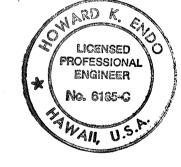
CURB RAMP AND SIDEWALK NOTES:

- 1. THESE TYPICAL DETAILS ARE INTENDED AS CURB RAMP GUIDELINES FOR DESIGN AND CONSTRUCTION.
- 2. A 2% MAXIMUM CROSS SLOPE SHALL BE MAINTAINED IN THE DIRECTION OF PEDESTRIAN TRAFFIC.
- 3. SUBJECT TO FIELD CONDITIONS, THE ENGINEER SHALL DETERMINE THE FINAL LOCATION OF CURB RAMPS.
- 4. ALL PULLBOXES SHALL BE INSTALLED AWAY FROM THE CURB RAMP AND WITHIN THE SIDEWALK/UNPAVED AREA TO THE MAXIMUM EXTENT FEASIBLE.
- 5. WHERE NECESSARY, EXISTING PULLBOXES, HANDHOLES, MANHOLES, ETC. SHALL BE ADJUSTED TO MATCH CURB RAMP GRADE. UTILITY BOXES WITHIN CURB RAMPS SHALL BE REINFORCED PER DPW STANDARD DETAIL R-16, SIDEWALK REINFORCEMENT DETAILS AT UTILITY BOXES OR OPENINGS. ADJUSTMENTS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CURB RAMP ITEMS UNLESS INDICATED OTHERWISE. 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.
- 6. TRANSITIONS FROM RAMPS TO GUTTERS AND ROADWAYS SHALL BE FLUSH.
- 7. CURB RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED TO ELIMINATE PONDING TO THE MAXIMUM EXTENT FEASIBLE.
- 8. THE PEDESTRIAN PUSH BUTTON SHALL MEET OPERATIONAL AND REACH REQUIREMENTS OF THE AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG):
- A) FORWARD REACH. THE MAXIMUM HEIGHT FOR FORWARD REACH SHALL BE 48".
- B) SIDE REACH. THE MAXIMUM HEIGHT FOR SIDE REACH SHALL BE 54".
- C) OPERATION. CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING. PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBF.
- 9. THE MAXIMUM SLOPES OF ADJOINING GUTTERS OR ROAD SURFACE IMMEDIATELY FRONTING THE CURB RAMP SHALL NOT EXCEED 5% FOR TYPE A. D. AND COMBINATION RAMPS AND 8.33% FOR TYPE B AND C.
- 10. THERE SHALL BE A 30"X48" LEVEL GROUND SURFACE (2% MAX. CROSS SLOPE, BOTH DIRECTIONS) FOR A FORWARD OR SIDE APPROACH, AS APPROPRIATE, TO A PEDESTRIAN PUSH BUTTON.
- 11. CONSTRUCTION JOINTS ARE REQUIRED TO JOIN CURB RAMPS WITH SIDEWALKS.
- 12. UNLESS OTHERWISE NOTED, NEW GUTTERS ARE REQUIRED AS SHOWN.
- 13. ALL CURB RAMPS SHALL BE REINFORCED WITH 6x6-W1.4/W1.4 WELDED WIRE FABRIC.
- 14. SURFACE OF SIDEWALKS AND CURB RAMPS SHALL BE FIRM, STABLE, AND SLIP-RESISTANT. THIS INCLUDES THE SURFACES OF PULLBOXES. VALVE COVERS, MANHOLE COVERS, ETC.
- 15. BED COURSE MATERIAL IS REQUIRED FOR CURB RAMPS, SIDEWALKS, AND GUTTERS.
- 16. ALL SIDEWALKS SHALL PROVIDE A MINIMUM CLEAR WIDTH OF 3'-0" (EXCLUDING CURB) FOR PEDESTRIAN CIRCULATION. IF THIS CANNOT BE MET, A MINIMUM 32-INCH CLEAR WIDTH IS ALLOWED FOR A DISTANCE OF 24-INCHES.
- 17. PASSING SPACES ALONG NEW SIDEWALKS WITH 5' CLEAR WIDTH OR LESS SHALL BE PROVIDED AT MAXIMUM 200' INTERVALS AS REQUIRED BY ADA GUIDELINES. THE PASSING AREA SHALL BE A MINIMUM 5' WIDE BY 5' LONG AS FEASIBLE.
- 18. IF POSSIBLE, INSTALL UTILITY POLES, FIRE HYDRANTS, LIGHT POLES, SIGN POSTS, PULLBOXES, ETC. OFF OF SIDEWALK BUT WITHIN THE RIGHT-OF-WAY.
- 19. OBJECTS PROTRUDING FROM UTILITY POLES AND WALLS ADJACENT TO THE SIDEWALKS (I.E. WALL MOUNTED FIRE HYDRANTS, TELEPHONES, METERS ON POLES, ETC.) SHALL BE MOUNTED TO MEET THE CURRENT AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG) AND WILL BE SUBJECT TO ENGINEER'S APPROVAL.

- 20. IF A CURB RAMP IS NOT CONSTRUCTED ACCORDING TO THE PLANS, THE CONTRACTOR SHALL RECONSTRUCT THE CURB RAMP AT NO COST TO THE STATE. CONSTRUCTION TOLERANCE FOR PORTLAND CEMENT CONCRETE SHALL BE BASED ON 1/4 INCH PER 10 FT. (±0.2%). REMEDIAL MEASURES WILL NOT BE ACCEPTED.
- 21. ADDITIONAL INFORMATION IS AVAILABLE FROM:
 - A) AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG). JAN. 1998, THE ACCESS BOARD.
 - B) ACCESSIBLE RIGHTS-OF-WAY: A DESIGN GUIDE, NOV. 1999, THE ACCESS BOARD.
 - C) DESIGNING SIDEWALKS AND TRAILS FOR ACCESS, PART 1, JULY
 - D) DESIGNING SIDEWALKS AND TRAILS FOR ACCESS, PART 2, SEPT.
- 22. PAY LIMITS FOR THE VARIOUS TYPES OF CURB RAMPS ARE AS SHOWN ON THESE TYPICAL DETAILS.
- 23. 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 SPECIFICATION SECTION 608-SIDEWALKS FOR ADDITIONAL WORK.
- 24. 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 RAMPS, 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.
- 25. PAY LIMITS FOR THE VARIOUS TYPES OF CURB RAMPS ARE AS SHOWN ON THESE TYPICAL DETAILS, AND AS DESCRIBED IN THE SPECIFICATION SECTION FOR CURB RAMPS.
- 26. H:V SLOPE (10:1) REFERS TO H(10) HORIZONTAL (LEVEL PLANE) TO V(1) VERTICAL RATIO IN GRADES.
- 27. CONTROL POINTS ARE POINTS ON THE RAMP USED TO TIE THE RAMP TO A KNOWN REFERENCE POINT.
- 28. PROVIDE SIDEWALK TRANSITION WHEN EXIST SIDEWALK CROSS SLOPE AT END OF RAMP EXCEEDS 50:1. CROSS SLOPE OF RAMP SHALL BE 50:1 MAX. SIDEWALK TRANSITION SHALL BE 2'-0" LONG IF RUNNING SLOPE OF EXISITING SIDEWALK AT END OF RAMP IS 5 PERCENT OR LESS, UNLESS NOTED OTHERWISE. SIDEWALK TRANSITION SHALL BE LONGER THAN 2 FEET TO MAINTAIN A RUNNING SLOPE OF THE TRANSITION NOT EXCEEDING 5 PERCENT FOR A MAXIMUM LENGTH OF 5 FEET UNLESS OTHERWISE NOTED.
- 29. SEE DETAILS 3/68 FOR CURB DETAIL & 5/68 FOR PAVEMENT TRANSITION AND RAMP APPROACH FOR RAMPS WITH NO GUTTER.
- 30. CURB RAMP DIMENSIONS ARE GENERALLY REFERENCED FROM THE FRONT CURB FACE. FOR PERPENDICULAR, MEDIAN AND THRU CURB RAMPS, CURB RAMP DIMENSIONS ARE GENERALLY REFERENCED TO THE FRONT FACE NEXT NEXT TO THE ROADWAY. FOR PARALLEL AND COMBINATION CURB RAMPS, CURB RAMP DIMENSIONS CAN BE REFERENCED TO THE FRONT CURB FACE ON EITHER THE ROADWAY SIDE OR THE BACK EDGE OF THE CURB RAMP. THE CONTROLLING SIDE OF REFERENCE IS BASED ON THE SIDE CLOSEST TO THE LABELED DIMENSIONS.
- 31. TRANSITION FROM RAMPS TO WALKS, GUTTERS AND STREETS, APPROACHES TO STREETS AND SIDEWALKS TRANSITION TO WALKS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. WHEN NECESSARY AND APPROVED BY THE STATE, ABRUPT VERTICAL CHANGES IN GRADE NOT EXCEEDING 1/4 INCH FOR ALL RAMPS, LANDINGS, APPROACHES AND TRANSITIONS MAY BE ALLOWED.

