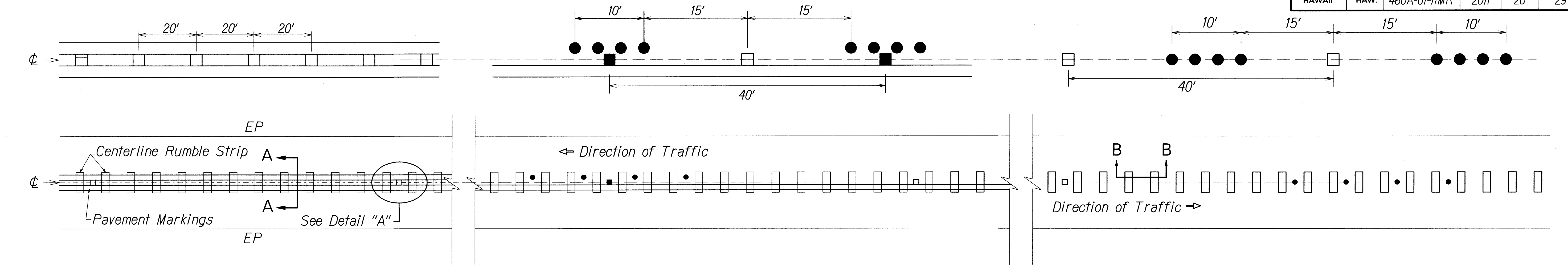
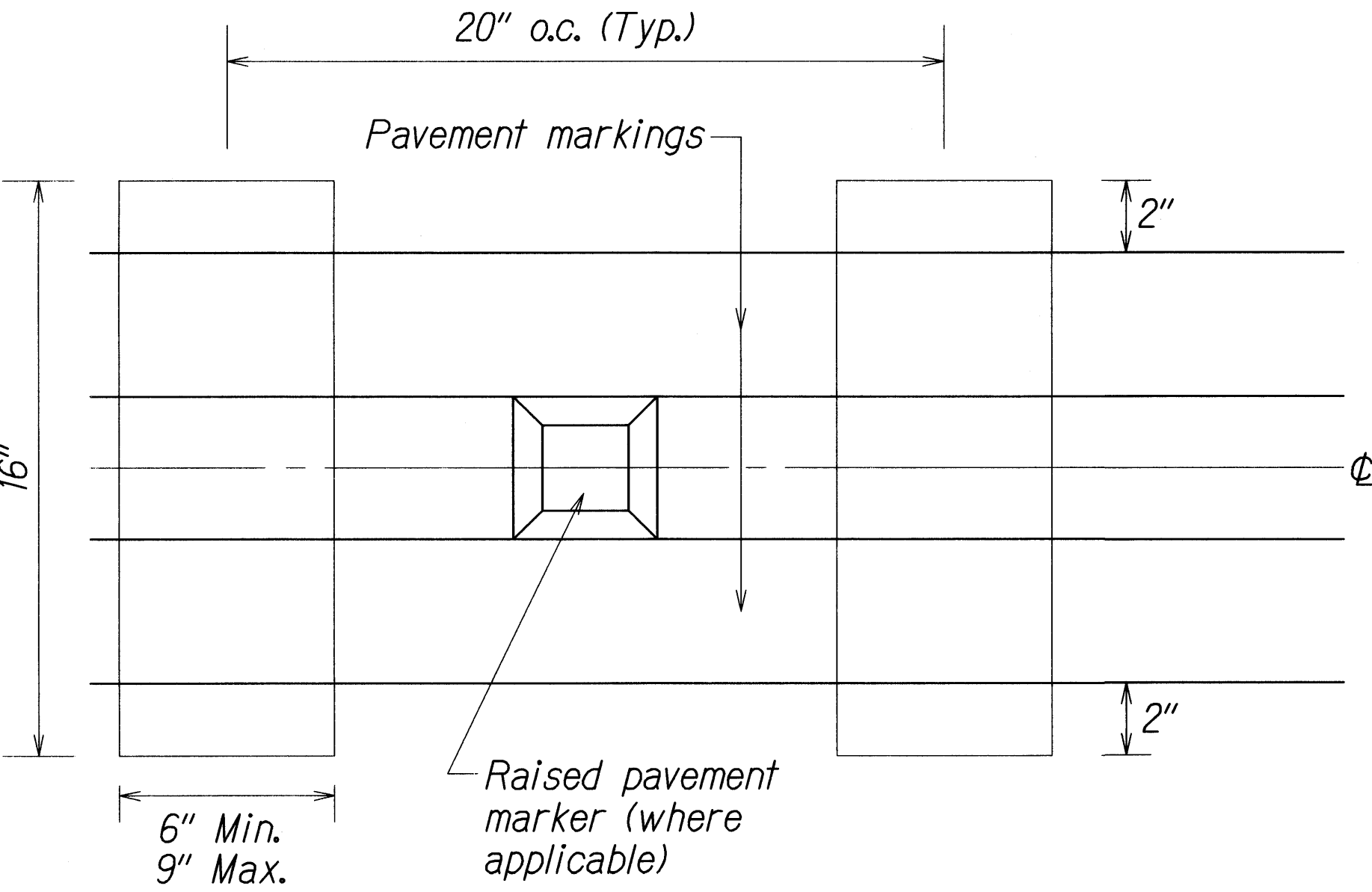


