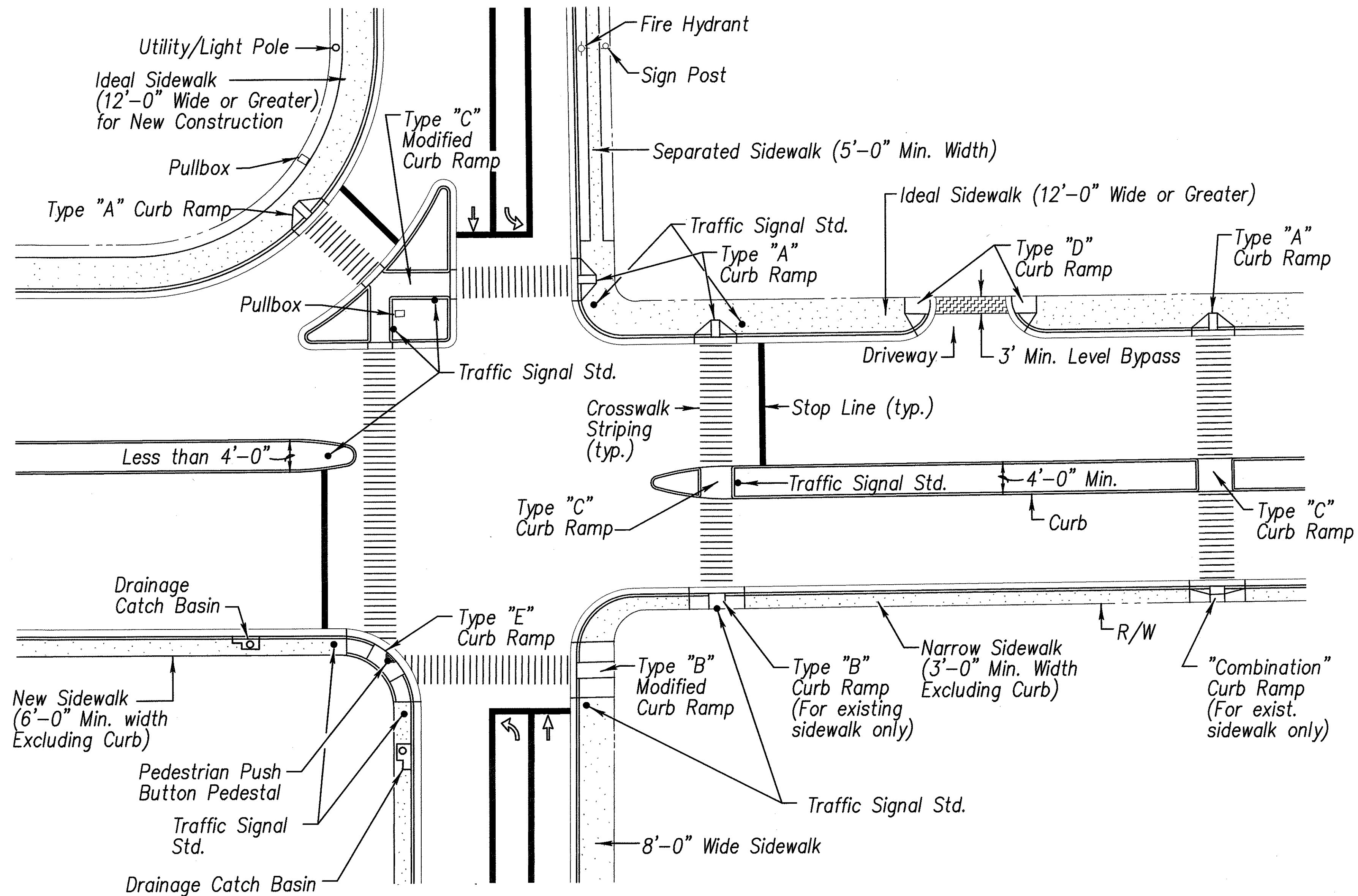
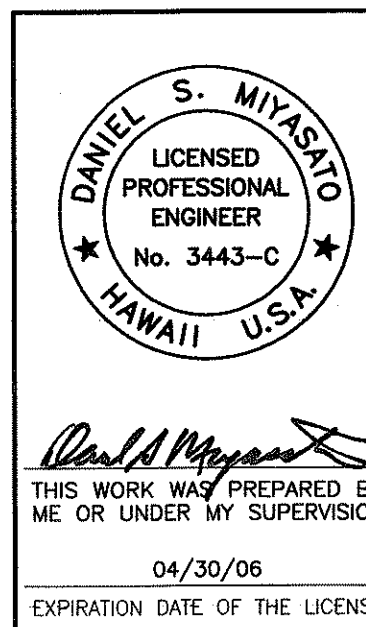


FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(94)	2004	17	79



TYPICAL CURB RAMPS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
No.	DESIGNED BY	
	CHECKED BY	



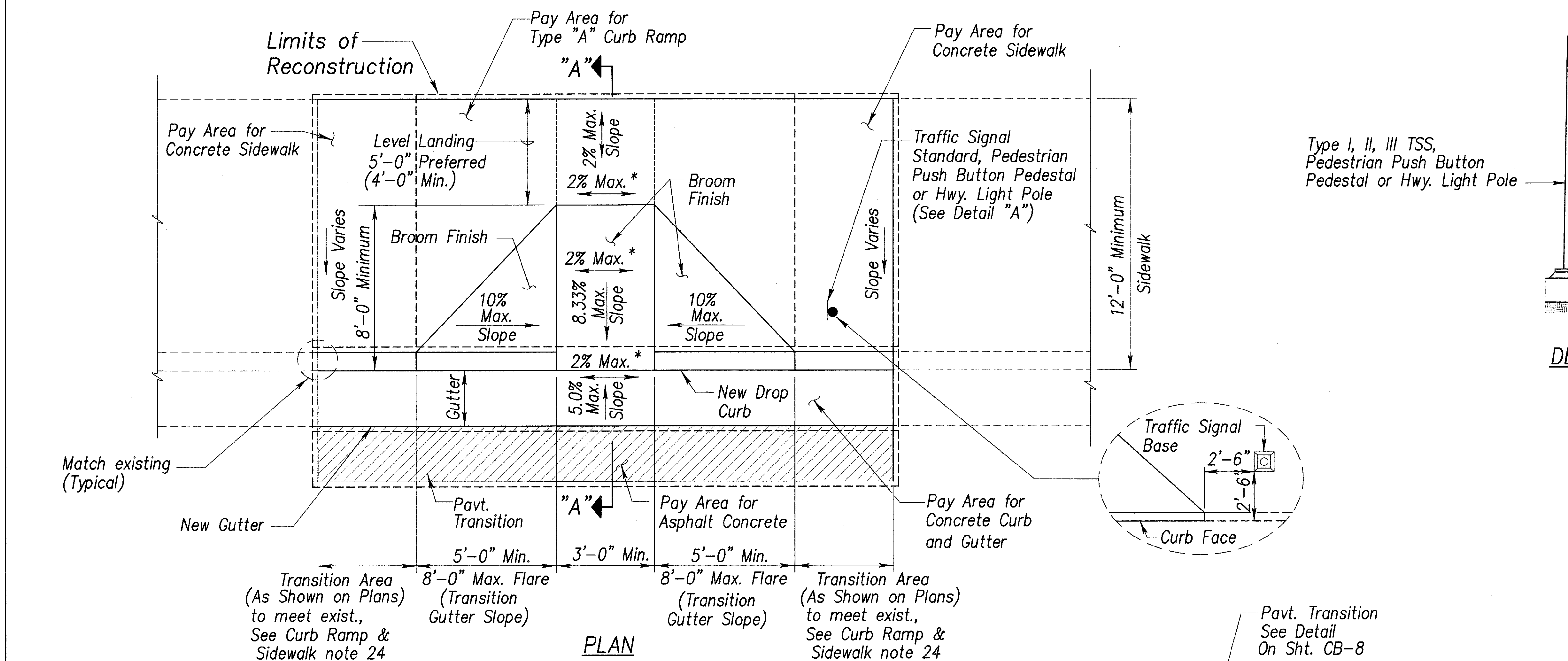
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL CURB RAMP LAYOUT

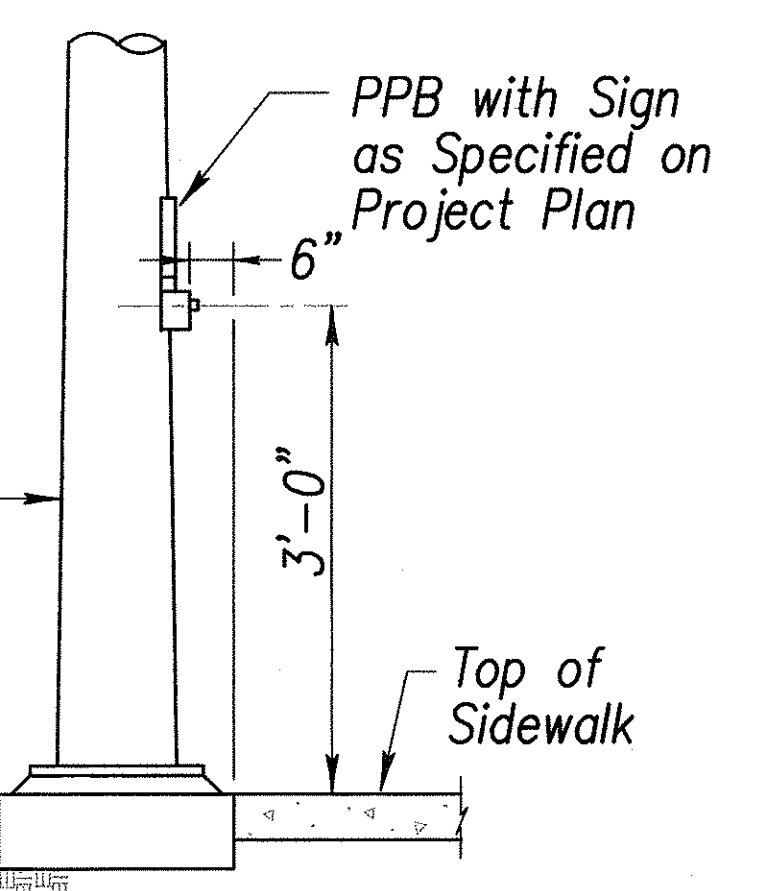
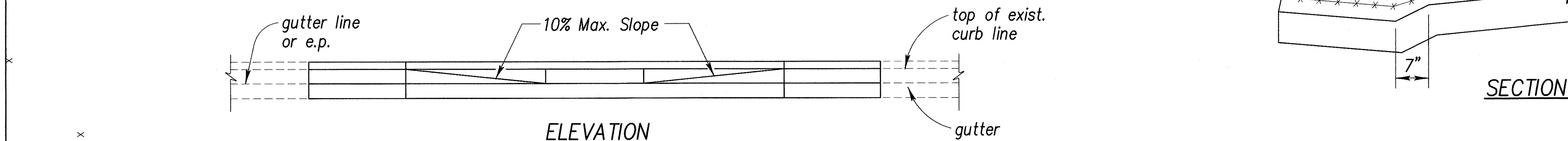
PEDESTRIAN FACILITIES & ADA
COMPLIANCE AT VARIOUS
LOCATIONS ON OAHU, UNIT 3

Federal - Aid Project No. CMAQ-0300(94)
Scale: As Shown Date: August 2004

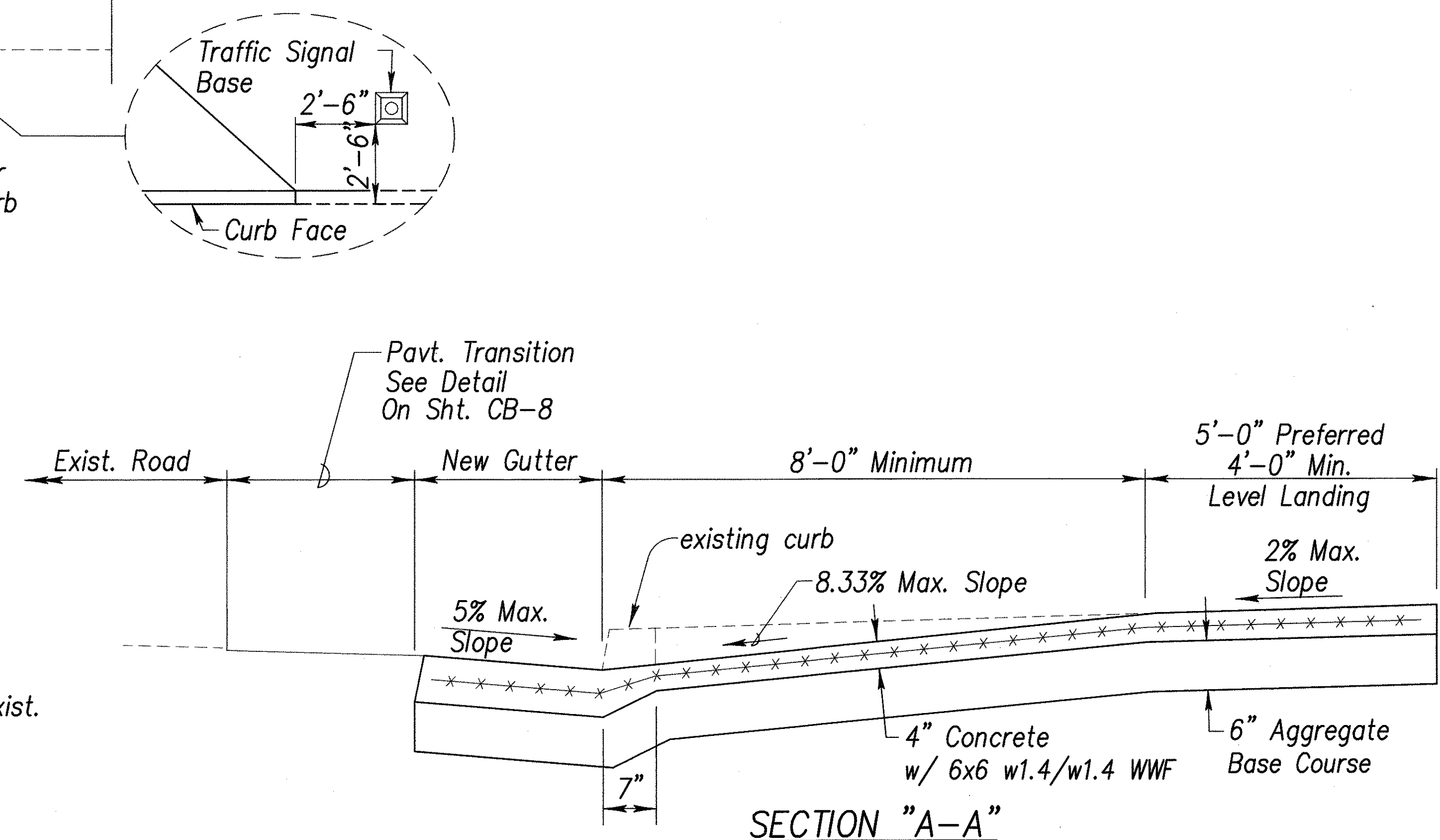
SHEET No. CB-1 OF 10 SHEETS

[illegible]

* If roadway slope >2% conform to roadway slope and file Technical Infeasibility (TI) Statement.



DETAIL "A"

