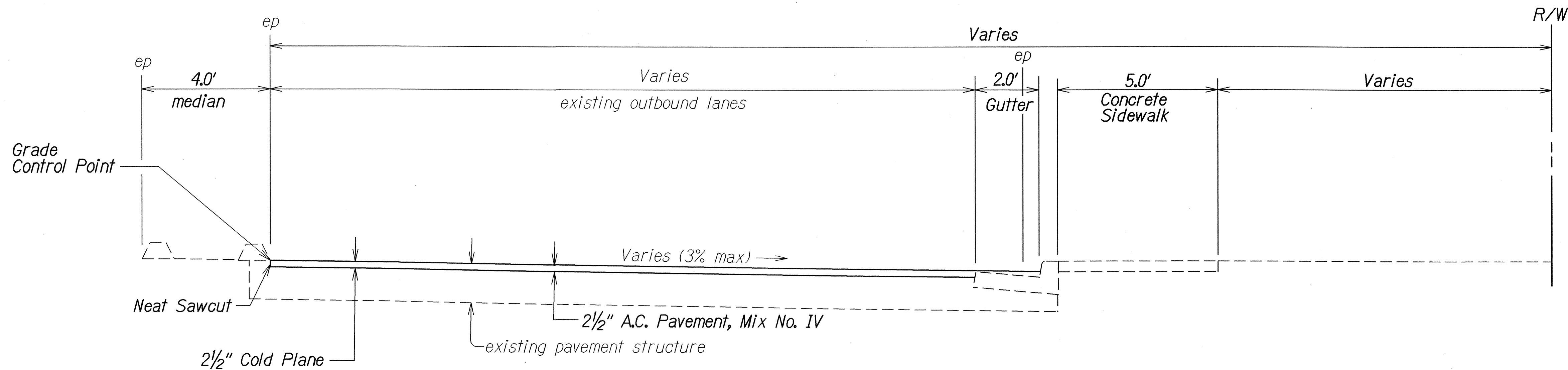
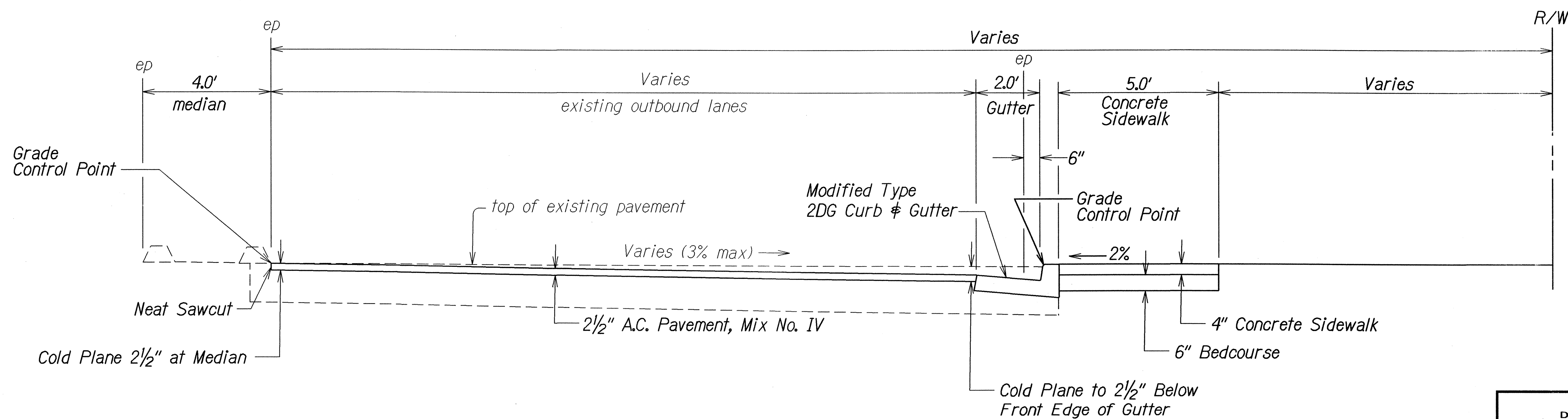


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-099-1(22)	2005	C.O.ADD.7	60



TYPICAL OUTBOUND SECTION
KAMEHAMEHA HWY. @ STA. 210+00 TO @ STA. 213+36± AND
KAMEHAMEHA HWY. @ STA. 255+02± TO @ STA. 265+00

Scale: 1/2" = 1'-0"



TYPICAL OUTBOUND SECTION

Scale: 1/2" = 1'-0"

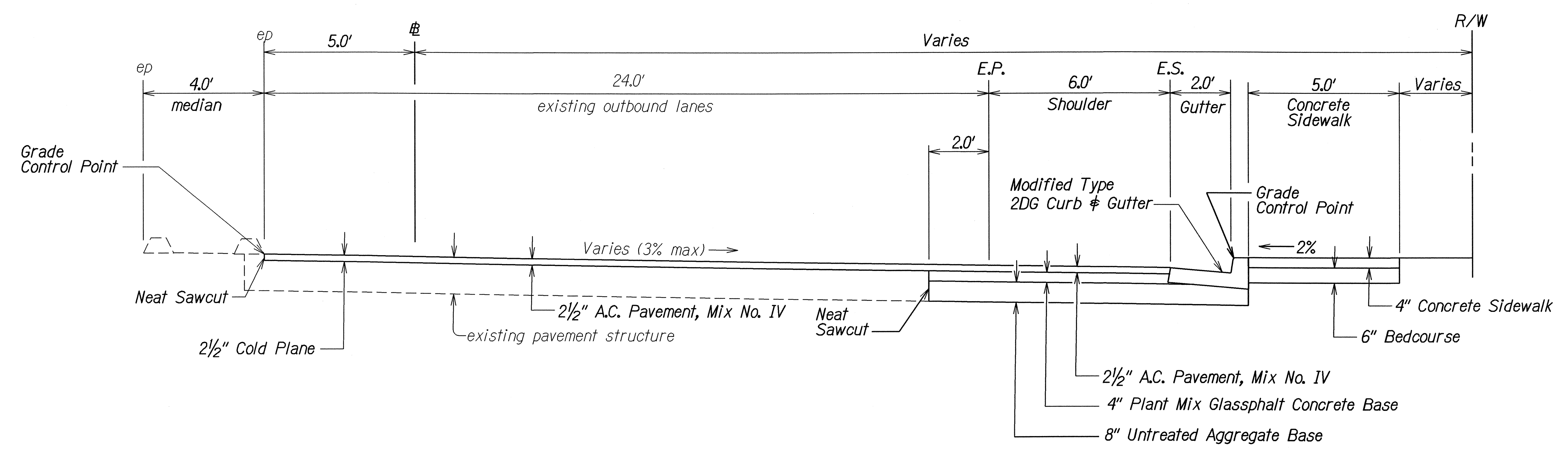
DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
CHECKED BY	

9/26/06	Revised typical sections.
01/11/05	Added sidewalk bedcourse to typical section.
DATE	REVISION

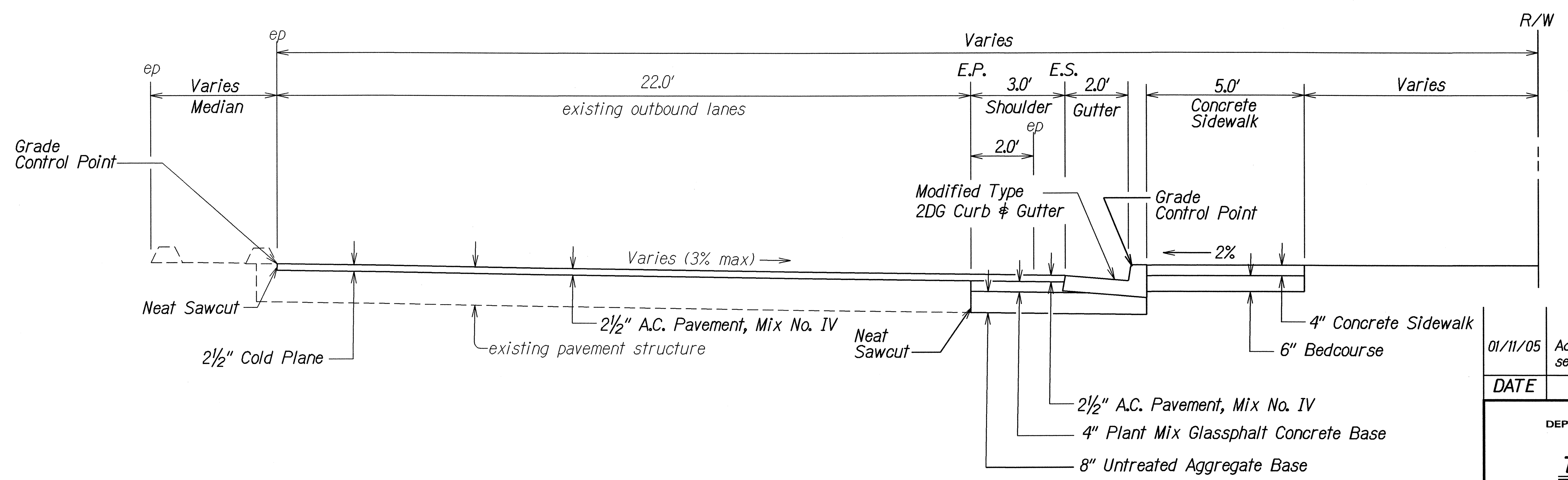
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>TYPICAL SECTION</u>	
<u>KAMEHAMEHA HIGHWAY BIKEWAY</u>	
<u>Vicinity of Radford Drive to Arizona Memorial</u>	
<u>Federal Aid Project No. CMAQ-099-1(22)</u>	
Scale: 1/2" = 1.0'	Date: Sept., 2006
SHEET No. 1 OF 3 SHEETS	

C.O. ADD. 7

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-099-1(22)	2005	ADD.8	60



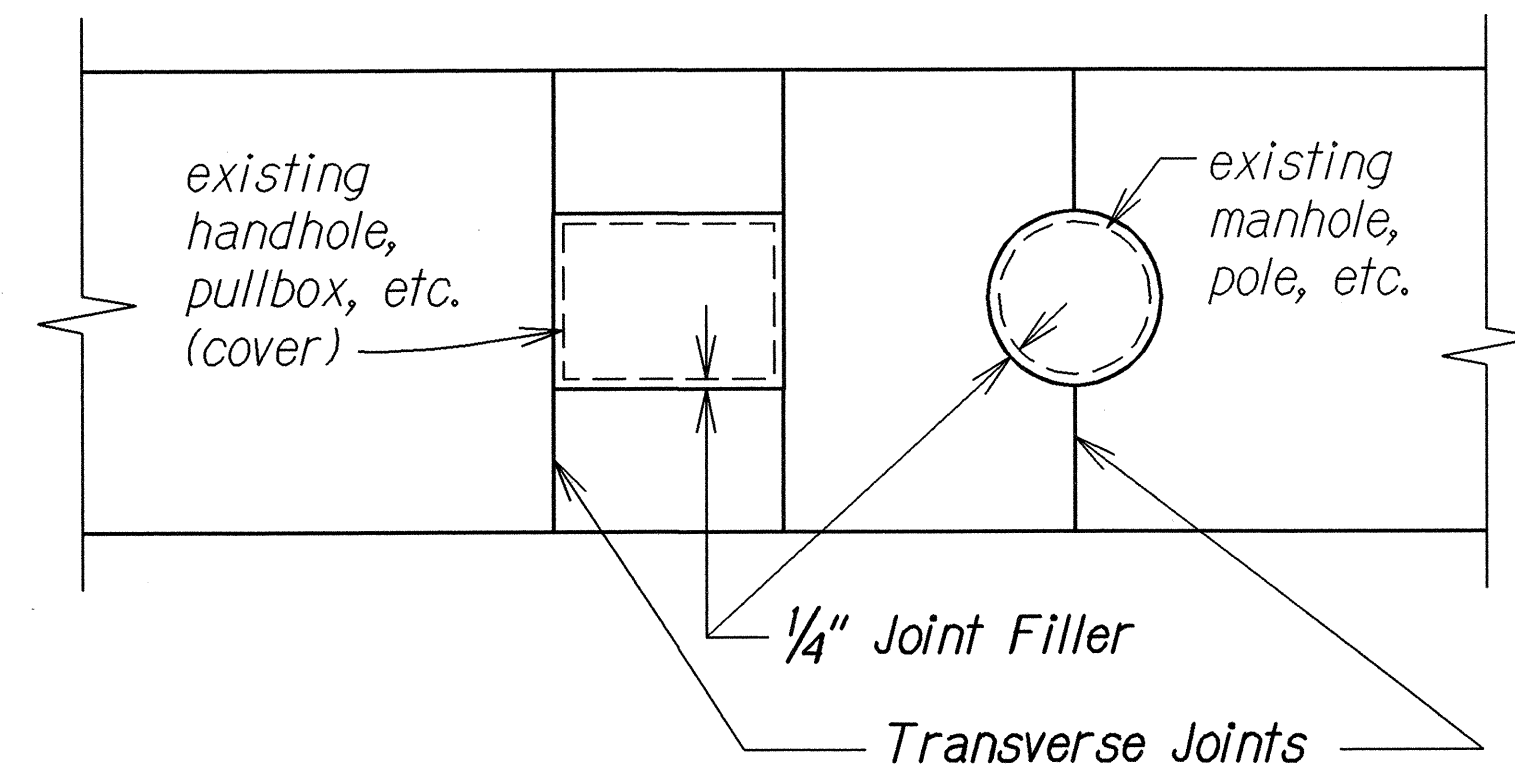
TYPICAL OUTBOUND SECTION
Kam Hwy. \pm Sta. 223+25 \pm to \pm Sta. 248+00 \pm and
Kam Hwy. \pm Sta. 250+64 \pm to \pm Sta. 253+00 \pm
Scale: $\frac{1}{2}$ " = 1'-0"



