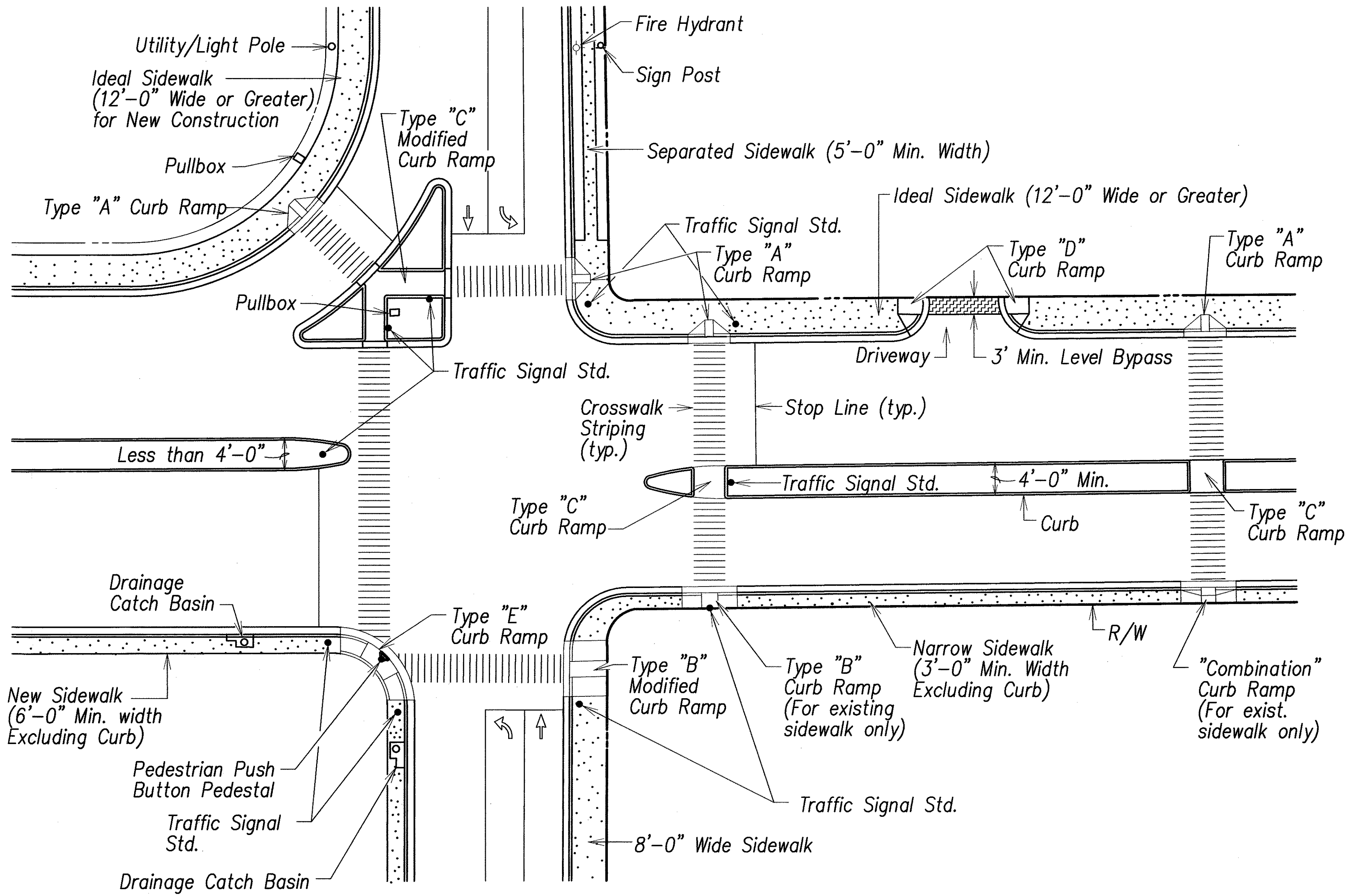


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(92)	2004	18	187



TYPICAL CURB RAMPS

ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
No.	

C:\work\hawaii\hawaii.dwg, 03/22/04, 10:10 AM, msh/03/22/04

EARTHTECH

A Tyco Infrastructure Services Company  
841 Bishop Street, Suite 500  
Honolulu, HI 96813

AROLDAN R. NIYOKU

LICENSED PROFESSIONAL ENGINEER

No. 6198-C

HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

EXPIRATION DATE OF THE LICENSE 4/30/2009

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

TYPICAL CURB RAMP LAYOUT

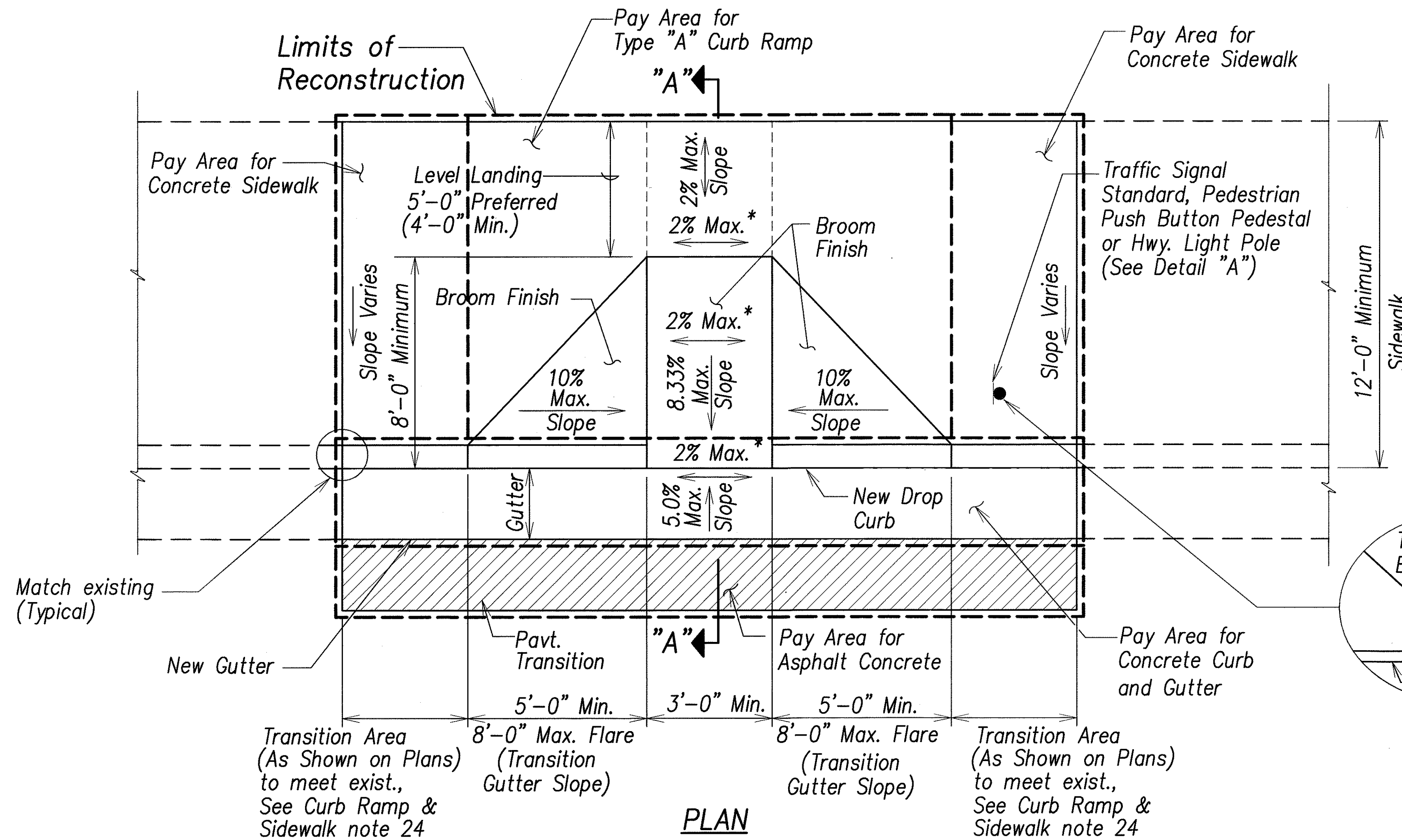
Pedestrian Facilities & ADA Compliance  
at Various Locations on Oahu, Unit 1  
Fed. Aid Proj. No. CMAQ-0300(92)

Scale: As Noted

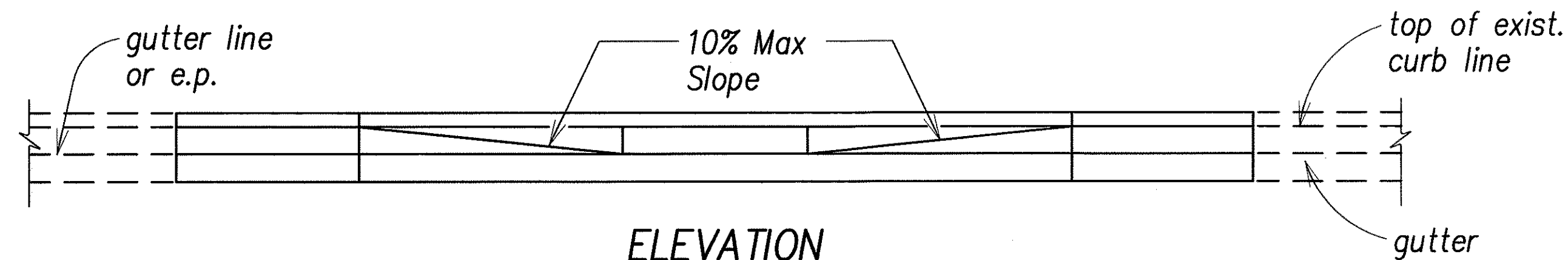
Date: August 2004

SHEET No. C-17 OF 154 SHEETS

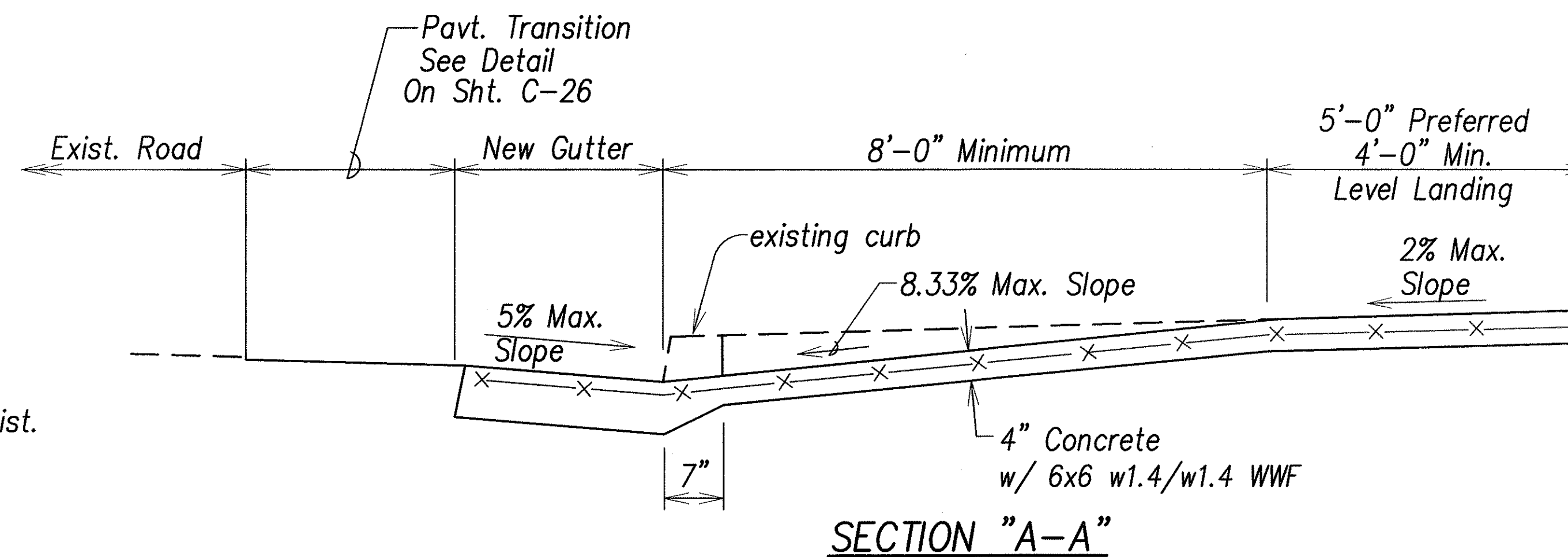
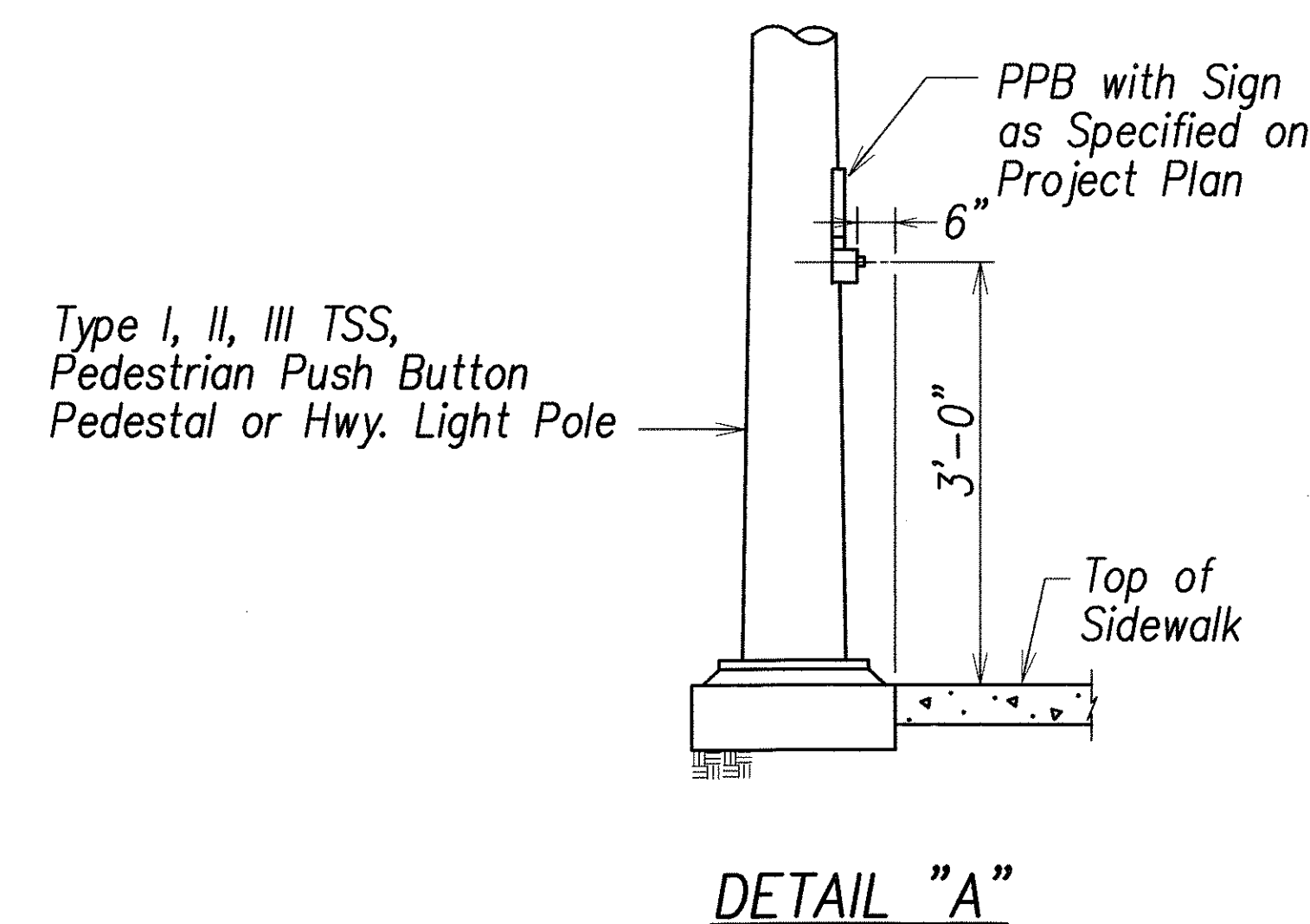
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(92)	2004	19	187



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

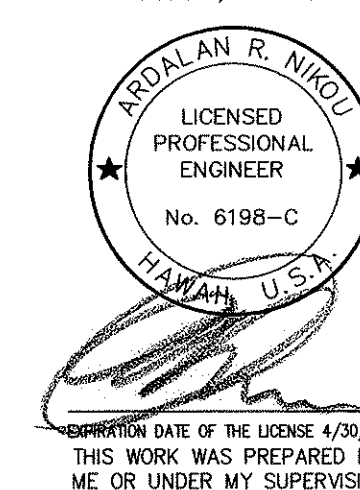


**CURB RAMP – TYPE "A"**  
SIDEWALK WIDTH 12'-0" OR GREATER



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Honolulu, HI 96813



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

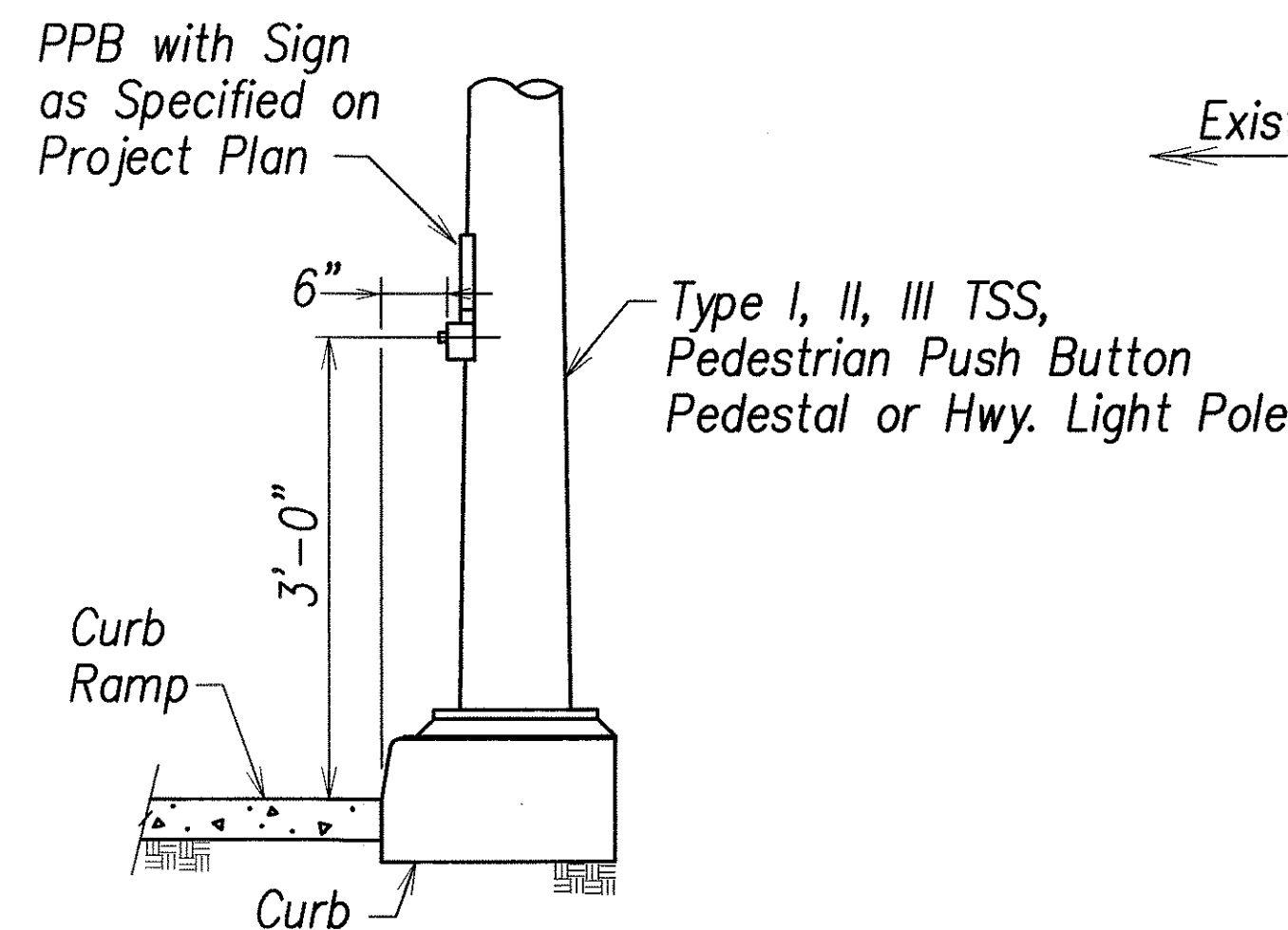
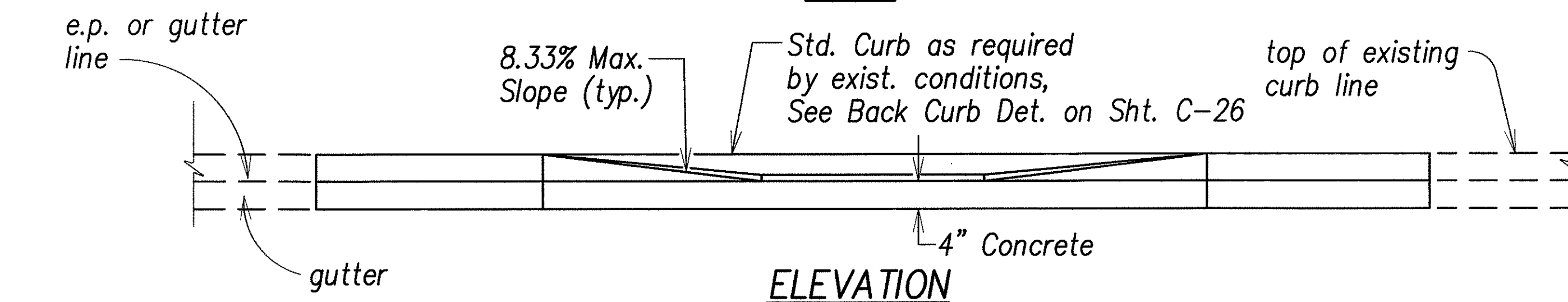
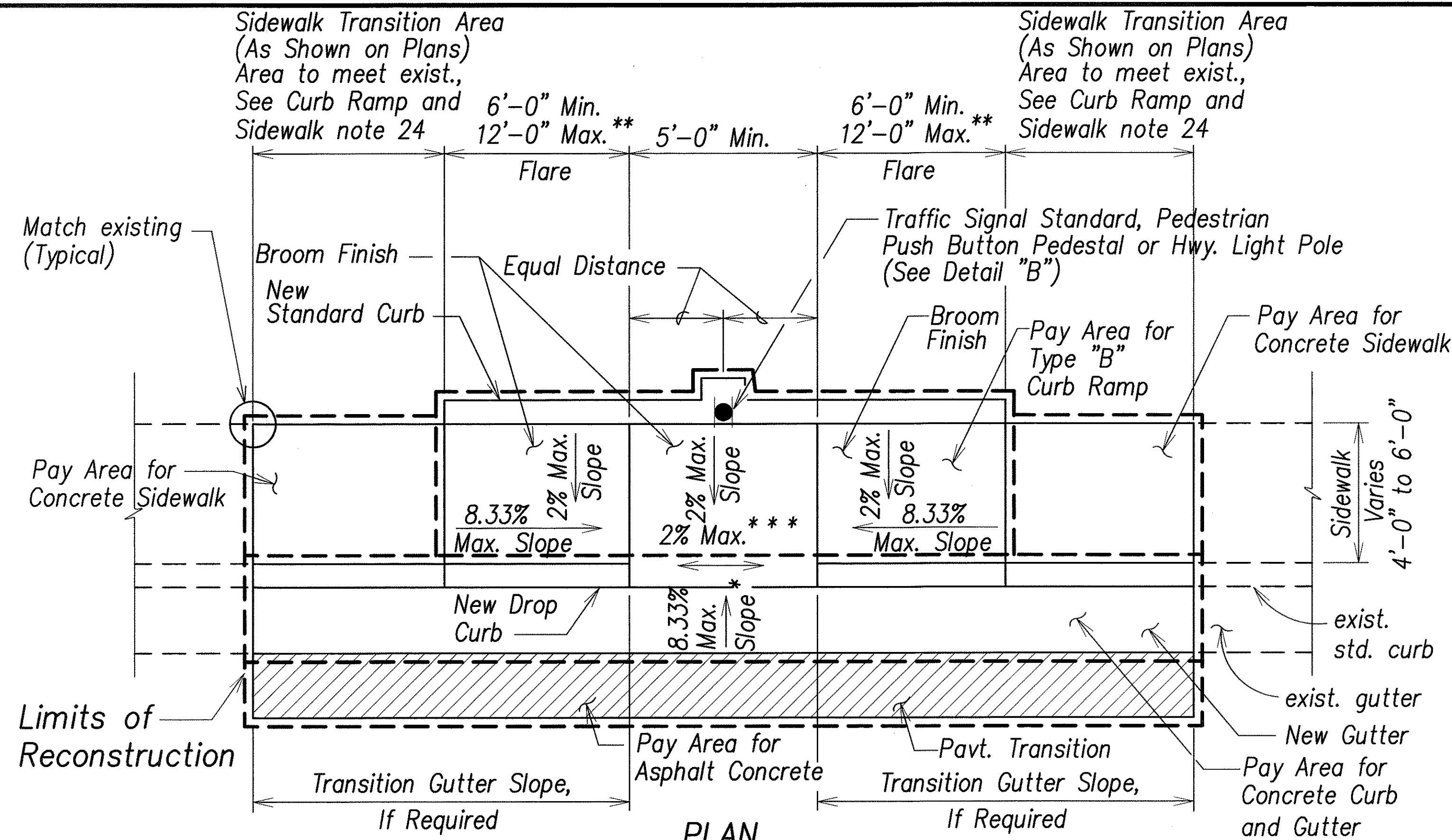
**CURB RAMP DETAILS – 1**