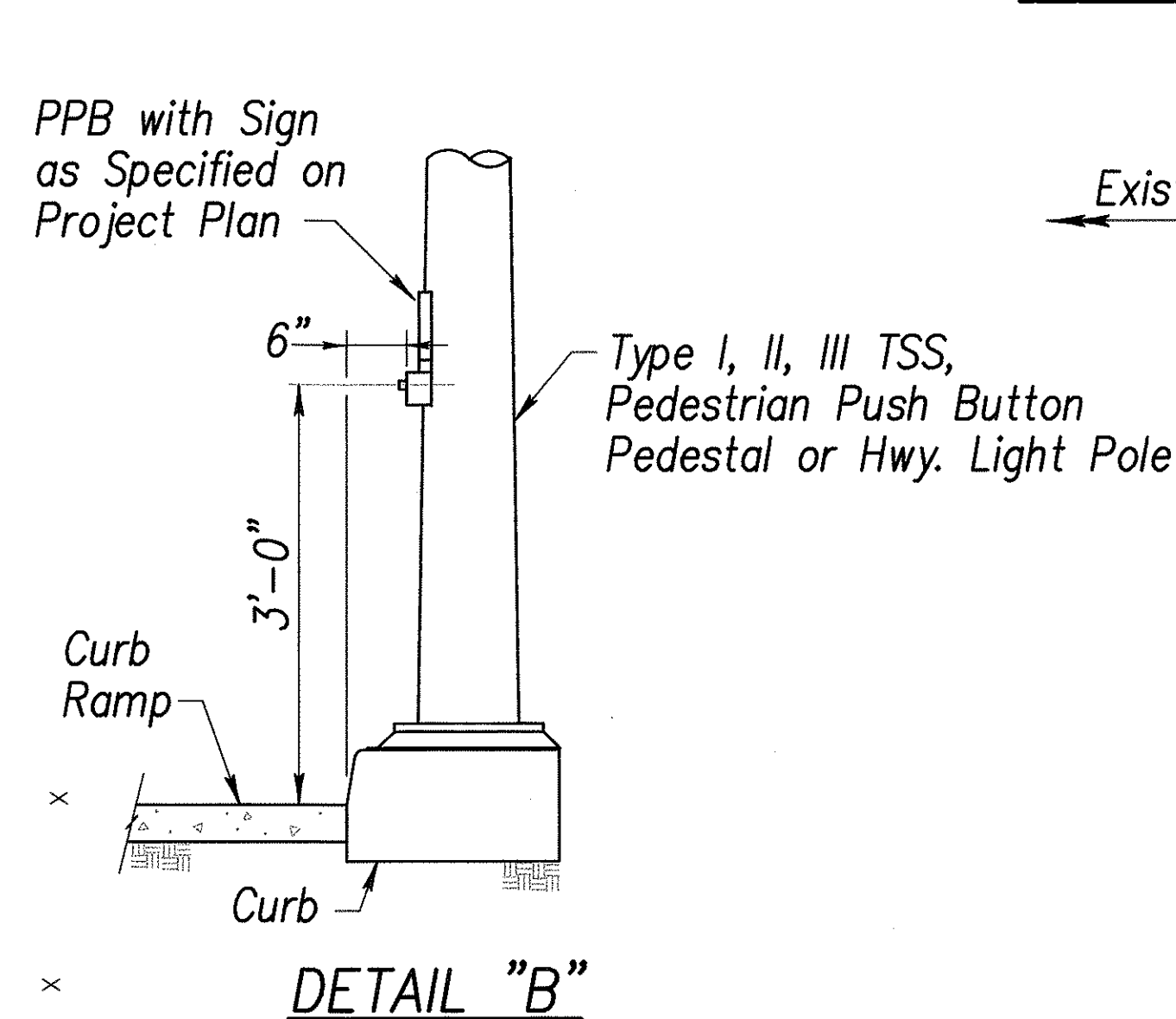
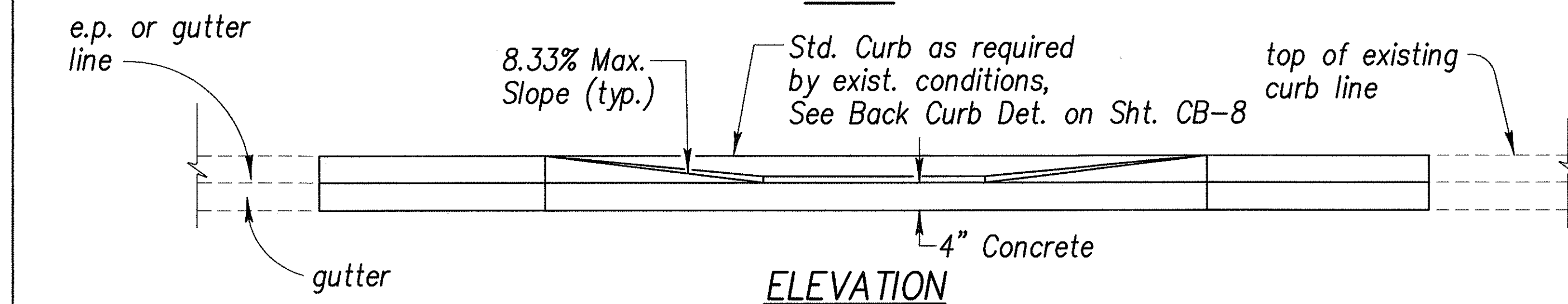
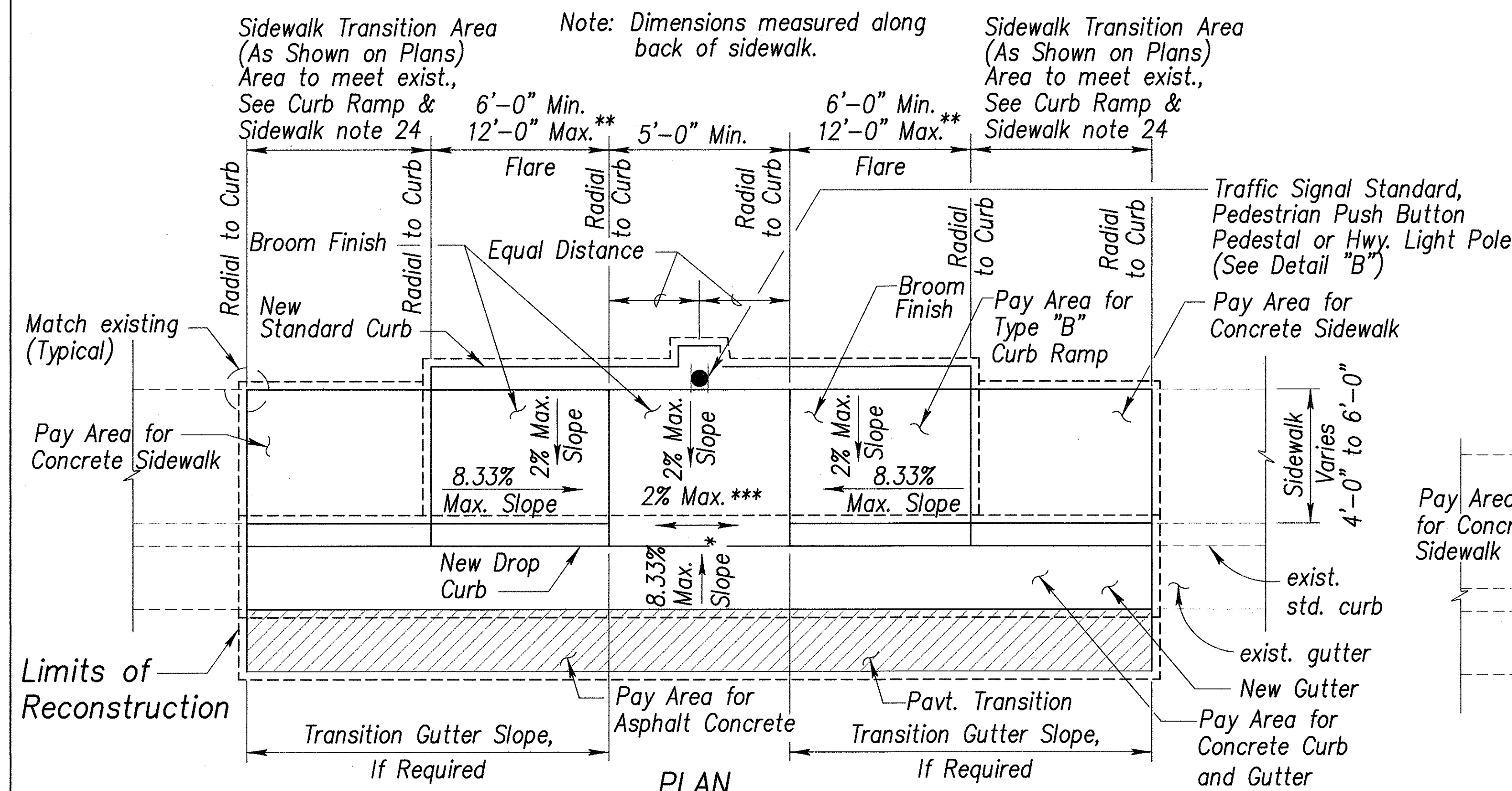


CURB RAMP – TYPE "A"
SIDEWALK WIDTH 12'-0" OR GREATER

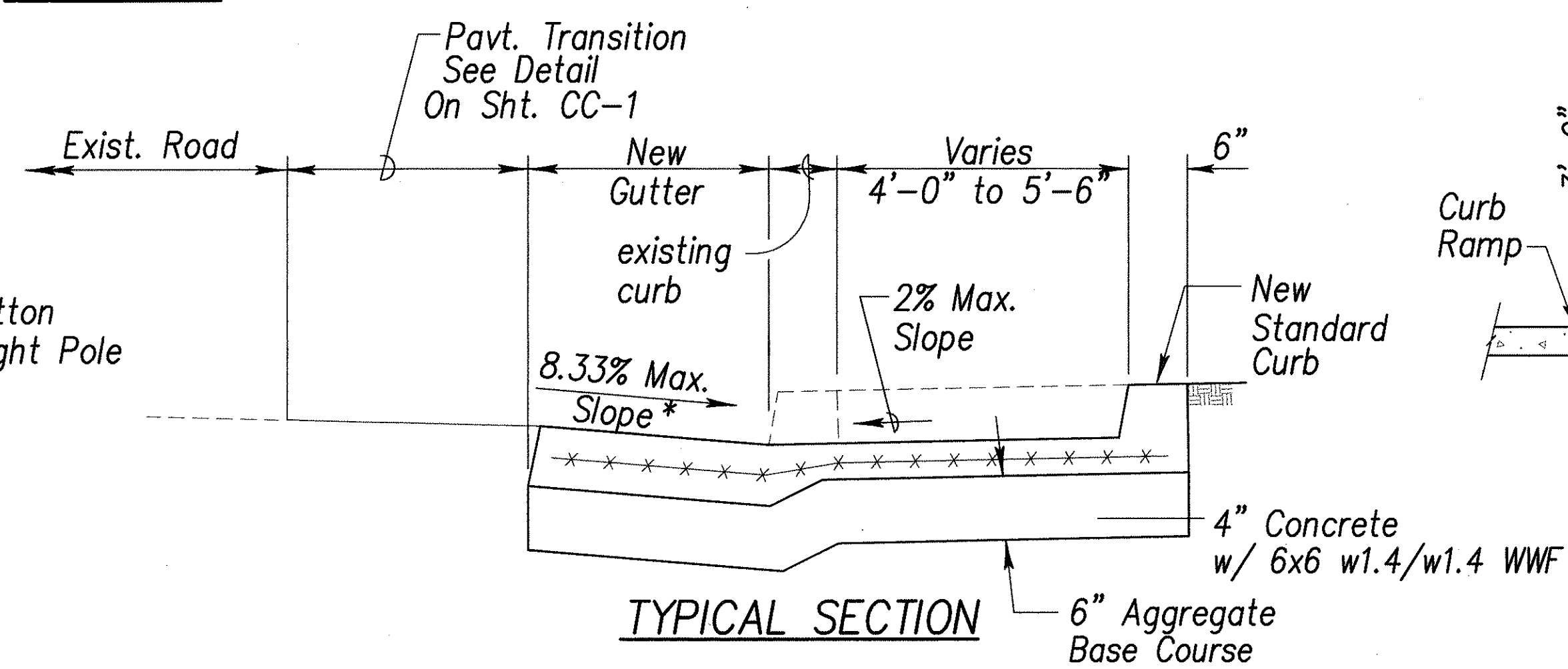
ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY _____	_____
	TRACED BY _____	_____
	DESIGNED BY _____	_____
	QUANTITIES BY _____	_____
No. _____	CHECKED BY _____	_____

  THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION 04/30/06 EXPIRATION DATE OF THE LICENSE	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <u>CURB RAMP DETAILS-1</u> <u>PEDESTRIAN FACILITIES & ADA</u> <u>COMPLIANCE AT VARIOUS</u> <u>LOCATIONS ON OAHU, UNIT 3</u> <u>Federal - Aid Project No. CMAQ-0300(94)</u> <u>Scale: As Shown</u> <u>Date: August 2004</u> SHEET NO. CB-2 OF 10 SHEETS
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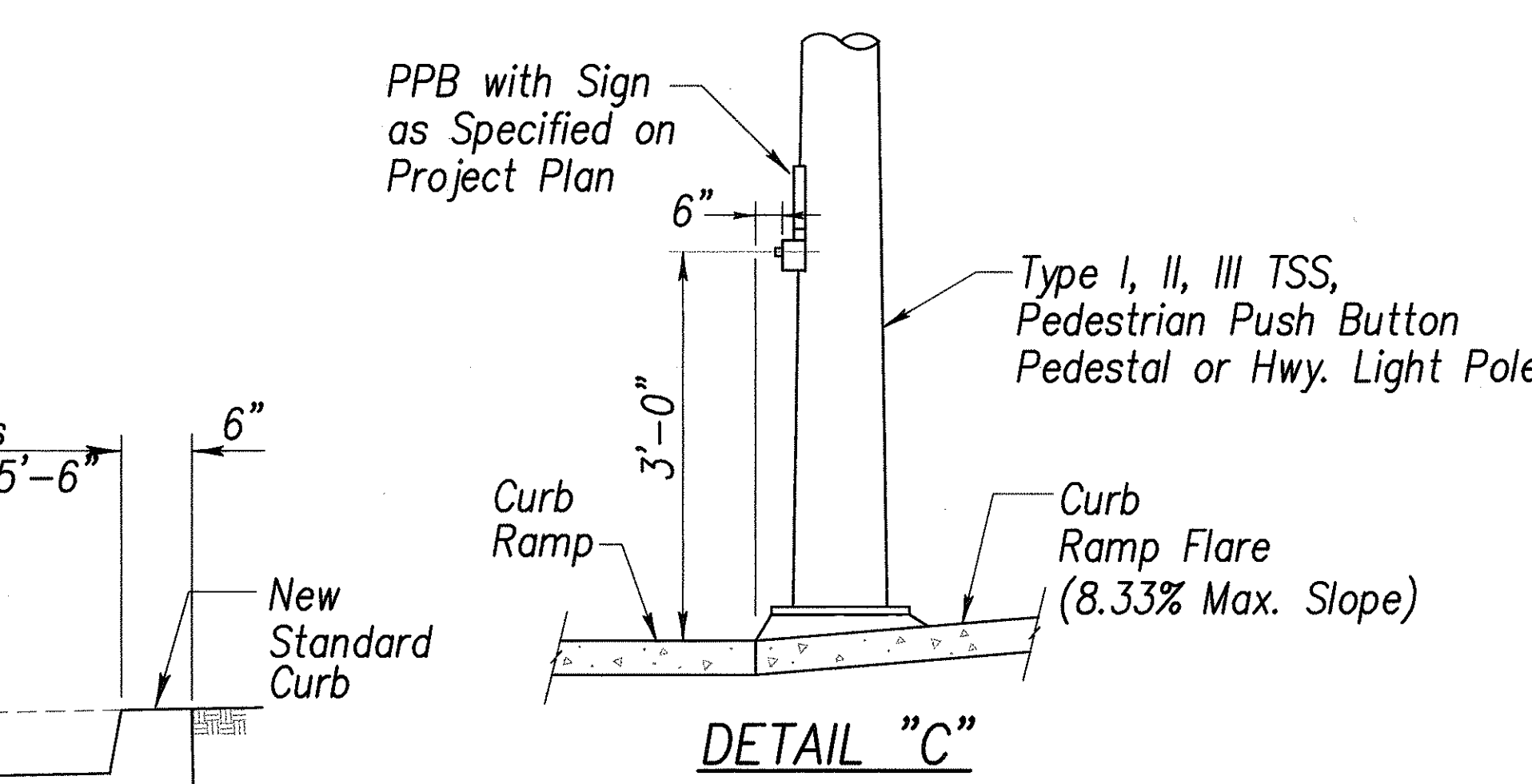
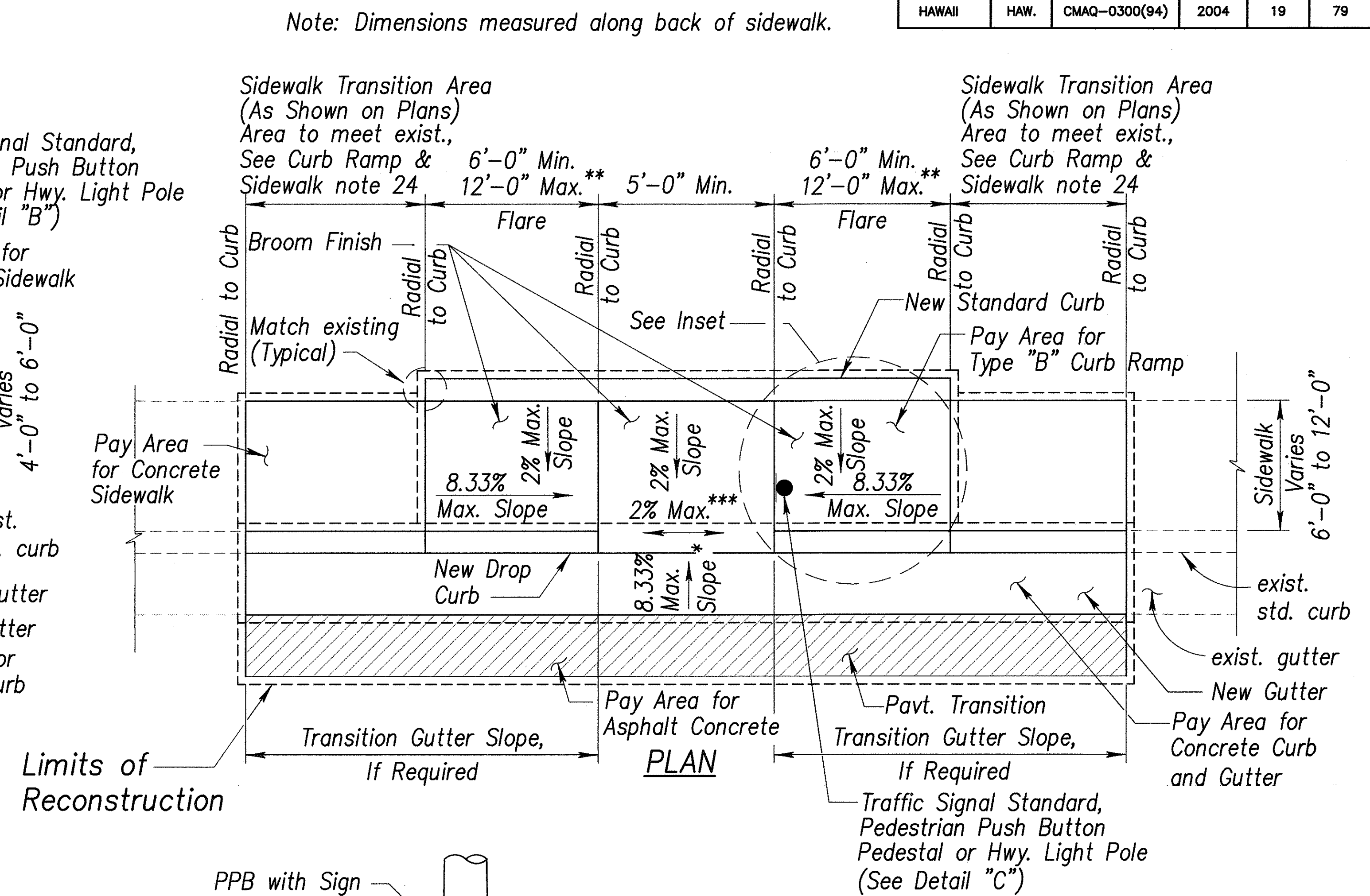
FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(94)	2004	19	79



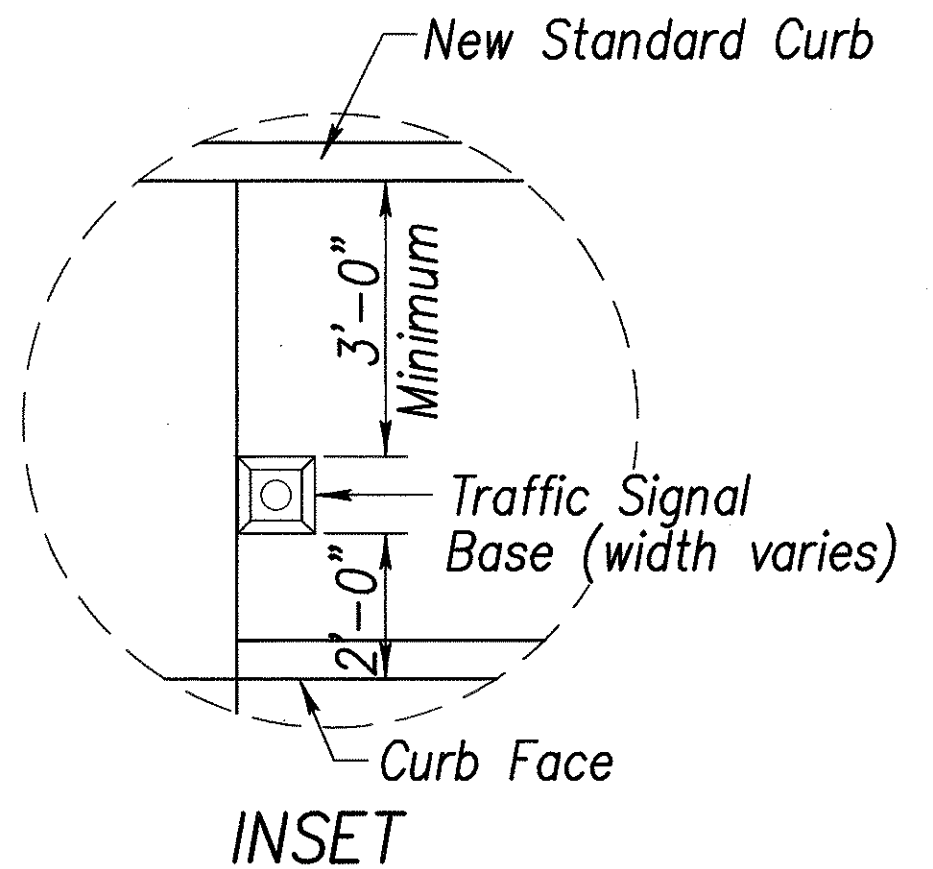
CURB RAMP - TYPE "B"
SIDEWALK WIDTH 4'-0" OR GREATER
BUT LESS THAN 6'-0" WIDTH



- * See Curb Ramp and Sidewalk Note No. 9
- ** The slope of the ramp shall take precedence over the length of the ramp. If the maximum slope of a ramp cannot be met within a length of 12 feet, then the slope of the ramp shall be set when the length of the ramp is set at the maximum of 12 feet.
- *** If roadway slope >2% conform to roadway slope and file Technical Infeasibility (TI) Statement.