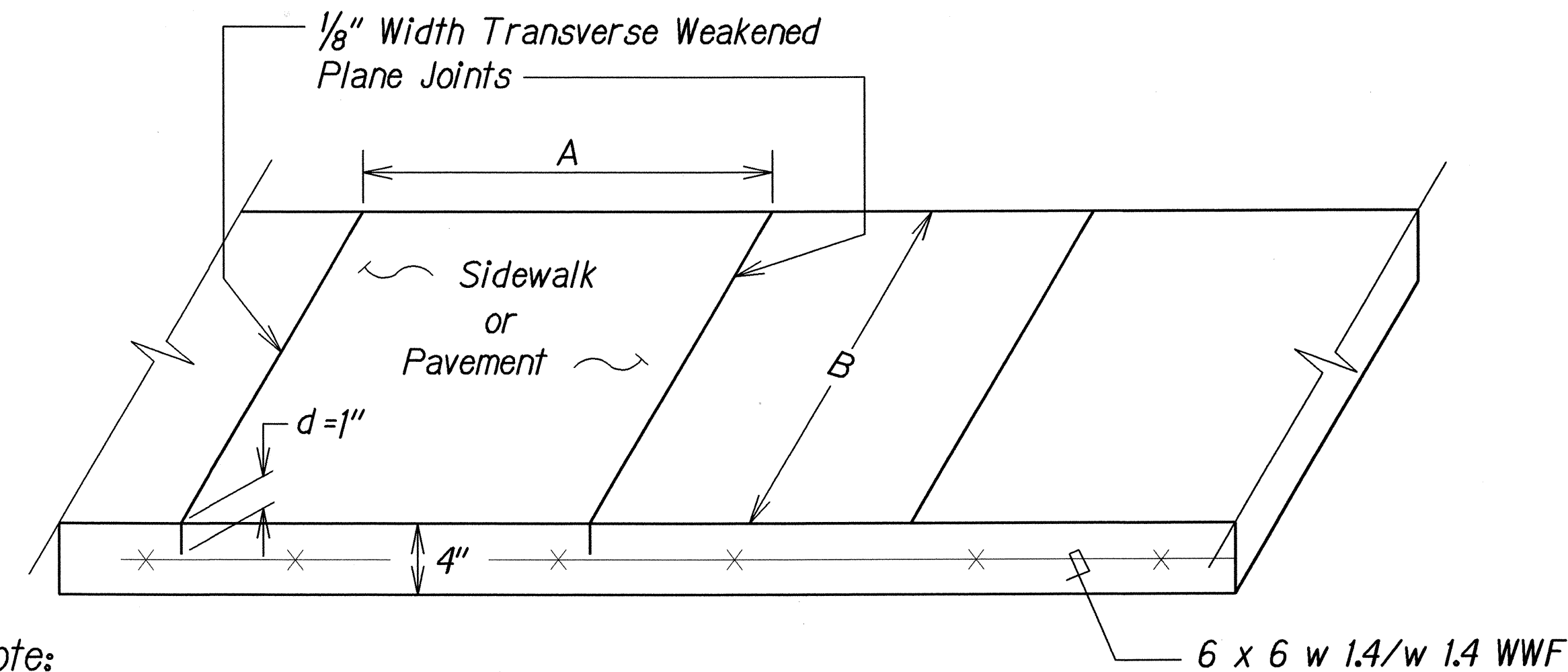
TYPICAL OUTBOUND SECTION
Kam Hwy. \pm Sta. 216+60 \pm to \pm Sta. 222+90 \pm
Scale: $\frac{1}{2}$ " = 1'-0"

01/11/05	Added sidewalk bedcourse to typical section.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <u>TYPICAL SECTION</u> <u>KAMEHAMEHA HIGHWAY BIKEWAY</u> <u>Vicinity of Radford Drive to Arizona Memorial</u> <u>Federal Aid Project No. CMAQ-099-1(22)</u> Scale: $\frac{1}{2}$ " = 1.0' Date: Aug., 2004	
SHEET No. 2 OF 3 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-099-1(22)	2005	9	60

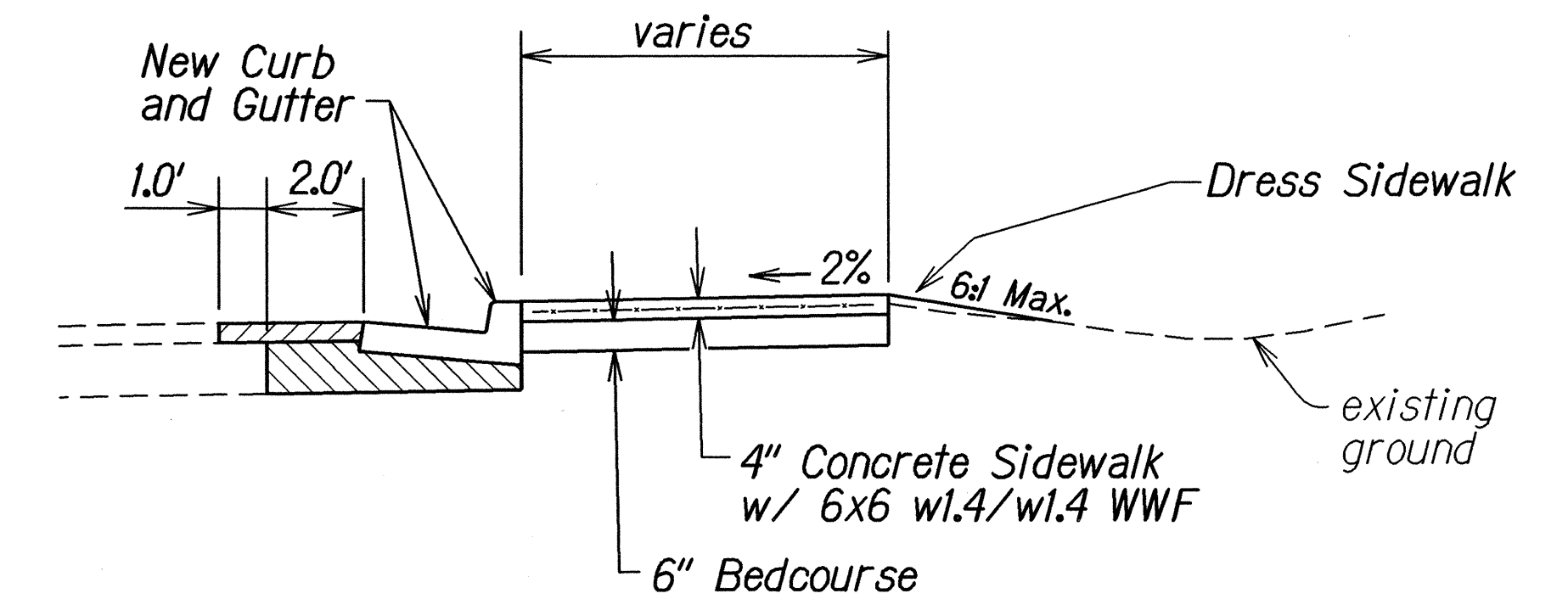


SIDEWALK ISOLATION JOINT DETAIL
Not To Scale

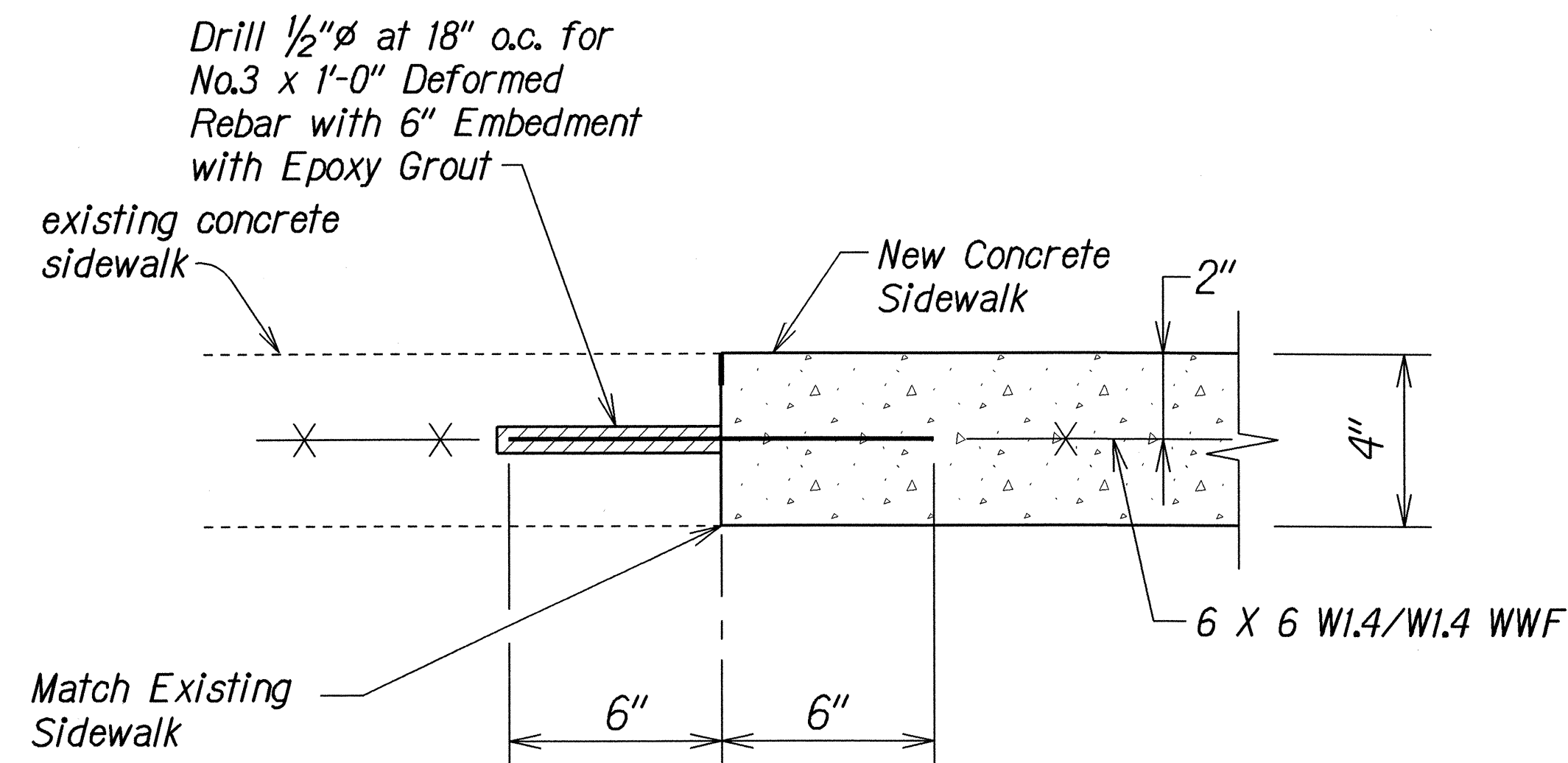


Note:
1. $(B/A \text{ or } A/B) < 1.25$ and $(A \text{ or } B)$ not to exceed 7'

