

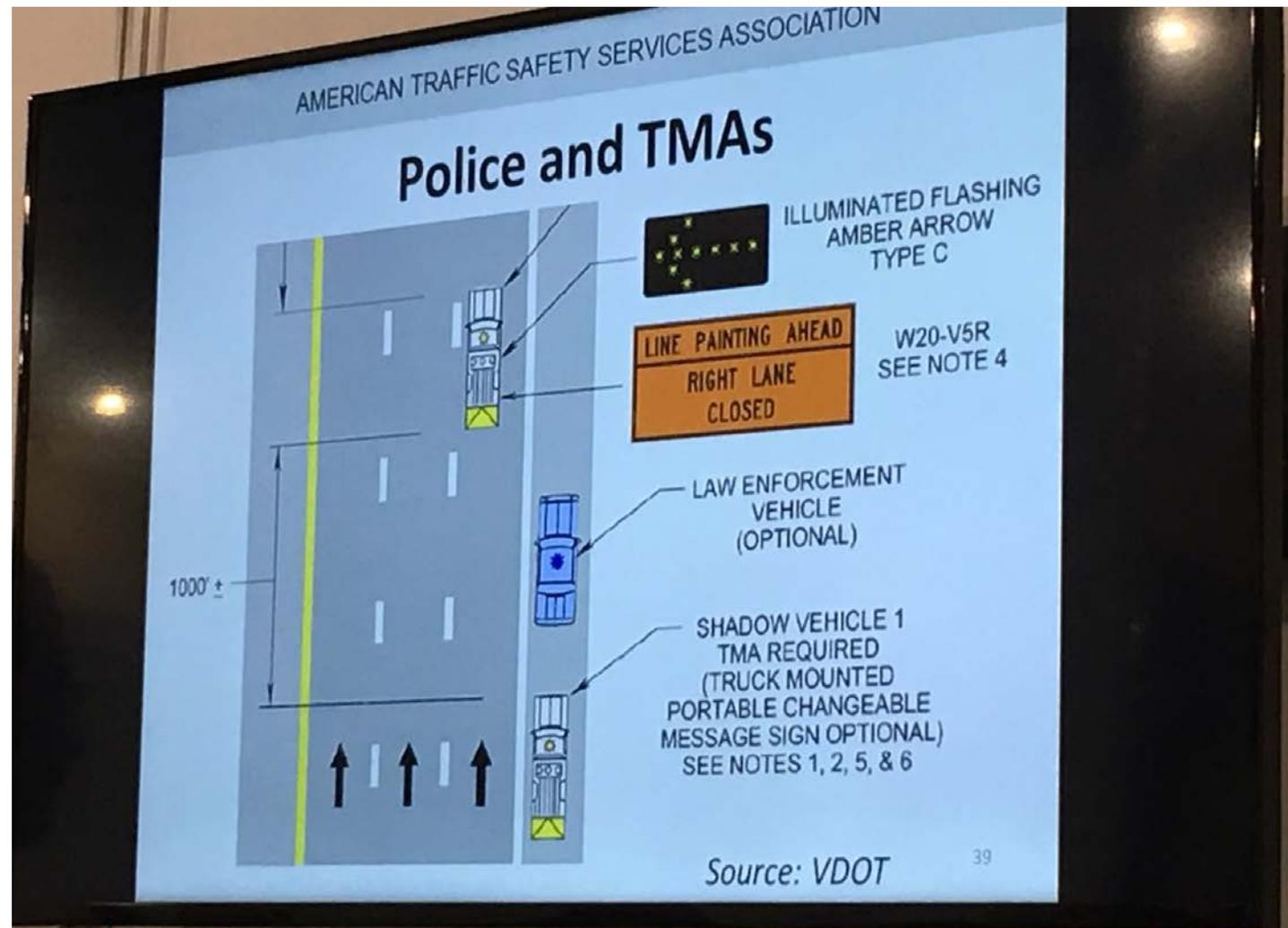


ATSSA Expo 2017

Devices and Ideas of Interest in Work Zones

- TMA application session

- When should they be required vs. recommended
- Virginia layout



TMA's



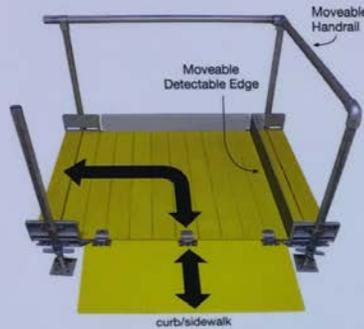
TPAR Devices

BoardWalk Bi-Directional Platform

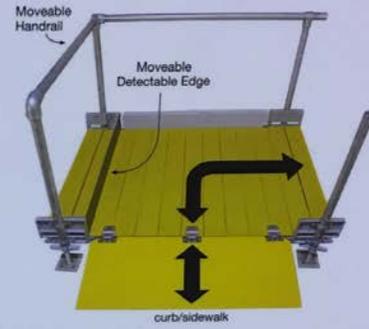


For use with BoardWalk Ramp when the alternate pedestrian pathway is parallel to the curb or sidewalk.

From left to right in two quick changes!



Left Turning Platform:
For a temporary pedestrian pathway that turns left from the curb, the moveable, detectable edge is attached to the edge support castings on the right. Pedestrians are safely guided to turn left.



Right Turning Platform:
To guide pedestrians to make a right turn, simply attach the Moveable Detectable Edge to the left side. Do the same with the horizontal handrail, and it's done!



Platform features the same components as BoardWalk Ramp:

- Modular Edge Support Castings provide guidance for use of canes and walking devices.
- Modular Edge Support Castings also accommodate handrails, which provide detectable guidance.
- PSS-supplied lumber has a slip-resistant surface.
- Approach Plate features slip-resistant surface.
- Like Boardwalk Ramp, Bi-Directional Platform is 4' W x 5' L.
- Wheelchair friendly.