*Pedestrian Facilities & ADA Compliance  
at Various Locations on Oahu, Unit 1  
Fed. Aid Proj. No. CMAQ-0300(92)*

Scale: As Noted Date: August 2004

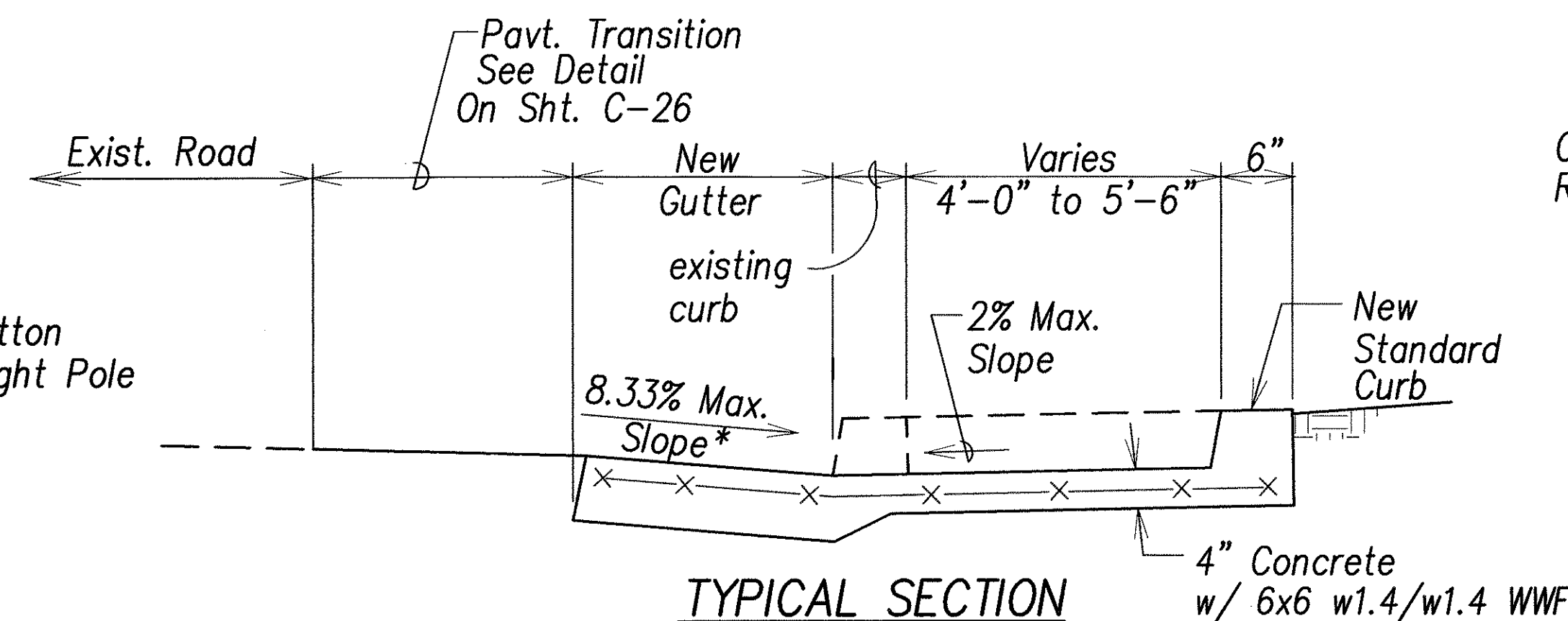
SHEET No. C-18 OF 154 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(92)	2004	20	187



DETAIL "B"

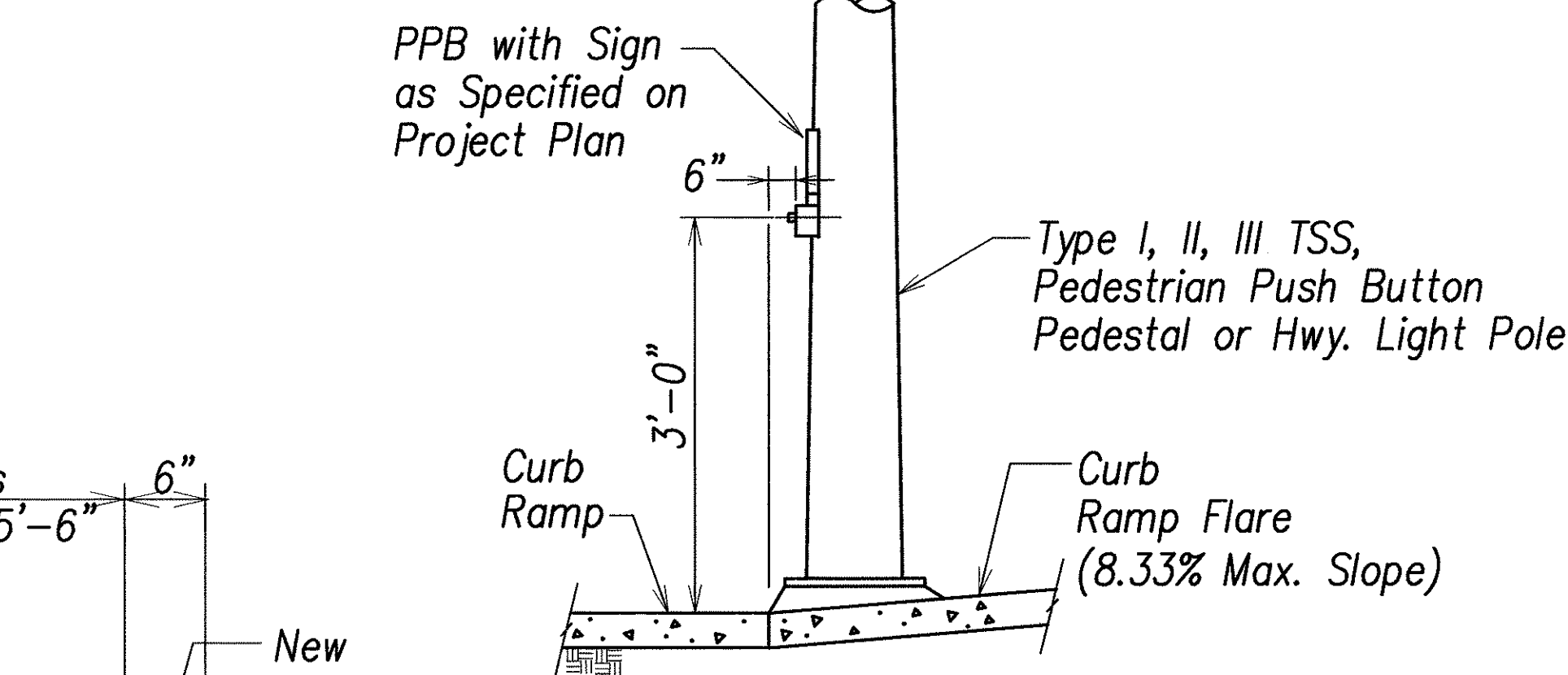
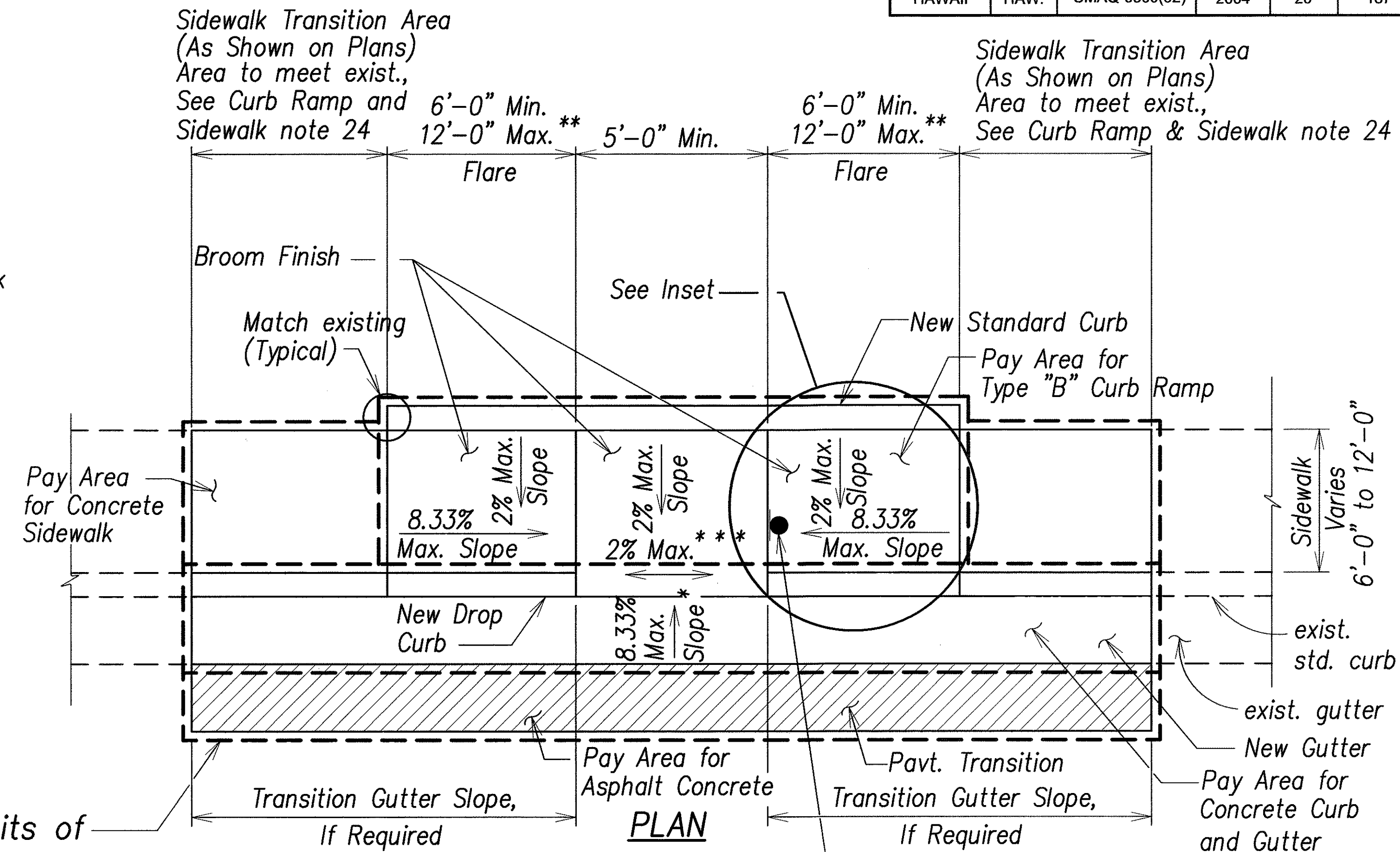
**CURB RAMP - TYPE "B"**  
SIDEWALK WIDTH 4'-0" OR GREATER  
BUT LESS THAN 6'-0" WIDTH



TYPICAL SECTION

- \* 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 a Technical Infeasibility (TI) Statement

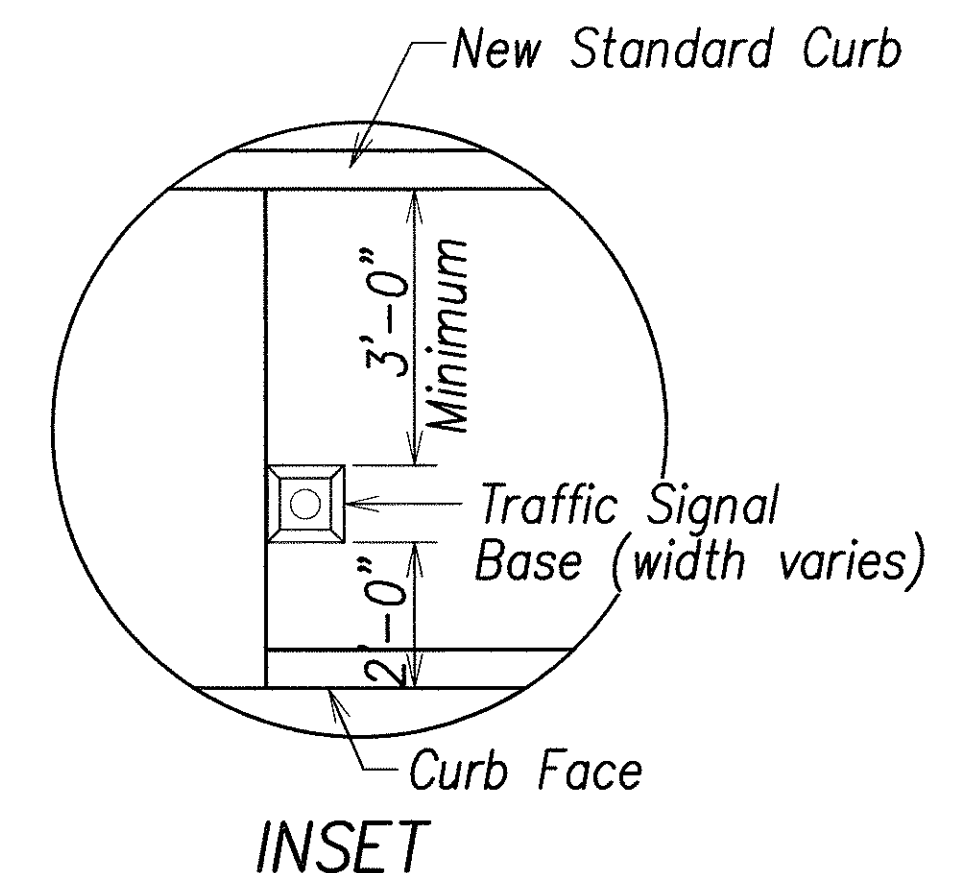
Limits of Reconstruction



DETAIL "C"

**CURB RAMP - TYPE "B" MODIFIED**

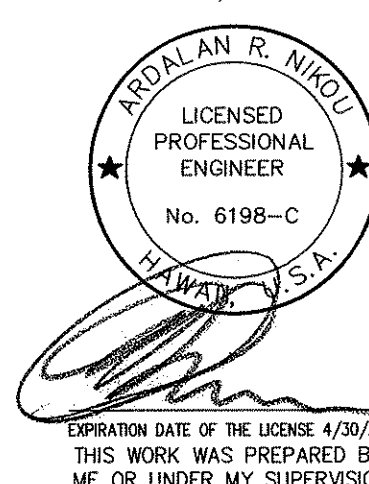
SIDEWALK WIDTH 6'-0" OR GREATER  
BUT LESS THAN 12'-0" WIDTH



INSET

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Honolulu, HI 96813



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**CURB RAMP DETAILS - 2**

*Pedestrian Facilities & ADA Compliance  
at Various Locations on Oahu, Unit 1  
Fed. Aid Proj. No. CMAQ-0300(92)*

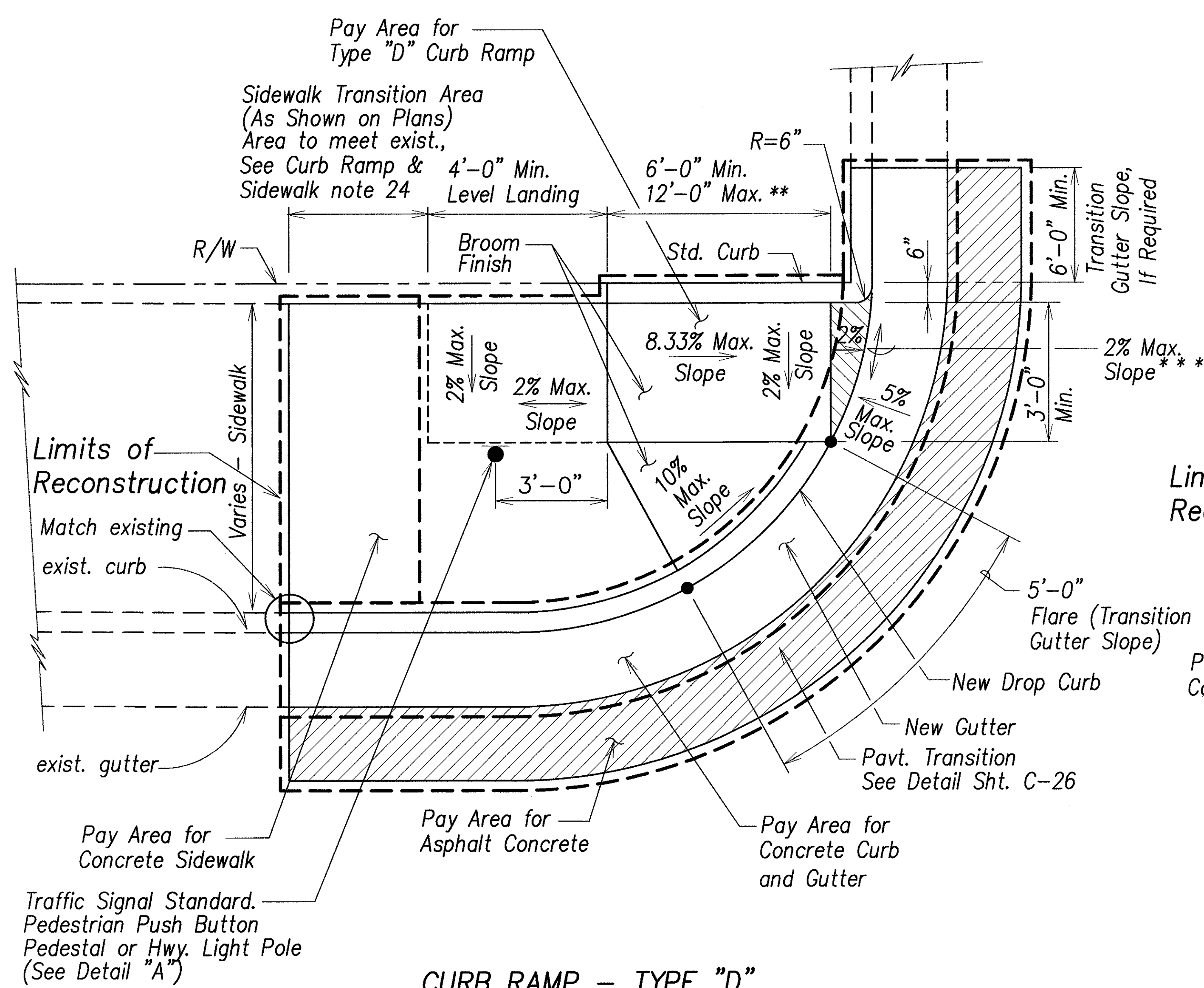
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SHEET No. C-19 OF 154 SHEETS

