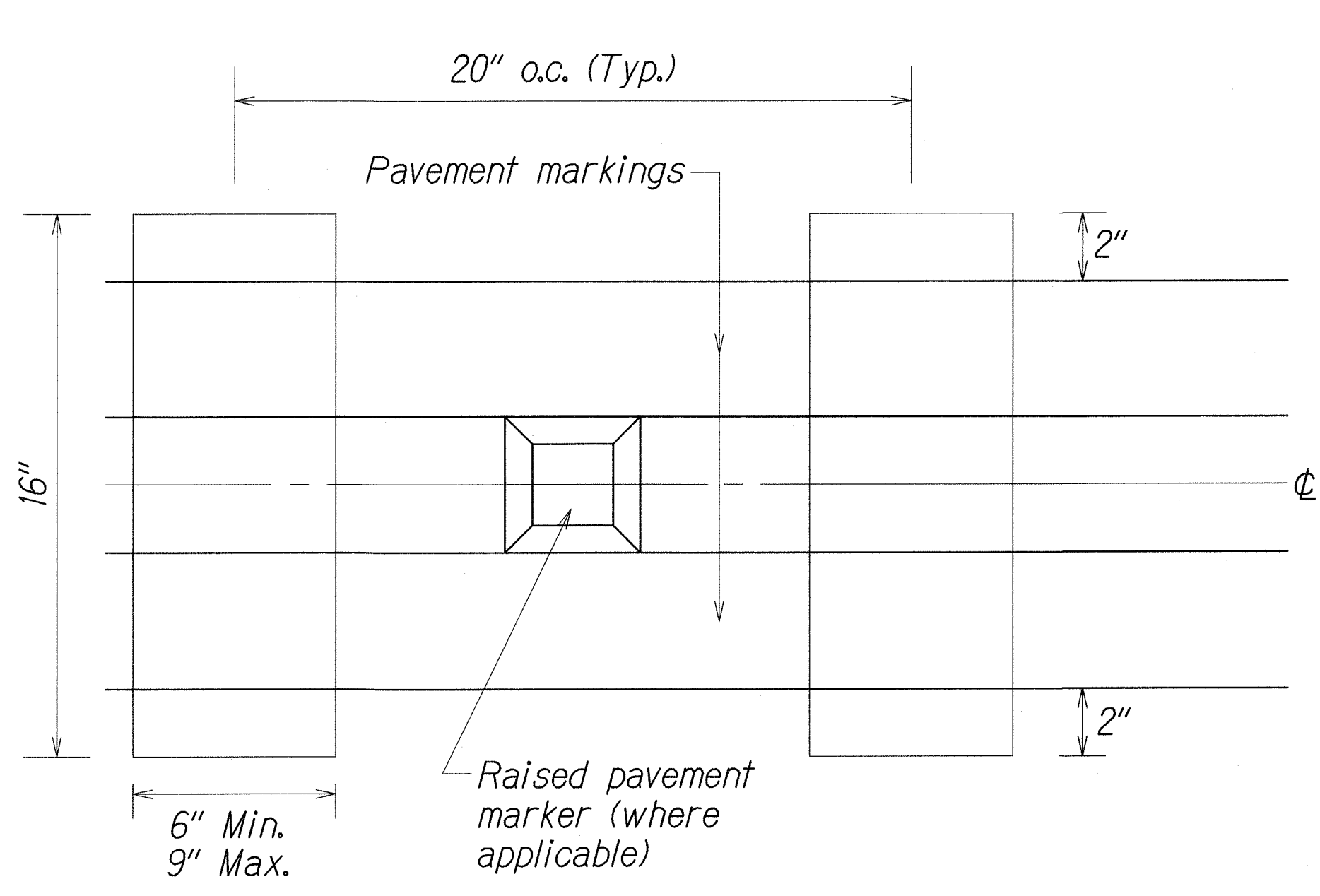
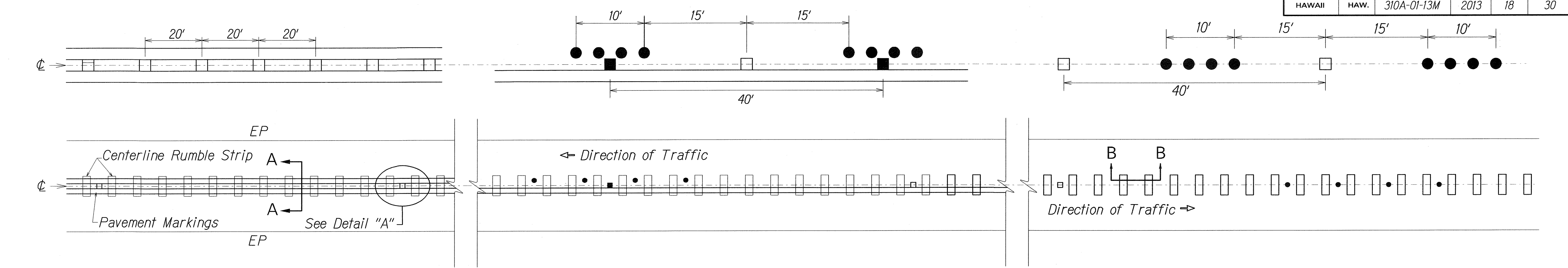
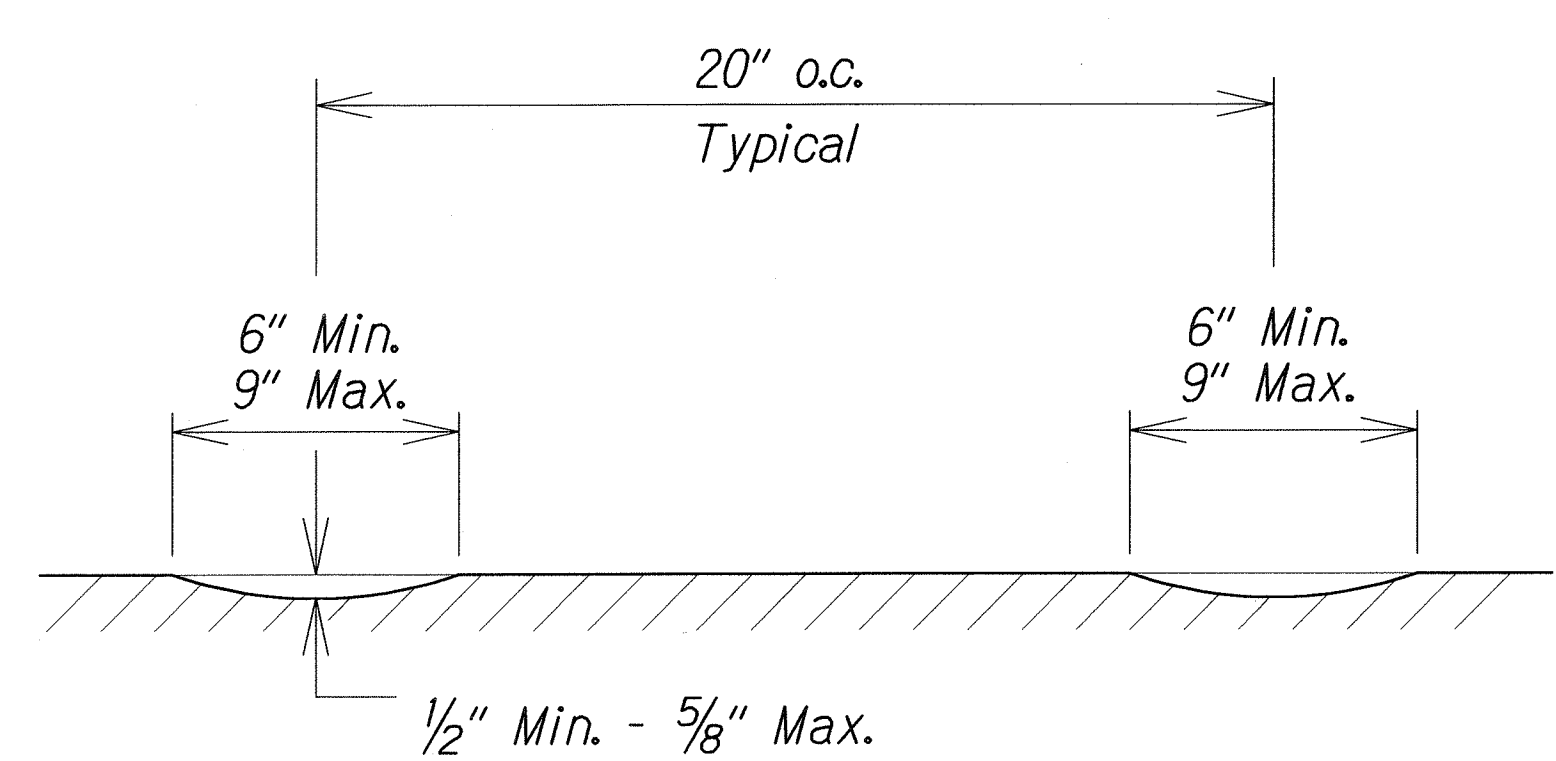


