STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99C-01-98	1998	2	9

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

DATE	REVISION
02/15/91	REVISED STANDARD PLAN H-19
10/16/90	REVISED STANDARD PLANS H-16, H-17, H-22 & H-23.
07/26/90	REVISED STANDARD PLANS D-02.
07/16/90	REVISED STANDARD PLANS B-12, B-13.
05/09/90	REVISED STANDARD PLANS TE-30, TE-31, & TE-32.
11/03/89	REVISED STANDARD PLANS 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 TO STANDARD PLANS
09/01/87	REVISED STANDARD PLANS 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 STANDARD PLANS D-01, TE-09, TE-40, TE-50, TE-51, TE-57, TE-59, TE-61, TE-63 & TE-64.

NOTE:

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD PLANS SUMMARY

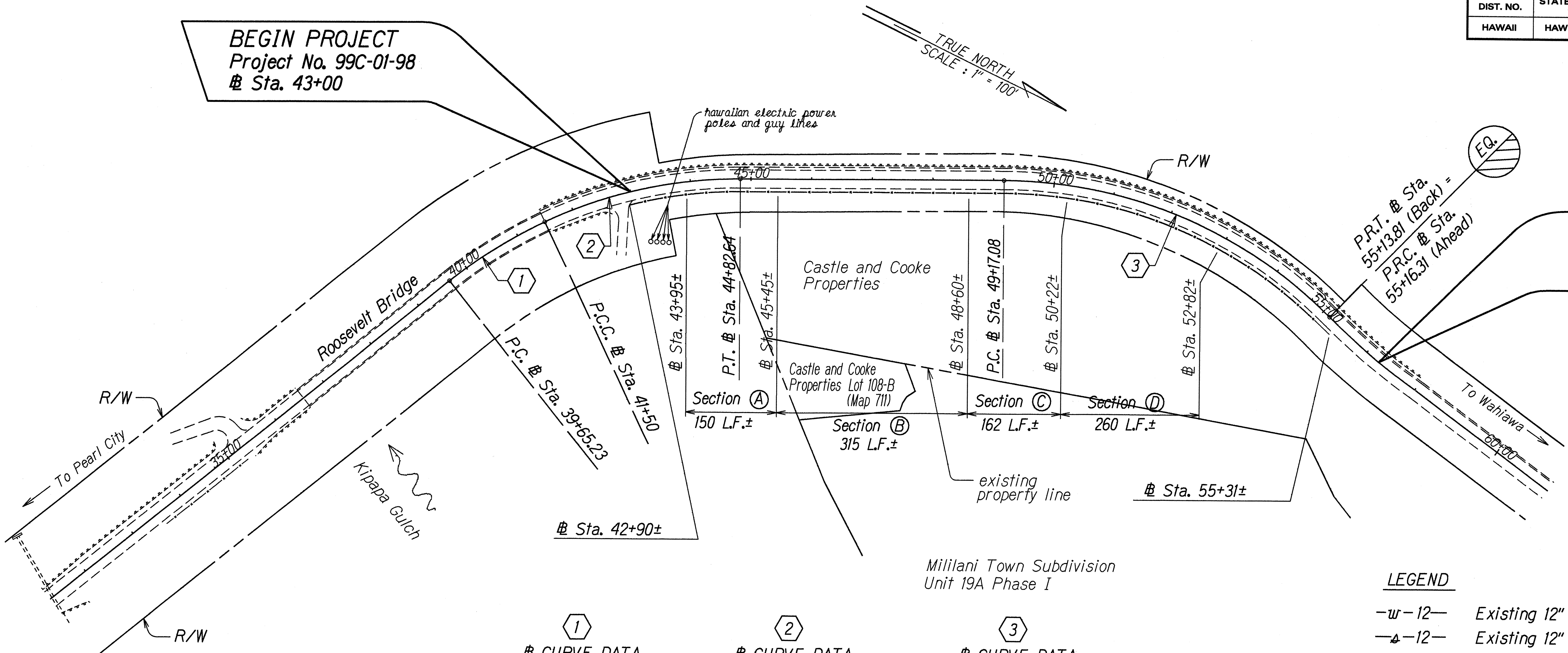
KAMEHAMEHA HIGHWAY
ROCKFALL PROTECTION
Kipapa Gulch towards Mililani, Phase III
Project No. 99C-01-98

