

STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-K(27)	1998	ADD.2	58

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

D-01	Chain Link Fence With Toprail	r03/06/87
D-02	Chain Link Fence Without Toprail	r07/26/90
D-03	Wire Fence With Metal Posts	07/01/86
D-04	Typical Details of Curbs and/or Gutters	07/01/86
D-05	Typical Details of Reinforced Concrete Drop Driveway	07/01/86
D-06	Centerline and Reference Survey Monument	07/01/86
D-07	Street Survey Monument	07/01/86
D-08 ●	Landscaping Shrub and Tree Planting	07/01/86
D-09 ●	Field Office	07/01/86
D-10 ●	Field Office	07/01/86
D-11	Project Site Laboratory	07/01/86
D-12	Project Site Laboratory	07/01/86
D-13	Field Office & Project Site Laboratory	07/01/86

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-43	Concrete Pullbox (2' x 3')	07/01/86
TE-44	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	r11/03/89
TE-69	Wheelchair Ramps	r11/03/89

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DRAWN BY	G. Alburquerque	11/12/98
DESIGNED BY	J. L. Llanos, D. Llanos	
NOTED BY	M. Llanos	
CHECKED BY	M. Llanos	

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

03/31/98	OMITTED B-03 AND ADDED B-01
02/15/91	REVISED H-19
10/16/90	REVISED H-16, H-17, H-22 & H-23
07/26/90	REVISED D-02
07/16/90	REVISED B-12, B-13
05/09/90	REVISED TE-30, TE-31 & TE-32
11/03/89	REVISED TE-06, TE-23, TE-30, TE-31, TE-32, TE-33, TE-38, TE-40, TE-52, TE-54, TE-55, TE-57, TE-59, TE-61, TE-64, TE-68 & TE-69, ADDED TE-57A
09/01/87	REVISED TE-04, TE-06, TE-08, TE-32, TE-51, TE-53, TE-54, TE-55, TE-57, TE-59, TE-62, TE-63, TE-65 & TE-69
03/06/87	REVISED D-01, TE-09, TE-40, TE-50, TE-51, TE-57, TE-59, TE-61, TE-63 & TE-64
DATE	REVISION

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
STANDARD PLANS SUMMARY
KAMEHAMEHA HIGHWAY
REPLACEMENT OF MALAEKAHANA BRIDGE
Federal Aid Project No. BR-083-K(27)
Date: Feb., 1998
SHEET No. 1 OF 1 SHEETS

GENERAL NOTES

1. The scope of work for this project consists of removing existing Malaekahana Bridge, constructing new Malaekahana Bridge, stream channelization constructing detour roads, roadway pavement and berms, relocating utilities, installing new guardrails, and signs and pavement markings.
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 50 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.
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.
5. 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 locations and limits or areas to be filled with leveling course, reconstructed and cold planed 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. Smooth riding connections shall be constructed at all limits of resurfacing, including the beginning and end of project, connecting approaches, side streets and driveways as shown on the plans and/or as directed by the Engineer.
10. Dressing of shoulders, shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by the Engineer. This work shall be considered incidental to the various contract items.
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. Earth swale shall be graded to drain. This work shall be considered incidental to the various contract items.
13. The Contractor shall provide for access to and from all existing side streets and residential properties (particularly the Church Parking and residence near downstream Kahuku corner) at all times.
14. All saw cutting work shall be considered incidental to Roadway Excavation.
15. All construction signs shall be left in place until all construction items have been completed. Contractor shall obtain prior approval from the Engineer to remove construction signs.
16. All work to remove temporary facilities by the Contractor shall be considered incidental to the various contract items in the proposal.

17. Complete Control of Access to properties adjacent to the Highway Right -of-Way shall be maintained throughout the construction period. The Contractor shall have the temporary wire fence installed and approved by the Engineer prior to removal of the existing wire fence. Furthermore, the Contractor shall have the permanent wire fence installed and approved by the Engineer prior to removal of the temporary wire fence.
18. Following completion of the bridge and prior to removing appurtenances for the detour road, all pavement markings shall be installed as shown on the pavement marking plans of design as directed by the Engineer. This shall not be paid for separately but shall be considered incidental to the various contract items.
19. Upon completion of the bridge and traffic is transferred to the finished permanent roadway, the detour roads including all its appurtenances shall be removed and the construction parcels shall be restored to its original condition or as approved by the Engineer.
20. The Contractor shall have existing utility lines toned prior to installing guardrails in the vicinity of the utility lines. If the proposed guardrail posts are within 3 feet of the utility lines, the Contractor shall excavate and expose the utility line to determine alignment and depth. The Contractor shall install guardrails in these areas by acceptable methods other than driving, such as hand digging to prevent damages to the existng lines.
21. Revegetation for temporary mulching and permanent restoration shall consist of Primrose Willow, Job's Tears and California Grass. The areas of exposed ground; after major excavations; abutments, channel and embankments are installled; shall be immediately hydromulched with the revegetation material to prevent erosion.