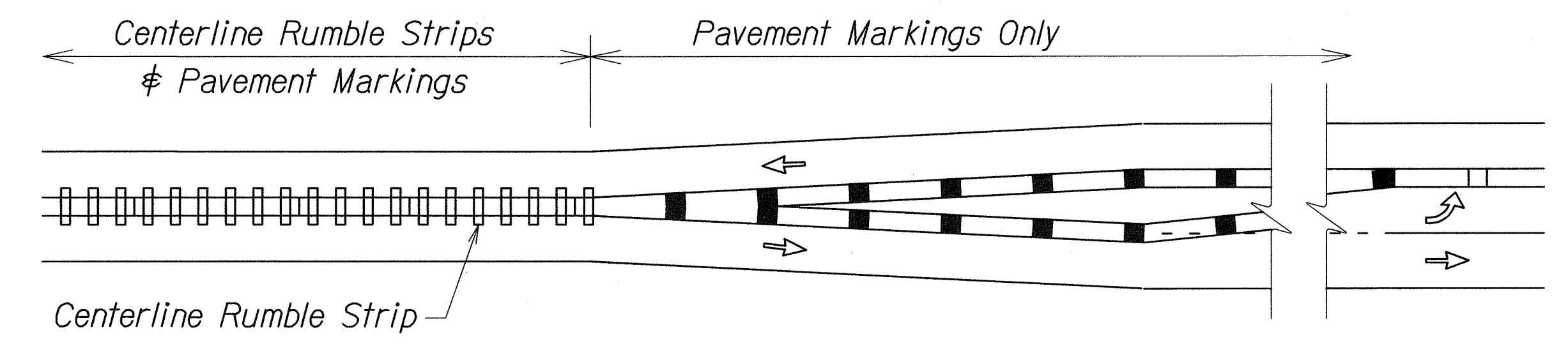
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	310A-01-13M	2013	18	30