| ED. ROAD | STATE | FED. AID | FISCAL | SHEET | TOTAL |
|-----------|-------|----------------|--------|-------|--------|
| DIST. NO. | | PROJ. NO. | YEAR | NO. | SHEETS |
| HAWAI'I | HAW. | CMAQ-0700(50)R | 2004 | 11 | 100 |



EXPIRATION DATE: 4/30/06

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Howard KEl 9/2lf "OBSERVATION OF CONSTRUCTION" IS DEFINED

IN CHAPTER 16-115, HAWAII ADMINISTRATIVE

RULES ENTITLED "PROFESSIONAL ENGINEERS,

ARCHITECTS, SURVEYORS AND LANDSCAPE

STATE OF HAWAI'I DEPARTMENT OF TRANSPORTATION

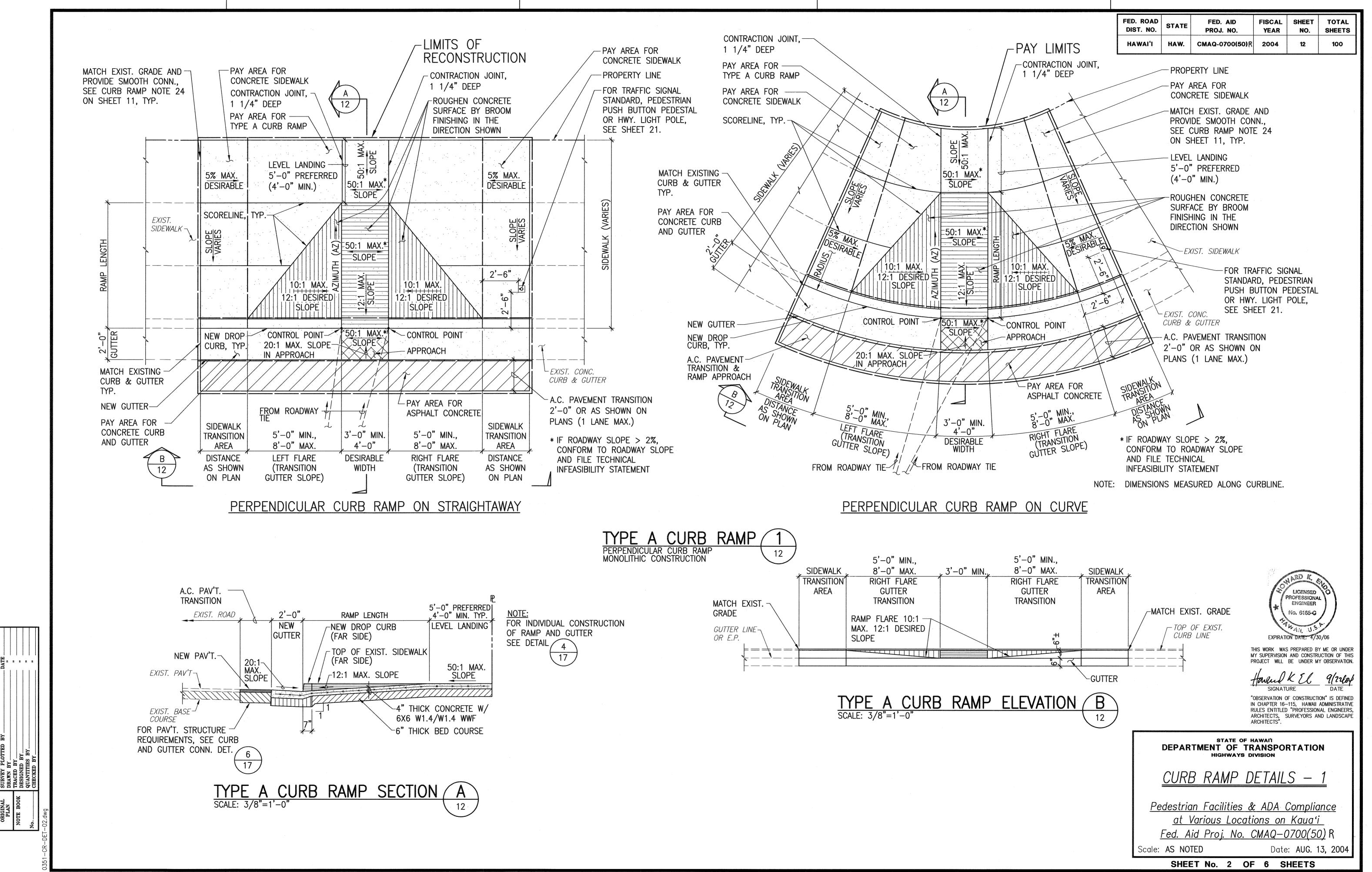
CURB RAMP NOTES

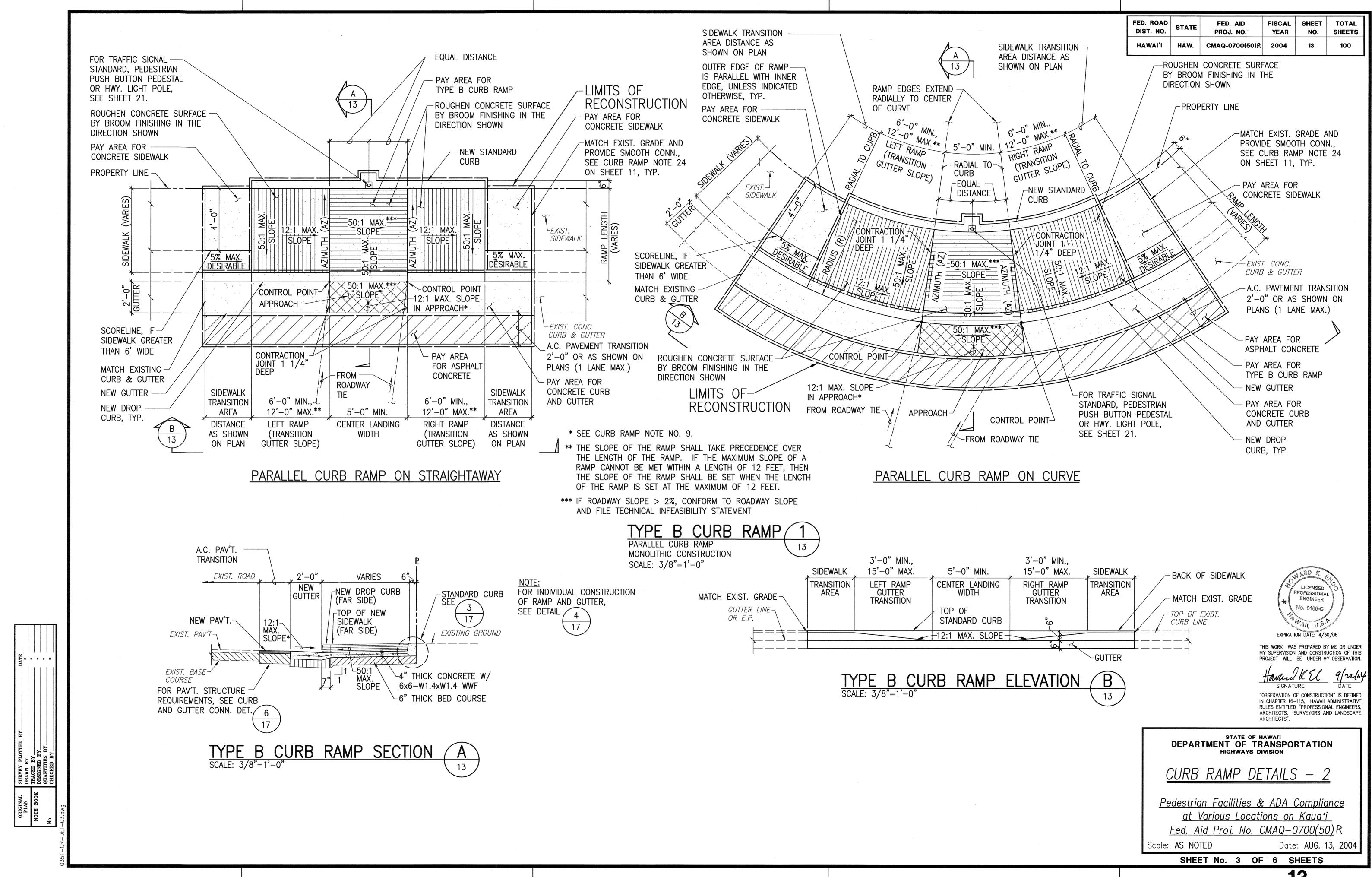
<u>Pedestrian Facilities & ADA Compliance</u> at Various Locations on Kauaʻi

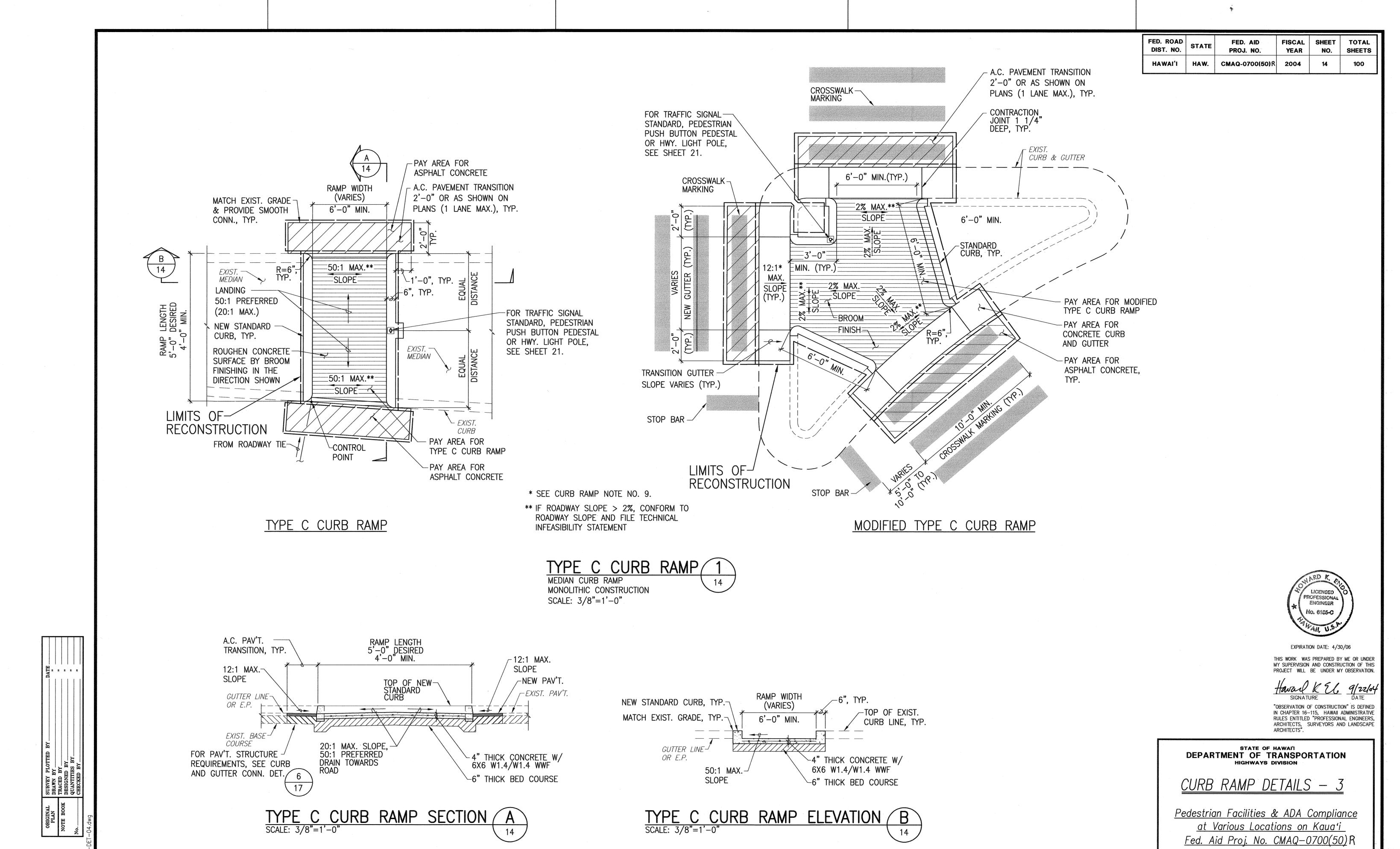
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Date: AUG. 13, 2004