With 4 adjustable Screw Jacks, Bi-Directional Platform can accommodate curb heights from 2" to 14".

PSS | 2444 Baldwin Road, Cleveland, OH 44104 | 800.662.5338 | PSS-Innovations.com



TPAR Devices



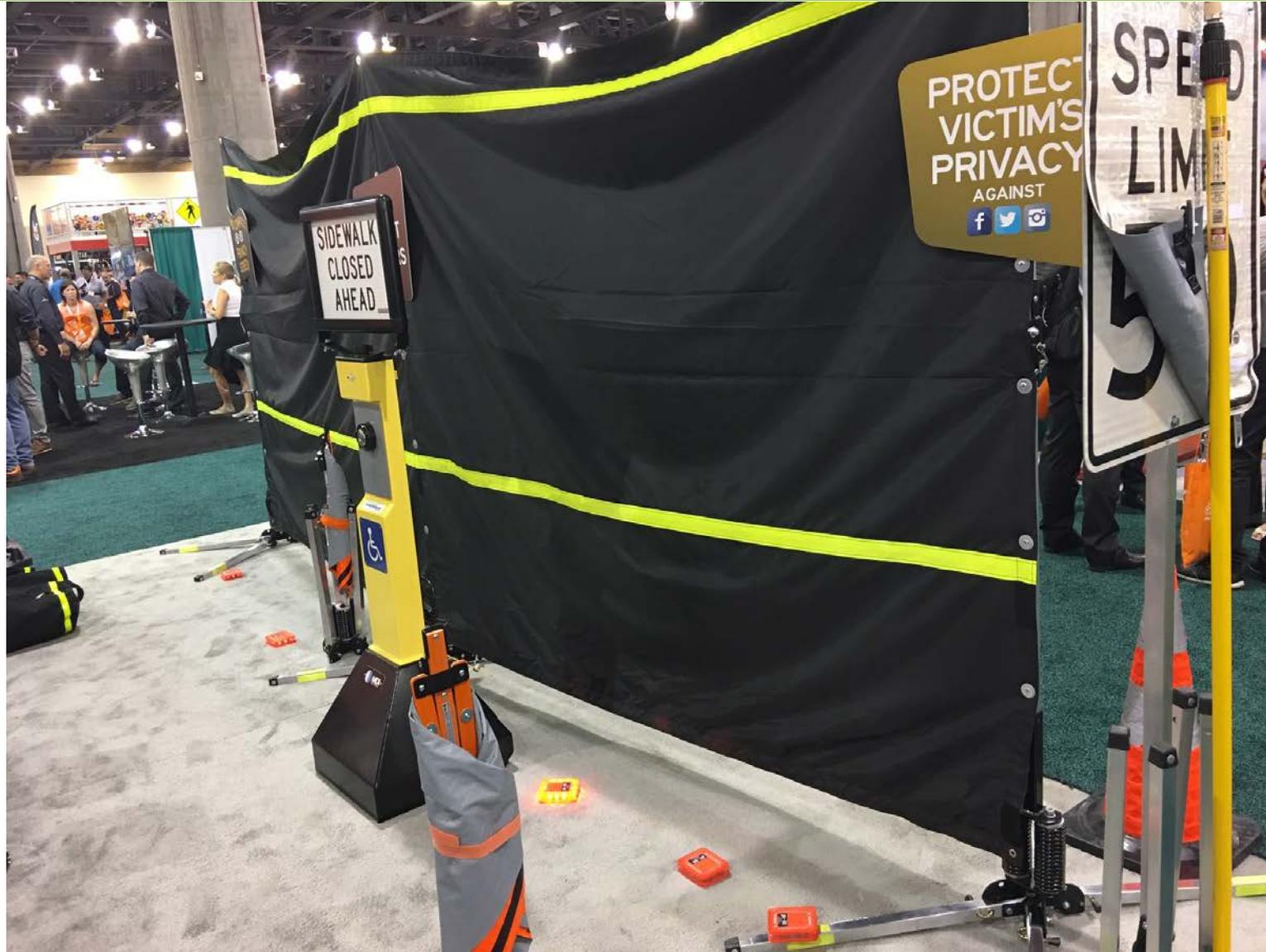
TPAR Devices



'Flares'



Incident privacy



Spring 2017



Power Talk Session

Implementing Standards for Peds and Bikes in Work Zones



Thanks!



David Rush

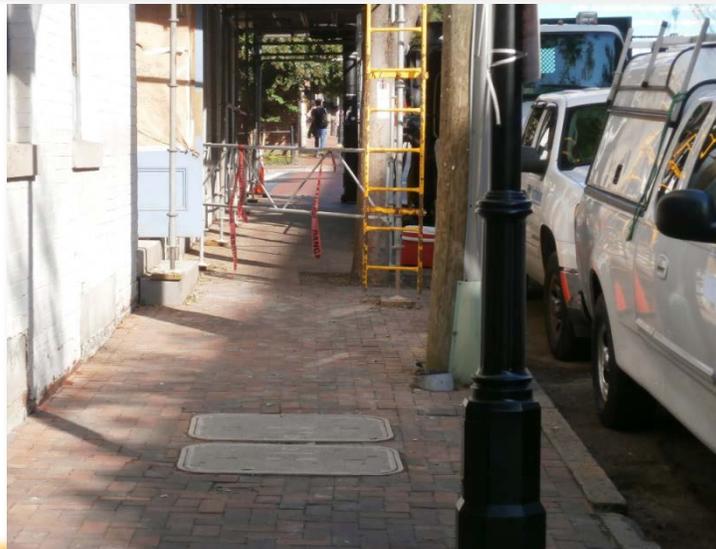
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Is There a Need for Pedestrian Accessibility in Work Zones?





