MEMORANDUM:

TO: GARY GILL, DIRECTOR
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

FROM: HUGH Y. ONO, ADMINISTRATOR
HIGHWAYS DIVISION

SUBJECT: HANA HIGHWAY, HANAWANA STREAM CULVERT REPLACEMENT, PROJECT NO. 360A-02-95M, TMK: 2:9:10:2,3,4,22, FINAL ENVIRONMENTAL ASSESSMENT

We are notifying you that an Environmental Impact Statement (EIS) is not required for the subject project and are filing a negative declaration for this project. Enclosed are four (4) copies of the negative declaration.

Please contact Allan Nishimura at 587-2240 (fax 587-2343) if you have any questions.

Enc.
Proposing Agency: State of Hawaii, Department of Transportation, Highways Division

Agencies Consulted:

Federal:
U.S. Army Corps of Engineers
U.S. Department of the Interior, Fish & Wildlife Services

State:
Department of Business, Economic Development and Tourism
Department of Health, Environmental Management Division
Department of Land and Natural Resources
Office of State Planning

County of Maui:
Planning Department
Department of Public Works
Department of Water Supply
Economic Development Agency

Others:
Nature Conservancy of Hawaii
Sierra Club of Hawaii, Maui Group

Project Characteristics:

General: The State of Hawaii, Department of Transportation, Highways Division is proposing to replace culverts at Hanawana Stream. The existing culverts are located on Hana Highway, approximately two (2) miles southeast of Walpio Bay at mile post 5.44, see figures 1 and 2. There are three (3) culverts at this location, each one rusted through at the inverts. Also, the stream water overtops the highway during periods of heavy rainfall, temporarily obstructing vehicular traffic.

Hana Highway, in the vicinity of the proposed project area, is a 2-lane highway, 1-lane in each direction. The existing traveled way is 18' wide, and there are 4' wide unpaved
shoulders on both sides of the highway.

Technical:
The proposed project consists primarily of replacing the three (3) existing 36" diameter cast iron pipes crossing Hana Highway, each pipe approximately 35' long with three (3) 48" diameter, 46' long reinforced concrete pipes; including headwalls, wingwalls, and appurtenant work such as minor channel excavation, pavement reconstruction and guardrail installation. Work will also include installing wire fence and relocating a one(1) inch polyvinyl chloride waterline. Figures 3 thru 8 shows the proposed work.

Economic:
The estimated construction costs for the proposed project will be $216,000.00 for the State of Hawaii.

Social:
The project is located within the State Land Use Agricultural District. The existing culverts are located at the Hanawana Stream crossing of Hana Highway. Hana Highway is the only developed roadway serving the towns from Hana to Pala. This highway is used primarily by residents commuting to jobs in Makawao and Wailuku, and visitors travelling to and from Hana. The proposed project will not allow the closure of more than one lane during the construction period. The proposed culvert replacement will increase the capacity of water flow, thereby reducing the possibility of the stream overtopping the highway during heavy rainfall. And as a result, the project will provide a safer and more reliable highway for the travelling public.

Environmental:
The proposed project is planned to be constructed within the existing State Highway right-of-way. No unusual flora or fauna inhabit the project site. Also, there are no known historical, cultural or archaeological sites within the project limits. Hana Highway will remain a 2-lane facility upon completion of project; therefore, air quality and noise levels will not be permanently affected. All construction work will be designed to resemble existing conditions so as not to adversely affect visual impacts. Best management practices will be applied so no significant long term adverse affects on water quality in the stream or the ocean is anticipated. Appropriate mitigation measures will be utilized to minimize adverse
environmental impacts during construction of the project.

Summary of the Affected Environment:

The proposed culvert replacements will produce a safer and 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.

Summary of Major Impacts:

Short Term:

During construction, the following minor adverse impacts are anticipated:

1. Some dust and noise
2. Traffic slow down
3. Minor water quality problems from silt and construction debris

Long Term:

No significant long term adverse impact is anticipated in the following conditions due to construction of the proposed project.

