STANDARD PLANS SUMMARY

HAWAII	HAW.	72B-0I-99	2004	2	22
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS

STANDARD PLAN NO:	TITLE	DATE
B-01 ●	Notes and Miscellaneous Details	07/01/86
B-02		
B-03	Typical Structure Excavation and Backfill Pay Limits	• 07/01/86
B-04		
B-05		
B-06	Concrete Box Girder	07/01/86
B-07	Concrete Box Girder	07/01/86
B-08	Concrete Box Girder	07/01/86
B-09		
B-10		
B-11		
B-12	Prestressed Concrete Piles	r07/16/90
B-13	Prestressed Concrete Piles	r07/16/90
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Chain Link Fence With Toprail	r03/06/87
Chain Link Fence Without Toprail	r07/26/90
Wire Fence With Metal Posts	07/01/86
Typical Details of Curbs and/or Gutters	07/01/86
Typical Details of Reinforced Concrete Drop Driveway	07/01/86
Centerline and Reference Survey Monument	07/01/86
Street Survey Monument	07/01/86
Landscaping Shrub and Tree Planting	07/01/86
Field Office	07/01/86
Field Office	07/01/86
Project Site Laboratory	07/01/86
Project Site Laboratory	07/01/86
Field Office & Project Site Laboratory	07/01/86
	Chain Link Fence Without Toprail Wire Fence With Metal Posts Typical Details of Curbs and/or Gutters Typical Details of Reinforced Concrete Drop Driveway Centerline and Reference Survey Monument Street Survey Monument Landscaping Shrub and Tree Planting Field Office Field Office Project Site Laboratory Project Site Laboratory

H-01	Type A, B, C and D Catch Basin	07/01/86
H-02	Type A1, B1, C1 and D1 Catch Basin	07/01/86
H-03	Type A2, B2, C2 and D2 Catch Basin	07/01/86
H-04	Typical Reinforcing Details for Catch Basins	07/01/86
H-05	Type A, B and C Storm Drain Manhole	07/01/86
H-06	Type D and E Storm Drain Manhole	07/01/86
H-07	Type F Storm Drain Manhole	07/01/86
H-08	Catch Basin and Manhole Casting	07/01/86
H-09	Type A-9 and A-9P Frames and Grates	07/01/86
H-10	Type A-9B Frames and Grates	07/01/86
H-11	Type 61614 and 61214 Grated Drop Inlet	07/01/86
H-12	Type 61616 Grated Drop Inlet	07/01/86
H-13	61214, 61614 & 61616 Steel Frames and Grates	07/01/86
H-14	61214B Steel Frame and Grates	07/01/86
H-15	61614B Steel Frame and Grates	07/01/86
H-16	Concrete and Cement Rubble Masonry Structures	r10/16/90
H-17	Inlet Structures	r10/16/90
H-18	Flared End Section for Culverts	07/01/86
H-19	Outlet Structures	r02/15/91
H-20	Concrete Spillway Inlet	07/01/86
H-21	18" Slotted C.M.P. Drain	07/01/86
H-22	C.M.P. Coupling Details Standard Joint	r10/16/90
H-23	Hat Shaped Coupling Band	r10/16/90

STANDARD PLAN NO:	TITLE	DATE
TE-01 ●	Miscellaneous Sign Details	07/01/86
TE-02	Galvanized Flanged Channel Sign Post Mounting	07/01/86
TE-03	Galvanized Square Tube Sign Post Mounting	07/01/86
TE-04 ●	Regulatory Signs	r09/01/87
TE-05 ●	Warning Signs	07/01/86
TE-06 ●	Miscellaneous Signs	r11/03/89
TE-07	Reserved	07/01/86
TE-08 ●	Construction Signs	r09/01/87
TE-09	Miscellaneous Intersection Signs	r03/06/87
TE-10	Reserved	07/01/86
TE-11	Bike Route Sign and Supplementary Plates	07/01/86
TE-12	State Route Marker and Auxiliary Markers	07/01/86
TE-13	Interstate Route Marker	07/01/86
TE-14	State Route Marker and Border Detail for Guide Signs	07/01/86
TE-15	Route Marker Assemblies	07/01/86
TE-16	Miscellaneous Reflector Markers	07/01/86
TE-17	Type II Object Markers	07/01/86
TE-18	Mileposts	07/01/86
TE-19	Reserved	07/01/86
TE-20	Overhead Sign Supports	07/01/86
TE-21	Overhead Sign Support, Box Truss Type, Aluminum	07/01/86
TE-22	Foundation Details and Schedules	07/01/86
TE-23	Supports for Ground Mounted Guide Sign	r11/03/89
TE-24	Breakaway Sign Supports for Ground Mounted Guide Signs	07/01/86
TE-25	Laminated Aluminum Sign Panels (Overhead)	07/01/86
TE-26	Laminated Aluminum Sign Panels (Ground Mounted)	07/01/86
TE-27	Solid Aluminum Extruded Sign Panel and Accessory Details	07/01/86
TE-28	Guide Signs Luminaire Mountings	07/01/86
TE-29	Reserved	07/01/86
TE-30 ●	Raised Pavement Markers and Striping	r05/09/90
TE-31 ●	Miscellaneous Pavement Markings	r05/09/90
TE-32	Miscellaneous Pavement Markings	r05/09/90
TE-33	Miscellaneous Pavement Markings	r11/03/89
TE-34	Reserved	07/01/86
TE-35	Pavement Alphabets, Numbers & Symbols	07/01/86
TE-36	Pavement Alphabets, Numbers & Symbols	07/01/86
TE-37	Reserved	07/01/86
TE-38	Traffic Signal System, Miscellaneous Details	r11/03/89
TE-39	Traffic Signal System, Miscellaneous Details	07/01/86
TE-40	Loop Detectors	r11/03/89
TE-41	Pullboxes	07/01/86
TE-42	Type III Traffic Signal Standard	07/01/86
TE-42	Concrete Pullbox (2' x 3')	07/01/86
TE-43	Reserved	07/01/86