Virginia Work Zone Pedestrian and Bicycle Guidance

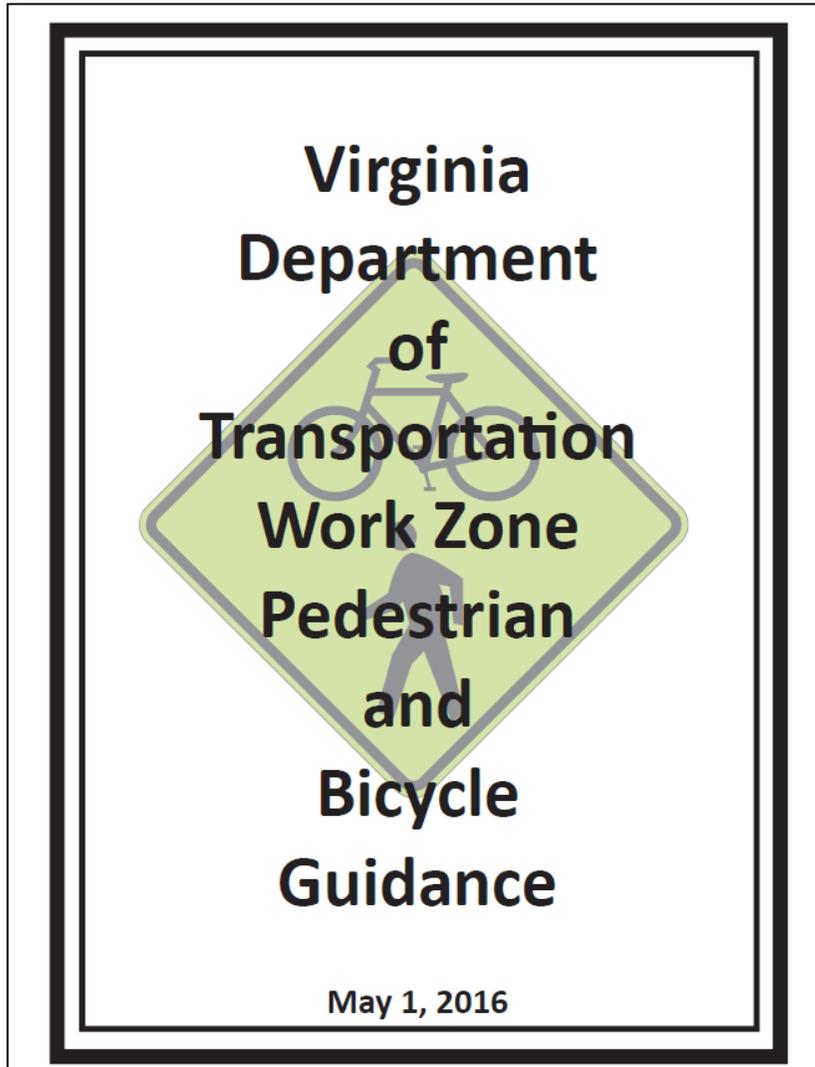
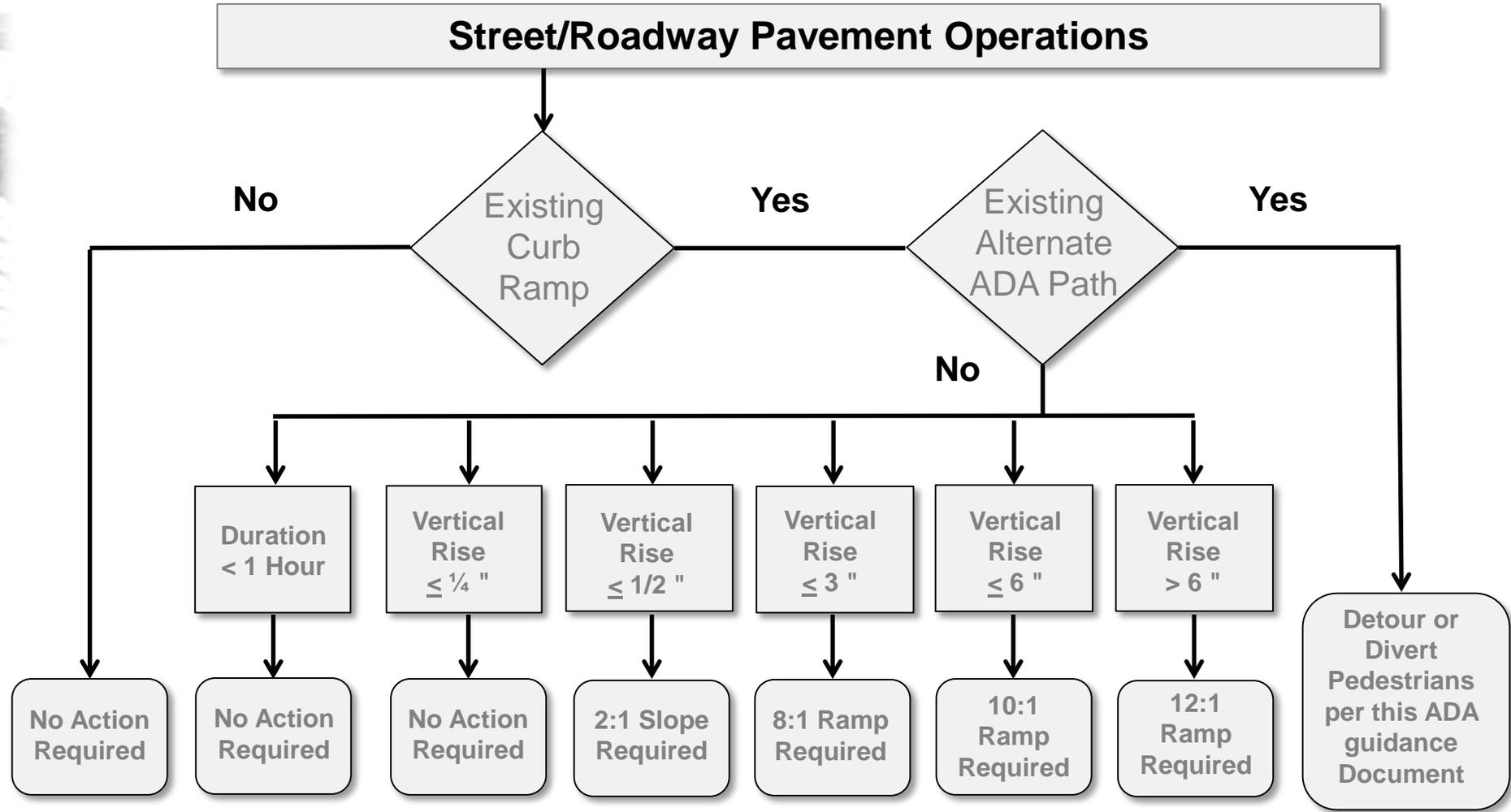


