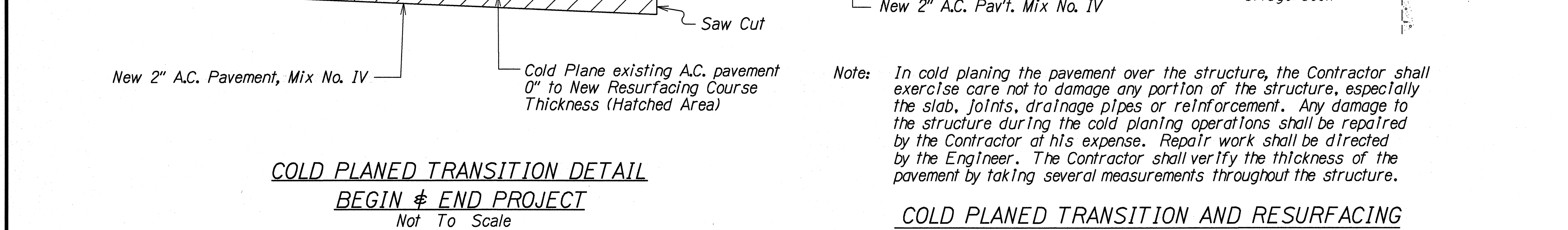
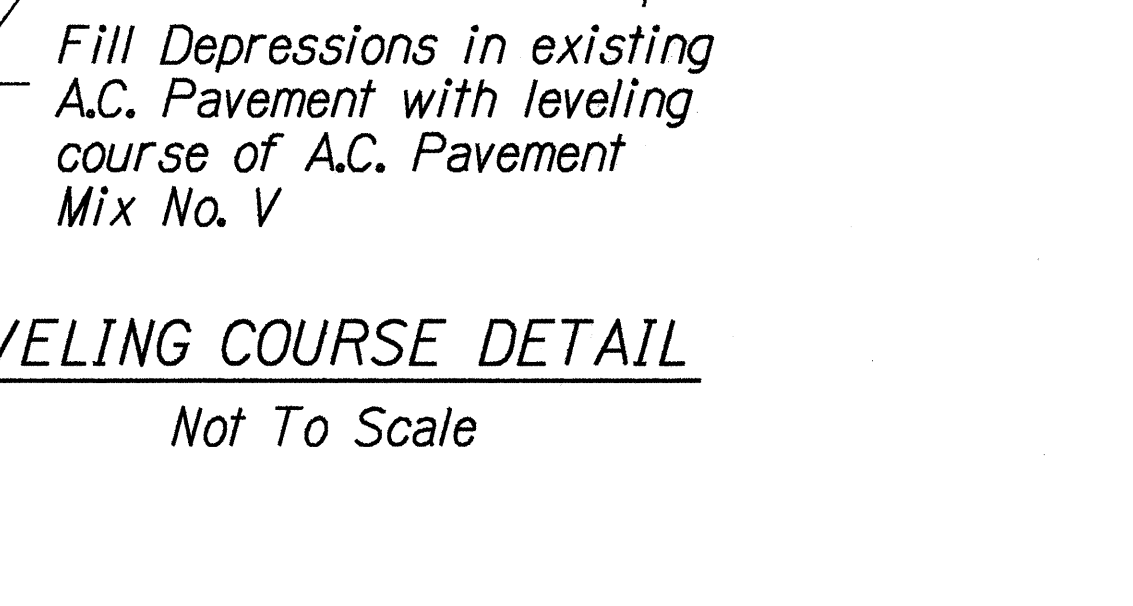