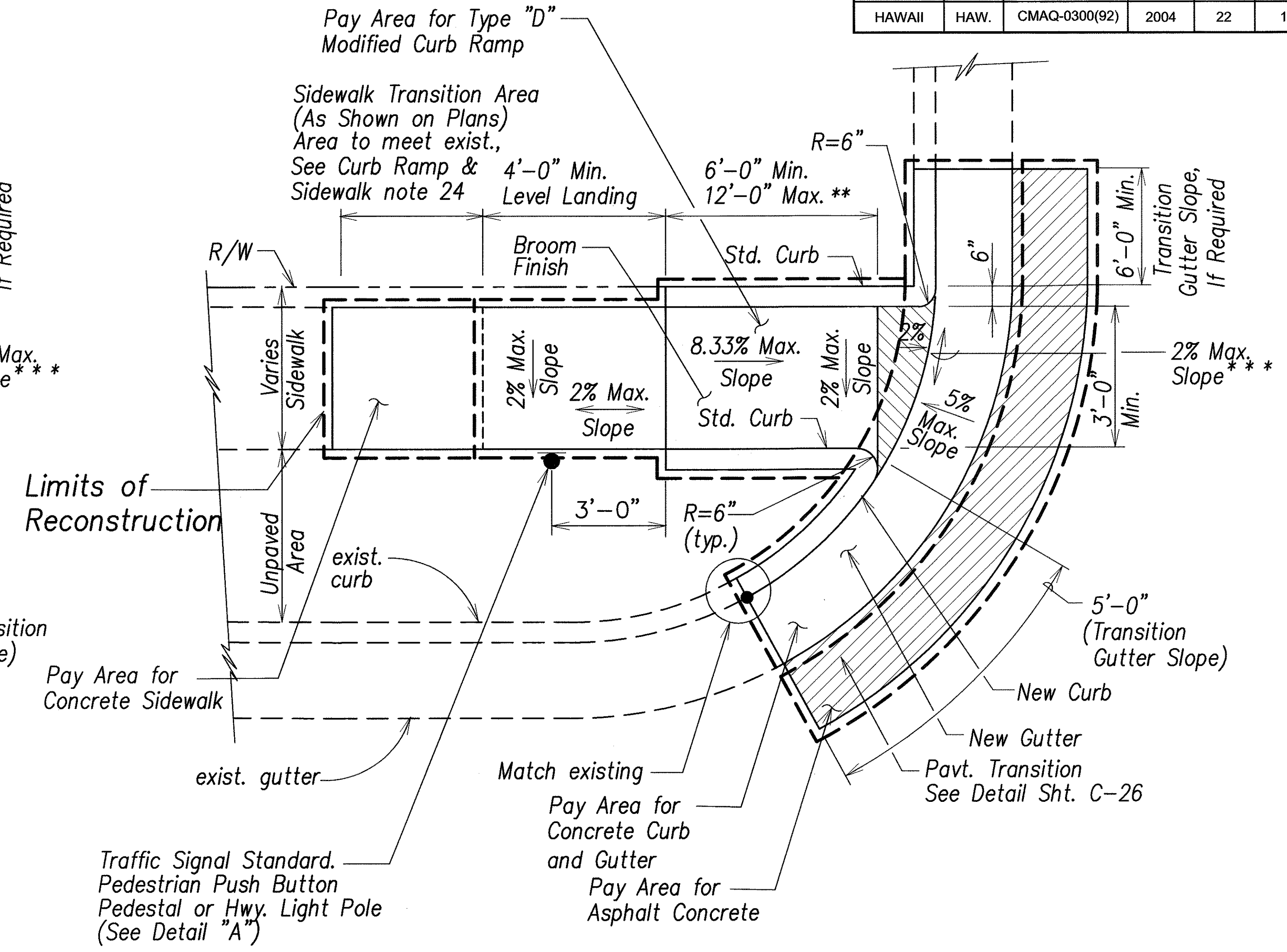




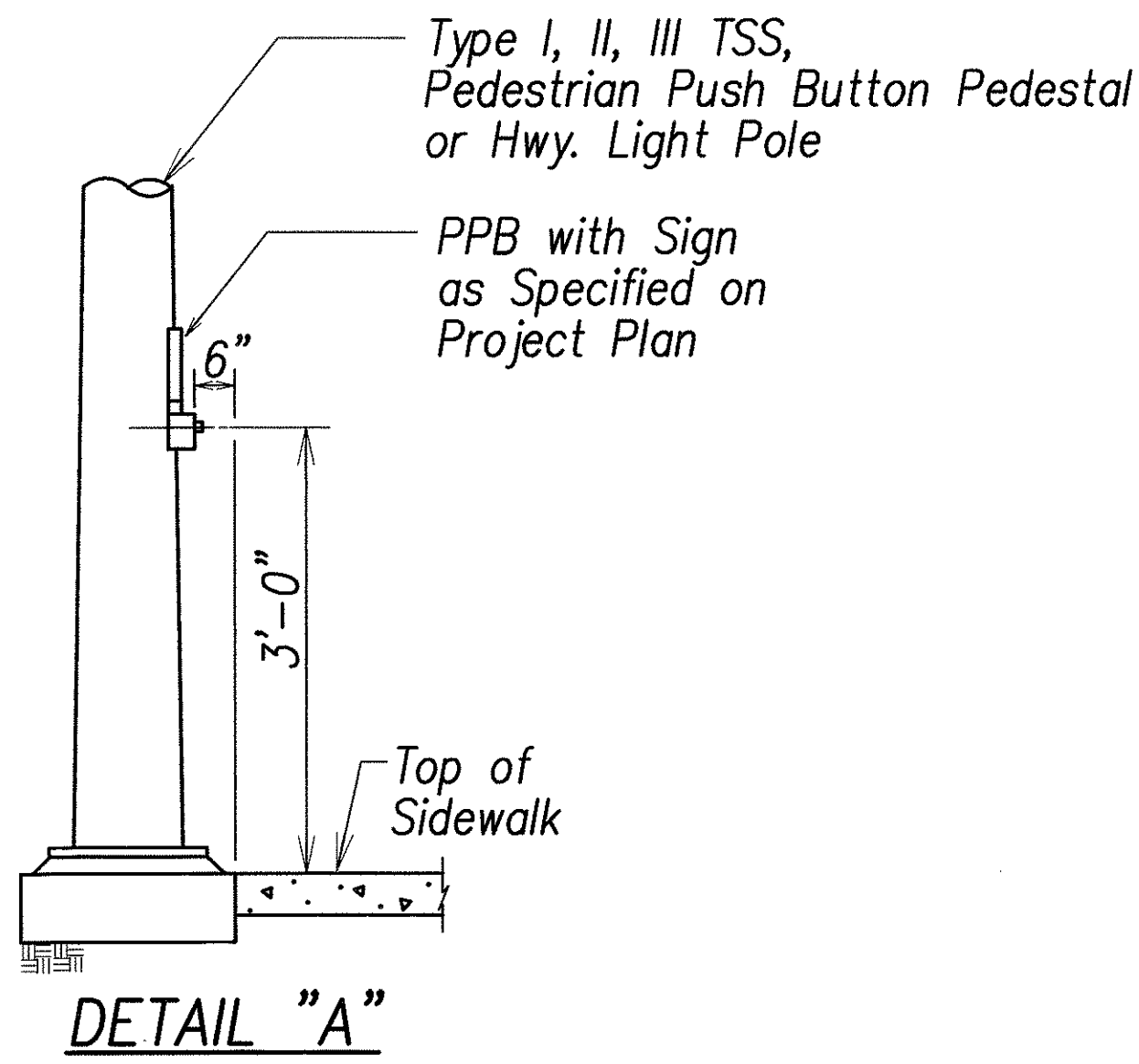
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(92)	2004	22	187



**CURB RAMP - TYPE "D"**



**CURB RAMP - TYPE "D" MODIFIED**



- \* 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 a Technical Infeasibility (TI) Statement

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

**EARTH TECH**

A Tyco Infrastructure Services Company  
841 Bishop Street, Suite 500  
Honolulu, HI 96813

**ABDULAN R. NIKOU**  
LICENSED PROFESSIONAL ENGINEER  
No. 6198-C  
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2006  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**CURB RAMP DETAILS - 4**

*Pedestrian Facilities & ADA Compliance at Various Locations on Oahu, Unit 1*  
Fed. Aid Proj. No. CMAQ-0300(92)

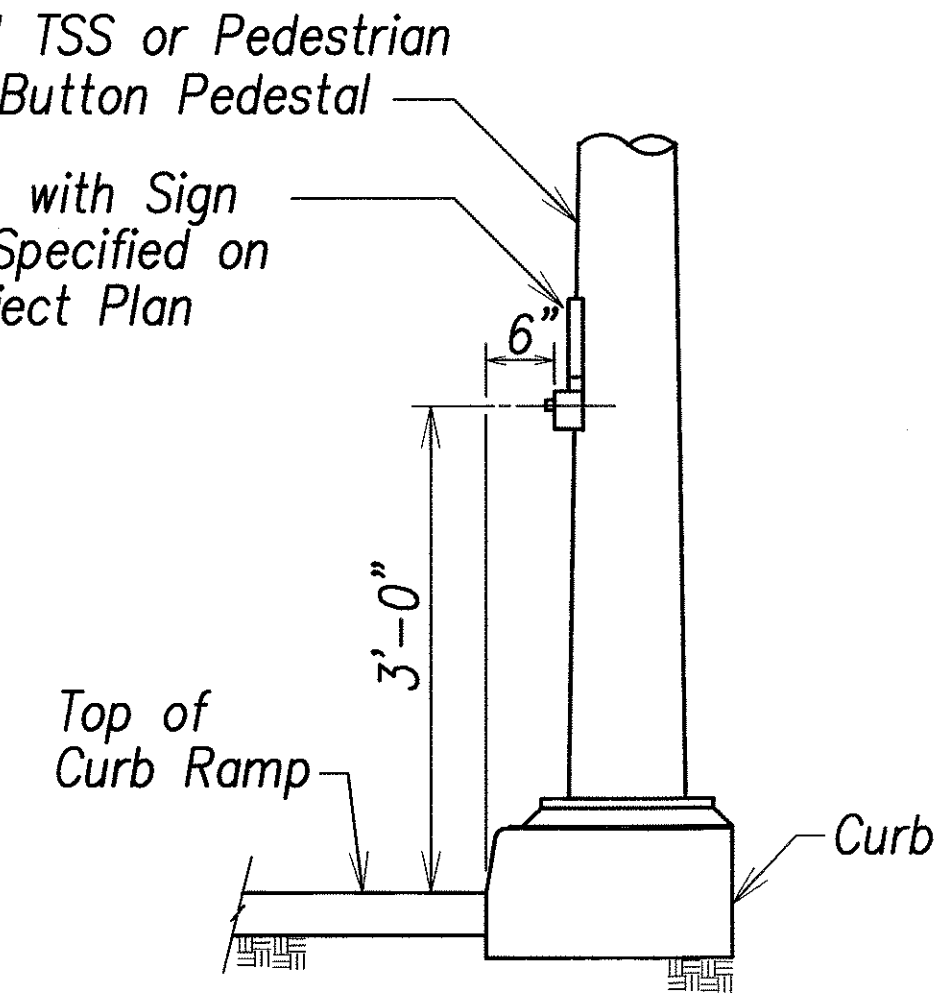
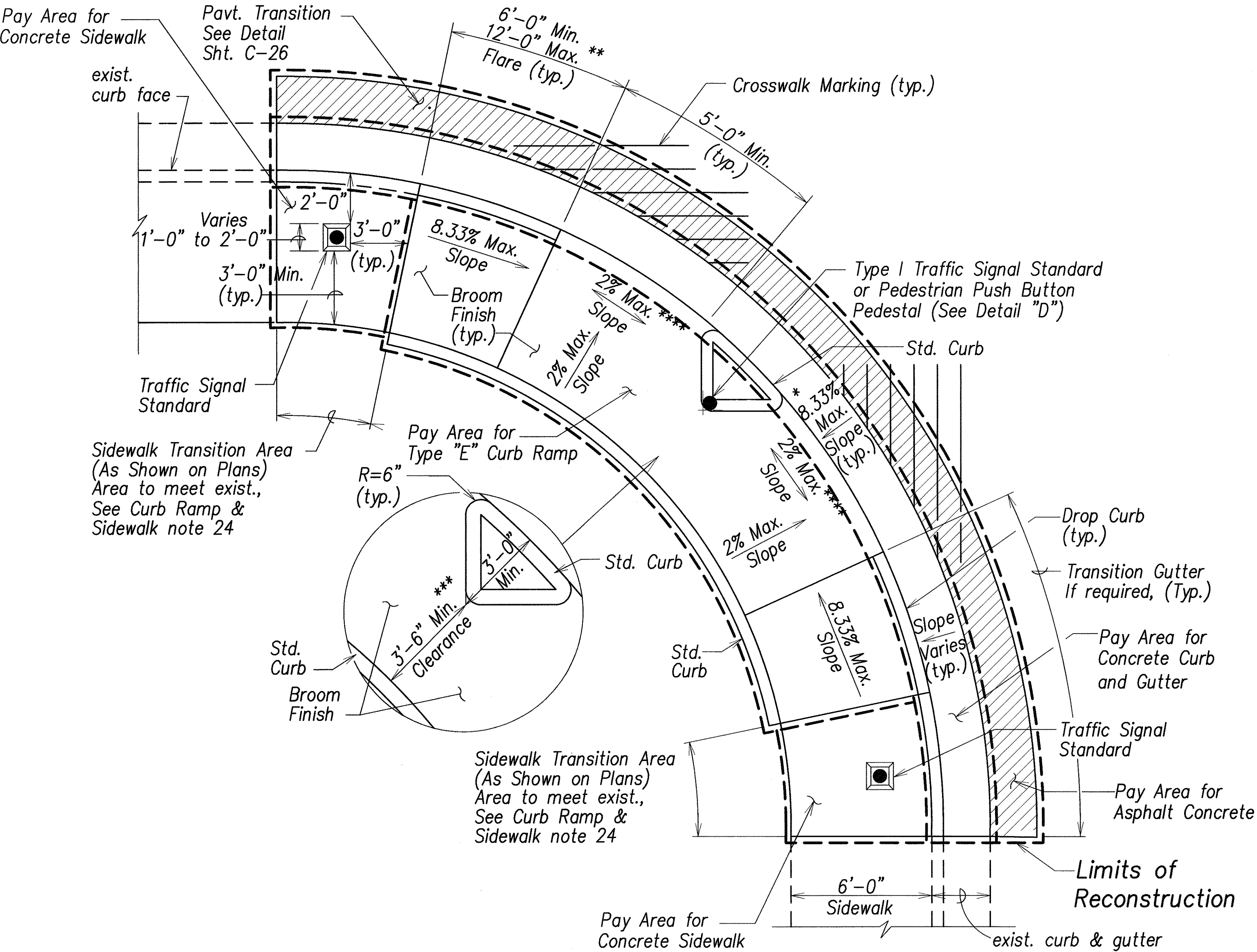
Scale: As Noted Date: August 2004

SHEET No. C-21 OF 154 SHEETS





FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(92)	2004	24	187



DETAIL "D"

- \* See Curb Ramp and Sidewalk Note No. 9 Sht. C-6
- \*\* 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.
- \*\*\* The Clearance shall be increased to 6'-0" or wider at areas with high pedestrian traffic or as directed by the Engineer or as shown on the plans.
- \*\*\*\* If roadway slope is >2% conform to roadway slope and file Technical Infeasibility (TI) Statement.

### CURB RAMP – TYPE "E"

SIDEWALK WIDTH 7'-0" OR GREATER

(TO BE USED ONLY WITH TRAFFIC SIGNAL STANDARD OR PEDESTRIAN PUSH BUTTON PEDESTAL ON TRIANGULAR "ISLAND")

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

EARTH TECH

A Tyco Infrastructure Services Company  
841 Bishop Street, Suite 500  
Honolulu, HI 96813

ARDALAN R. NIKOU  
LICENSED PROFESSIONAL ENGINEER  
No. 6198-C  
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE 4/30/2008  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

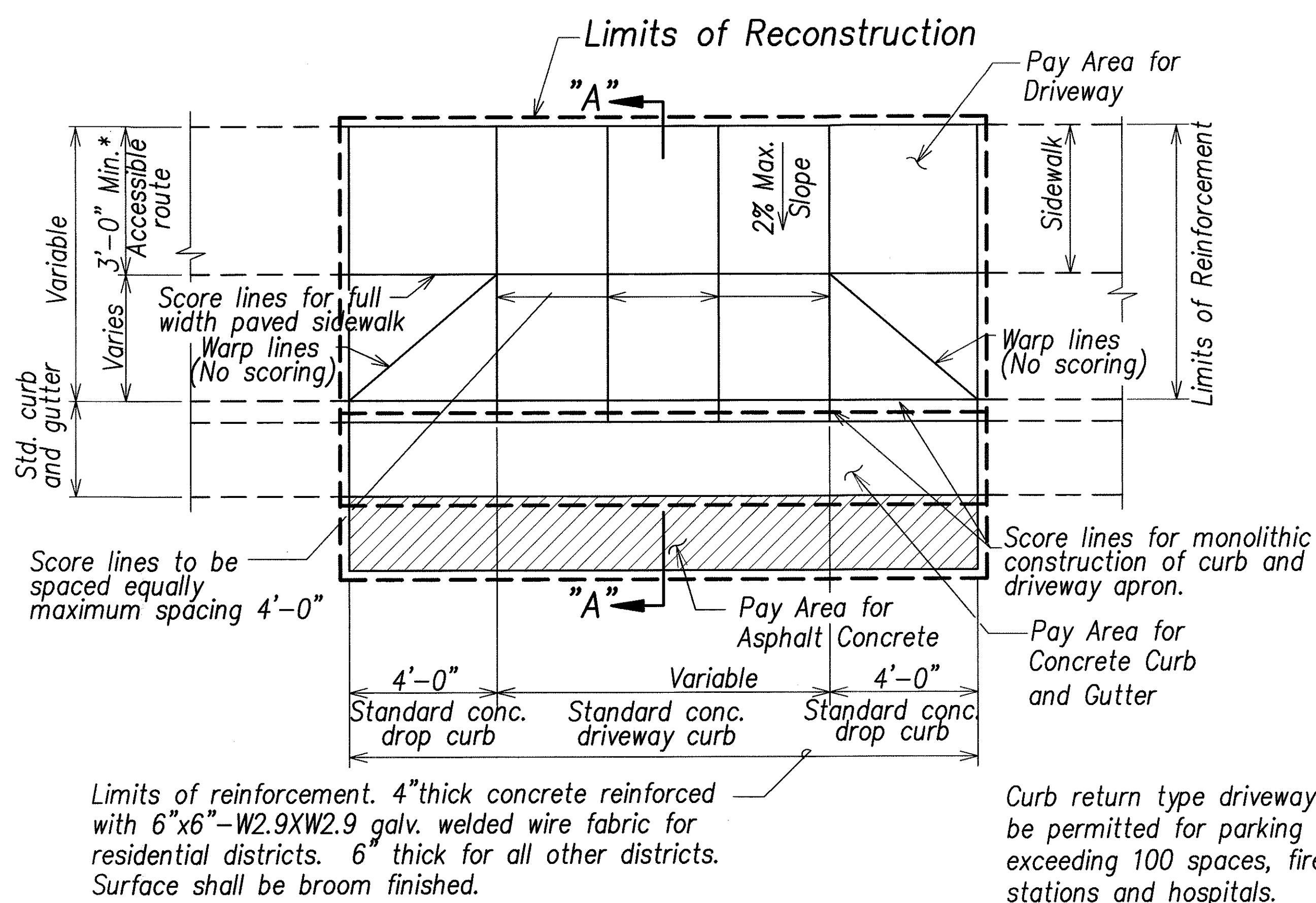
**CURB RAMP DETAILS – 6**

*Pedestrian Facilities & ADA Compliance  
at Various Locations on Oahu, Unit 1  
Fed. Aid Proj. No. CMAQ-0300(92)*

Scale: As Noted Date: August 2004

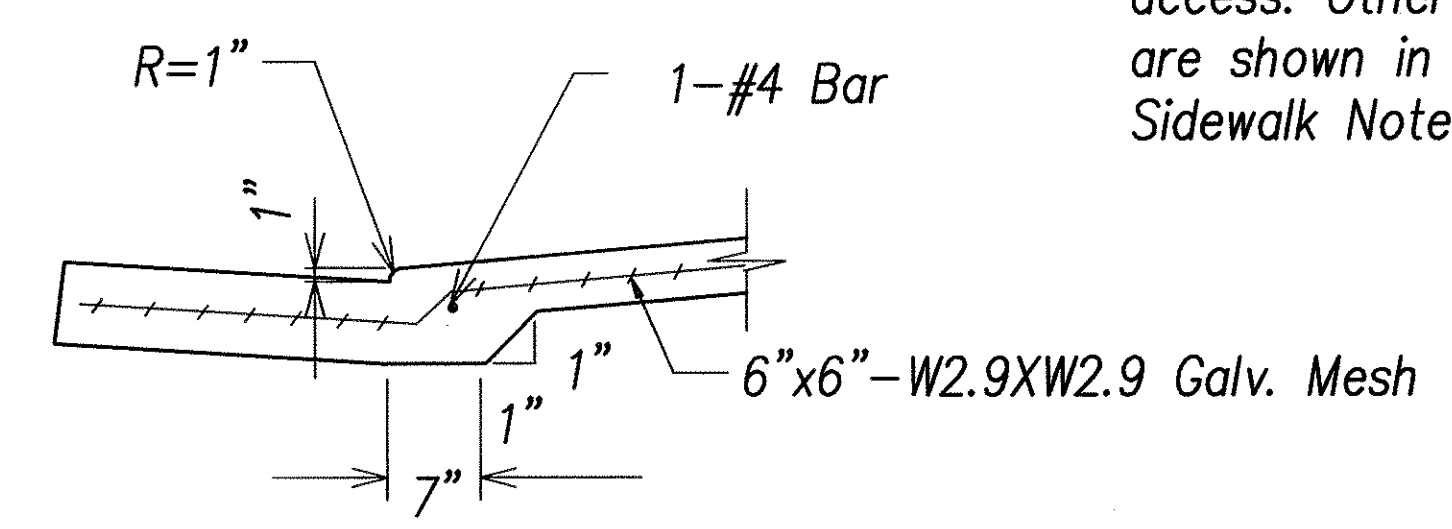
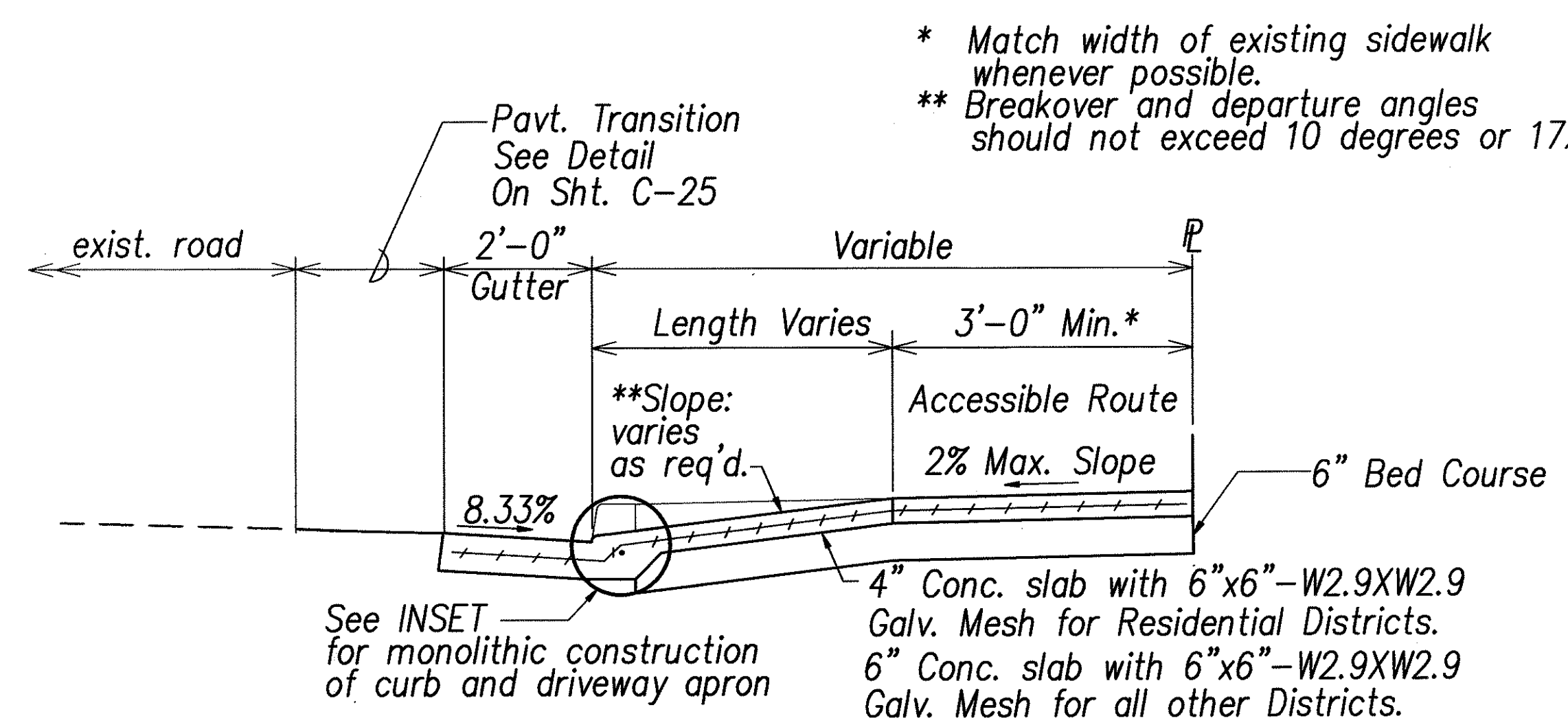
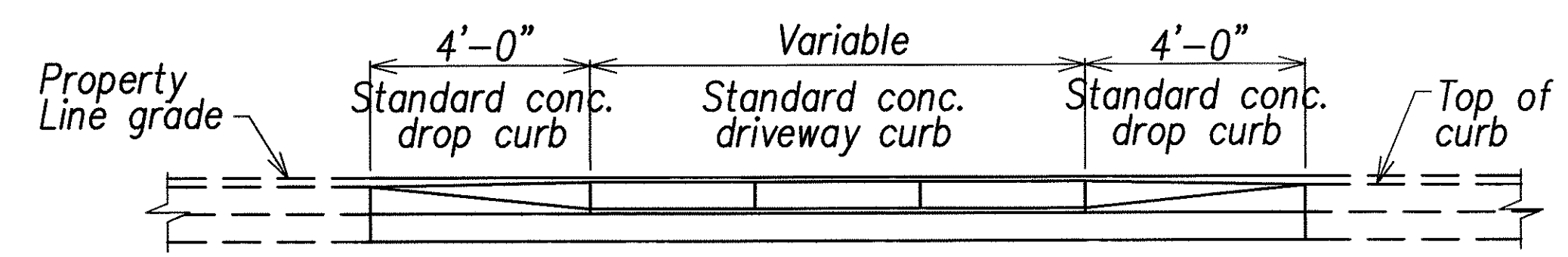
SHEET No. C-23 OF 154 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(92)	2004	25	187