STANDARD PLAN NO.	TITLE	DATE
TE-45	Reserved	07/01/86
TE-46	Reserved	07/01/86
TE-47	Reserved	07/01/86
TE-48	Reserved	07/01/86
TE-49	Reserved	07/01/86
TE-50	Metal Guardrail	r03/06/87
TE-51	Metal Guardrail	r09/01/87
TE-52	Metal Guardrail with Rubrail	r11/03/89
TE-53	Metal Guardrail with Rubrail at Obstruction	r09/01/87
TE-54	Beam Type Guardrail with Rubrail at Obstruction (Shoulder Installation)	r11/03/89
TE-55	Metal Guardrail Connection to Concrete Barrier	r11/03/89
TE-56	Concrete Barrier Transition	07/01/86
TE-57	Guardrail Type 3, Thrie Beam	r11/03/89
TE-57A	Guardrail Type 3, Modified Thrie Beam	11/03/89
TE-58	Approach End Flare, One & Two Way Roadway	07/01/86
TE-59	Trailing End Flare, One & Two Way Roadway	r11/03/89
TE-60	Anchor Block Details	07/01/86
TE-61	Breakaway Cable Terminal (BCT)	r11/03/89
TE-62	Breakaway Cable Terminal (BCT)	r09/01/87
TE-63	Guardrail Type 4 (Rigid Barrier)	r09/01/87
TE-64	Portable Concrete Barrier	r11/03/89
TE-65	Guardrail Type 4, Miscellaneous	r09/01/87
TE-66	Barricades	07/01/86
TE-67	Delineation & Pavement Markings at Bridges	07/01/86
TE-68	Wheelchair Ramps	r04/24/95
TE-69	Wheelchair Ramps	r04/24/95

NOTE:

STANDARD PLANS APPLICABLE TO THIS PROJECT ARE INDICATED BY A " ● " NEXT TO THE STANDARD PLAN NO. (FOR EXAMPLE: D-07 ●)

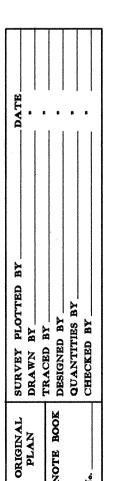


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION STANDARD PLANS SUMMARY

KALANIANAOLE HIGHWAY REALIGNMENT MP 7.20 to MP 7.72

Project No. 72B-01-99 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION Date: May 2004

