

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(60)	2007	3	90

GENERAL NOTES

- The project consists of intersection improvements for the East and West Hui Iwa Street Intersections by adding acceleration and deceleration lanes at the intersection approaches. Guardrails, drain inlets, traffic signal standards, pavement striping and marking, signs will be adjusted or replaced to accommodate the new work; and road luminaires will be added along the Kahekili Highway eastbound lanes.
- The Contractor shall reference the "Hawaii Standard Specifications for Road, Bridge, and Public Works Construction, 2005."
- The Contractor is reminded of the requirements of Subsection 106.16 – Subletting of Contract, which requires him to perform work amounting to not less than 30 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.
- The Contractor's attention is directed to the following Sections of the Specifications: Subsection 104.09 – Maintenance of Traffic; Subsection 104.11 – Utilities and Services; Subsection 105.09 – Coordination Between Contractors; Subsection 107.06 – Contractor Duty Regarding Public Convenience; and Section 645 – Work Zone Traffic Control.
- At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
- The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
- The Contractor shall notify in writing, the Oahu Transit Services, Inc. Roads Supervision Office, 811 Middle St., Hon., HI 96819 (Phone: 848-4571) seven (7) days prior to any paving operations.
- The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
- The existing drainage system shall be functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
- All saw cutting work including vacuum of slurry shall be considered incidental to Asphalt Concrete Pavement, Mix. No. IV.

GENERAL NOTES (CONT.)

- All azimuths and coordinates are referred to "HEEIA". For Bench Mark see 'Layout Plan'.
- At the location where the new pavements tie into the existing pavement, the Contractor shall check the existing and design grades to ensure a smooth riding connection. The Contractor shall saw cut including vacuum of slurry the existing pavement in the transverse direction to provide a neat connection. This work will be incidental to various bid items.
- Work required to complete the project but not itemized specifically in the proposal shall be considered incidental to the various contract items and shall not be paid for separately. This includes restoration of areas adjacent to work areas to a condition of same or better.
- Steel plate used on roadways exposed to traffic shall be 1" thick minimum with non-skid surfaces.
- Contractor shall pre-arrange for an Environmental Consultant to sample and submit reports as required.
- Construction Area: 1.8 Acres
- The Contractor shall maintain all street lights within the project limits at no cost to the State. All street lights shall be operating within 24 hours of discovery of a malfunction.

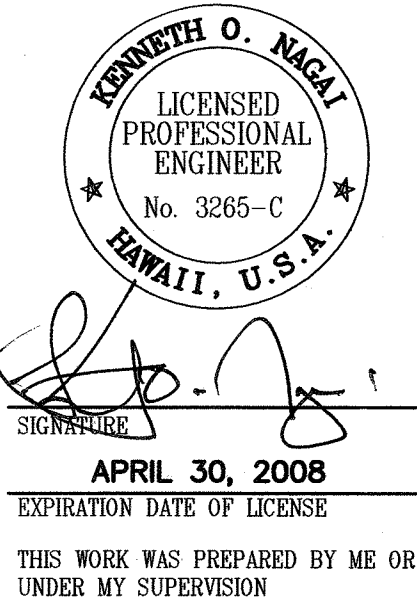
TRAFFIC SIGNALS AND TECHNOLOGY DIVISION NOTES

- The Contractor shall notify the Traffic Signals and Technology Division, Department of Transportation Services, three (3) working days prior to commencing work on the traffic signal system (Phone: 523-4589).
- The traffic signal system shall be kept operational during construction. Any relocation required shall be approved by the Traffic Signals and Technology Division, Department of Transportation Services, and paid for by the Contractor.
- The Contractor shall be responsible for any damages to the existing traffic signal facilities, including but not limited to the traffic signal fiber optic cable system, and interconnect system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the Traffic Signals and Technology Division.

