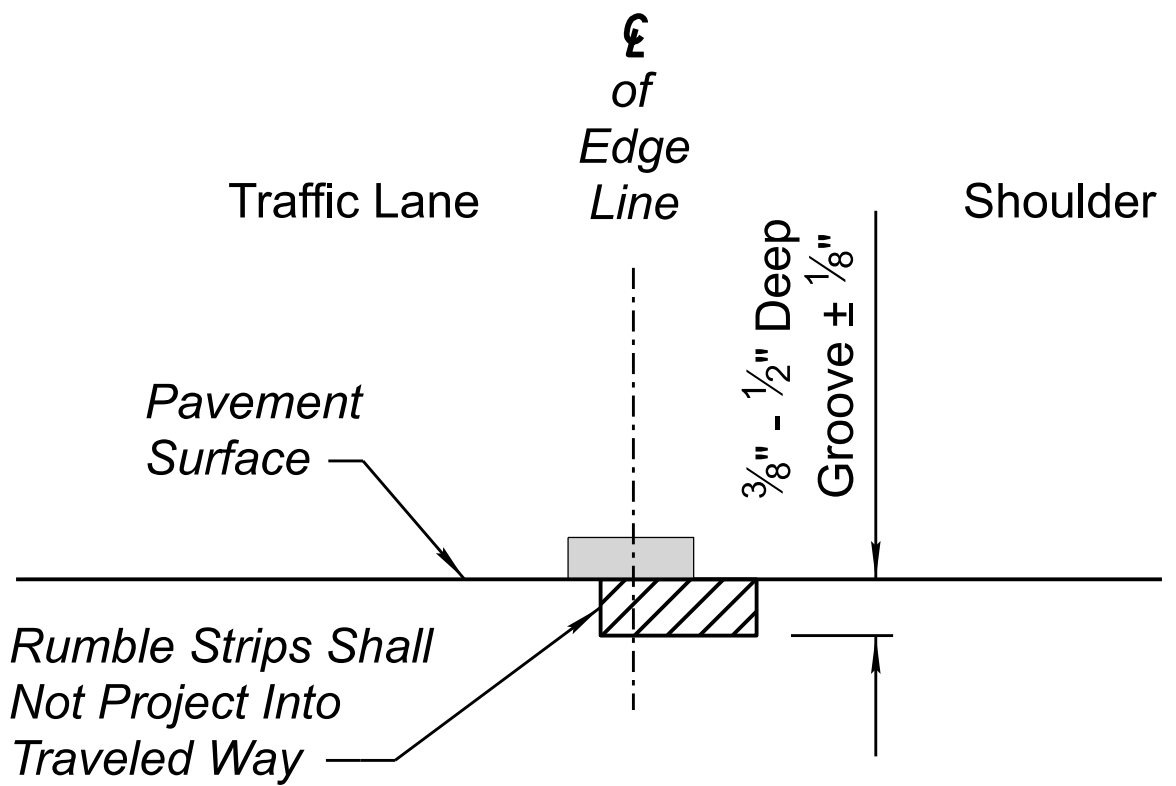
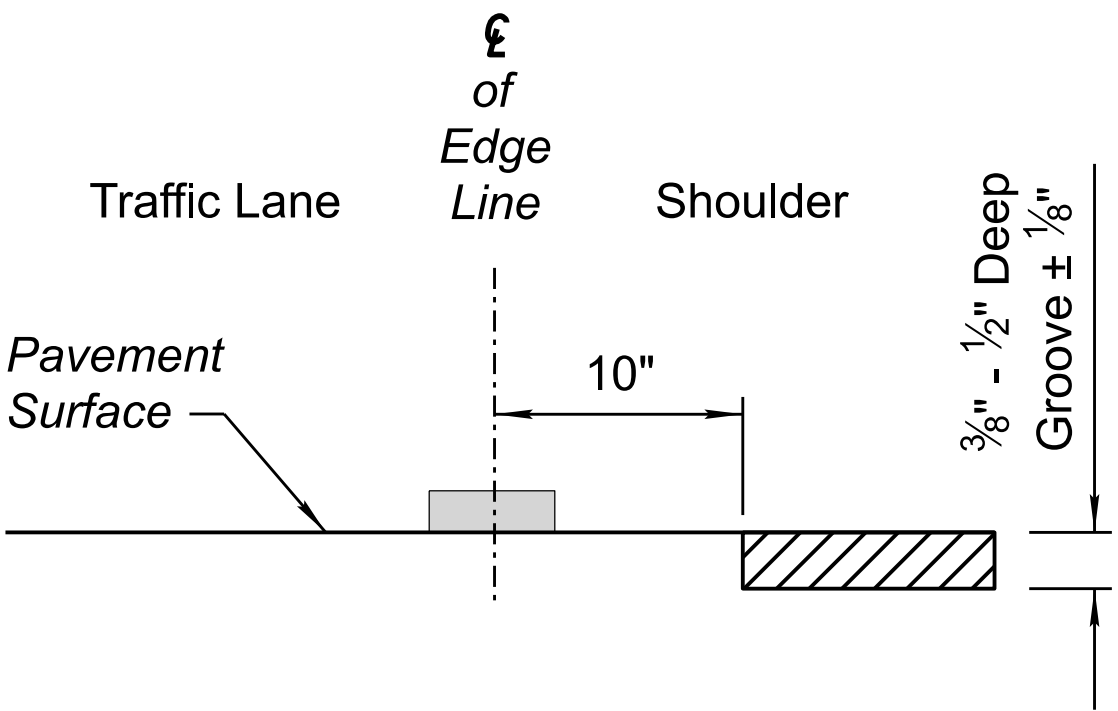
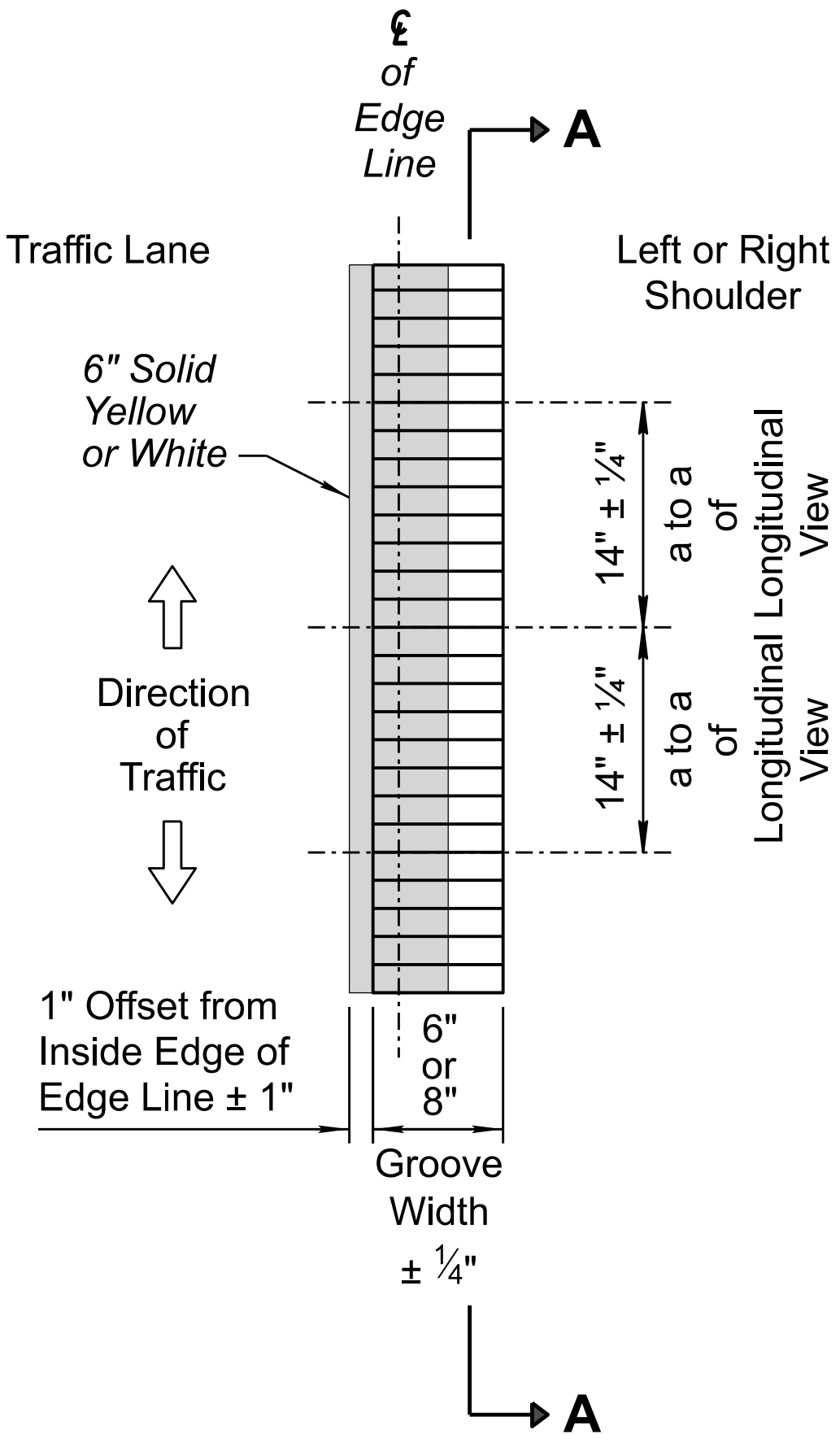
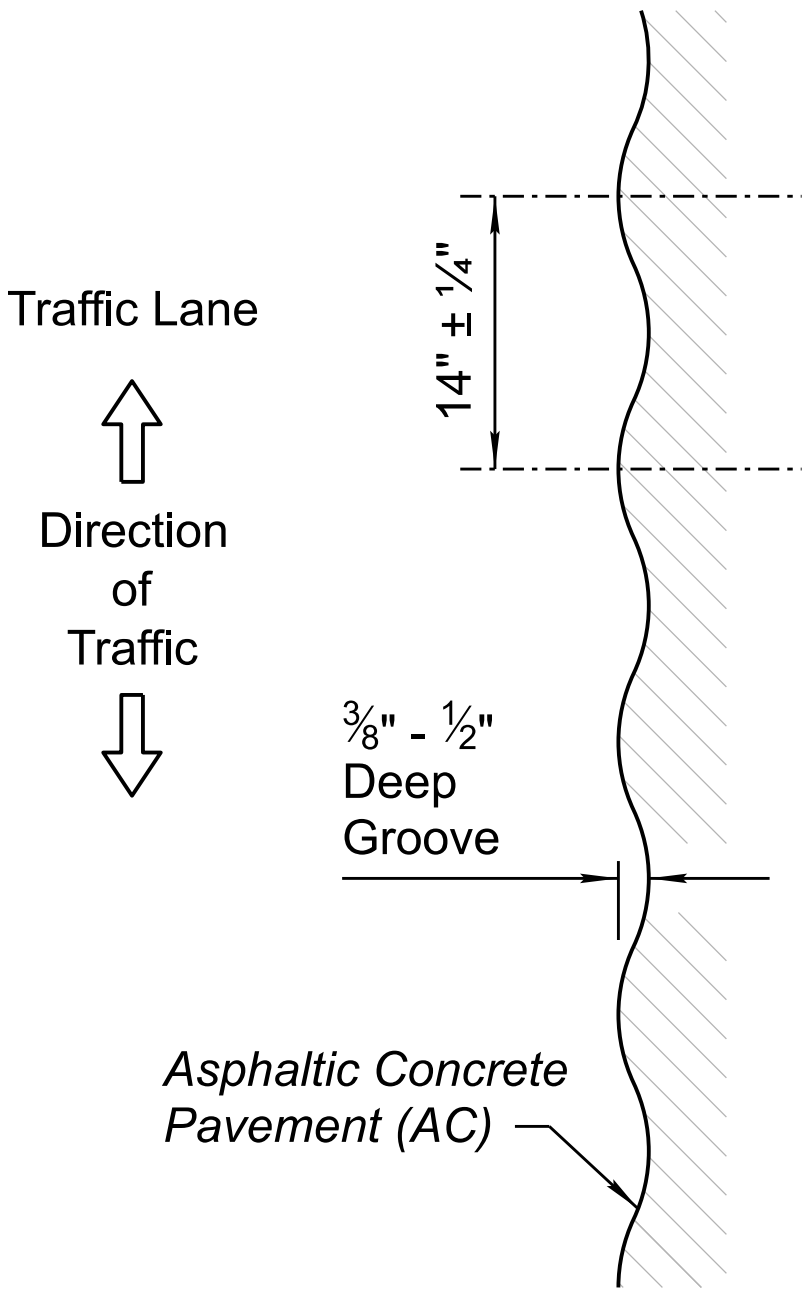
