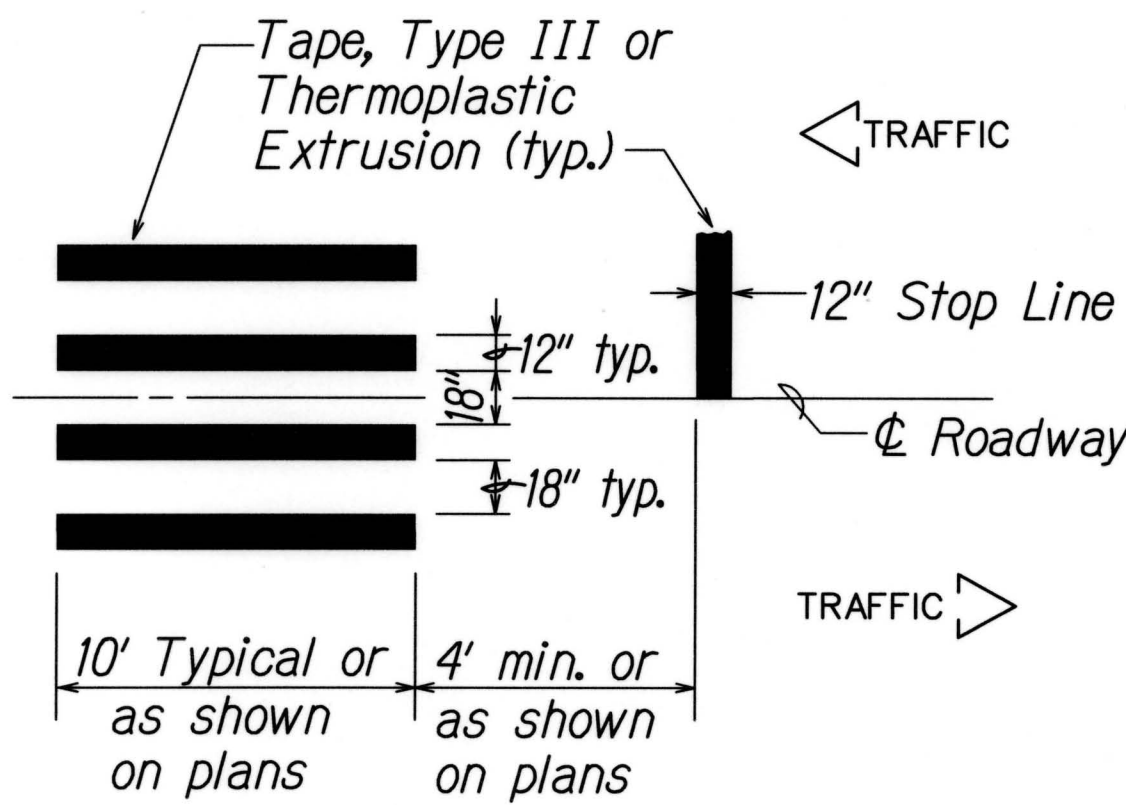