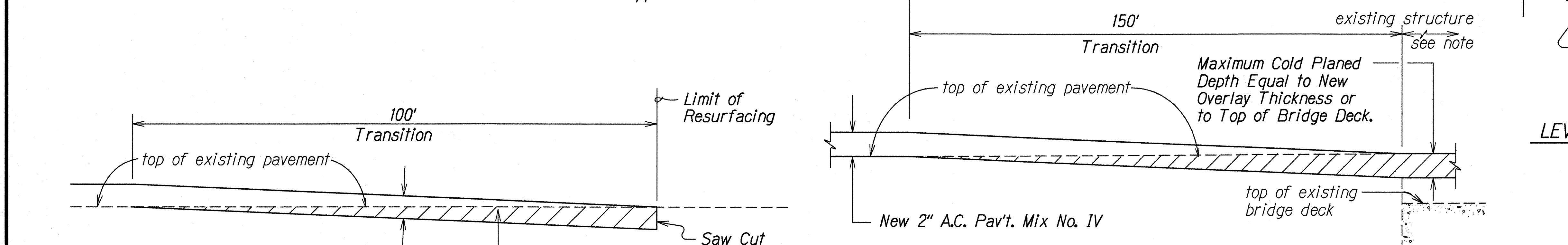
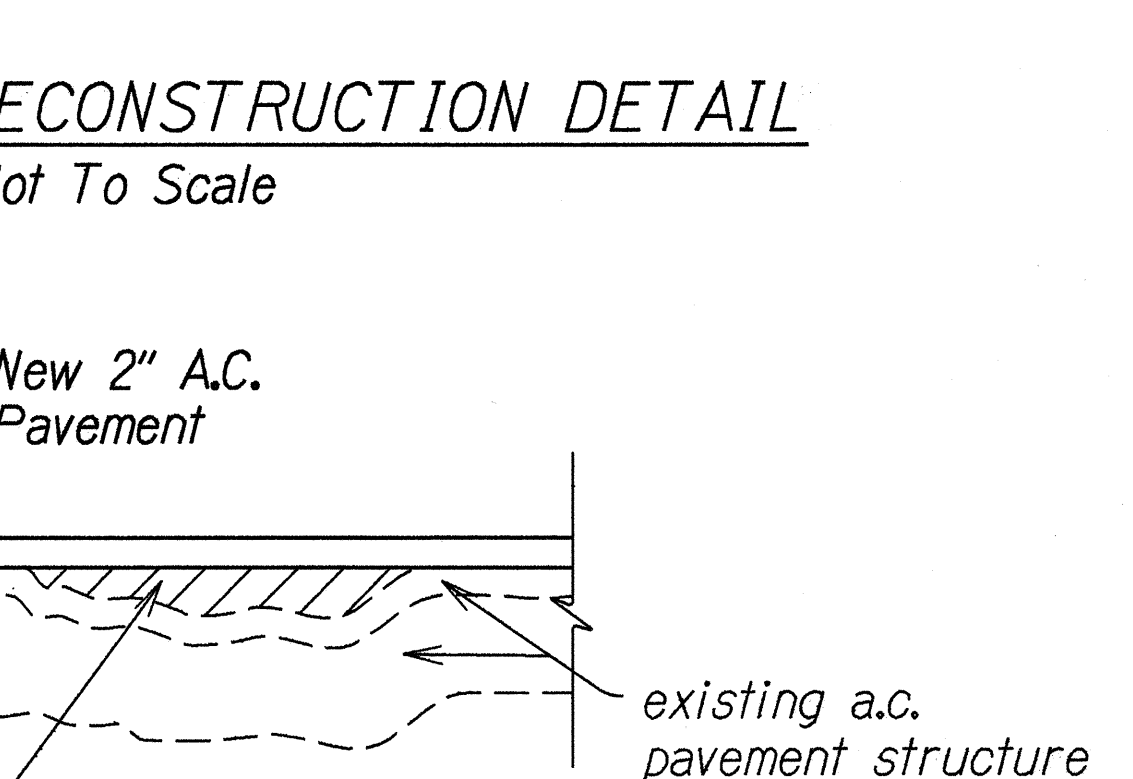