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

The "No Action" alternative was considered but determined to be unacceptable because the benefits of providing the motoring public with a safer and more reliable highway far outweigh the minor adverse impacts anticipated while constructing this project.

Proposed Mitigation Measures During Construction:

1. The generation of dust and noise are anticipated by the construction activities. Dust levels will be controlled by sprinkling with non-potable water. General construction noise will be mitigated by limiting the hours of construction activities to 7:00 a.m. to 4:00 p.m., five days a week. In addition, noise attenuating devices on construction equipment will be functional and properly maintained.

2. Traffic will be disrupted due to the temporary closure of one traffic lane. Disruptions will be reduced by implementing construction traffic control plans, and by the use of public informational signs; news releases; and other traffic control devices, including cones, signs, and flaggers to alert motorists of construction activities.

3. Water quality in the stream may be affected by silt and debris during construction. Measures to minimize erosion and silting will include; scheduling site work during periods of minimum rainfall, replanting or covering lands denuded of vegetation as quickly as possible, and preventing construction materials and petroleum products from falling, blowing or leaching into the stream. Other mitigative measures to contain silt and construction debris may involve the construction of temporary berms, dikes, dams, sediment basins. In addition, excavation shall be confined to the minimum area necessary to ease construction equipment and work force engaged in excavation work. Also, fill material shall be of suitable quality, free of deleterious substance, and able to withstand expected high flows.

Permits Required Prior To Start Of Construction:

1. Stream Channel Alteration Permit (SCAP) DLNR Commission on Water Resource Management

2. Department of the Army Permit (DA) U.S. Army Corps of Engineers

3. Section 401 Water Quality Certification (WQC) DOH Environmental Management Division
Determination:
The proposed project will not cause significant adverse environmental impact and a negative declaration is applicable.

Findings and Reasons Supporting Determination:
The proposed project will not:

1. involve an irrevocable commitment to loss or destruction of any natural or cultural resource;
2. curtail the range of beneficial uses of the environment;
3. conflict with the State's long-term environmental policies;
4. detrimentally affect the economic or social welfare of the community or state;
5. detrimentally affect the public health;
6. involve substantial secondary impacts, such as population changes or effects on public facilities;
7. involve a substantial degradation of environmental quality;
8. affect any rare, threatened, or endangered species of flora and fauna or habitat;
9. detrimentally affect environmentally sensitive areas such as flood plain, tsunami zone, erosion-prone flood area, geologically hazardous land, estuary, fresh or coastal water; and
10. detrimentally affect air or water quality or ambient noise levels.
For the reasons above, the proposed project will not have any significant effect in the context of Chapter 343, Hawaii Revised Statues and Section 11-200-12 of the State Administrative Rules.

RECEIVED AND ACCEPTANCE RECOMMENDED:

[Signature]
HUGH Y. ONO
Administrator
Highways Division

7-10-95
Date

CONCURRENCE:

[Signature]
KAZU HAYASHIDA
Director of Transportation

7/12/95
Date
MEMORANDUM:

TO: RAE M. LOUI, DEPUTY DIRECTOR
COMMISSION ON WATER RESOURCE MANAGEMENT
DEPARTMENT OF LAND AND NATURAL RESOURCES

FROM: HUGH Y. ONO, ADMINISTRATOR
HIGHWAYS DIVISION

SUBJECT: COMMISSION ON WATER RESOURCE MANAGEMENT LETTER
DATED MARCH 2, 1995 FOR HANA HIGHWAY, HANAWANA STREAM
CULVERT REPLACEMENT, PROJECT NO. 360A-02-95M
MAKAWA, MAUI

Thank you for your review of the Draft Environmental Assessment
and the stream channel alteration permit (SCAP) information.
We submitted an application for a SCAP on March 23, 1995.

KI:ra
bc: HWY-DD (A.N.)

EXHIBIT A
Mr. Hugh Y. Ono, Administrator
Department of Transportation
Highways Division
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Ono:

Hana Highway, Hanawana Stream Culvert Replacement
Project No. 360A-02-95M

In response to the Draft Environmental Assessment (DEA) for the subject project, the DEA acknowledges the need for a stream channel alteration permit pursuant to Section 13-169-50, Hawaii Administrative Rules.