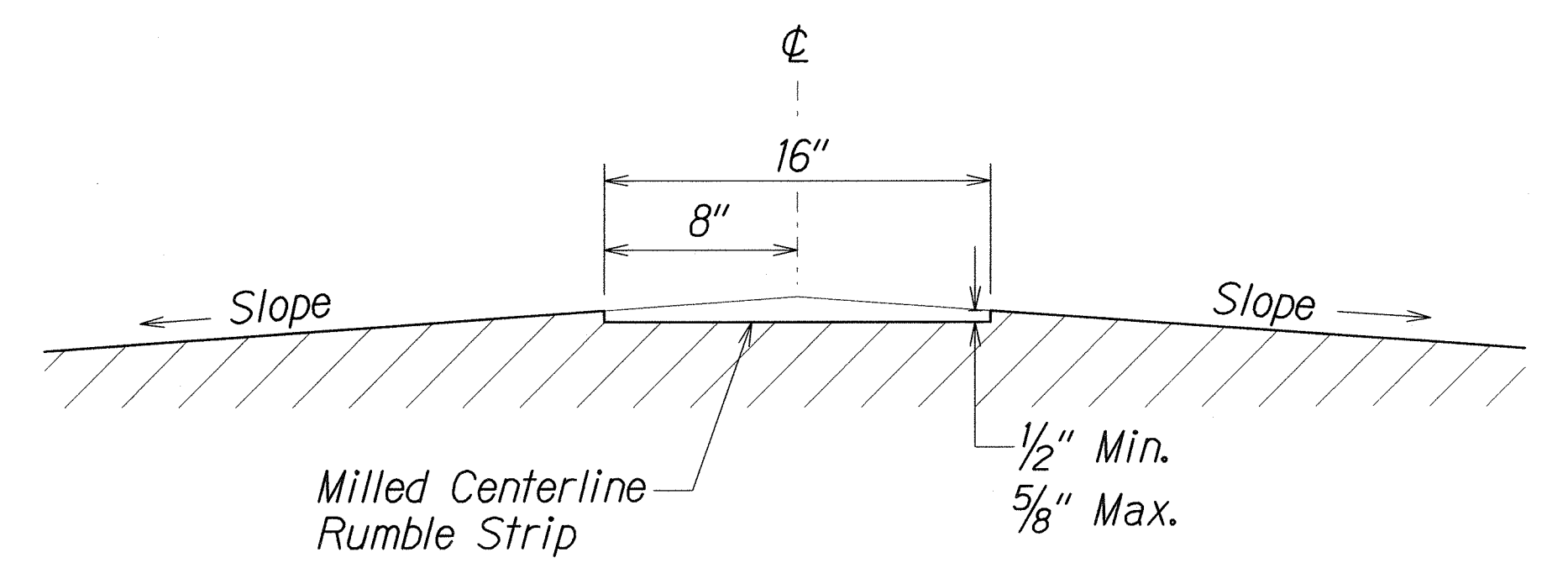
DETAIL "A"
Not to Scale



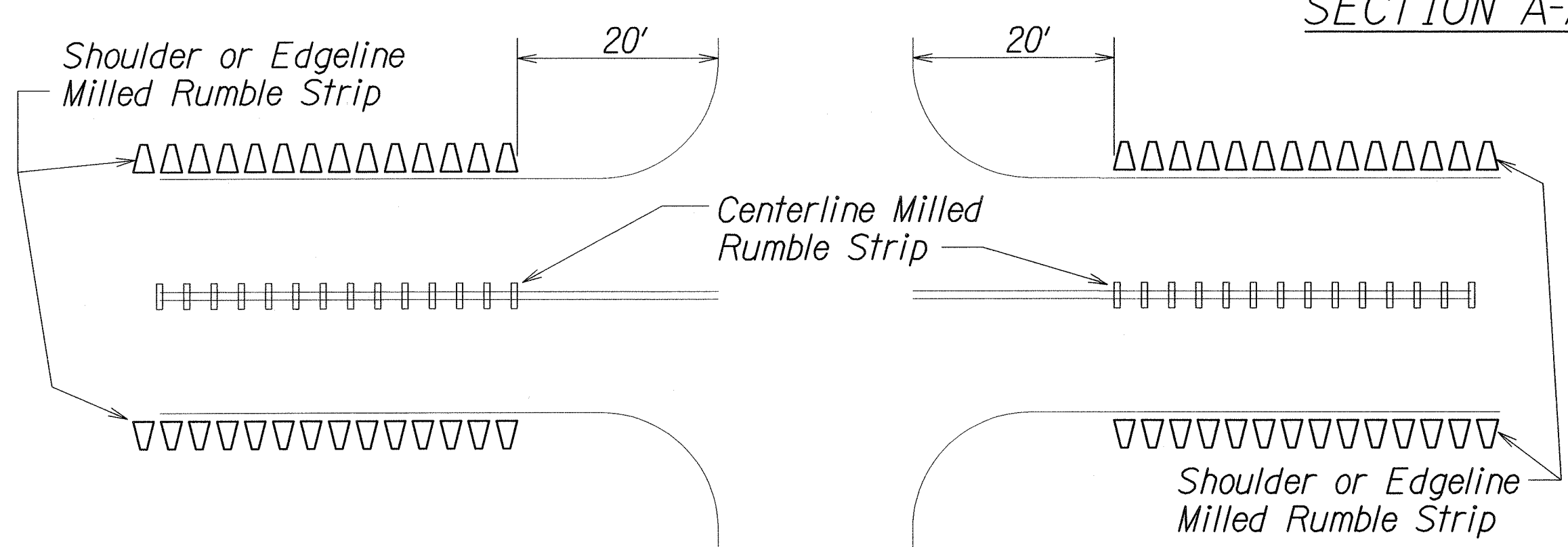
SECTION B-B - CENTERLINE
MILLED RUMBLE STRIP
Not to Scale



CENTERLINE MILLED RUMBLE STRIP INSTALLATION LIMIT
Not to Scale



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



MILLED RUMBLE STRIP INSTALLATION LIMITS
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.

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QUANTITIES BY	
CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

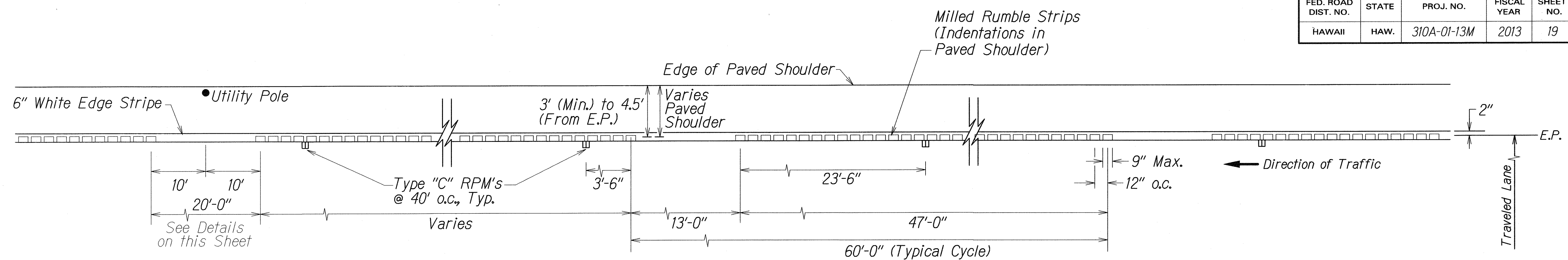
**CENTERLINE MILLED
RUMBLE STRIP DETAIL**

NORTH KIEHI ROAD RESURFACING
Honoapiilani Highway to Piilani Highway
Project No. 310A-01-13M