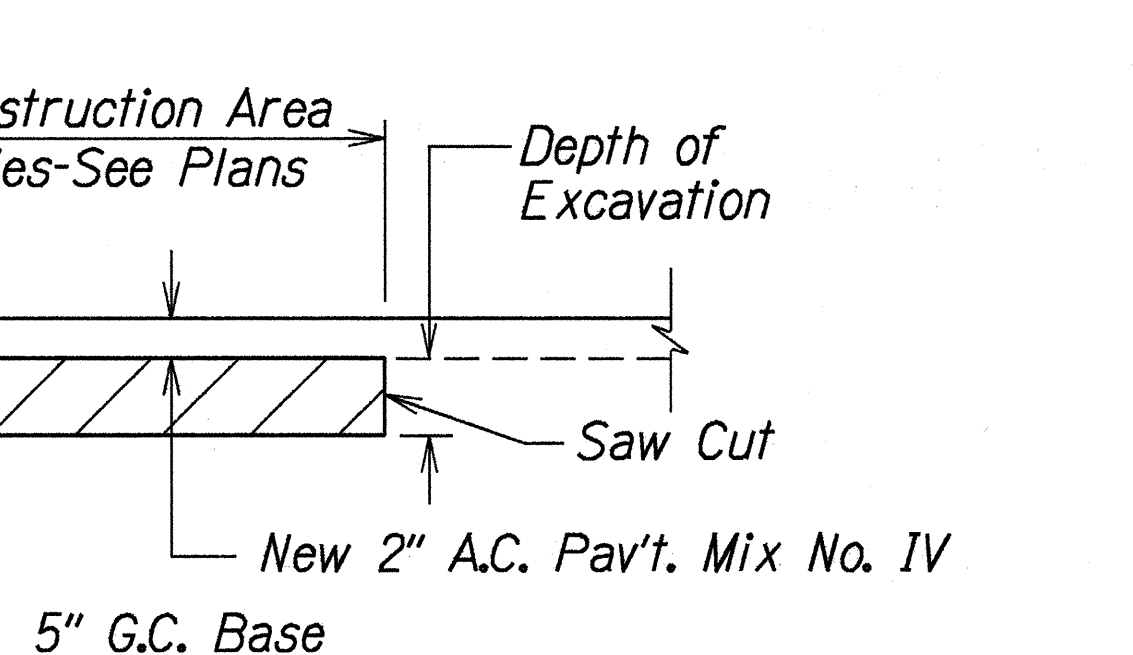
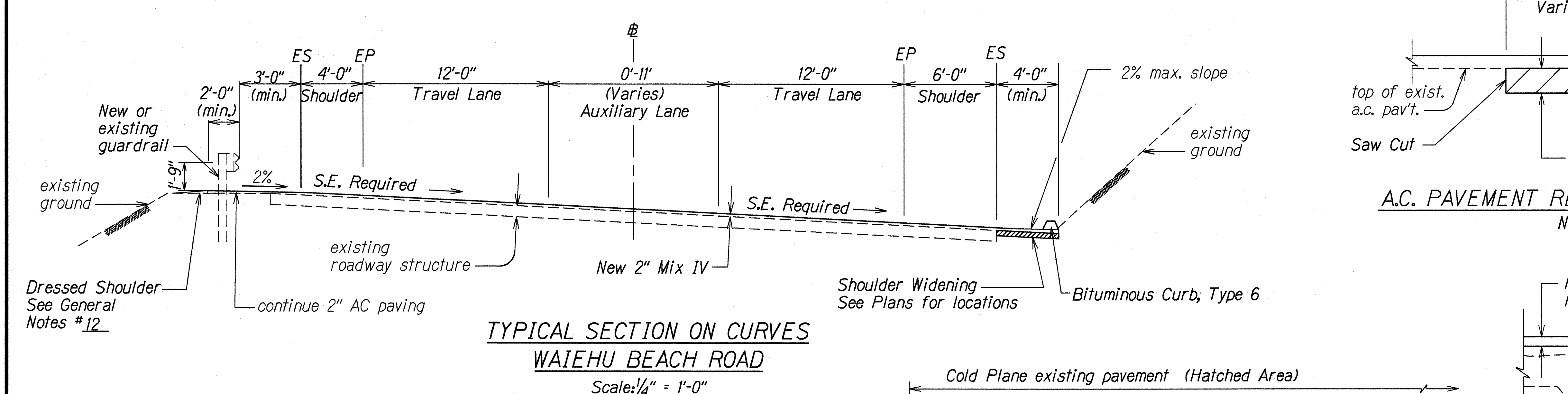