For more information regarding permit processing, please do not hesitate to call David Higa at 387-0249.

Sincerely,

RAE M. LOUI
Deputy Director

DH:ss

c: OCEA

EXHIBIT A
June 29, 1995

Mr. Charles Jencks, Director
Department of Public Works
and Waste Management
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Jencks:

Subject: Hana Highway, Hanawana Stream Culvert Replacement
Project No. 360A-02-95M, Makawao, Maui

Thank you for your review and comments on the Draft Environmental Assessment for subject project. Provisions for traffic control and for disposal of clearing and grubbing will be included in the project contract documents. We believe no further action is necessary.

Very truly yours,

HUGH Y. ONO
Administrator
Highways Division

EXHIBIT B
Mr. Hugh Y. Ono, Administrator
State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

SUBJECT: Draft Environmental Assessment
HANA HIGHWAY, HANAWANA STREAM CULVERT REPLACEMENT
Project No. 360A-02-95M

Dear Mr. Ono:

We reviewed the subject assessment and have the following comments:

1. Comments from the Engineering Division:
   a. The construction plans should denote "Traffic Control Plans" to show construction phasing and possible road closures, if any.

   The applicant is requested to contact the Engineering Division at 243-7745 for additional information.

2. Comments from the Wastewater Reclamation Division:

   This division has reviewed this submittal and has no comments at this time.

3. Comments from the Solid Waste Division:
   a. Contact the Central Maui Sanitary Landfill Operations Supervisor at 877-7596 or 877-5319 for instructions on the disposal of clearing and grubbing.

EXHIBIT B
The applicant is requested to contact the Solid Waste Division at 243-7875 for additional information.

4. Comments from the Land Use and Codes Administration:

This division has reviewed this submittal and has no comments at this time.

If you have any question regarding this letter, please call me at 243-7845.

Very truly yours,

CHARLES JENCKS
Director of Public Works & Waste Management

cc: Engineering Division
    Solid Waste Division
    Wastewater Reclamation Division

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EXHIBIT B
STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII

PLANS FOR
HANA HIGHWAY

HANAWANA STREAM CULVERT REPLACEMENT

PROJECT NO. 360A-02-95M

DISTRICT OF MAKAWAO
ISLAND OF MAUI

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PROJECT LOCATION

LOCATION PLAN

SCALE IN THOUSAND FEET
Install Four (4) Construction Warning Signs with posts.
Install sign CW20-1d, "Road Construction Ahead," at Sta. 132+00 Lt. and Sta. 134+20 Lt.
Install sign CG20-2, "End Construction," at Sta. 132+60 Lt. and Sta. 134+20 Lt.

@ Sta. 137+56 Lt. o/s 15° To
@ Sta. 137+70 Lt. o/s 25°
Remove 32' of exist. barbed wire fence.
Install 23' of New Wire Fence, see Details on this sheet.

@ Sta. 137+84 Lt. To @ Sta. 139+18 Lt.
Reconstruct pavement with 2" A.C., Mix No. V and 4" Base Course, See Pavement Reconstruction Detail on this sheet.

@ Sta. 137+85 Lt. To @ Sta. 137+96 Lt.
Install 12.5' Lin. Ft. of New Metal Guardrail, Type 3-Single w/Steel Post, Modified Type "G" Flare w/Rounded End.

@ Sta. 137+84 Lt. o/s 25° To
@ Sta. 137+89 Lt. o/s 25°
Install 3' of New Wire Fence, See Detail on this sheet.

@ Sta. 137+96 Lt. To @ Sta. 138+27 Lt.
Install 25 Lin. Ft. of New Metal Guardrail, Base Plate and Steel Post on Structure. See Plan Shs. Nos. 6 & 9 for Details.

@ Sta. 137+62 Lt. To @ Sta. 137+74 Lt.
Install 12.5' Lin. Ft. of New Metal Guardrail, Type 3-Single w/Steel Post, Modified Type "G" w/Rounded End.