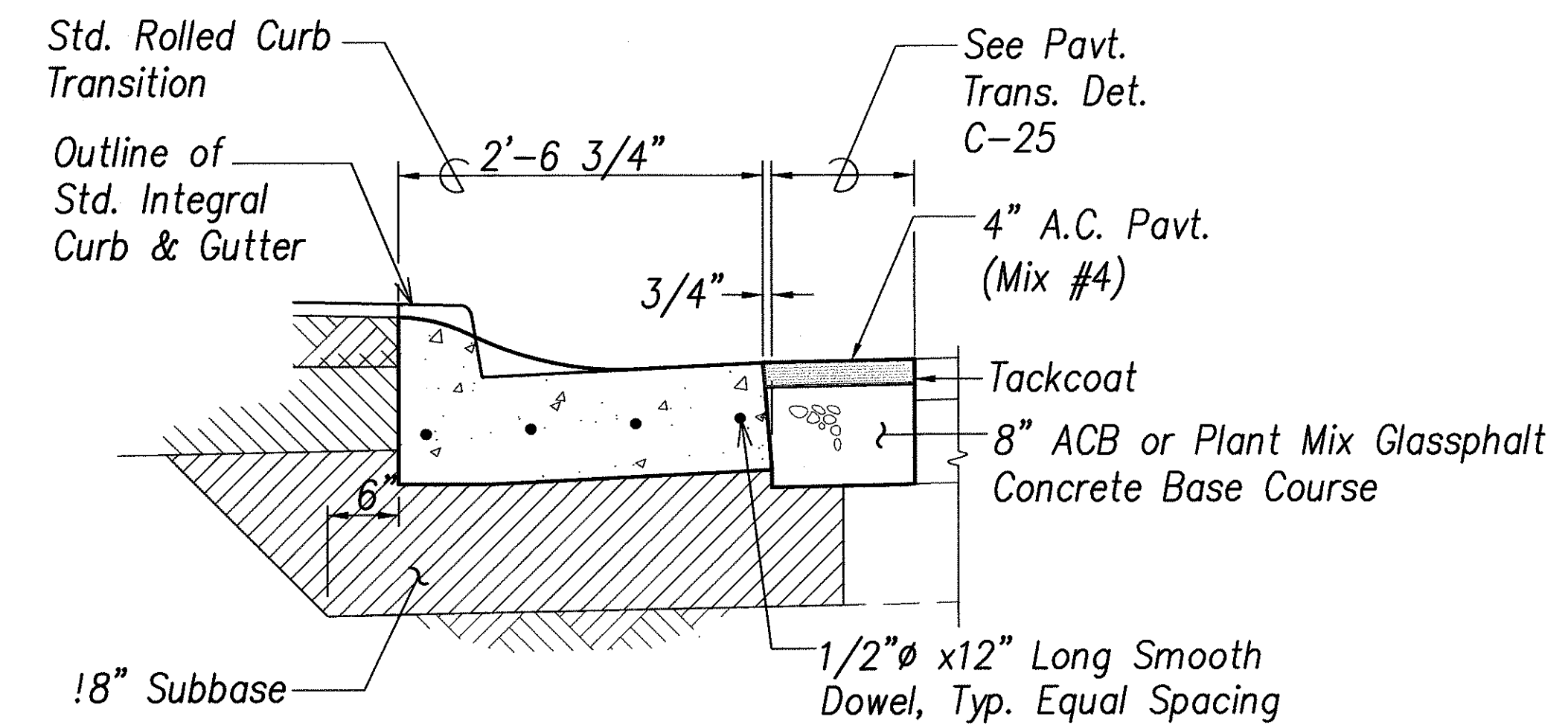
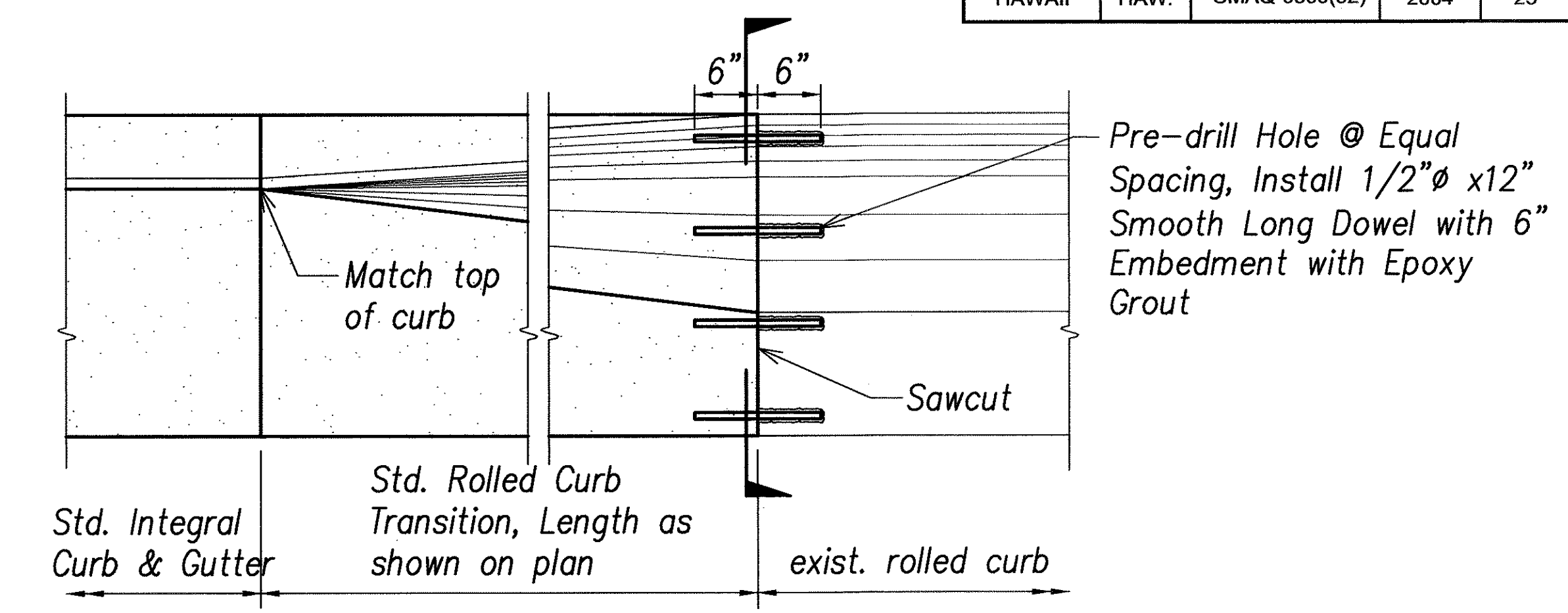


Limits of reinforcement. 4" thick concrete reinforced with 6"x6"-W2.9XW2.9 galv. welded wire fabric for residential districts. 6" thick for all other districts. Surface shall be broom finished.

Curb return type driveway may be permitted for parking areas exceeding 100 spaces, fire stations and hospitals.



- NOTES:**
- For extension to existing driveway, scoring and finish shall match existing scoring and finish. For driveway constructed in built up areas, scoring conforming to scoring at adjacent driveways may be authorized.
  - This detail is only one method for providing ADA access. Other methods can be used. These methods are shown in references listed in Curb Ramp and Sidewalk Note No. 21.



**ROLLED CURB TRANSITION CONNECTION DETAIL**  
NOT TO SCALE

**EARTH TECH**

A Tyco Infrastructure Services Company

841 Bishop Street, Suite 500  
Honolulu, HI 96813

**ARDALAN R. NIKOU**  
LICENSED PROFESSIONAL ENGINEER  
No. 6198-C  
HAWAII, U.S.A.

EXPIRATION DATE OF THE LICENSE: 4/30/2006  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**DRIVEWAY APRON**

*Pedestrian Facilities & ADA Compliance at Various Locations on Oahu, Unit 1*  
Fed. Aid Proj. No. CMAQ-0300(92)

Scale: As Noted Date: August 2004

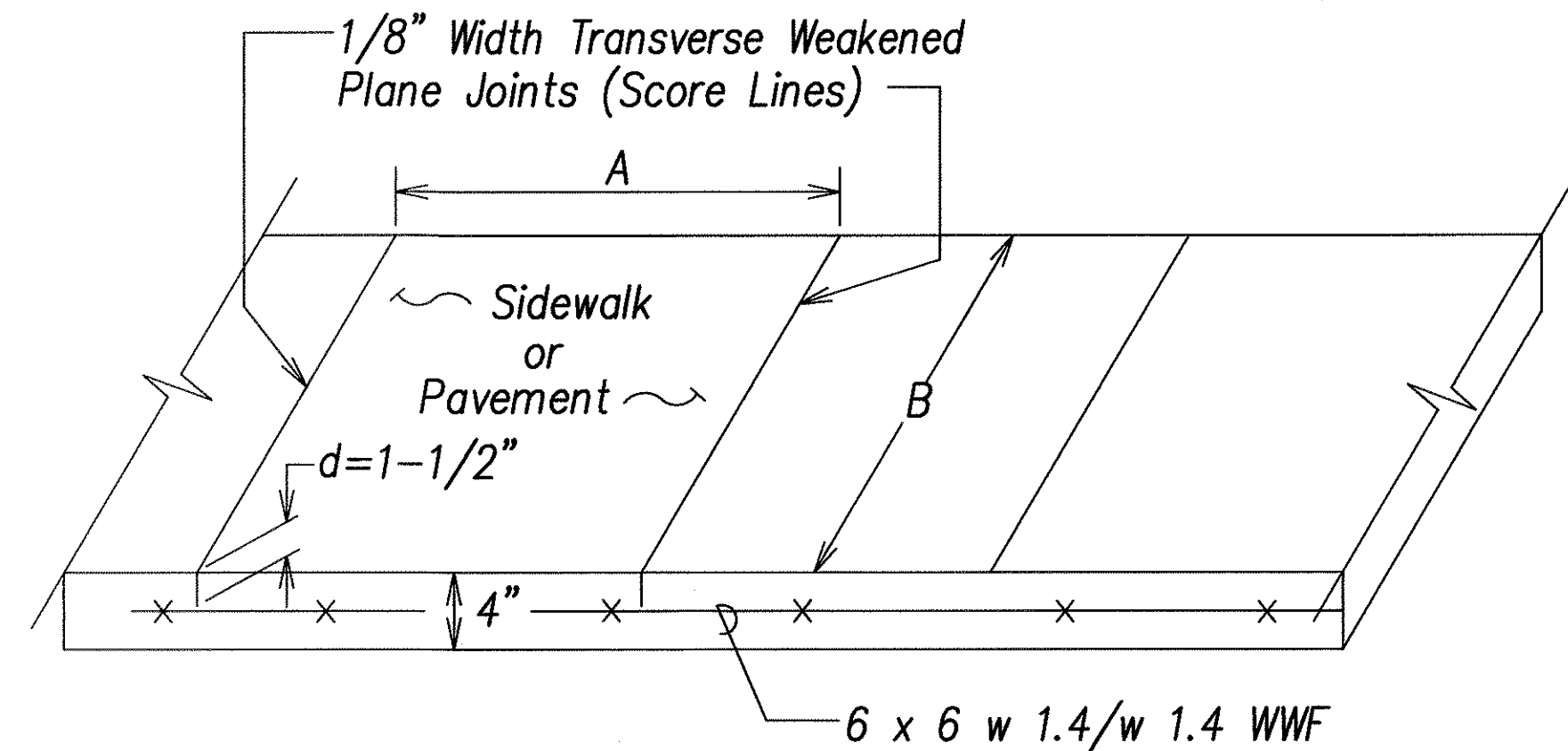
SHEET No. C-24 OF 154 SHEETS

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

10/25/04 8:12 AM

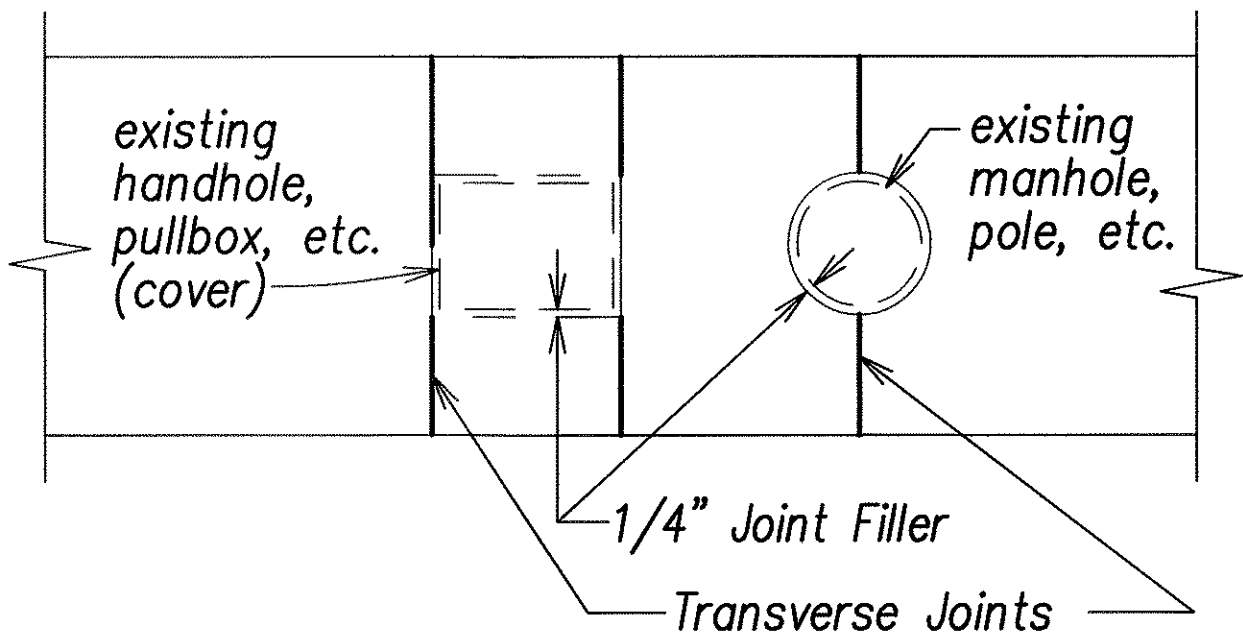


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(92)	2004	26	187

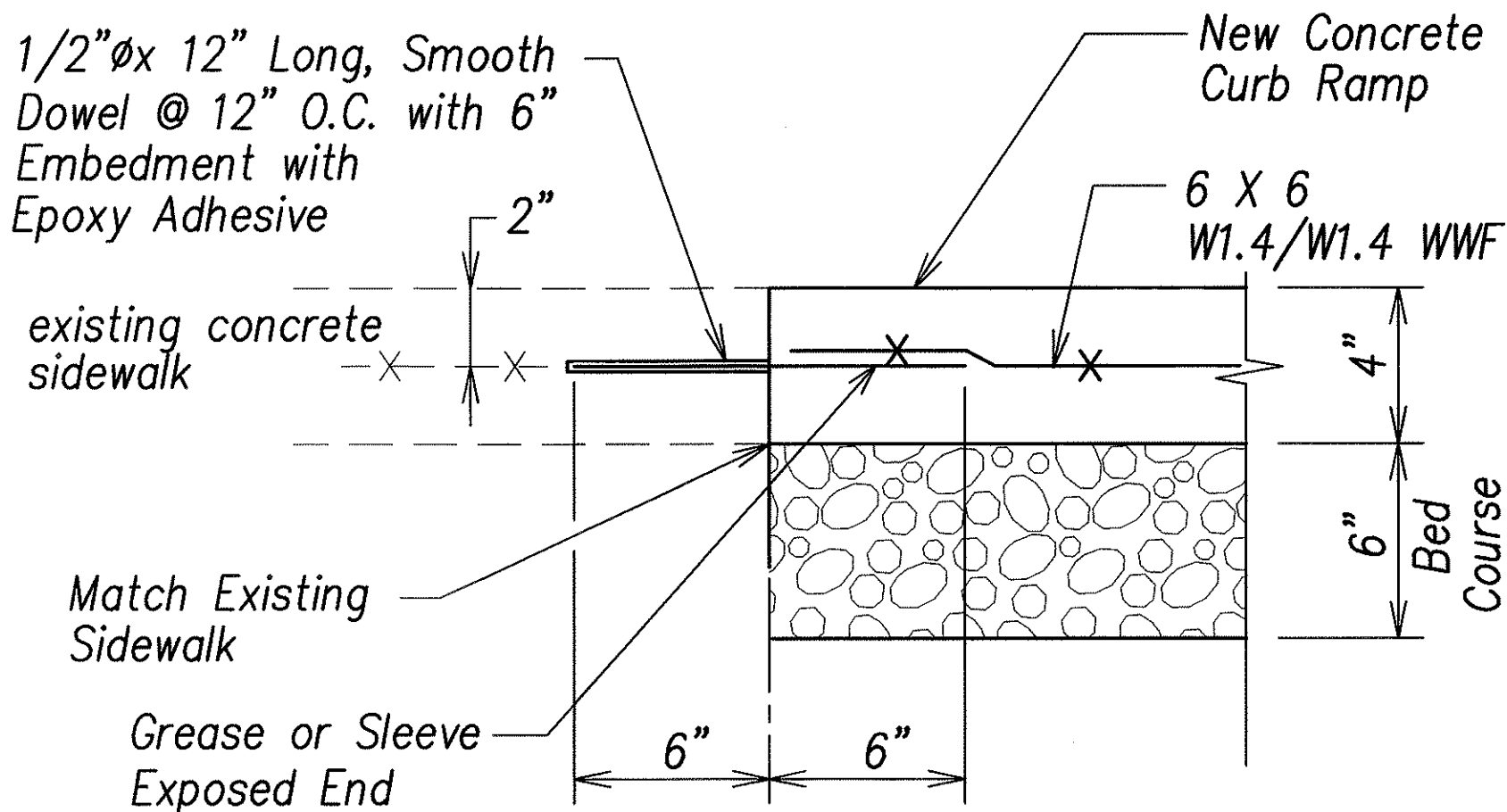


Note: A = 6' if B ≤ 8'  
If B > 8', Add Longitudinal Joint

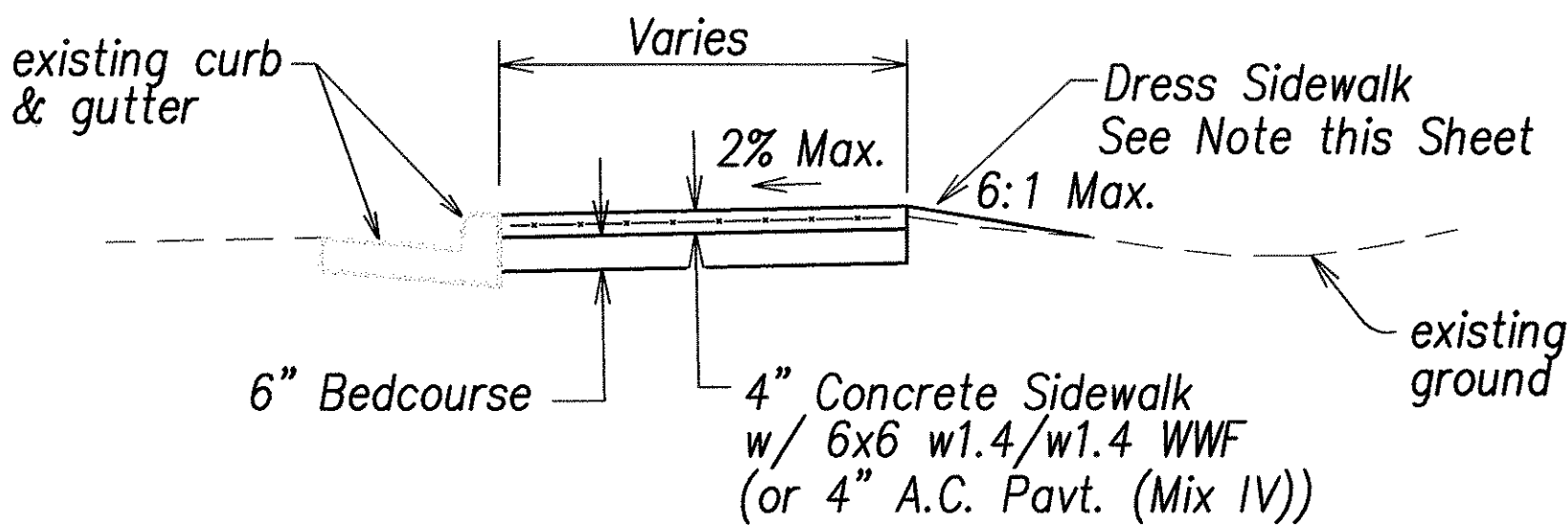
**SIDEWALK SCORE LINE DETAIL**  
Not to scale



