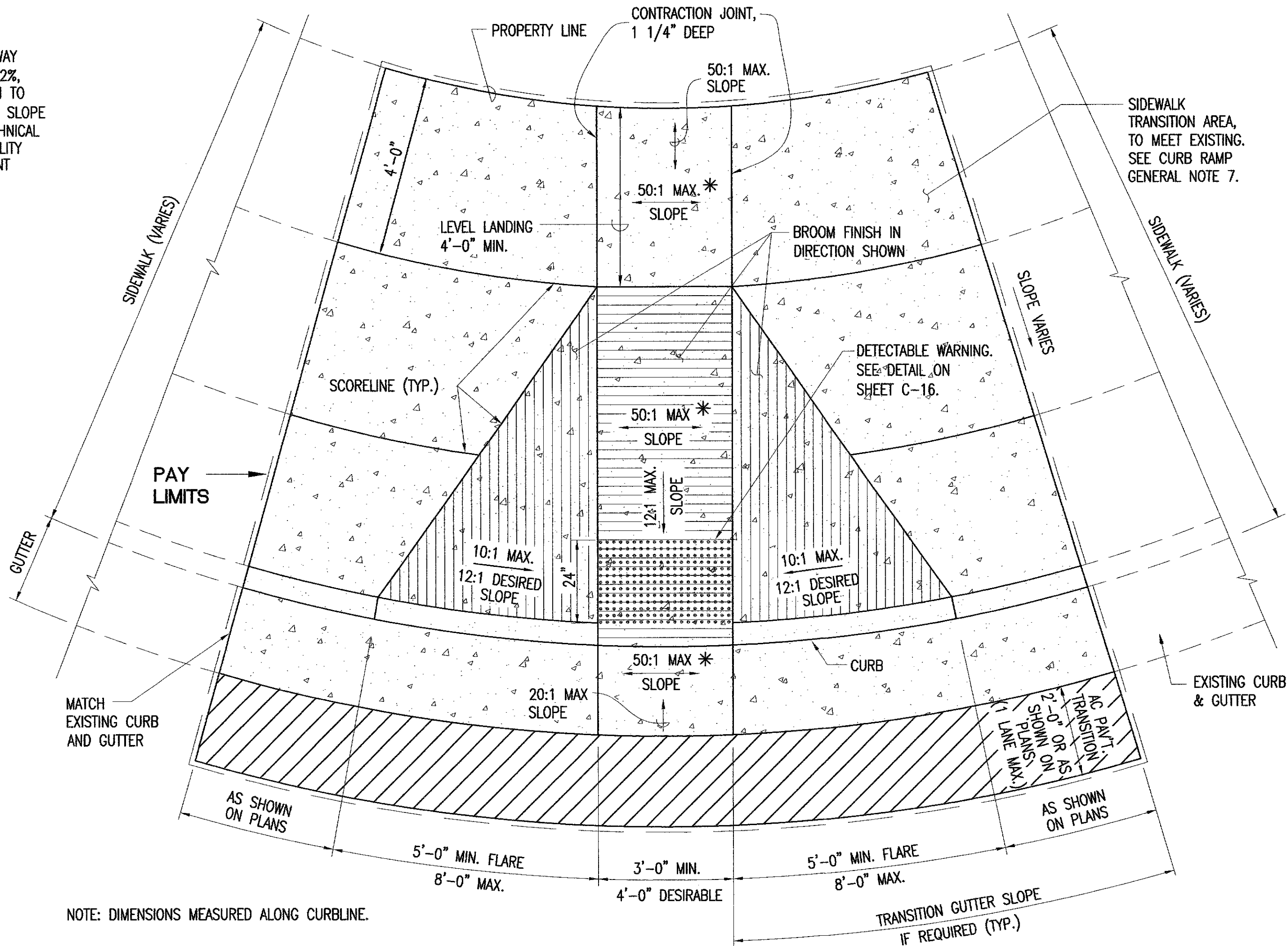


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001(36)	2008	14	42

### CURB RAMP GENERAL NOTES

- THE CURB RAMP TYPICAL DETAILS ARE INTENDED AS A GUIDELINE FOR NEW CURB RAMP CONSTRUCTION. A SITE SPECIFIC DETAIL THAT MEETS THESE REQUIREMENTS SHALL BE SHOWN ON THE PLANS.
- FOR ADA CURB RAMP COMPLIANCE, THE MAXIMUM CURB RAMP/TRANSITION SLOPES SHOWN ON THE CURB RAMP TYPICAL DETAILS SHALL GOVERN OVER THE CURB RAMP CALCULATED SLOPES SHOWN ON THE PLANS, UNLESS A TECHNICAL INFEASIBILITY (TI) STATEMENT HAS BEEN FILED. IF A TI STATEMENT HAS BEEN FILED, THOSE RAMP SLOPES REFLECTED ON THE TI SHALL GOVERN. THE CONSTRUCTION TOLERANCES FOR ADA CURB RAMP SLOPES PROVIDED IN THE SP SECTION FOR CURB RAMP, WILL BE APPLIED, AS APPLICABLE, TO THE MAXIMUM SLOPE REQUIREMENTS REFLECTED ON THIS PROJECT'S CURB RAMP TYPICAL DETAIL(S) OR THE SLOPES REFLECTED IN THE TI, WHICHEVER IS GREATER.
- PAY LIMITS FOR THE VARIOUS TYPES OF CURB RAMPs ARE AS SHOWN ON THESE TYPICAL DETAILS, AND AS DESCRIBED IN THE SP SECTION FOR CURB RAMPs.
- FOR CURB RAMPs AT CURB RETURNS, INSTALL EXPANSION JOINTS PER STANDARD DETAIL R-27, FULL WIDTH SIDEWALK AT CURB RETURN. EXPANSION JOINTS WILL NOT BE MEASURED SEPARATELY FOR PAYMENT. EXPANSION JOINTS SHALL BE CONSIDERED INCIDENTAL TO THE CURB RAMP CONTRACT ITEMS.
- UTILITY BOXES WITHIN CURB RAMPs SHALL BE REINFORCED PER STANDARD DETAIL R-16, SIDEWALK REINFORCEMENT DETAILS AT UTILITY BOXES OR OPENINGS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS FOR ADJUSTMENT OF EXISTING UTILITIES TO NEW GRADES.
- NO PULLBOXES, HANDHOLES, MANHOLES, ETC. SHALL BE ALLOWED IF THEY CONTAIN ANY OPENINGS > 1/2" AND ARE OF A POTENTIALLY SLIPPERY SURFACE.
- WHEN DIRECTED BY THE ENGINEER, SIDEWALK TRANSITION AREA SHALL BE EXTENDED BEYOND SHOWN PLAN LIMITS TO MATCH THE NEAREST SCORELINE. PAYMENT FOR THIS WORK WILL BE MADE ACCORDING TO SP SECTION FOR ADDITIONAL WORK.
- TRANSITIONS FROM RAMPs TO GUTTERS AND STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES IN LEVEL. THE CHANGES IN LEVEL. THE MAXIMUM SLOPES OF ADJOINING GUTTERS, ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP, OR ACCESSIBLE ROUTE SHALL NOT EXCEED 20:1.
- THE NEW GUTTER FRONTING THE 5'-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.
- DIFFERENCES AT JOINTS, PLANE BREAKS, ASPHALT CONCRETE TO CONCRETE INTERFACE, ETC. SHALL NOT EXCEED 1/4".