ABBREVIATIONS

A.C.	ASPHALT CONCRETE	L.P.	LAMP POLE
APPROX.	APPROXIMATE	LT.	LEFT
BC	BOTTOM CURB	MH	MANHOLE
BOT.	BOTTOM	O/S	OFFSET
BW	BOTTOM WALL	O.C.	ON CENTER
BWS	BOARD OF WATER SUPPLY	O/H	OVERHEAD
CATV	CABLE TELEVISION	O/S	OFFSET
C.B.	CATCH BASIN	PAV'T.	PAVEMENT
C.L.	CHAIN LINK	PERF.	PERFORATED
CLR.	CLEAR	P.M.	PARKING METER
CMP	CORRUGATED METAL PIPE	REF.	REFLECTOR
CMU	CONCRETE MASONRY UNIT	RHC	RIGHT HORIZONTAL CONTROL
C.O.	CLEAN OUT	RT.	RIGHT
COMM.	COMMUNICATION	ROW	RIGHT OF WAY
CONC.	CONCRETE	S	SEWER OR SPREAD
CRM	CONCRETE RUBBLE MASONRY	SHT.	SHEET
D	DIAMETER OR DRAIN	STD.	STANDARDS
DET.	DETAIL	SDMH	STORM DRAIN MANHOLE
D.I.	DRAIN INLET	SL	STREET LIGHT
DWGS.	DRAWINGS	SLB	STREET LIGHT BOX
E/ELEC.	ELECTRIC	SMH	SEWER MANHOLE
ELEV./EL.	ELEVATION	ST. NAME	STREET NAME
ep	EXIST. EDGE OF PAVEMENT	STA.	STATION
EP	NEW EDGE OF PAVEMENT	TC	TOP CURB
es	EXIST. EDGE OF SHOULDER	TDC	TOP DROP CURB
ES	NEW EDGE OF SHOULDER	T OR TEL.	TELEPHONE
EXIST.	EXISTING	TP	TOP PIPE
F.H.	FIRE HYDRANT	TRC	TOP ROLLED CURB
G	GAS	TS	TOP STEM
GDI	GRADED DRAIN INLET	TSL	TRAFFIC SIGNAL LIGHT
GND.	GROUND	TSLB	TRAFFIC SIGNAL LIGHT BOX
G.P.	GUARD POST/GUY POLE/GATE POST	TV	TOP VALVE
G.W.	GUY WIRE	TW	TOP WALL
G/R	GUARDRAIL	TYP.	TYPICAL
H	HEIGHT	U.P.	UTILITY POLE
HC	HORIZONTAL CONTROL	W	WATER
HW	HEADWALL	W/	WITH
ICV	IRRIGATION CONTROL VALVE	WM	WATER METER
INV.	INVERT	WMH	WATER MANHOLE
LHC	LEFT HORIZONTAL CONTROL	WV	WATER VALVE
		X-WALK	CROSS WALK

ORIGINAL PLAN	DATE
NOTED BY	
DESIGNED BY	
CHECKED BY	
NO.	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES

KAHEKILI HIGHWAY INTERSECTION IMPROVEMENTS
VICINITY OF HUI IWA STREET
FEDERAL-AID PROJECT NO. NH-083-1(60)

DATE: April 2007

SHEET No. C-1 OF 90 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(60)	2007	5	90

1. General:

- A. The Contractor is reminded of the requirements of Section 209 – Water Pollution, Dust and Erosion Control, in the Special Provisions. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment.
- B. The Contractor shall follow the guidelines in the "Best Management Practices Manual for Construction Sites in Honolulu", dated May 1999, in developing, installing and maintaining the Best Management Practices (BMP) Devices for the project.
- C. The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
- D. The Contractor shall follow the guidelines in the Honolulu's City & County "Rules for Soil Erosion Standards and Guidelines" for all projects on Oahu. Use applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
- E. The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.
- F. For projects that require an NPDES Permit from the Department of Health, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall, and have an opening of at least one-inch in diameter. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.

2. Waste Disposal:

A. Waste Materials

All waste materials shall be collected and stored in a securely lidded metal dumpster. The dumpster shall meet all local and State solid waste management regulations. All trash and construction debris from the site shall be deposited in the dumpster. The dumpster shall be emptied a minimum of twice per week or as often as is deemed necessary. No construction waste materials shall be buried onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Notices stating these practices shall be posted in the office trailer and the Contractor shall be responsible for seeing that these procedures are followed.

B. Hazardous Waste

All hazardous waste materials shall be disposed of in the manner specified by local or State regulations or by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.

C. Sanitary Waste

All sanitary waste shall be collected from the portable units a minimum of once per week, or as required.

3. Erosion and Sediment Control Inspection and Maintenance Practices:

- A. All control measures shall be inspected at least once each week and following any rainfall event of 0.5 inches or greater.
- B. All measures shall be maintained in good working order. If repair is necessary, it shall be initiated within 24 hours after the inspection.
- C. Built-up sediment shall be removed from silt fence when it has reached one-third the height of the fence.
- D. Silt screen or fence shall be inspected for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. The bottom of the silt screen shall be inspected and verified that it is buried a minimum of 6 inches below the existing ground.
- E. Temporary and permanent seeding and planting shall be inspected for bare spots, washouts and healthy growth.
- F. A maintenance inspection report shall be submitted one (1) working day after each inspection by the Contractor.
- G. The Contractor shall select a minimum of three personnel who shall be responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
- H. Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

4. Good Housekeeping Best Management Practices:

A. Materials Pollution Prevention Plan

- 1) Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.
- Concrete
Fertilizers
Detergents
Petroleum Based Products
Paints (enamel and latex)
Cleaning Solvents
Metal Studs
Wood
Tar
Masonry Block
- 2) Material Management Practices shall be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. An effort shall be made to store only enough product as is required to do the job.
- 3) All materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
- 4) Products shall be kept in their original containers with the original manufacturer's label.
- 5) Substances shall not be mixed with one another unless recommended by the manufacturer.
- 6) Whenever possible, a product shall be used up completely before disposing of the container.