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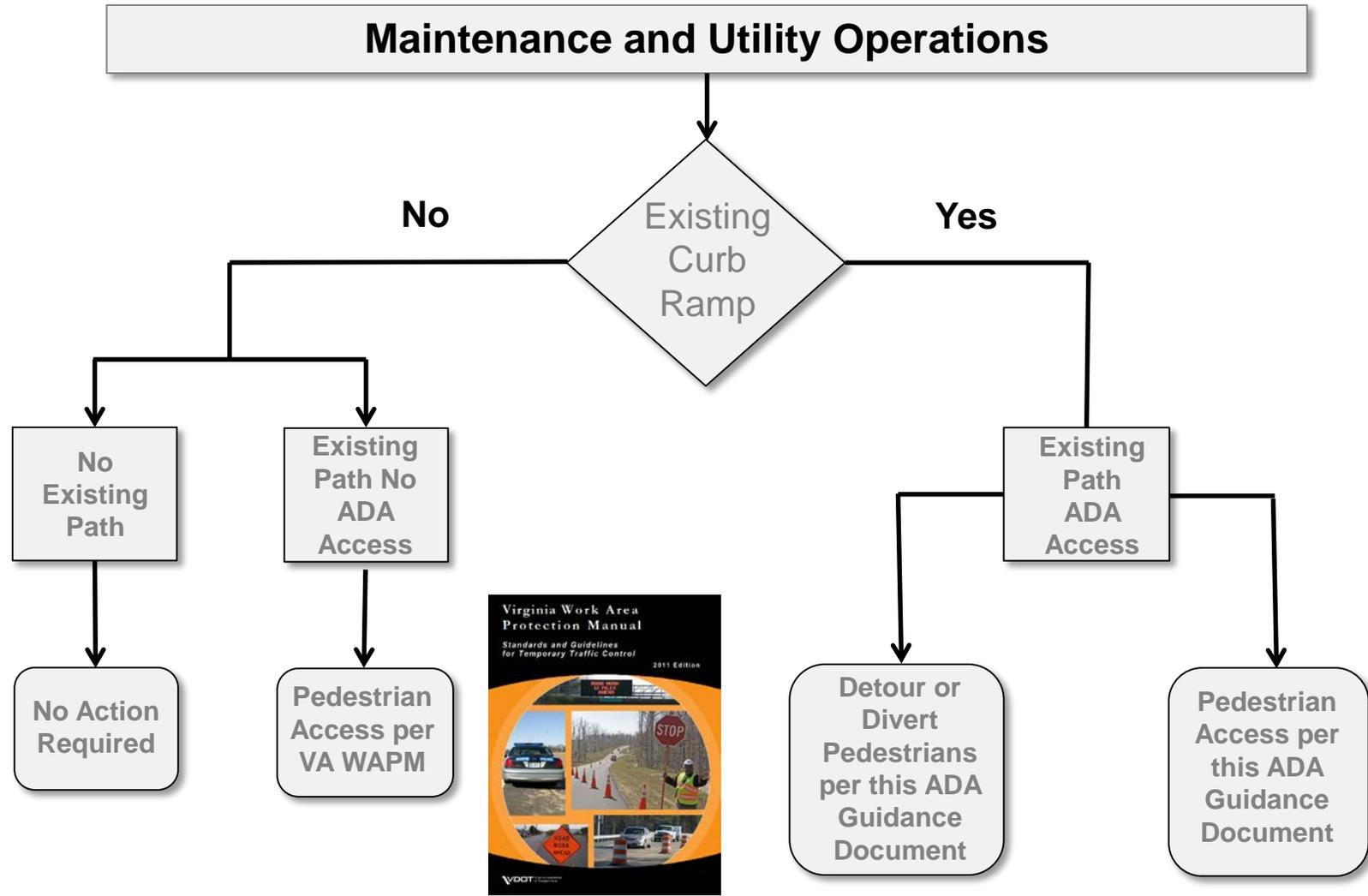