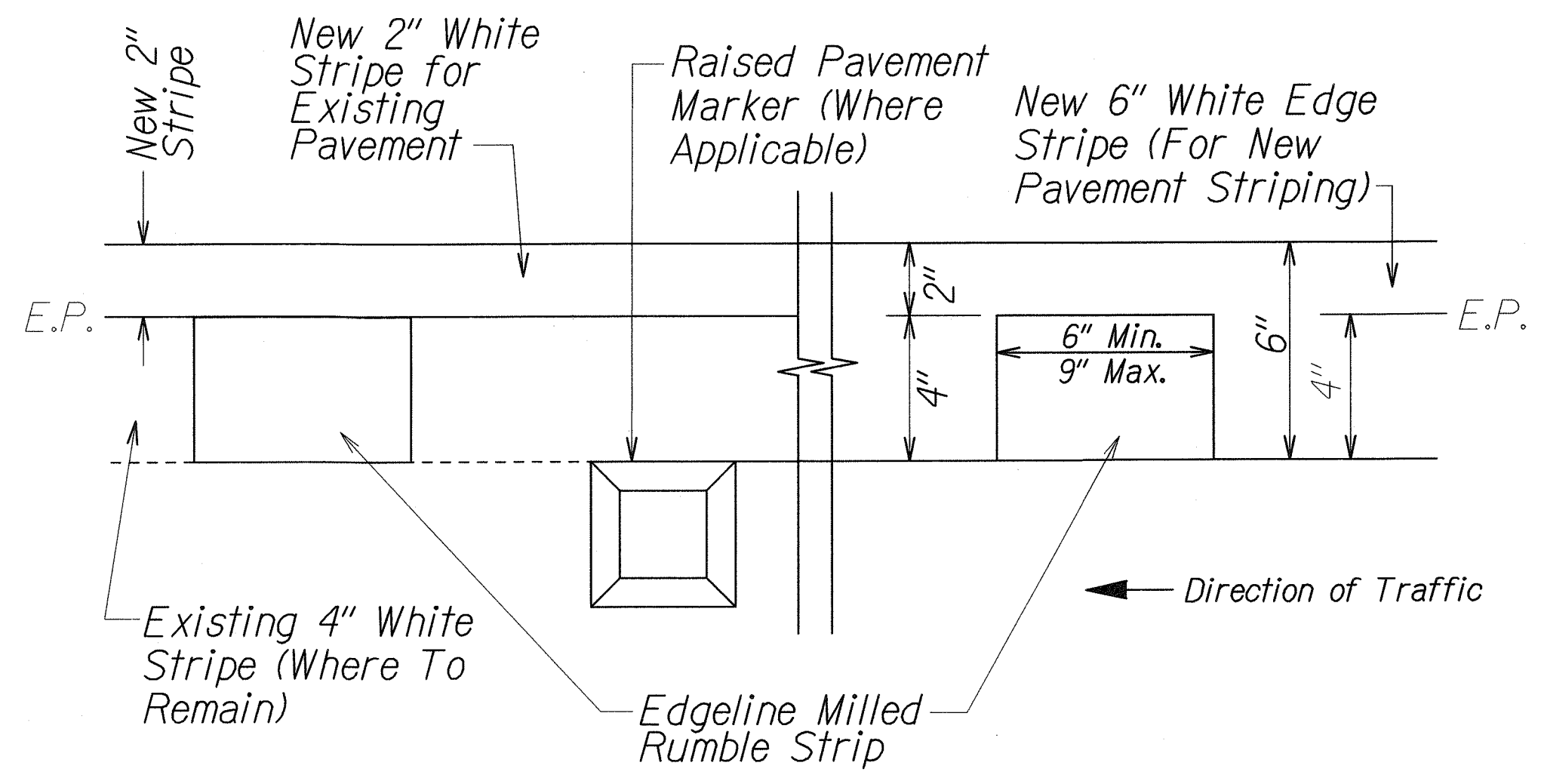
Scale: As Shown Date: October, 2012

SHEET No. 1 OF 3 SHEETS

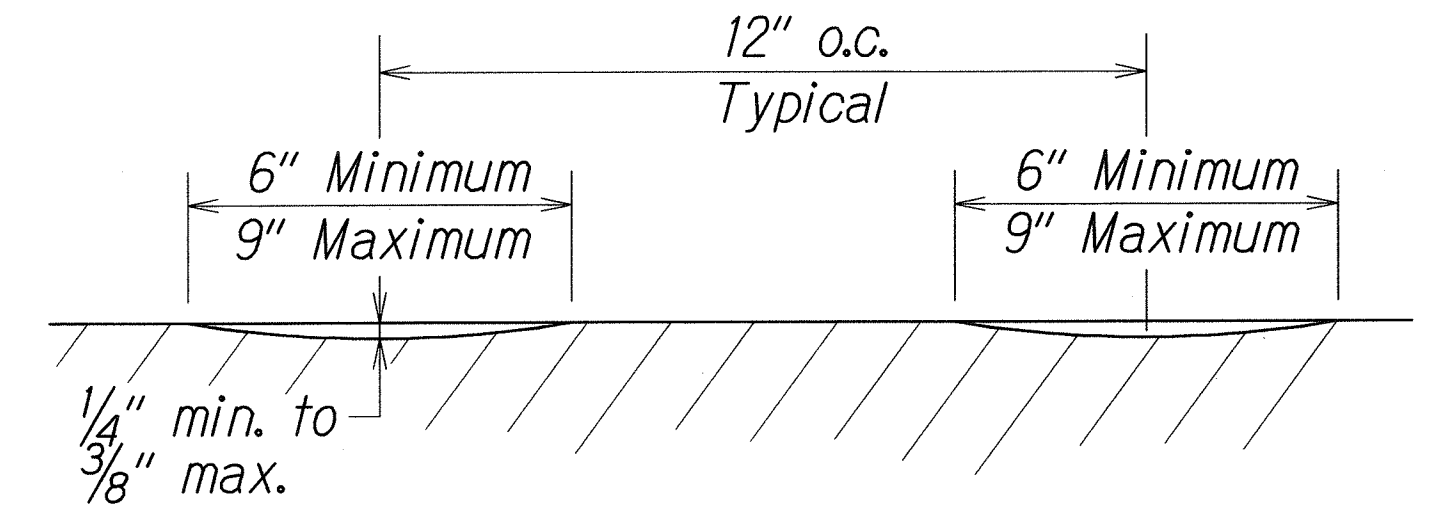
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	310A-01-13M	2013	19	30