CURB RAMP - TYPE "B" MODIFIED
SIDEWALK WIDTH 6'-0" OR GREATER
BUT LESS THAN 12'-0" WIDTH



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS-2

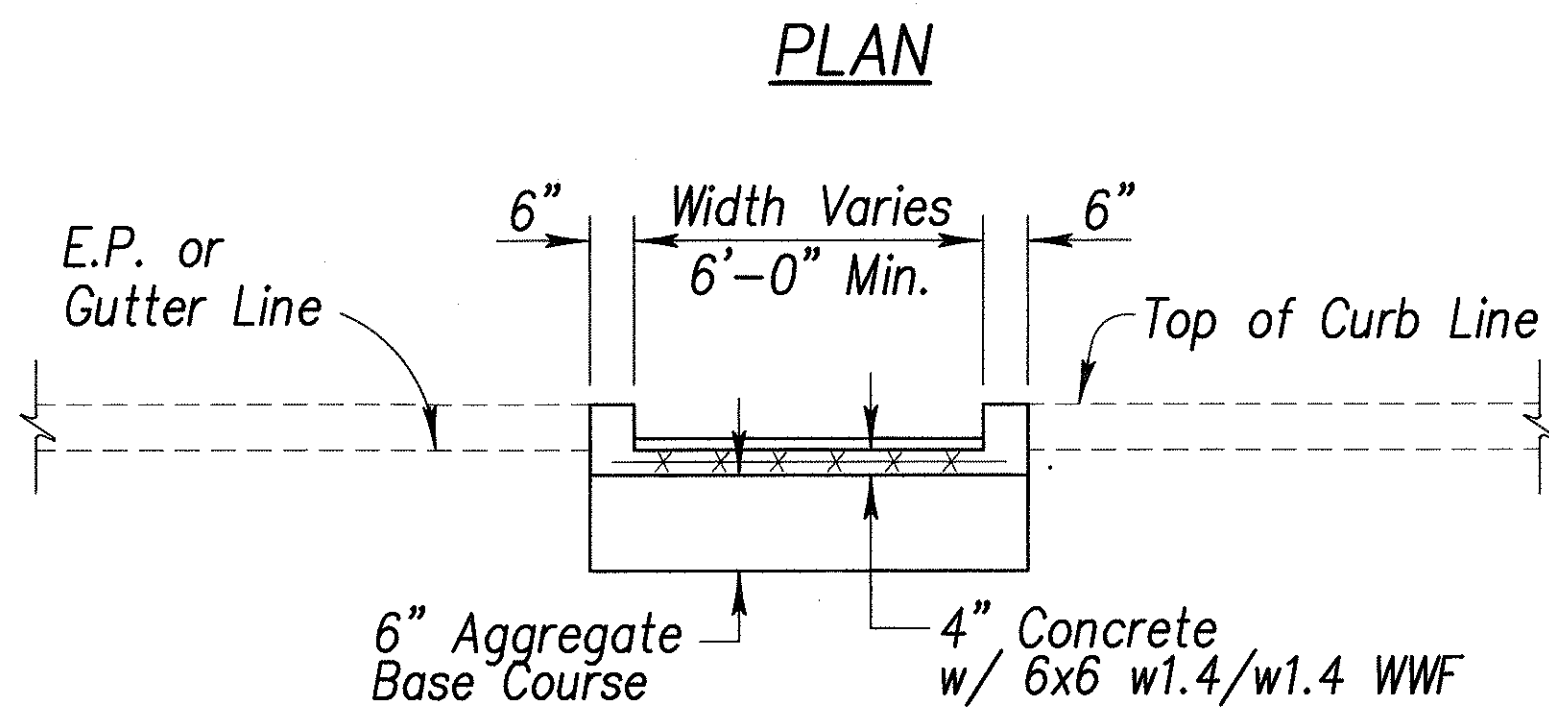
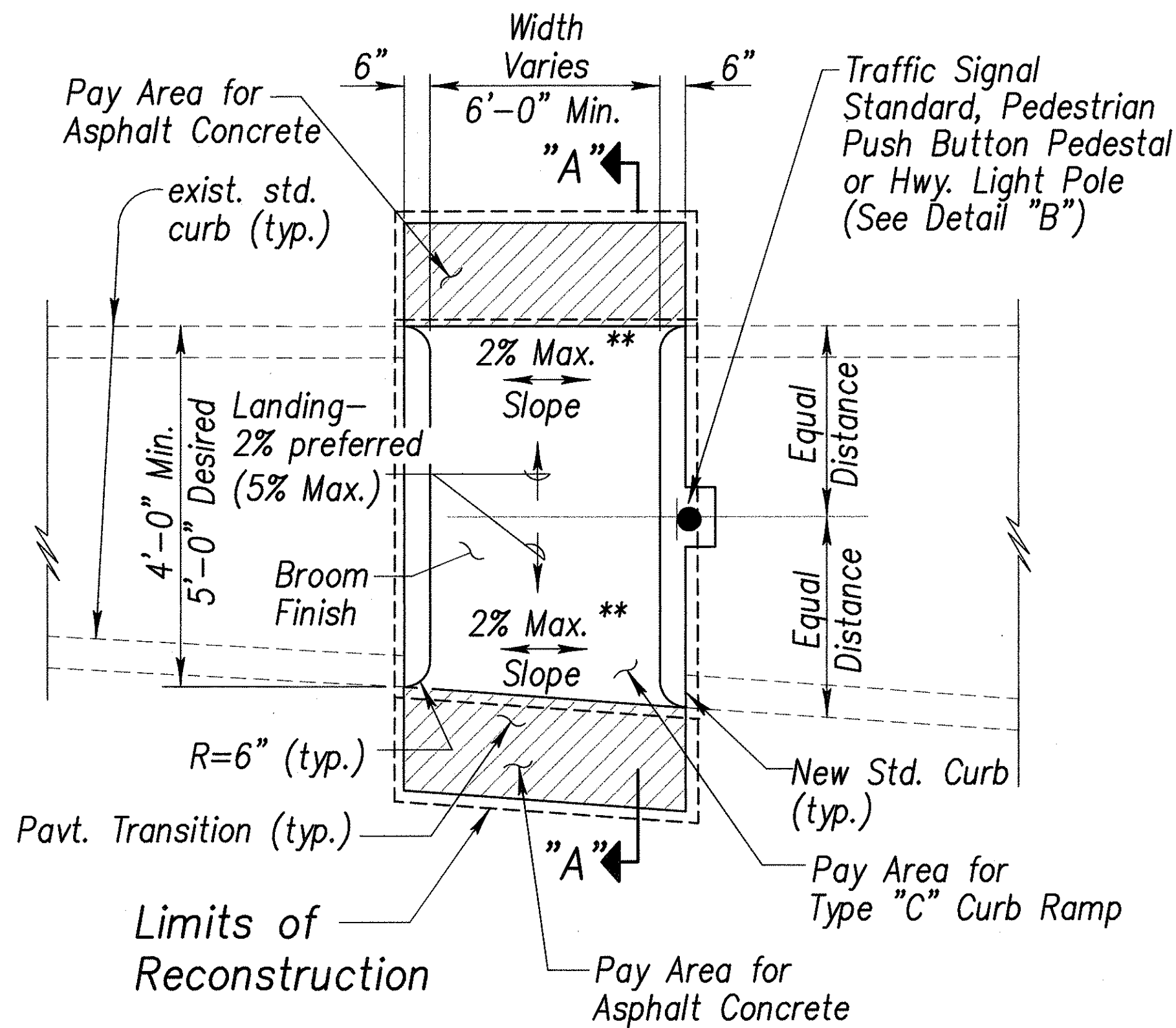
PEDESTRIAN FACILITIES & ADA
COMPLIANCE AT VARIOUS
LOCATIONS ON OAHU, UNIT 3

Federal - Aid Project No. CMAQ-0300(94)
Scale: As Shown Date: August 2004

SHEET No. CB-3 OF 10 SHEETS

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ME OR UNDER MY SUPERVISION
04/30/06
EXPIRATION DATE OF THE LICENSE

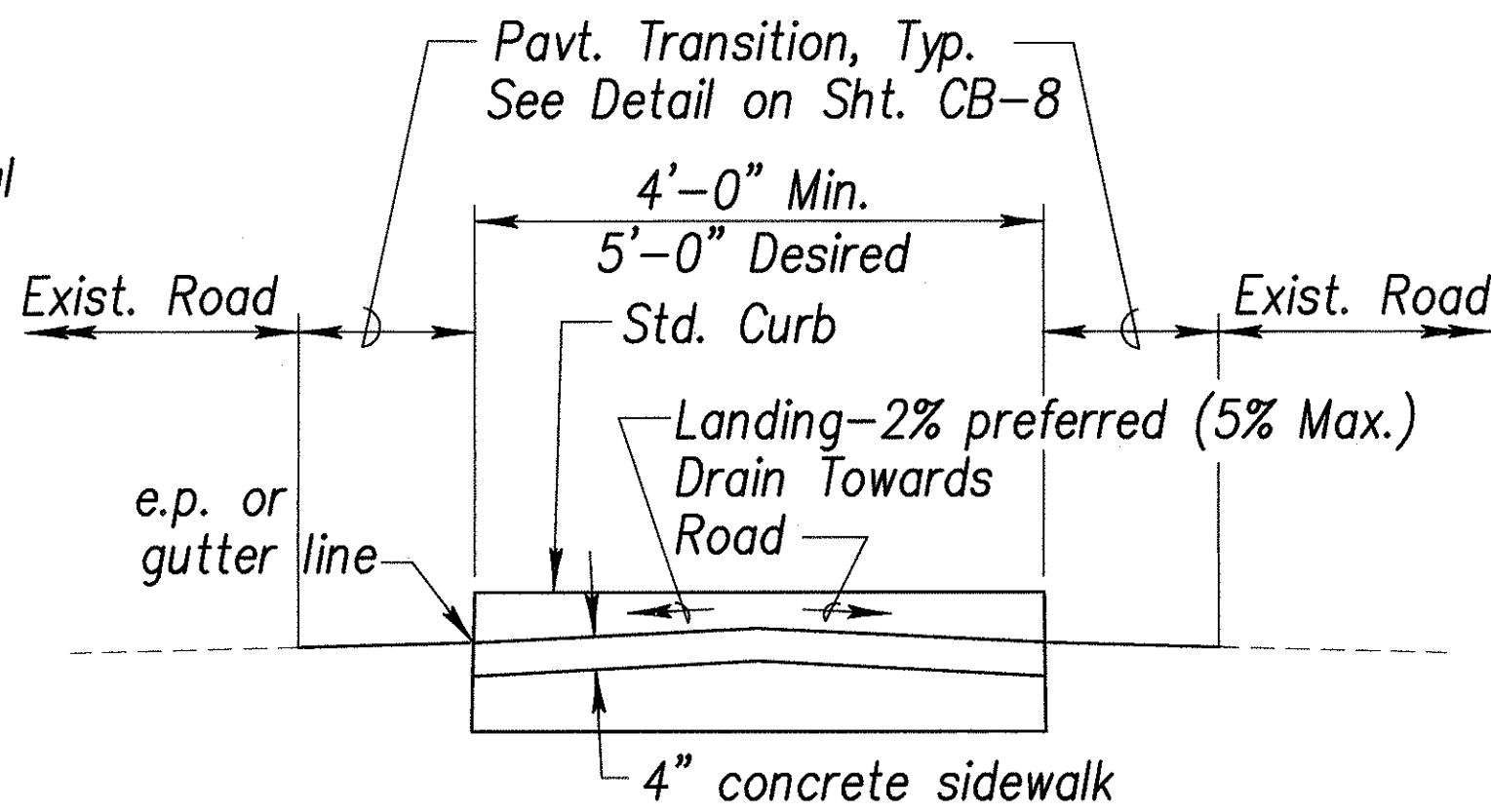
FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(94)	2004	20	79



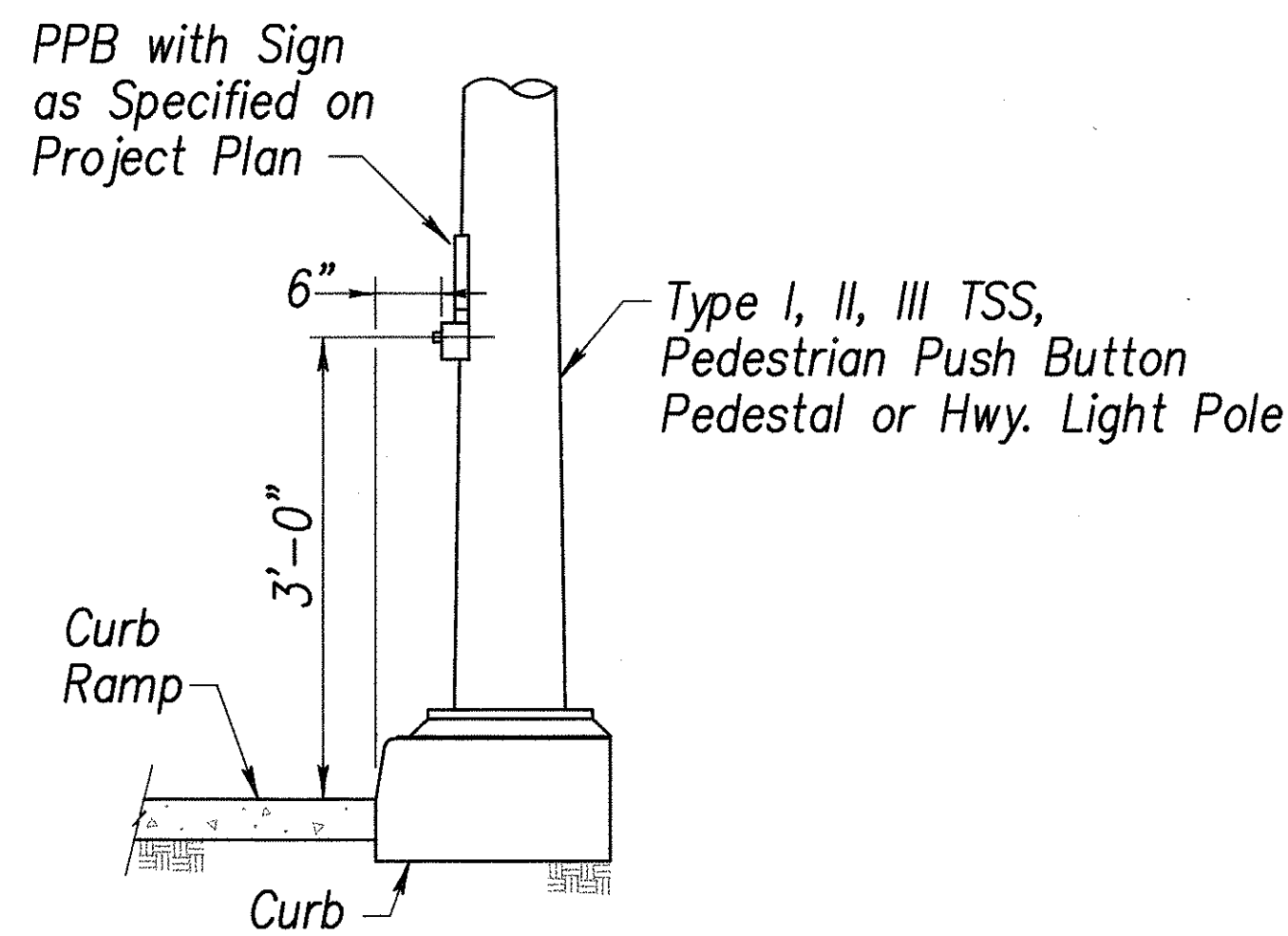
CURB RAMP - TYPE "C"

Not to scale
USE AT MEDIAN CROSSINGS, ISLANDS

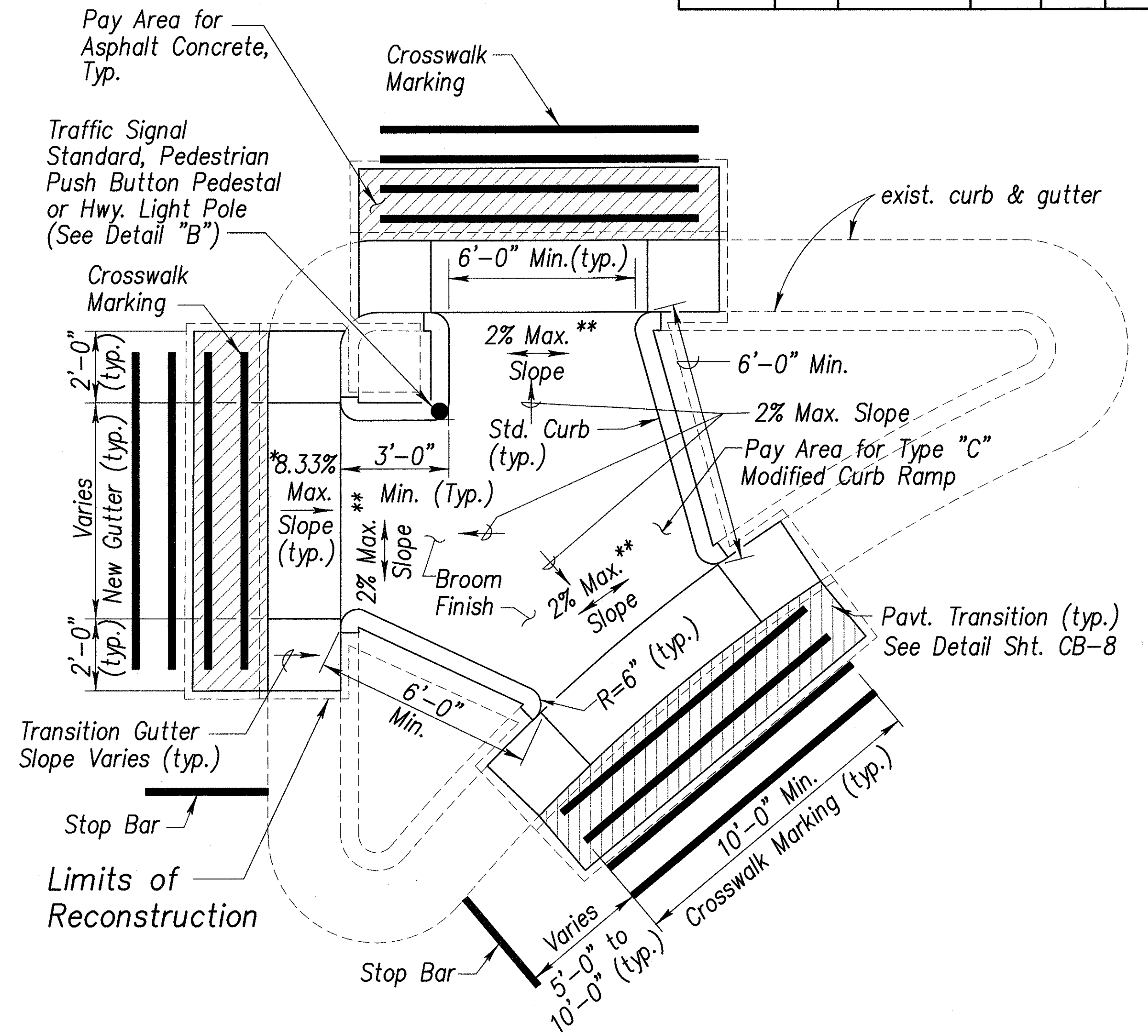
- * See Curb Ramp and Sidewalk Note No. 9
- ** If roadway slope >2% conform to roadway slope and file Technical Infeasibility (Ti) Statement.