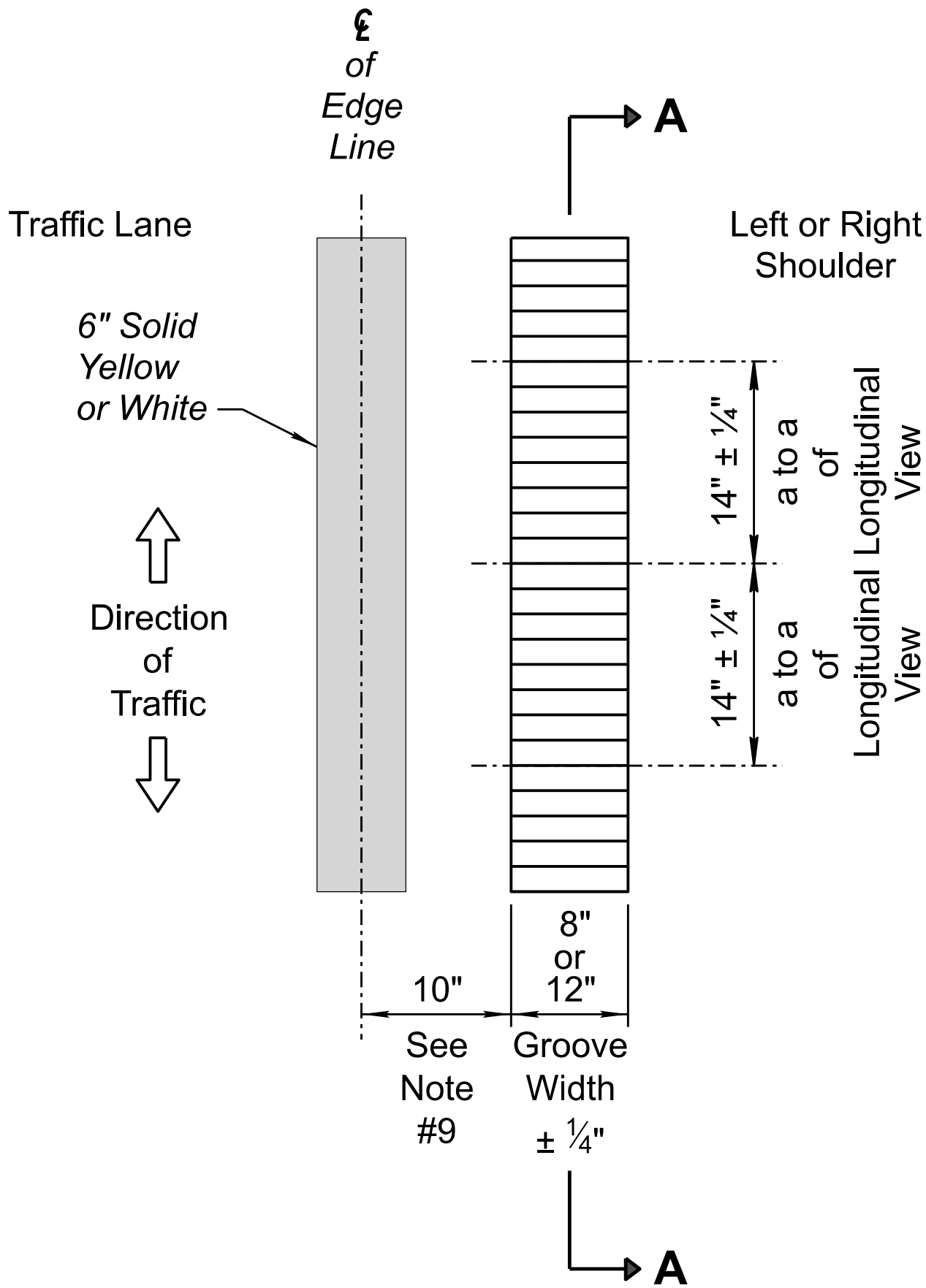


Note to Designer:
The information presented in this Standard Drawing has been prepared in accordance with recognized engineering principles and is for general use. It should not be used for specific application without competent professional examination and verification of its suitability and applicability by a licensed professional engineer. Contents within the inner border line shall not be altered.