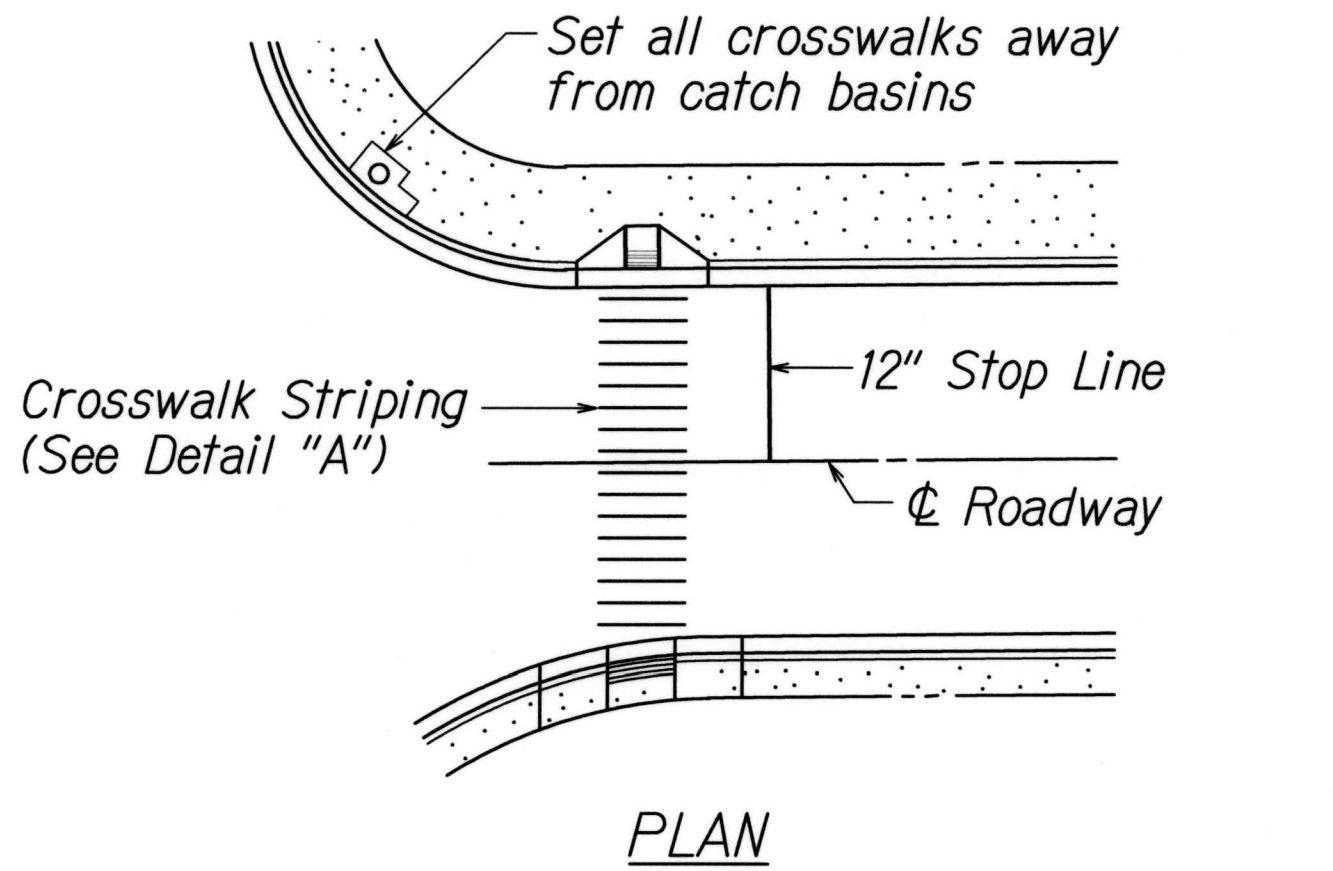


FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-031-K012	2013	24	54

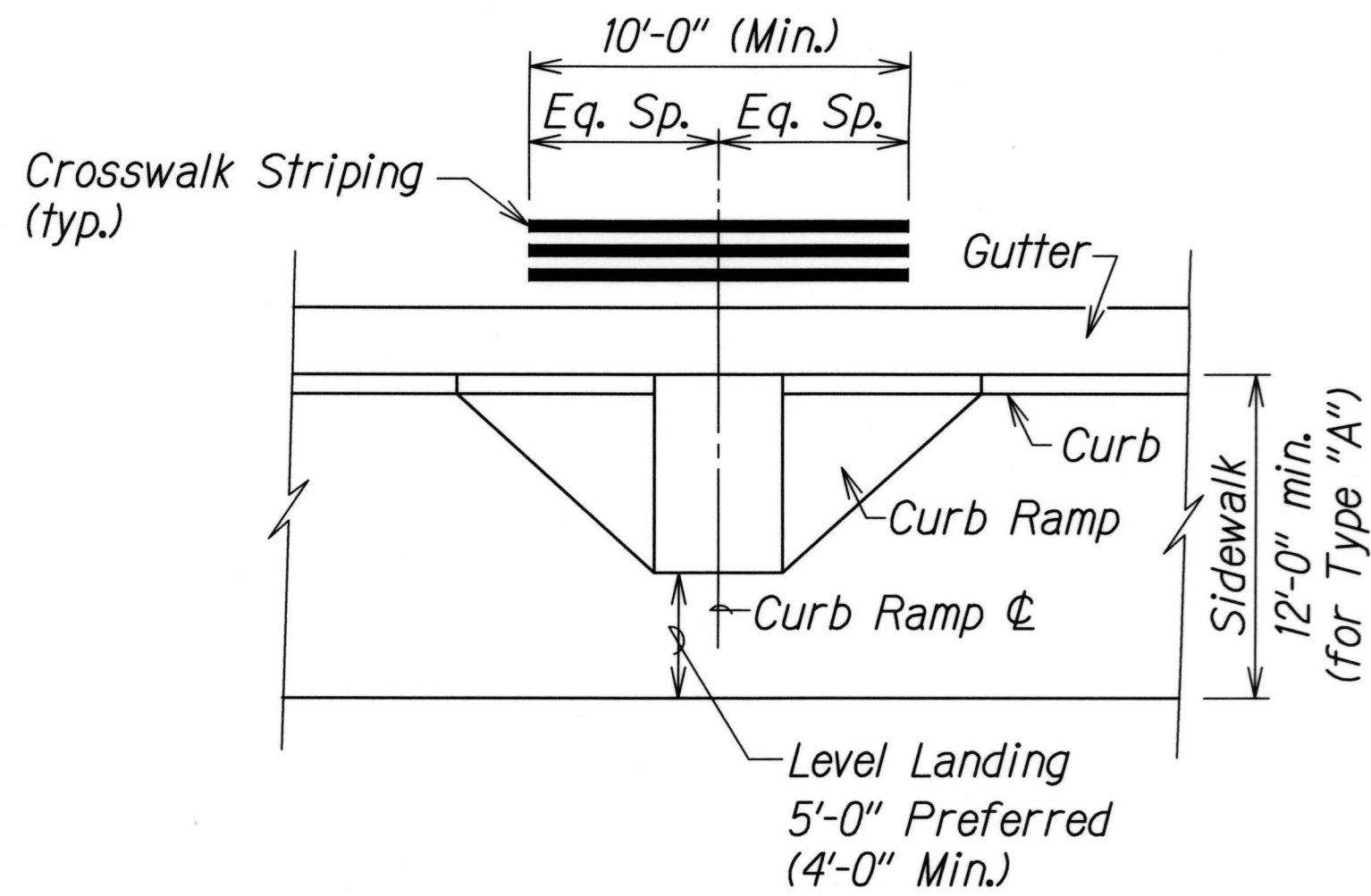
CURB RAMP NOTES:

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. All pullboxes shall be installed away from the curb ramp and within the sidewalk/unpaved area to the maximum extent feasible.
4. Where necessary, existing pullboxes, handholes, manholes, etc. shall be adjusted to match curb ramp grade. Adjustments shall not be paid for separately but shall be considered incidental to the various curb ramp items unless indicated otherwise.
5. Transitions from ramps to gutters and roadways shall be flush.
6. Curb ramps shall be constructed to eliminate ponding to the maximum extent feasible.
7. 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 48".
 - 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.
8. The maximum slopes of adjoining gutters or road surface immediately fronting the curb ramp shall not exceed 8.33% for Type C ramps.
9. 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.
10. Unless otherwise noted, new gutters are required as shown.
11. All curb ramps shall be reinforced with 6x6 W1.4/W1.4 welded wire fabric.
12. Surface curb ramps shall be firm, stable, and slip-resistant. This includes the surfaces of pullboxes, valve covers, manhole covers, etc.
13. Bed course material is required for curb ramps and gutters.
14. 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.
15. Additional information is available from:
 - a) American with Disabilities Act Accessibility Guidelines (ADAAG), July 2004, 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 1999, FHWA.
 - d) Designing Sidewalks and Trails for Access, Part 2, Sept. 2001, FHWA.



CROSSWALK STRIPING DETAIL

NOTE:
Longitudinal lines shall be parallel to traffic flow.



ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
IN CHARGE	

T:\16392A-TRAFFIC OPERATIONS IMPROVEMENTS-MAUI\CADD\SHEET\ramprampnote-r12-06-06.dgn

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

04/30/14

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CURB RAMP NOTES AND DETAILS

PIILANI HIGHWAY
TRAFFIC OPERATION IMPROVEMENTS AT OHUKAI ROAD
FEDERAL AID PROJECT NO. CMAQ-031-K012

Scale: NTS Date: March 2013

SHEET No. C-7 OF 29 SHEETS