SECTION "A-A"



DETAIL "B"



CURB RAMP - TYPE "C" MODIFIED

Not to scale

DATE	6/1/04
DESIGNED BY	
CHECKED BY	
NO.	

DANIEL S. MIYASATO
LICENSED PROFESSIONAL ENGINEER
No. 3443-C
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

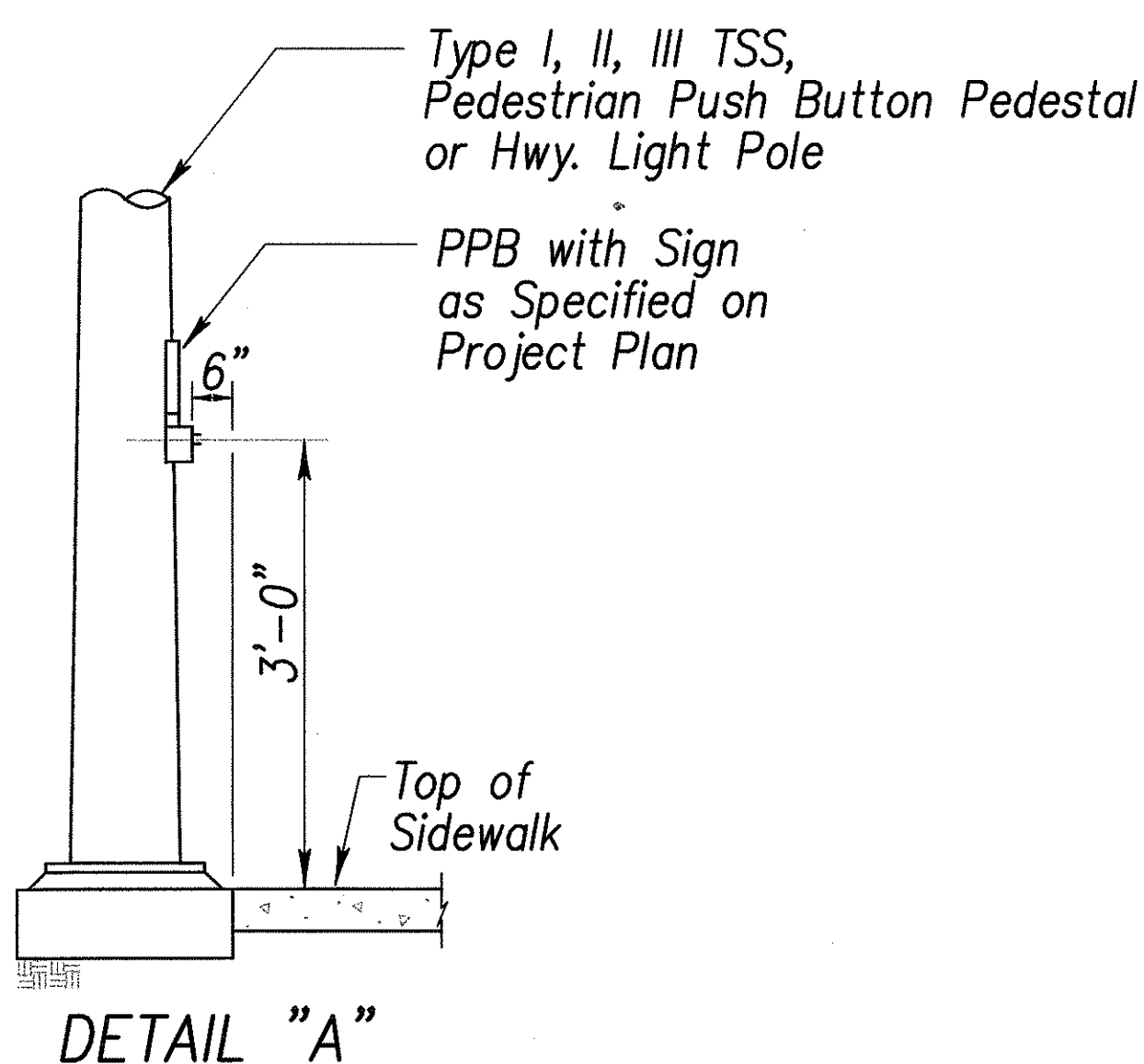
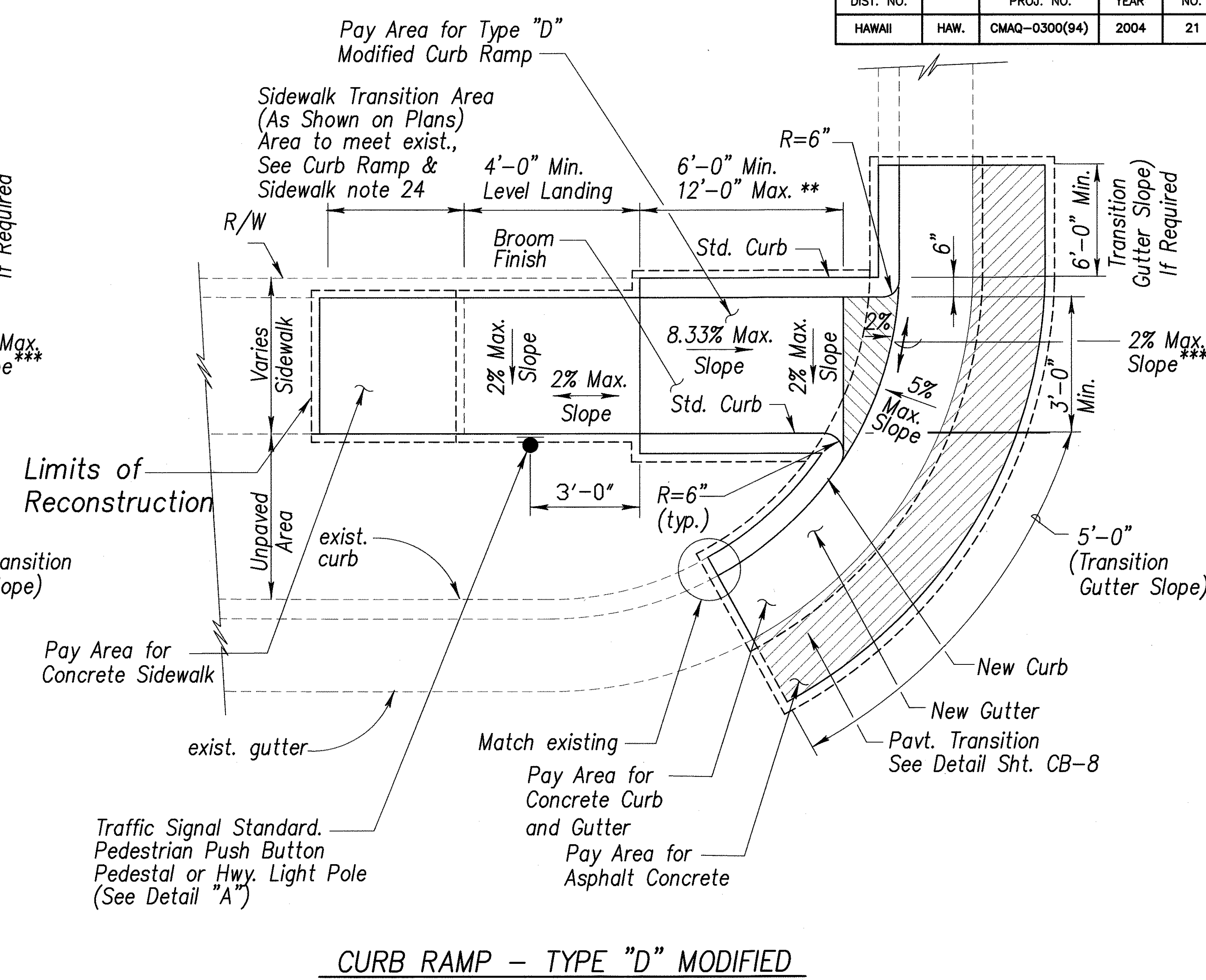
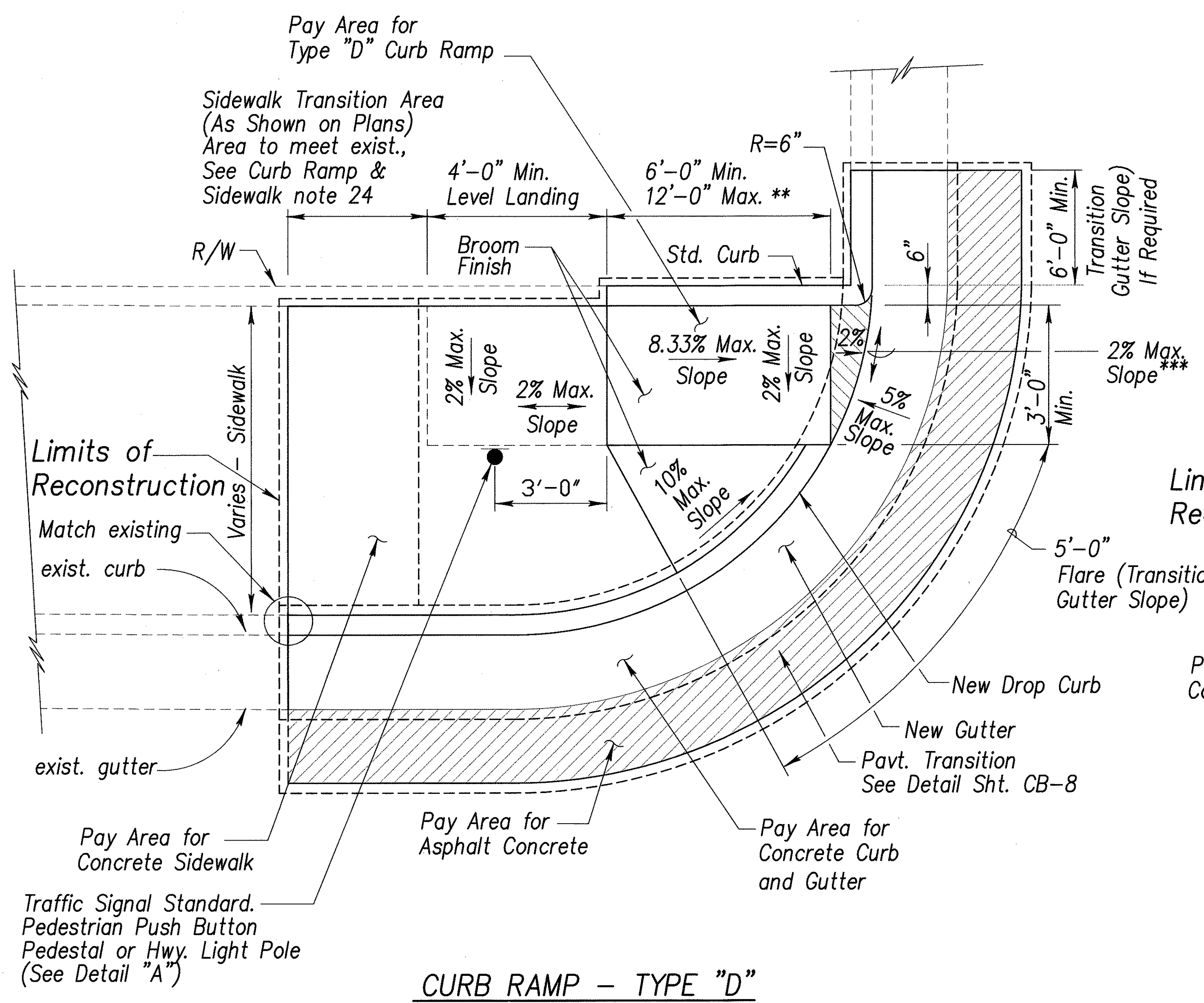
CURB RAMP DETAILS-3

PEDESTRIAN FACILITIES & ADA
COMPLIANCE AT VARIOUS
LOCATIONS ON OAHU, UNIT 3

Federal - Aid Project No. CMAQ-0300(94)
Scale: As Shown Date: August 2004

SHEET No. CB-4 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(94)	2004	21	79



- * See Curb Ramp and Sidewalk Note No. 9
- ** The slope of the ramp shall take precedence over the length of the ramp. If the maximum slope of a ramp cannot be met within a length of 12 feet, then the slope of the ramp shall be set when the length of the ramp is set at the maximum of 12 feet.
- *** If roadway slope >2% conform to roadway slope and file Technical Infeasibility (TI) Statement.

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

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04/30/06

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS-4

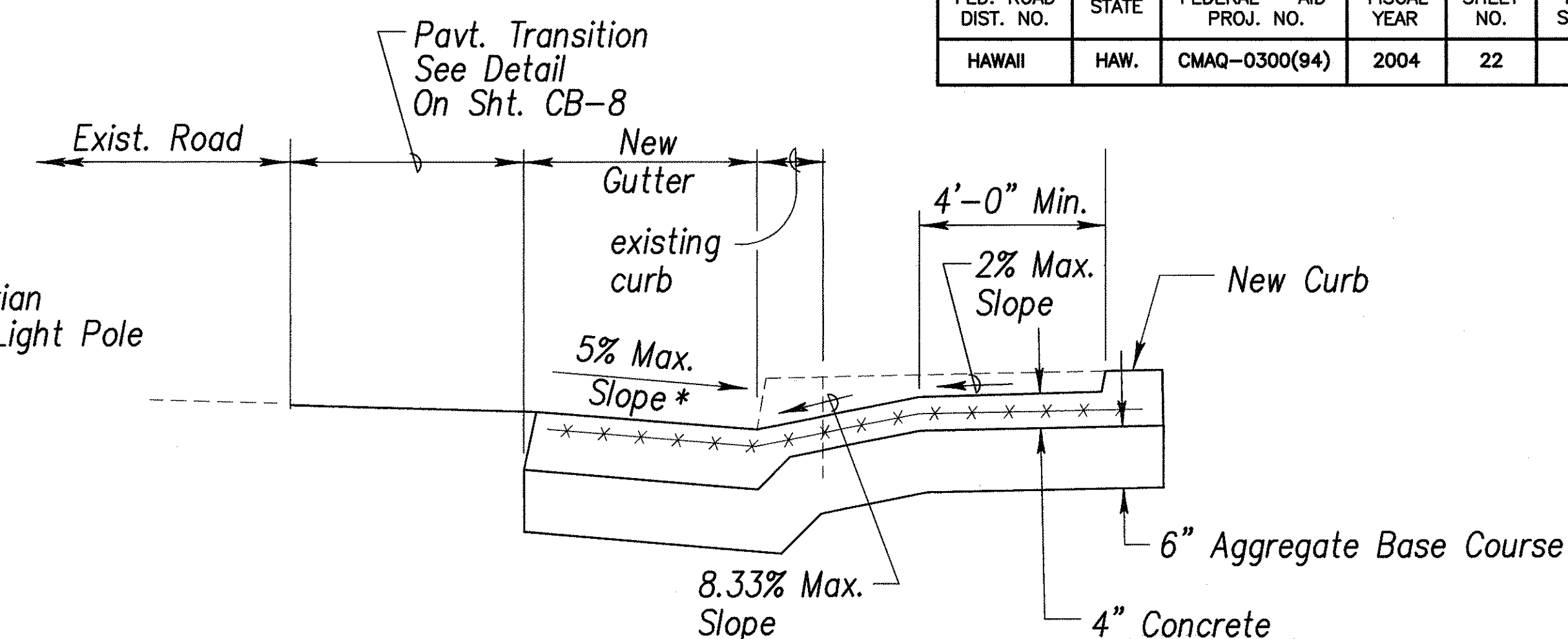
PEDESTRIAN FACILITIES & ADA
COMPLIANCE AT VARIOUS
LOCATIONS ON OAHU, UNIT 3

Federal - Aid Project No. CMAQ-0300(94)

Scale: As Shown Date: August 2004

SHEET No. CB-5 OF 10 SHEETS

Sidewalk Transition Area (As Shown on Plans) Area to meet exist., See Curb Ramp & Sidewalk note 24	Note: Dimensions measured along back of sidewalk.	Sidewalk Transition Area (As Shown on Plans) Area to meet exist., See Curb Ramp & Sidewalk note 24
6'-0" Min. 12'-0" Max.**	5'-0" Min.	6'-0" Min. 12'-0" Max.**



Traffic Signal Standard, Pedestrian Push Button Pedestal or Hwy. Light Pole (See Detail "A")

Modified Grade Adjustment Curb See Detail This Sheet

Equal Distance

Sidewalk Varies

Varies

6"

e.p. or gutter line

8.33% Max. Slope (typ.)

