

System Operations Advisory

SOA 2013-001
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Operations Advisory
should be directed to:

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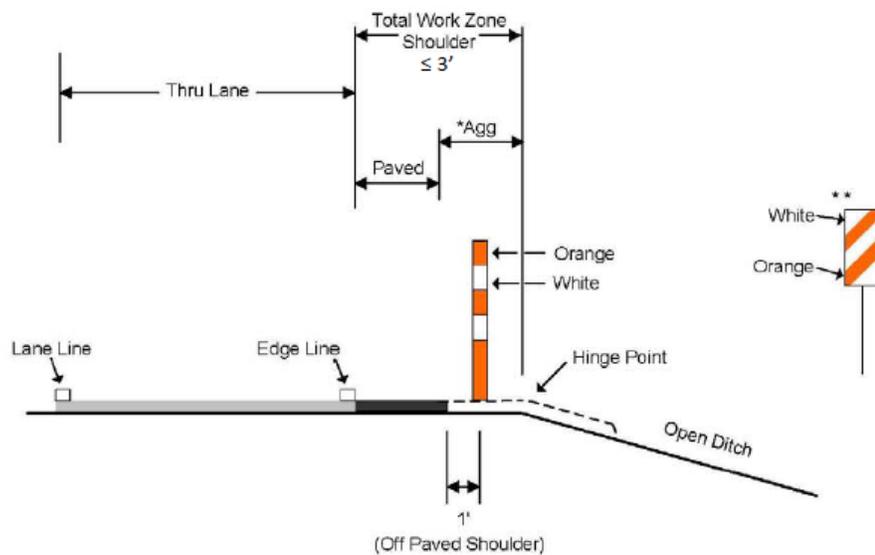
Or

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Work Zone Safety Tools for Narrow Shoulders

Effective starting with the October 2013 letting, when a **work zone shoulder on a 3R or 4R freeway** project is next to an open ditch and that distance from the edge line to the hinge point is **equal to 3' or less**, (see detail below) shoulder delineation devices noted below must be used. Furthermore, the Traffic Incident and Work Zone Management Unit must be contacted to determine if additional mitigation measures will be required.

Work Zone Shoulder Delineation (see [WZD-126](#) for more information)



* If the shoulder has been temporarily widened use the material as detailed in FUSP 12SP307A.

** Vertical Panels are an option. Contact the the Work Zone Delivery Engineer for additional guidance.

Flexible Delineators

Flexible Delineators should be located 1' off the edge of the paved shoulder and spaced at a maximum distance of 200' unless otherwise directed by the Engineer.

The Special Provision for [Temporary Flexible Delineators](#) must be used when Flexible Delineators are specified to provide the contractor information on acceptable products and payment methods.



Delineator Panels

Delineator Panels are an option that can be used in lieu of the Flexible Delineators. Delineator Panels are to be placed at the same spacing as specified above for Flexible Delineators. If additional guidance is needed on the type of delineation, please contact the Traffic Incident and Work Zone Management Unit.

The Special Provision for [Temporary Delineator Panels](#) must be used when using Delineator Panels to provide the contractor information on acceptable products and payment methods.



Flexible Guardrail Delineators

When temporarily placing traffic on shoulders next to guardrail, consideration should be given to the use of flexible guardrail delineators. Spacing and installation guidance can be found in the Special Provision for [Flexible Guardrail Delineator](#).



In addition to the temporary traffic control devices listed above, there are also construction specifications to consider for improving roadway safety.

Safety Edge

All newly constructed temporary pavements must incorporate the Safety Edge per the Frequently Used Special Provision, [12SP501BB SAFETY EDGE](#). This includes all permanent shoulders or shoulder widening that will be used as temporary lanes with construction speeds of 45 mph or greater when traffic is to be shifted onto a shoulder that has been temporarily widened for maintaining traffic.



For more detailed information about the Safety Edge please review the Michigan Road Design Manual section [6.05.13](#) and watch the following YouTube video about the [Safety Edge](#) (http://www.youtube.com/watch?v=2N2tE_ZOFPo).

Temporary Shoulders

When temporarily widening a shoulder for maintaining traffic the material used must be as specified per the Frequently Used Special Provision, [12SP307A](#) **SHOULDER, CLASS II, TEMPORARY.**

The increased aggregate interlock provides a suitable temporary surface when vehicles require recovery surfaces.

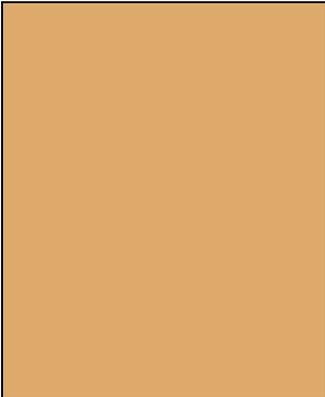
Shoulder Rutting



Aggregate Interlock



All traffic control devices used in work zones must meet the requirements in the contract documents. Federal regulations also require that all temporary traffic control be compliant with the Manual for Assessing Safety Hardware (MASH) or National Cooperative Highway Research Program (NCHRP) Report 350: "Recommended Procedures for the Safety Performance Evaluation of Highway Features."



All of the devices and methods listed in this advisory are items that must be considered for use based upon sound engineering judgment regarding the location and work activity for each work zone. If additional information or questions arise during the determination of use, please contact the Work Zone Delivery Engineer for additional guidance.