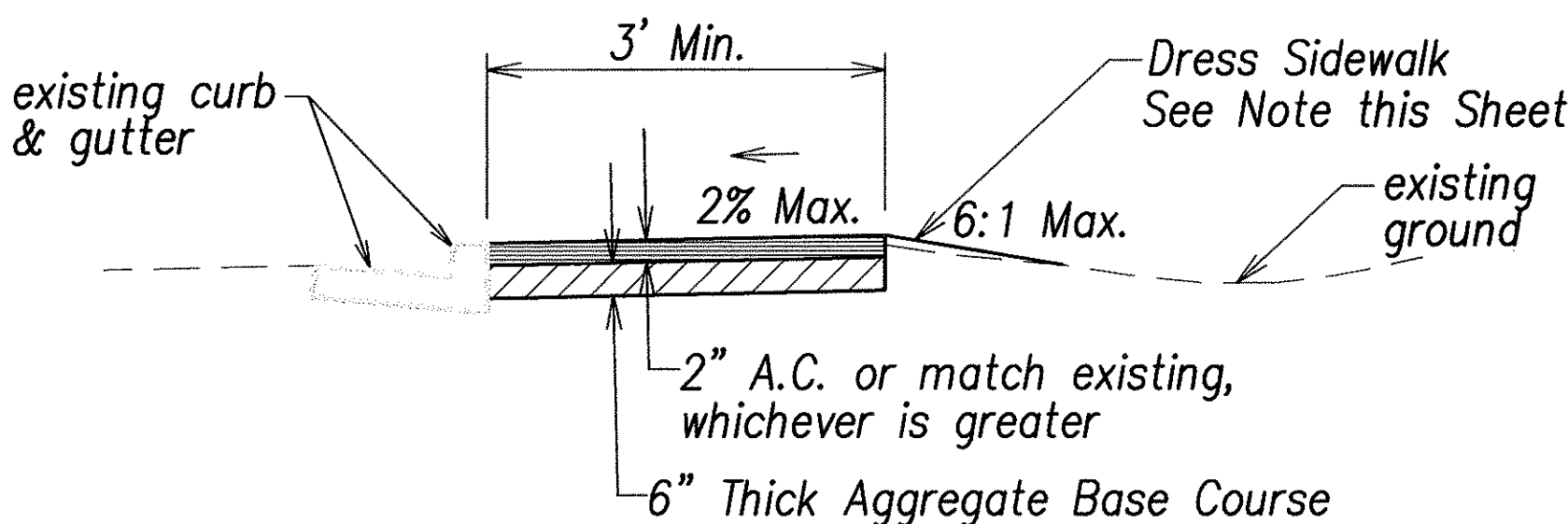
**SIDEWALK ISOLATION JOINT DETAIL**  
Not to scale



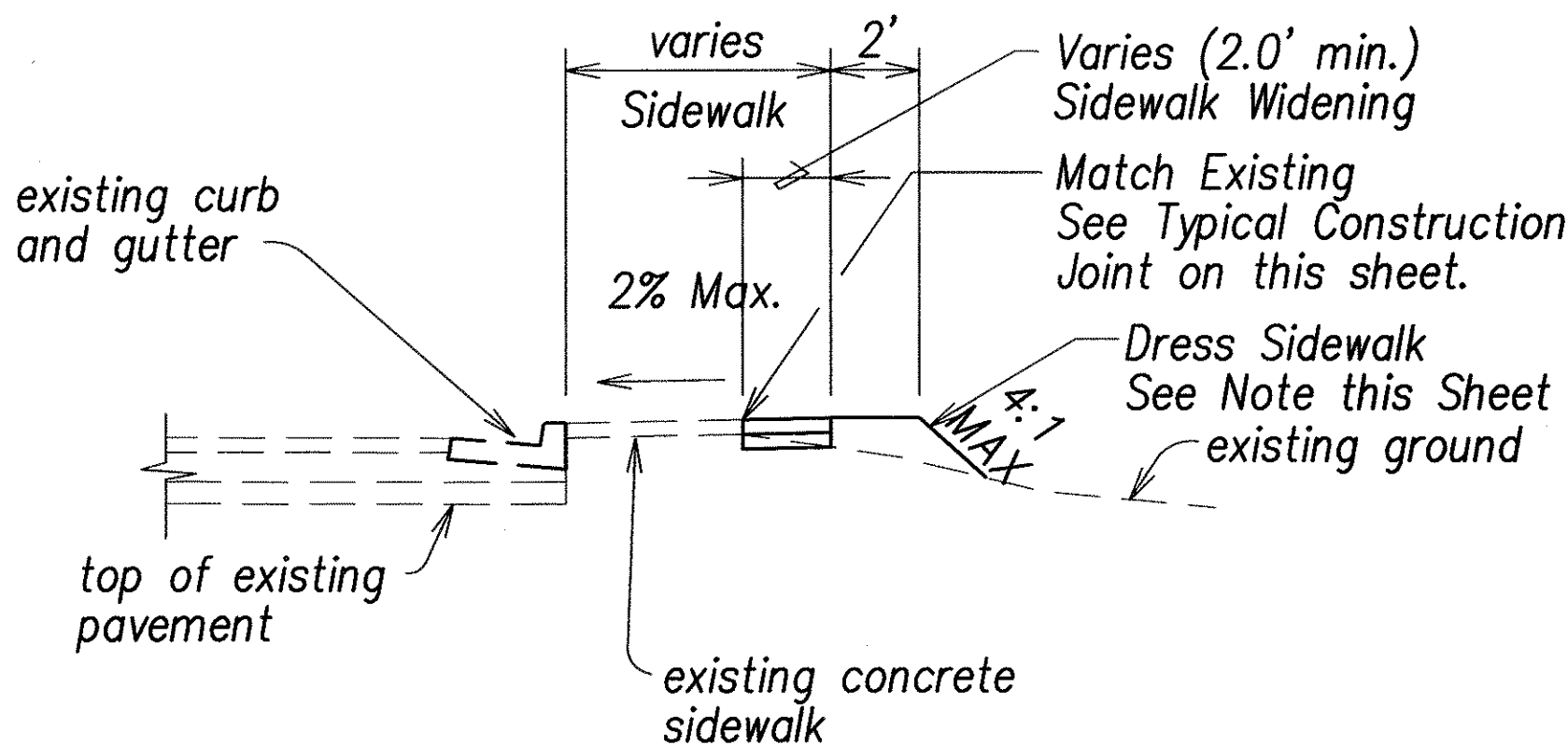
**TYPICAL CONSTRUCTION JOINT AT EXISTING SIDEWALK**  
Not to scale



**SIDEWALK DETAIL**  
Not to scale



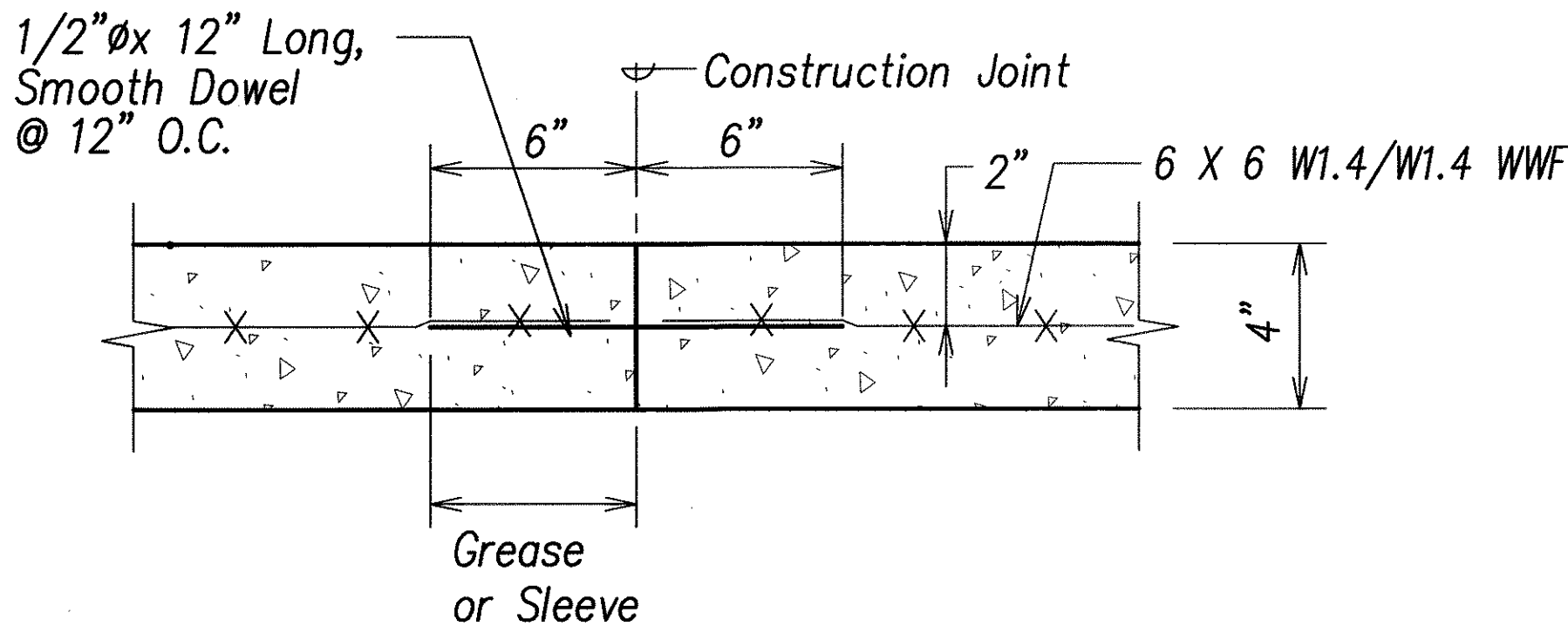
**A.C. SIDEWALK DETAIL**  
Not to scale



**SIDEWALK WIDENING SECTION**  
Not to scale

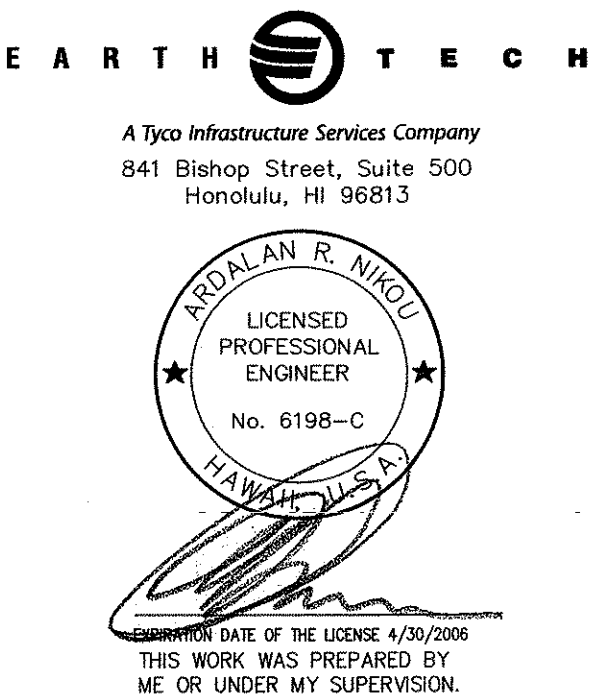
**NOTES:**

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.



**TRANSVERSE CONSTRUCTION JOINT DETAIL**  
Not to scale

ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	
DATE	



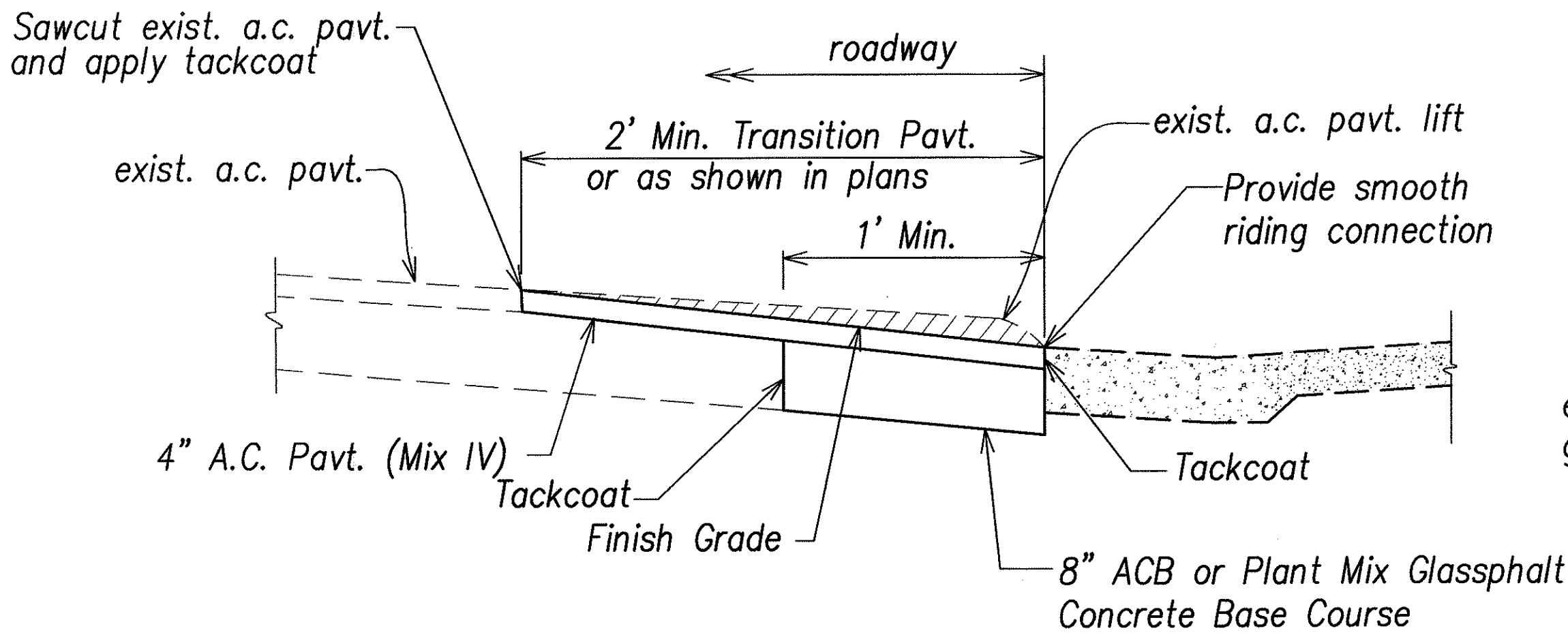
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SIDEWALK DETAILS**  
Pedestrian Facilities & ADA Compliance  
at Various Locations on Oahu, Unit 1  
Fed. Aid Proj. No. CMAQ-0300(92)

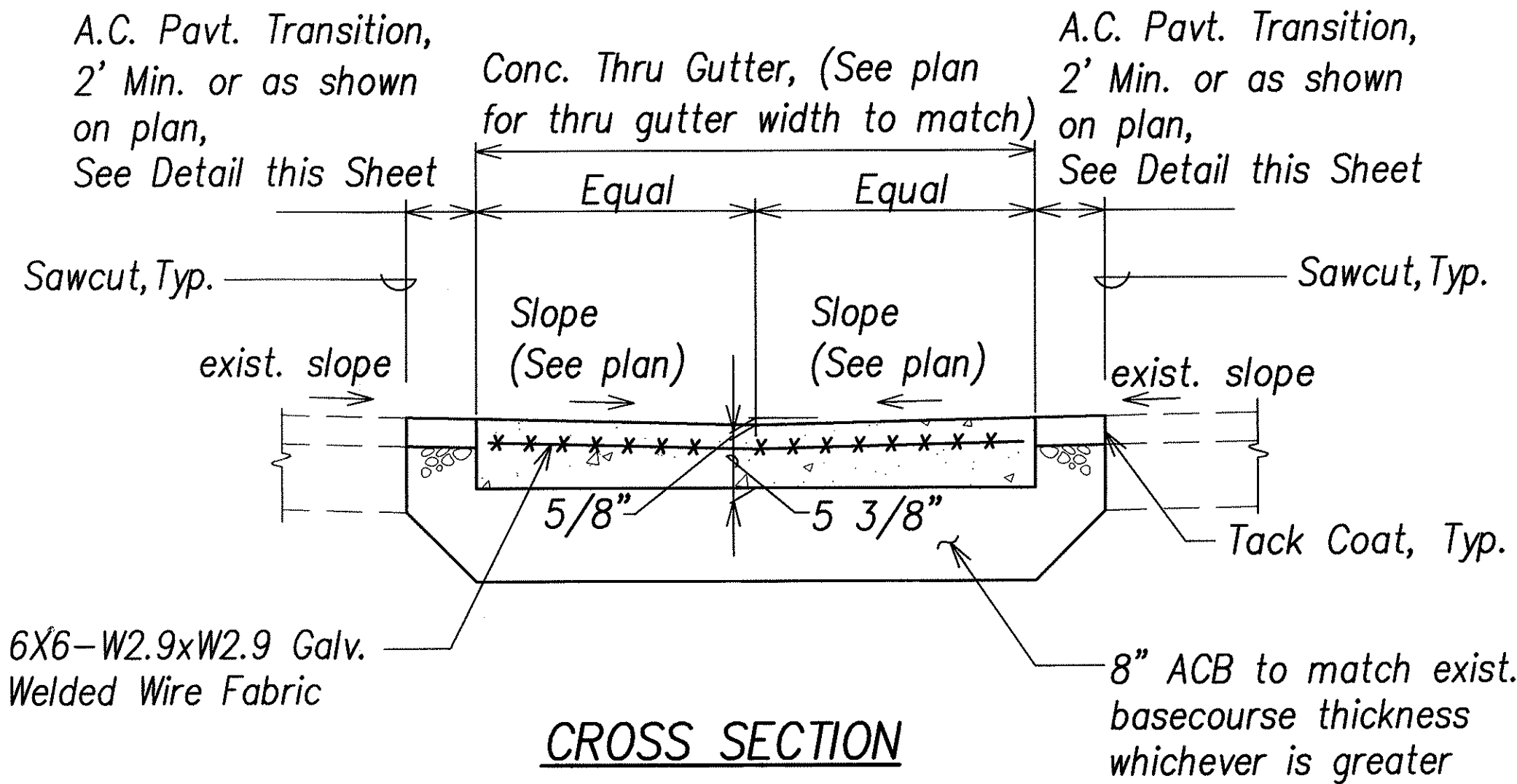
Scale: As Noted  
Date: August 2004

SHEET No. C-25 OF 154 SHEETS

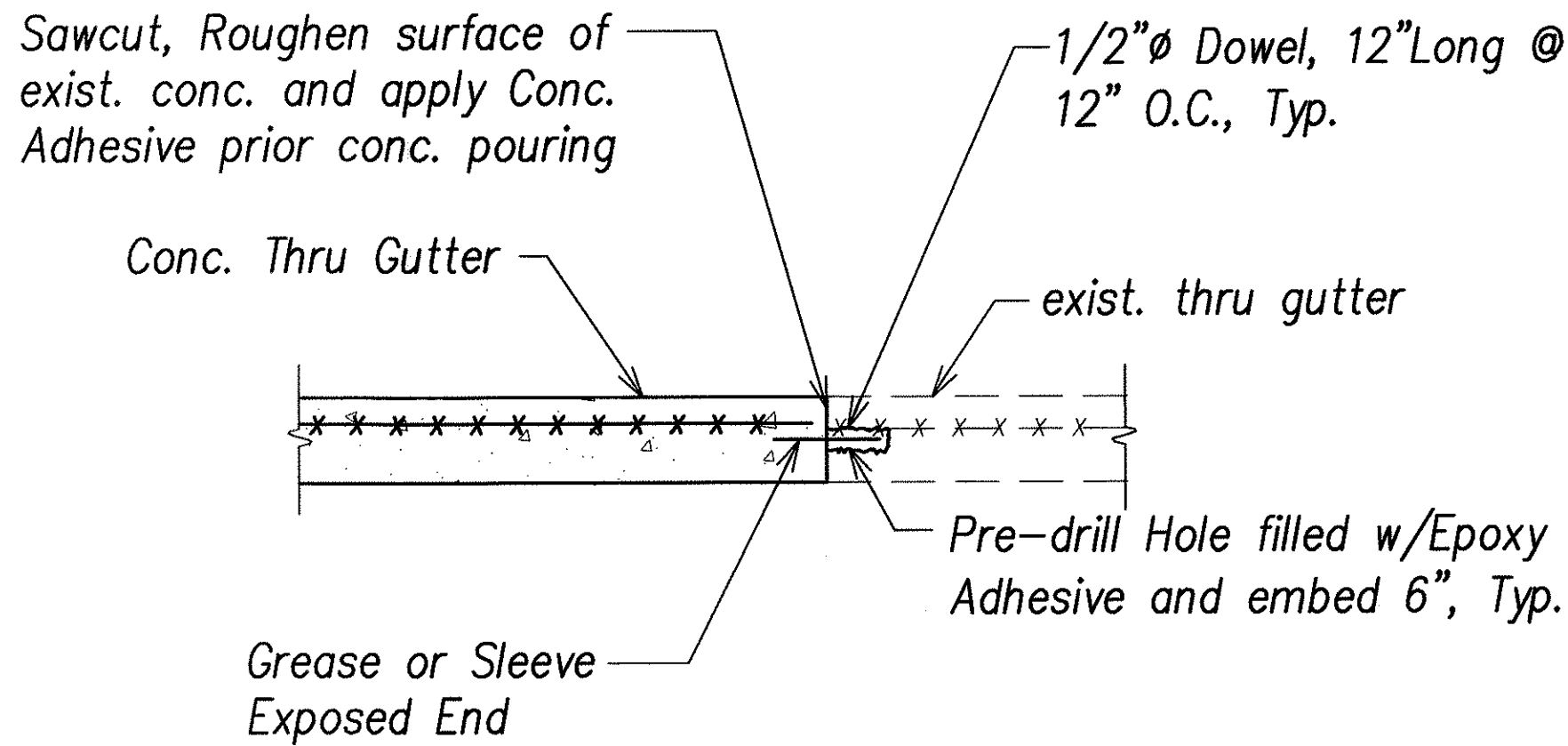
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(92)	2004	27	187