Date: Feb., 1998

SHEET No. 1 OF 1 SHEETS

ORIGINAL PLAN
NOTE BOOK dd6.george tkamdspls
No.
SURVEY PLOTTED BY ______ DATE
DRAWN BY G. Atiburcio ______ r4-23-98
TRACED BY
DESIGNED BY J. Fujimoto/D. Taniguchi
QUANTITIES BY
CHECKED BY

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99C-01-98	1998	ADD.3	9



⟨1⟩ ℄ CURVE DATA	⟨2⟩ ℄ CURVE DATA	⟨3⟩ ℄ CURVE DATA
Δ = 13°14'00"	Δ = 25°29'00"	Δ = 44°27'00"
R = 799.99'	R = 747.90'	R = 769.18'
T = 92.80'	T = 169.08'	T = 314.29'
C = 184.36'	C = 329.84'	C = 581.88'
Lc = 184.77'	Lc = 332.64'	Lc = 596.73'

LEGEND

—w—12—	Existing 12" Water Line
—s—12—	Existing 12" Sewer Line
—sfm—12—	Existing 12" Sewer Force Main Line
—d—24—	Existing 24" Drain Line
⊓ — ⊓	Existing Single Metal Guardrail
(hatched)	Existing Rockfall Protection Netting
(hatched)	New Rockfall Protection Netting

GENERAL NOTES:

1. Scope of work consists of installing rockfall protection netting, rock anchors, cable and high strength strand; inspecting existing rockfall protection netting and providing remedial work for damaged rockfall protection netting; installing chain link barrier fence reinforcing cable; removing large boulders and hydromulching.
2. At the end of each working day, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
3. The exact limits of the rockfall protection netting and locations of the rock bolts and barrier fencing cable shall be determined in the field by the Engineer.
4. The contractor's attention is directed to Subsection 107.13- "Public Convenience And Safety" and to Section 645- "Traffic Control of the Special Provisions".
5. Surfaces shown in the Typical Sections are for representational purposes only and not intended to depict any specific location.
6. Stakeout/layout for rockfall protection netting and locations of the rock bolts and fence barrier shall be preformed by the contractor at his own expense by a surveyor, licensed in the State of Hawaii.
7. All lanes shall be open to traffic during morning peak hours from 5:30 A.M. - 8:30 A.M., during afternoon peak hours from 3:30 P.M. - 6:00 P.M., and during off work hours. Only one lane of the highway shall be closed at any other time. Failure of the contractor to open all lanes to traffic during the times specified above shall result in assessment of liquidated damages as specified in Section 108.08 of the Special Provision.
8. Section Ⓐ, Ⓑ, Ⓒ, Ⓓ:

   Place Barrier fencing cable in sections Ⓐ, Ⓑ, Ⓒ, Ⓓ completely.
9. The Contractor shall remove all ~~large trees and~~ large boulders before installing the ~~roockfall~~ rockfall protection netting. ~~Large trees growing through the existing wire mesh shall also be removed.~~

All Structural Steel shall be in accordance with the requirements of A.S.T.M. A 36.

LEGEND FOR AS-BUILT POSTINGS	
∿∿∿	Squiggly line for as-built deletion
~~100.00~~	Double line for as-built deletion
Roadway	Text for as-built posting

DATE	REVISION
6-15-98	Revised Afternoon Peak Hours in General Note No. 7.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LAYOUT PLAN, GENERAL NOTES AND LEGEND

KAMEHAMEHA HIGHWAY
ROCKFALL PROTECTION
Kipapa Gulch towards Mililani, Phase III
Project No. 99C-01-98

Scale: 1"=100' Date: Sept., 1997

SHEET No. 1 OF 2 SHEETS

ORIGINAL PLAN		DATE
	SURVEY PLOTTED BY	
	DRAWN BY G. Althurcio	6/15/98
NOTE BOOK	TRACED BY	
	DESIGNED BY J. Fujimoto/D. Taniguchi	
	QUANTITIES BY	
No.	CHECKED BY	

"AS-BUILT"

ADD.3