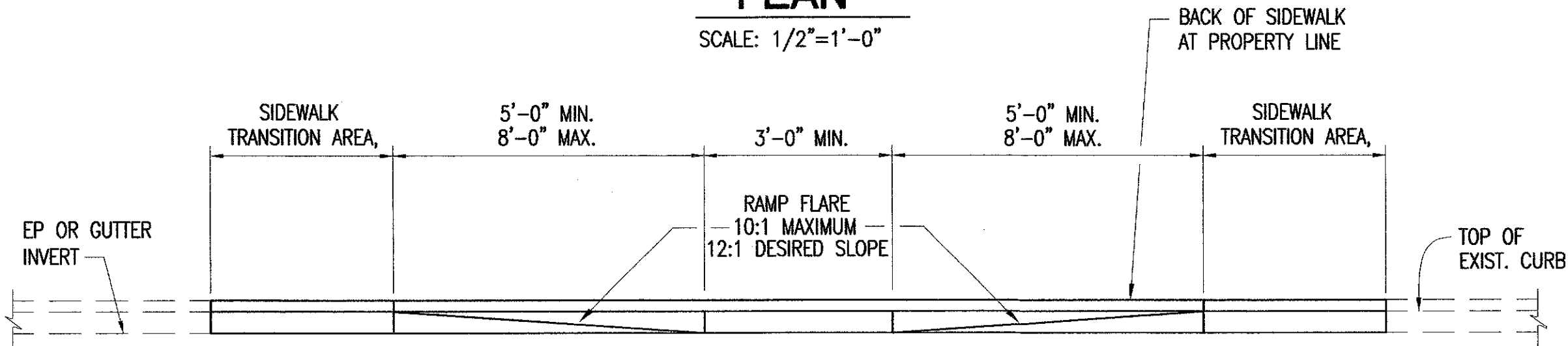
\* IF ROADWAY SLOPE >2%, CONFORM TO ROADWAY SLOPE AND TECHNICAL INFEASIBILITY STATEMENT



NOTE: DIMENSIONS MEASURED ALONG CURBLINE.