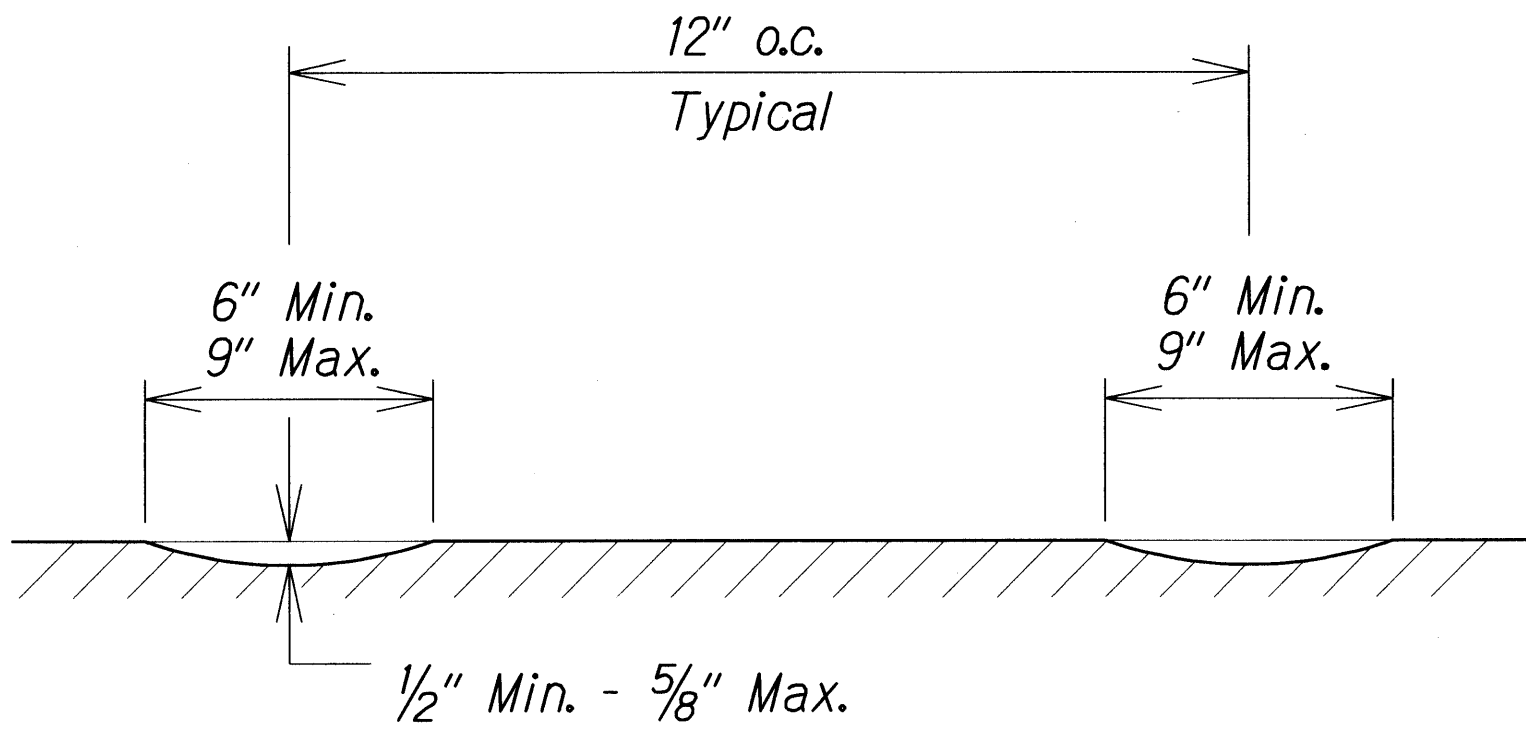
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	460A-01-11MR	2011	20	29



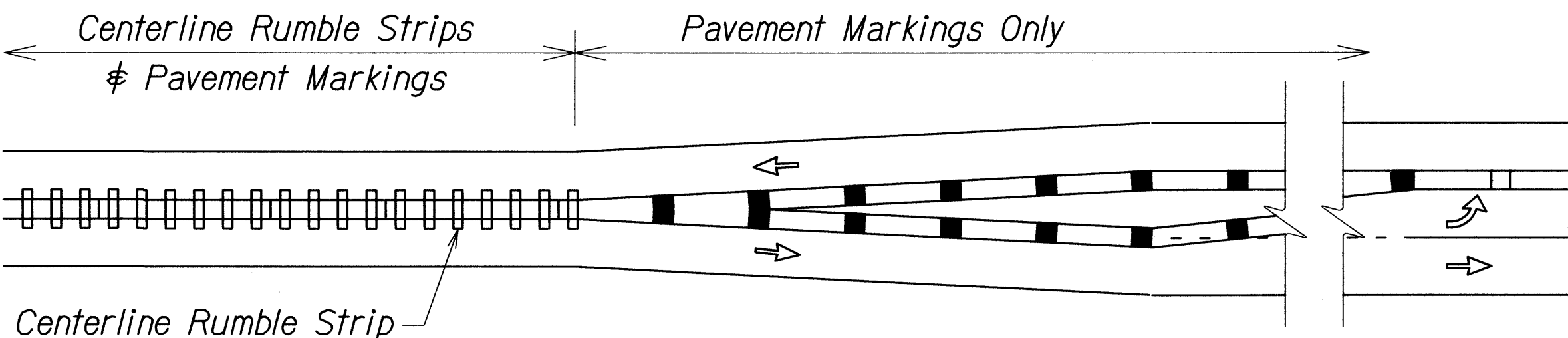
PLAN - CENTERLINE MILLED RUMBLE STRIP  
Not to Scale



