Temporary Portable Rumble Strip Guidance

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Rumble strips are a countermeasure that provides both an audible warning and physical vibration to alert motorists as the vehicle tires traverse the rumble strips. Because there is no specific message associated with rumble strips, they can be used to alert motorists to a variety of conditions. The Manual on Uniform Traffic Control Devices (MUTCD) indicates that transverse rumble strips, which extend across the travel lanes, are intended to notify road users of upcoming hazards or changes in roadway features, such as unexpected changes in alignment, and conditions requiring a reduction in speed and/or a stop. This could encompass a variety of situations such as lane closures, speed reductions, changes in alignment, new merge patterns, visual obstructions, nighttime work zones, and more. The circumstances and restrictions of work zones can vary greatly, and transverse rumble strips can alert drivers to the changing conditions and information being provided by temporary traffic control devices.

When should I use these devices?

If your project is on a high ADT corridor, on a route that experiences high probability of distracted drivers (such as roads that are adjacent to national parks or tourist areas) or utilizes night time flagging operations. Installing temporary portable rumble strips (TPRS) can be an added safety measure.

Remember, these devices can cause some noise pollution so installation in highly populated areas should be reviewed for external impacts. Outreach to residents may be required to inform them of the noise impacts and duration.

If implementing TPRS on your project, ensure they are included in your traffic control plan.

When should I avoid using TPRS

Do not use on fresh seal coats, bleeding asphalt, soft pavement, heavily rutted road or gravel surfaces. TPRS should not be used in horizontal curves or on steep slopes. These conditions could cause excessive movement which could lead to a safety hazard to motorists.

Where Should I place TPRS?

Use on concrete or asphalt surfaces only.

- When utilizing the TPRS in advance of flagging stations or signals. Place one array of 3 strips at the “Be Prepared To Stop” (w3-4) or “One Lane Road Ahead” (w20-4). If traffic ques warrant an extended flagging sequence an addition array can be installed to provide further advanced warning.
- If using to alert of a work zone speed change, install an array at the reduce speed ahead (W3-5).
- If using to alert of a detour, place the array at the detour 1000’ (w20-2).

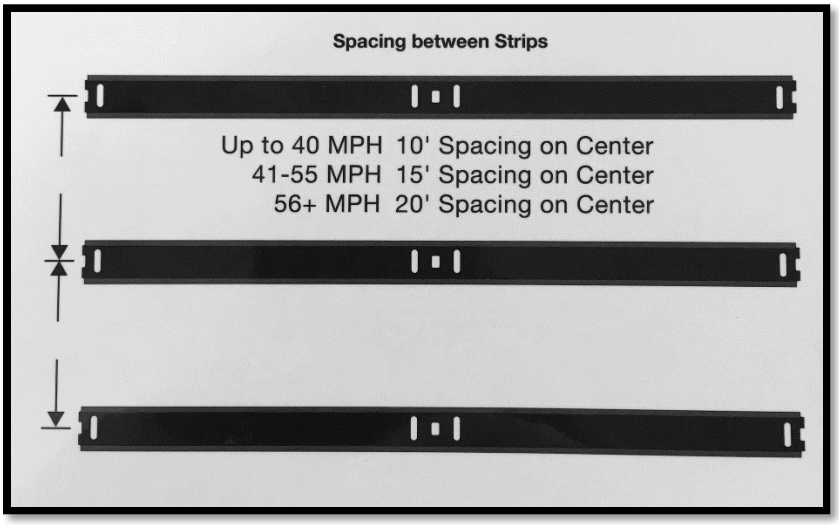
Ensure that all lanes of travel in the same direction receive TPRS coverage. Strips should be installed so that both front tires of a vehicle will contact the rumble strip at the same time.

What specifications should be followed?

Use TPRS that meet the following

a. Provide significant audible and vibratory alerts to drivers;
b. Dimensions are a minimum of 10 feet (3 m) long, 1-foot (305 mm) wide and ¾-inch (19 mm) thick;
c. Maintains position on roadway without the use of adhesives or fasteners;
d. Maintains rigidity with no curling;
e. A bevel on the leading edge within the range of 11-13 degrees;
f. Made of flexible polymer material with a non-slip surface;
g. Able to function on wet surfaces;
h. Capable of being installed and removed without any auxiliary equipment or machinery;
I. Deemed safe by the manufacturer for use by motorcycles;
j. Function at the posted speed limit;
k. Must meet MUTCD color requirements. If not the same color as the pavement color can be black, white, or orange.

The recommended spacing will be determined by the posted speed limit at the deployment location, below is recommended spacing. However, always refer to and abide by the manufactures suggested installation instructions.



How much can they move before they need to be reset.

Skewed- no more than 2’ from perpendicular. Keeping the strips as close to perpendicular as possible will ensure safe passage for motorists.

Lateral- reset if strip has moved more than 2’ laterally.

Perpendicular- reset if strips move more than 2’ perpendicular to traffic.

If the movement above is observed, the array will need to be reset to its original alignment. Payment for maintenance is included in the unit price.

TPRS will be removed at the discretion of the EPM or when the hazard (ie flagging operation) is no longer present

Regular inspection of the rumble strips should be conducted to ensure they remain in place and in proper condition.

How do I pay for TPRS?

Contracts let prior to April 2021 Group #42 in the traffic control rate schedule defines the rate for one 11' strip. Multiply the rate by three to cover the cost of an entire array. Group #42 was updated for contracts let after April 2021 the unit price in these contracts includes all three strips. This price includes the cost of maintenance. Maintenance includes ensuring the strips are in the proper configuration.

Do I need add a "Rumble Strip Ahead Sign"?

If your route experiences high motorcycle traffic, or the presence of the rumble strips causes erratic driver maneuvers a "Rumble Strip Ahead" sign can be added 200' upstream of the rumble strips.