SHEET No. 1 OF 6 SHEETS



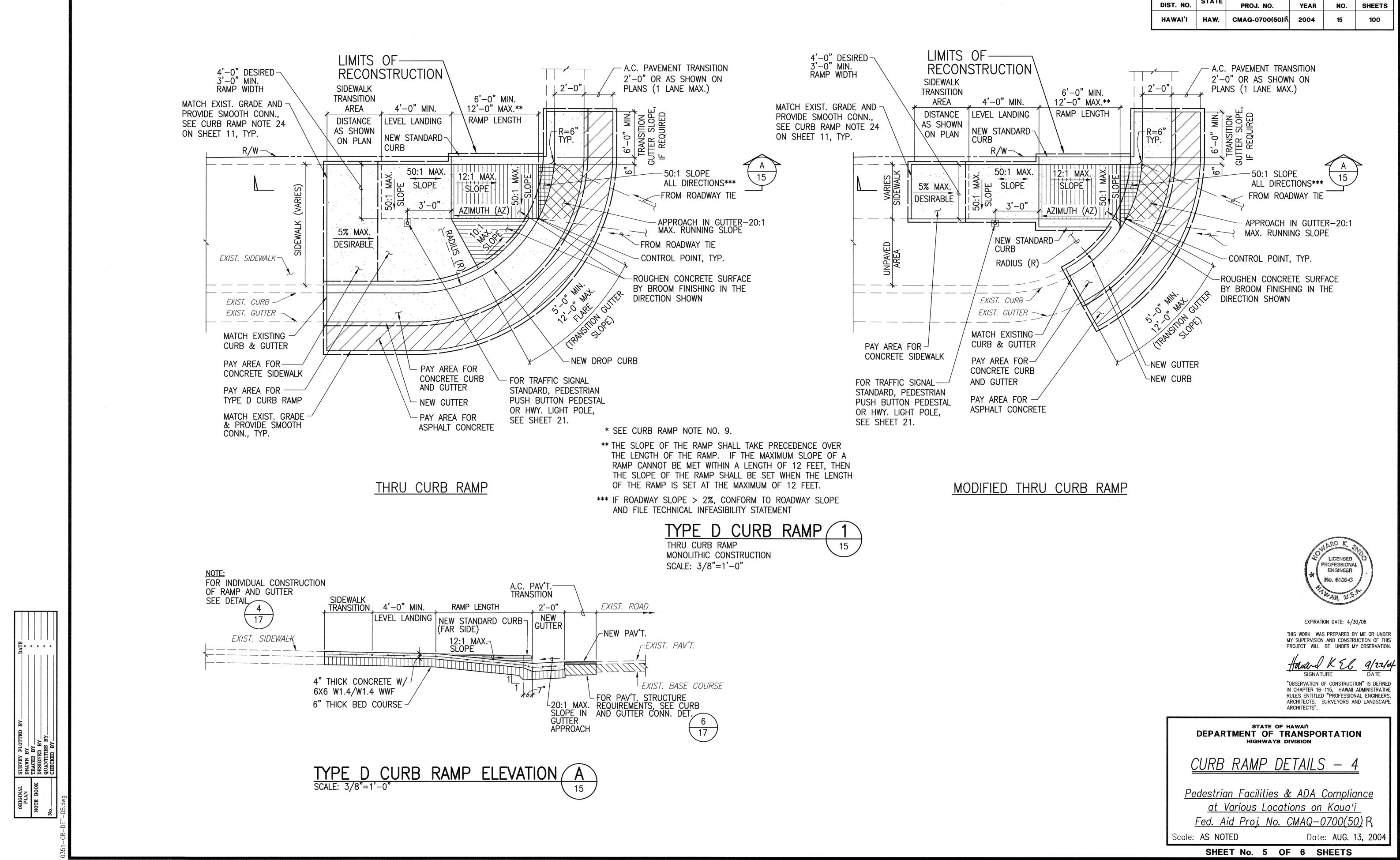




SHEET No. 4 OF 6 SHEETS

Scale: AS NOTED

Date: **AUG. 13, 2004**

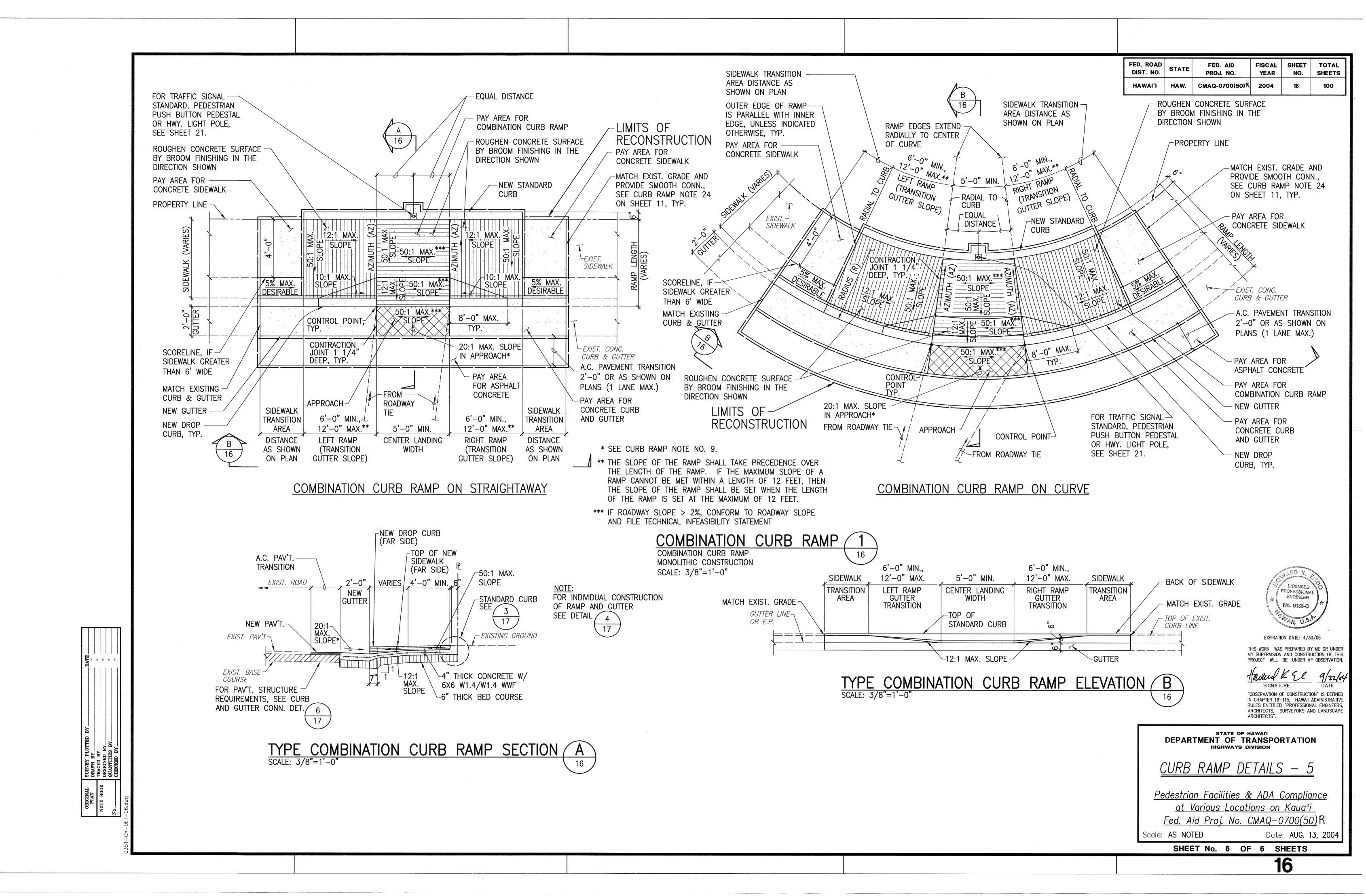