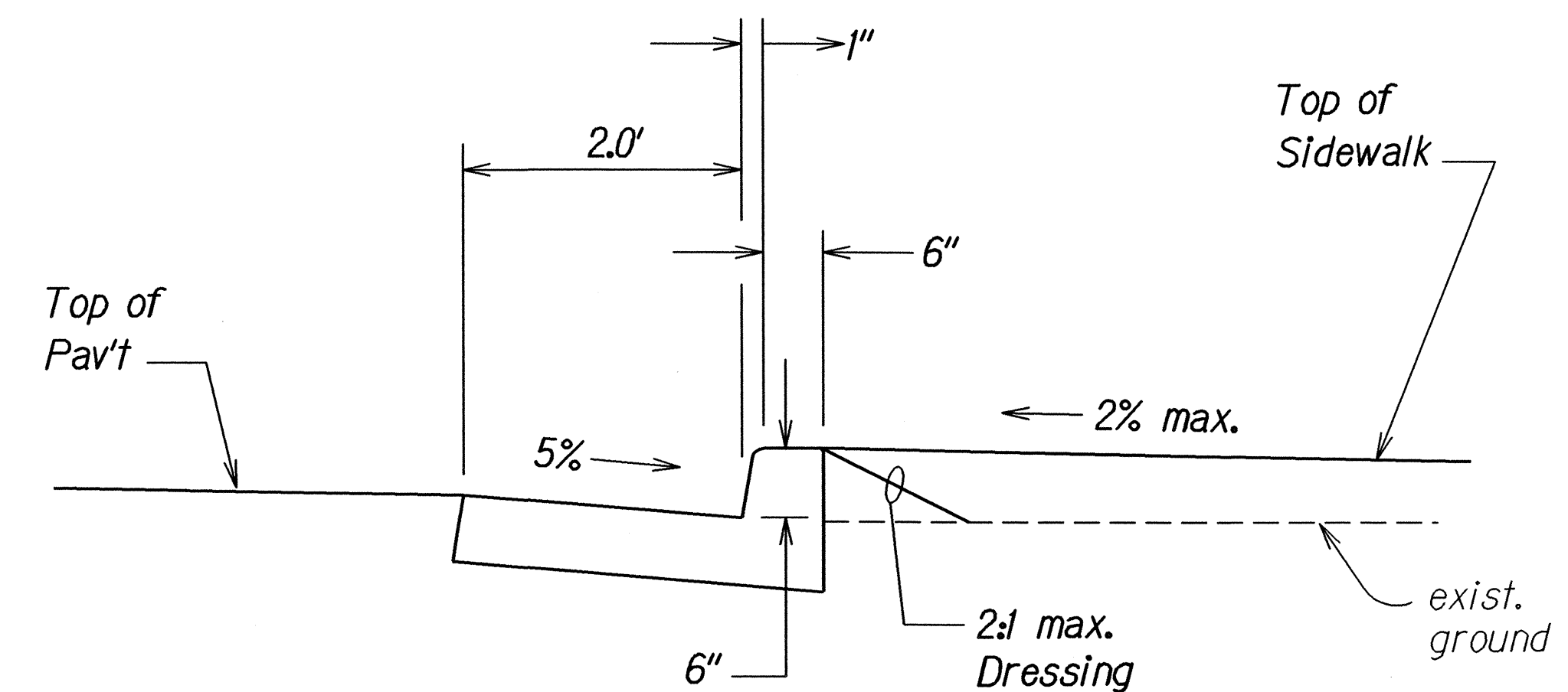
SIDEWALK SCORE LINE DETAIL
Not To Scale



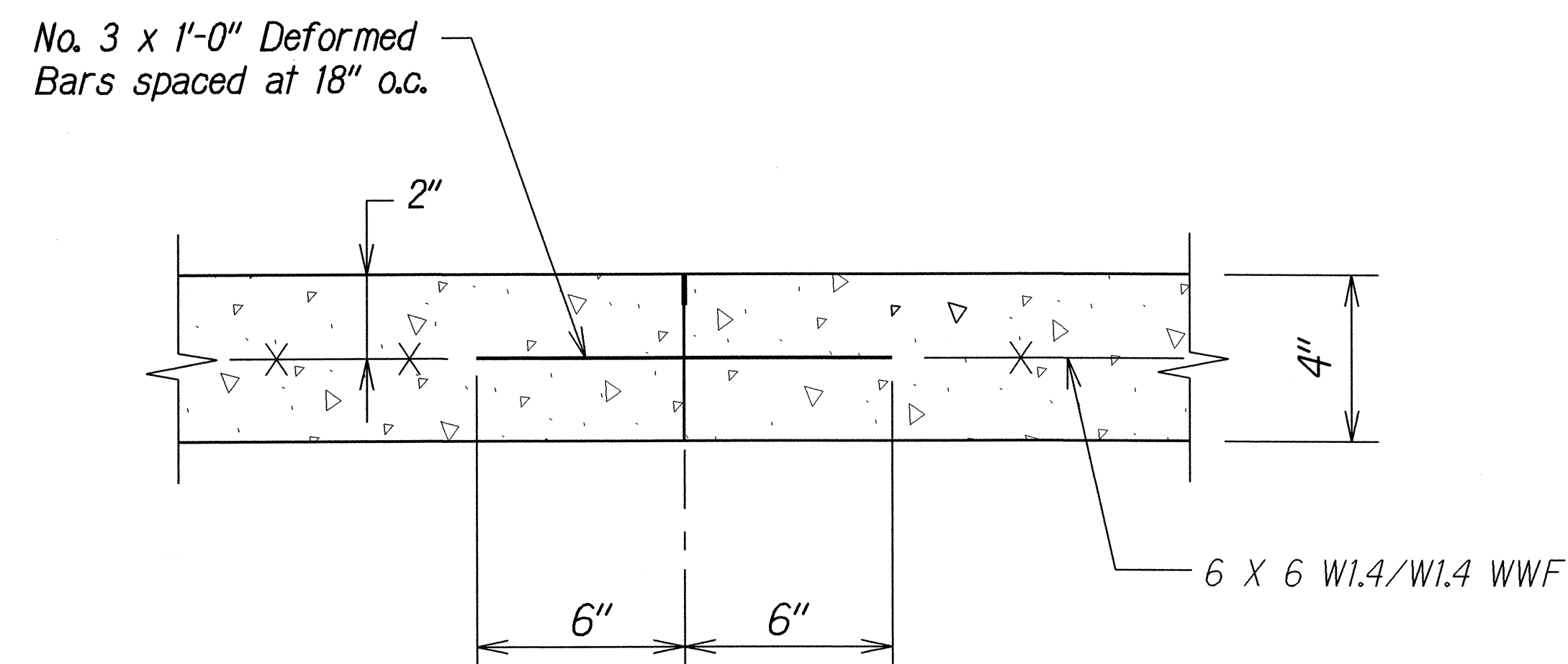
SIDEWALK DETAIL
Not to Scale



TRANSVERSE JOINT AT EXISTING SIDEWALK
Not to Scale



MODIFIED CURB AND GUTTER, TYPE 2DG
Not to Scale



TRANSVERSE CONSTRUCTION JOINT DETAIL
Not to Scale

SIDEWALK NOTES:

- Contractor shall carefully form sidewalk around the 5' X10' utility box located at Station 235+20 Rt. to prevent water ponding and tripping hazards.
- Refer to Sections 608 and 609 of the Special Provisions for additional information.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DETAILS

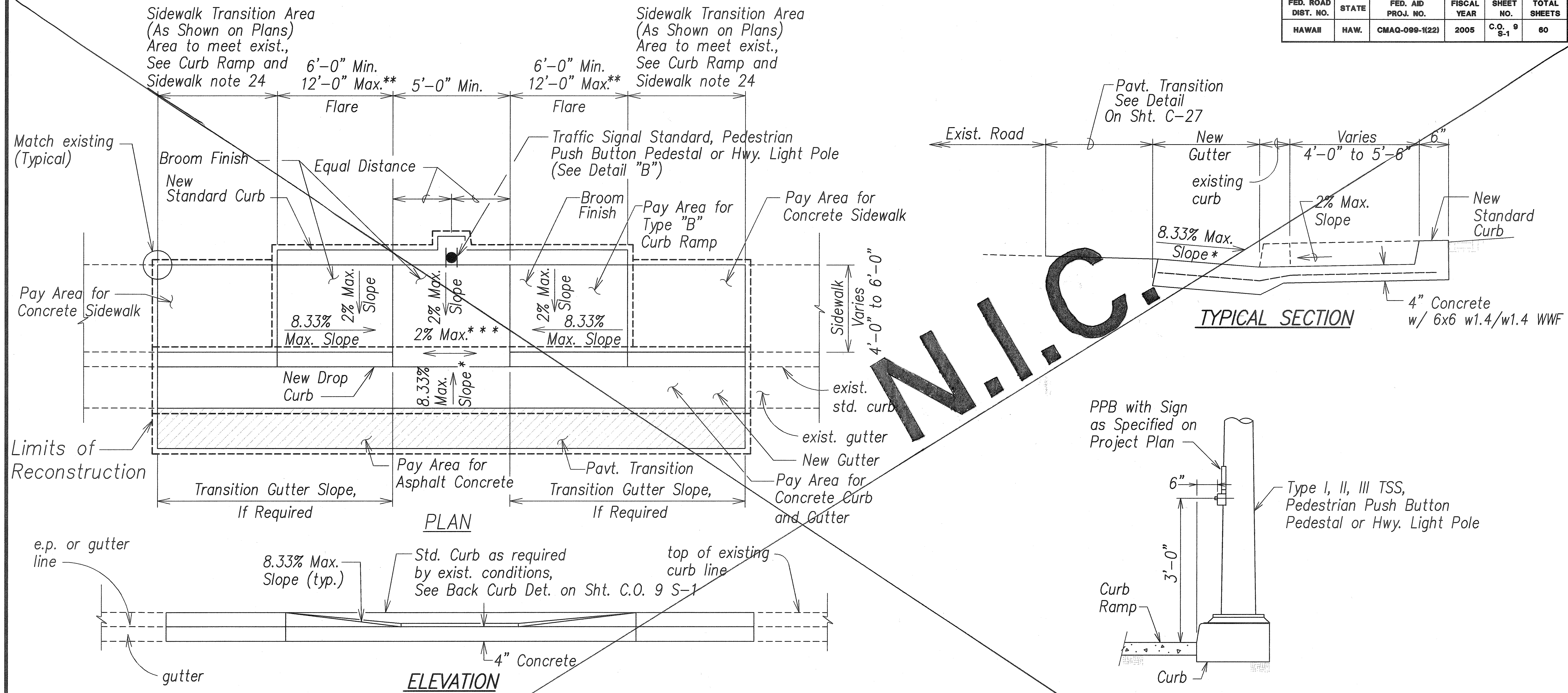
KAMEHAMEHA HIGHWAY BIKEWAY
Vicinity of Radford Drive to Arizona Memorial
Federal Aid Project No. CMAQ-099-1(22)

Not to Scale Date: June, 2004

SHEET No. 3 OF 3 SHEETS

DATE	10-6-04
SURVEY PLOTTED BY	W. J. J. J.
DESIGNED BY	W. J. J. J.
TRACED BY	W. J. J. J.
NOTED BY	W. J. J. J.
QUANTITIES BY	W. J. J. J.
CHECKED BY	W. J. J. J.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-099-1(22)	2005	C.O. 9 S-1	60



CURB RAMP - TYPE "B"

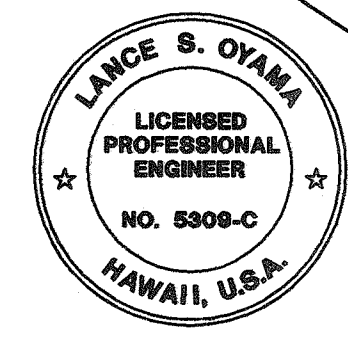
Not to scale

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 a Technical Infeasibility (Ti) Statement



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Lance S. Oyama
SIGNATURE DATE

"OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS".

