



EXECUTIVE CHAMBERS
HONOLULU

LINDA LINGLE
GOVERNOR

DIR 1.10212

November 15, 2006

The Honorable Calvin K. Y. Say, Speaker
and Members of the House of Representatives
Twenty-Third State Legislature
State Capitol, Room 431
Honolulu, Hawaii 96813

Dear Mr. Speaker and Members of the House:

For your information and consideration, I am transmitting herewith two (2) copies of the Department of Transportation's Report on Honopou Road and Bridge, as required by Act 107, Session Laws of Hawaii 2006. Pursuant to Section 93-16, Hawaii Revised Statutes, I am also informing you that the report may be viewed electronically at www.hawaii.gov/dot/administration/legislature.

Sincerely,

/s/ 

LINDA LINGLE

Enclosures

bc: Director/Deputy Director (1)
PPB (1)
HWY (1)
Legislative Coordinator (1)
CSS (1)

REPORT TO THE TWENTY-FOURTH LEGISLATURE
STATE OF HAWAII
2007

PURSUANT TO ACT 107, SLH 2006, RELATING TO THE HONOPOU
DISTRICT OF THE COUNTY OF MAUI, THE DEPARTMENT OF
TRANSPORTATION:

IS REQUIRED TO DETERMINE THE COSTS OF STRENGTHENING
HONOPOU BRIDGE TO ALLOW FIRETRUCKS TO SAFELY CROSS AND
REACH AREA RESIDENTS.

PREPARED BY:

DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII
OCTOBER 2006

INTRODUCTION

Pursuant to Act 107, Session Laws of Hawaii 2006 (HB2737SD1):

SECTION 2.

The Department of the Attorney General (AG) shall investigate and assist in the resolution of the issue of ownership of Honopou Road, including Honopou Bridge, and submit a report of its findings and recommendations, including any legislation deemed necessary to clarify legal jurisdiction, to the legislature no later than twenty days before the convening of the regular session of 2007.

SECTION 3.

The Department of Transportation (DOT) shall review the issues relating to the safety of Honopou Bridge and submit a report to the Legislature, Mayor of Maui, and County Council of Maui no later than twenty days before the convening of the regular session of 2007. The report shall include the Department's findings and recommendations, including any legislation deemed necessary, that will result in strengthening, repairing, increasing the load limit, and improving Honopou Bridge to provide safe access to Honopou District by the Maui County Fire Department. The DOT shall include in its report the estimated cost of improvements to Honopou Bridge that are necessary to protect the safety and well-being of residents of the Honopou District.

Upon the resolution of the issue of ownership of Honopou Road and Honopou Bridge, the DOT shall also forward its report to the entity identified with the assistance of the AG as having jurisdiction over Honopou Road and Honopou Bridge. The DOT's report of its findings and recommendations shall be transmitted to the appropriate government agency no less than thirty days after the Department's receipt of the AG's report on the resolution of the jurisdictional issue over which public agency has responsibility for the Honopou Road and Honopou Bridge.

This report is submitted by the DOT pursuant to Act 107, SLH 2006, Section 3.

Section 2 and the notification of the entity identified with the assistance of the AG as having jurisdiction over Honopou Road and Honopou Bridge will be made in a separate report by the AG's.

REPORT TO THE LEGISLATURE

FINDINGS:

Existing drawings of the Honopou Bridge furnished by the State Department of Land and Natural Resources (DLNR), Engineering Division show that:

- The bridge was designed by R. T. Tanaka Engineers, Inc. for DLNR in 1990 (re: Attachment);
- The bridge was designed to support a 5-ton truck;
- The bridge is a single-lane bridge; and
- No guardrails or pedestrian railings exist except for a 6-inch pipe curb on each side of the bridge deck.

The drawings also appear to recognize that the water level of the stream could pose a hazard to vehicles crossing the bridge; hence, a warning sign stating "No Crossing When Water Level Reaches Underside of Bridge" was included in the project.

The existing road is unpaved and actual signs posted at the existing bridge read "Danger No Crossing When Stream Level Reaches Bridge" and "Weight Limit 5 Tons."

REVIEW – OCTOBER 2006:

The Bridge Design Section of the Design Branch, Highways Division, Department of Transportation conducted a review utilizing current bridge design specifications and information contained on existing drawings.