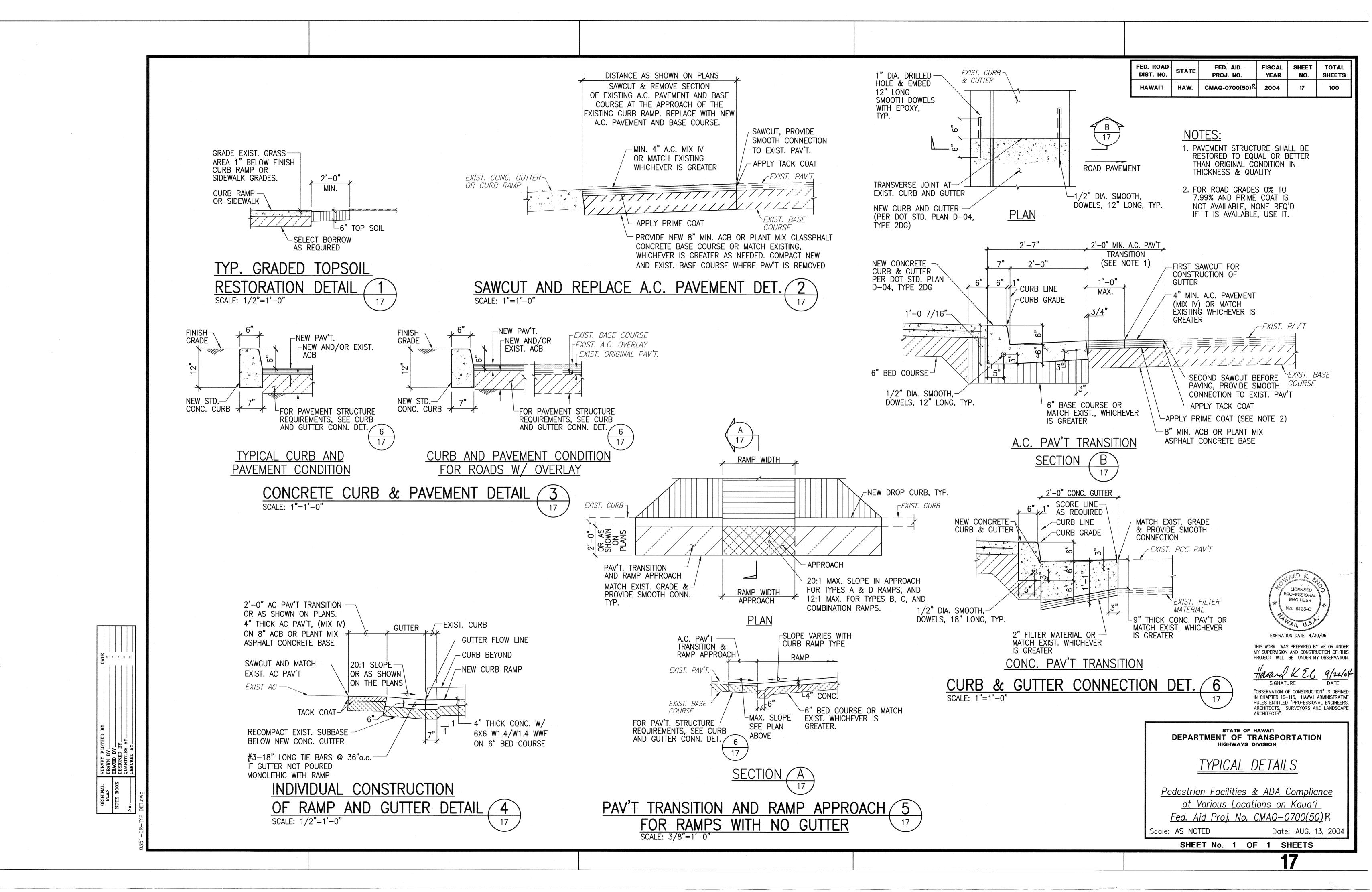
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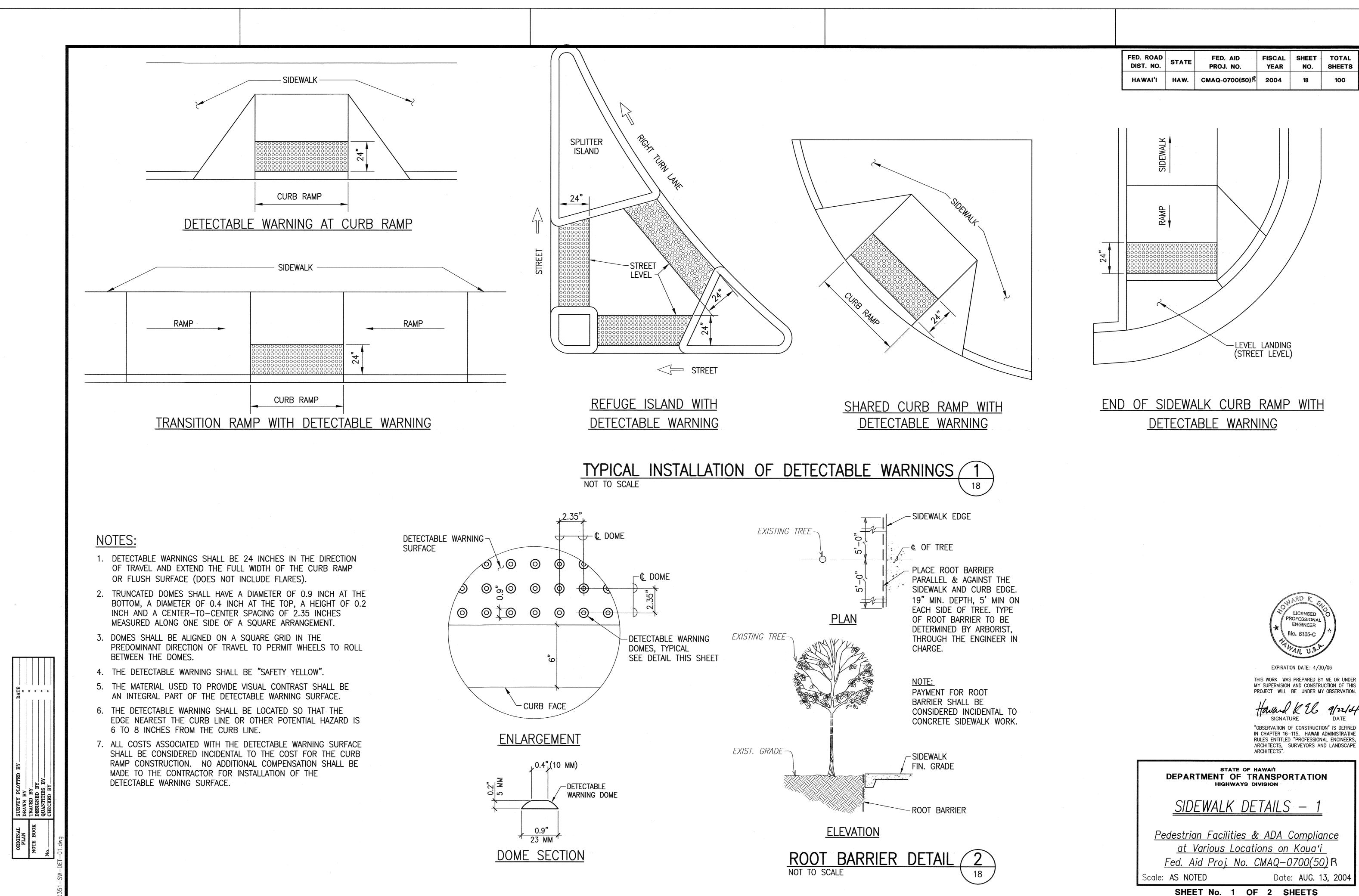
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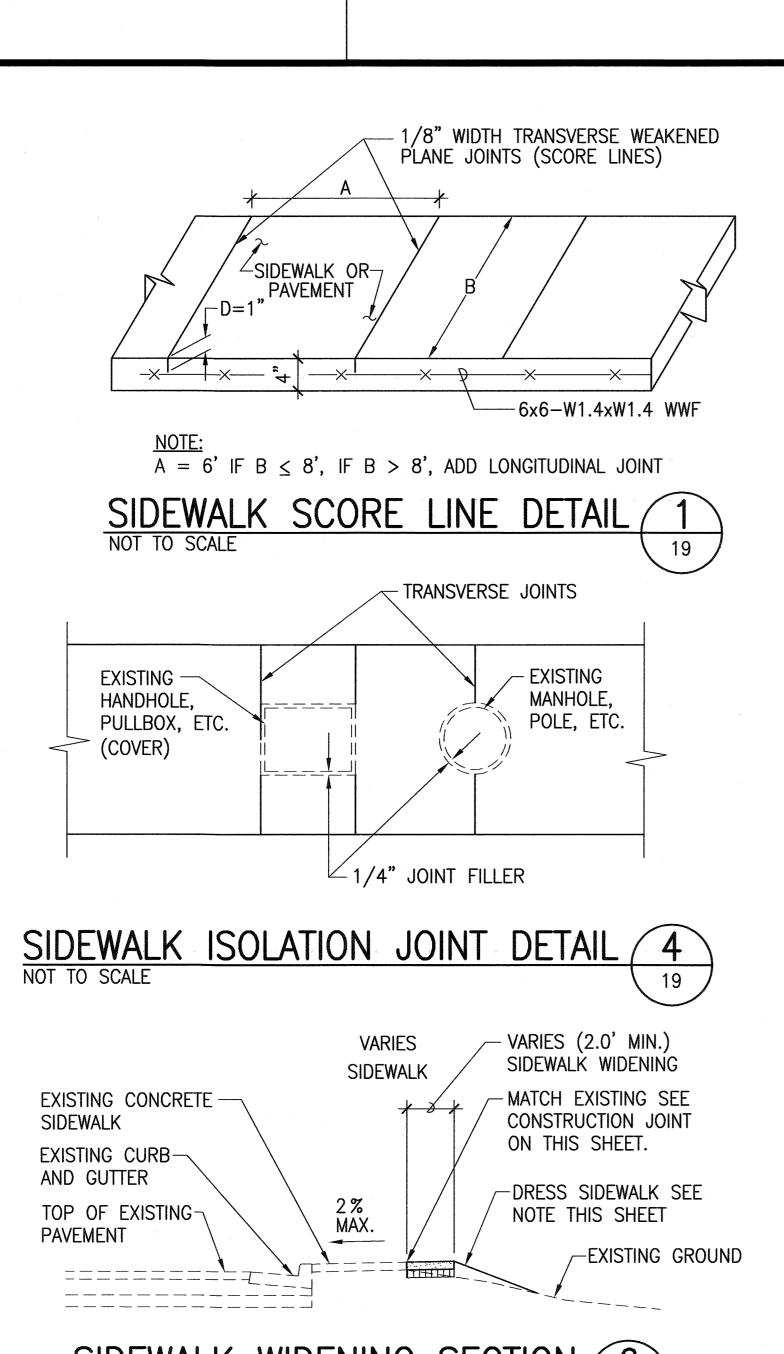