GENERAL DETOUR NOTES

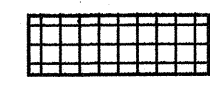
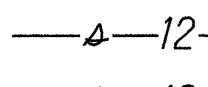
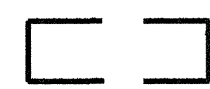
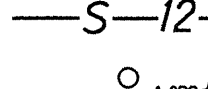
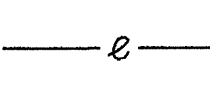
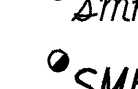
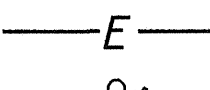
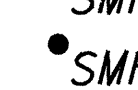
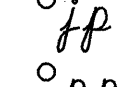
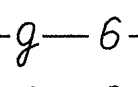
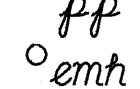
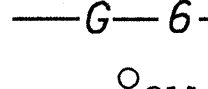

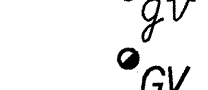

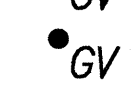
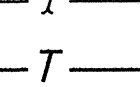
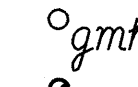
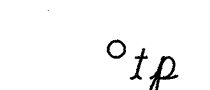

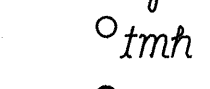



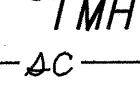

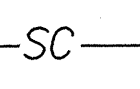
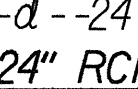
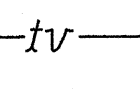
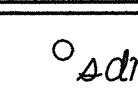
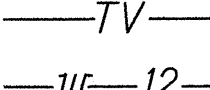
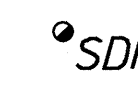
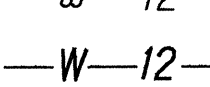
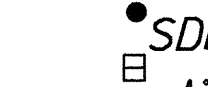
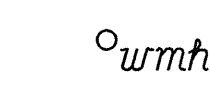
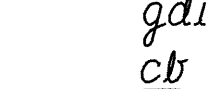

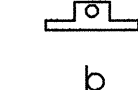

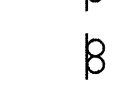
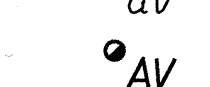
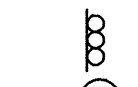


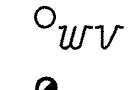


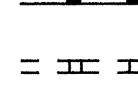
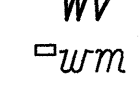
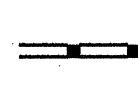

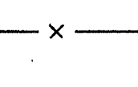


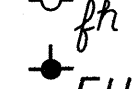

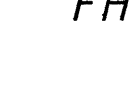




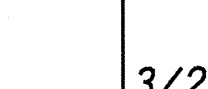

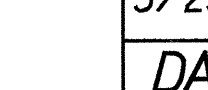



1. Detour traffic lanes shall be 11-foot wide with 4-foot wide shoulders.
2. Portable Concrete guardrail shall be offset a minimum of 4-feet from the edge of the traffic lanes.
3. Any request for changes to the detour plans shall be made in writing for the Engineer's approval.
4. Detour pavement structure shall be paid for under the respective items listed in proposal schedule.

UTILITY NOTES - RESPONSIBILITY OF STATE'S CONTRACTOR

1. Pole and line locations for relocated HECO and HTCO shown on plan are approximate. Overhead lines and poles shall be placed outside of the initial roadway 25' Right-of-Way and within the 25' to 30' Right-of-Way corridor. The utilities shall clear the outside edges of the pole cap. Coordination to insure pile driving clearance, clearance of pile caps and location of the Hawaiian Electric poles in the vicinity of the bridge to meet contract requirements such as guardrail clearzone are the responsibility of the State's Contractor.
2. The utility relocations are scheduled to be started and completed within the first 4 months of the contract time periods. The Contractor shall coordinate the work of the utility companies so as not to interfere within the State's Contractor's work for the remainder of the contract.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-K(27)	1998	ADD.3	58