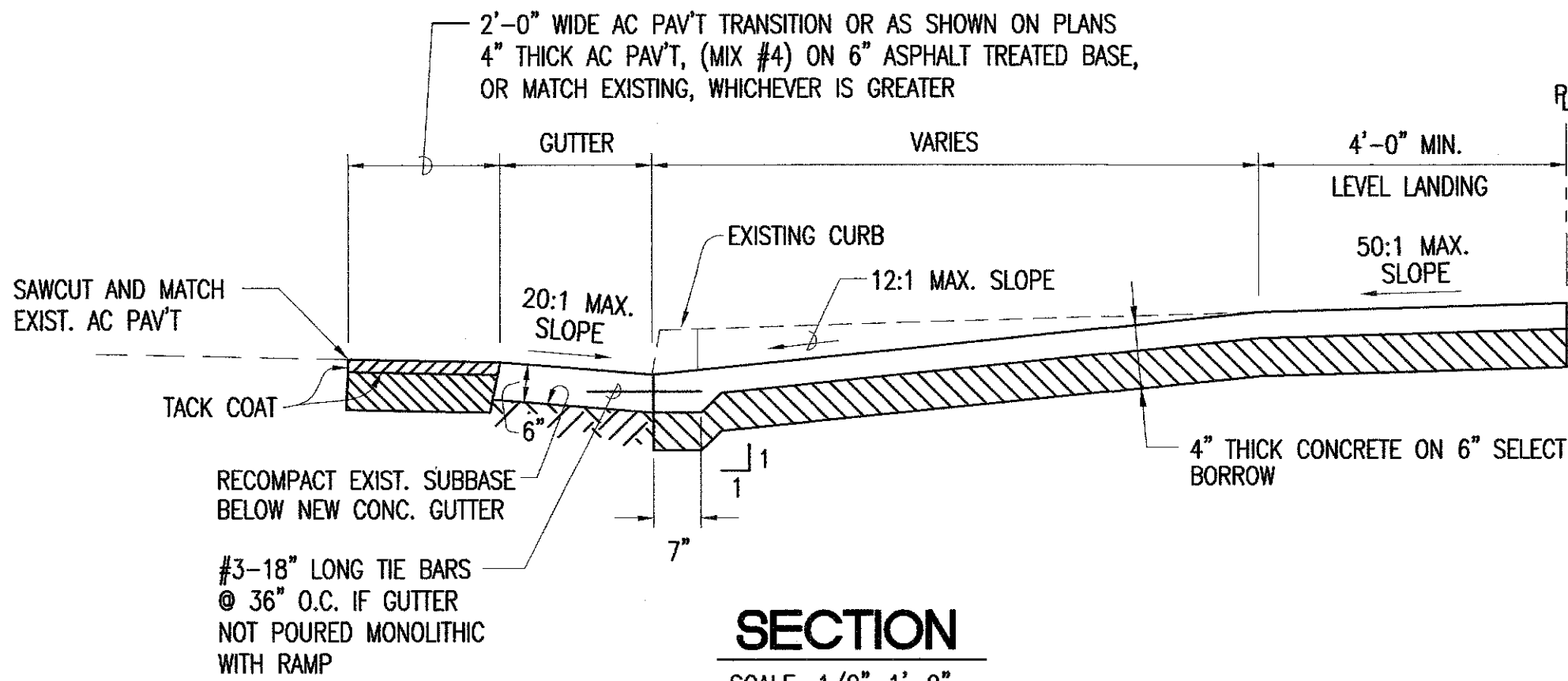
### PLAN

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



### ELEVATION

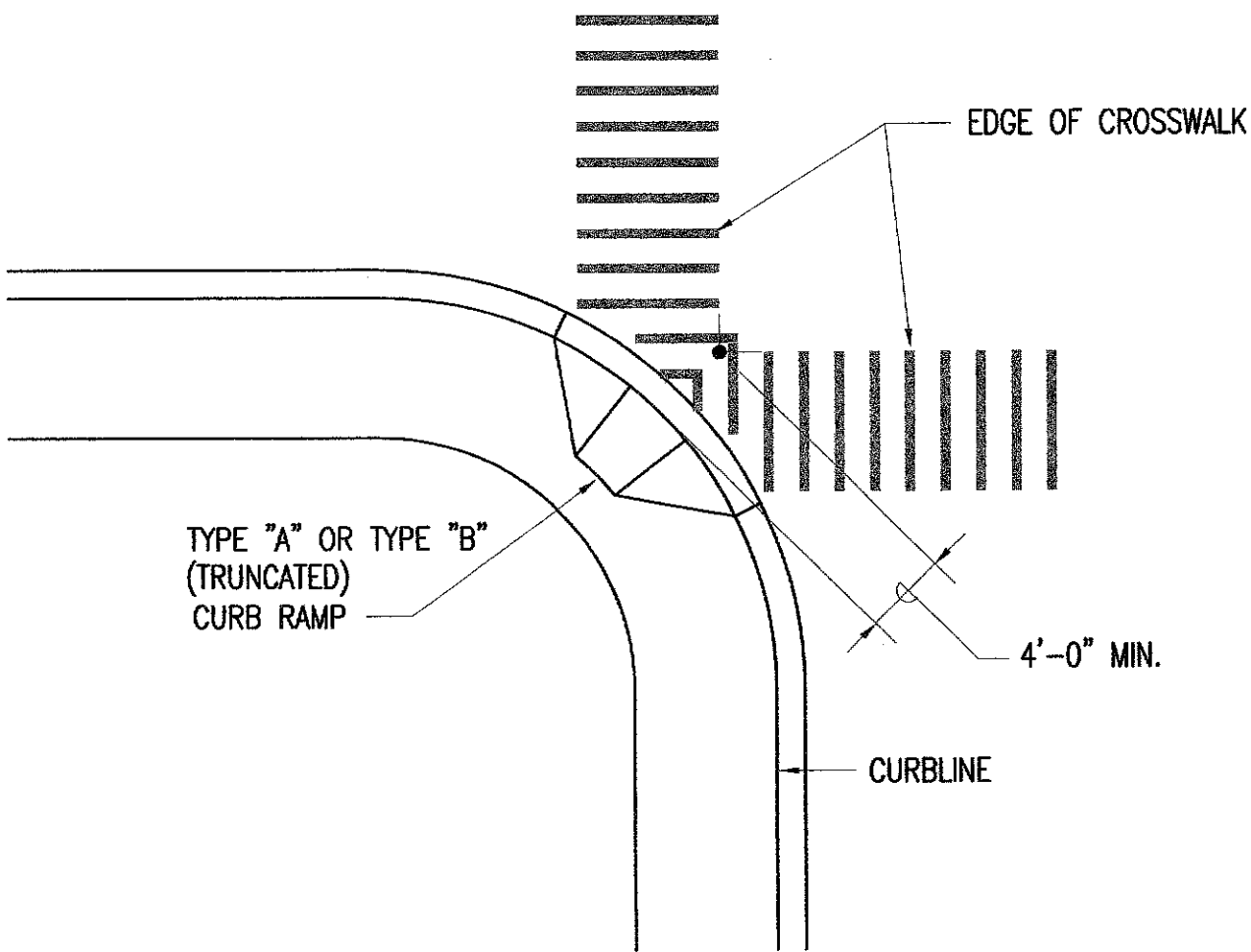
SCALE: 1/2"=1'-0"



### SECTION

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

### CURB RAMP - TYPE "A"



### TYPICAL DOUBLE CROSSWALK STRIPING AT SINGLE CURB RAMP

NOT TO SCALE

REVISION	DATE	DESCRIPTION	ENGINEER	APPROVED

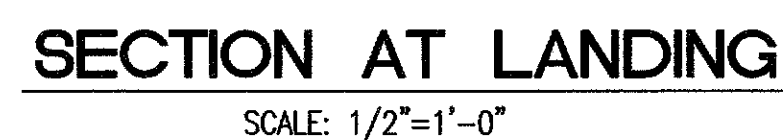
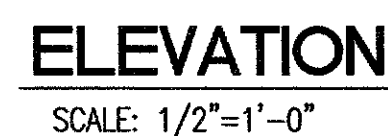
### DEPARTMENT OF TRANSPORTATION SERVICES CITY & COUNTY OF HONOLULU

TRAFFIC CONTROL SIGNALIZATION  
AT VARIOUS LOCATIONS ON OAHU, PHASE X  
FEDERAL-AID NO. STP-0001(36)

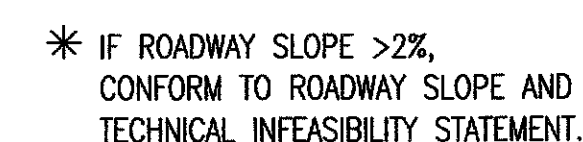
### CURB RAMP DETAILS-1

DESIGN	LHY	C-14		
DRAWN	LHY			
CHECKED	KKN			
DATE	08/04/08			
PROJECT NO.		FILE	DRAW	FOLDER

FN:X:\2008\08-020\DWG\DWG15 CR-DETAIL2.DWG Aug 04, 2008-1:21 AM



**CURB RAMP - TYPE "B" (TRUNCATED)**



CURB RAMP - TYPE "D"

REVISION	DATE	DESCRIPTION	ENGINEER	APPROV

DEPARTMENT OF TRANSPORTATION SERVICES  
CITY & COUNTY OF HONOLULU

TRAFFIC CONTROL SIGNALIZATION  
AT VARIOUS LOCATIONS ON OAHU, PHASE X  
FEDERAL-AID NO. STP-0001(36)