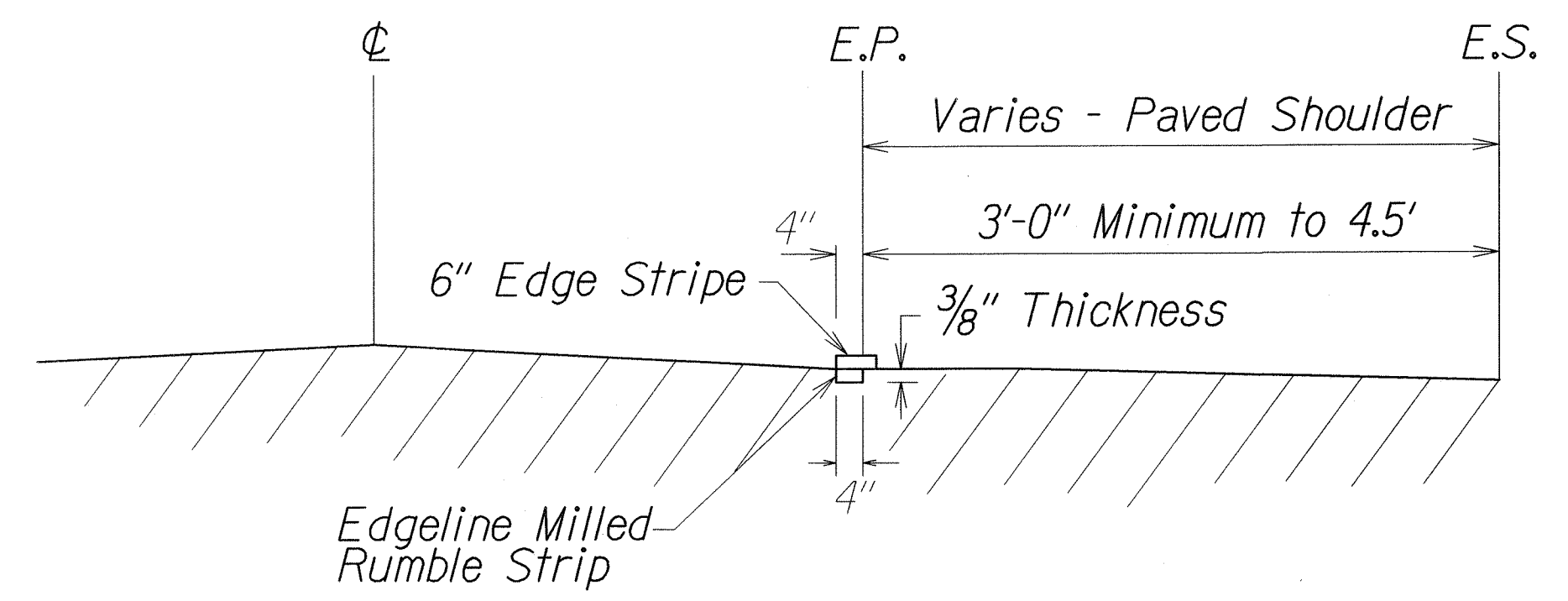
PLAN - EDGELINE MILLED RUMBLE STRIP (3' SHOULDER)
Not to Scale



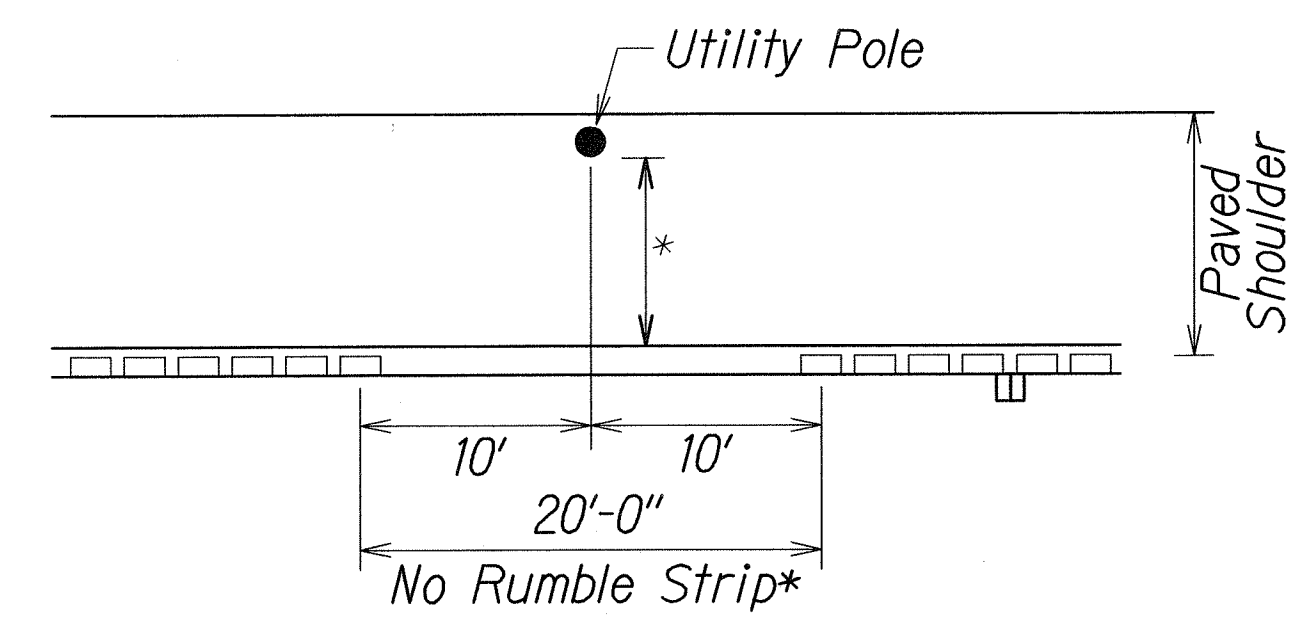
DETAIL - EDGELINE MILLED RUMBLE STRIP
Not to Scale



CROSS SECTION - EDGELINE MILLED RUMBLE STRIP
Not to Scale



LONGITUDINAL SECTION - EDGELINE MILLED RUMBLE STRIP
Not to Scale



*Delete Rumble Strip if Clearance Between Edge of Pavement Striping & Utility Pole is Less Than 3'
DETAIL - CONDITION WHERE UTILITY POLE EXISTS
Not to Scale

NOTES:

1. Edgeline milled rumble strips may be installed for paved shoulder width of 3' minimum to 4.5' from edge of pavement (E.P.)
2. The method of constructing the edgeline milled rumble strip shall be submitted to the Engineer for acceptance prior to the actual work.
3. Dimensions shown are approximate. Adjust rumble strip spacing to coordinate with pavement marking prior to installation.
4. Raised pavement markers shall be installed on level surface between the rumble strips. Do not install raised pavement markers inside the milled area.
5. The construction of the edgeline milled rumble strip and 13-foot gaps shall be paid for under Item No. 615.0300 - 4-Inch Milled Rumble Strip, Edgeline.
6. The milling apparatus and removal of existing pavement markings will not be paid for separately and shall be considered incidental to Item 615.0300 - 4-Inch Milled Rumble Strip, Edgeline.
7. Rumble strips shall be installed along all shoulders, except at right turn deceleration and acceleration lanes, as noted on the plans.
8. Do not place Type "C" Raised Pavement markers within 2 ft. of the 13 ft. Rumble Strip opening.
9. Do not install edgeline rumble strips on bridge decks.
10. Where at-grade bridges are present, rumble strips shall end/begin 20 L.F. beyond the existing bridge deck joints/concrete approach slab.
11. Edgeline Rumble Strips are to be installed before the edge of pavement stripe and before the installation of the Type "C" raised pavement markers.
12. Hot spray thermoplastic shall be used for solid line markings within the edgeline milled rumble strip area.

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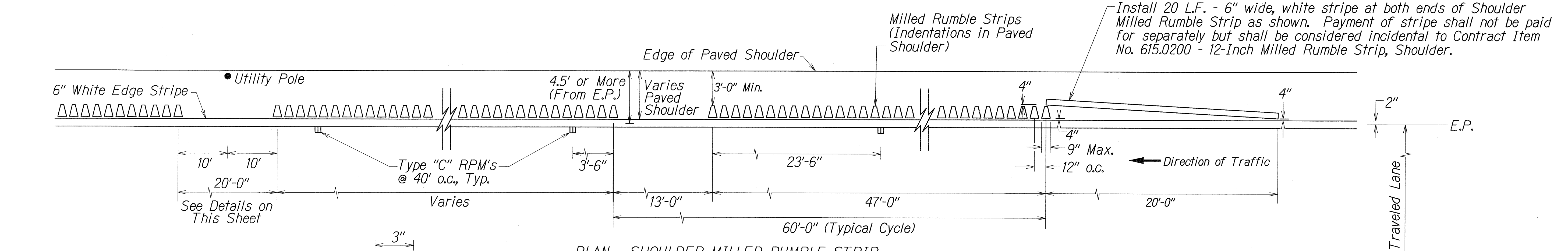
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EDGELINE MILLED RUMBLE STRIP
DETAIL FOR SHOULDER 3' TO 4.5'
NORTH KIEHI ROAD RESURFACING
Honoapiilani Highway to Piilani Highway
Project No. 310A-01-13M

