJECT NO. 360A-04-95

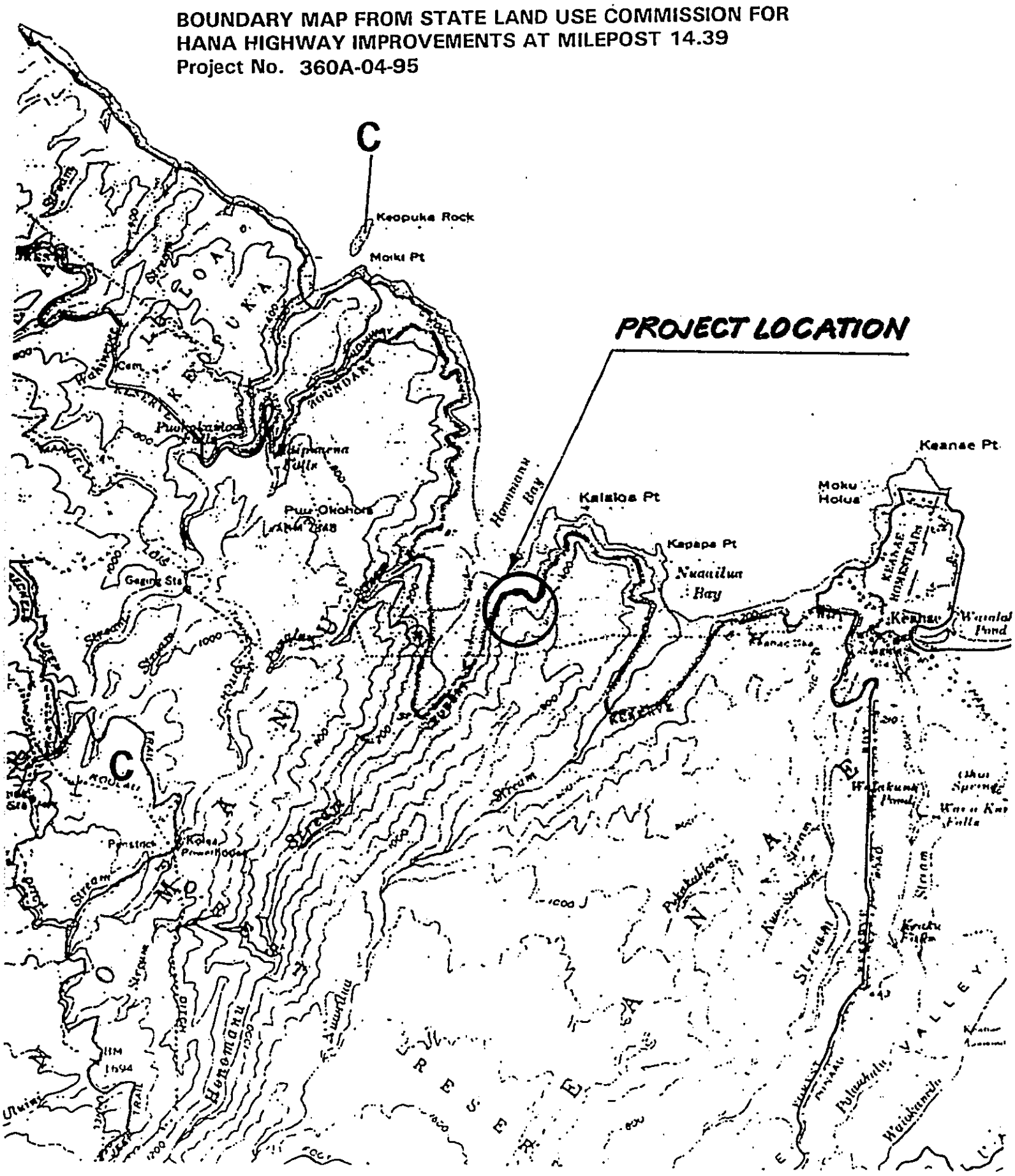
Photographs of Hana Highway at Milepost 14.39 looking toward Hana





ATTACHMENT B

BOUNDARY MAP FROM STATE LAND USE COMMISSION FOR HANA HIGHWAY IMPROVEMENTS AT MILEPOST 14.39
Project No. 360A-04-95



ATTACHMENT C

SUBZONE BOUNDARY MAP FROM DLNR FOR
HANA HIGHWAY IMPROVEMENTS AT MILEPOST 14.39
Project No. 360A-04-95