- 7) Manufacturer's recommendations for proper use and disposal shall be followed.
- 8) The Contractor shall conduct a daily inspection to ensure proper use and disposal of materials onsite.

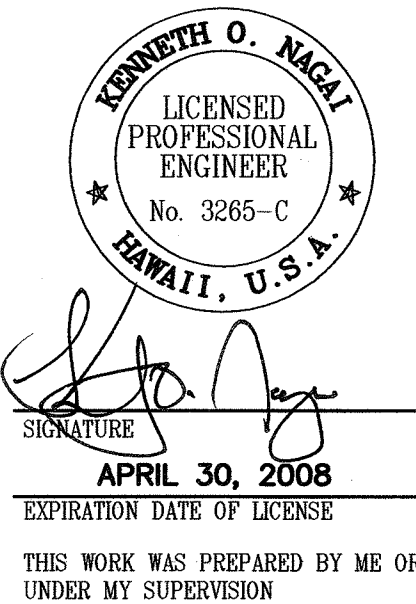
B. Hazardous Material Pollution Prevention Plan

- 1) Products shall be kept in original containers unless they are not resealable.
- 2) Original labels and material safety data sheets (MSDS) shall be retained.
- 3) Surplus products shall be disposed of according to manufacturers' instructions or local and State recommended methods.

C. Onsite and Offsite Product Specific Plan

- 1) The following product specific practices shall be followed onsite:
- a. Petroleum Based Products:
All onsite vehicles and equipment shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products shall be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite shall be applied according to the manufacturer's recommendations. Stored petroleum products shall be kept in an area prepared to prevent contamination or spill.
- b. Fertilizers:
Fertilizers used shall be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer shall be worked into the soil to limit exposure to storm water. Storage shall be in a covered shed. The contents of any partially used bags of fertilizer shall be transferred to a sealable plastic bin to avoid spills.
- c. Paints:
All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged to the highway drainage system but shall be properly disposed of according to manufacturers' instructions or State and local regulations.
- d. Concrete Trucks:
Concrete trucks shall be allowed to wash out or discharge drum wash water only at a designated site. Water shall not be discharged in the highway drainage system or waters of the United States. The Contractor shall contact Clean Water Branch, Department of Health at 586-4309 to receive permission to designate a disposal site. The Contractor shall clean disposal site as required or as requested by the Owner's representative.

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NO.	_____



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION GENERAL NOTES KAHEKILL HIGHWAY INTERSECTION IMPROVEMENTS VICINITY OF HUI IWA STREET FEDERAL-AID PROJECT NO. NH-083-1(60) DATE: April 2007 SHEET No. C-3 OF 90 SHEETS
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WATER POLLUTION AND EROSION CONTROL NOTES (CONT.)

- 2) Offsite Vehicle Tracking:
A stabilized construction entrance shall be provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance shall be cleaned daily or as required to remove any excess mud, cold planed materials, dirt or rock tracked from the site. Dump trucks hauling material from the construction site shall be covered with a tarpaulin.
- D. Spill Control Plan
- 1) A spill prevention plan shall be posted to include measures to prevent and clean up each spill.
- 2) The Contractor shall be the spill prevention and cleanup coordinator. The Contractor shall designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel shall be posted in the material storage area and in the office trailer onsite or project office.
- 3) Manufacturers' recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the location of the information and cleanup supplies.
- 4) Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite.
- 5) All spills shall be cleaned up immediately after discovery.
- 6) The spill area shall be kept well ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- 7) Spills of toxic hazardous material shall be reported to the appropriate State or local government agency, regardless of the size.
- E. Saw Cutting:
- 1) The saw-cutting slurry shall not be left in place and shall be wet vacuumed immediately following the saw cutting operations. The vacuumed slurry shall be disposed of in accordance with applicable State and County regulations.
- F. Permit Requirements:
- 1) If a National Pollutant Discharge Elimination System (NPDES) Permit is required for Construction Activities of one acre or more, the Contractor shall submit to the Engineer four sets of the Water Pollution and Erosion Control Submittals as detailed in Subsection 209.04 of the specifications.
- 2) If a NPDES Permit for Construction Dewatering is required, the Contractor shall be responsible to obtain the Permit from the Department of Health, Clean Water Branch.
- 3) The Contractor shall comply with all applicable State and Federal Permit conditions. Permits may include but are not limited to the following:
- a. NPDES Permit for Construction Activities
- b. NPDES Permit for Construction Dewatering