NOTES:

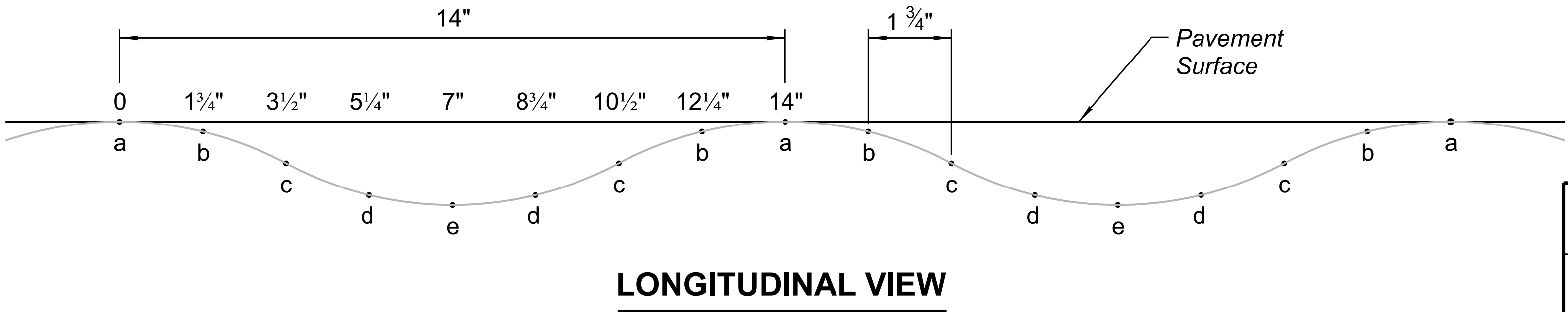
1. Plans shall identify specific longitudinal ground-in rumble strip (LGR) locations and exceptions.
2. The location of the edge line and LGR can vary within stated tolerances. However, the rumble strip shall not be located within the traffic lane.
3. The LGR groove and pattern shall be constructed by milling or grinding the indentations in the asphaltic concrete pavement.
4. The grinding machine shall be equipped with an acceptable guide that allows the rumble strips to be installed to the proper alignment within acceptable tolerances.
5. If the rumble strips and edge line are to be installed at the same location, then the rumble strips shall be installed prior to the placement of the permanent edge line.
6. If permanent markings are not in place, to ensure proper rumble strips location, a temporary painted edge line shall be installed at the permanent location of the edge lines prior to the installation of the ground-in rumble strips. The rumble strips shall follow the location of the painted edge line.
7. The radius and configuration of the cutting/milling drum and machine shall be able to produce a smooth and consistent groove to the requirements of these standard drawing details.
8. If the left shoulder on a divided highway is more than two feet wide, but less than four feet wide, the rumble strip can be offset four inches from outside edge of edge line.
9. Placement of the LGR should avoid construction joints if practical, but should not be offset to avoid an existing construction joint.



Typical Longitudinal Ground-in Rumble Strip Location
8" or 12" Wide Strip on Shoulder with Offset

Typical Longitudinal Ground-in Rumble Strip Location
6" or 8" Wide Strip on Shoulder with Offset

LOCATION	DEPTH	
	MIL	INCHES
a	62.5	1/16"
b	156	5/32"
c	281	9/32"
d	438	7/16"
e	500	1/2"



STANDARDS ENGINEER	M. ORLANDINI	ARIZONA DEPARTMENT OF TRANSPORTATION PROJECT DELIVERY AND OPERATIONS DIVISION TRAFFIC SIGNING AND MARKING STANDARD DRAWING	
RECOMMENDED FOR APPROVAL GROUP MANAGER	K. WILCOXON		
APPROVED		SINUSOIDAL RUMBLE STRIPE GROOVE, PATTERN AND LOCATION DETAILS	DRAWING NO. M-22 Sheet 9 of 11
STANDARDS COMMITTEE APPROVED FOR DISTRIBUTION	05/2026 DATE		