DESCRIPTION:
Raised pavement markers (RPMs), also known as “Botts’ Dots,” are 4 inch diameter by 3/4 inch high nonreflective round ceramic or plastic markers that are epoxied to the pavement to supplement or substitute for painted markings.

Retroreflective raised pavement markers (RRPMs) are typically 4 inch-square raised markers that have one- or two-way retroreflective faces that make them visible to traffic at night.

As a traffic-calming device, RPMs can be used to delineate a centerline or lane line, making drivers feel more restricted and thereby inducing them to lower their speeds. Unlike painted stripes alone, RPMs provide tactile feedback to drivers as their tires roll over them, alerting drivers that they are crossing out of their lane.

APPLICATION:
On neighborhood local or collector streets where a problem of speeding traffic has been documented, RPMs may be installed along a centerline either alone or with a painted line (see the toolbox application for centerline striping). This is most suited to curvilinear streets, where RPMs can reinforce lane designations, causing drivers to slow to maintain their travel within their lane.

RRPMs may also be applied to supplement or substitute for painted hatching of pavement areas not open to normal travel, such as where the roadway has been narrowed for traffic calming, or on approach to a bulbout, median, or island.

RPMs and RRPMs should always match the color (yellow or white) of the pavement markings for which they supplement or substitute. The MUTCD guidelines recommend that where RPMs substitute for painted markings, that RRPMs be included at specific spacing and locations for nighttime visibility.

RPMs should not be positioned along bicycle lanes or edge lines on shoulders used by bicycles.

Advantages
• RPMs/RRPMs are relatively easy and low cost to install.
• RPMs/RRPMs do not slow emergency vehicles.

Disadvantages
• Regular maintenance is required. RPMs must be replaced as they become dislodged over time.
• RPMs should not be used on any streets, such as in the Northeast foothills, where the roads may be plowed after snowfall.
• Residents may complain of noise from vehicles driving over RPMs.

Effectiveness Scorecard

Speed
Volume
Cut-through
Crashes
Emergency Vehicle
Pedestrian
Bicycle
Noise
Cost

Very Good
Good
Fair
Poor
Not Applicable

Quick Glance