Curb as required by exist. conditions, See Back Curb Det. on Sht. CB-8

top of existing curb line

gutter

4" Concrete

PPR with Sign

PPB with Sign
as Specified on
Project Plan

6"

3'-0"

Curb Ramp

Curb

Type I, II, III TSS,
Pedestrian Push Button
Pedestal or Hwy. Light Pole

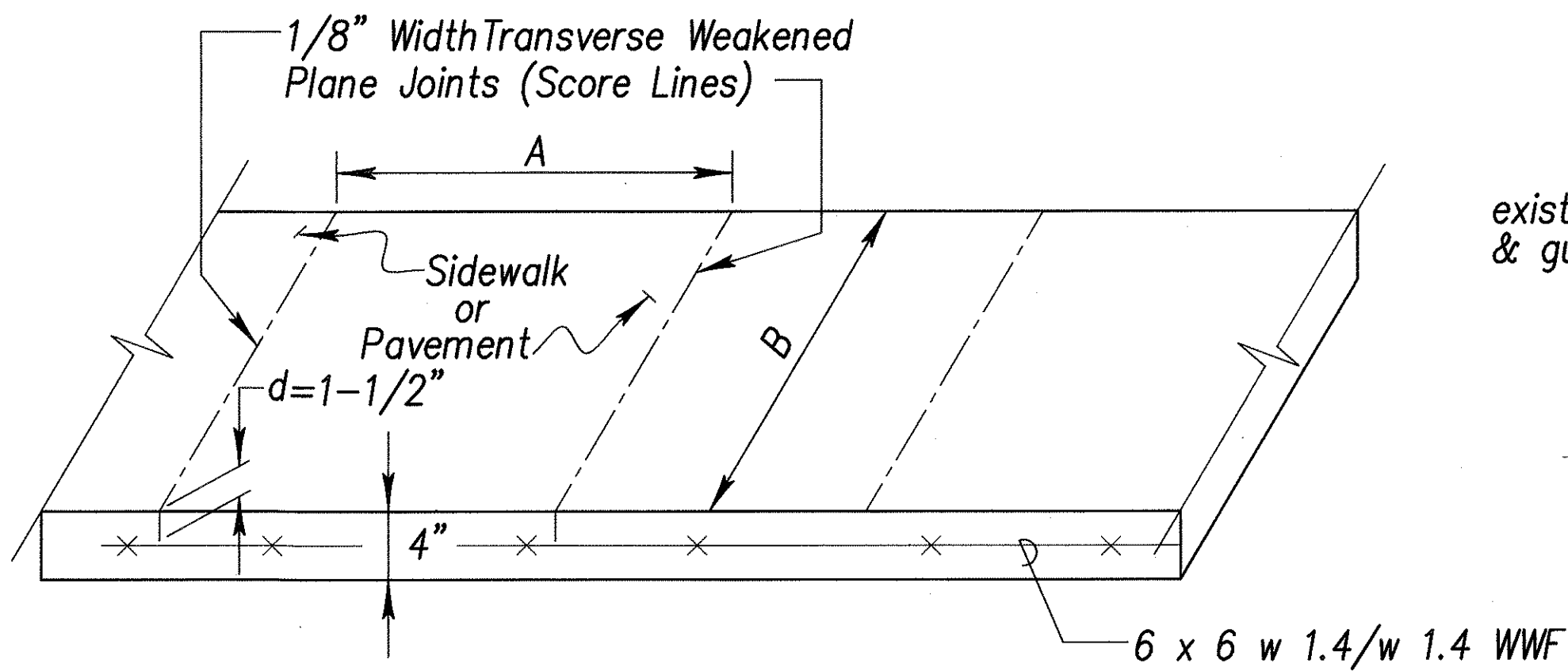
Note: Modified Grade
separately for payment.
Curb will be considered
Contract items.

Diagram illustrating the cross-section of a curb and gutter. The curb height is 1". The top width of the curb varies from 7" to 13". The bottom width of the curb varies from 6" to 12". The curb is rounded with a radius $R = 1" R = \frac{1}{4}"$. The curb grade is indicated by an arrow. The gutter is shown as a sloped line with a break symbol at the bottom left.

- * See Curb Ramp and Sidewalk Note No. 9
- * * The slope of the ramp shall take precedence over the length of the ramp. If the maximum slope of a ramp cannot be met within a length of 12 feet, then the slope of the ramp shall be set when the length of the ramp is set at the maximum of 12 feet.
- * * * If roadway slope >2% conform to roadway slope and file Technical Infeasibility (TI) Statement.

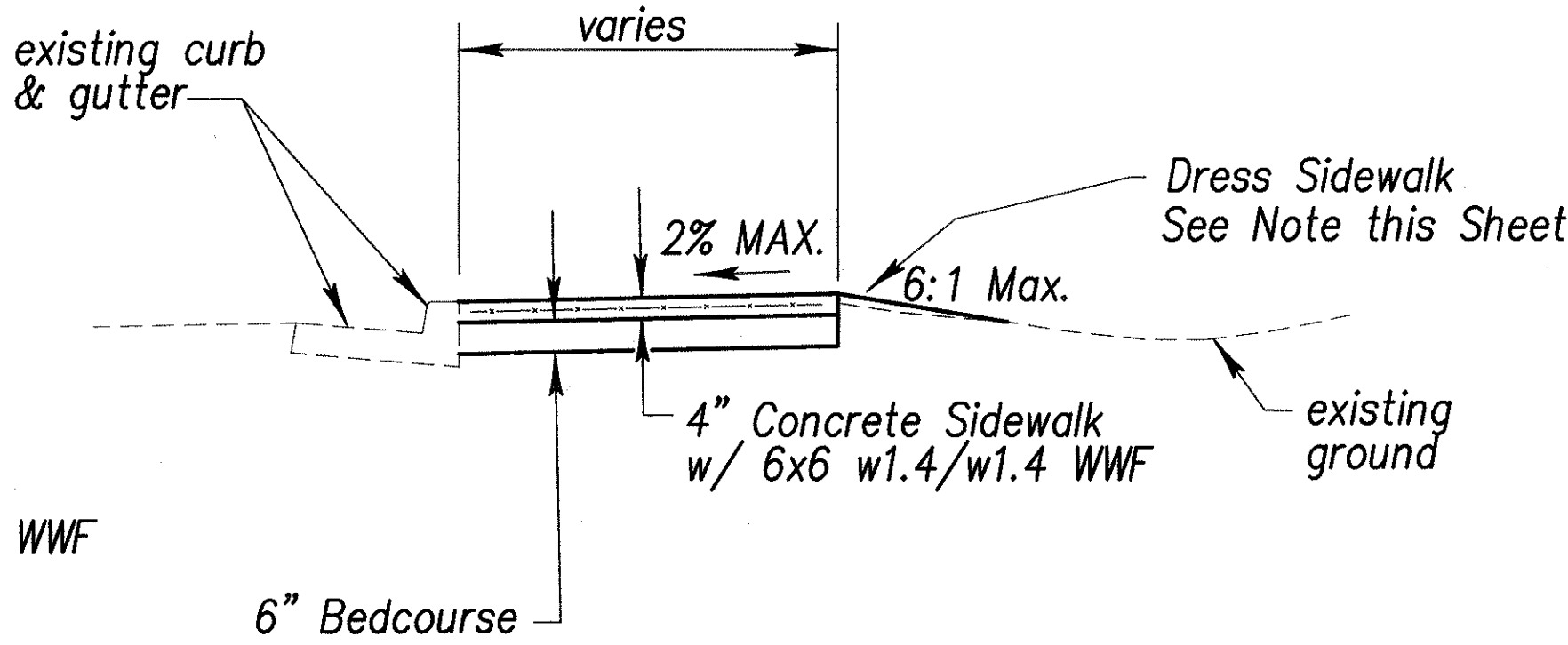
 <i>Daniel S. Miyasato</i> THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION 04/30/06 EXPIRATION DATE OF THE LICENSE	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <u>CURB RAMP DETAILS-5</u> <u>PEDESTRIAN FACILITIES & ADA</u> <u>COMPLIANCE AT VARIOUS</u> <u>LOCATIONS ON OAHU, UNIT 3</u> <u>Federal - Aid Project No. CMAQ-0300(94)</u> Scale: As Shown Date: August 2004 SHEET NO. CB-6 OF 10 SHEETS
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FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(94)	2004	23	79