SHEET No. / SHEETS OF /



GENERAL NOTES

- 1. The scope of work for this project consists of removing existing roadway shoulder pavement and guardrails; installing new guardrails, signing, pavement markings, and resurfacing.
- 2. The Contractor is reminded of the requirements of Subsection 108.01 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.
- 3. The Contractor's attention is directed to the following Sections of the Special Provisions: Subsection 107.13 Public Convenience and Safety; Subsection 107.21 Contractor's Responsibility for Utility Property and Services; and Section 645 Traffic Control Devices.
- 4. 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.
- 6. The exact pavement locations and limits or areas to be resurfaced or reconstructed shall be determined in the field by the Engineer.
- 7. The Contractor shall notify in writing, the Oahu Transit Services, Inc. Roads Supervision Office, 811 Middle St. Hon., Hi, 96819 (Ph. #: 848-4571) seven (7) days prior to any paving operations.
- 8. The Contractor shall notify the engineer in writing, two (2) weeks prior to starting paving operations.
- 9. The Contractor shall remove and dispose of all existing raised pavement markers prior to the overlaying of asphalt concrete. This work shall be considered incidental to Asphalt Concrete Pavement, Mix No. IV and will not be paid for separately.
- 10. Smooth riding connections shall be constructed at all limits of resurfacing, including the beginning and end of project, as shown on the plans and/or as directed by the Engineer.
- 11. Existing drainage system will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
- 12. The Contractor shall provide for access to and from all existing streets at all times.
- 13. All saw cutting work shall be considered incidental to Asphalt Concrete Pavement, Mix No. IV and will not be paid for separately.
- 14. Prime Coat/Tack Coat shall be incidental to Asphalt Concrete Pavement, Mix No. IV and will not be paid for separately.

- 15. Contractor's attention is directed to Subsection 401.03-Job-Mix Formula and Tests of the Special Provisions. All longitudinal and transverse tapers within the traveled way shall be removed prior to commencing and continuing of paving operations.
- 16. All work specified in the contract but not listed separately in the proposal schedule shall be considered incidental to other various contract items and shall not be paid separately.
- No material and/or equipment shall be stockpilled or otherwise stored within the highway right-of-way except at locations designated in writing and approved by the engineer.

ESTIMATED EARTHWORK QUANTITIES

Excavation

385 C.Y.

Embankment

125 C.Y.

Area to be Graded

1.53 AC

Note: Estimated Earthwork Quantities are for Permit Purposes Only.

WATER POLLUTION AND EROSION CONTROL NOTES:

A. GENERAL:

- 1. The Contractor is reminded of the requirements of Section 209 Water Pollution 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.
- 2. 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) for the project.
- 3. 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.
- 4. 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.
- 5. 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.
- B. WASTE DISPOSAL:

1. 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

FED. ROAD STATE FED. AID FISCAL SHEET TOTAL SHEETS

HAWAII HAW. 72B-01-99 2004 3 22

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.

2. 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.

3. Sanitary Waste

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

- C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:
- 1. All control measures shall be inspected at least once each week and within 24 hours following any rainfall event of 0.5 inches or greater within 24 hours.
- 2. All measures shall be maintained in good working order. If repair is necessary, it shall be initiated within 24 hours after the inspection.
- 3. Built-up sediment shall be removed from silt fence when it has reached one-third the height of the fence.
- 4. 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.
- 5. Temporary and permanent seeding and planting shall be inspected for bare spots, washouts and healthy growth.
- 6. A maintenance inspection report shall be made promptly after each inspection by the Contractor.
- 7. 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.
- 8. 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.

FOR CONTINUATION SEE SHT. 4



GENERAL NOTES & LEGEND

KALANIANAOLE HIGHWAY REALIGNMENT

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION

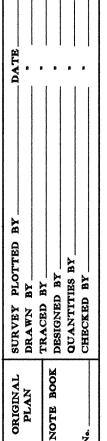
MP 7.20 to MP 7.72 Project No. 72B-01-99

Ly Muranahe Scale: None

Date: May 2004

SHEET No. /

/ OF 3 SHEETS



1. Materials Pollution Prevention Plan

a. 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 Detergents Paints (enamel and latex)

Metal Studs

Tar

Fertilizers

Petroleum Based Products

Cleaning Solvents Wood

Masonry Block

b. 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.

c. 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.

d. Products shall be kept in their original containers with the original manufacturer's label.

e. Substances shall not be mixed with one another unless recommended by the manufacturer.

f. Whenever possible, a product shall be used up completely before disposing of the container.

g. Manufacturer's recommendations for proper use and disposal shall be followed.

h. The Contractor shall conduct a daily inspection to ensure proper use and disposal of materials onsite.

2. Hazardous Material Pollution Prevention Plan

a. Products shall be kept in original containers unless they are not resealable.

b. Original labels and material safety data sheets (MSDS) shall be retained.

c. Surplus products shall be disposed of according to manufacturers' instructions or local and State recommended methods.

3. Onsite and Offsite Product Specific Plan

a. The following product specific practices shall be followed onsite:

1) Petroleum Based Products:

All onsite vehicles 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.

2) 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.

3) 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.

4) 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 Drinking Water Branch, Department of Health at 586-4258 to receive permission to designate a disposal site. The Contractor shall clean disposal site as required or as requested by the Owner's representative.

b. 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.