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CURB RAMP DETAILS	
KAMEHAMEHA HIGHWAY BIKEWAY Vicinity of Radford Drive to Arizona Memorial Federal Aid Project No. CMAQ-099-1(22)	
Scale:	Date: August 2005
SHEET No. 1 OF 5 SHEETS	

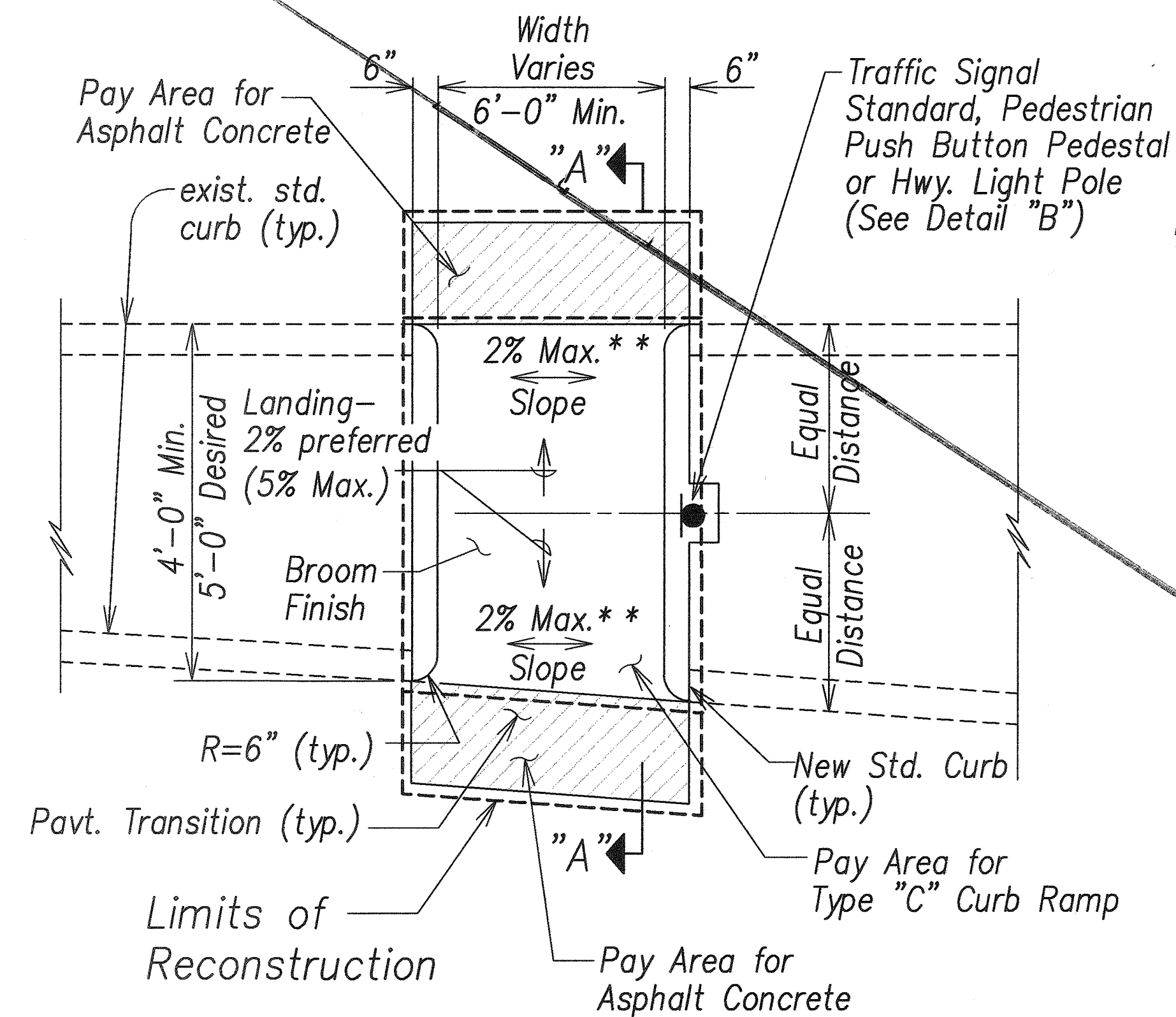
"AS-BUILT"

C.O. 9 S-1

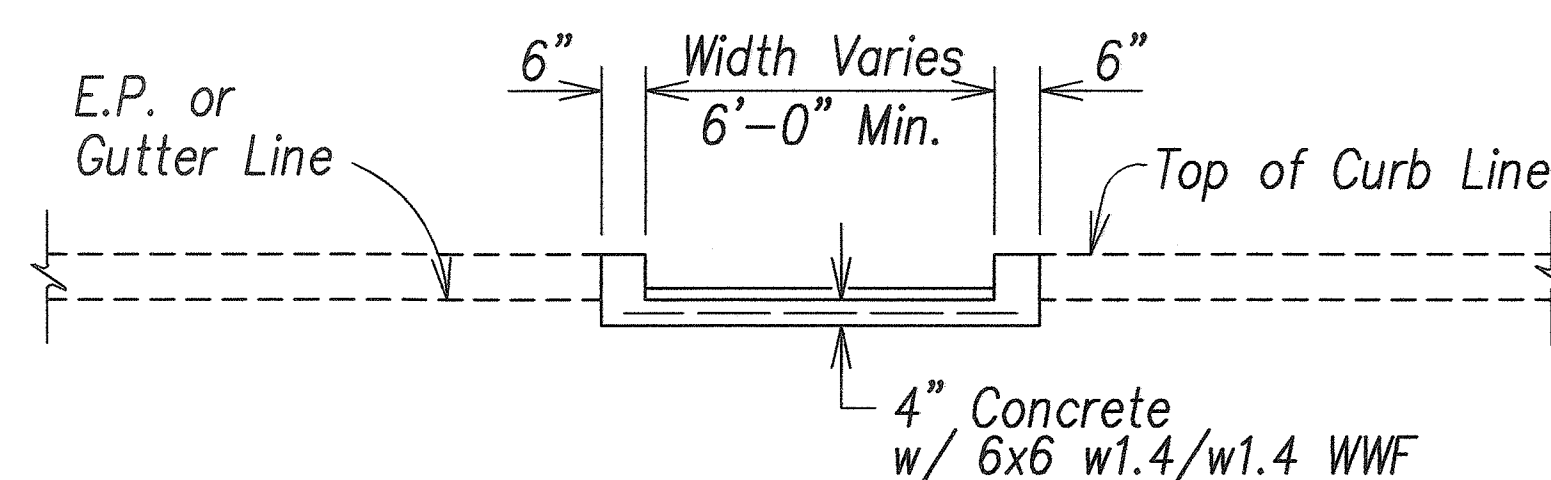
ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	
No.	

File name: C.O. 9 S-1 Plot date: Aug 26, 2005-05:24:36pm CAD User: ericoble Xref Filename: | bdr-dothwy | AUTODATE |

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-089-1(22)	2005	C.O. 9 S-2	60