CURB RAMP DETAILS-2

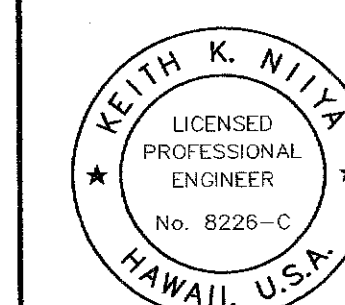
C-15

SHEET	15
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OF 42 SHEETS

PROJECT NO.	FILE	DRAW	FOLDER
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FILE	POCKET	FOLDER	NO



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

4/30/1

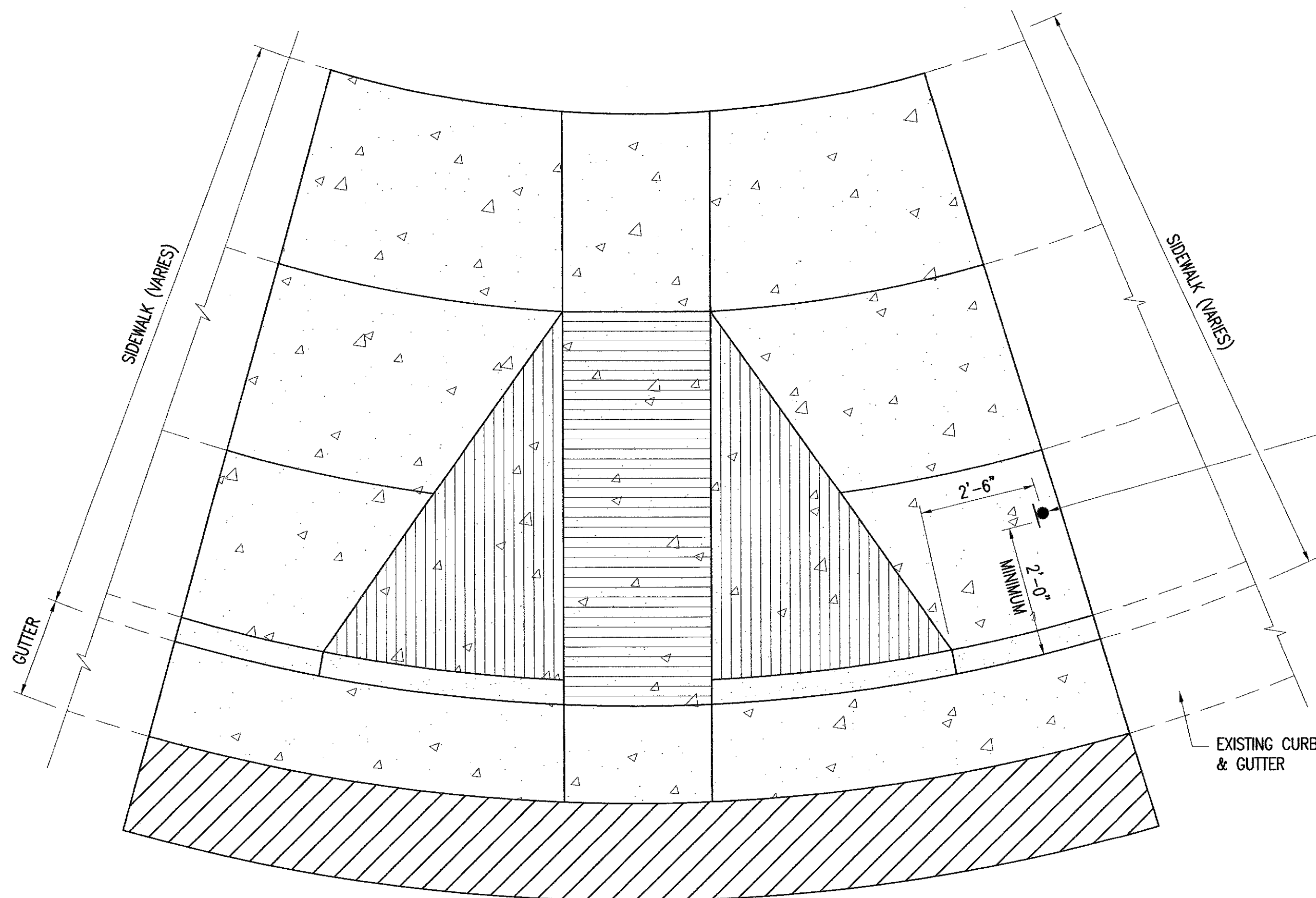
signature \_\_\_\_\_ expiration of \_\_\_\_\_  
of the user \_\_\_\_\_

AUSTIN, TSUTSUMI &amp; ASSOCIATES, INC.

