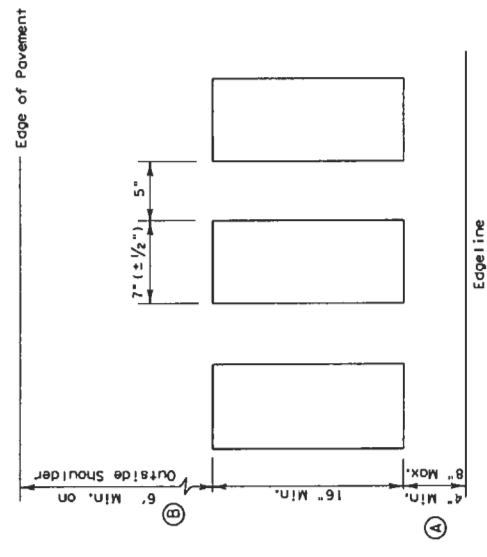


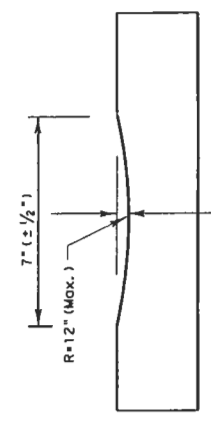
TYPICAL TEXTURING PLACEMENT AT EXIT AND ENTRANCE RAMP

- GENERAL NOTES:**
- Shoulder rumble strips are primarily intended to alert drivers that they are in the process of or have left their original lane of travel. These types of rumble strips are intended to give a vibratory and auditory warning.
 - Shoulder rumble strips are not designed to physically decrease the speed of a vehicle.
 - Rumble strips should be used along roadways with high incidents related to unintentional lane departures as the result of inattentive drivers or impaired visibility of positive guidance pavement markings from adverse weather.
 - Milled rumble strips are preferred. Rolled rumble strips, asphalt overlays, and asphalt strips are not recommended due to the inconsistent vibratory and auditory effects and wear.
 - All milled rumble strips shall be cut to a minimum of 1/2" +/- 1/8" in depth, 7" +/- 1/2" in length, 16" +/- 1/2" width. An 8" +/- 1/2" wide rumble stripe may be used when the shoulder meets the criteria shown in Note 8.
 - The spacing shall be measured from leading edge to leading edge or on-centers of adjacent rumble strips.
 - Pavement markings can be applied over milled shoulder rumble strips to create an edgeline rumble stripe.
 - Rumble strips may be placed in lieu of rumble strips. Rumble strips should not be used when the adjacent lane width is less than 12 feet. Rumble strips may be used when the shoulder is greater than 18 inches in width. If the shoulder is less than 4 feet in width, the 8 inch rumble stripe shall be used. When the shoulder is 4 feet or greater in width, the 16 inch rumble stripe or strip shall be used.
 - Rumble strips shall not be milled or depressed into bridge decks or into pavement with less than 2 inches of thickness. Rumble strips shall not be placed across exit or entrance ramps, acceleration and deceleration lanes, crossovers, gore areas or intersections with other roadways.
 - Consideration should be given to noise levels when centerline and edgeline rumble strips are installed near residential areas, schools, churches, etc. a minimum of 0.375 inches depth of milled rumble strip may be considered in these areas.

- The minimum distance between the edgeline and the texturing should be used if the shoulder is less than 8 feet in width.
- The minimum width on the outside shoulder between the rumble strip and the edge of the pavement may be reduced in special situations, such as narrower shoulders, only as directed by the Engineer.