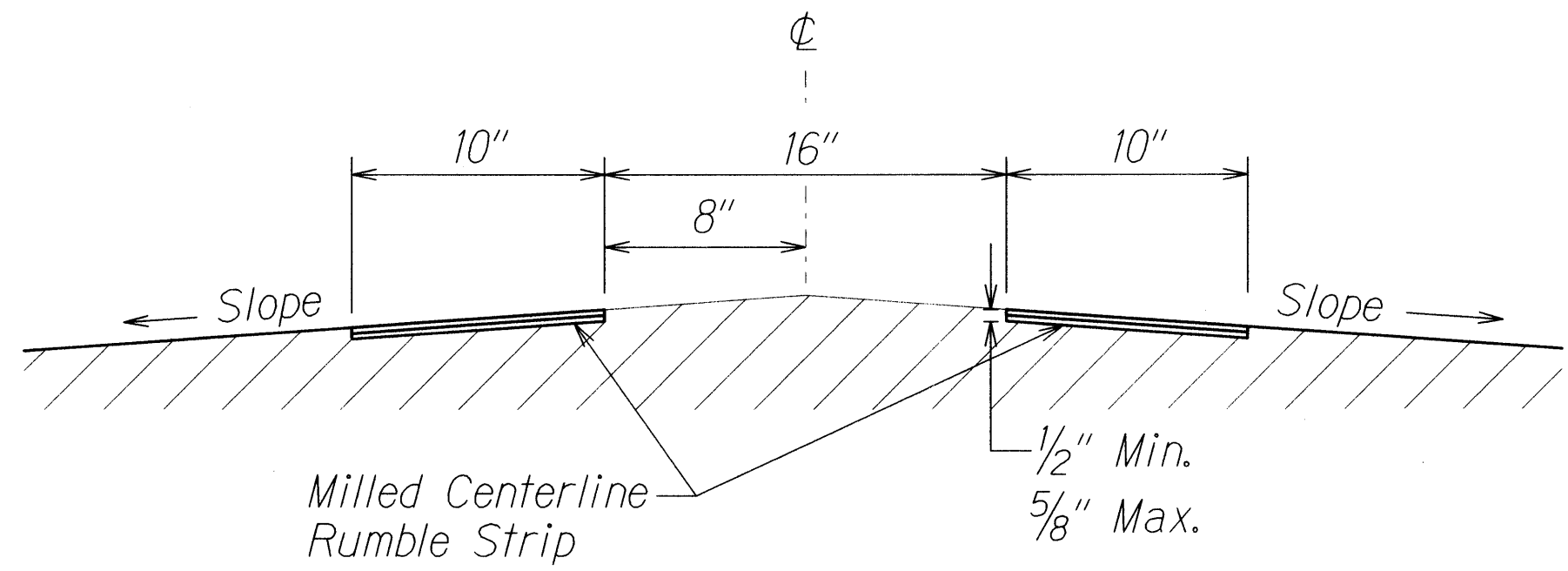
DETAIL "A"  
Not to Scale



SECTION B-B - CENTERLINE MILLED RUMBLE STRIP  
Not to Scale



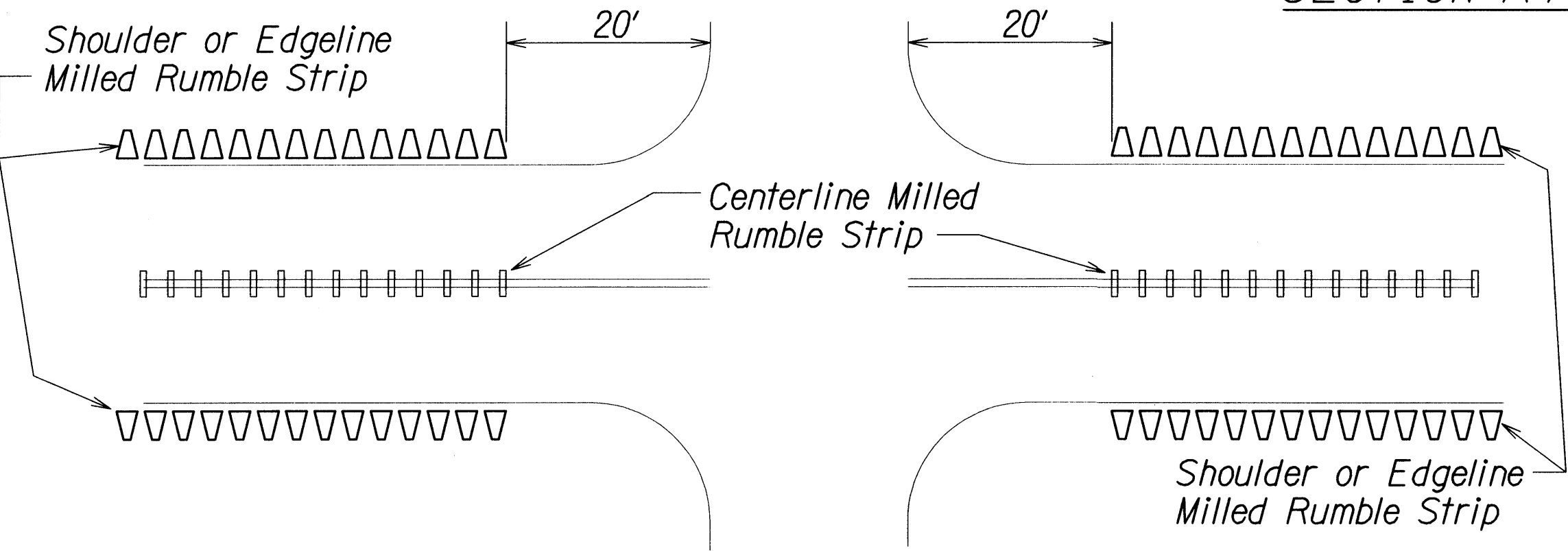
CENTERLINE MILLED RUMBLE STRIP INSTALLATION LIMIT  
Not to Scale



SECTION A-A - CENTERLINE MILLED RUMBLE STRIP  
Not to Scale

NOTES:

1. The method of constructing the centerline milled rumble strip shall be submitted to the Engineer for acceptance prior to the actual work.
2. Dimensions shown are approximate. Adjust rumble strip spacing to coordinate with pavement markings prior to installation.
3. Raised pavement markers shall be installed on level surface between the rumble strips. Do not install raised pavement markers inside the milled area.
4. The construction of the centerline milled rumble strip shall be paid for under Item No. 615.0100 - 16-inch Milled Rumble Strip, Centerline.