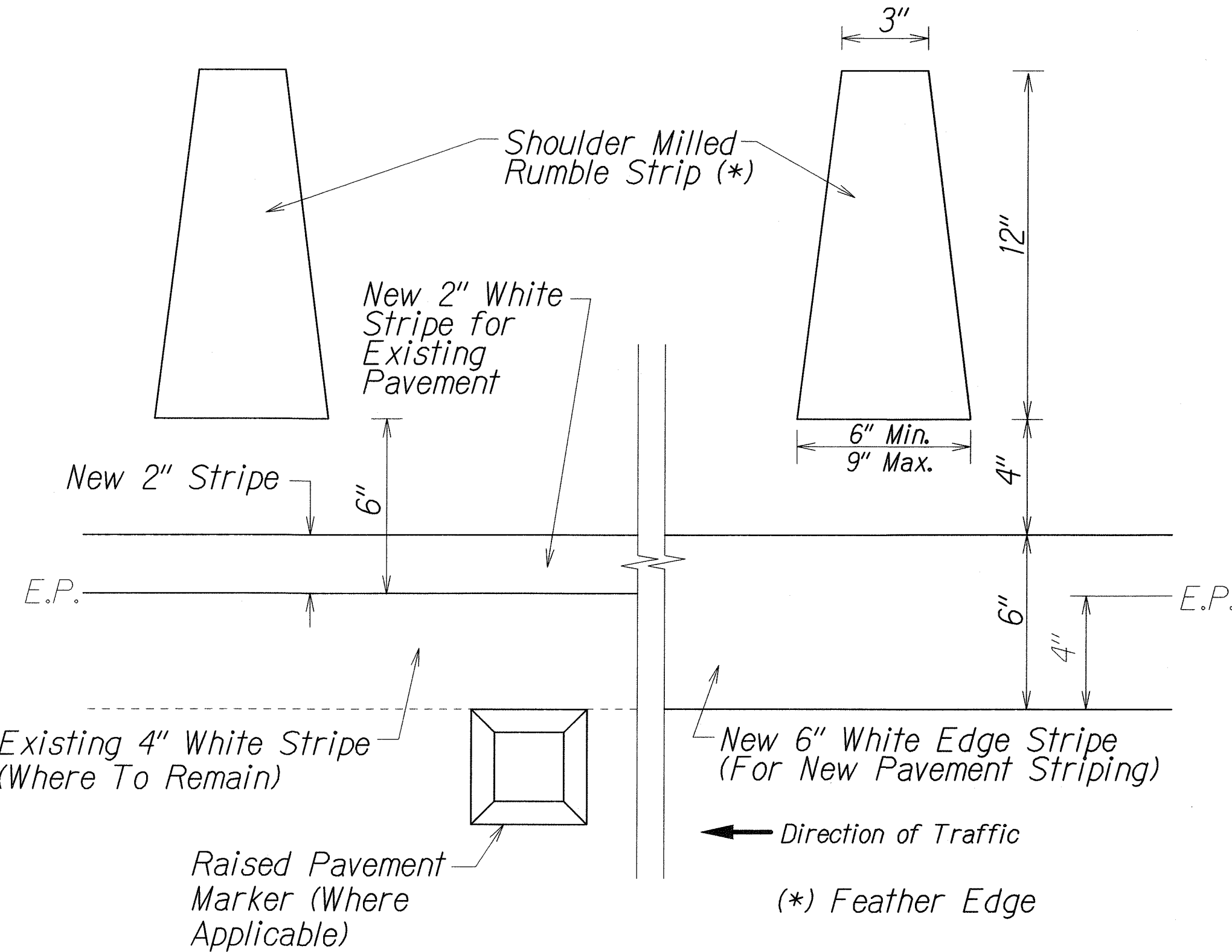
Scale: As Shown Date: October, 2012

SHEET No. 2 OF 3 SHEETS

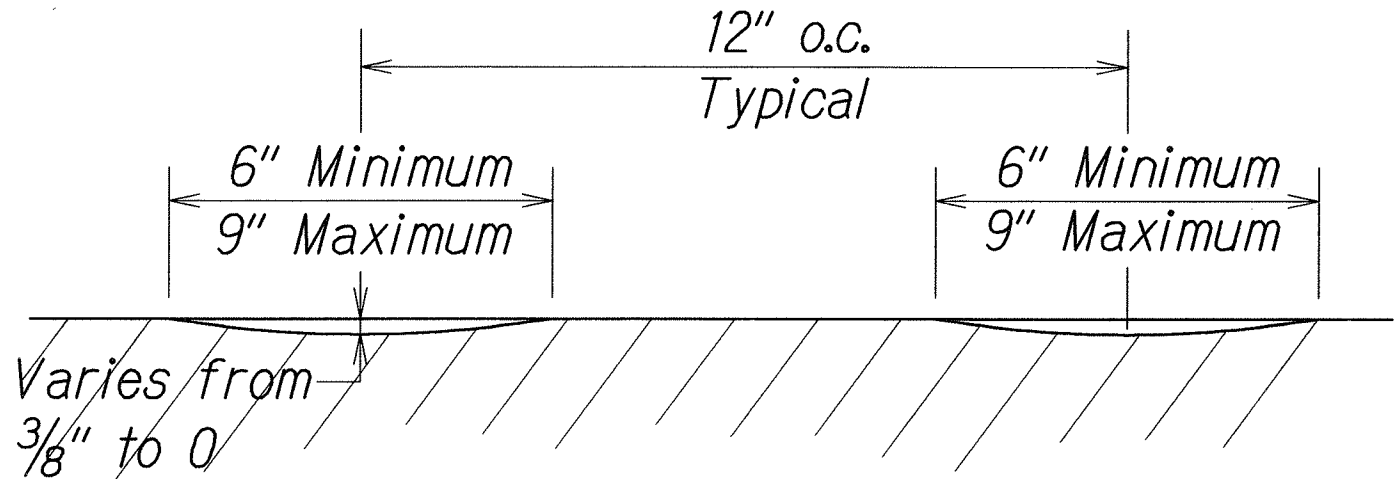
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	310A-01-13M	2013	20	30



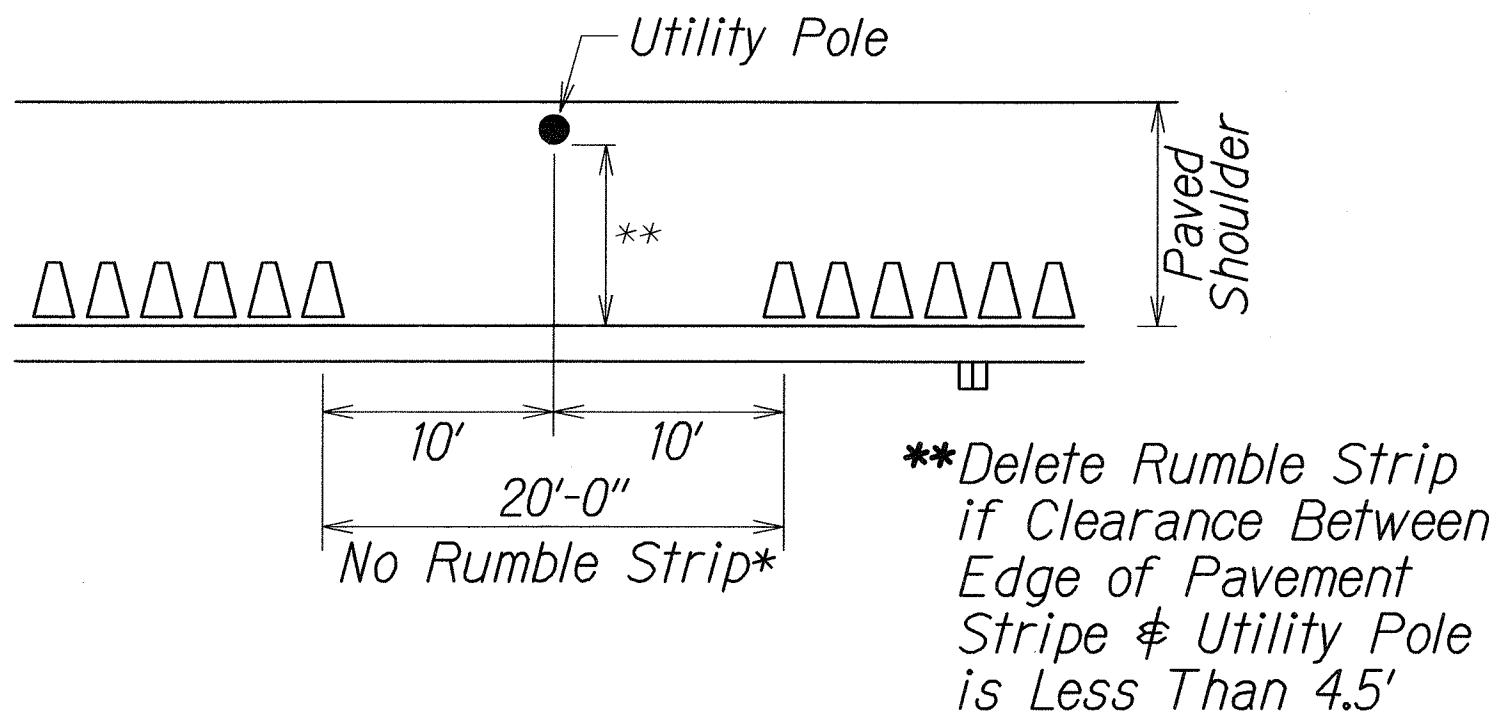
PLAN - SHOULDER MILLED RUMBLE STRIP
Not to Scale