The review revealed the following based on the assumption that composite action exists between the steel girders and the deck plate:

1. The bridge is capable of supporting an 8-ton truck with no speed restrictions; and
2. The bridge is capable of supporting a 13-ton truck if the speed of the truck is limited to 5 miles per hour while crossing the bridge.

WEIGHT OF FIRE VEHICLES:

The Deputy Fire Chief for the Maui Fire Department confirms that the:

- Weight of a typical fire truck is estimated at 20 tons; and
- Mini fire truck that services the Hana area weighs an estimated 9.5 tons.

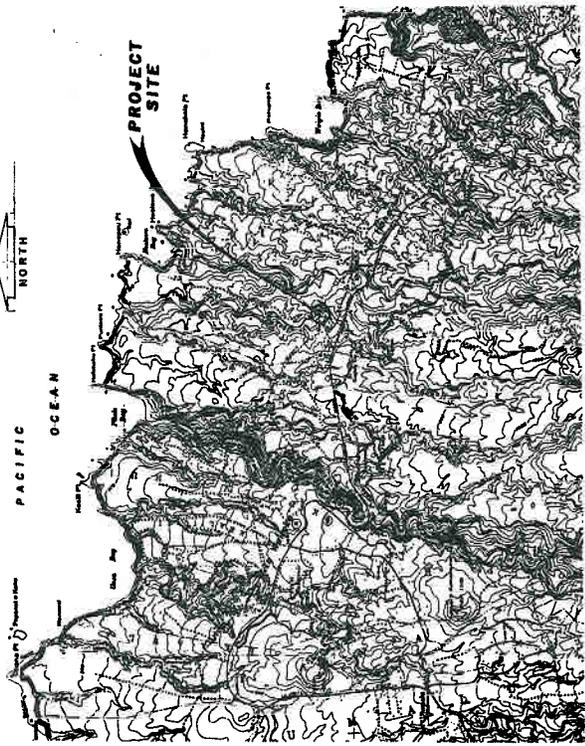
RECOMMENDATIONS:

Without any upgrade to the existing bridge:

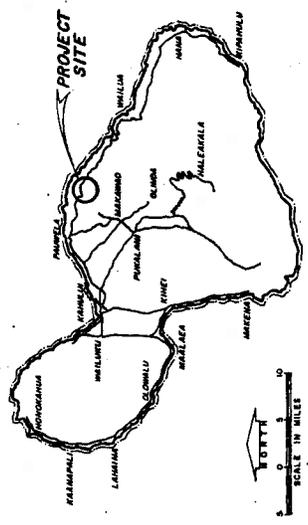
- The mini truck can safely cross the bridge if its speed is under 10 mph while crossing.
- Heavier trucks shall be restricted unless the payload can be reduced so that the total load is less than 13 tons.

We therefore recommend that:

- Although the mini fire truck for the Maui Fire Department can cross the Honopou Bridge, that the existing bridge be upgraded to accommodate 20 ton trucks. This would allow the larger Hana fire truck and other trucks such as for trash, gas, concrete and other utility service vehicles to cross the bridge.
- Safety rails be added at the bridge and approaches to safely accommodate pedestrians who currently use the Honopou Bridge to cross the stream.



LOCATION MAP
Scale: 1" = 10,000 Feet



ISLAND OF MAUI
SCALE: 1" = 8 MILES

**DIVISION OF LAND MANAGEMENT
JOB NO. 32-ML-A**

**HONOPOU BRIDGE
MAKAWAO, MAUI, HAWAII**

T.M.K.: 2-9-03:17
ACT 390, SLH 1988, ITEM C-73A, B-88-507C
STATE OF HAWAII

**DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF WATER AND LAND DEVELOPMENT
HONOLULU, HAWAII**

ENGINEER: R. T. TANAKA ENGINEERS, INC.
671 KOLU STREET, SUITE 201
WAILUKU, MAUI, HAWAII - 96793

INDEX

DESCRIPTION	SHEET No.
TITLE SHEET	1
SITE PLAN & DETAILS	2
DETAILS	3

APPROVED: *[Signature]* DATE: 5/1/90
ADMINISTRATIVE OFFICE OF LAND MANAGEMENT

APPROVED: *[Signature]* DATE: 5-1-90
SUPERVISOR

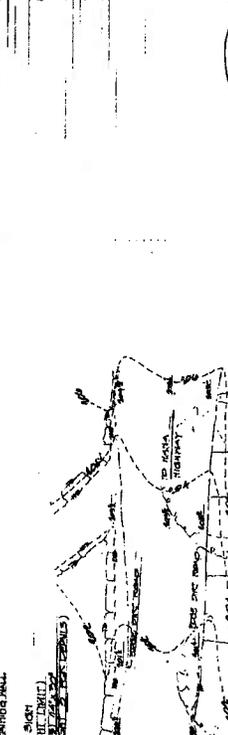
APPROVED: *[Signature]* DATE: 5-1-90
DIRECTOR OF WATER AND LAND DEVELOPMENT
DEPARTMENT OF LAND AND NATURAL RESOURCES