PLAN

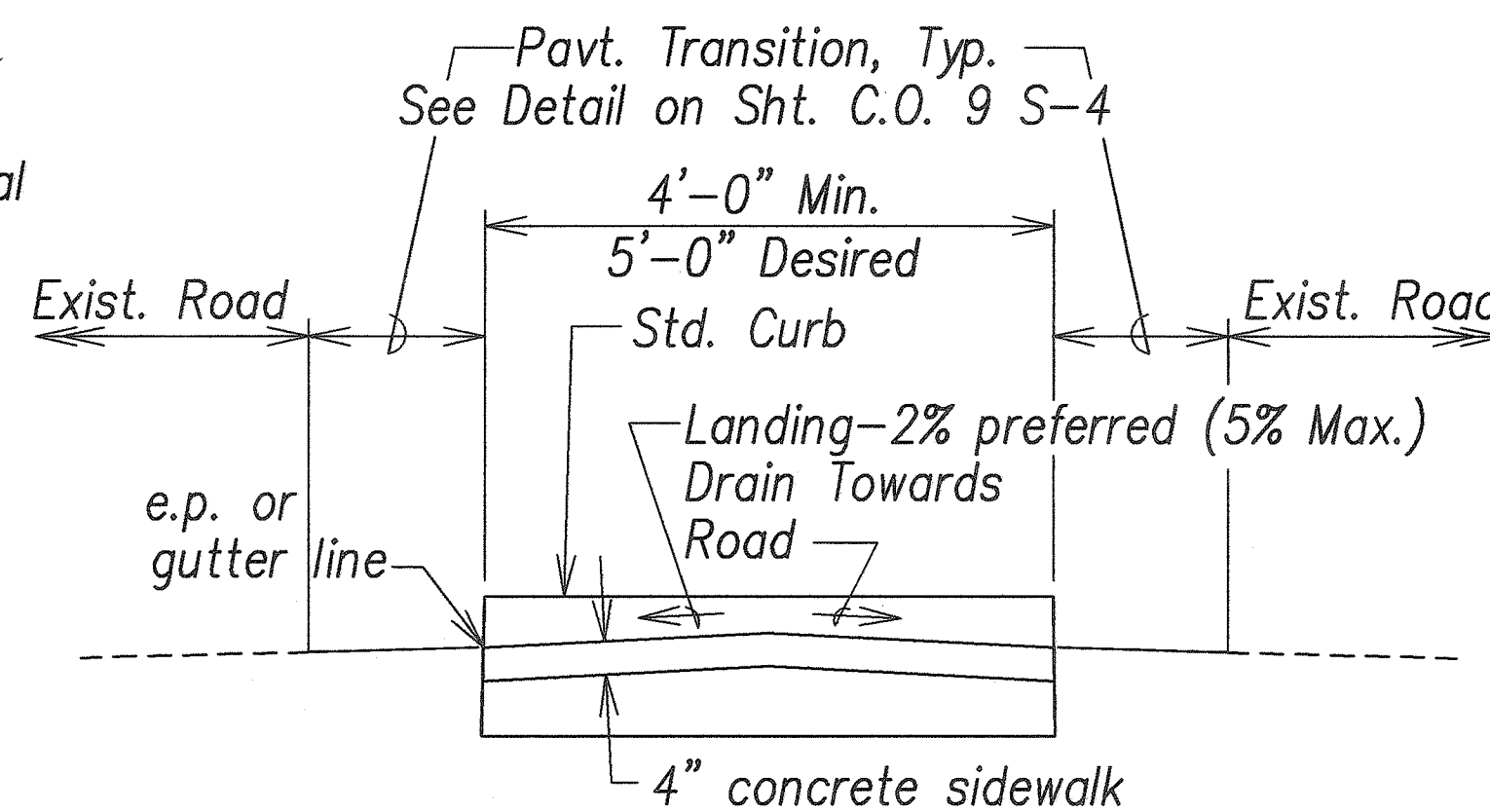


ELEVATION

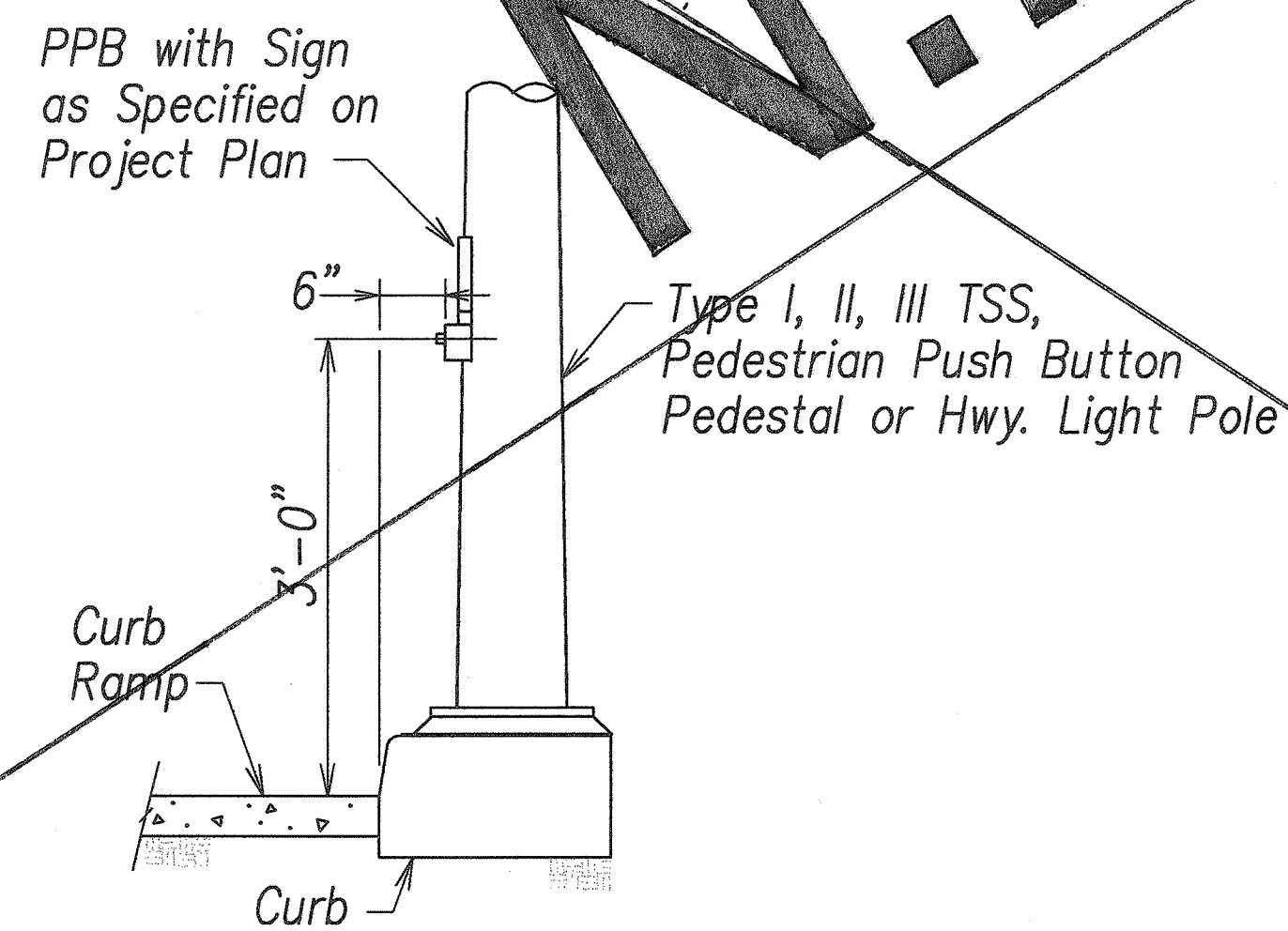
CURB RAMP - TYPE "C"

Not to scale
USE AT MEDIAN CROSSINGS, ISLANDS

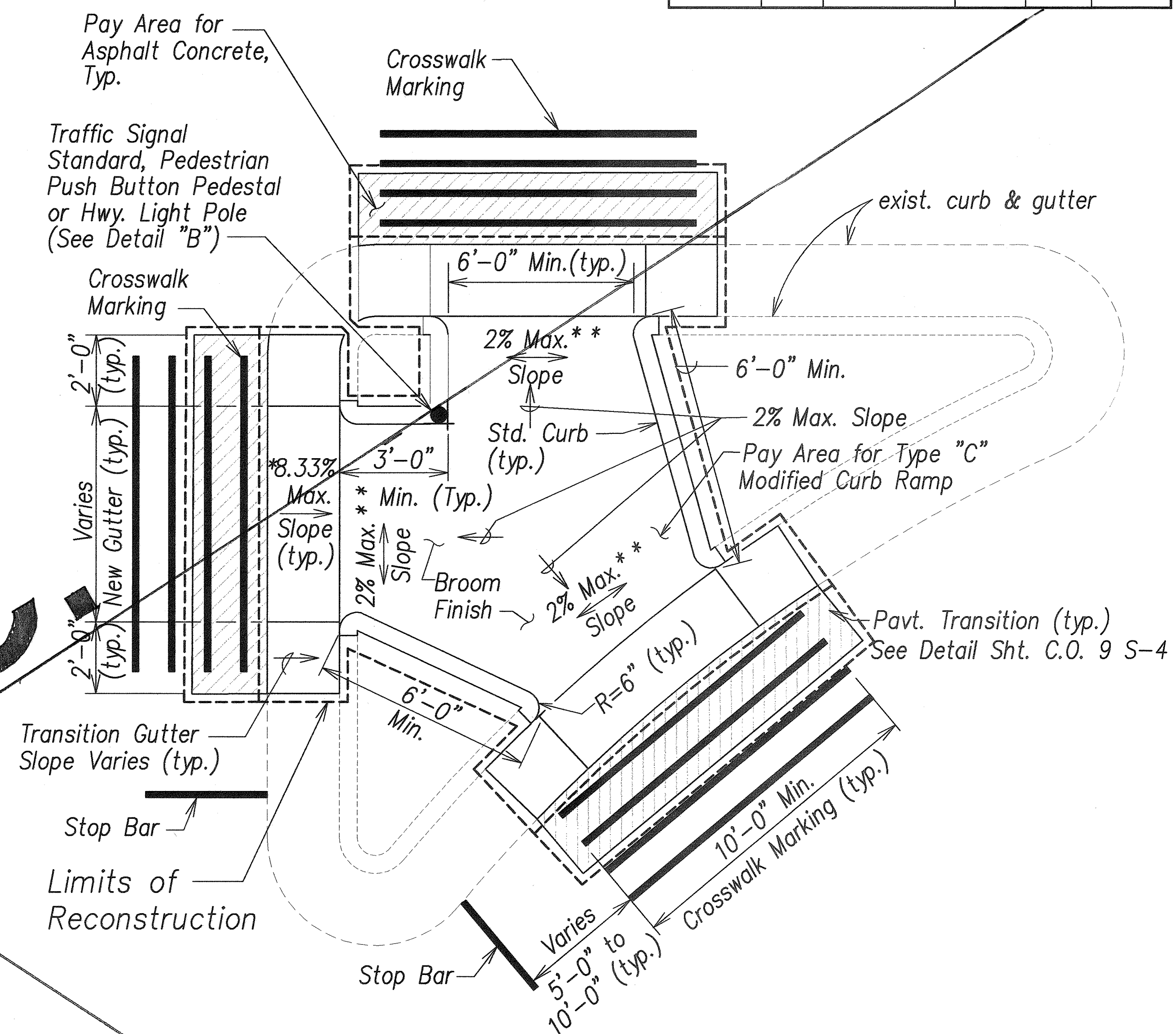
* See Curb Ramp and Sidewalk Note No. 9
** If roadway slope >2% conform to roadway slope and file a Technical Infeasibility (TI) Statement



SECTION "A-A"



DETAIL "B"



~~CURB RAMP - TYPE "C" MODIFIED~~

Not to scale

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 AND CONSTRUCTION OF THIS
PROJECT WILL BE UNDER MY OBSERVATION

James J. Oyama 4/30/08
SIGNATURE DATE

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP DETAILS

KAMEHAMEHA HIGHWAY BIKEWAY
Vicinity of Radford Drive to Arizona Memorial
Federal Aid Project No. CMAQ-099-1(22)

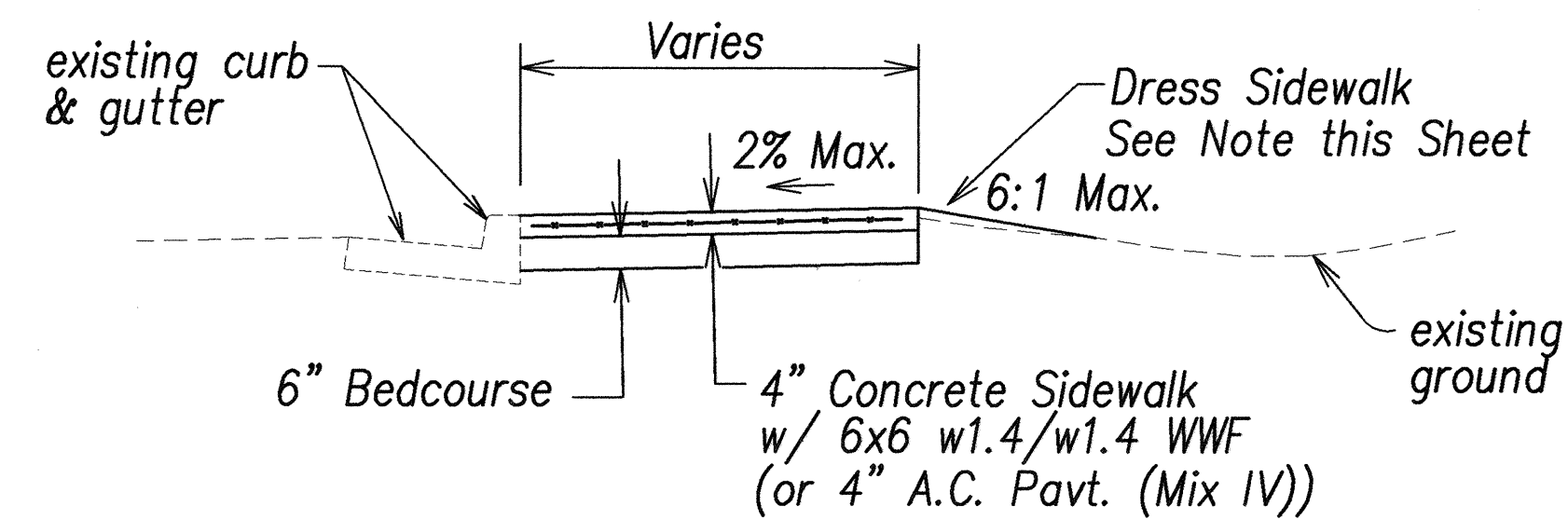
Scale: _____ Date: August 2005

SHEET No. 2 OF 5 SHEETS

"AS-BUILT"

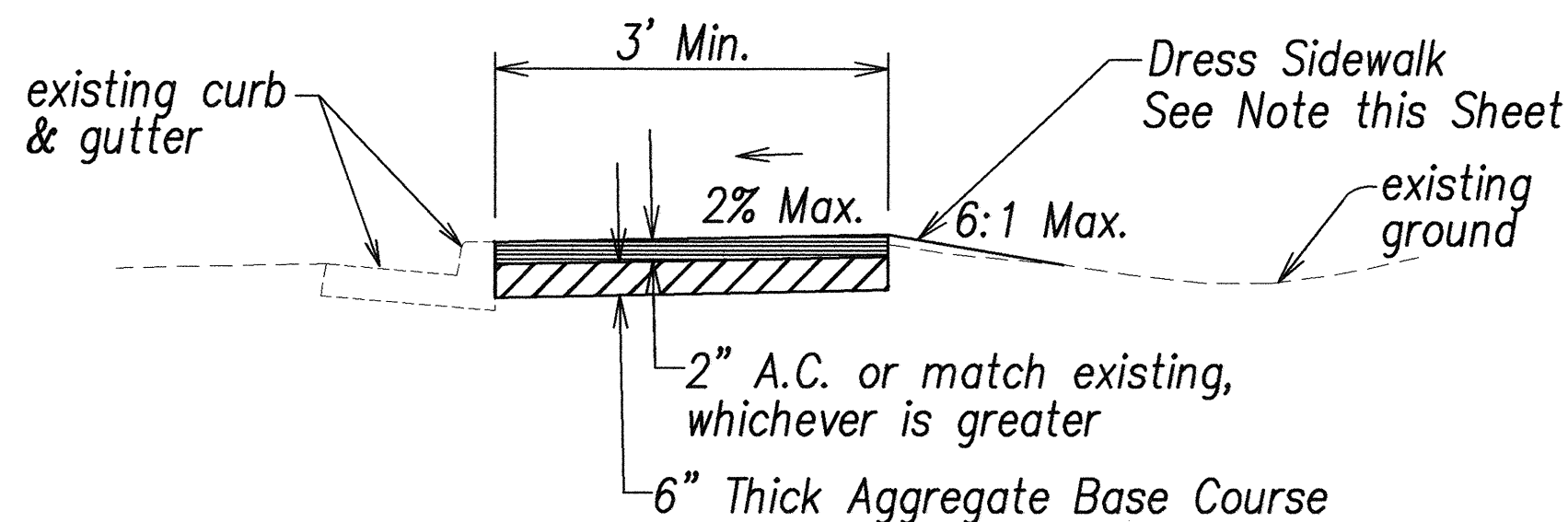
C.O. 9 S-2

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-099-1(22)	2005	C.O. 9 S-3	60