PAVEMENT TRANSITION DETAIL  
Not to scale

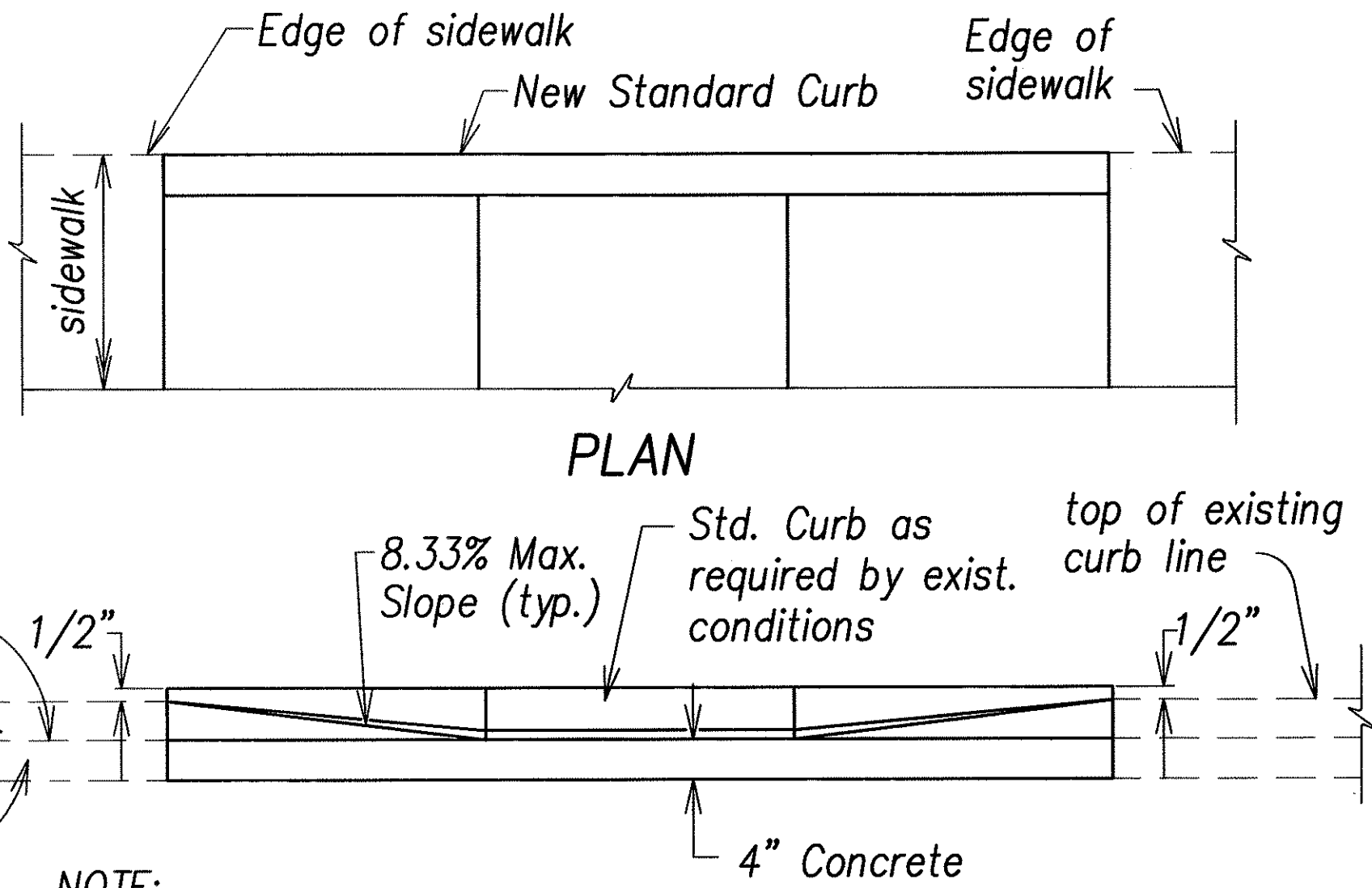


CROSS SECTION



LONGITUDINAL SECTION

CONCRETE THRU GUTTER CONNECTION DETAIL  
Not to scale



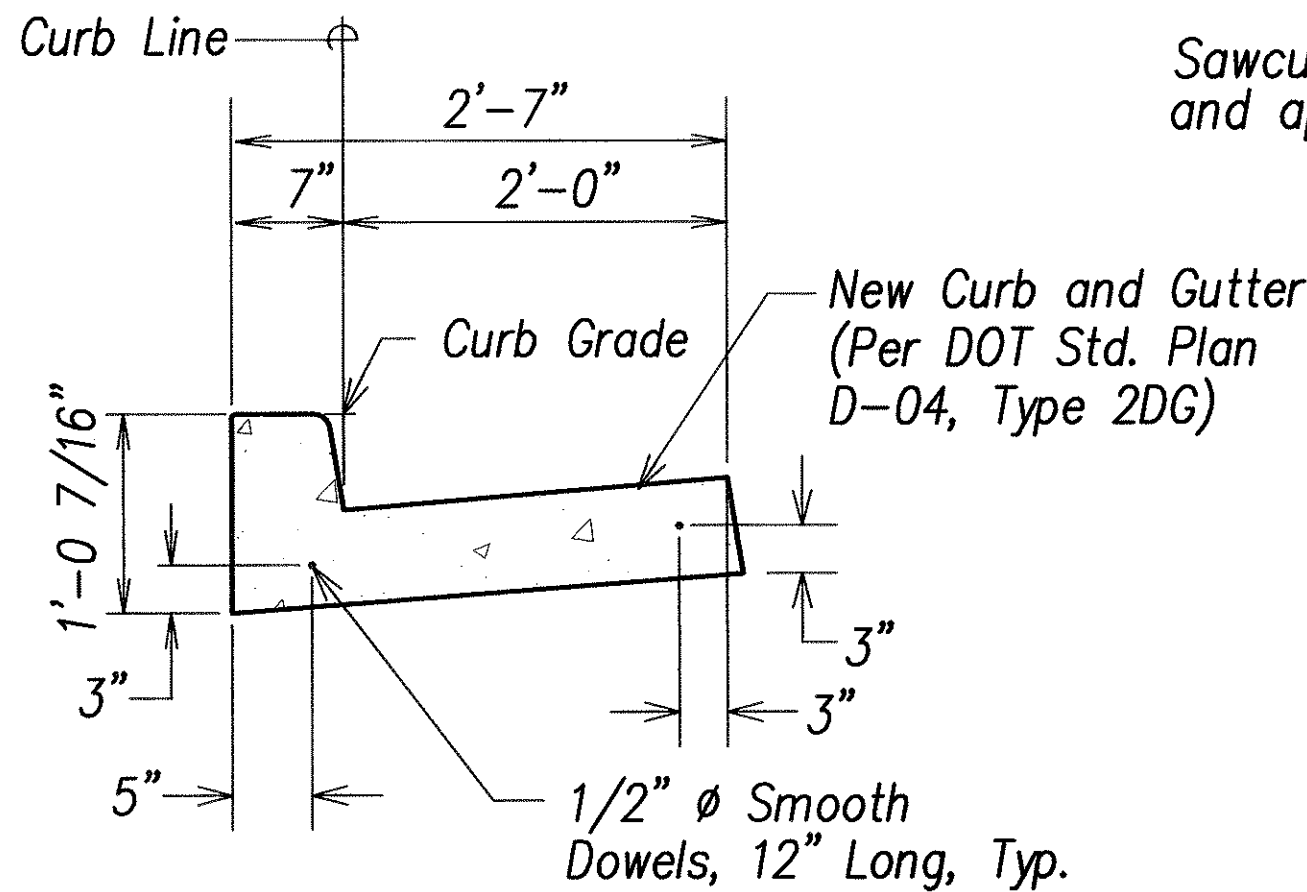
NOTE:

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.

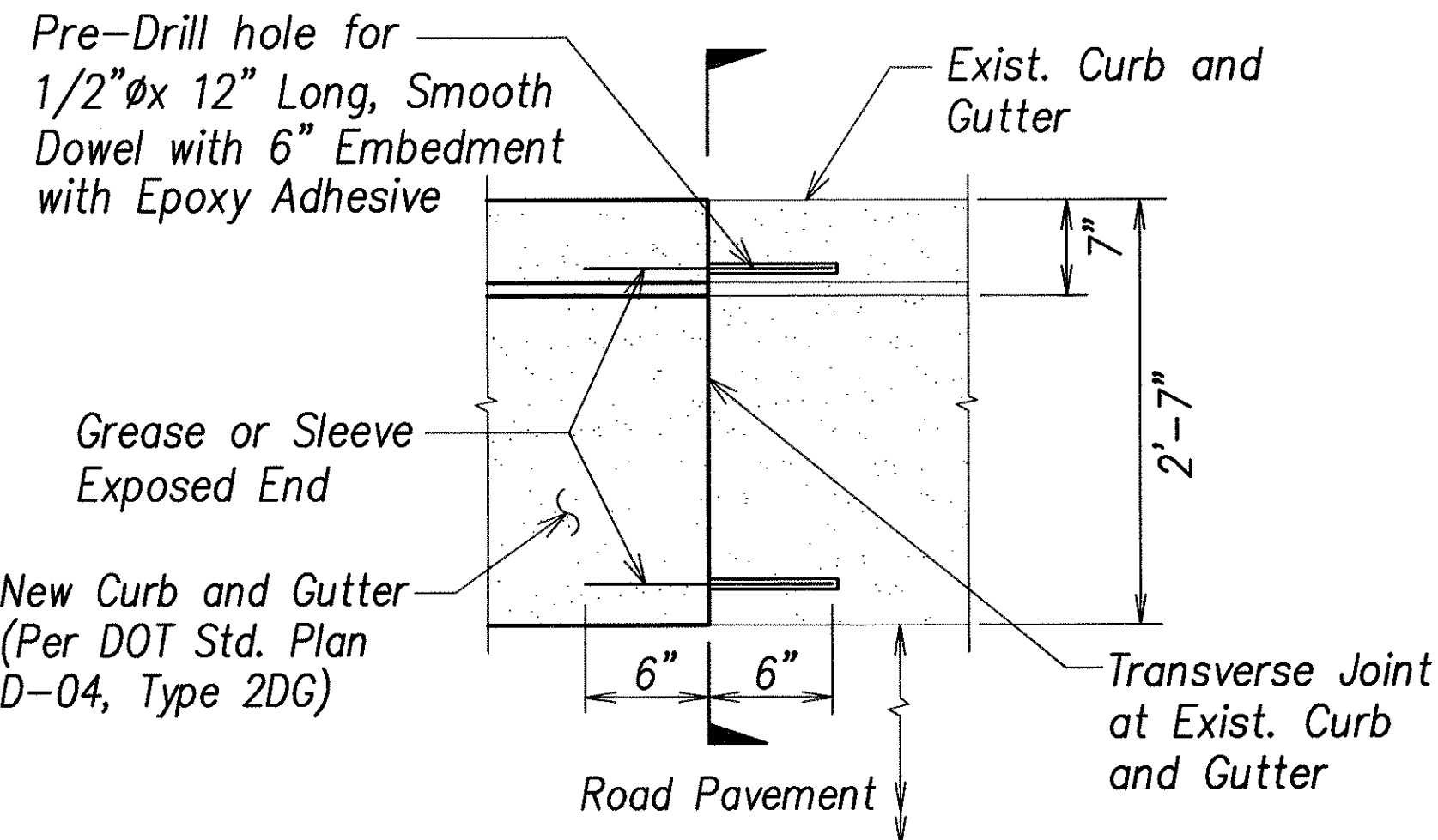
ELEVATION  
DETAIL – BACK CURB  
Not to scale

NOTE:

All curb ramps shall be reinforced.



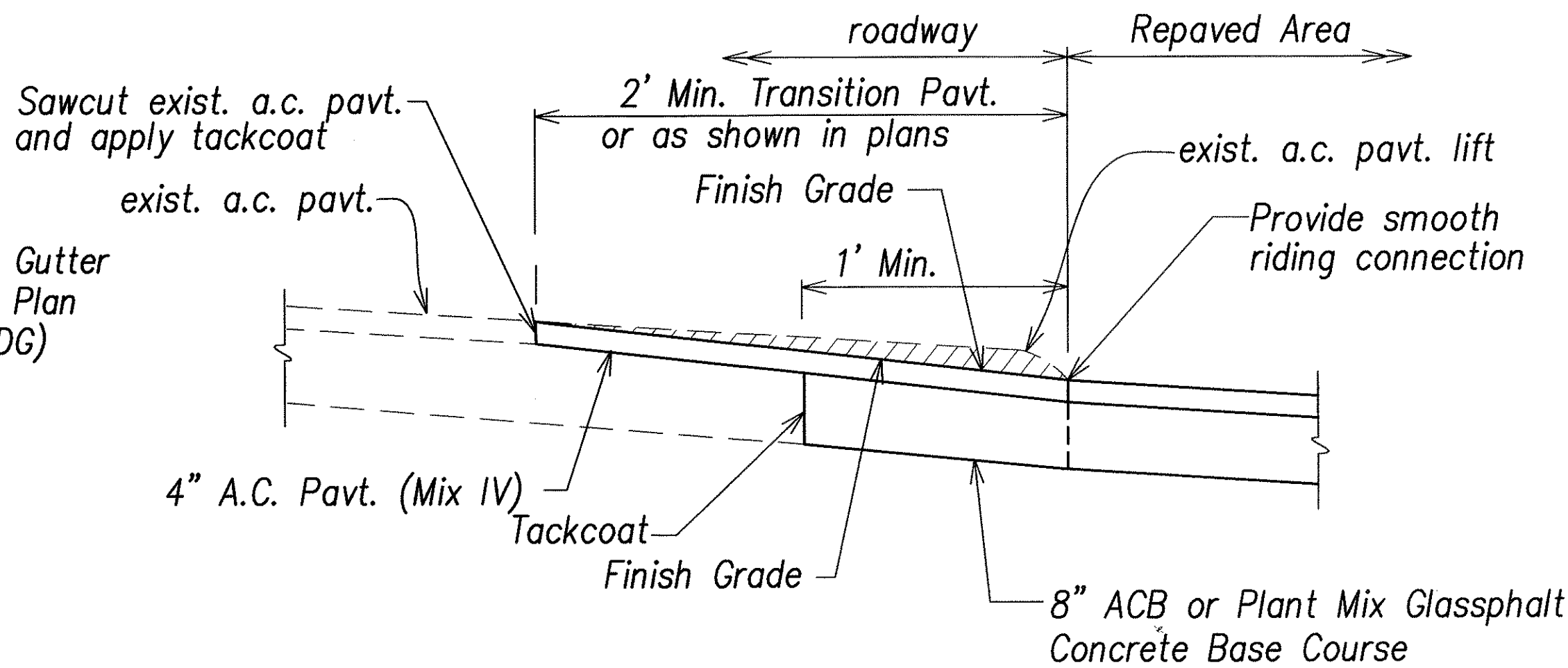
SECTION



PLAN

CURB AND GUTTER CONNECTION

Not to scale

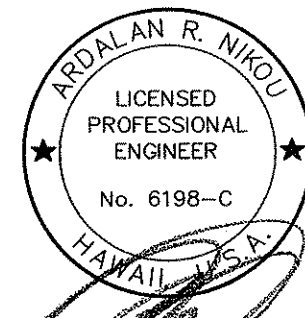


PAVEMENT RESTORATION DETAIL  
Not to scale

SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
DESIGNED BY	
QUANTITIES BY	
NOTES BY	
CHECKED BY	
NO.	

EARTH TECH

A Tyco Infrastructure Services Company  
841 Bishop Street, Suite 500  
Honolulu, HI 96813



EXPIRATION DATE OF THE LICENSE 4/30/2006  
THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

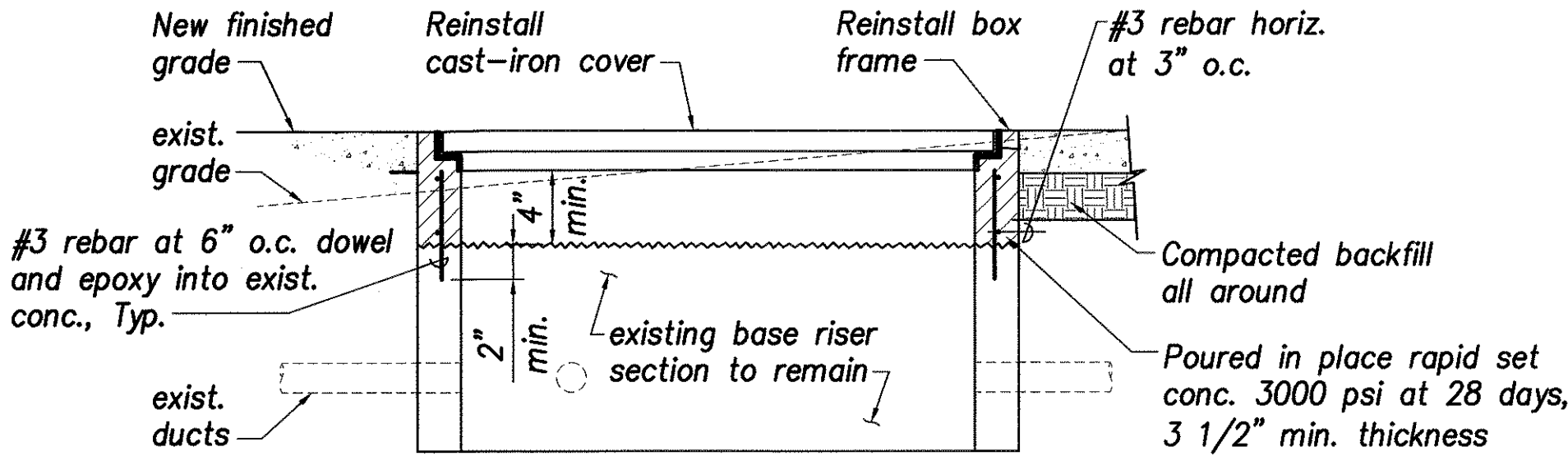
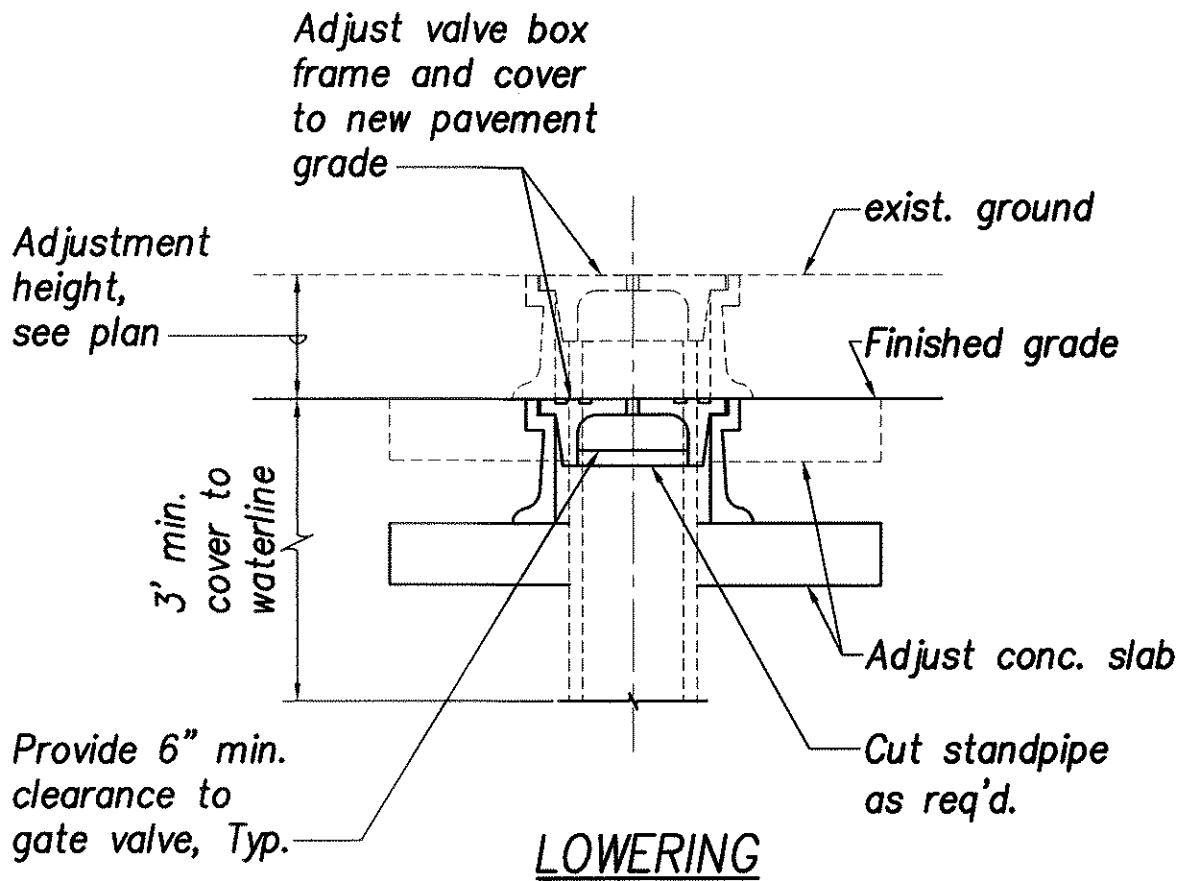
MISCELLANEOUS DETAILS – 1

Pedestrian Facilities & ADA Compliance  
at Various Locations on Oahu, Unit 1  
Fed. Aid Proj. No. CMAQ-0300(92)