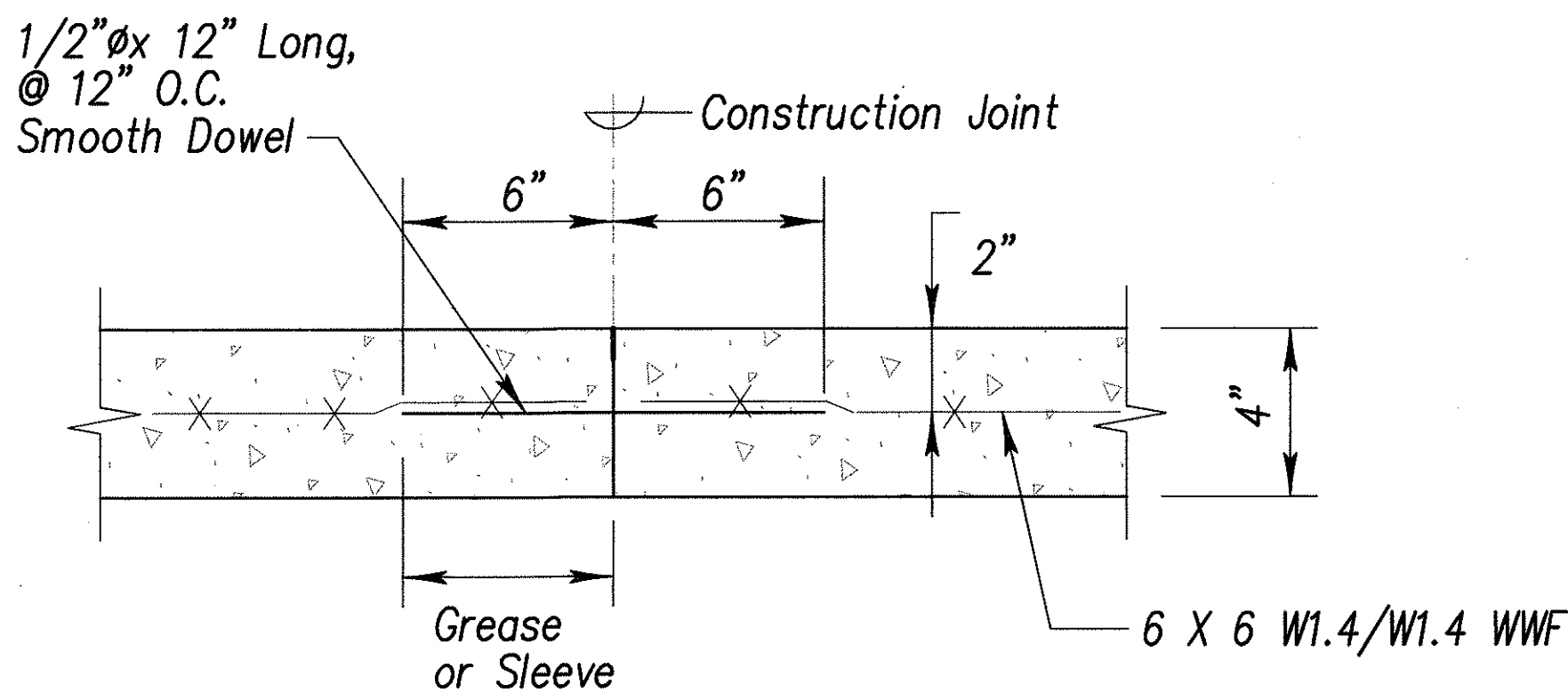


Note: A = 6' if B ≤ 8'
If B > 8', Add Longitudinal Joint

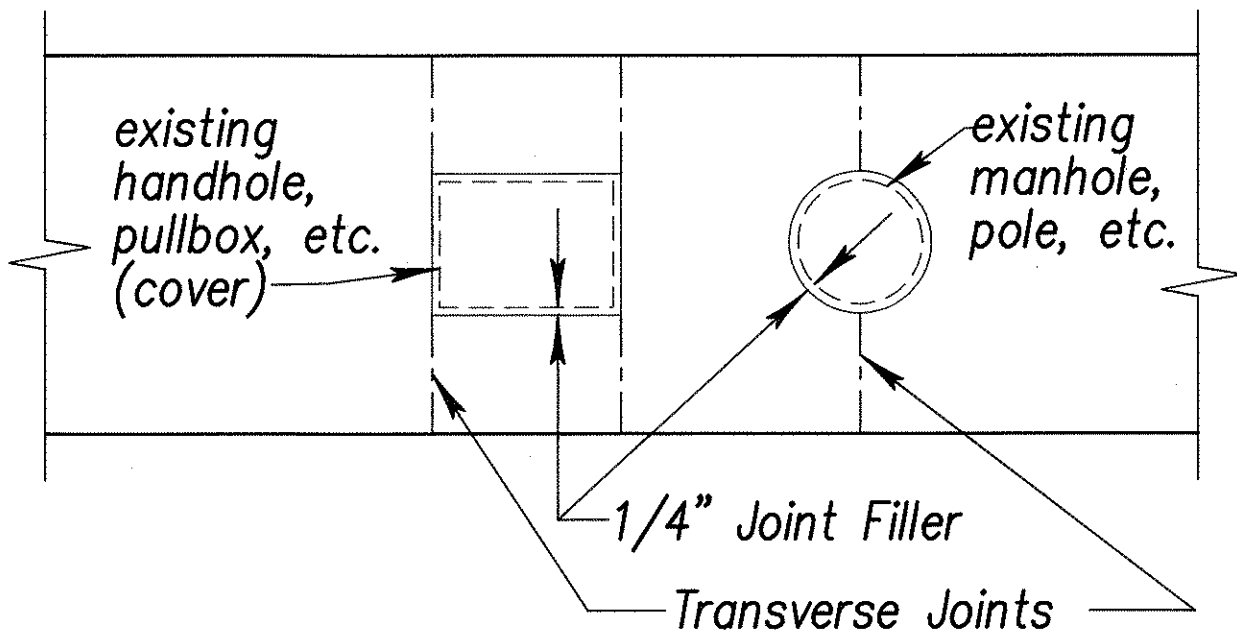
SIDEWALK SCORE LINE DETAIL
Not to scale



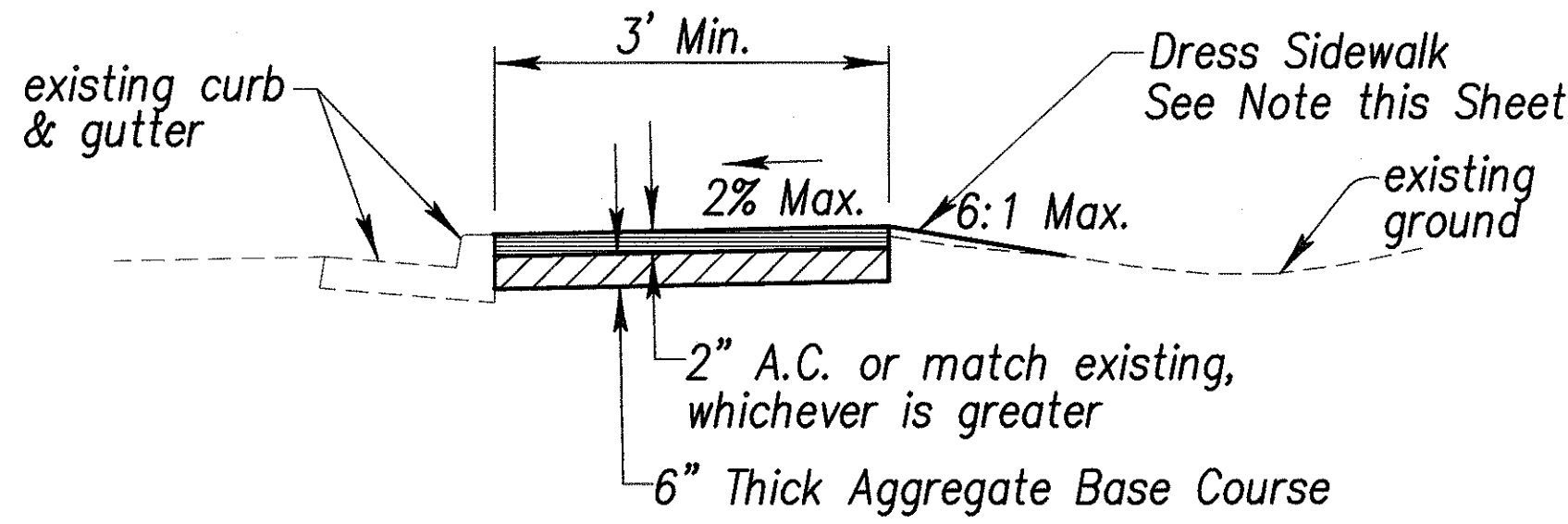
SIDEWALK DETAIL
Not to scale



TRANSVERSE CONSTRUCTION JOINT DETAIL
Not to scale

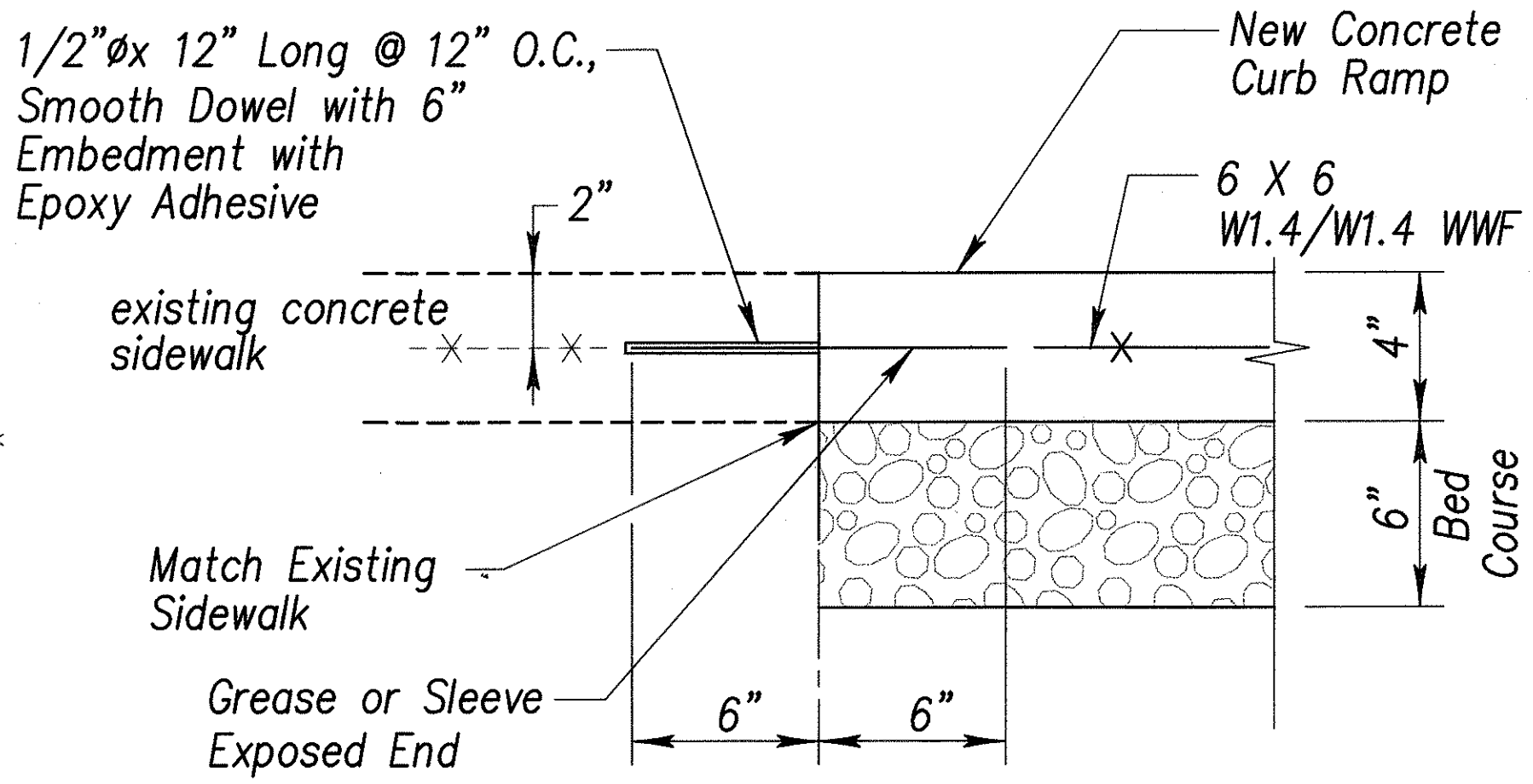


SIDEWALK ISOLATION JOINT DETAIL
Not to scale

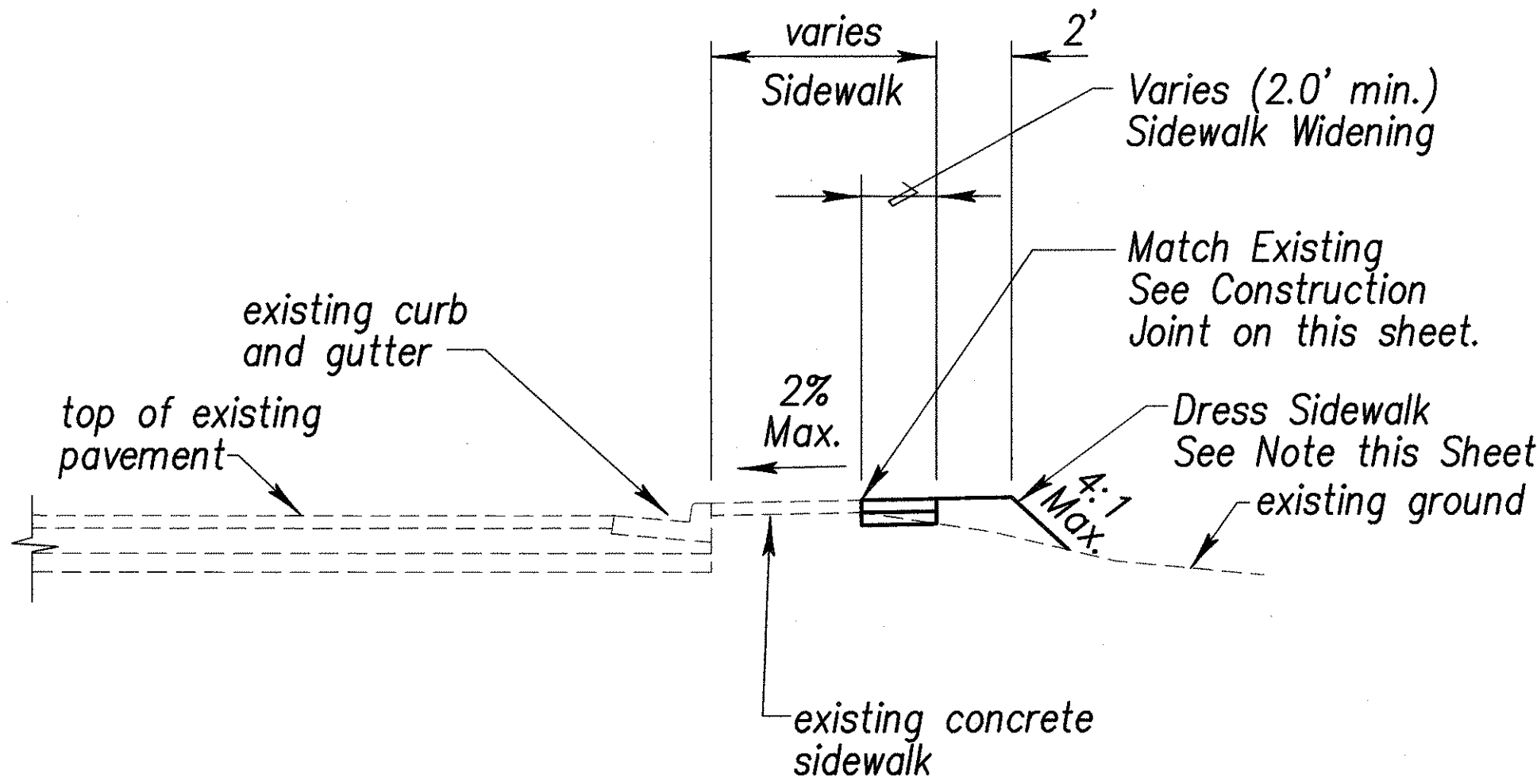


A.C. SIDEWALK DETAIL
Not to scale

- NOTES:**
1. Dressing of sidewalk shall consist of clearing, grubbing, grading, reshaping and compacting the area adjacent to the improvement with suitable material as shown on the plans and/or as directed by the Engineer. If existing ground is asphalt or concrete surface, dress sidewalk with A.C. pavement, Mix No. IV. This work shall be considered incidental to the new sidewalk.
 2. Transverse and longitudinal weakened Plane Joints for sidewalk shall be considered incidental to the New Sidewalk.
 3. Installation of dowels and tie bars including drilling, and epoxy grout shall be incidental to Sidewalk.



TYPICAL CONSTRUCTION JOINT AT EXISTING SIDEWALK
Not to scale



SIDEWALK WIDENING SECTION
Not to scale

DATE	6/1/04
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
DESIGNED BY	
CHECKED BY	
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

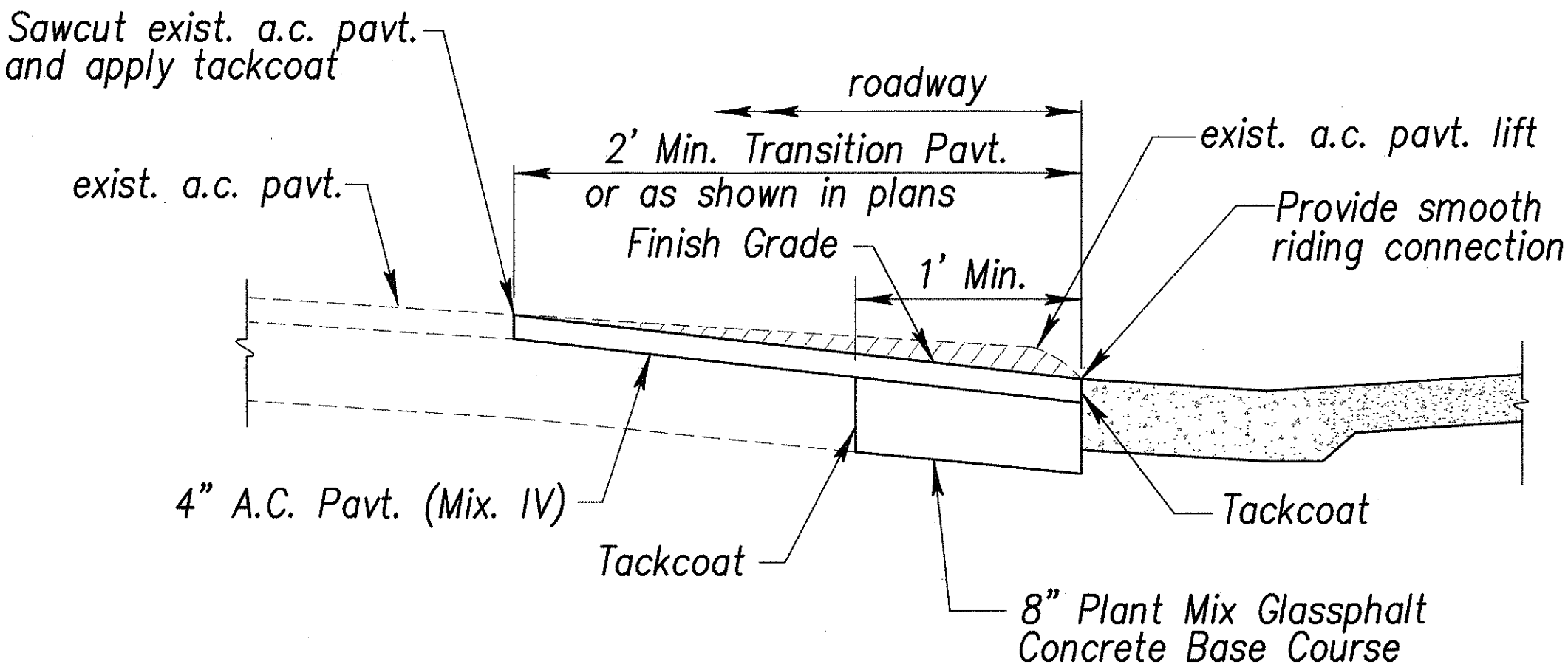
SIDEWALK DETAILS

PEDESTRIAN FACILITIES & ADA
COMPLIANCE AT VARIOUS
LOCATIONS ON OAHU, UNIT 3

Federal - Aid Project No. CMAQ-0300(94)
Scale: As Shown Date: August 2004

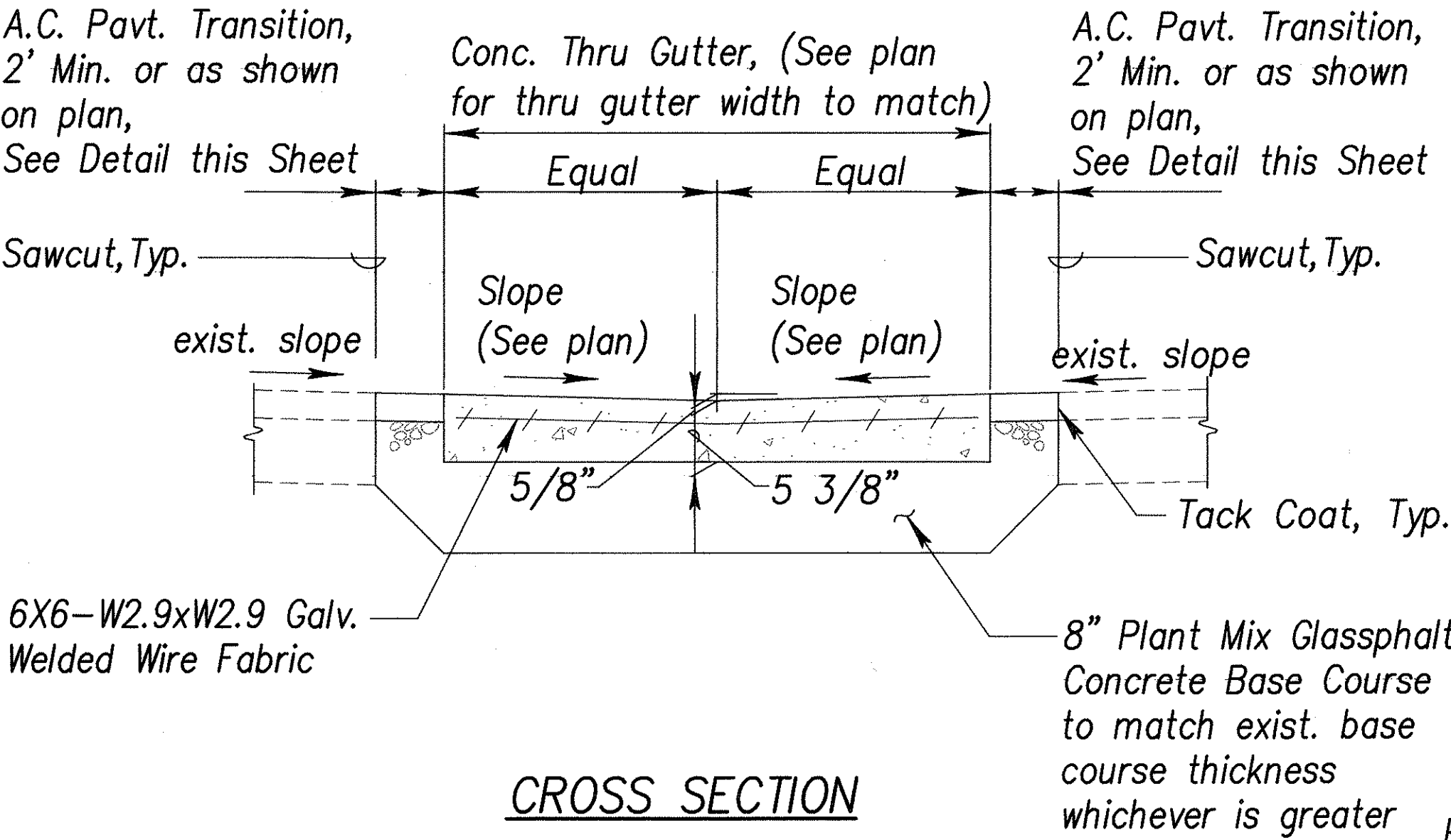
SHEET No. CB-7 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(94)	2004	24	79

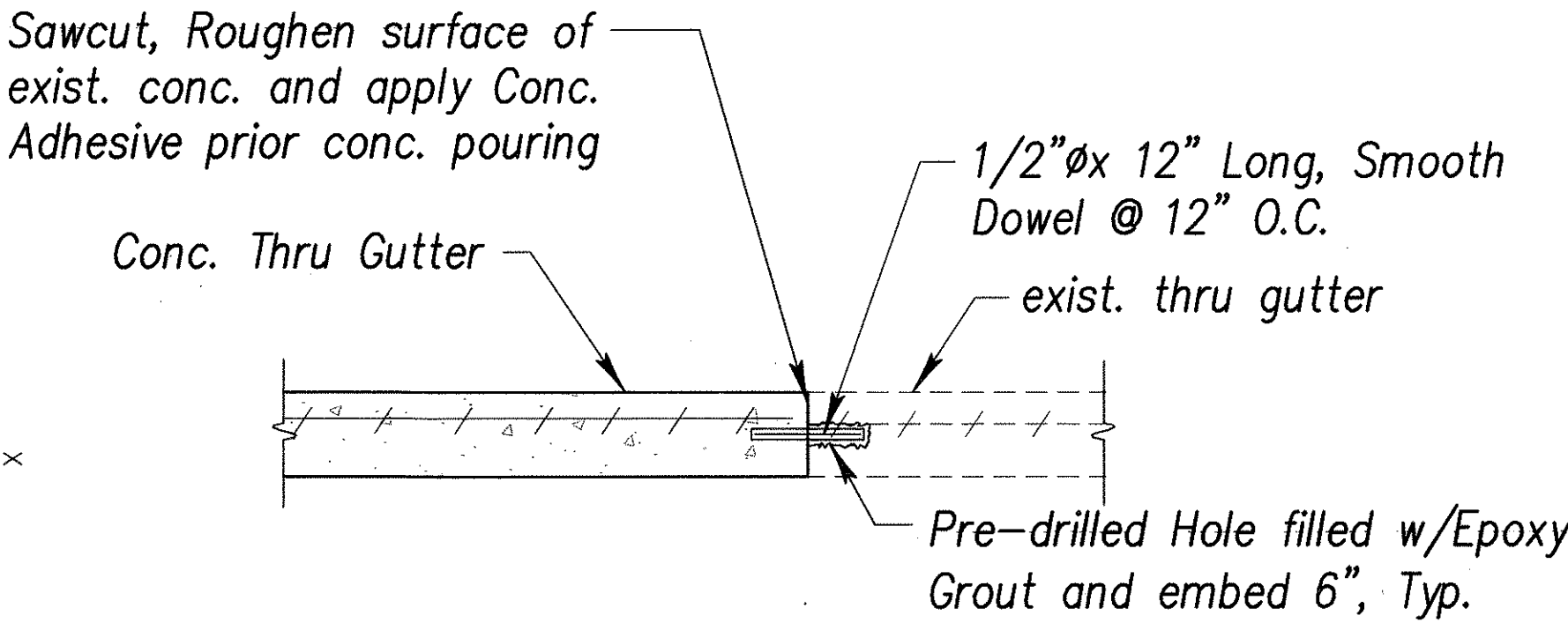


Note: Restore all striping to match existing, unless otherwise noted.