GENERAL NOTES:

1. CONTRACTOR SHALL PROVIDE NECESSARY BACKUPS, LIGHTS, AND SAFETY SIGNALS TO MAINTAIN TRAFFIC FLOW THROUGHOUT CONSTRUCTION PERIOD TO AVOID TRAFFIC DELAYS.
2. EXISTING ROAD GRADE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD TO AVOID TRAFFIC DELAYS.
3. EXISTING ROAD GRADE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD TO AVOID TRAFFIC DELAYS.
4. CONTRACTOR SHALL MAINTAIN THE EXISTING ROAD GRADE THROUGHOUT CONSTRUCTION PERIOD TO AVOID TRAFFIC DELAYS.
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10. CONTRACTOR SHALL MAINTAIN THE EXISTING ROAD GRADE THROUGHOUT CONSTRUCTION PERIOD TO AVOID TRAFFIC DELAYS.

LEGEND:

- 1. EXISTING GRADE
- 2. EXISTING ROAD GRADE
- 3. EXISTING ROAD GRADE
- 4. EXISTING ROAD GRADE
- 5. EXISTING ROAD GRADE
- 6. EXISTING ROAD GRADE
- 7. EXISTING ROAD GRADE
- 8. EXISTING ROAD GRADE
- 9. EXISTING ROAD GRADE
- 10. EXISTING ROAD GRADE



SITE PLAN
SCALE: 1" = 10'

NOTES:

1. EXISTING GRADE TO REMAIN, EXCEPT AS SHOWN ON THIS PLAN.
2. EXISTING ROAD GRADE AND PAVEMENT SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD TO AVOID TRAFFIC DELAYS.
3. THE NEW CROWN ABUTMENT INTO EXISTING ROAD GRADE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD TO AVOID TRAFFIC DELAYS.
4. EXISTING ROAD GRADE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION PERIOD TO AVOID TRAFFIC DELAYS.
5. CONTRACTOR SHALL MAINTAIN THE EXISTING ROAD GRADE THROUGHOUT CONSTRUCTION PERIOD TO AVOID TRAFFIC DELAYS.
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DESIGN DATA:

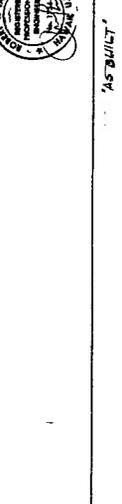
- 1. DESIGN LOADING: HEAVY TRUCK (A-BEL) (SPECIAL)
- 2. WIND SPEED: 100 MPH
- 3. LOAD DISTRIBUTION: PER AASHTO
- 4. PERCENT: 0.4%
- 5. PERCENT: 0.2%

SECTION 'A-A'



SECTION 'A-A'
SCALE: 1" = 3"

SECTION 'B-B'