Decision Flow Chart



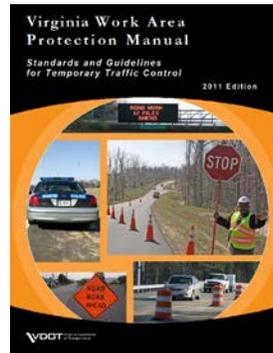
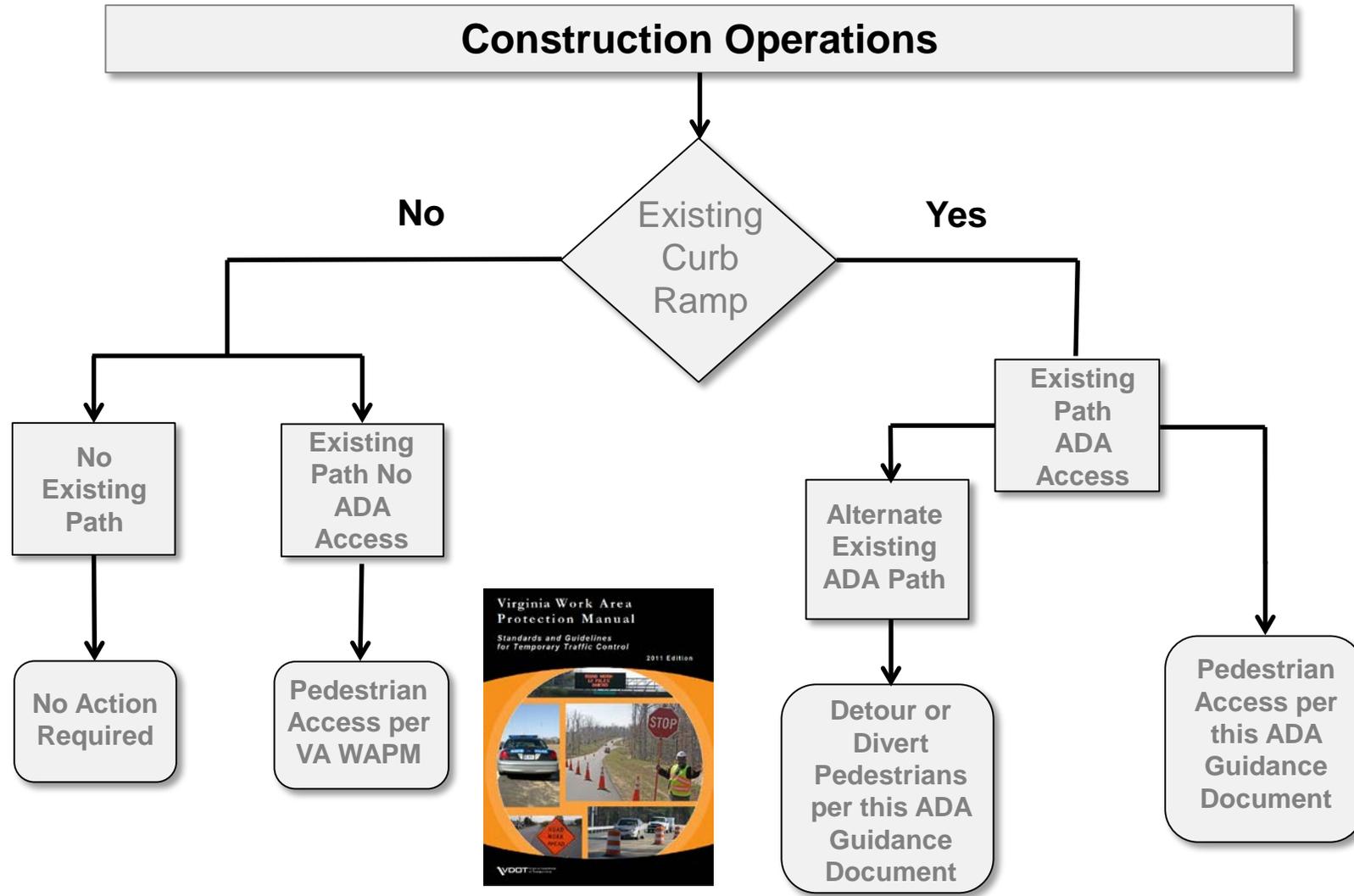