5. The milling apparatus and removal of existing pavement markings will not be paid for separately and shall be considered incidental to Item 615.0100 - 16-Inch Milled Rumble Strip, Centerline.
6. Do not install centerline rumble strips on bridge decks.
7. Where at-grade bridges are present, rumble strips shall end/begin 20 L.F. beyond the existing bridge deck joints/concrete approach slab.
8. Hot spray thermoplastic shall be used for solid line markings within the milled centerline rumble strip area.



MILLED RUMBLE STRIP INSTALLATION LIMITS  
Not to Scale

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**CENTERLINE MILLED RUMBLE STRIP DETAIL**

MAUNALOA HIGHWAY RESURFACING

Vicinity of Keonelele Avenue to Mahana

Project No. 460A-01-11MR

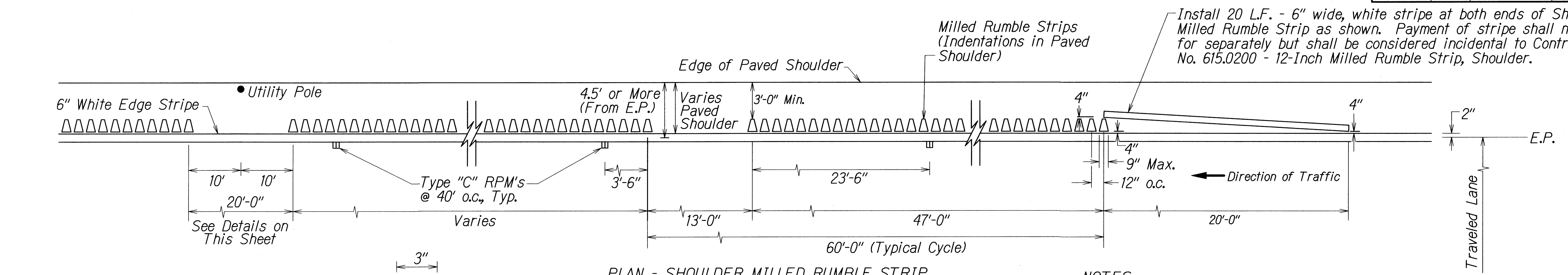
Scale: As Shown Date: August, 2010

SHEET No. 1 OF 3 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY M. Takafuji	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
10/2/09	
10/2/09	