4. Spill Control Plan

a. A spill prevention plan shall be posted to include measures to prevent and clean up each spill.

b. 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.

c. 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.

d. Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite.

e. All spills shall be cleaned up immediately after discovery.

f. The spill area shall be kept well ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

g. Spills of toxic hazardous material shall be reported to the appropriate State or local government agency, regardless of the size.

E. PERMIT REQUIREMENTS:

1. A National Pollutant Discharge Elimination System (NPDES) Permit is required for Construction Activities of one (1) 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. 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

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HAWAII	HAW.	72B-0I-99	2004	4	22

ARMY SIGNAL CORPS CABLE NOTES:

1. The Contractor Shall Be Responsible For Any Damages To Existing U.S. Army Signal Corps Cable.

2. The Contractor Shall Notify The U.S. Army Signal Corps (656-1765) Two Weeks In Advance Of Commencing Work.

3. The Contractor Shall be Responsible For Any Toning Or Permit Requirements For Work Near or Over Éxisting Signal Corps Cable.

<u>LEGEND</u>

Existing Electrical Overhead Line

Existing Utility Pole

Existing Electrical Manhole

Existing Telephone Line

Existing Telephone Pole

Existing Telephone Manhole

Existing Signal Corps Line

Existing TV Cable

 $---w_{30}$ Existing 30" Water Line

Existing Water Manhole

Existing Water Air Valve

Existing Water Valve Box

Existing Water Meter

Existing 12" Sewer

Existing Sewer Manhole

Existing 6" Gas Line

Existing Gas Valve Box

Existing Monument

Existing 24" Drain Line

Existing Storm Drain Manhole

Existing Grated Drop Inlet

Existing Catch Basin

Existing Traffic Sign

Existing Street Light Box

Existing Highway Lighting Standard



Jay Muranade

DEPARTMENT OF TRANSPORTATION GENERAL NOTES & LEGEND

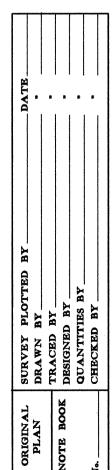
STATE OF HAWAII

KALANIANAOLE HIGHWAY REALIGNMENT

MP 7.20 to MP 7.72 Project No. 72B-01-99

Scale: None

Date: May 2004 SHEET No. 2 OF 3 SHEETS



BOARD OF WATER SUPPLY NOTES:

- 1. Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with the STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, dated 1994, as amended, of the Hawaii Highways Division, Department of Transportation, and the City and County of Honolulu Board of Water Supply's "WATER EXTERNAL CORROSION CONTROL STANDARDS", VOLUME 3, DATED 1991, and all subsequent amendments and additions.
- 2. All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply. All other features of the water system, such as lines, grades, fittings, drainage, etc., and other features of improvements shall not be the responsibility of the Board of Water Supply.
- 3. The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or the encountering of other obstacles during the course of the work. The Contractor shall be responsible and pay for all damages to existing utilities. The Contractor shall not assume that where not utilities are shown, that none exist.
- 4. Re-approval shall be required if this project is not under construction within a period of two years.
- 5. The Contractor shall be responsible for the protection of all water lines during construction. The Contractor shall be especially careful when excavating behind water lines, tees, and bends wherever there is a possibility of water line movement due to the removal of the supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measure necessary to protect the water lines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction method.
- 6. Prior to any excavating, the Contractor shall verify in the field the location of existing water mains and appurtenances.
- 7. The Contractor shall adjust all manhole frames/valve boxes/meter boxes within the resurfaced area. The Contractor shall be reponsible for "referencing" these manholes/valve boxes/meter boxes to facilitate the adjustments.
- 8. Maintain 3'-0" minimum cover for all existing waterlines (18" minimum for service laterals) from new finish grade. The Contractor shall probe the waterline and service laterals and submit the probing data to BWS Maintenance Unit - Engineering, Construction Section. Any adjustments to the existing water system to meet the minimum cover and the requirements of the BWS standards, whether shown on plans or not, shall be done by the Contractor at no cost to BWS.

FED. ROAD DIST. NO. STATE FED. AID PROJ. NO. FISCAL YEAR 72B-0I-99 | 2004 | 5 HAWAII HAW.

APPROVED:

Principal Executive, Maintenance Unit, BWS

Date

LICENSED PROFESSIONAL ENGINEER

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION Cay Meranaha

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

UTILITY NOTES

KALANIANAOLE HIGHWAY REALIGNMENT

MP 7.20 to MP 7.72 Project No. 72B-01-99

Date: May 2004 SHEET No. 3 OF 3 SHEETS

ORIGINAL SURVEY PLOTTEI
PLAN DRAWN BY
TRACED BY
NOTE BOOK DESIGNED BY
QUANTITIES BY
CHECKED BY

5/19/04