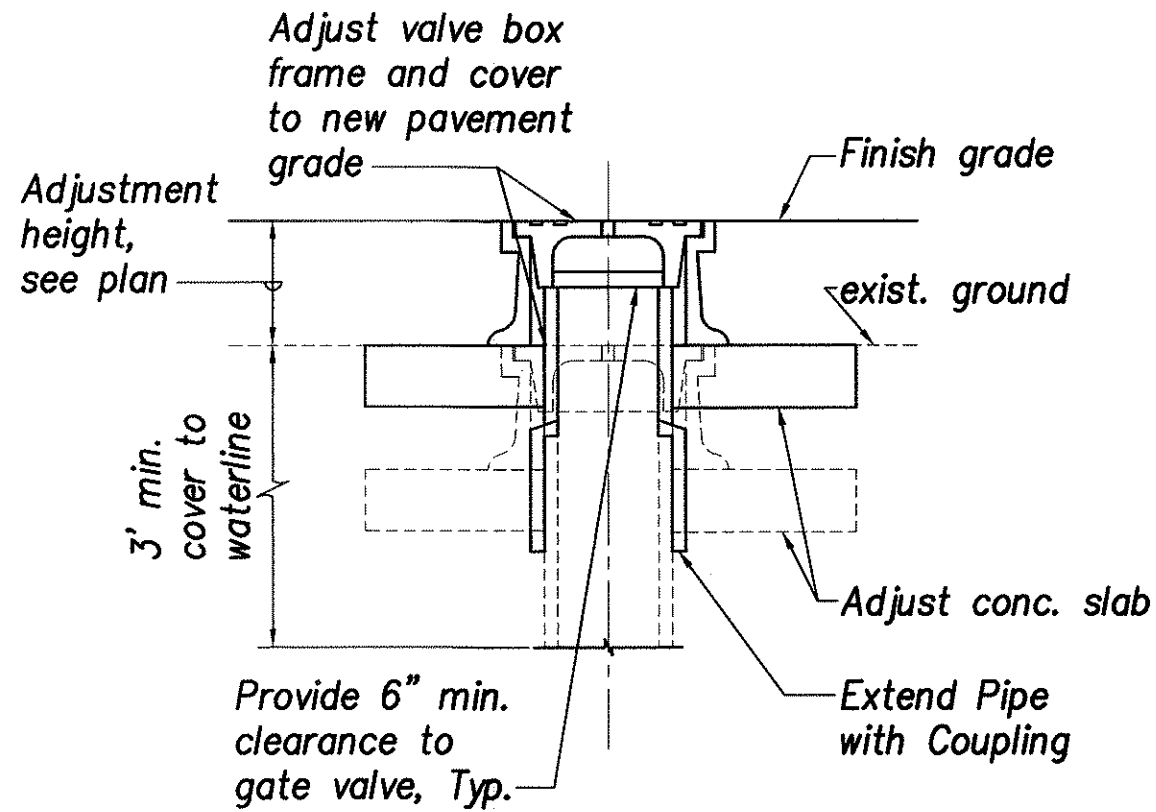
Scale: As Noted Date: August 2004

SHEET No. C-26 OF 154 SHEETS

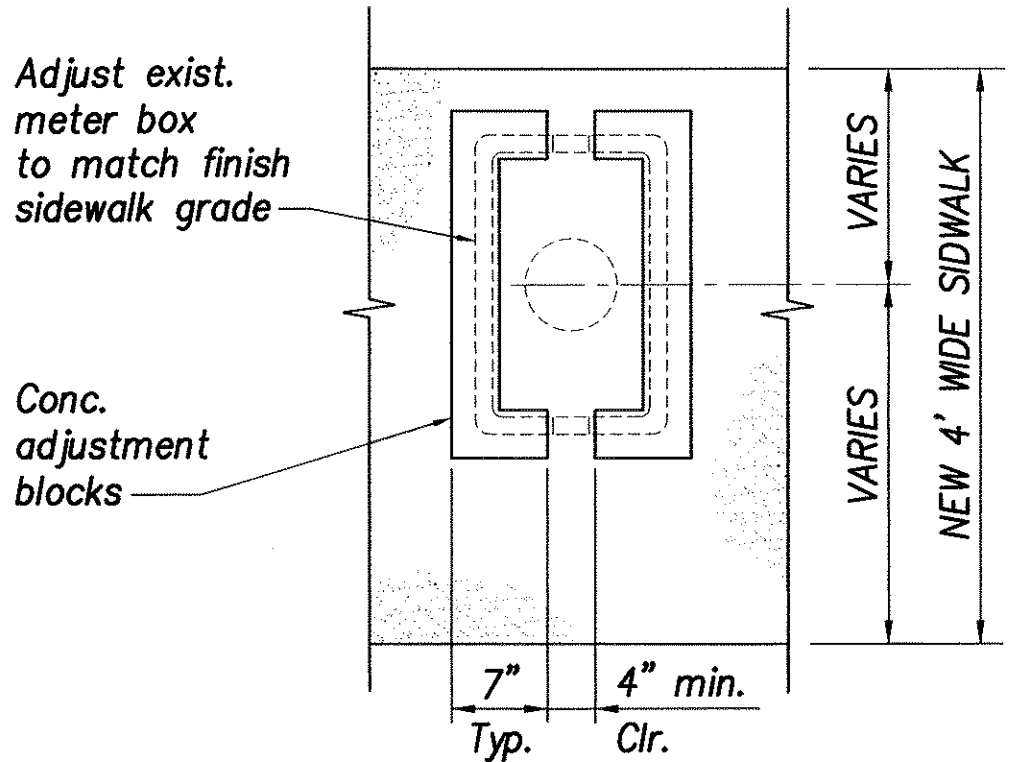
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(92)	2004	28	187



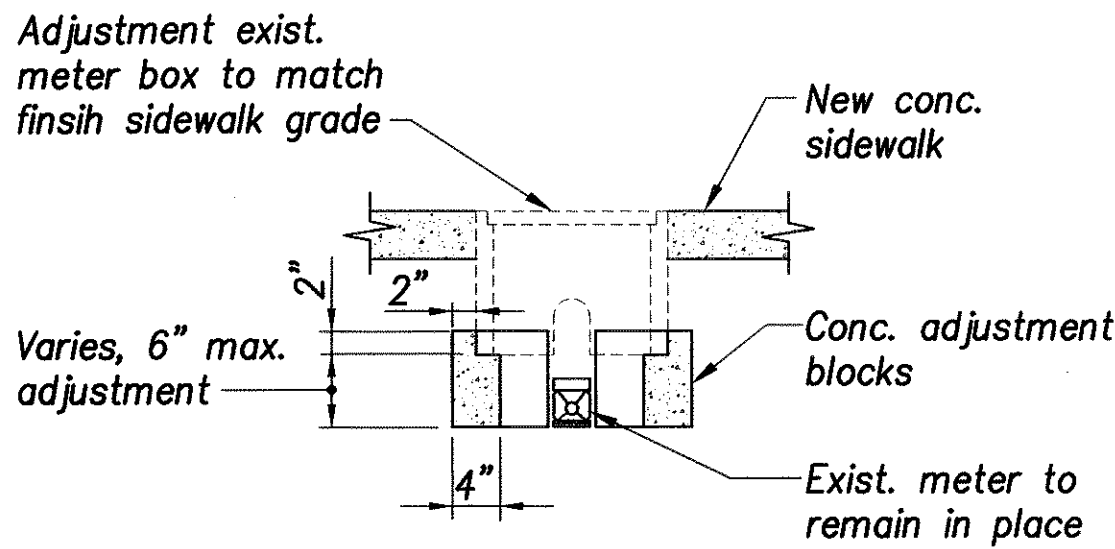
UTILITY BOX ADJUSTMENT  
Not to Scale



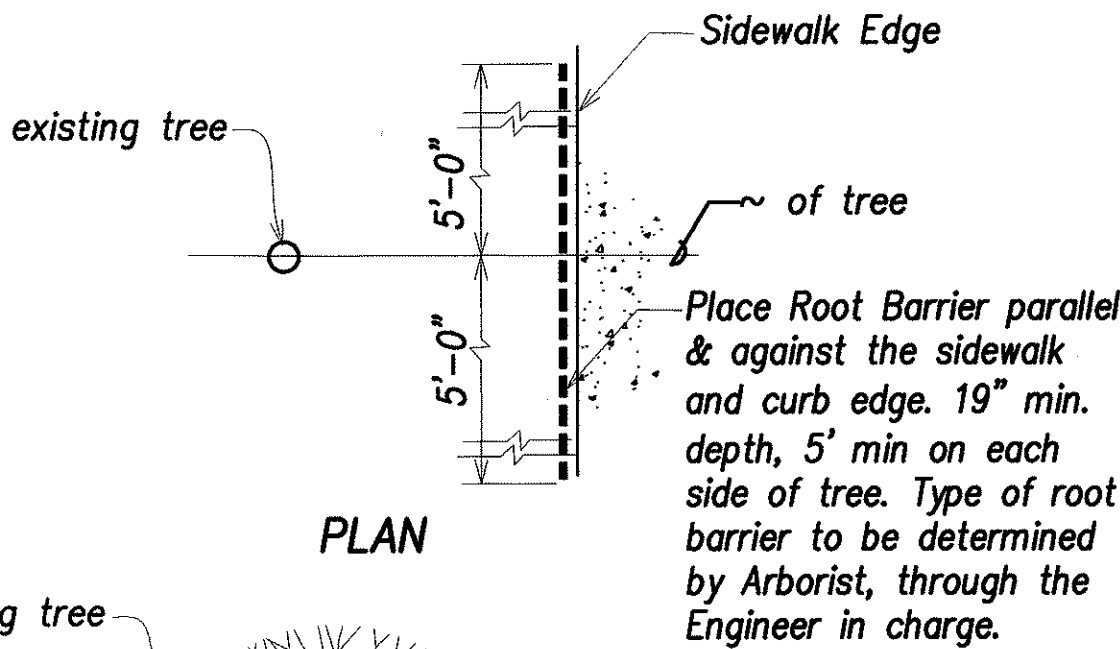
ADJUSTMENT OF VALVE BOX  
Not to Scale



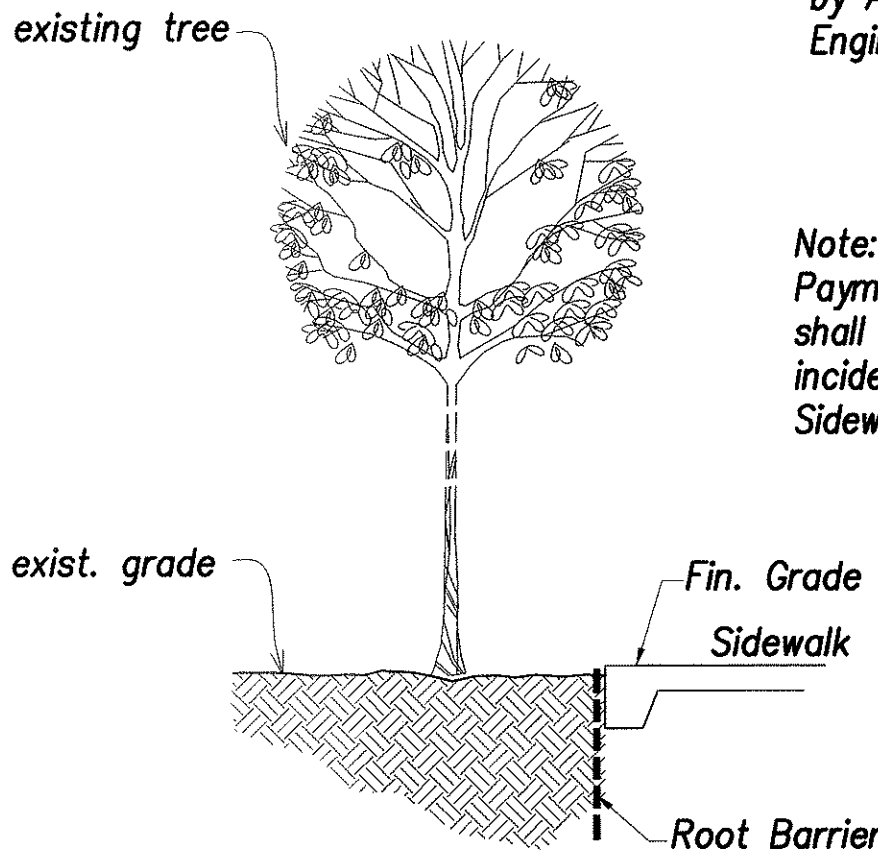
PLAN



METER BOX ADJUSTMENT DETAIL  
Not to Scale

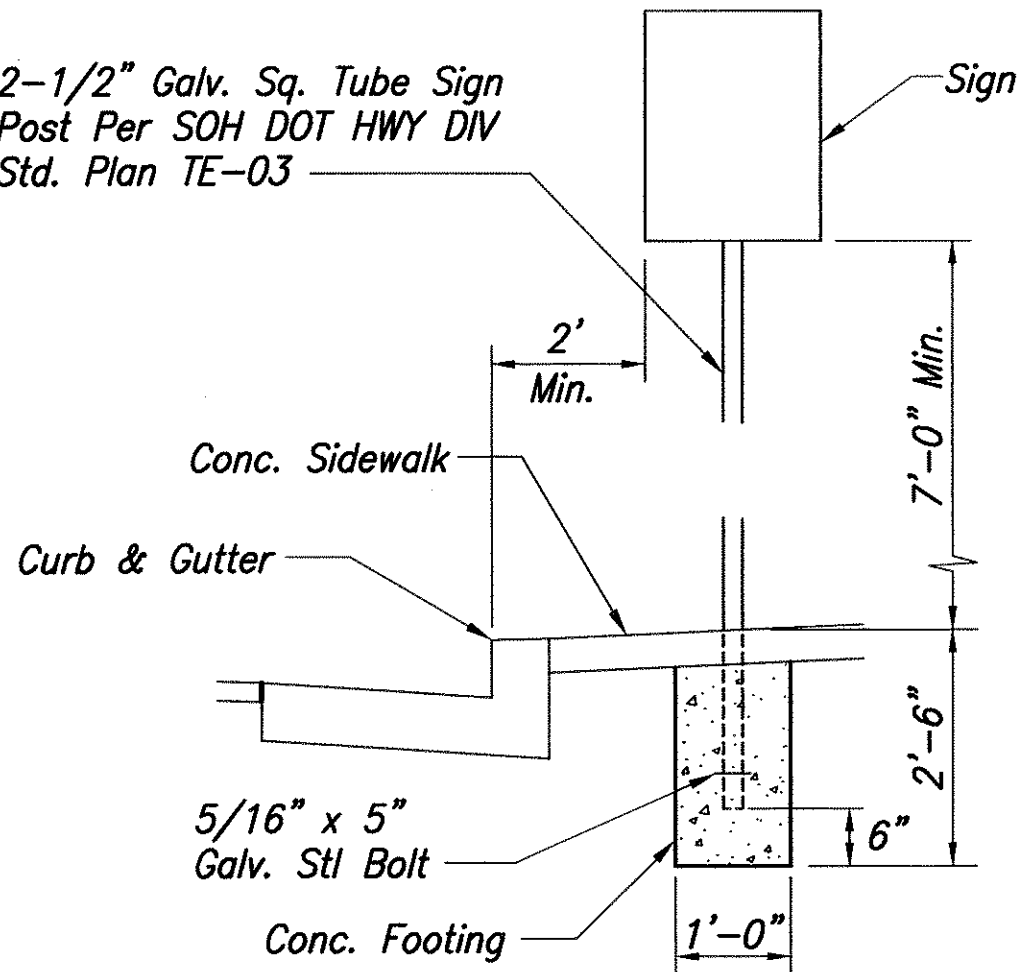


PLAN

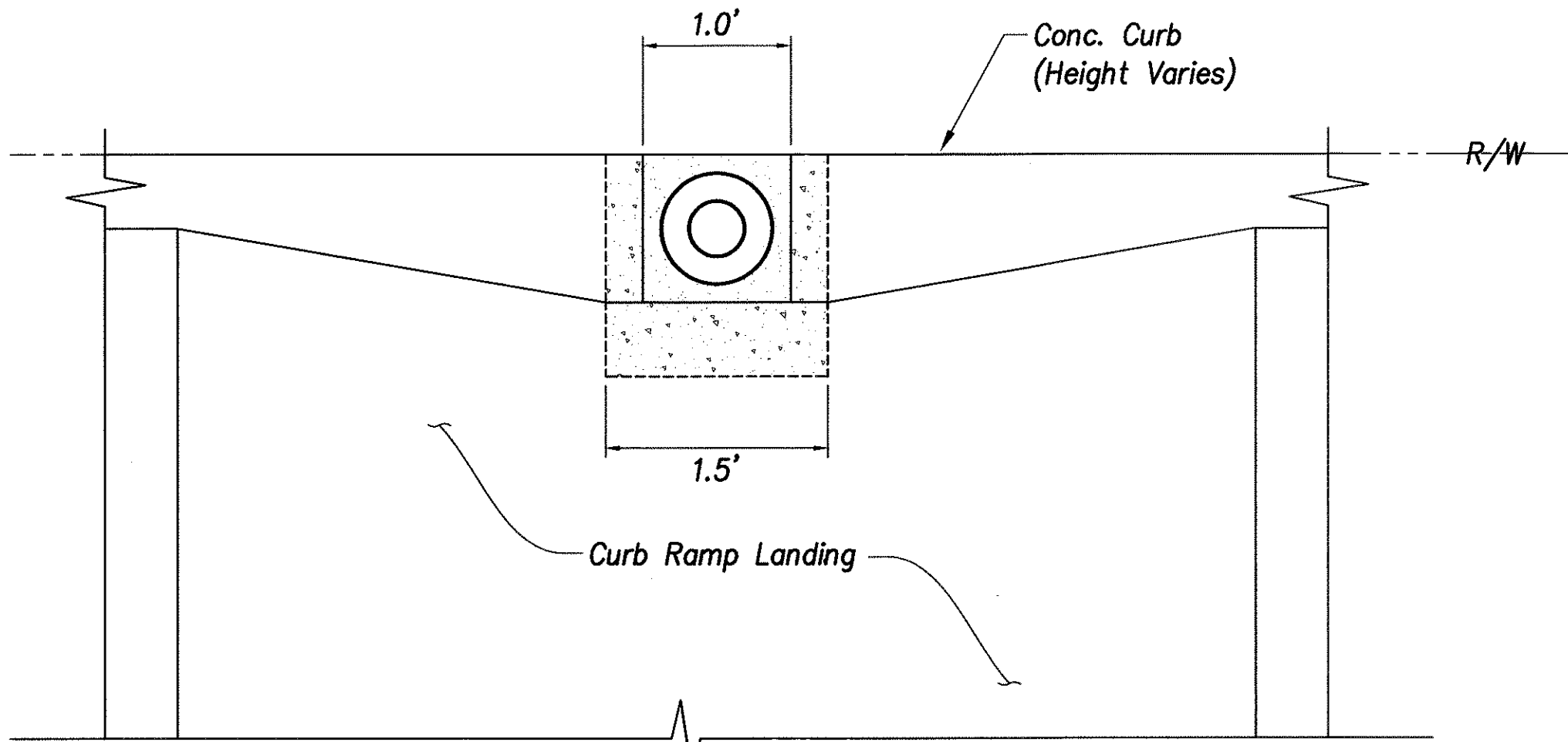


ROOT BARRIER DETAIL

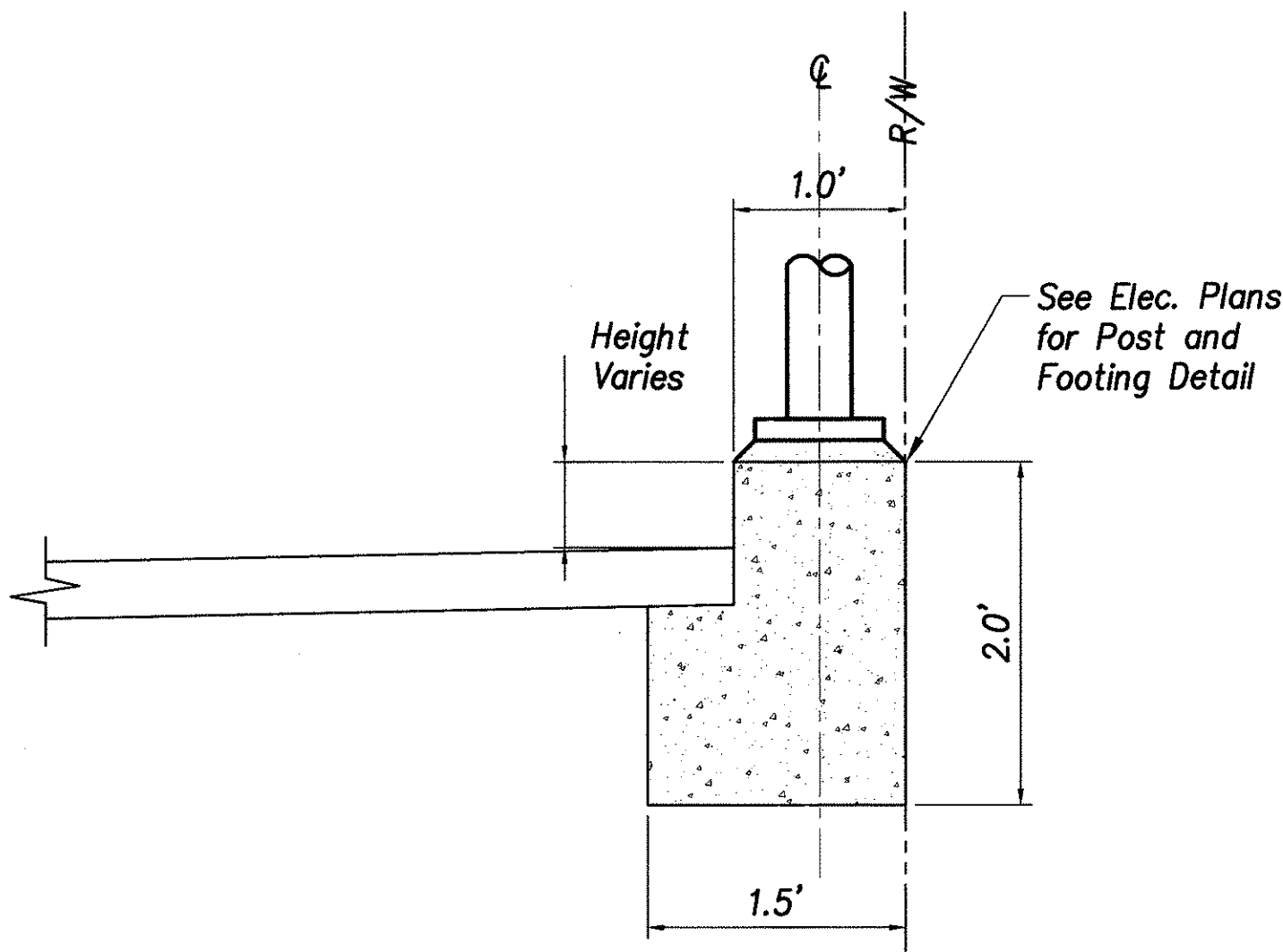
ROOT BARRIER DETAIL  
Not to scale



TYPICAL SIGN POST DETAIL  
Not to Scale



PLAN



SECTION

PPB FOOTING DETAIL AT R/W  
Not to Scale

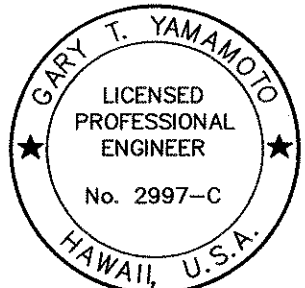
APPROVED:

Joseph W. Keshner  
Principal Executive  
Maintenance Unit, BWS

8/16/04  
Date

EARTH TECH

A Tyco Infrastructure Services Company  
841 Bishop Street, Suite 500  
Honolulu, HI 96813



EXPIRATION DATE OF THE LICENSE 4/30/2006  
THIS WORK WAS PREPARED BY  
ME OR UNDER MY SUPERVISION.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

### MISCELLANEOUS DETAILS-2

Pedestrian Facilities & ADA Compliance  
at Various Locations on Oahu, Unit 1  
Fed. Aid Proj. No. CMAQ-0300(92)