Decision Flow Chart





Decision Flow Chart

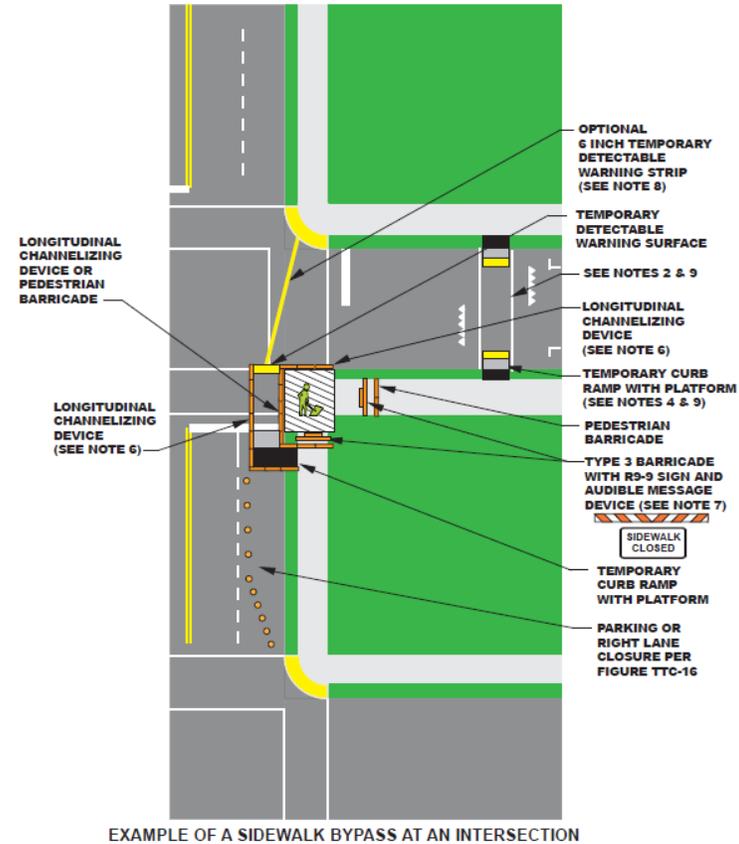




Examples of ADA Compliant Work Zones

Sidewalk Bypass at an Intersection

1. When sidewalks, crosswalks, shared-use paths, trails, or other pedestrian facilities are blocked, closed or relocated, temporary facilities shall meet, and if feasible exceed, accessibility features present in the existing facility.
2. The illustrated example only provides typical guidance. Refer to the Figure TTC-36 in the current Virginia Work Area Protection Manual for standards, guidance and options for blocking, closing or relocating pedestrian facilities for additional sign and crosswalk pavement marking requirements.
3. When existing site conditions make it infeasible to meet the recommended standards these conditions shall be documented. Conditions may include insufficient width, traffic conflicts, steep grades, non-continuous channelizing devices, tripping hazards, uneven/rough/soft surfaces, etc. An alternate route should be provided and posted when a temporary facility is not ADA compliant.
4. Only traffic control devices controlling pedestrian movement are illustrated. Other traffic control devices, based on the work operation per the Virginia Work Area Protection Manual, may be needed to control vehicular traffic on the roadway.
5. When both sides of a temporary pedestrian facility require channelizing devices, the devices should be a similar type (longitudinal channelizing device or pedestrian barricade system), excluding traffic barrier, used to protect pedestrians from vehicular traffic.
6. Refer to Appendix A of the current Virginia Work Area Protection Manual for guidance on the application of barriers /channelizing devices in work zones.
7. A motion activated message device(s) may be provided for sight-impaired pedestrians. When used, the message device(s) should provide a complete physical description of the temporary pedestrian facility including duration, length of and/or distance to the facility, restriction or hazards as well as information present on the required signs. The message device(s) may also describe an alternate route.
8. When the route between a temporary pedestrian facility and an existing sidewalk is skewed at a crosswalk, a temporary detectable warning strip may be used to provide guidance for sight-impaired pedestrians.
9. VDOT's "Guidelines for the Installation of Marked Crosswalks" should be used for information on the application of temporary marked crosswalks and the use of appropriate traffic control devices.





Companion Document Lists ADA Product Manufacturers



ADA Product Manufacturers

The manufacturers listed below offer temporary pedestrian products. The Virginia Department of Transportation (VDOT) does not assume liability for the contents of this list or its use, nor does the VDOT endorse the manufacturers or their products. The Virginia Department of Transportation did not evaluate all these products or certify the products as complying with the requirements of any VDOT or accessibility standard as well as any Virginia and Federal regulation. Products are listed because of their potential usefulness to individuals and not because they have been verified to meet the requirements of any VDOT or accessibility standard as well as any Virginia and Federal regulation. The list is not an all inclusive listing of products and we recommend an Internet search using the device headers in bold text for additional manufacturers and products.

Audible Warning Devices

Lake Traffic Solutions, LLC <http://www.laketraffic.com/ada.html>

Empco-Lite <http://www.empco-lite.com/barricade/ADA-Lite.htm>

Longitudinal Channelizers/Pedestrian Barricades/Railings

FHWA Work Zone Safety Hardware
http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/listing.cfm?code=workzone

ATM Traffic Systems <http://www.atmtrafficsystems.com>

Cortina Safety Products http://www.cortinaco.com/assets/1/7/Cortina_Safety_Products_P-Cade_Flier.pdf

Energy Absorption http://energyabsorption.com/products/products_triton_tl_3.asp

OTW Safety <http://otwsafety.com/mb32x72-iss>

Pexco, Davison Traffic Control Products <http://www.pexco.com/Pages/PexcoTraffic.aspx>

Plasticade <http://www.plasticade.com>

Plastic Safety <http://pss-innovations.com/Products/ADA-Compliant-Products.aspx>

Premier Plastics Inc. <http://www.traffic-barrier.com>

Rhino Safety Barriers LLC <http://www.rhinobarriers.com/index.asp>

Three D Traffic Works <http://www.trafficwks.com>

Traffix Devices <http://www.traffixdevices.com/products/barriers>

Traffic Safety Warehouse <http://www.trafficsafetywarehouse.com/Channelizers/departments/2>

Yodock Wall Company <http://www.yodock.com>

Detectable Warning Products

Access Tile <http://www.accesstile.com>

Armor-Tile <http://www.armor-tile.com>

Armorcast Product Company <http://www.armorcastprod.com>

Three D Traffic Works <http://www.trafficwks.com>

Temporary Pedestrian Signals

Horizon Signal Technologies <http://www.horizonsignal.com>

Portable Curb Ramps

Handi-Ramp <http://www.handiramp.com>

Portawalk http://www.portawalk.com/modular_handicap_ramp_solutions.aspx

Plasticade SafeKerb Ramp
http://www.plasticade.com/traffic_safety/contractors_safety_products/safekerb_ramp/

Plastic Safety <http://pss-innovations.com/Products/ADA-Compliant-Products.aspx>



Virginia Work Zone Pedestrian and Bicycle Guidance

Bicycle Lane/Shared Lane/Shared-Use Paths

Bicycle Guidance

The construction of bicycle lanes, shared lanes and shared-use paths has increased in recent years due to renewed interest in cycling for travel and commuting. To provide for the safety of the users of these lanes and paths during street repair or construction, the following guidance has been developed to assist in creating Temporary Traffic Control (TTC) Plans for these facilities. The examples in this document will illustrate various examples of applications for accommodating these users under different site conditions.

Guidance through the work area must be provided for other shared-use path users such as pedestrians, in-line skaters, joggers, etc. Refer to the pedestrian guidance section of this document as well as the Virginia Work Area Protection Manual for additional guidance information for these shared-use path users.

The continuity of a designated bikeway should be maintained through the work zone if possible. The continuity of the designated bikeway is especially important where bicyclists have been traveling on a shoulder, bike lane, or shared use path adjacent to a high speed (greater than 35 mph) motorized vehicle travel lane. There is a safety concern if bicyclists were to share the travel lane with motorized vehicles through the work zone on these high speed routes. If available, a reasonable detour route on a lower speed roadway should be provided.

On roadways with 4 or more travel lanes and bicycle lanes or bikeable shoulders, one or more travel lanes could be closed or lanes narrowed to maintain space for the bicycle lane through the work zone. Any lane closures must follow the department's lane closure guidance.

In low-speed (35 mph or less) urban areas where bicycles are sharing the travel lane with motorized vehicle traffic, the work zone for the motorized vehicles should be adequate for bicyclists as well.

On-road bicyclists should not be directed onto a path or sidewalk except where such a path or sidewalk is a shared-use path, or there is no practical alternative during a rehabilitation project.