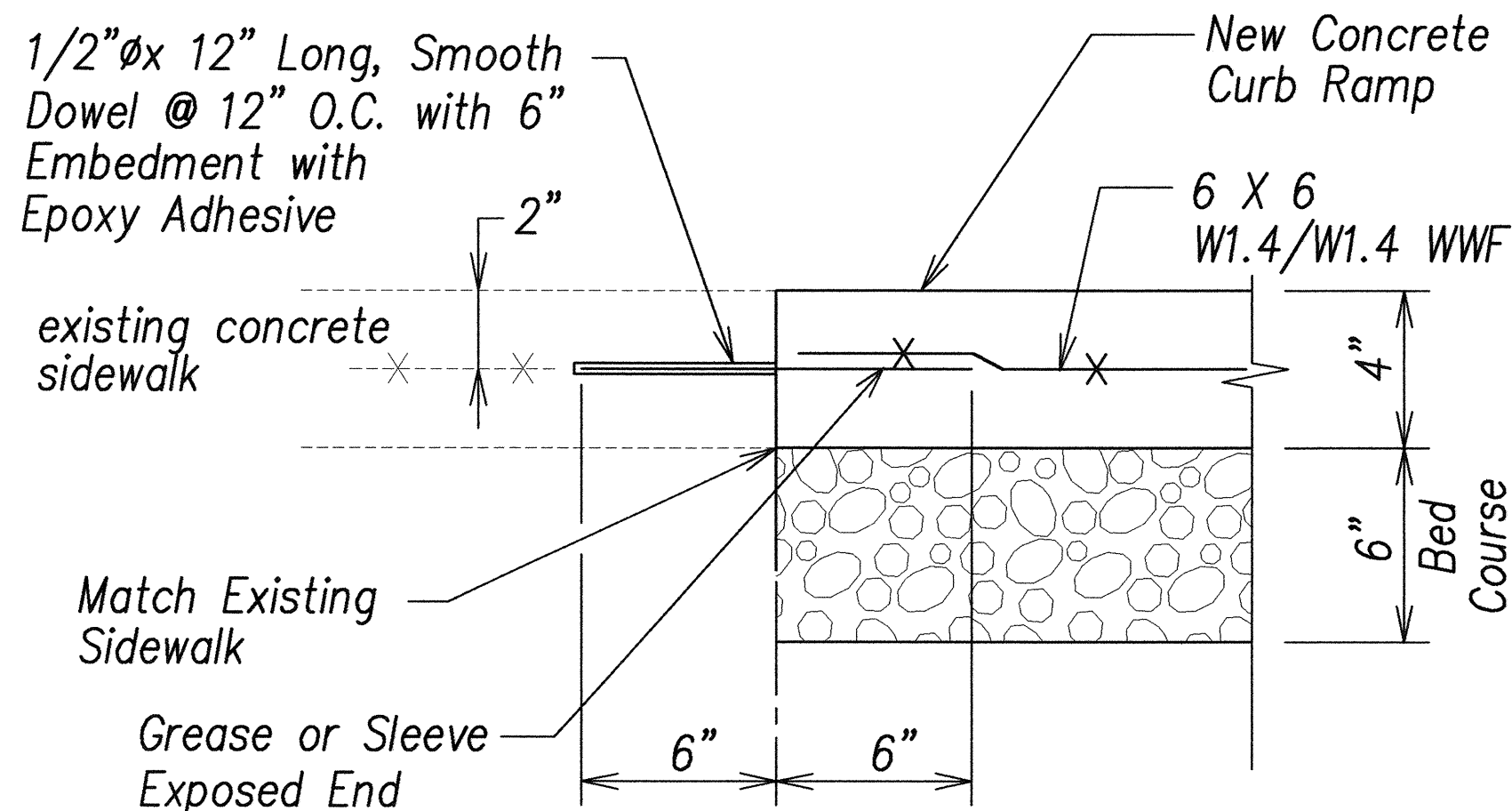
SIDEWALK DETAIL

Not to scale



A.C. SIDEWALK DETAIL

Not to scale

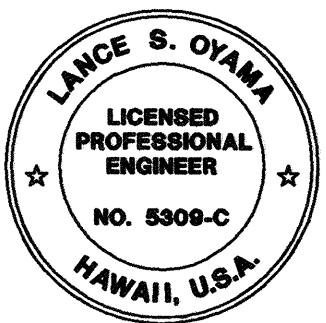


TYPICAL CONSTRUCTION JOINT AT EXISTING SIDEWALK

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.



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Lance S. Oyama 4/30/06
SIGNATURE DATE

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

KAMEHAMEHA HIGHWAY BIKEWAY
Vicinity of Radford Drive to Arizona Memorial
Federal Aid Project No. CMAQ-099-1(22)