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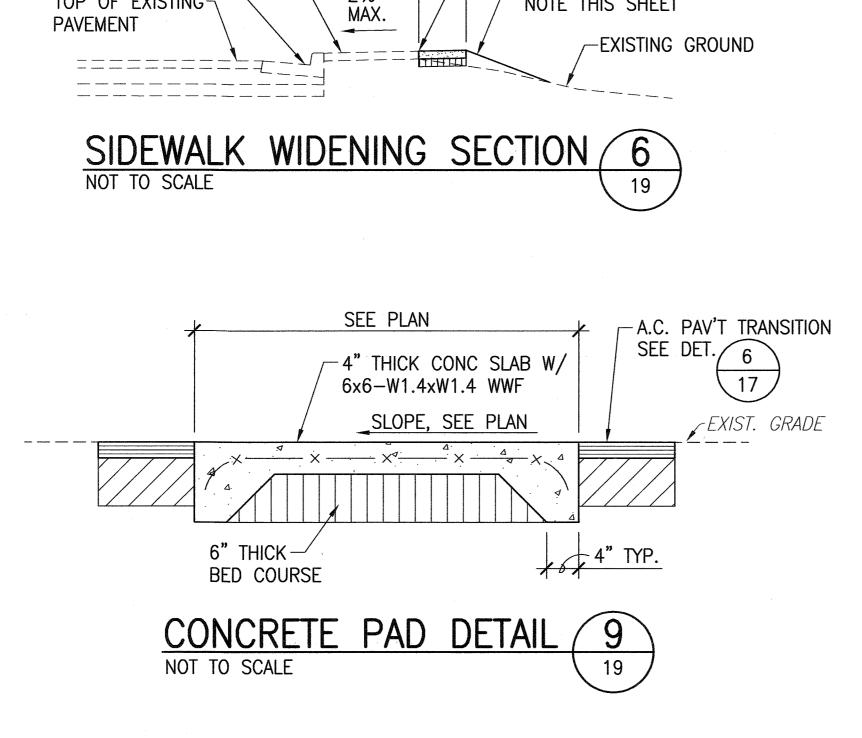
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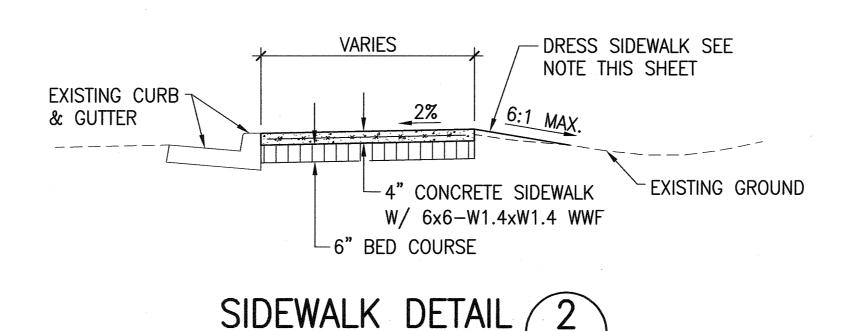