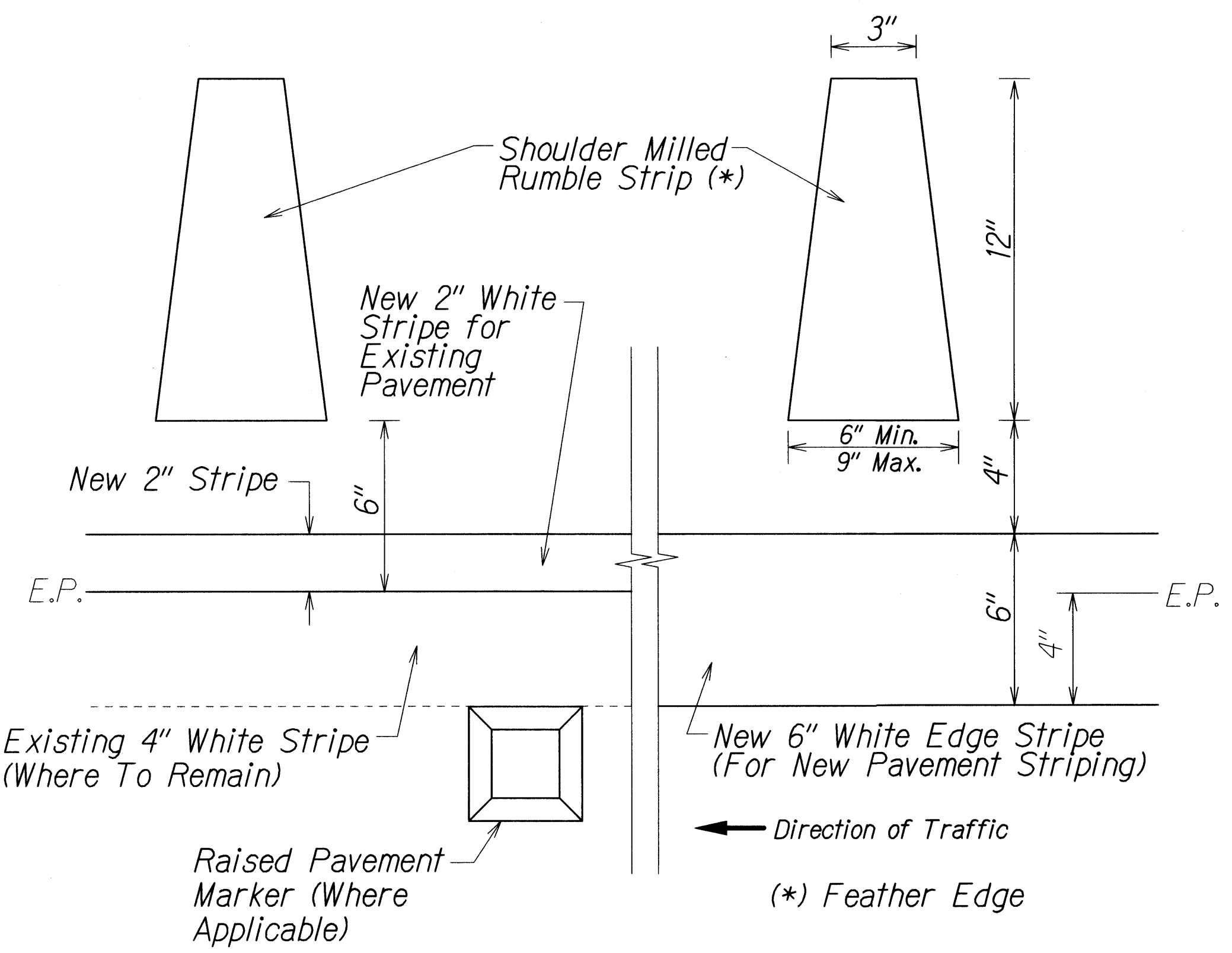
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	460A-01-11MR	2011	22	29