LEGEND

	Cold Planing Areas		Existing Sewer Line
	Resurfacing Limits		New 12" Sewer Line
	Existing Electrical Line		Existing Sewer Manhole
	New Electrical Line		Adjusted Sewer MH Frame/Cover
	Existing Joint Pole		New Sewer Manhole
	Existing Power Pole		Existing 6" Gas Line
	Existing Electric Manhole		New 6" Gas Line
	Adjusted Elec. MH Frame/Cover		Existing Gas Valve Box
	New Electric Manhole		Adjusted Gas Valve Box
	Existing Telephone Line		New Gas Valve Box
	New Telephone Line		Existing Gas Manhole
	Existing Telephone Pole		Adjusted Gas MH Frame/Cover
	Existing Telephone Manhole		New Gas Manhole
	Adjusted Tele. MH Frame/Cover		Existing Monument
	New Telephone Manhole		Adjusted Monument
	Existing Signal Corps Line		New Monument
	New Signal Corps Line		Existing 24" Drain Line
	Existing TV Cable		New 24 " RCP Drain Line
	New TV Cable		Existing Storm Drain Manhole
	Existing 12" Water Line		Adjusted Storm Drain MH Frame/Cover
	New 12" Water Line		New Storm Drain Manhole
	Existing Water Manhole		Existing Grated Drop Inlet
	Adjusted Water MH Frame/Cover		Existing Catch Basin
	New Water Manhole		Existing Traffic Sign Wtih 1 Post
	Existing Water Air Valve		Existing Traffic Sign Wtih 2 Posts
	Adjusted Water Air Valve		Existing Traffic Sign Wtih 3 Posts
	New Water Air Valve		Existing Highway Lighting Standard
	Existing Water Valve Box		Existing Single Metal Guardrail
	Adjusted Water Valve Box		New Single Metal Guardrail
	New Water Valve Box		Existing Double Metal Guardrail
	Existing Water Meter		New Double Metal Guardrail
	Adjusted Water Meter		Existing Fence
	New Water Meter		
	Existing Fire Hydrant		
	New Fire Hydrant		

3/23/98	Added Utilty Notes
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GENERAL NOTES AND LEGEND	
KAMEHAMEHA HIGHWAY	
REPLACEMENT OF MALAEKAHANA BRIDGE	
Federal Aid Project No. BR-083-K(27)	
Date: Feb., 1998	
SHEET No. 1 OF 1 SHEETS	

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(27)	1998	4	58

(A) Erosion and Sediment Control Inspection and Maintenance Practices.

- (1) The Contractor shall inspect the erosion and sediment control measures at least once a week or after 0.5 inches of rainfall.
- (2) 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:
- (a) 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 from the silt fence.
- (b) 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.
- (c) When tears are found on the silt fence, the Contractor shall replace the fabric.
- (d) 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.
- (e) The Contractor shall inspect the diversion dike and repair the breaches.
- (f) The Contractor shall inspect temporary and permanent seeding and planting for bare spots, washouts, and healthy growth.
- (3) 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 used onsite according to the contract.

(B) Submittal Requirements:

- (1) Construction activities of five (5) acres or more.
- (a) Storm water discharges into State waters due to construction activities of five (5) acres or more, will require an NPDES permit from the Department of Health (DOH). The Contractor shall submit to the Engineer four (4) sets of Site-Specific Best Management Plans (BMP). The Plans shall be submitted no later than thirty (30) calendar days after the award of Contract.
- (b) No construction activities will be authorized until the Contractor's Site-Specific BMP has been approved by the Highways Division.
- (2) Construction activities dewatering and/or hydrotesting water.
- (a) Discharges into State waters due to dewatering and/or hydrotesting activities will require NPDES Permit(s) from DOH. If the Contractor options to discharge dewatering and/or hydrotesting effluent into State waters, the Contractor shall submit to the Engineer four (4) sets of Site-Specific Dewatering and/or Hydrotesting BMP, and four (4) copies of the Quality of Discharge Test results. The Plans and test results shall be submitted no later than thirty (30) calendar days after the award of Contract.
- (b) No dewatering and/or hydrotesting activities will be authorized until the receipt of the NPDES Permit(s) from DOH.

LIST OF ABBREVIATIONS

- BVC = Begin Vertical Curve
EVC = End vertical Curve
CG = Intersection of the Z different grades describing a Vertical Curve
PC = Begin Horizontal Curve
PT = End Horizontal Curve
I = Intersection of Tangents of a Horizontal Curve
PCC = Portland Cement Concrete
- o/s = Off Set from Centerline or Baseline
C#C = City and County
SE = Superelevation
ELEV. = Vertical Elevation
LT = Left
RT = Right
Cont. = Continuous
HECO = Hawaiian Electric Company
HTCO = Hawaiian Telephone Company
- A.C. = Asphalt Concrete
A.C.B. = Asphalt Concrete Base

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	11/16/91
Mem/detour	TRACED BY	
NA/Memo/92	QUANTITIES BY	
	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NPDES GENERAL NOTES

KAMEHAMEHA HIGHWAY
REPLACEMENT OF MALAEKAHANA BRIDGE
Federal Aid Project No. BR-083-1(27)

Date: Feb., 1998

SHEET No. 1 OF 1 SHEETS