PAVEMENT TRANSITION DETAIL
Not to scale

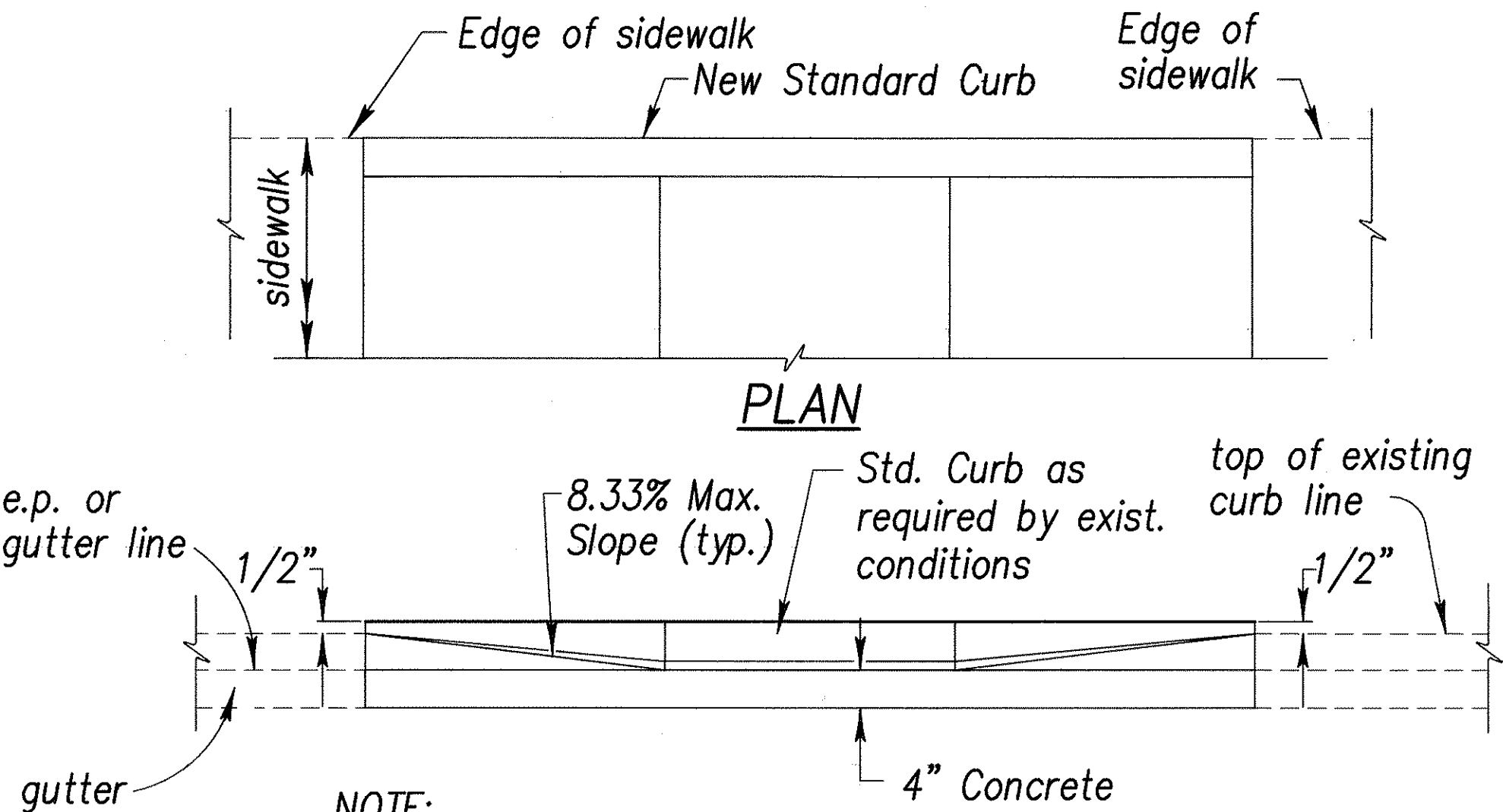


CROSS SECTION



LONGITUDINAL SECTION

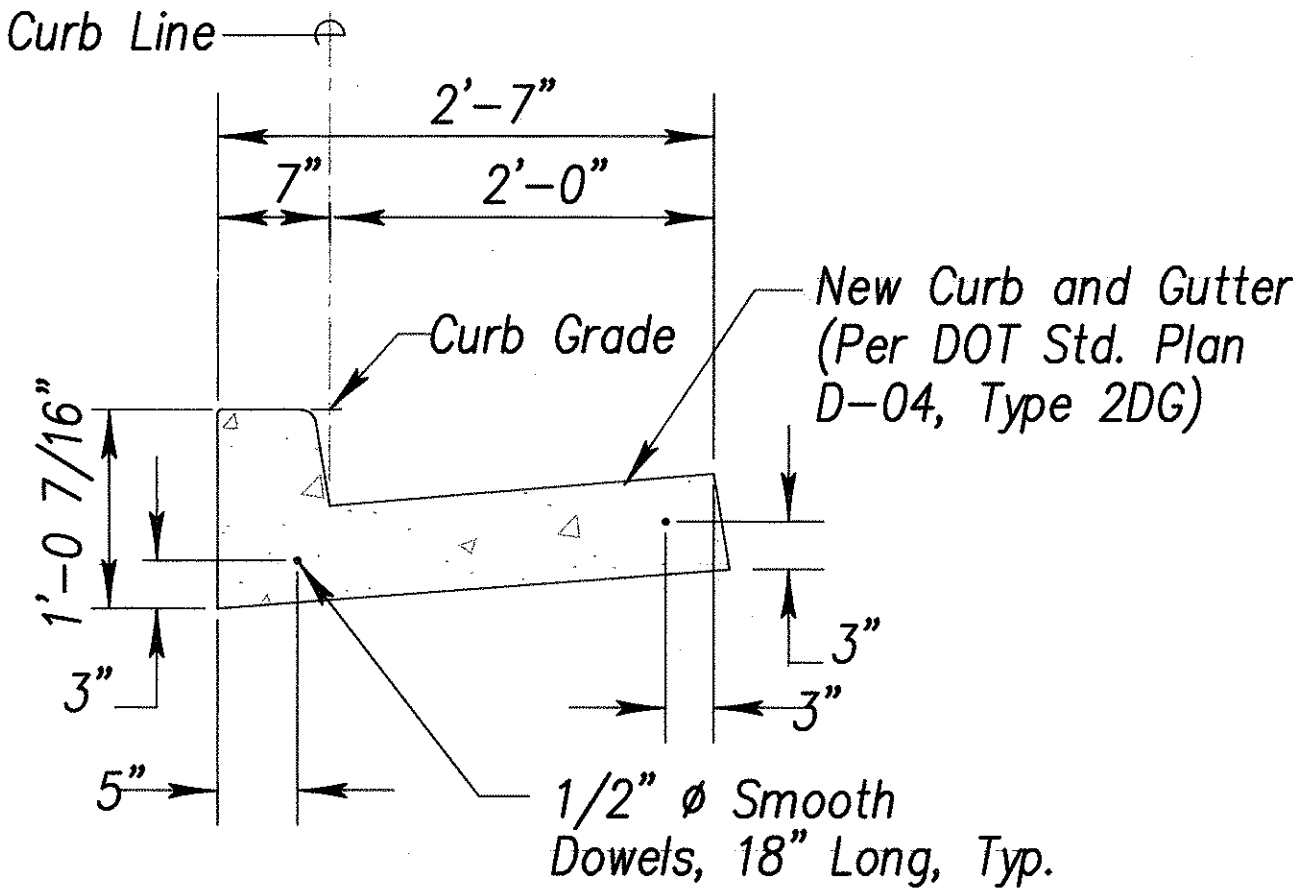
CONCRETE THRU GUTTER CONNECTION DETAIL
Not to scale



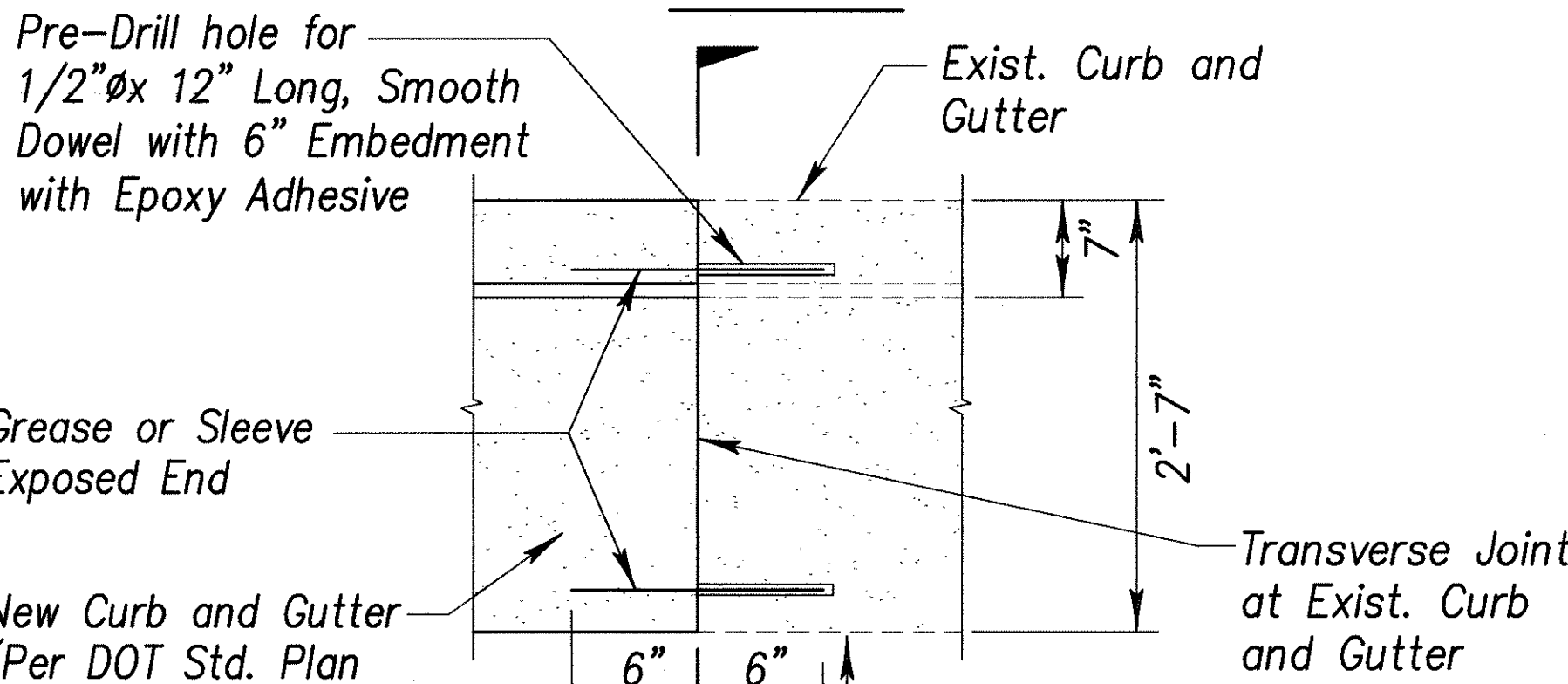
NOTE:
This detail can be used in situations where the edge of sidewalk cannot be flush with the face of (back) curb due to right of way restrictions.

NOTE:
All curb ramps shall be reinforced.

ELEVATION DETAIL - BACK CURB
Not to scale



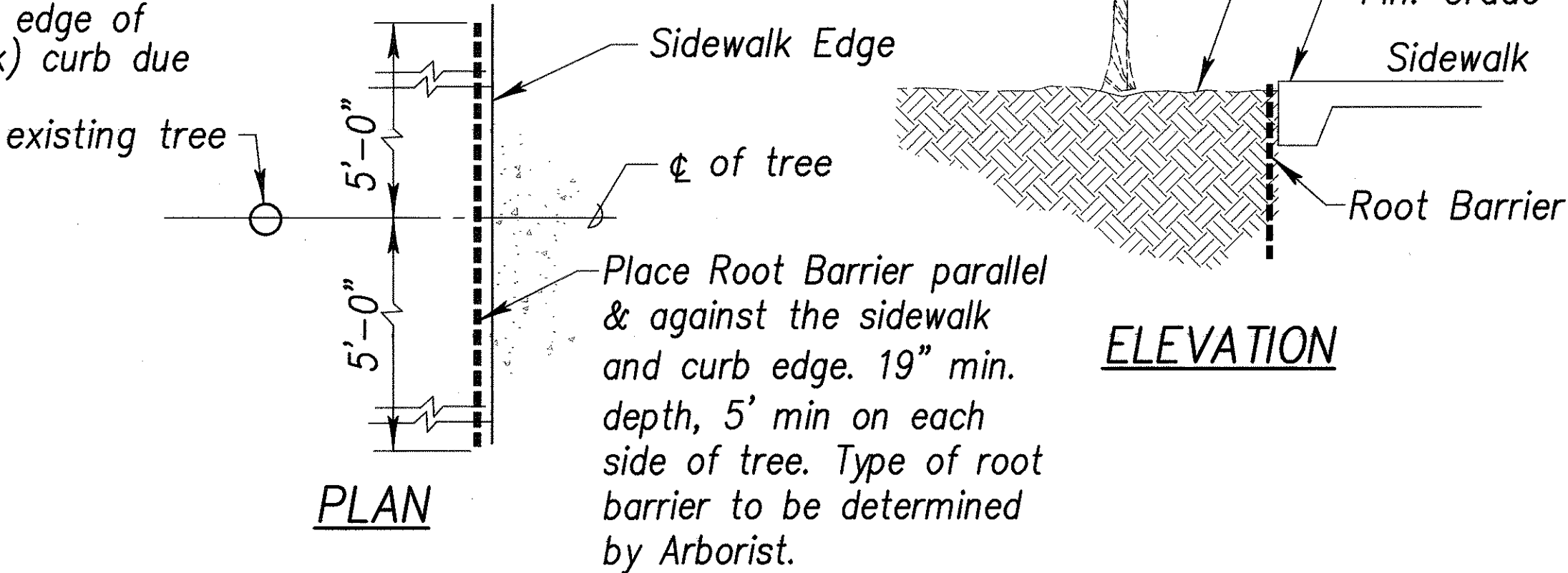
SECTION



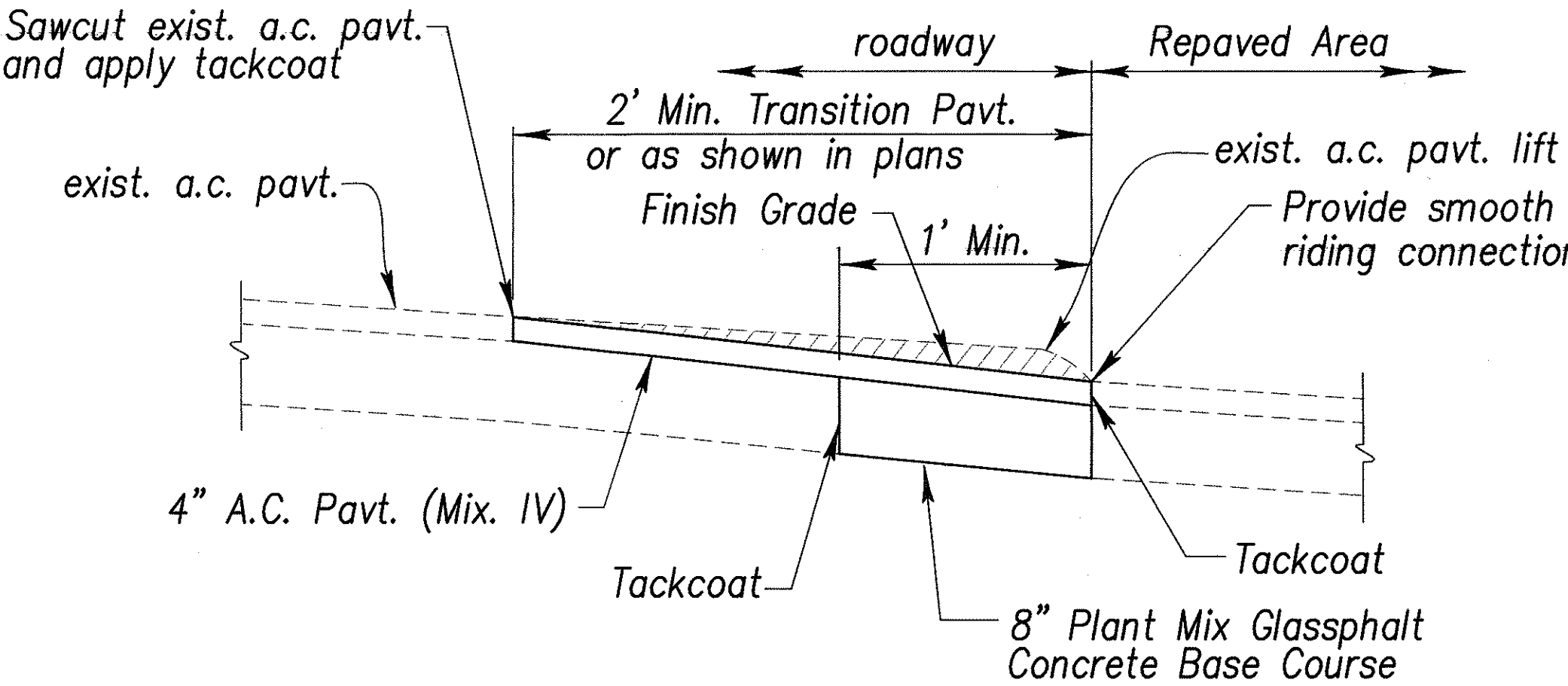
PLAN

CURB AND GUTTER CONNECTION
Not to scale

Note:
Payment for Root Barrier shall be considered incidental to Concrete Sidewalk work.



ROOT BARRIER DETAIL
Not to scale



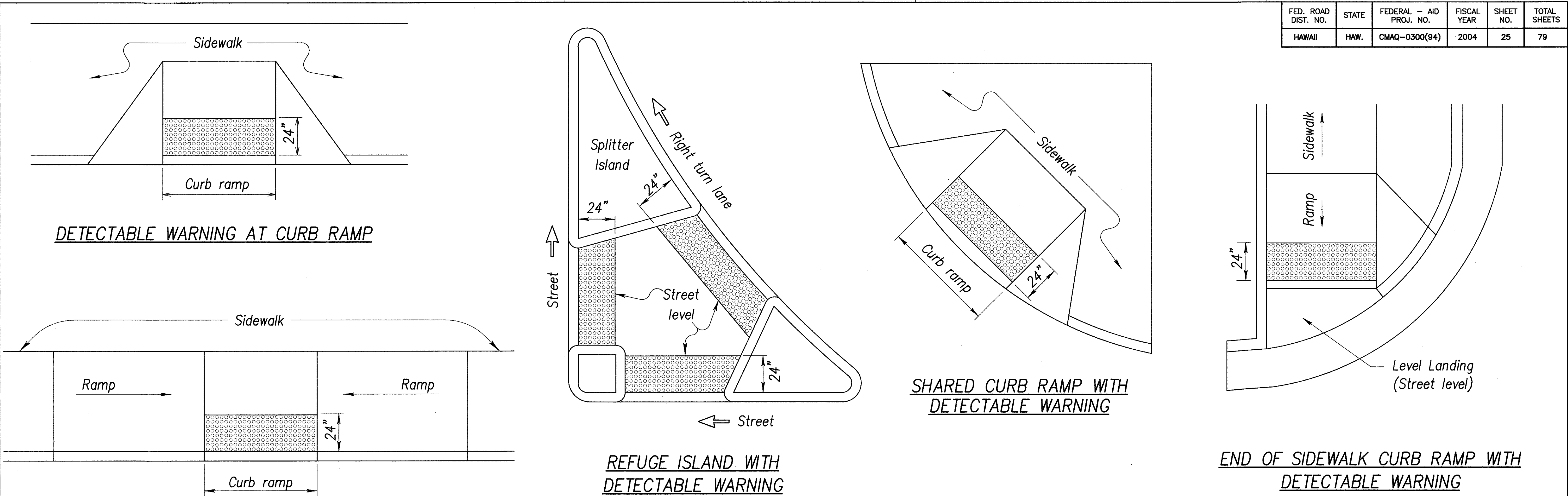
PAVEMENT RESTORATION DETAIL
Not to scale

DATE	6/1/04
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DESIGNED BY	
CHECKED BY	
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No.	