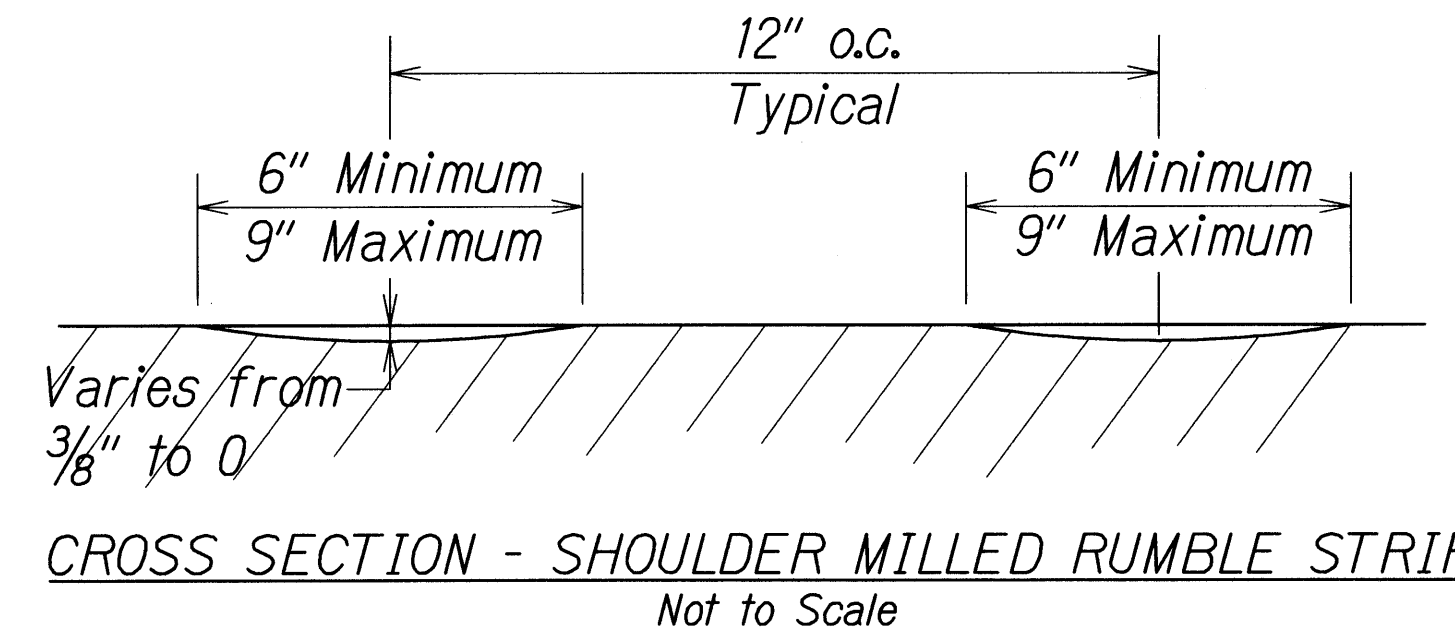
PLAN - SHOULDER MILLED RUMBLE STRIP  
Not to Scale

NOTES:

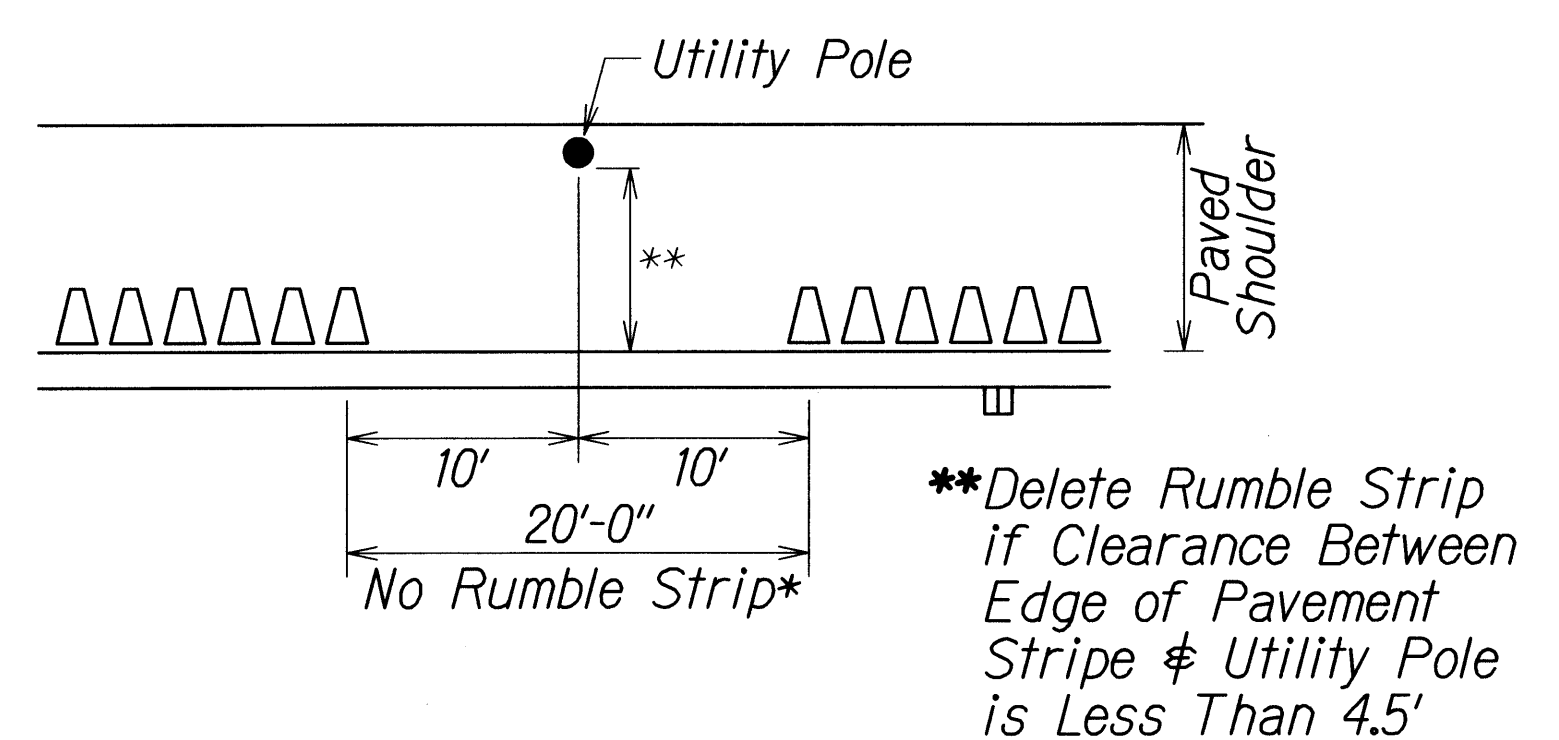
- Shoulder milled rumble strips may be installed for paved shoulder width of 4.5' or more from edge of pavement (E.P.).
- The method of constructing the shoulder milled rumble strip shall be submitted to the Engineer for acceptance prior to the actual work.
- Dimensions shown are approximate. Adjust rumble strip spacing to coordinate with pavement marking prior to installation.
- Raised pavement markers shall be installed on level surface between the rumble strips. Do not install raised pavement markers inside the milled area.
- The construction of the shoulder milled rumble strip and 13-foot gaps shall be paid for under Item No. 615.0200 - 12-Inch Milled Rumble Strip, Shoulder.
- The milling apparatus, 20 L.F. - 6" white stripe, and removal of existing pavement markings will not be paid for separately and shall be considered incidental to Item 615.0200 - 12-Inch Milled Rumble Strip, Shoulder.
- Rumble strips shall be installed along all shoulders, except at right turn deceleration and acceleration lanes, as noted on the plans.
- Do not place Type "C" Raised Pavement markers within 2 ft. of the 13 ft. Rumble Strip opening.
- Do not install edgeline rumble strips on bridge decks.
- Where at-grade bridges are present, rumble strips shall end/begin 20 L.F. beyond the existing bridge deck joints/concrete approach slab.
- Shoulder Rumble Strips are to be installed after the edge of pavement stripe and before the installation of the Type "C" raised pavement markers.
- Hot spray thermoplastic shall be used for solid line markings within the shoulder milled rumble strip area.