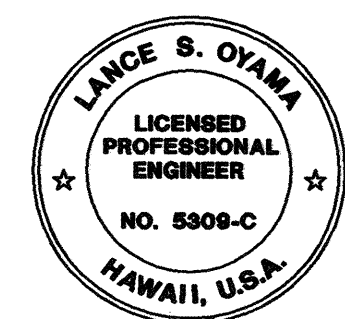
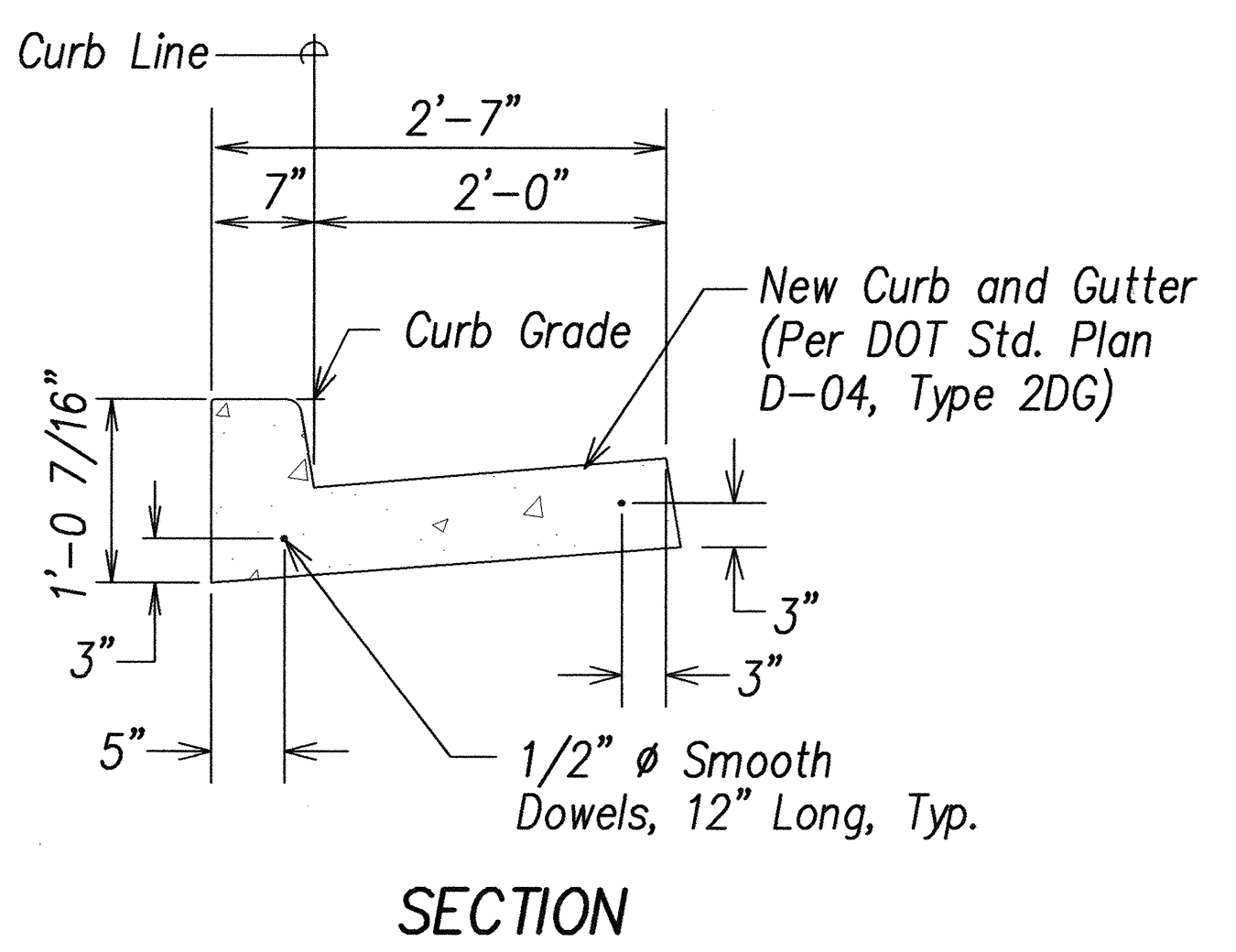
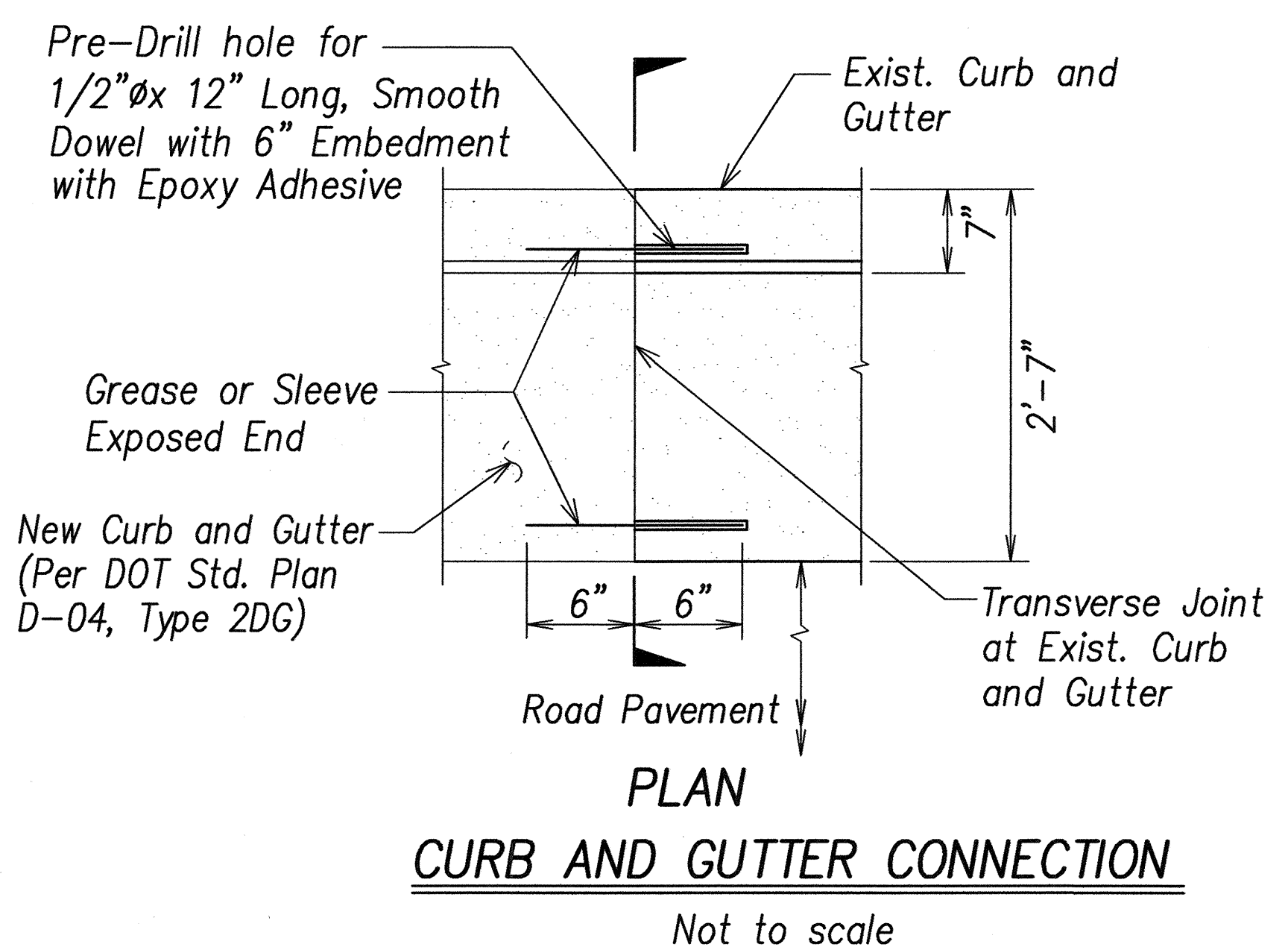
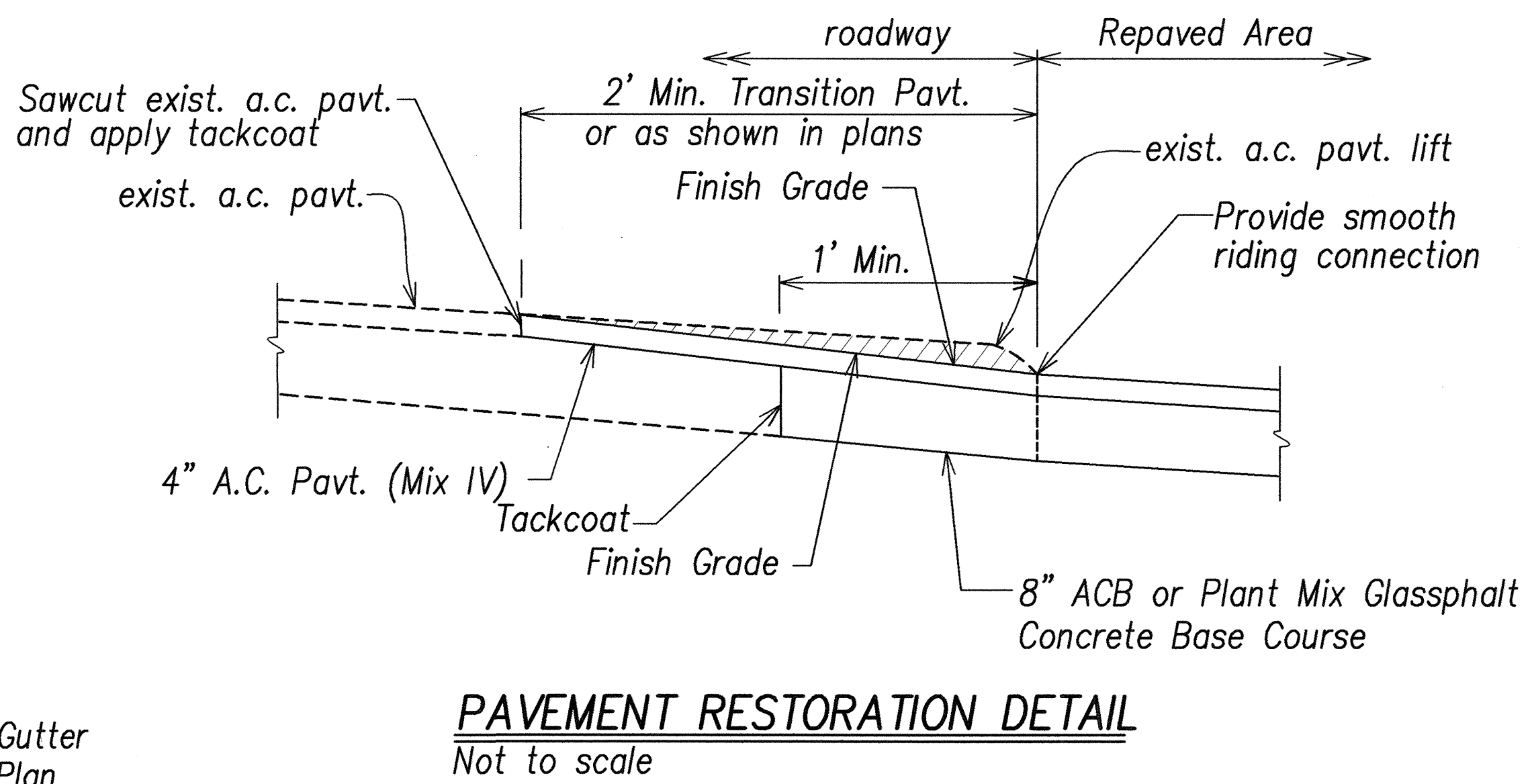
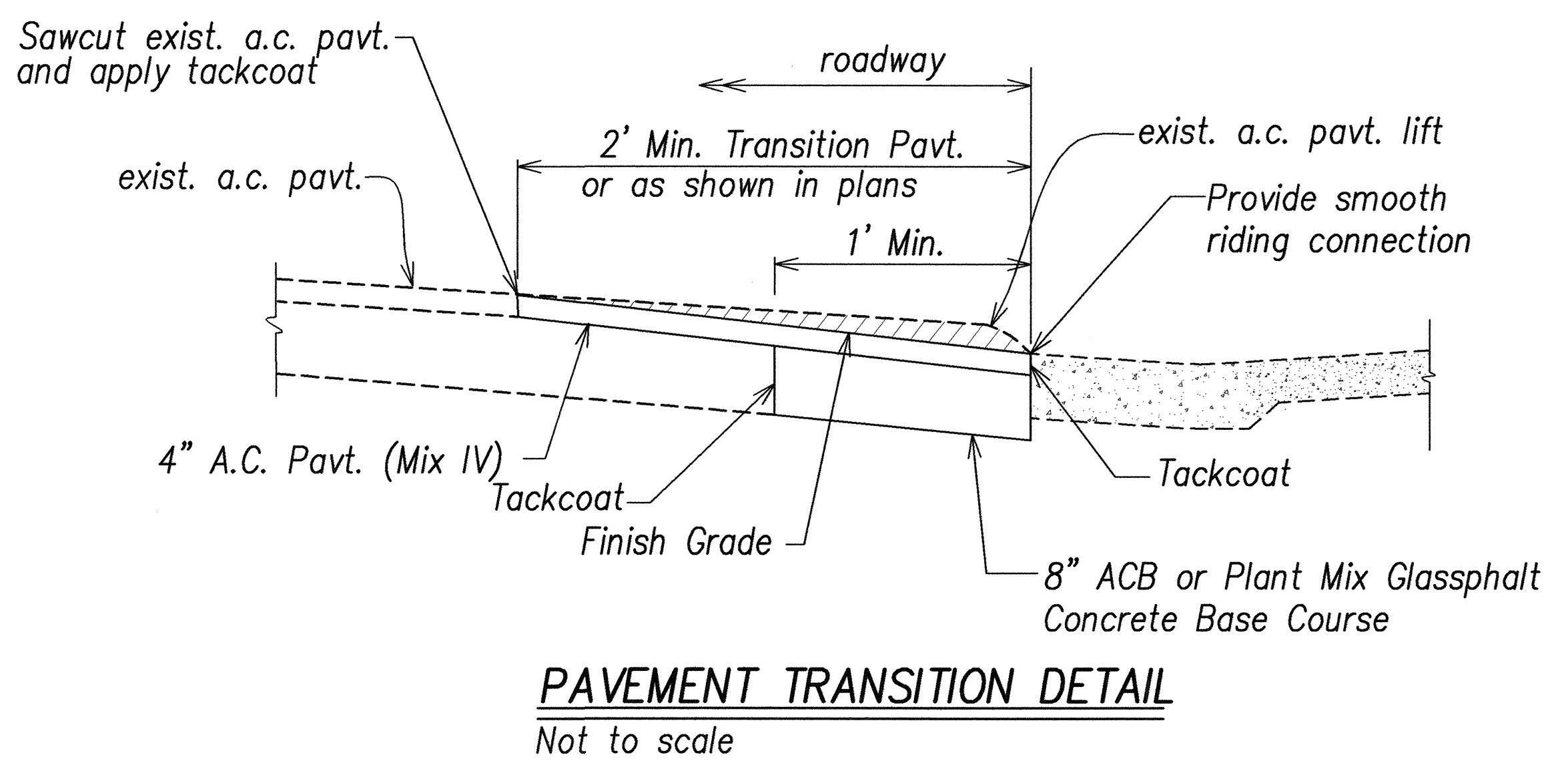
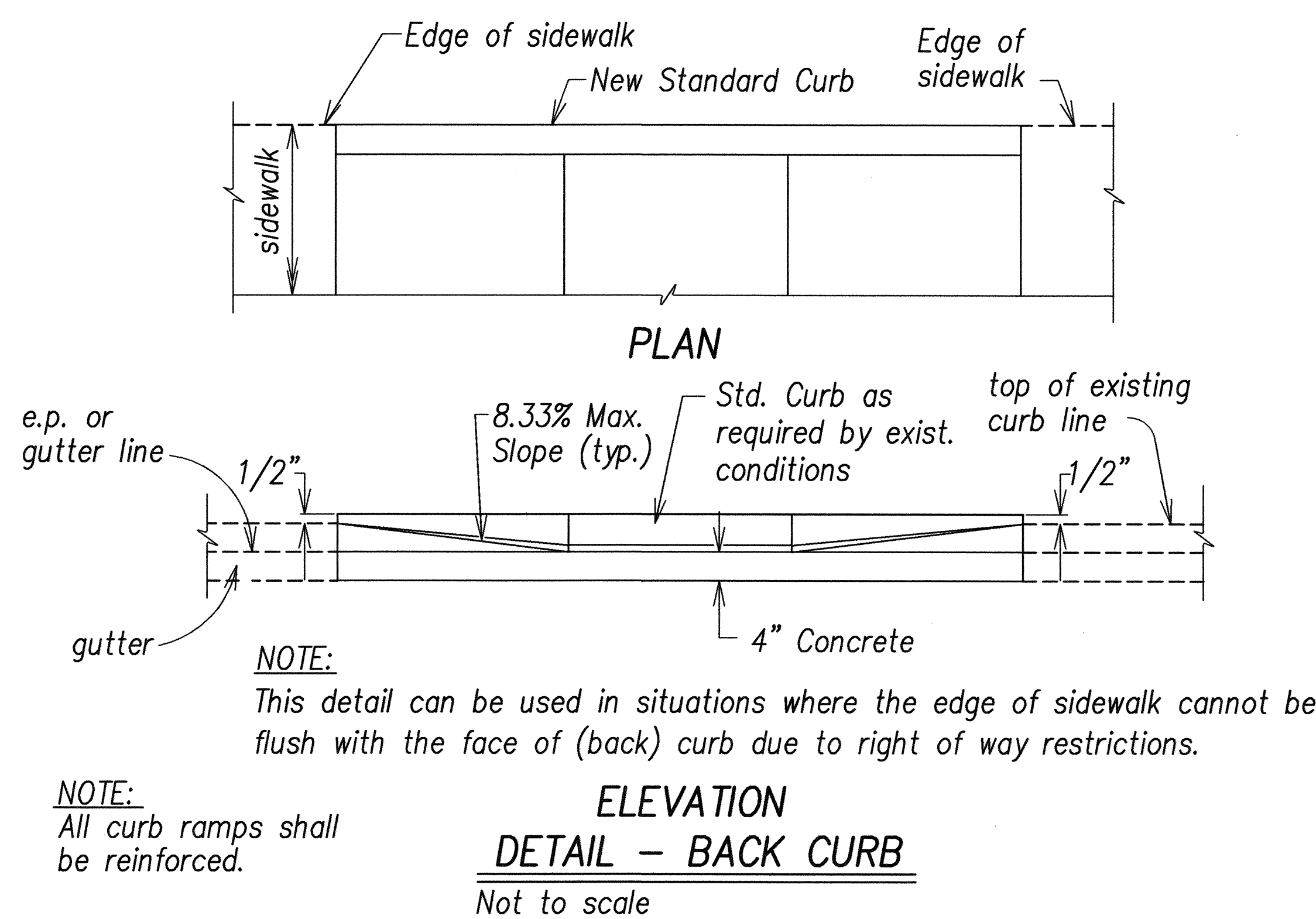
Scale: Date: August 2005

SHEET No. 3 OF 5 SHEETS

C.O. 9 S-3

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-099-1(22)	2005	C.O. 9 S-4	60