@ Sta. 137+74 Lt. To @ Sta. 137+99 Lt.
Install 25 Lin. Ft. of New Metal Guardrail, Base Plate and Steel Post on Structure. See Plan Shs. Nos. 8 & 9 for Details.

**PAVEMENT RECONSTRUCTION DETAIL**

Not To Scale

*Plant Mix or Recycled Plant Mix A.C. Base Course or Plant Mix Asphalt Concrete Base Course.

**DETAIL FOR WIRE FENCE**

Scale: 1/2" = 1'-0"
END PROJECT

Type II Object Marker with Post

1 1/2" PVC Waterline
Install New Type II Object Marker with Post

Note: The section of the waterline laid across the paved roadway surface shall have a minimum cover of 18" from top of chase to the finished grade.

10 Gauge Roundwire Spaced Every 6".

exist, ground

Redwood (Untreated)
Post (Untreated)

WIRE FENCE

FIGURE 3
PROFILE ALONG @ 3-48" CULVERTS

DETAILS OF 3-48" CULVERTS AT @ STA. 137+86 o/s 19' Lt.
@ Sta. 138+09 o/s 19 Rt.
Construct, Inlet Headwall
(For details see Sh. Nos. H2, H3 & H5)

Estimated Quantities
Structure Exc.  = 272 CY.
Structure Backfill = 123 CY.
Ditch and Channel Exc. = 10 CY.
Plant Mix Asphalt
Concrete Base Course = 12 Tons
Asphalt Concrete Pavement
Mix No. V = 6 Tons
Class "A" Conc. = 43 CY.
Rein. Steel = 444 Lbs.
48" RCP, Cl. III = 144 LF.
DRAINAGE NOTES

1. All work shall conform to the Hawaii Standard Specifications for Road and Bridge Construction.

2. All concrete shall have a minimum 28 day compressive strength of 3,000 psi.

3. All deformed reinforcing steel shall have a minimum yield strength of 40 ksi.

4. Foundation design is based on the following soil values:
   - Allowable Soil Bearing Pressure: 2500 psf
   - Active Pressure: 30 psf
   - Passive Pressure: 300 psf
   - Coefficient of Friction: 0.6

5. Existing drainage systems will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidental necessary to maintain flow. The cost for this work shall be incidental to the various contract items.

6. The Contractor shall verify the locations of all existing culverts and utilities in the field. Any existing culverts and utilities damaged during construction shall be repaired or replaced by the Contractor at his own expense.

7. Chamfer all exposed concrete edges 1 inch.

8. Cost of removal of existing 30" pipe and appurtenant structures shall not be paid for separately but shall be considered incidental to the structure excavation.

9. The metal guardrail, base plate and post located on each headwall shall not be paid for separately but shall be considered incidental to Class A concrete.

SECTION A

DRAINAGE DETAILS

HANAWANA STREAM CULVERT REPLACEMENT

Proj. No. 3604-02-95M

Scale: 1" = 1'-0"

Date: Aug, 1994

SHEET NO. 72 OF 5 SHEETS

FIGURE 5
PLAN VIEW OF REINFORCING STEEL

ADDED REINFORCING FOR CULVERT OPENINGS

DETAIL OF INLET HEADWALL AT § STA. 138+09 O/S 19' RT.
WALL REINFORCING FOR INLET WINGWALLS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

DRAINAGE DETAILS
HANA HIGHWAY
Hanawana Stream Culvert Replacement
Proj. No. 360A-02-95M

Scovel:B.S.
Date Aug. 1994

FIGURE 6
DETAIL OF OUTLET HEADWALL AT STA. 137+86 O/S 19' LT.
BASE PLATE DETAIL

Scale: 1"=1'-0"

Finish Grade
Inw-813 @ Inlet
Inw-815 @ Outlet
4" x 10" @ H.S. anchor

POST

90° WINGWALL

WALL REINFORCING FOR OUTLET WINGWALLS

45° WINGWALL

DRAINAGE DETAILS

HANA HIGHWAY
Hana Stream Culvert Replacement
Proj. No. 560A-02-95M
Scale: 1"=1'-0"

FIGURE 8