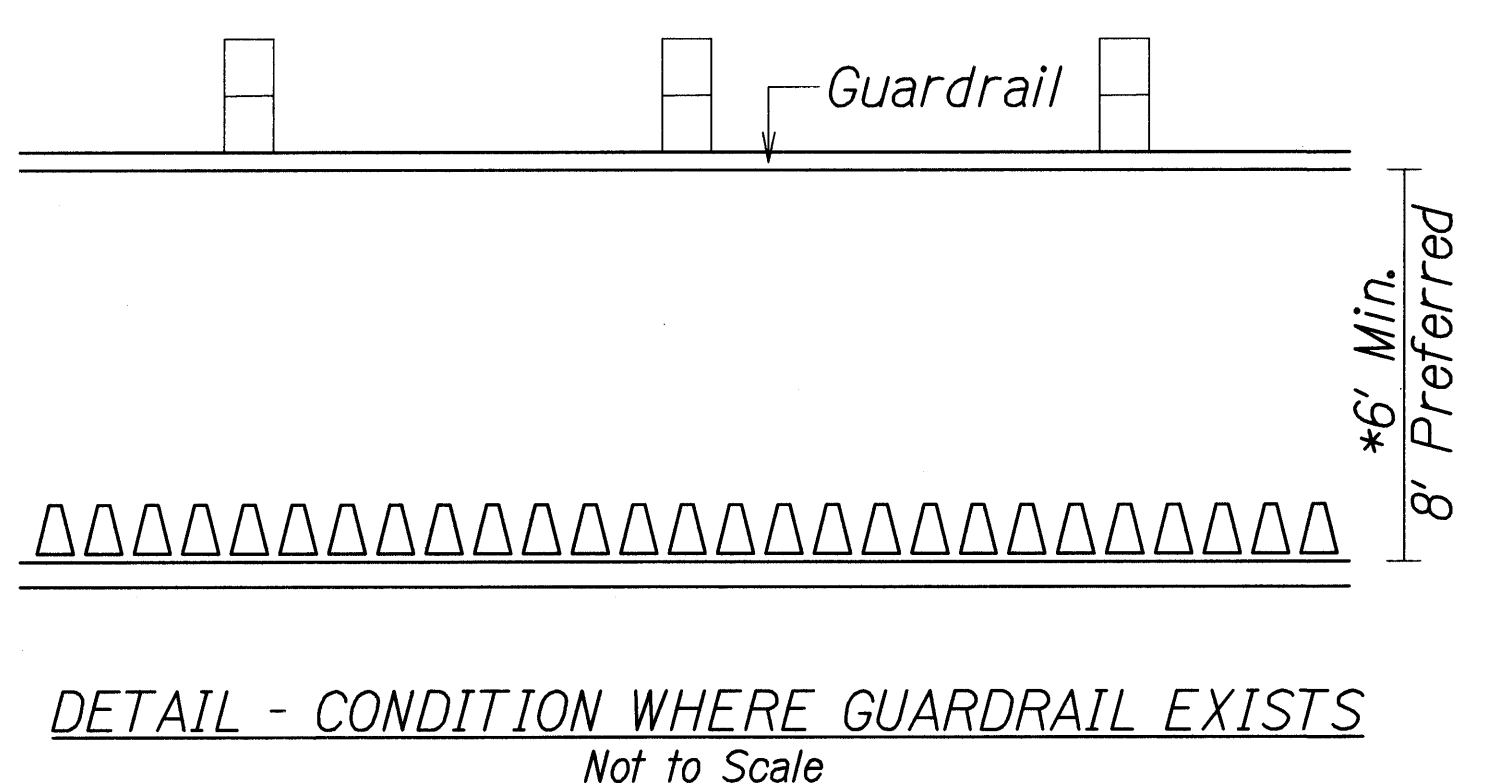
DETAIL - SHOULDER MILLED RUMBLE STRIP  
Not to Scale