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL NOTES

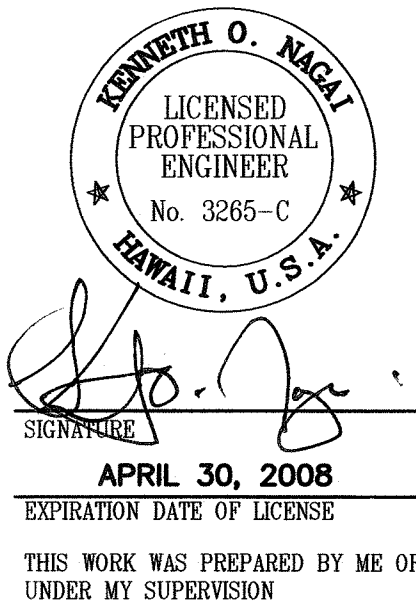
1. Erosion and Sediment Control Inspection and Maintenance Practices shall be performed by the Contractor at his own expense.
- A. The Contractor shall furnish and install a rain gage as agreed by the Engineer, and provide daily rain gage readings to the Engineer.
- B. The Contractor shall inspect the erosion and sediment control measures at least once a week and after 0.5 inches of rainfall.
- C. The Contractor shall maintain the erosion and sediment control measures according to the contract. If a repair is necessary, the Contractor shall initiate the repairs within twenty-four (24) hours after the inspection such as:
- 1) When sediment build-up reaches one-third (1/3) the height of the silt fence, the Contractor shall remove and dispose of the sediment build-up.
- 2) When the depth of the sediment basin reaches ten percent (10 %) of the design capacity, the Contractor shall remove and dispose of the sediment build-up.
- 3) When tears are found on the silt fence, the Contractor shall replace the fabric.
- 4) The Contractor shall check to see if the fabric is securely attached to the fence posts and to see that the fence posts are firmly in the ground. Post spacing shall be 6' maximum.
- 5) The Contractor shall inspect the diversion dike and repair the breaches.
- 6) The Contractor shall inspect temporary and permanent seeding and planting for bare spots, washouts, and healthy growth, and maintain seeping and planting area.
- D. The Contractor shall have its personnel make a maintenance inspection report promptly after each inspection. The Contractor shall select a minimum of three (3) personnel who will be responsible for inspection, maintenance, repair activities, and filling out the inspection and maintenance report. Personnel selected for the inspection and maintenance responsibilities will receive training from the Contractor. The Contractor shall train these personnel in the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite according to the contract.
2. Submittal Requirements:
- A. Construction activities of one (1) acre or more.
State (Design/Consultant) shall apply for NPDES Permit during design. Only required documentation from the Contractor should be site-specific BMP, Solid Waste Disposal form and any other documentation required by DOH which cannot be obtained in advance.
- B. Storm water discharged into State waters due to construction activities will require an NPDES permit from the Department of Health (DOH). The Contractor shall submit to the Engineer six (6) sets of Site-Specific Best Management Practices Plans (BMP). The Plans shall be submitted no later than two (2) weeks after the award of contract.
- C. Contractor shall not start work until all required documentation including site-specific BMP are accepted by DOH.

LEGEND

- -- ——— RIGHT OF WAY
- → FLOW LINE
- * * * * * EXIST. CHAIN LINK FENCE
- ——— NEW UNDER DRAIN
- D30 ——— NEW DRAIN LINE
- D30 ——— EXIST DRAIN LINE
- W12 ——— EXIST DRAIN LINE
- S15" ——— EXIST. SEWER LINE
- SFM16 ——— EXIST SEWER FORCE MAIN
- | ——— DENOTES ACCESS PERMITTED AND RIGHT OF WAY
- ± ——— NEW GUARD RAIL
- ± ——— EXIST. GUARD RAIL
- ——— LIMITS OF GRADING
- × 140.3 EXIST. SPOT ELEVATIONS
- 140 ——— EXIST. CONTOURS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-083-1(60)	2007	6	90

DATE	_____
SURVEY PLOTTED BY	_____
DESIGNED BY	_____
TRACED BY	_____
NOTED BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
No.	_____



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**GENERAL NOTES
AND LEGEND**

KAHEKILL HIGHWAY INTERSECTION IMPROVEMENTS
VICINITY OF HUI IWA STREET
FEDERAL-AID PROJECT NO. NH-083-1(60)

DATE: April 2007

SHEET No. C-4 OF 90 SHEETS