AIA ENGINEERS, SURVEYORS - HONOLULU, HI

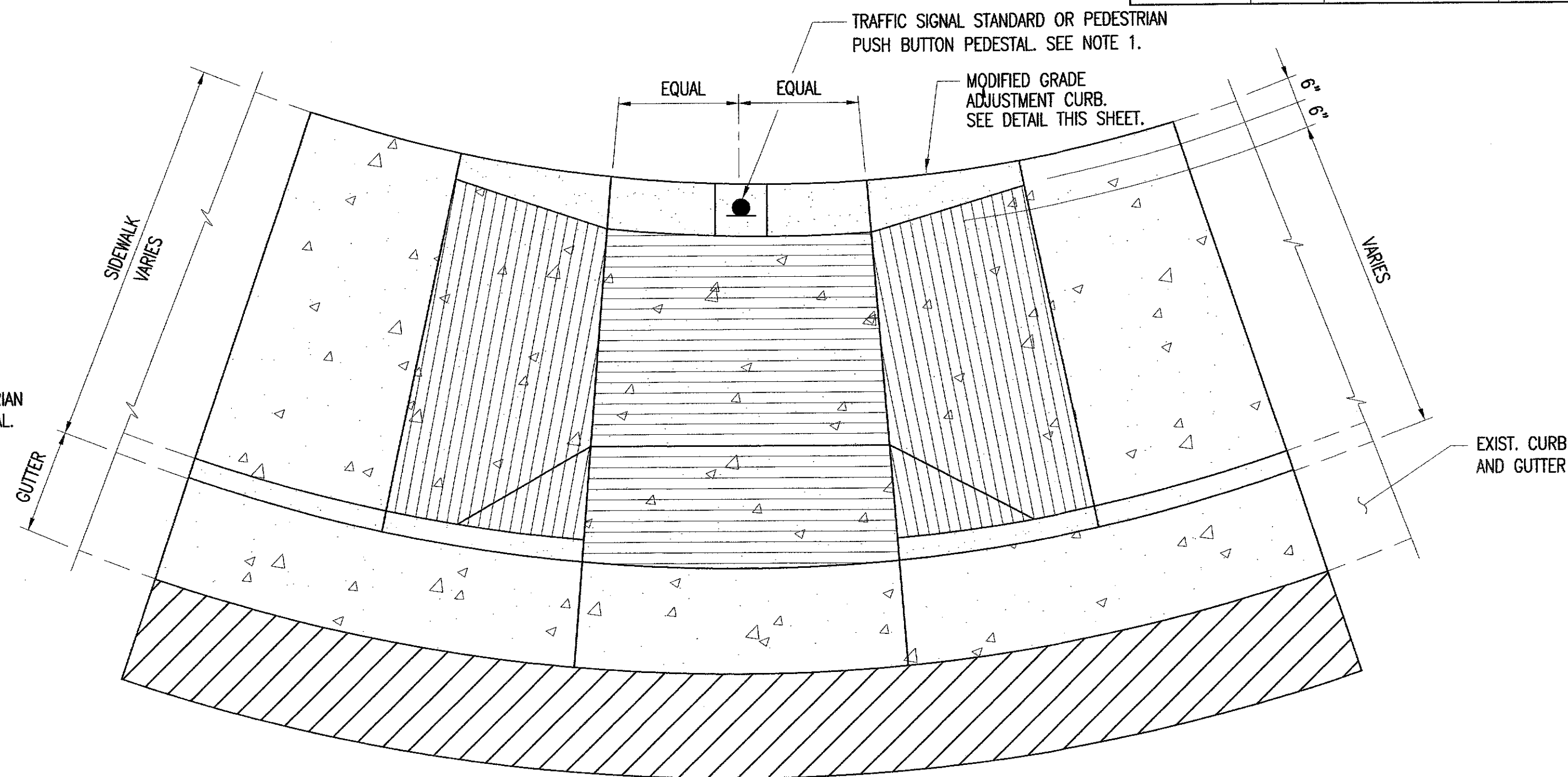


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001(36)	2008	16	42



PLAN - TYPE "A" CURB RAMP W/ TRAFFIC SIGNALS

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



PLAN - TYPE "B" (TRUNCATED) CURB RAMP W/ TRAFFIC SIGNALS

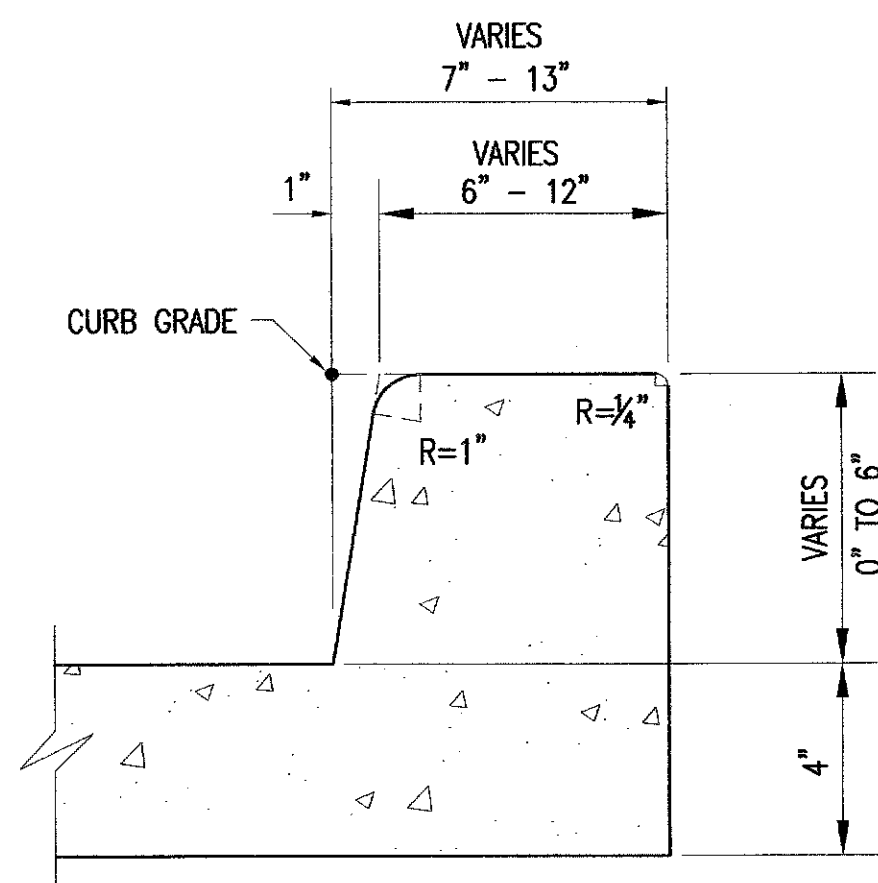
SCALE: 1/2"=1'-0"

NOTES:

1. TRAFFIC SIGNAL POLE/PEDESTRIAN PUSH BUTTON POLE, FOUNDATION, AND APPURTENANCES WILL BE MEASURED AND PAID FOR UNDER VARIOUS TRAFFIC SIGNAL SYSTEM CONTRACT ITEMS.
2. THIS TYPICAL DETAIL SHEET REFLECTS MODIFICATIONS TO CERTAIN ELEMENTS OF CURB RAMP DUE TO TRAFFIC SIGNAL INSTALLATION ONLY. SEE RESPECTIVE SHEETS FOR TACTILE PAD, OTHER CURB RAMP SLOPES, DIMENSIONS, NOTES, AND PAY LIMITS.

NOTE:

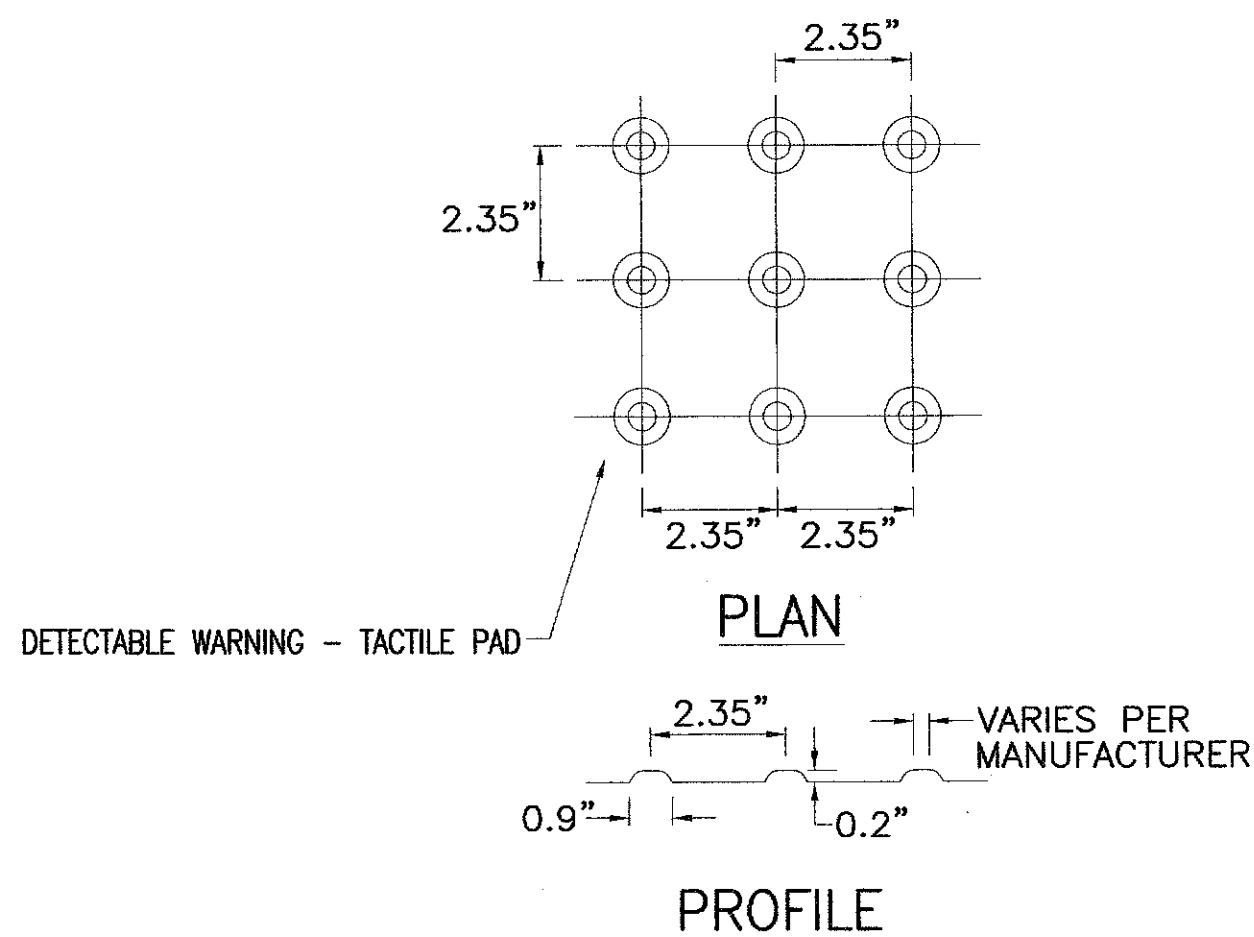
DETECTABLE WARNINGS SHALL BE 24 INCHES IN THE DIRECTION OF TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE. TRUNCATED DOMES SHALL HAVE A DIAMETER OF 0.9 INCH AT THE BOTTOM, A DIAMETER OF 0.4 INCH AT THE TOP, A HEIGHT OF 0.2 INCH AND A CENTER TO CENTER SPACING OF 2.35 INCHES MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN THE DOMES. THERE SHALL BE A MINIMUM OF 70 PERCENT CONTRAST IN LIGHT REFLECTANCE BETWEEN THE DETECTABLE WARNING AND AN ADJOINING SURFACE, OR THE DETECTABLE WARNINGS SHALL BE "SAFETY YELLOW". THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE. 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 OR OTHER POTENTIAL HAZARD, SUCH AS A REFLECTING POOL EDGE OR THE EDGE OF A TRANSIT PLATFORM.