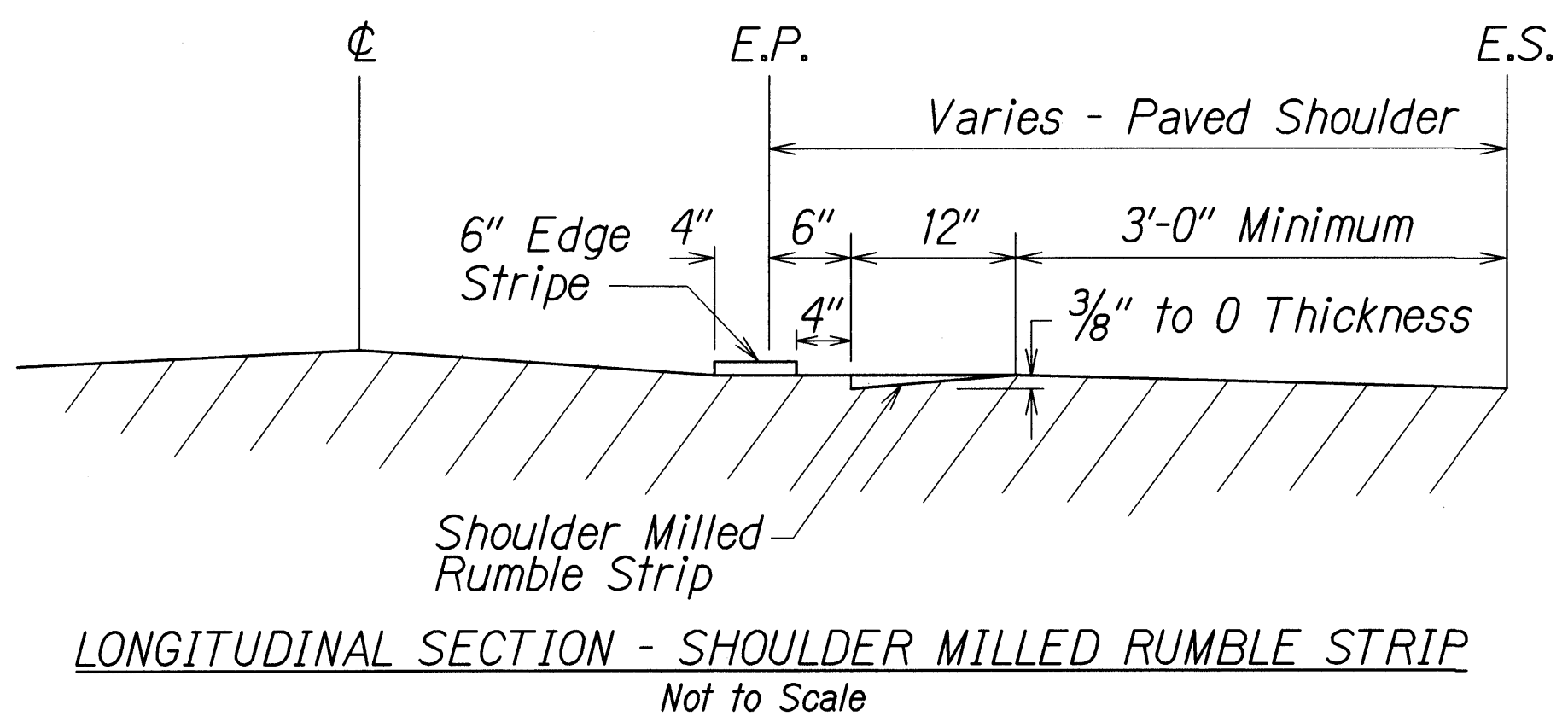
CROSS SECTION - SHOULDER MILLED RUMBLE STRIP  
Not to Scale



DETAIL - CONDITION WHERE UTILITY POLE EXISTS  
Not to Scale



DETAIL - CONDITION WHERE GUARDRAIL EXISTS  
Not to Scale



LONGITUDINAL SECTION - SHOULDER MILLED RUMBLE STRIP  
Not to Scale

\*If shoulder width is less than 6', do not install shoulder rumble strip where guardrail exists.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**SHOULDER MILLED RUMBLE STRIP**  
**DETAIL FOR SHOULDER 4.5' OR MORE**

MAUNALOA HIGHWAY RESURFACING  
Vicinity of Keonelele Avenue to Mahana  
Project No. 460A-01-11MR

Scale: As Shown      Date: August, 2010

SHEET No. 3 OF 3 SHEETS