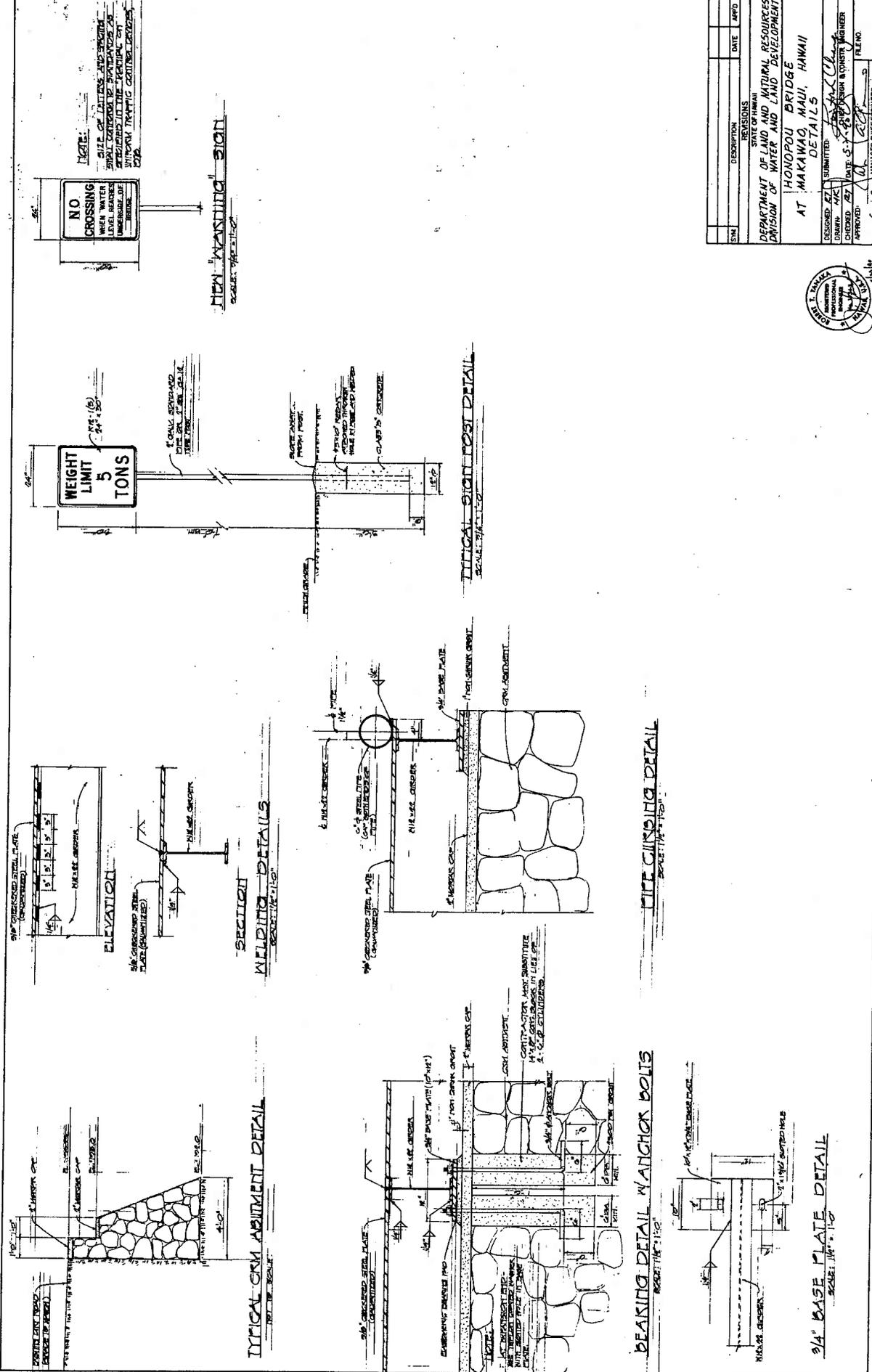


SECTION 'B-B'
SCALE: 1" = 3"

STEEL BRIDGE LAYOUT PLAN
SCALE: 1" = 4'



STEEL BRIDGE LAYOUT PLAN
SCALE: 1" = 4'



NO CROSSING WHEN WATER LEVEL RISES
 SCALE: 1/4" = 1'-0"

WEIGHT LIMIT 5 TONS
 SCALE: 1/4" = 1'-0"

NEW WARNING SIGN
 SCALE: 1/4" = 1'-0"

TYPICAL SIGN POST DETAIL
 SCALE: 1/4" = 1'-0"

SECTION WELDING DETAILS
 SCALE: 1/4" = 1'-0"

TYPICAL SIGN ANCHOR BOLTS
 SCALE: 1/4" = 1'-0"

TYPICAL SIGN BASE DETAIL
 SCALE: 1/4" = 1'-0"

SYN	DESCRIPTION	DATE	APP'D
REVISIONS STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES DIVISION OF WATER AND LAND DEVELOPMENT			
AT HONOLULU BRIDGE AT MAKAWAO, MAUI, HAWAII			
DETAILS			
DESIGNED	BY	DATE	FILE NO.
DRAWN	BY	DATE	
CHECKED	BY	DATE	
APPROVED	BY	DATE	
			MANAGER/CHIEF ENGINEER