NOTE: MODIFIED GRADE ADJUSTMENT CURB WILL NOT BE MEASURED SEPARATELY FOR PAYMENT. MODIFIED GRADE ADJUSTMENT CURB WILL BE CONSIDERED INCIDENTAL TO THE CURB RAMP CONTRACT ITEMS.

DETAIL - MODIFIED GRADE ADJUSTMENT CURB

SCALE: 3"=1'-0"

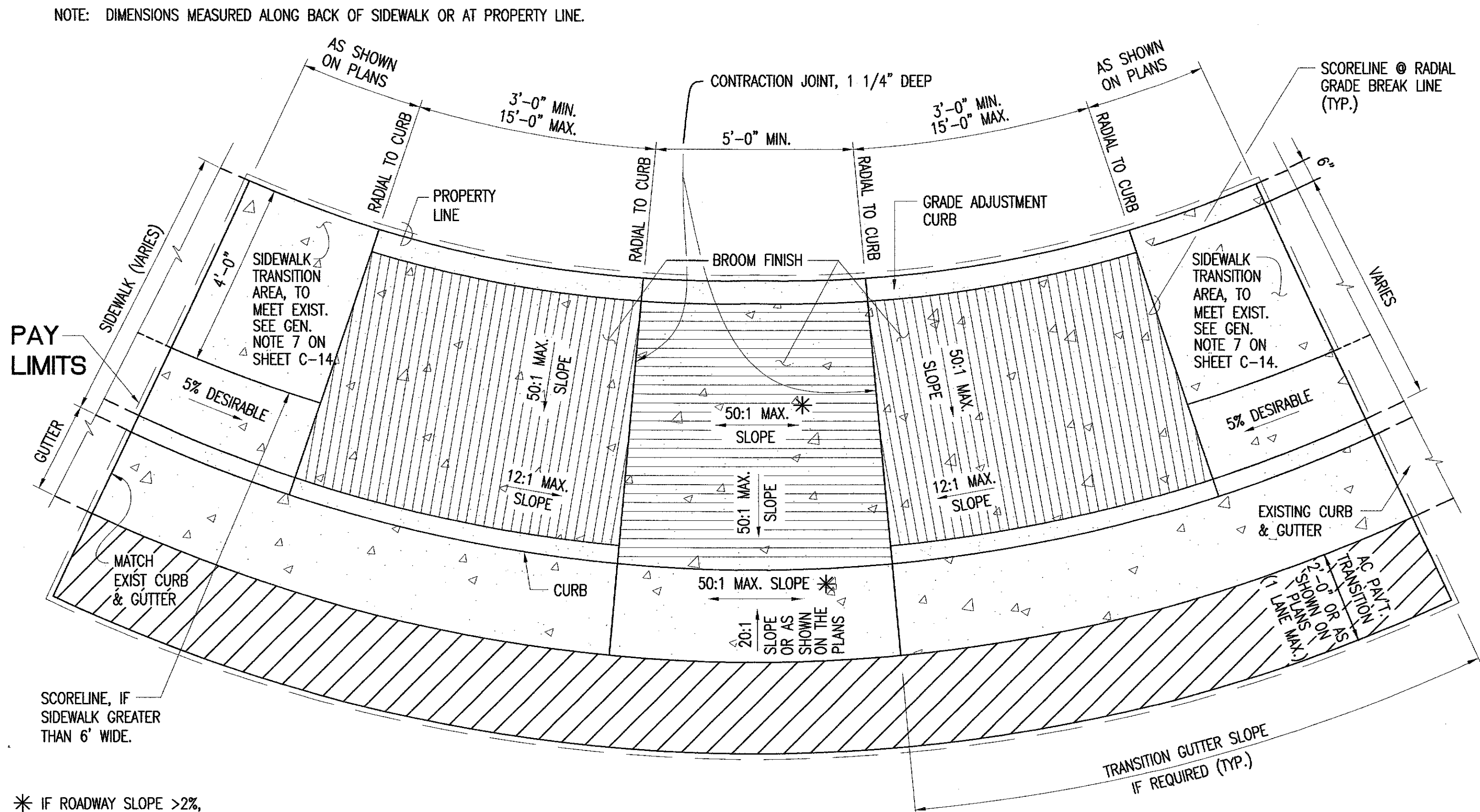


TYPICAL TRUNCATED DOMES DETAIL

NOT TO SCALE

REVISION	DATE	DESCRIPTION	ENGINEER	APPROVED
DEPARTMENT OF TRANSPORTATION SERVICES CITY & COUNTY OF HONOLULU				
TRAFFIC CONTROL SIGNALIZATION AT VARIOUS LOCATIONS ON OAHU, PHASE X FEDERAL-AID NO. STP-0001(36)				
CURB RAMP DETAILS-3				
DESIGN	LHY			C-16
DRAWN	LHY			SHEET 16
CHECKED	KKN			OF 42 SHEETS
DATE	08/04/08			
PROJECT NO.		FILE	DRAW	FOLDER
		FILE	POCKET	FOLDER
				NO.

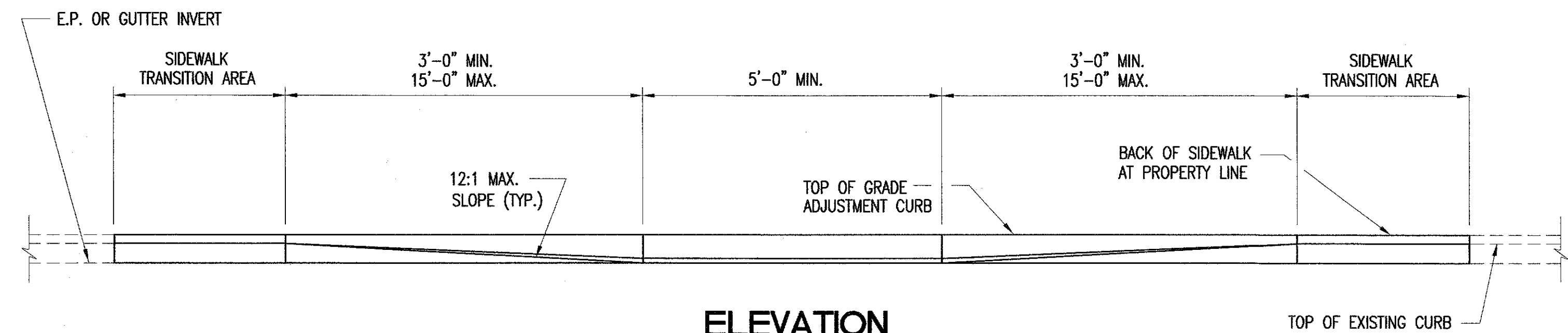
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001(36)	2008	17	42



\* IF ROADWAY SLOPE >2%, CONFORM TO ROADWAY SLOPE AND TECHNICAL INFEASIBILITY STATEMENT.