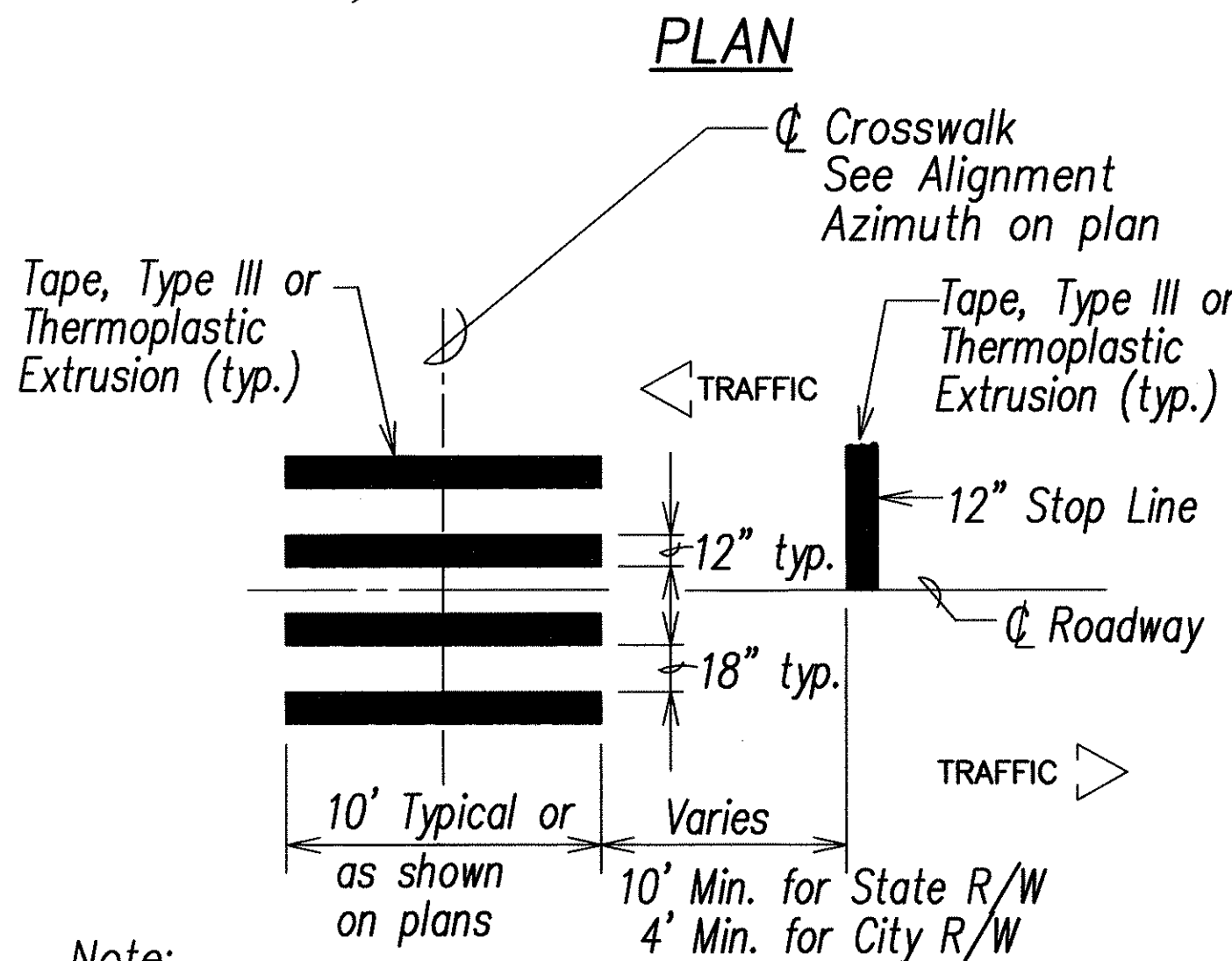
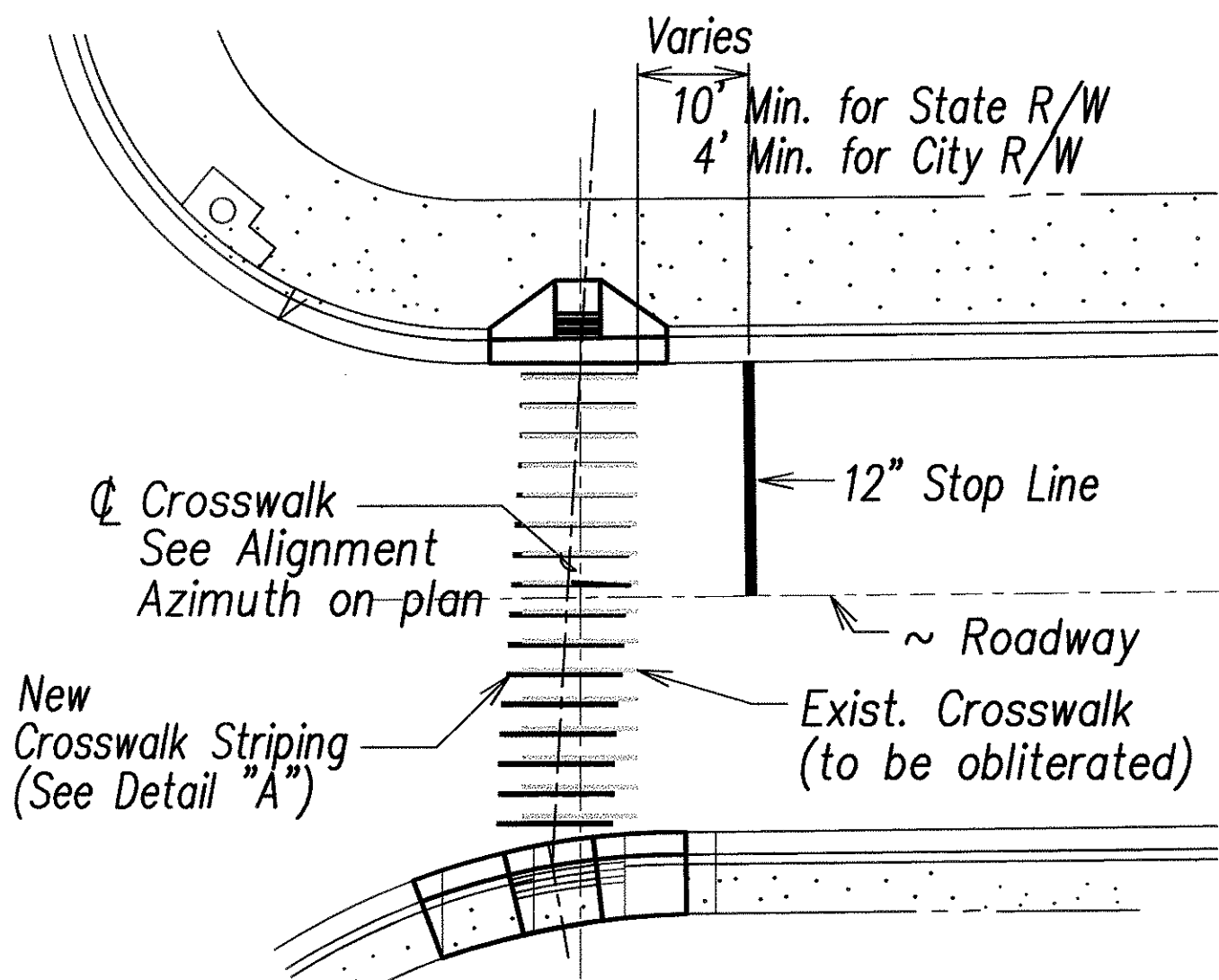
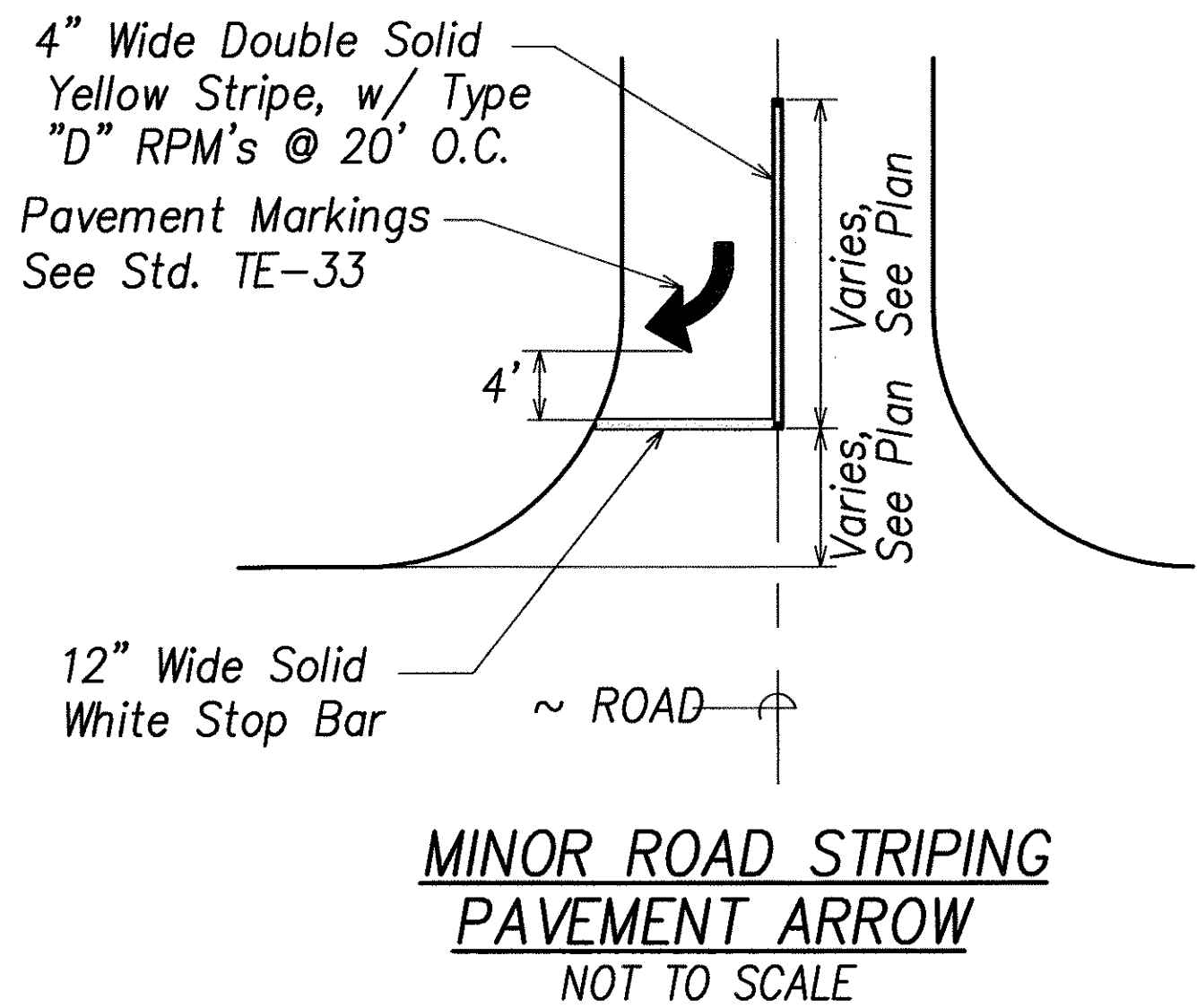
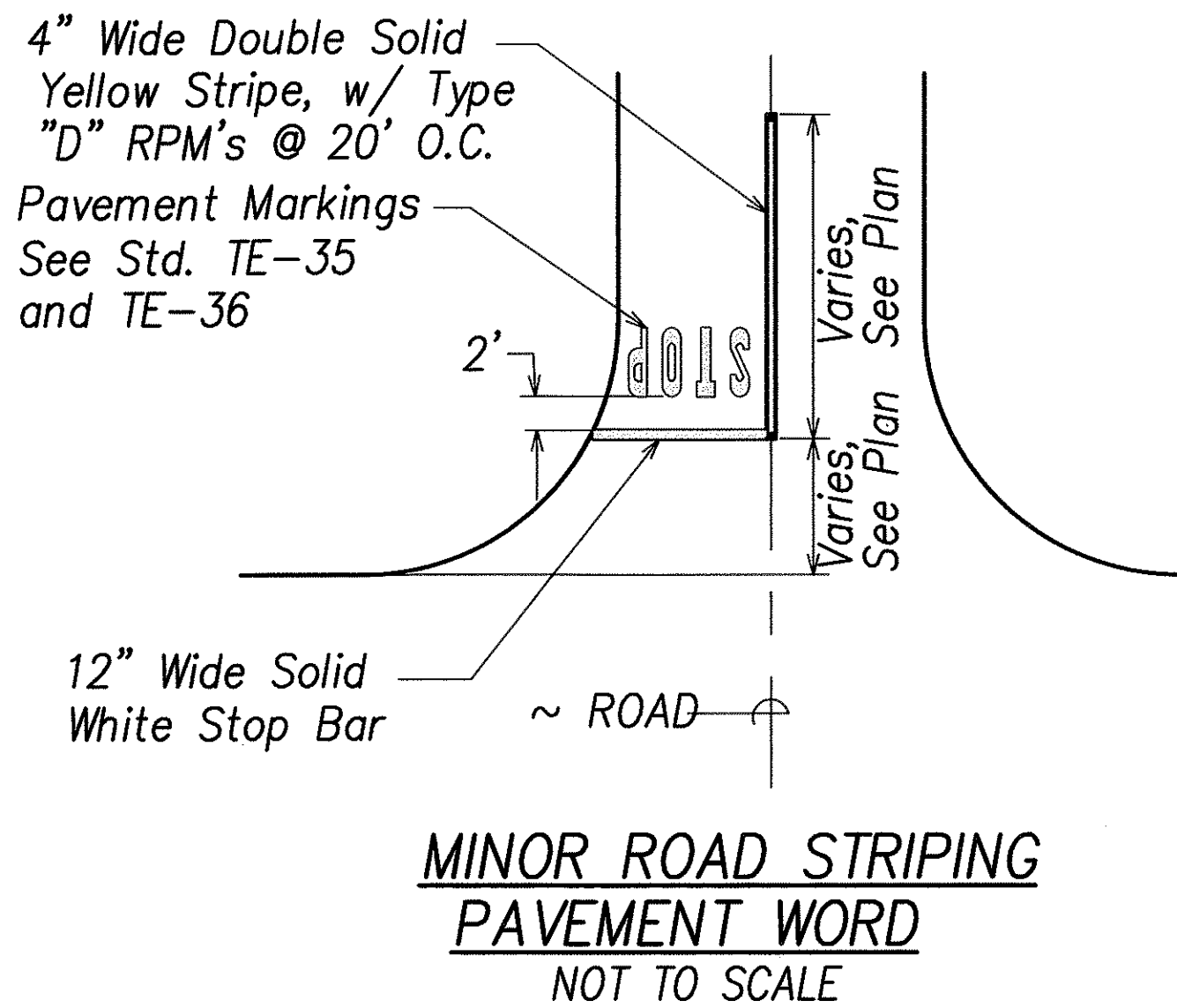
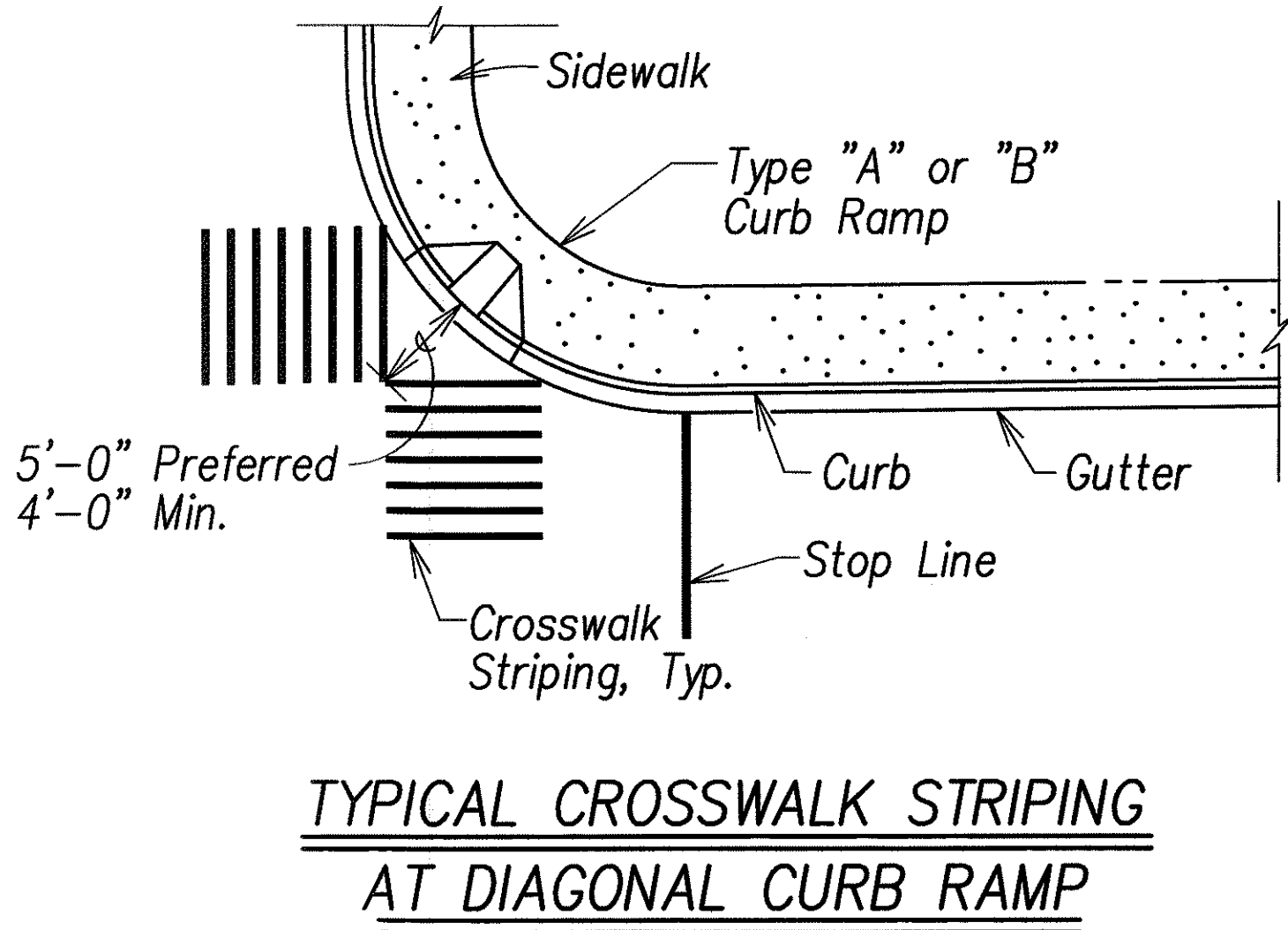
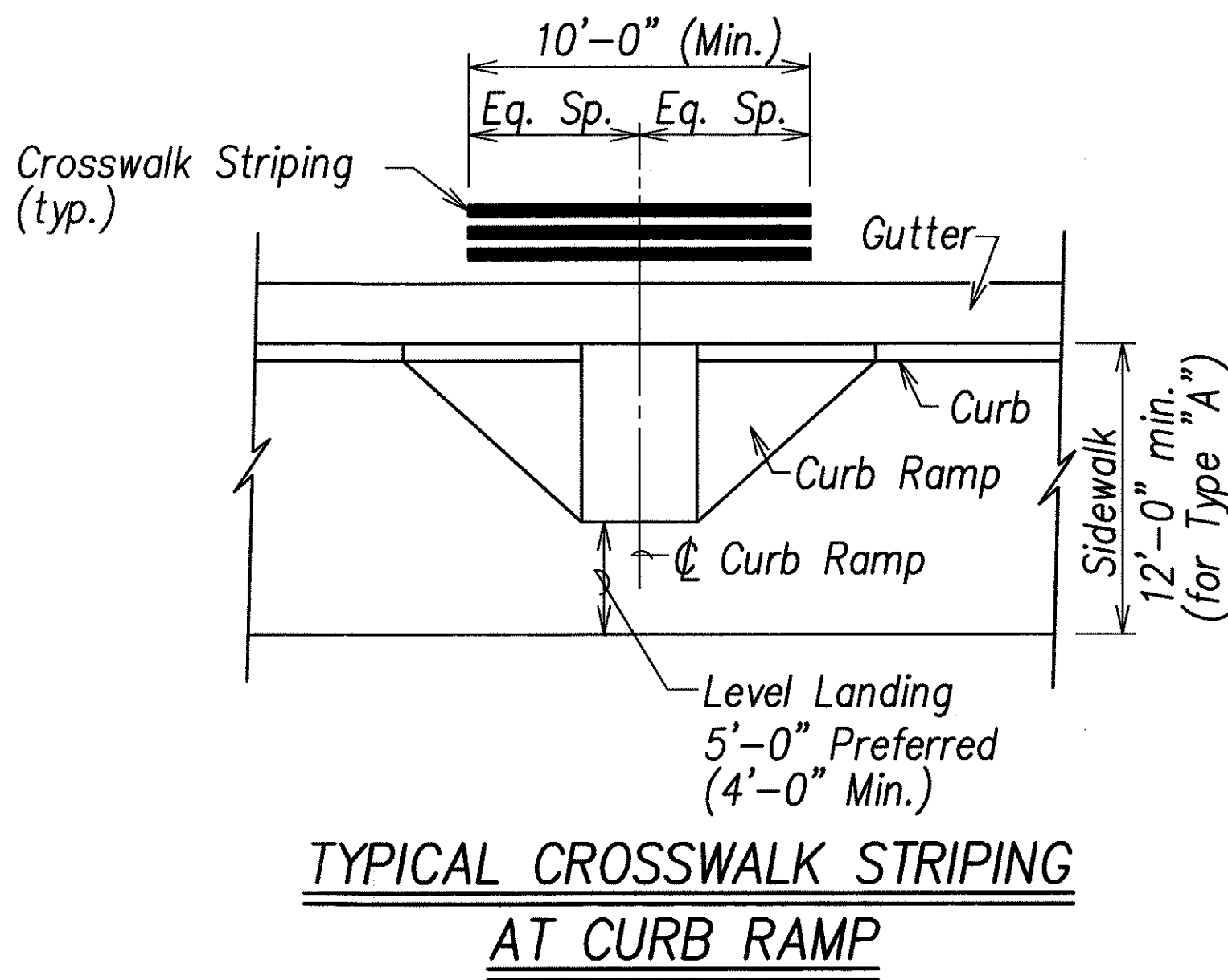
Scale: As Noted Date: August 2004

SHEET No. C-27 OF 154 SHEETS



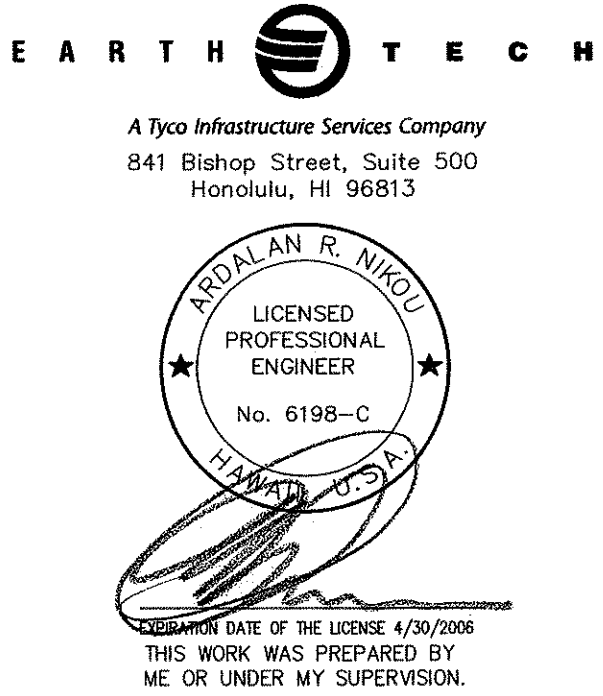


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(92)	2004	30	187



Note:  
Longitudinal lines shall be parallel to traffic flow.

### CROSSWALK STRIPING DETAIL



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STRIPING DETAILS**  
  
Pedestrian Facilities & ADA Compliance  
at Various Locations on Oahu, Unit 1  
Fed. Aid Proj. No. CMAQ-0300(92)

Scale: As Noted  
Date: August 2004

SHEET No. C-29 OF 154 SHEETS