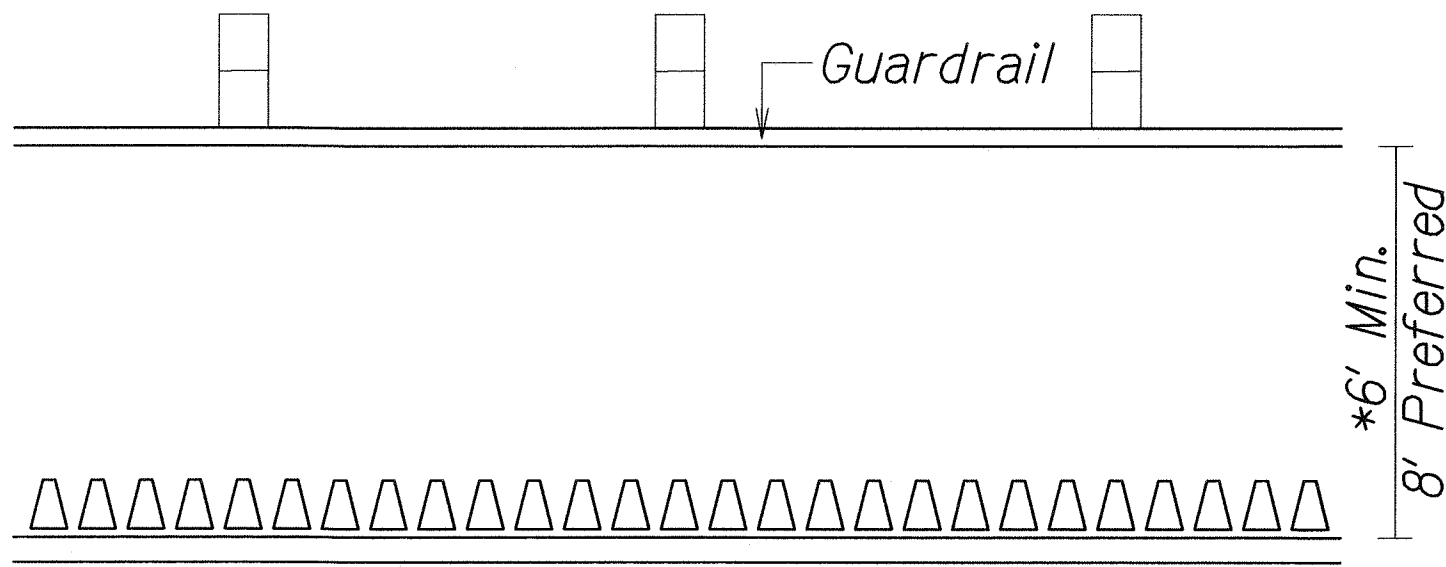
DETAIL - SHOULDER MILLED RUMBLE STRIP
Not to Scale



CROSS SECTION - SHOULDER MILLED RUMBLE STRIP
Not to Scale

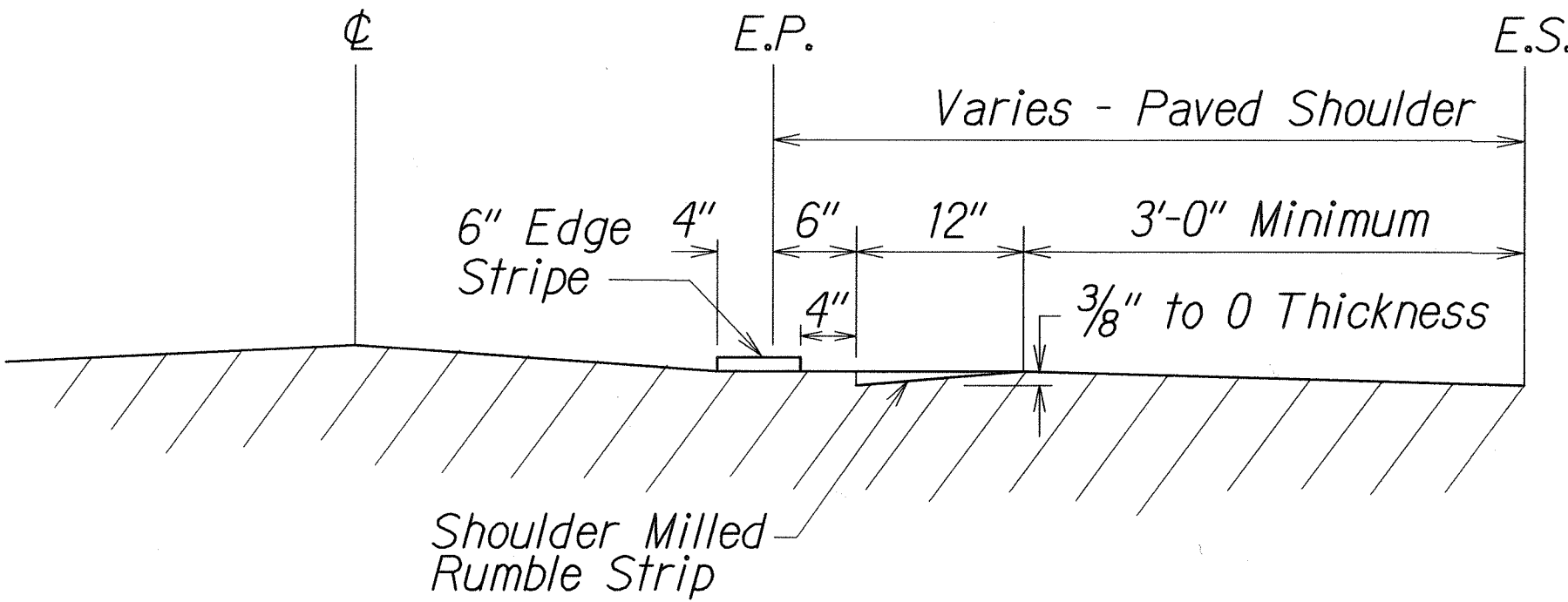


DETAIL - CONDITION WHERE UTILITY POLE EXISTS
Not to Scale



DETAIL - CONDITION WHERE GUARDRAIL EXISTS
Not to Scale

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



LONGITUDINAL SECTION - 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.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SHOULDER MILLED RUMBLE STRIP
DETAIL FOR SHOULDER 4.5' OR MORE
NORTH KIEI ROAD RESURFACING
Honoapiilani Highway to Piilani Highway
Project No. 310A-01-13M
Scale: As Shown Date: October, 2012
SHEET No. 3 OF 3 SHEETS

SURVEY PLOTTED BY	DATE
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NOTE BOOK	
QUANTITIES BY	
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