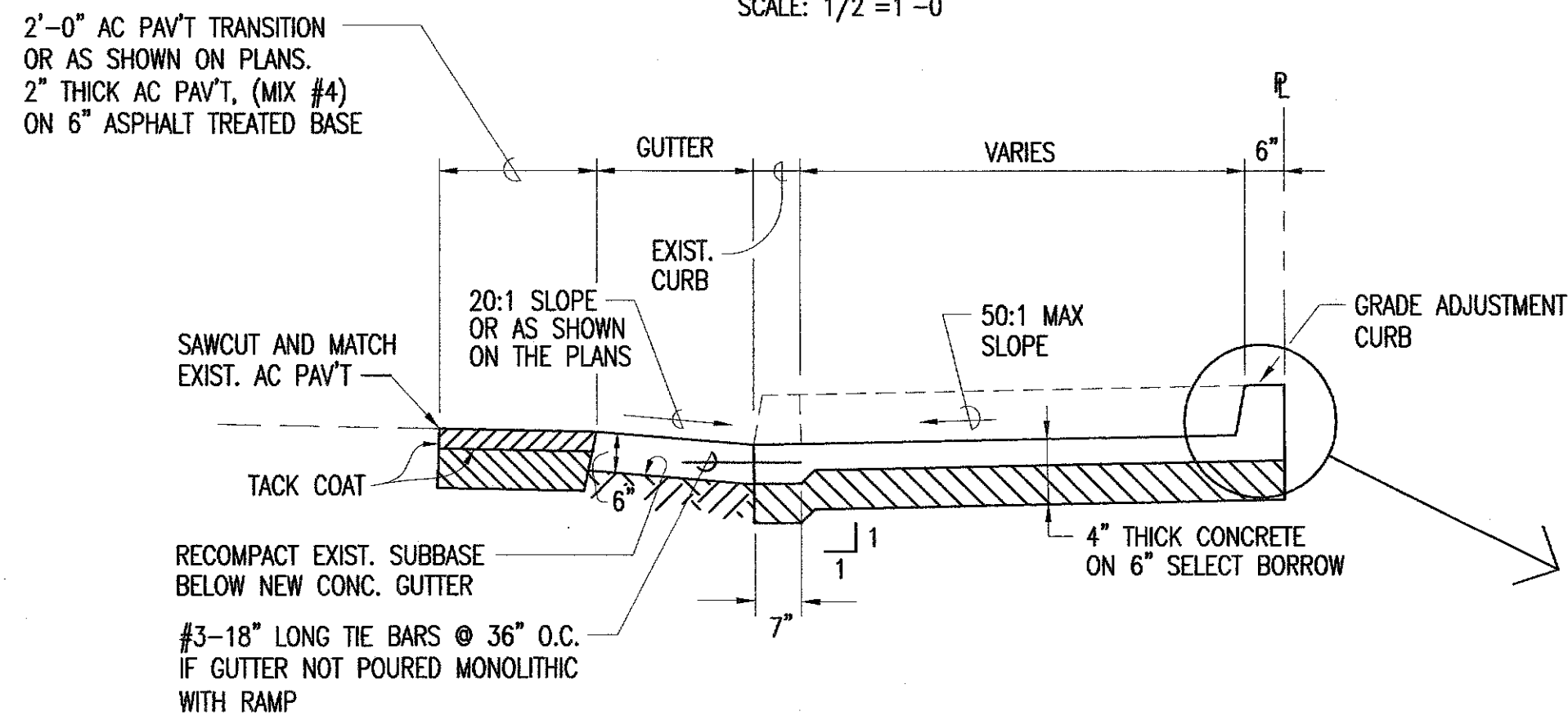
PLAN

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



ELEVATION

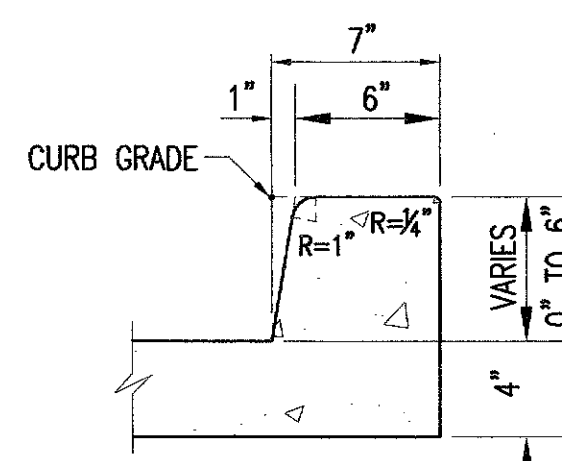
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SECTION AT LANDING

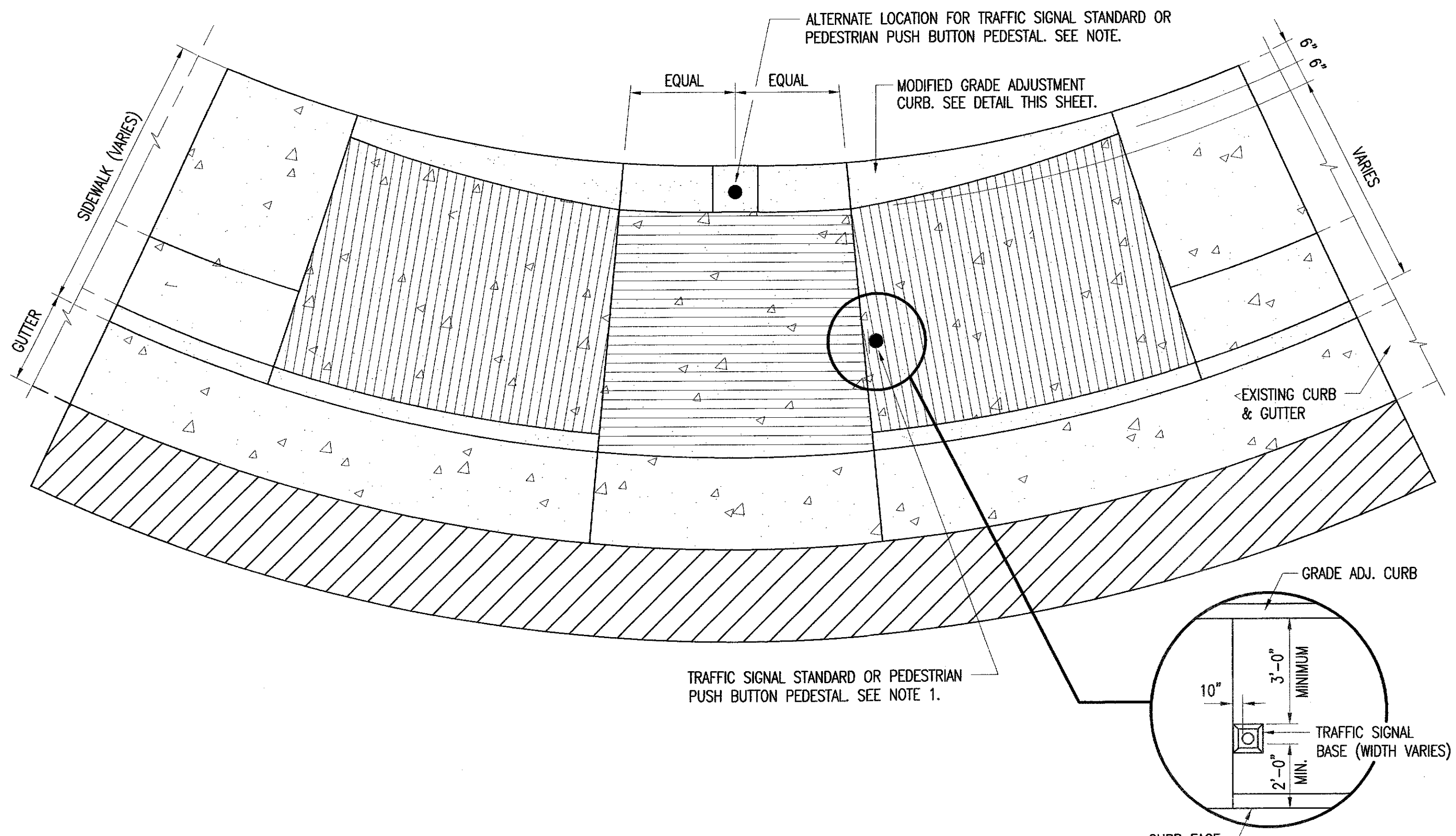
SCALE: 1/2"=1'-0"