[illegible]

5-21-97	Revise existing shoulder slopes. Revise New shoulder slope per Addendum No. 2.
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL SECTIONS & DETAILS

WAIHEHU BEACH ROAD RESURFACING
Kahekili Highway to Kahului Beach Road
Project No. 3400B-01-97M

Scale: As Shown Date: April 1997

SHEET No. 1 OF 1 SHEETS

Varies

4'-0"

Varies

EP

existing low point to remain

New 2" A.C. Mix IV

2%

Cold Plane Inside Half of Existing A.C. Swale Coldplaning incidental A.C. Mix IV

existing pavement

Diagram illustrating the tapering of a new 2" A.C. Pav't. Mix No. IV at the curb and gutter. The diagram shows the existing curb and gutter, the new pavement surface, and the tapering section. The taper length is 2'-0" and the taper thickness is 1/2". The new pavement is labeled "New 2" A.C. Pav't. Mix No. IV".

This diagram illustrates the cross-section of a new shoulder and guardrail assembly. Key components and dimensions include:

- Travelway:** Indicated by a double-headed arrow on the left.
- EP (Edge of Pavement):** A vertical line marking the start of the shoulder.
- New Shoulder:** A horizontal dimension of 6'-0" from the EP to the ES.
- ES (Edge of Shoulder):** A vertical line marking the end of the shoulder.
- Guardrail:** A vertical structure with a height of 1'-0" from the shoulder surface.
- New Guardrail Type-3 Single w/6' Steel Post:** Label for the guardrail assembly.
- Bituminous Curb, Type 6:** A curb structure with a height of 1'-9" from the shoulder surface.
- Dressed Shoulder:** A sloped shoulder surface with a 2% cross-slope.
- existing ground:** Indicated by a dashed line and hatched area below the shoulder.
- Pavement Structure:**
 - 2" A.C. Pavement Mix No. IV:** The top layer of the pavement.
 - 4" A.C. Base:** The base layer of the pavement.
 - Saw Cut:** A vertical cut in the pavement structure.

Street or Gutter

Ramp

13 3/4"

36 1/4"

PLAN

Not to Scale

1/4"

13 3/4"

1/8"

ELEVATION

Not to Scale

The diagram illustrates a cross-section of a shoulder widening project. Key components and dimensions include:

- Shoulder:** Labeled "New or exist. Shoulder" with a break symbol at the left end.
- Widening Dimensions:**
 - Total widening: 4'-0"
 - Minimum widening: (min.)
 - Subgrade widening: 3'-0"
 - Curb width: 1'-0"
- Pavement and Base:**
 - 2" A.C. Pavement Mix No. IV
 - 4" Glassphalt Concrete Base
- Curb and Slope:**
 - Bituminous Curb, Type 6 (Refer to Std. Plan D-04 for Detail)
 - existing ground (indicated by a dashed line and hatched area)
 - 2% slope (indicated by an arrow and "2%")

TYPICAL SECTION ON SHOULDER WIDENING
 Scale: $\frac{3}{4}" = 1'-0"$

Diagram illustrating the construction of a new drop curb and gutter, showing the transition from an existing curb to a new drop curb and gutter. The diagram includes the following labels and dimensions:

- Bituminous Curb, Type 6**: The new curb material.
- Grooved Tactile Warning Signal**: The textured surface on the curb.
- 2% max. slope**: The maximum slope of the new curb.
- New Drop Curb and Gutter**: The new curb and gutter assembly.
- Slope Varies**: The slope of the new curb varies.
- existing curb and gutter to be demolished**: The old curb and gutter to be removed.
- Broom Finish**: The finish on the new curb.
- Std. Curb**: The standard curb.
- 6'-0"**: The vertical height of the new curb.
- 6"**: The width of the new curb.
- 12:1**: The slope of the new curb.
- 4'-0"**, **2'-0"**, **2'-0"**: Horizontal dimensions of the new curb and gutter.