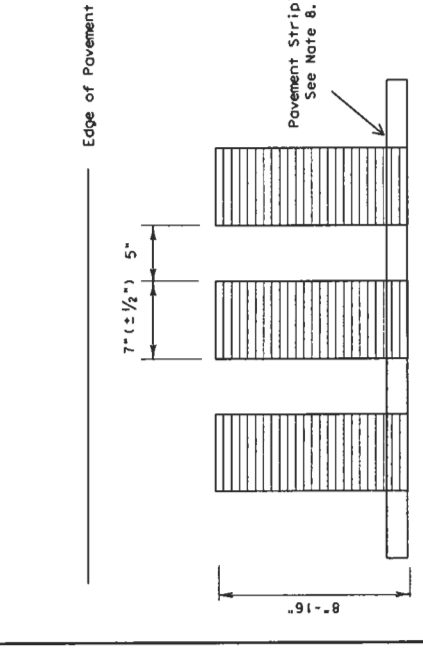


PLAN VIEW

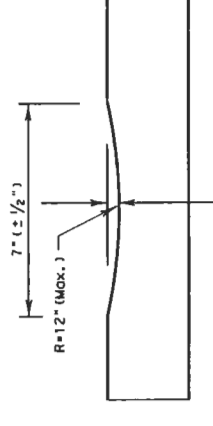


PROFILE VIEW

**OPTION 1:
CONTINUOUS MILLED DEPRESSIONS
(Rumble Strips)**

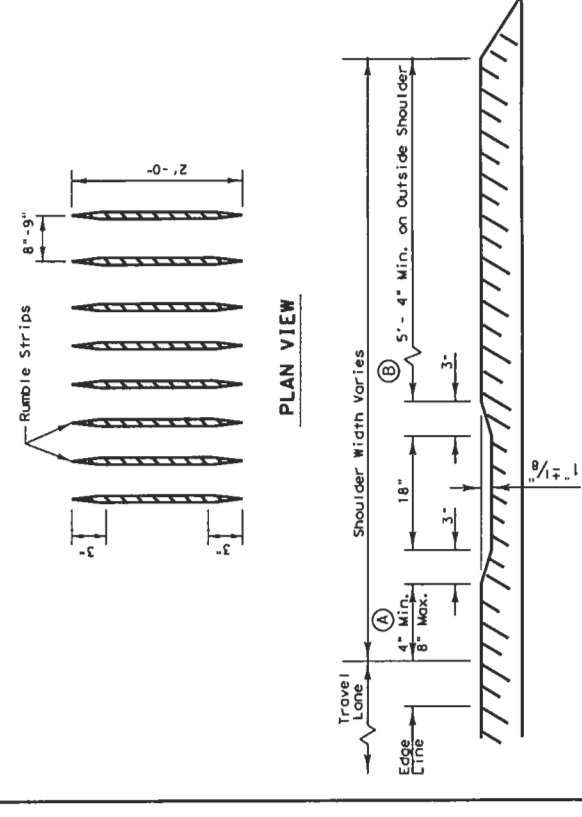


PLAN VIEW



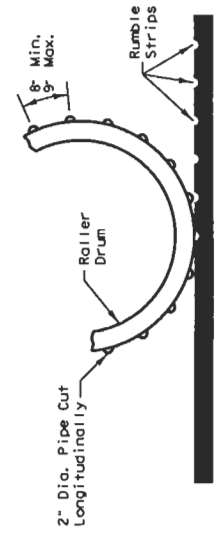
PROFILE VIEW

**OPTION 2:
CONTINUOUS MILLED DEPRESSIONS
(Rumble Strips)**



PLAN VIEW

TYPICAL SECTION



ROLLER DRUM DETAIL

**OPTION 3:
CONTINUOUS ROLLED DEPRESSIONS**

DISCLAIMER
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

LEVELS DISPLAYED	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
------------------	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

ACC:

STANDARD PLANS
Texas Department of Transportation
Traffic Operations Division

**DEPRESSED SHOULDER
TEXTURING**

PRELIMINARY

TOP REVISION

TORS(11) -06

REVISIONS	DATE	BY	CHKD	APP'D	SECTION	JOB	PROJECT
1	JANUARY 1994	PH - CCH	PH - FDN	PH - CAL			
2							
3							
4							
5							

XXX