CURB RAMP - TYPE "B"



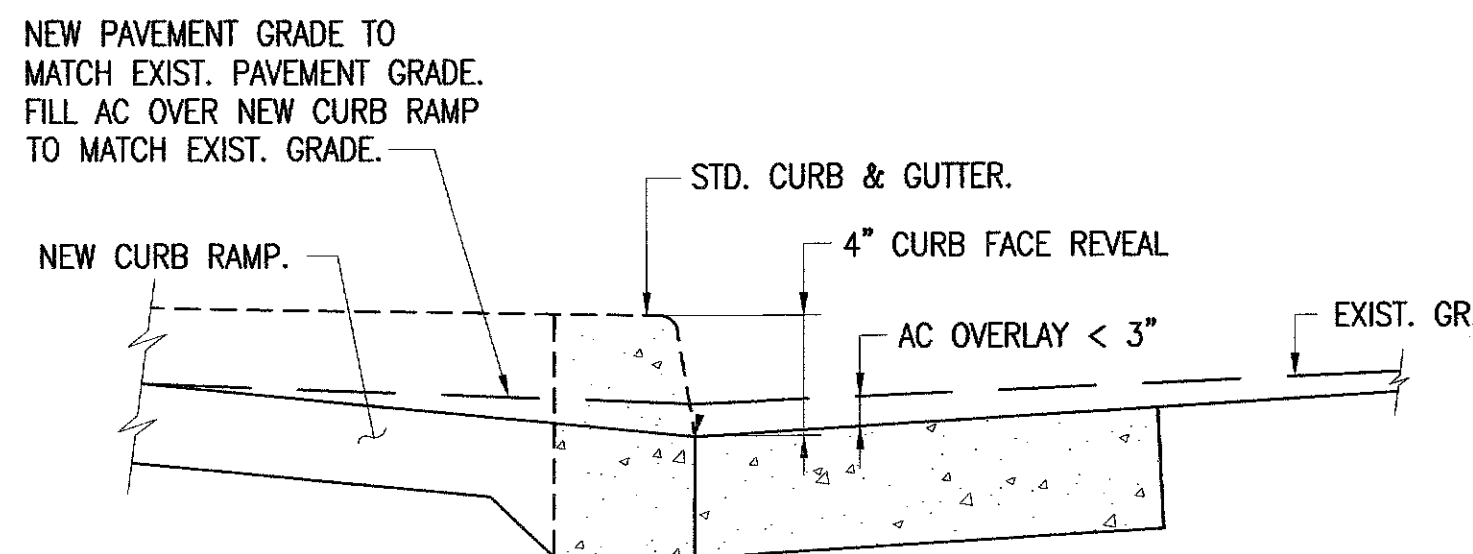
DETAIL - GRADE ADJUSTMENT CURB

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



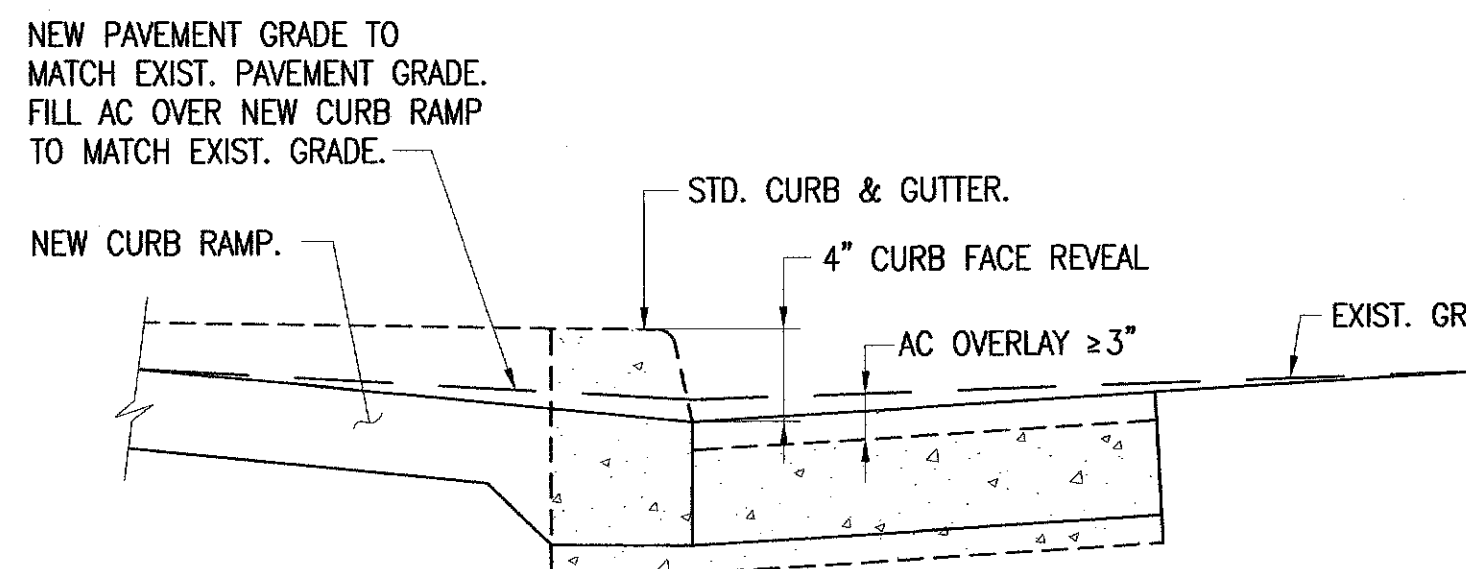
PLAN - TYPE "B" CURB RAMP W/ TRAFFIC SIGNALS

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



AC OVERLAY < 3"

NOT TO SCALE



AC OVERLAY ≥ 3"

NOT TO SCALE

REVISION	DATE	DESCRIPTION	ENGINEER	APPROVED

DEPARTMENT OF TRANSPORTATION SERVICES  
CITY & COUNTY OF HONOLULU

TRAFFIC CONTROL SIGNALIZATION  
AT VARIOUS LOCATIONS ON OAHU, PHASE X  
FEDERAL-AID NO. STP-0001(36)

CURB RAMP DETAILS-4

DESIGN	LHY
DRAWN	LHY
CHECKED	KKK
DATE	08/04/08

C-17

SHEET 17

OF 42 SHEETS

PROJECT NO.	FILE	DRAW	FOLDER
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FILE	POCKET	FOLDER	NO.
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