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <hr/> <i>TYPICAL SECTIONS & DETAILS</i> <hr/> <u>WAIHEHU BEACH ROAD RESURFACING</u> <u>Kahekili Highway to Kahului Beach Road</u> <u>Project No. 3400B-01-97M</u> Scale: As Shown Date: April 1997
SHEET No. 1 OF 1 SHEETS

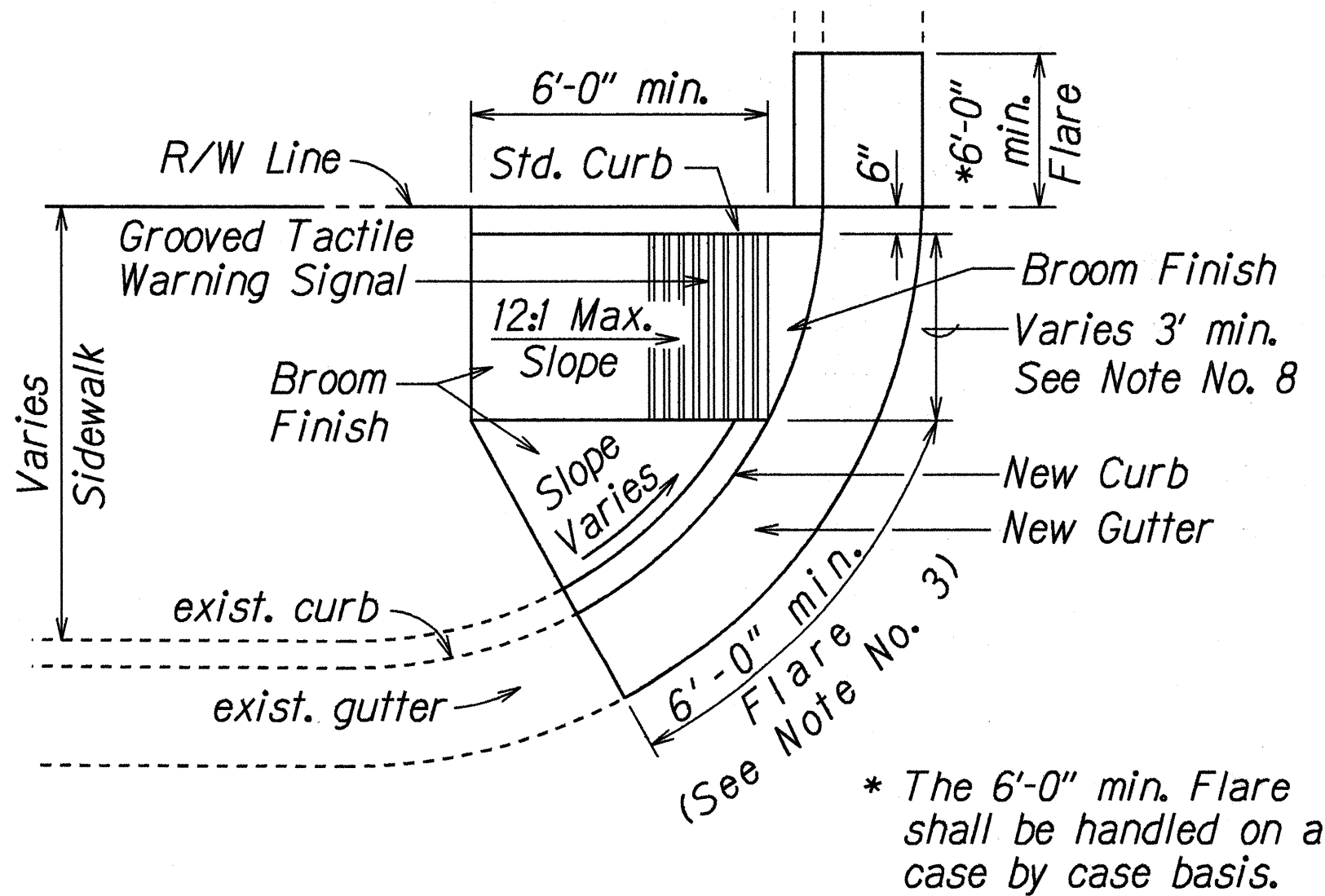
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	3400B-01-97M	1997	ADD.5S-1	22

