

Chapter 3B of the MUTCD defines the optional use of raised or recessed pavement markers to supplement pavement markings. Section 3F.03 requires delineators on the right-hand side of tangent sections of freeways and expressways, unless RPMs or continuous lighting are in use.

What is your state's practice on the use of RPMs and/or delineators, and does your state have written guidelines on their use that you can share?

State	Question 1: Yes, No or Sometimes	Question 1: Part 1 Response	Question 1: Part 2 - Link to Standards/Procedures or Attachment
Michigan	no	Michigan does not place RPMs at this time. We place right-hand delineators along freeways, divided highways, and ramps, with exceptions for mainline sections with continuous lighting	Delineator placement guidance is attached
Wisconsin	no	Wisconsin no longer installs plowable markers and is removing them as projects and maintenance work allow.	http://wisconsindot.gov/dtsdManuals/traffic-ops/manuals-and-standards/tgm/03/03-06-01.pdf
Indiana	sometimes	While we refer to the MUTCD we also have agency guidance on the use of rpm's and delineators. RPM use should take into consideration traffic volume and site specific concerns/issues but are typically not used in combination with rumble stripes. Our standard construction specifications require all barrier wall to be delineated.	Please see the attachment for more detailed information.
Kentucky	yes	<p>Kentucky establishes a system of roadways that are eligible for pavement marker installation. Basically, this system includes our Interstates, Parkways, and other major roadways (four-lane expressways, two-way left-turn lane sections, etc.). Based on recent research, we do not feel that pavement markers are a significant safety enhancement on two-lane roadways, so those routes (other than two-lane Parkways) were eliminated from our Pavement Marker System. We feel that centerline rumbles are a preferable treatment on those roadways.</p> <p>We currently use either steel castings or grooved markers. The latter are becoming more and more popular with our District Offices. Very few steel castings are being installed anymore. Assuming we have success in maintaining the grooved markers (yet to go through a lens replacement cycle), it is likely that they will become our standard marker in the future.</p> <p>Our delineation policy follows the MUTCD. If we have pavement markers, we do not install delineators on tangent sections, only in curves. At the request of Maintenance, we have established a standard spacing of 50' for curved sections with a note stating that spacing should be modified so that several delineators are visible. They wanted a standard spacing to make things simpler for their employees.</p>	<p>http://transportation.ky.gov/Highway-Design/Standard%20Drawings%20%20Sepias%20PDFs%202016/tpm170.pdf</p> <p>http://transportation.ky.gov/Highway-Design/Standard%20Drawings%20%20Sepias%20PDFs%202016/tpm171.pdf</p>
New Mexico	no	We don't have any guidelines for the use of RPMs other than MUTCD. Our signing and striping manual has some guidelines.	http://dot.state.nm.us/content/dam/nmdot/Plans_Specs_Estimates/Standard_Drawings/703.pdf

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Pennsylvania	yes	In Pennsylvania, we use both delineators and snowplowable RPMs	See attachments
Alabama	yes	Alabama uses RPMs on all state maintained roadways per Standard Drawings. We do not typically use delineators on interstates and expressways under the provisions of 3F.03A.	http://alletting.dot.state.al.us/Docs/Standard_Drawings/2017%20English/STDUS17_1000.pdf
New Jersey	yes	New Jersey uses RPM's on all limited access highways (for that matter most every State highway).	See attachments
North Carolina	sometimes	North Carolina uses pavement markers on all tangent sections for expressways and freeways with no delineators. However, on interchange ramps we do not use pavement markers, our standard is to use delineators. See the link below showing our Standard Drawings and go to page 1267.01 toward the bottom of the page.	https://connect.ncdot.gov/resources/safety/Signing%20and%20Delineation%20Library/Division%2012-%20Pavement%20Markings%20Markers%20and%20Delineation.pdf
Louisiana	yes	LADOTD installs RPM on the ramps. We also install RPMs on the lefts and right edge lines.	http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Standard_Plans/Standard%20Plans/Signing%20and%20Pavement%20Markers/PM-04.pdf
Minnesota	No	<p>In Minnesota, we do not use RPM (due to snow plowing). Our MnMUTCD removes the option of RPM. We are preparing an ID/IQ contract to fill in existing gaps. We have no written guidance, except the MnMUTCD:3F.3 Delineator Application</p> <p>STANDARD: The color of delineators shall comply with the color of edge lines stipulated in Section 3B.6. A series of single delineators shall be provided on the right-hand side of freeways and expressways and on at least one side of interchange ramps, except sections of roadways where continuous lighting is in operation between inter- changes.</p> <p>OPTION: Delineators may be provided on other classes of roads. Single delineators may be provided on the left side of roadways.</p> <p>STANDARD: Delineators on the left-hand side of a two-way roadway shall be white (see Figure 3F-1).</p>	<u>No</u>

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Missouri	no	Missouri use to utilize snow plowable raised pavement markers, but also used the 1/10 mile delineation the length of the roadway at the sametime. We are experimenting with recessed markers in St. Louis (Marker One is the original company, but Ennis/Flint is now selling them as well), but the primary issue is maintenance ... or the lack of a committed maintenance program on the part of our districts. It seems we can get about 5 years initially before a maintenance project needs to be deployed, but currently the maintenance costs are more than twice the initial installation cost from our experience. One concept we have talked about if we implement this further is to do two installations during the life of the asphalt instead of an installation and then maintenance. In our test we installed two markers in a pair and place each pair in every other skip. So the second "new" new install could be done in the skip areas which did not receive the markers initially letting the original pairs fade away.	
Iowa	no	We do not use RPMs in Iowa. Delineators are installed as per the MUTCD, Section 3F.03 (no written guidelines).	
Virginia	yes	In the Virginia Supplement to the MUTCD we provide guidance on RPM's based upon VDOT experience. Delineators have generally been used off the edge of road. VDOT does allow Flexible Temporary Pavement Markers (FTPM's) to be used in lieu of Temporary Pavement Markings on the Paving Schedule Projects:	http://www.virginiadot.org/business/resources/TED/final_MUTCD/2013_sup/Revision_1_Part_3_Markings.pdf http://www.extranet.vdot.state.va.us/LocDes/Electronic_Pubs/2016_Road%20and%20Bridge/CS1300.pdf http://www.virginiadot.org/business/resources/const/Announce_VOL2_2016_F_PlantMix.pdf
Vermont	no	We do not use RPM's.	https://outside.vermont.gov/agency/vtrans/external/CADD/WebFiles/Downloads/Standards/English/PDF/stdt40.pdf https://outside.vermont.gov/agency/vtrans/external/CADD/WebFiles/Downloads/Standards/English/PDF/stdt43.pdf
New York	sometimes	New York has mostly discontinued the use of RPMs. Where used, we follow Section 3B.13 and 3B.14 of the MUTCD.	https://www.dot.ny.gov/main/business-center/engineering/cadd-info/drawings/standard-sheets-us/646 https://www.dot.ny.gov/divisions/operating/oom/transportation-systems/traffic-operations-section/mutcd
New Hampshire	no	We here in snow country don't use RPM's. We've evaluated snowplowable rpm's on a few sections over the years, but have yet to find a product that is, in fact, "snowplowable".	http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/standardplans/documents/2010_dl_1.pdf