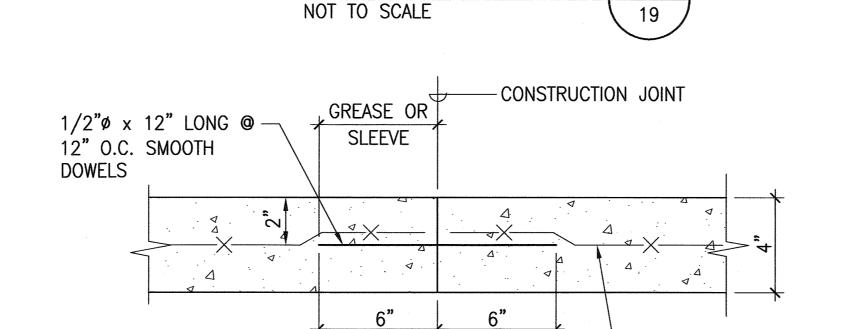






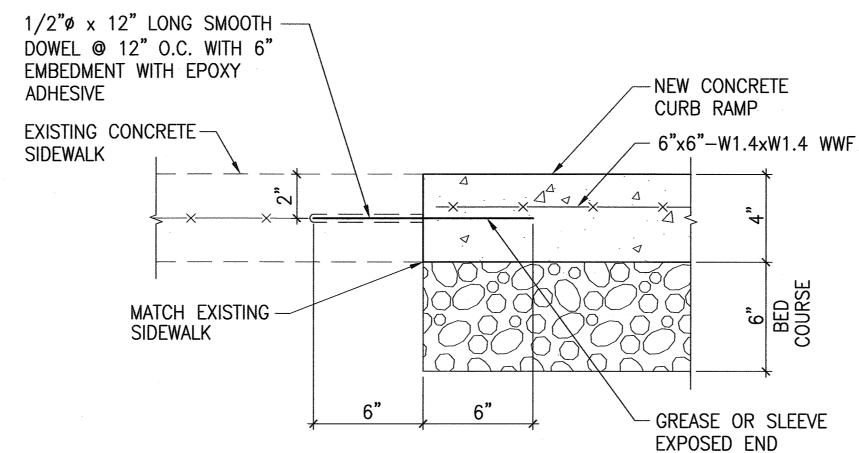






TRANSVERSE CONSTRUCTION JOINT DETAIL NOT TO SCALE

-6x6-W1.4xW1.4 WWF

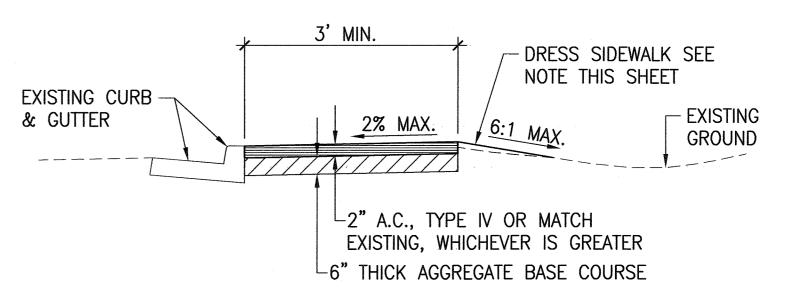




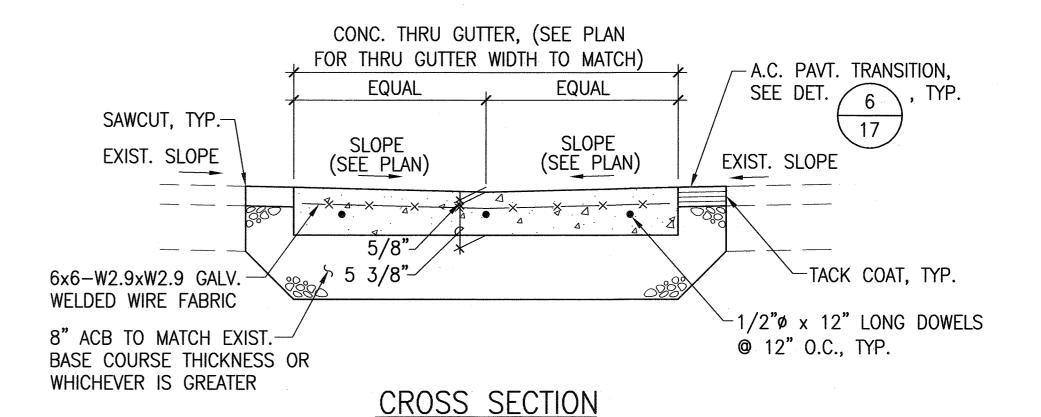
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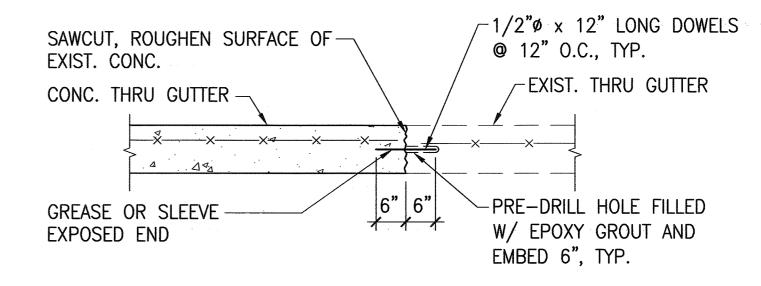
- 1. DRESSING OF SIDEWALK SHALL CONSIST OF CLEARING, GRUBBING, GRADING, RESHAPING AND COMPACTING THE AREA ADJACENT TO THE IMPROVEMENT WITH SUITABLE MATERIAL AS SHOWN ON THE PLANS AND/OR AS DIRECTED BY THE ENGINEER. IF EXISTING GROUND IS ASPHALT OR CONCRETE SURFACE, DRESS SIDEWALK WITH A.C. PAVEMENT, MIX NO. V. 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.

FED. ROAD FED. AID FISCAL SHEET TOTAL PROJ. NO. YEAR NO. SHEETS HAWAI'I CMAQ-0700(50)R 2004 HAW.



A.C. SIDEWALK DETAIL NOT TO SCALE





LONGITUDINAL SECTION

CONCRETE THRU GUTTER CONNECTION DETAIL 8 NOT TO SCALE

LICENSED PROFESSIONAL ENGINEER No. 6185-C EXPIRATION DATE: 4/30/06

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DEPARTMENT OF TRANSPORTATION