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Lance S. Oyama 1/30/06

SIGNATURE DATE

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

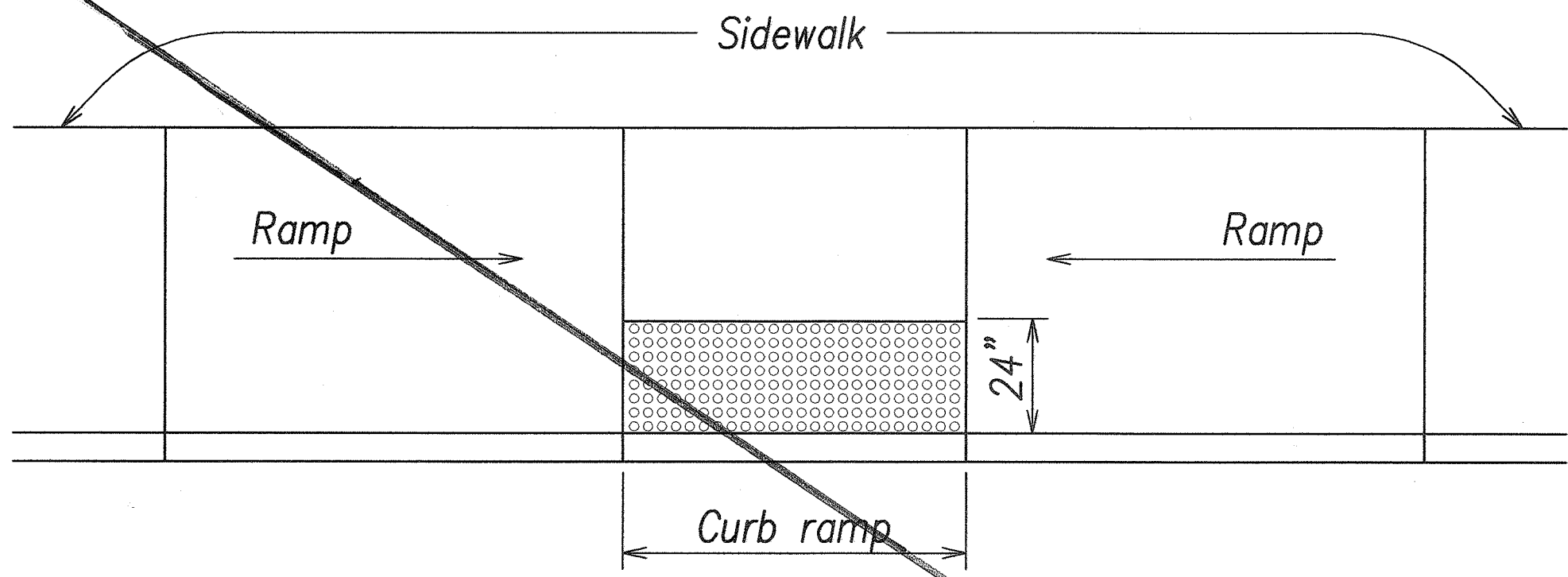
MISCELLANEOUS DETAILS

KAMEHAMEHA HIGHWAY BIKEWAY
Vicinity of Radford Drive to Arizona Memorial
Federal Aid Project No. CMAQ-099-1(22)
Scale: Date: August 2005

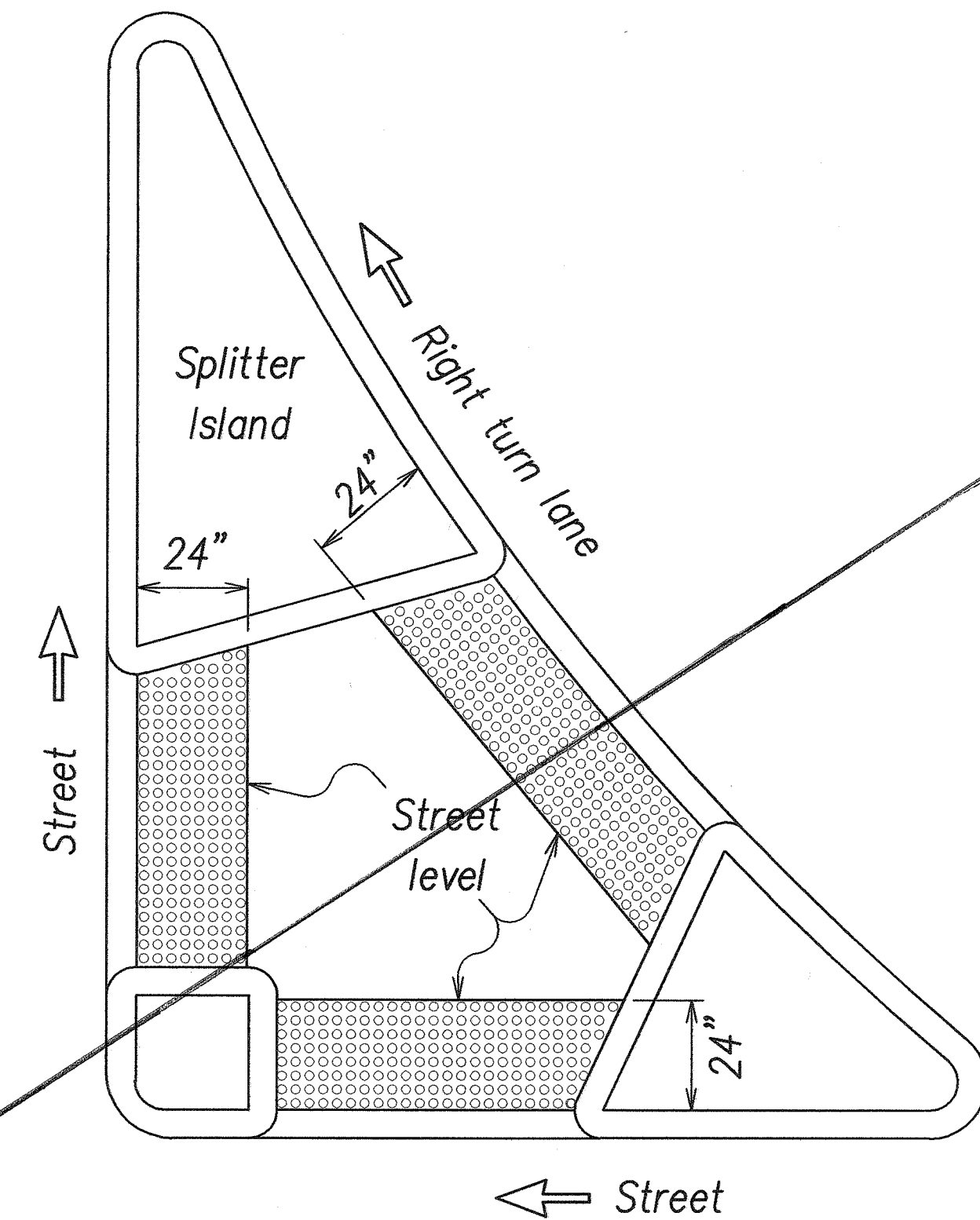
SHEET No. 4 OF 5 SHEETS

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-099-1(22)	2005	C.O. 9 S-5	60



TRANSITION RAMP WITH DETECTABLE WARNING

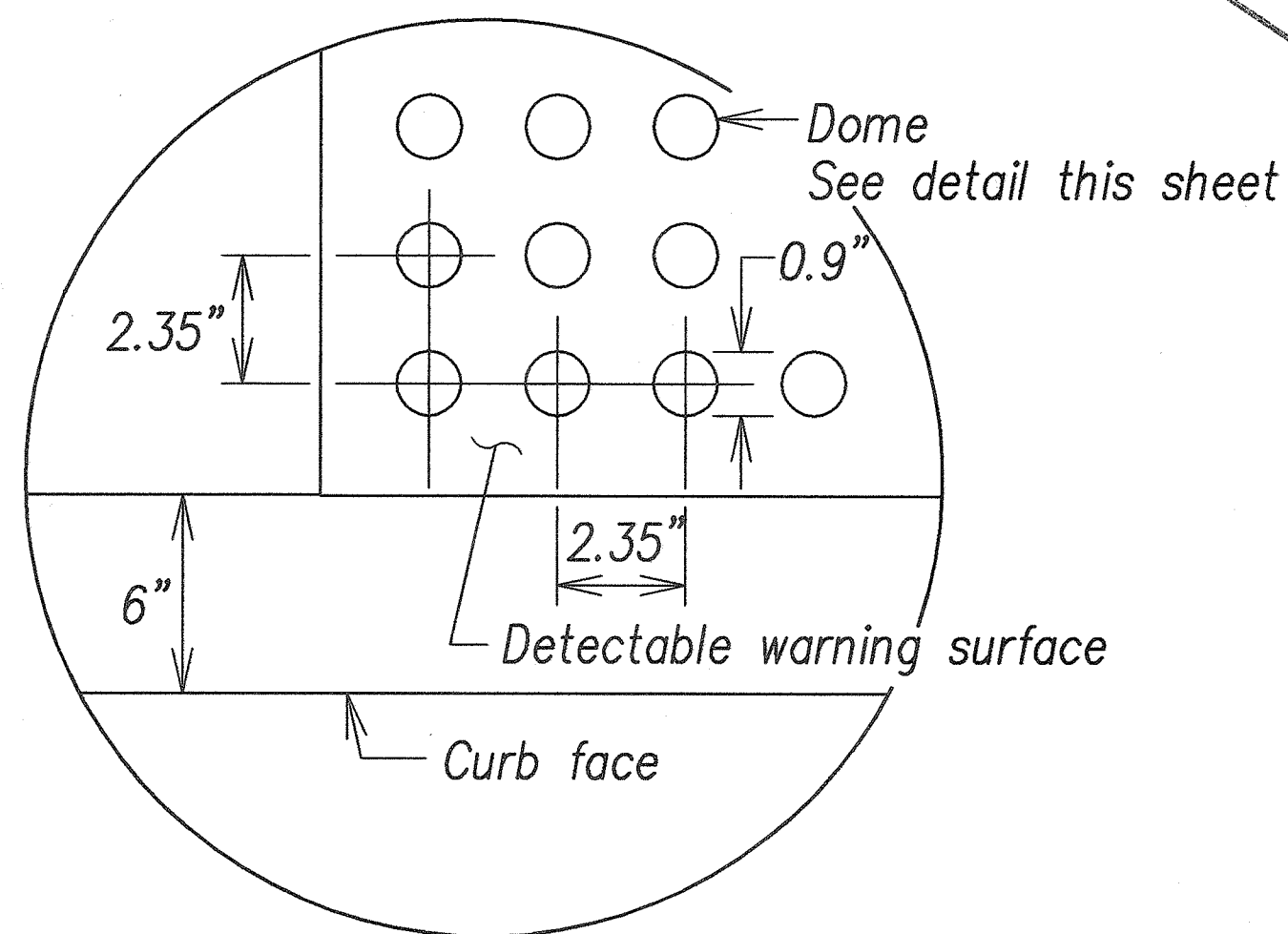


REFUGE ISLAND WITH DETECTABLE WARNING

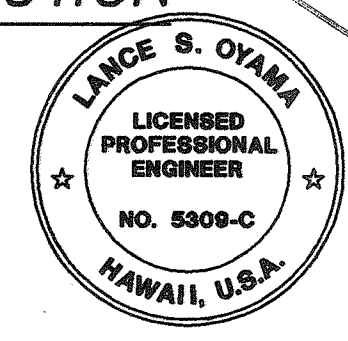
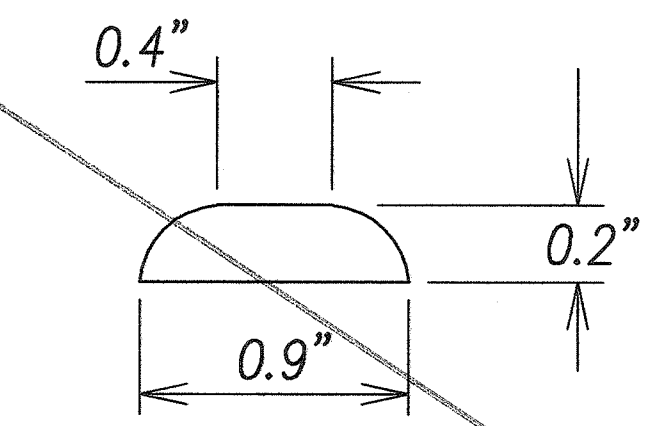
TYPICAL INSTALLATION OF DETECTABLE WARNINGS
Not to Scale

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.



ENLARGEMENT



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Lance S. Oyama
SIGNATURE DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETECTABLE WARNING DETAILS

KAMEHAMEHA HIGHWAY BIKEWAY
Vicinity of Radford Drive to Arizona Memorial
Federal Aid Project No. CMAQ-099-1(22)

Scale: Date: August 2005

SHEET No. 5 OF 5 SHEETS

"AS-BUILT"

C.O. 9 S-5

ORIGINAL PLAN	DATE
NOTE BOOK	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	