CURB RAMP NOTES:

1. The New Gutter fronting the curb ramps shall not exceed a slope of 20:1 maximum. Areas without a gutter shall be handled on a case by case basis in order to meet the 20:1 maximum slope requirement.
2. The New Gutter fronting the 6'-0" minimum flares on both sides of the New Curb Ramps shall have a transition slope from 20:1 maximum to the existing gutter slope.
3. When the curb exceeds the standard 6" height, the side flares and ramp may be greater than 6'-0" in order to meet the 12:1 maximum slope requirement.
4. Curb Ramps shall be reinforced if adjacent sidewalks are reinforced.
5. All new adjacent sidewalks should have a minimum width of 6'-0" excluding the curb and the cross slope shall not exceed 50:1.
6. The Contractor shall use the Edge of Pavement (E.P.) fronting the new curb ramp or gutter as the control elevation when constructing the New Curb Ramp or Curb Ramp with gutter.
7. The New Standard Curb shall be 12" wide at signalized intersection or mid-block pedestrian crossings. For sidewalk width, excluding curb, is less than 4'-0", an Engineer approved, modified sidewalk with a minimum 3'-0" wide curb ramp and a 12" wide standard curb shall be installed.
8. The width of Curb Ramp including curbs shall match the width of the sidewalk. When the sidewalk width is less than 4'-0", an Engineer approved, modified sidewalk with a minimum 3'-0" wide curb ramp excluding curbs shall be installed. Standard curbs shall be installed on all Type "D" and Modified Type "D" Curb Ramps.

GENERAL NOTES:

1. When necessitated by existing physical conditions, alternate Curb Ramps may be used subject to Engineer's approval.
2. Subject to field conditions, the Engineer shall determine final location of Curb Ramp.
3. Where necessary, pullboxes, handholes, manholes, etc. shall be adjusted to match Curb Ramp grade. Adjustments shall not be paid for separately but shall be considered incidental to the various wheelchair items.
4. All sidewalks shall provide a minimum clear width of 3'-0" (excluding curb) for pedestrian circulation.
5. Narrow Sidewalks (3'-0" min. width excluding curb) will prohibit the installation of any sign posts, utility poles, fire hydrants, traffic signals standards, light poles, etc. in the sidewalk, which will prevent a 3'-0" wide clear zone for pedestrian circulation. Also, Narrow Sidewalks shall require a minimum 6'-0" wide by 10'-0" long passing space at intervals not to exceed 200 feet.
6. If possible, install utility poles, fire hydrants, light poles, sign posts, pullboxes, etc. off of sidewalk but within the right-of way.
7. Single curb ramps serving two street crossing directions is prohibited in new construction.
8. Objects protruding from utility poles and walls adjacent to the sidewalks (i.e. wall mounted fire hydrants, telephones, meters on poles etc.) shall meet the current American with Disabilities Act (ADA) Accessibility Guidelines and will be subject to Engineer's approval.



WHEELCHAIR RAMP - TYPE "D"

6/6/97 Detail and notes for Type "D" wheelchair ramp per Addendum No. 2.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAIL

WAIIEHU BEACH ROAD RESURFACING
Kahekili Highway to Kahului Beach Road
Project No. 3400B-01-97M

Scale: As Shown Date: June 1997

SHEET No. 1 OF 1 SHEETS

ADD. 5S-1