If a bikeway detour is unavoidable it should be as short and direct as practical.

If a portion of a bikeway is to be closed due to construction activities and the detoured bikeway follows a complex path not in the original bikeway corridor, then a full detour plan should be developed and implemented. The TTC Plan for the detour of the bikeway should include all necessary advanced warning (W21 series) signs and detour (M4-9 series) signs, as well as any other temporary traffic control devices necessary to guide bicyclists along the detour route.

The BICYCLES MAY USE FULL LANE (R4-11) sign should be used when the following conditions exist:

- Roadways and streets with a maximum speed limit of 35 MPH, and
- Where the combined travel lane and usable shoulder width is less than 14 feet.

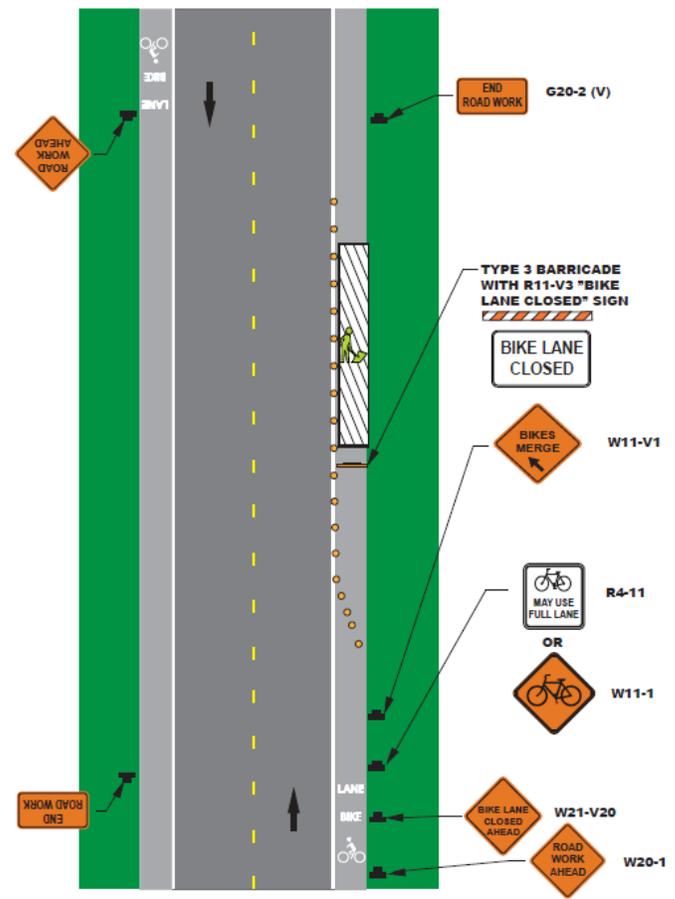
The BICYCLES MAY USE FULL LANE (R4-11) sign should not be used on undivided unmarked roadways.

- **Continuity of the bikeway through the work zone should be maintained.**
- **If available, an alternate lower speed route for closed shared-use paths, should always be provided.**
- **Also provide guidance to other shared-use path users.**