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
MISCELLANEOUS DETAILS
 PEDESTRIAN FACILITIES & ADA
 COMPLIANCE AT VARIOUS
 LOCATIONS ON OAHU, UNIT 3
 Federal - Aid Project No. CMAQ-0300(94)
 Scale: As Shown Date: August 2004
 SHEET No. CB-8 OF 10 SHEETS

EXPIRATION DATE OF THE LICENSE
 04/30/06

FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(94)	2004	25	79

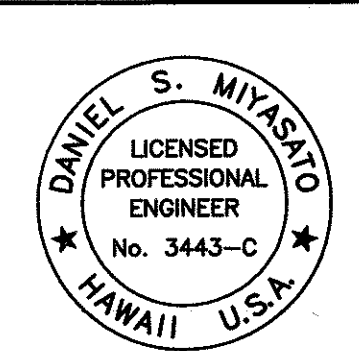
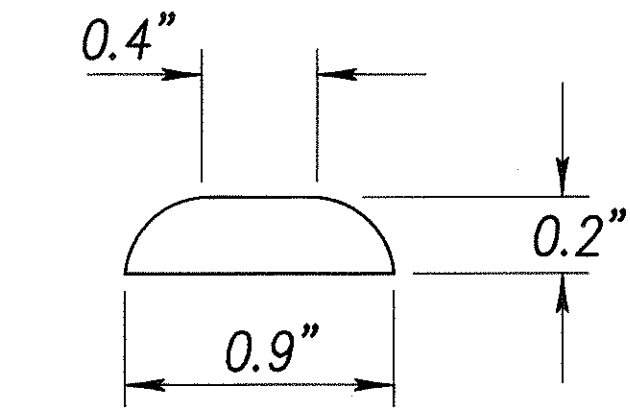
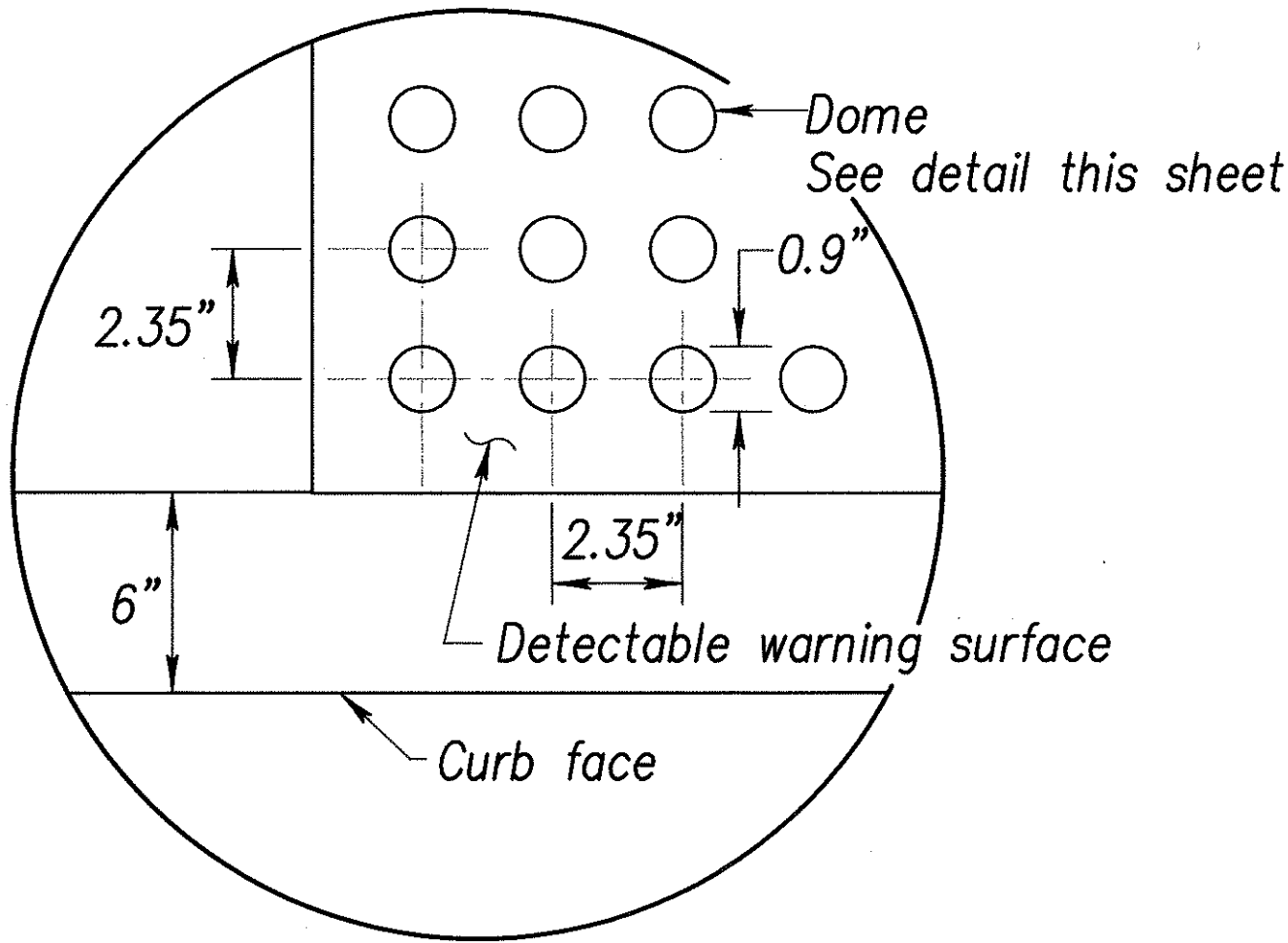


TYPICAL INSTALLATION OF DETECTABLE WARNINGS

Not to Scale

NOTES:

1. Detectable warnings shall be 24 inches in the direction of travel and extend the full width of the curb ramp or flush surface (does not include flares).
2. Truncated domes shall have a diameter of 0.9 inch at the bottom, a diameter of 0.4 inch at the top, a height of 0.2 inch and a center-to-center spacing of 2.35 inches measured along one side of a square arrangement.
3. Domes shall be aligned on a square grid in the predominant direction of travel to permit wheels to roll between the domes.
4. The detectable warning shall be "safety yellow".
5. The material used to provide visual contrast shall be an integral part of the detectable warning surface.
6. The detectable warning shall be located so that the edge nearest the curb line or other potential hazard is 6 to 8 inches from the curb line.



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04/30/06
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETECTABLE WARNING DETAILS

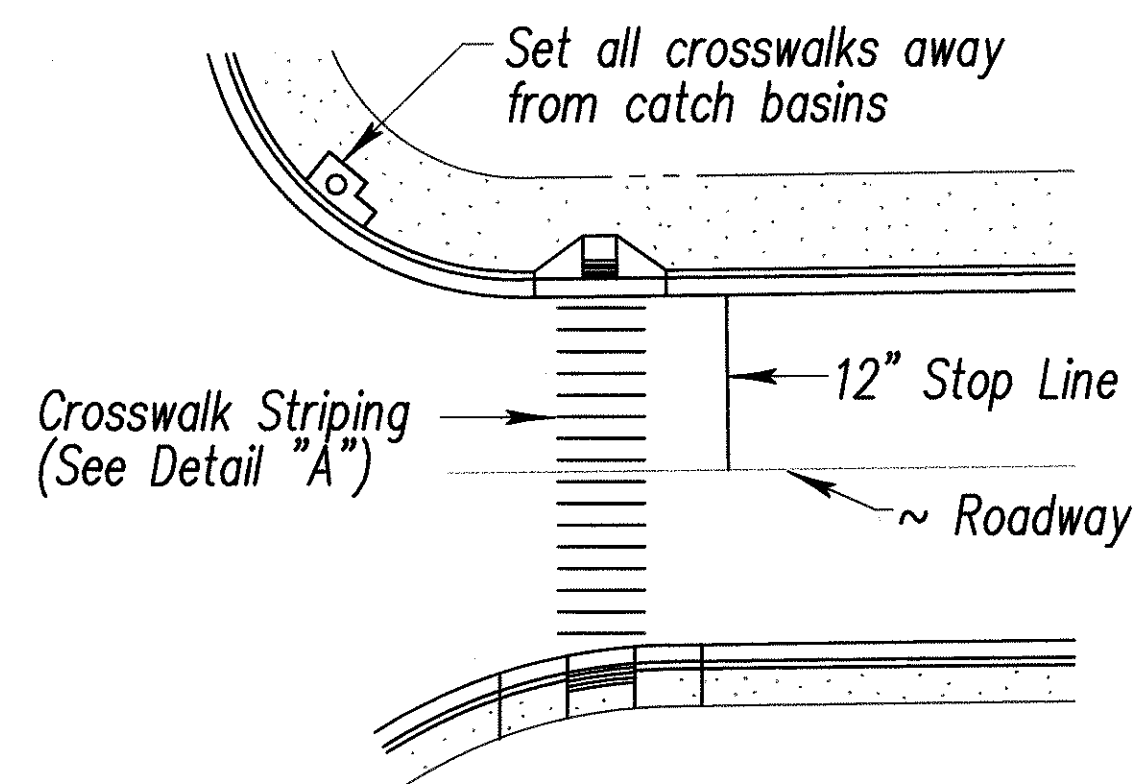
PEDESTRIAN FACILITIES & ADA
COMPLIANCE AT VARIOUS
LOCATIONS ON OAHU, UNIT 3

Federal - Aid Project No. CMAQ-0300(94)
Scale: As Shown Date: August 2004

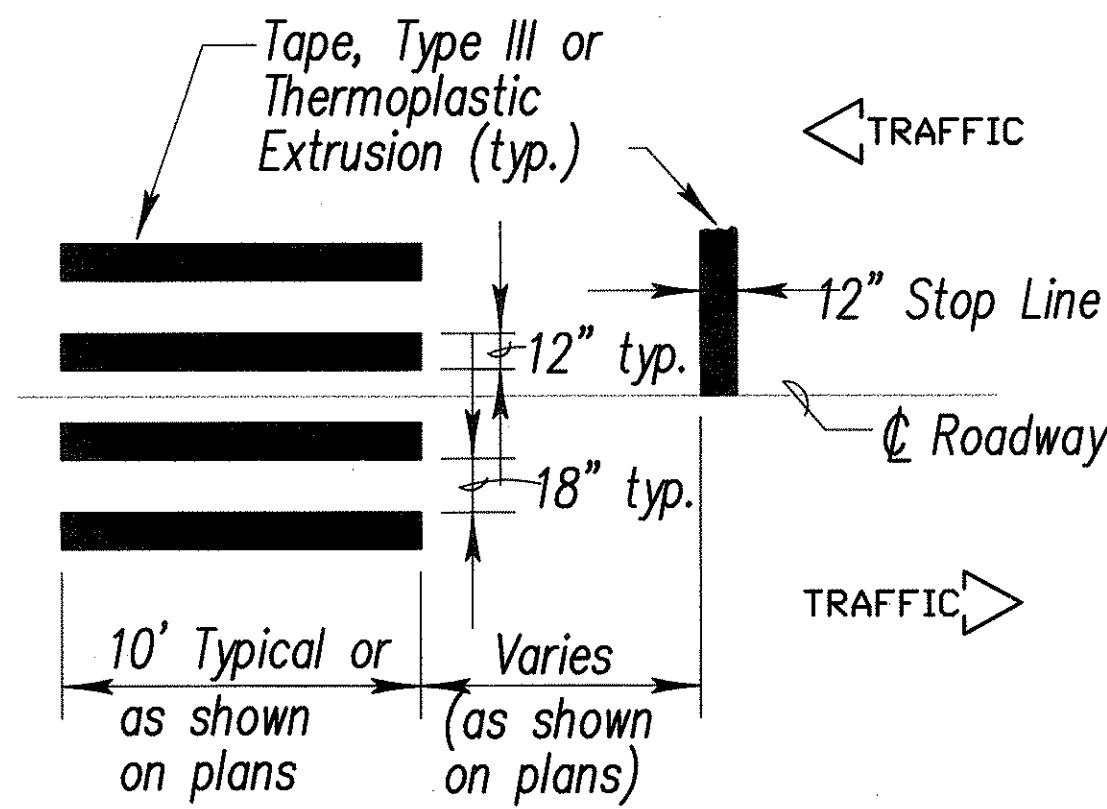
SHEET No. CB-9 OF 10 SHEETS

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

FED. ROAD DIST. NO.	STATE	FEDERAL - AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(94)	2004	26	79



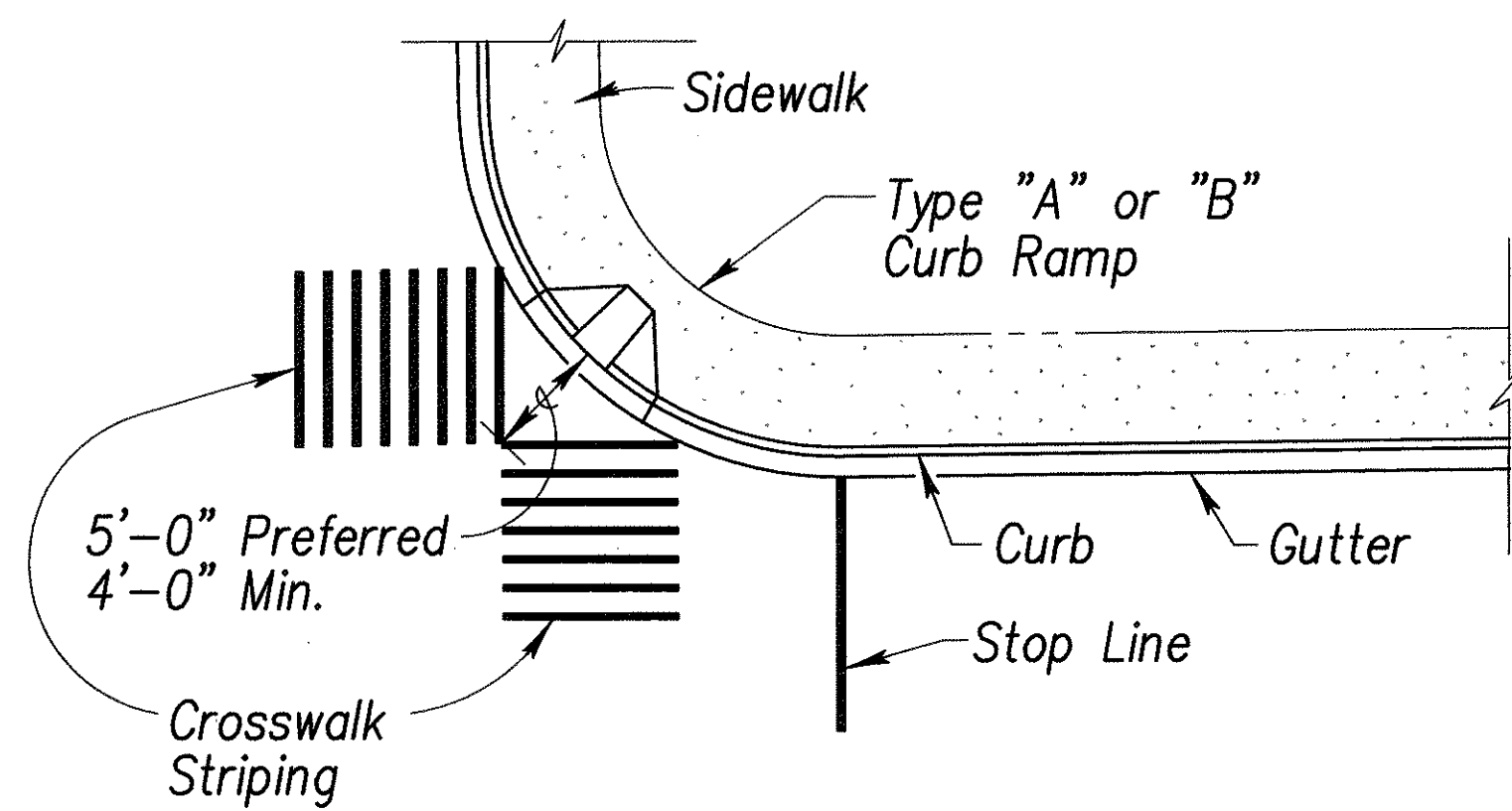
PLAN



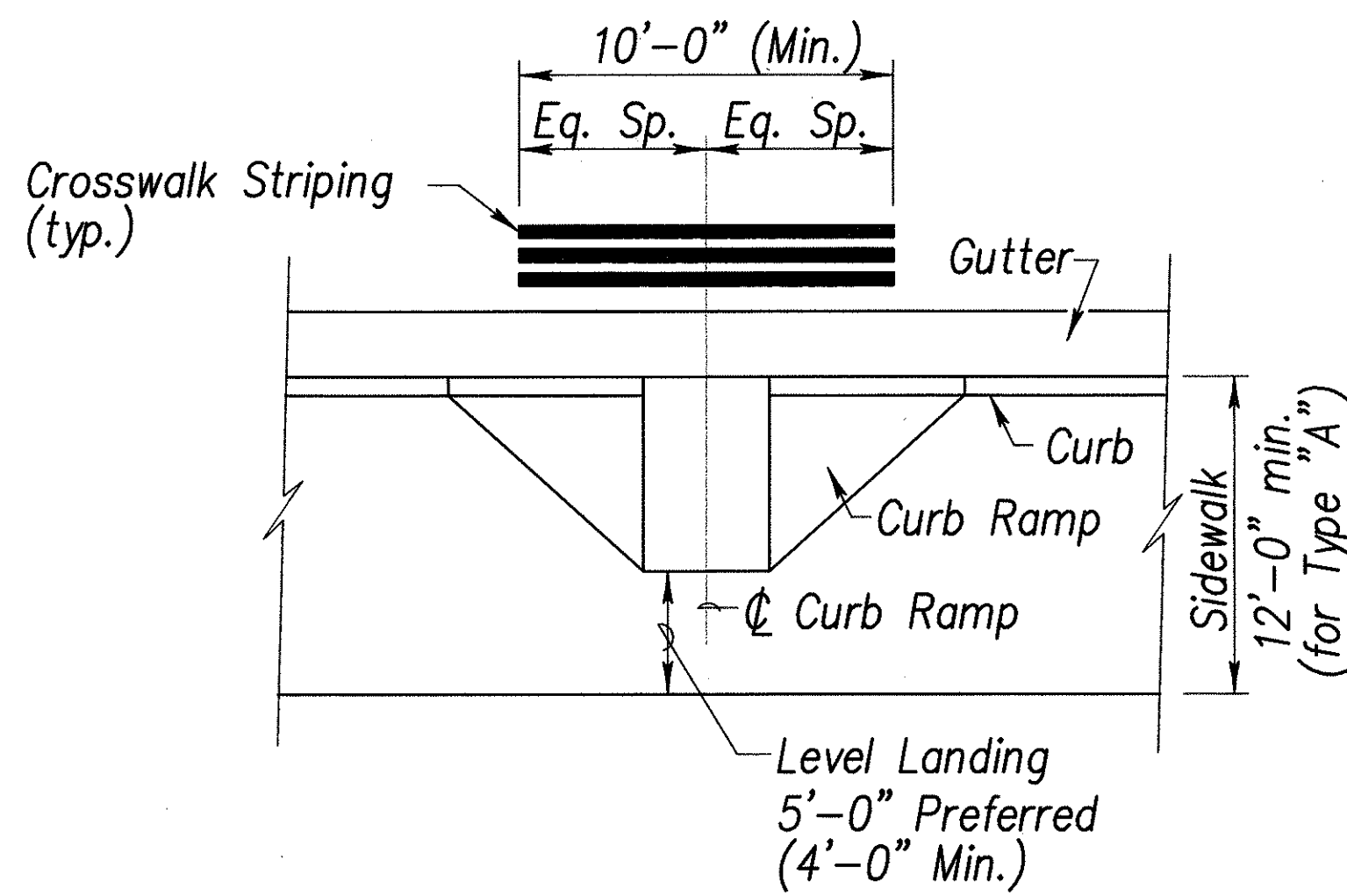
DETAIL "A"

CROSSWALK STRIPING DETAIL

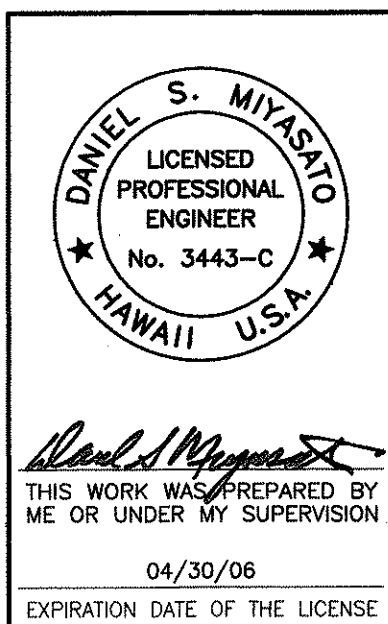
NOTE:
Longitudinal lines shall be
parallel to traffic flow.



TYPICAL CROSSWALK STRIPING
AT DIAGONAL CURB RAMP



TYPICAL CROSSWALK STRIPING
AT CURB RAMP



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRIPING DETAILS

PEDESTRIAN FACILITIES & ADA
COMPLIANCE AT VARIOUS
LOCATIONS ON OAHU, UNIT 3

Federal - Aid Project No. CMAQ-0300(94)
Scale: As Shown Date: August 2004

SHEET No. CB-10 OF 10 SHEETS

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