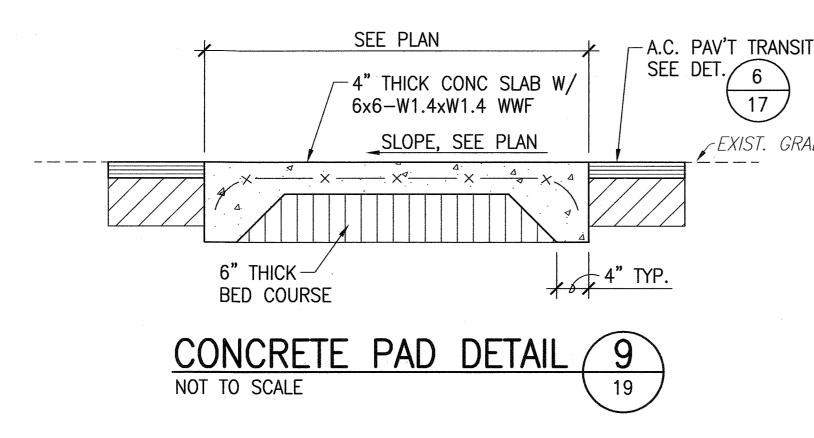
STATE OF HAWAI'I

SIDEWALK DETAILS - 2

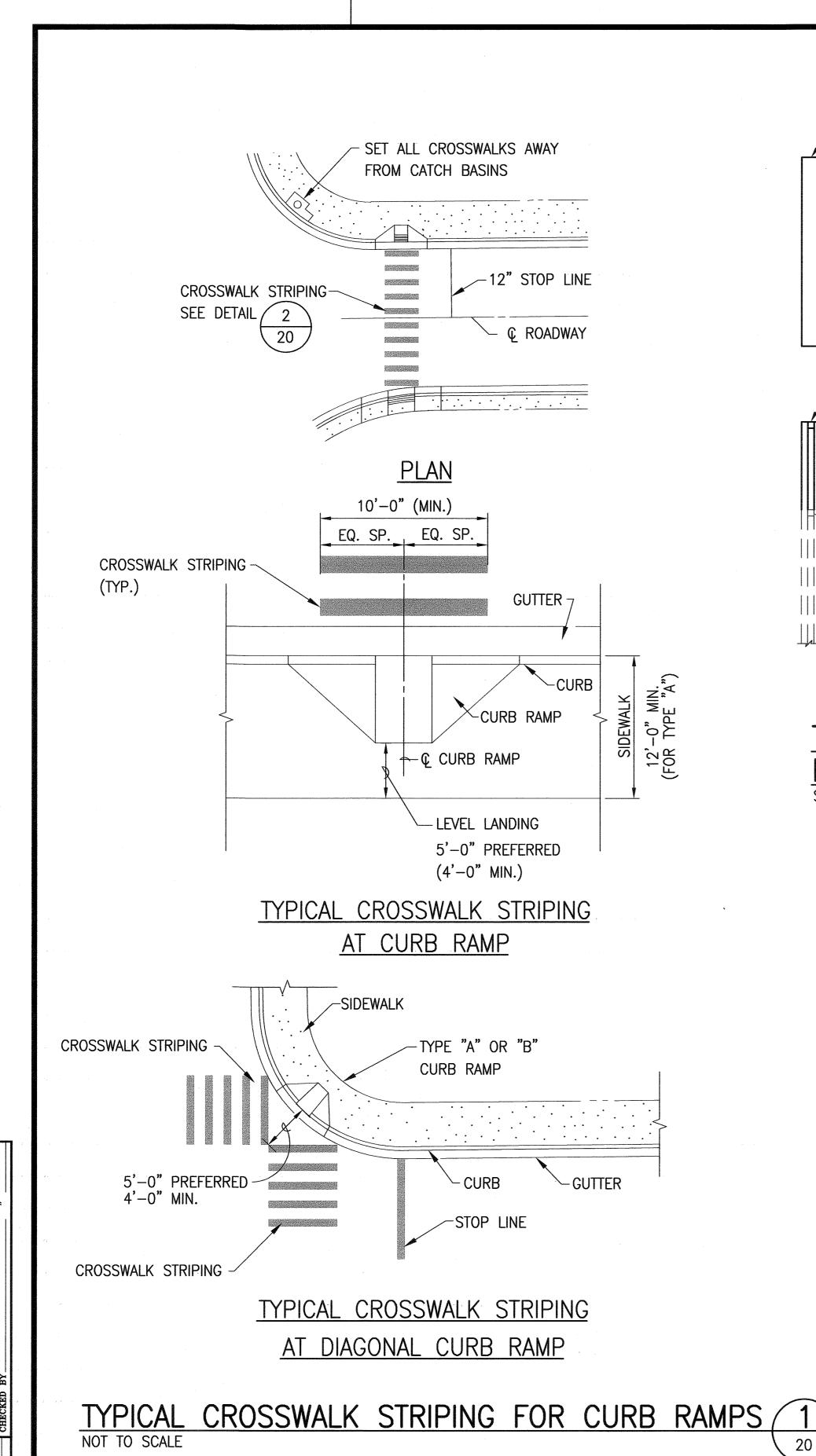
Pedestrian Facilities & ADA Compliance <u>at Various Locations on Kauaʻi</u> Fed. Aid Proj. No. CMAQ-0700(50)R Scale: AS NOTED

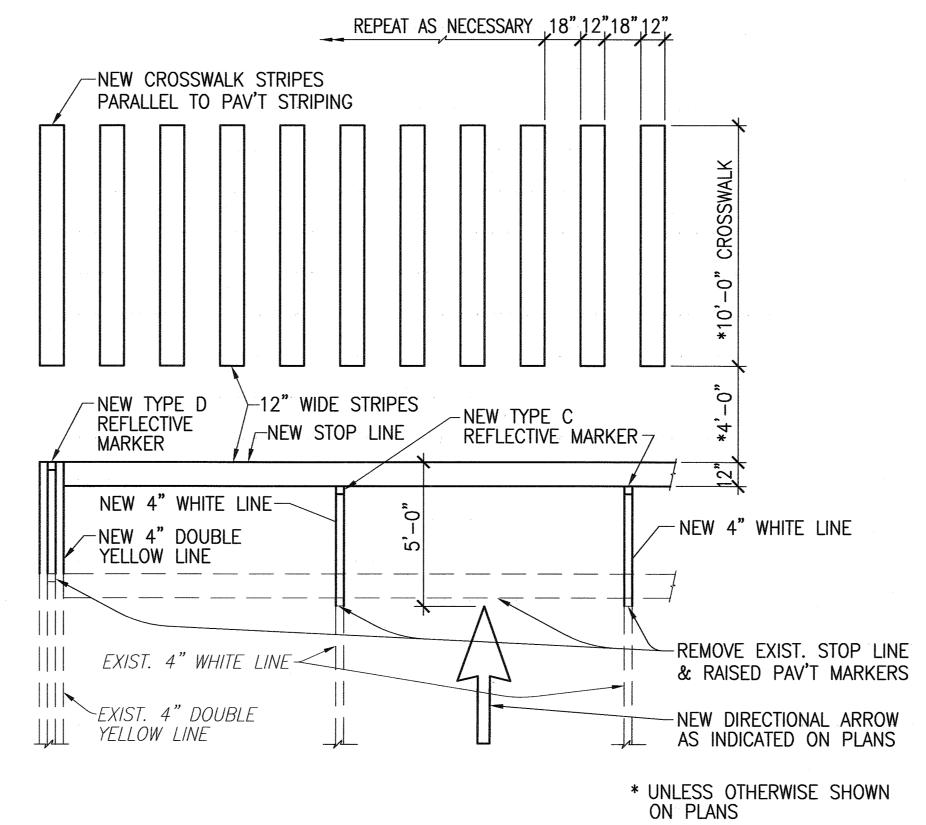
Date: **AUG. 13, 2004** SHEET No. 2 OF 2 SHEETS

19



SURVEY PLOTTE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY





TYPICAL CROSSWALK, STOP BAR AND MARKING & STRIPING MODIFICATION 2 SCALE: 1/4"=1'-0"



SHEET TOTAL

SHEETS

NO.

20

FISCAL

YEAR

PROJ. NO.

CMAQ-0700(50) 2004

FED. ROAD

DIST. NO.

HAW.

EXPIRATION DATE: 4/30/06

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STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

CURB RAMP STRIPING DETAILS

Pedestrian Facilities & ADA Compliance <u>at Various Locations on Kauaʻi</u> Fed. Aid Proj. No. CMAQ-0700(50)R

Scale: AS NOTED

Date: **AUG. 13, 2004** SHEET No. 1 OF 1 SHEETS