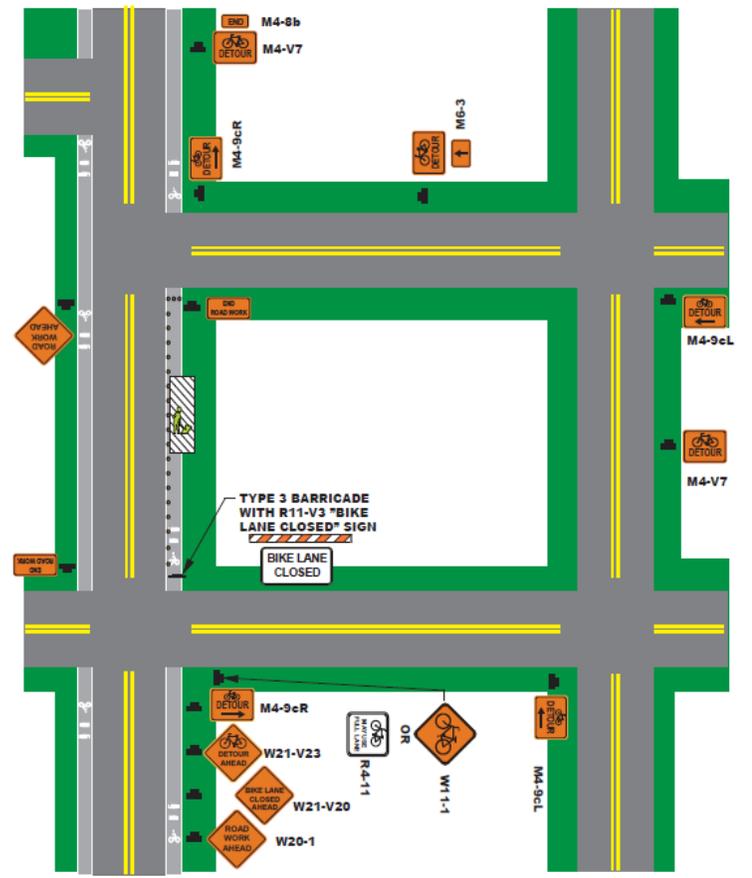




Work Zone Bicycle Guidance



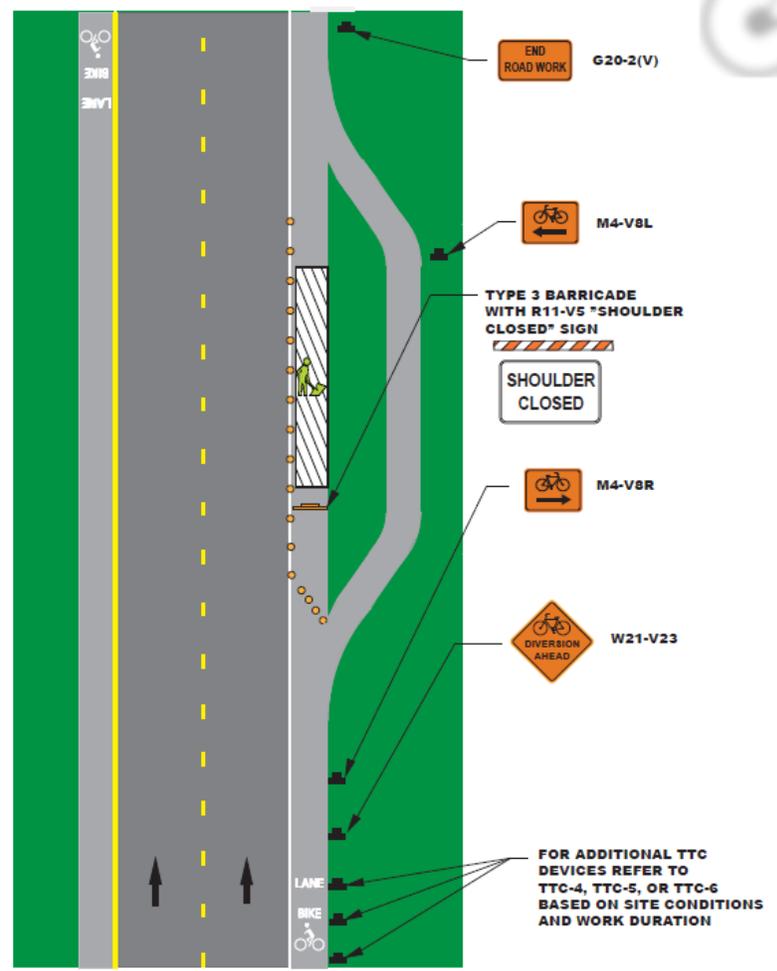
EXAMPLE OF A BICYCLE LANE CLOSURE



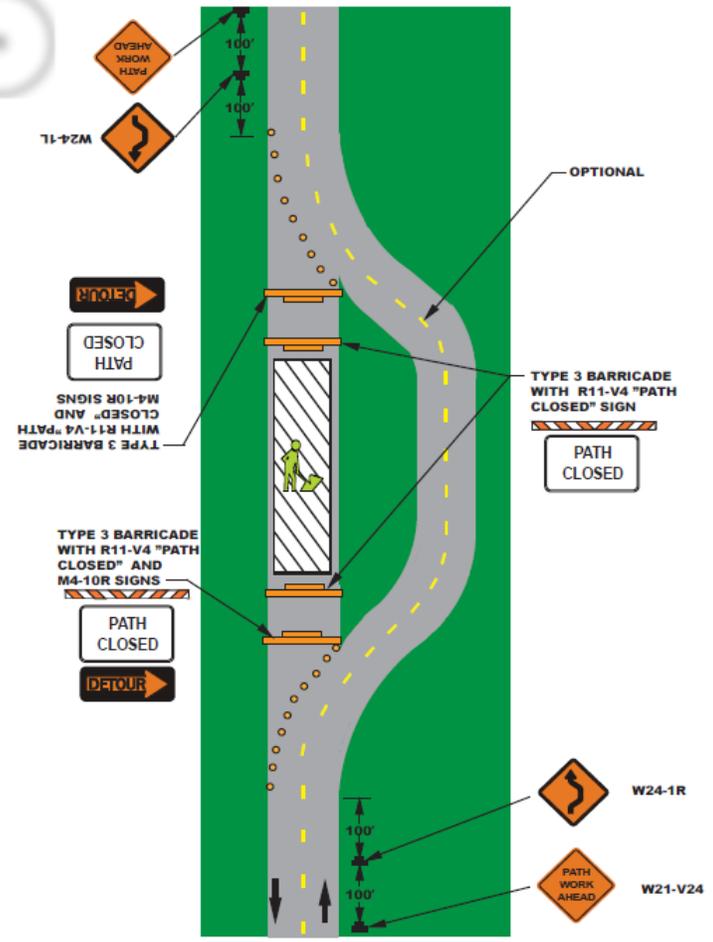
EXAMPLE OF A BICYCLE LANE CLOSURE WITH DETOUR



Work Zone Bicycle Guidance



EXAMPLE OF A SHOULDER CLOSURE WITH A BICYCLE DIVERSION PATH



EXAMPLE OF A PATH CLOSURE WITH A DIVERSION PATH



Questions ?

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THANK YOU !!

Enjoy the rest of the Conference !



LEARN. LEAD. INNOVATE. EVALUATE.

➤ HOW?

- *Collect More Real Life, Real Time Information*
 - *Conduct a Bicycle/Pedestrian Product Demonstration*
 - *Road User Comments/Recommendations*





2016 WORK ZONE DEMONSTRATION





2016 WORK ZONE DEMONSTRATION



05.18.2016



2016 WORK ZONE DEMONSTRATION





LEARN. LEAD. INNOVATE. EVALUATE.

➤ Thinking outside the “Toolbox” for more elaborate Solutions...



- *Rural highway*
- *“Oregon Coast Bicycle Route”*
- *Hundreds of touring cyclists per year*





LEARN. LEAD. INNOVATE. EVALUATE.

➤ PEDESTRIAN-SPECIFIC TCP DESIGNS

- ***Include Staging and Detour Details***

- *Less reliance on Specification language & Standard Drawings*
- *Think about effort/detail used to produce Vehicular TCP designs*
 - ➔ *Now....apply to Pedestrian TCP designs*
- *Draft plans at larger scale: 1" = 50' (Normally 1" = 200')*

- ***EXAMPLES:***

- *Urban/Suburban areas*
 - *Intersections, Signal work*
- *Roadway Widening/Reconfigurations*
- *Building new sidewalks/multi-use paths*
- *Bridge Replacements/Rehabilitations*

Questions?

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