

**MARYLAND STATE HIGHWAY ADMINISTRATION  
WORK ZONE DESIGN CHECKLIST**

| Overview  | Completed?   |
|---|--|
| <b>Step 1 - Identify Traffic Control Options</b>  |  |
| <ul style="list-style-type: none"> <li>▪ General Work Zone Setup</li> <li>▪ Project Timing</li> <li>▪ Detour</li> <li>▪ Roadside Safety</li> </ul>                    | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> |
| <b>Step 2 - Identify Work Zone Impacts</b>  |  |
| <ul style="list-style-type: none"> <li>▪ Data Collection</li> <li>▪ Work Zone Analysis</li> <li>▪ Mobility Impacts</li> <li>▪ Construction Related Impacts</li> </ul> | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> |
| <b>Step 3 - Identify Impact Management Strategies</b>   |  |
| <ul style="list-style-type: none"> <li>▪ Temporary Traffic Control</li> <li>▪ Transportation Operations</li> <li>▪ Public Information and Outreach</li> </ul>         | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/>                             |

| STEP 1 - IDENTIFY TRAFFIC CONTROL OPTIONS                               |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| Work Zone   | YES                      | NO                       | N/A                      |
| 1. Have all applicable work zone types been adequately considered?      |                          |                          |                          |
| a. Work outside of roadway  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ★ b. Full roadway closure ( <i>refer to Note 1 below</i> )              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Permanent lane/shoulder/ramp closures                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Crossovers/contraflow  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Detour   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Intermittent road closures (i.e., 15-minutes, weekend)               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Reduced lane widths  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Reduced shoulder widths  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Lane shifts  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Daily lane/shoulder closures   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Use of shoulder or median  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Runaround  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. One-lane, two-way operation  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Temporary Signal  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Flagger   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| n. Reversible lane  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| o. Use of temporary structures  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| p. Use of temporary pavement  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| q. Widening   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| r. Nightwork  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| s. Weekend work   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Have different staging options been considered?                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Are bypasses or temporary widening needed?                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Does pedestrian/bicycle traffic or ADA access need to be maintained? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

★ **Requirements of Senate Bill 699:** For expressways and controlled access freeways with a speed limit of 45 mph or higher where the anticipated duration of work is at least two weeks, the following applies:

- (1) Full closure must be considered for all work performed on the roadway.
- (2) Where full closure is not feasible, temporary traffic barriers must be considered per the requirements of SHA's Policy for the Use of Temporary Traffic Barrier in Work Zones.
- (3) If both full closure or temporary traffic barrier protection are not feasible, one (or more) uniformed law enforcement officers in marked vehicles may be provided for at or near the work zone when workers are present. Uniformed law enforcement officers may also be provided to enhance the overall safety of the work zone or to enforce traffic laws.

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| Work Zone (Continued)  | YES                      | NO                       | N/A                      |
|--|--------------------------|--------------------------|--------------------------|
| 5. Is this roadway/intersection on the Candidate Safety Improvement Locations (CSIL) list? (e.g., is this a high accident location?) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. What is the minimum allowable lane width?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Will oversized load permits be affected?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Is a reduced work zone speed limit required?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Should certain types of vehicles be prohibited from entering the work zone (over-height, weight restrictions)?                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Will the work zone be adequate in terms of:  |                          |                          |                          |
| a. Traffic control devices?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Railroad crossing and controls?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Geometrics (turning radii, ramp merge/diverge areas, etc.)?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Bridge restrictions and other structures?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Project Timing   | YES                      | NO                       | N/A                      |
| 1. Can the contractor restrict the roadway during  |                          |                          |                          |
| a. AM or PM rush hours?  |                          |                          |                          |
| One direction?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Both directions?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Overnight?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Local celebrations?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Holidays or weekends?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Sporting events?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Other special events?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Will project timing (for example, start or end date) be restricted by   |                          |                          |                          |
| a. School closings or openings?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Holidays?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Sporting events?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Other projects in the area?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Other? _____  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Is there present or future roadwork in the immediate area that may affect traffic or the Contractor's operations?                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Roadside Safety  | YES                      | NO                       | N/A                      |
| ★ 1. Are temporary barriers required? ( <i>refer to Note 2 on page 1</i> )   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Will temporary impact attenuators be required?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Will extra protection be required for   |                          |                          |                          |
| a. Pedestrians/Bicyclists?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. School areas and crossings?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Playgrounds and parks?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Have areas been designated for the contractor to store  |                          |                          |                          |
| a. Equipment?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Construction materials?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Waste materials?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Have areas been designated for contractor's employees to park personal vehicles   |                          |                          |                          |
| a. On-site?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Off-site?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| Detour  | YES                      | NO                       | N/A                      |
|---|--------------------------|--------------------------|--------------------------|
| 1. Will traffic be detoured?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. If yes, is the detour adequate in terms of   |                          |                          |                          |
| a. Weight restrictions  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Height-width   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Wide loads   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Capacity   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Adequate traffic control devices   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Railroad crossing and controls   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Geometrics (turning radii, ADA requirements, etc.)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Bridge restrictions and other structures   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Truck restrictions   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Will there be other construction along the detour that might influence traffic?            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Have affected Cities, Districts, Counties, or States been notified of the proposed detour? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Will all fronting businesses have acceptable ingress and egress?                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Can the detour be continued during winter (snow removal concerns)?                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Are alternate routes available to local motorists?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Should any of the following be contacted?  |                          |                          |                          |
| a. Public school system   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Public transit system  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Police, fire, and ambulance services   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Postal mail route services   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Others   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Is a public information meeting required?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| STEP 2 - IDENTIFY WORK ZONE IMPACTS         |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| Data Collection                             | YES                      | NO                       | N/A                      |
| 1. Has the appropriate data been collected? |                          |                          |                          |
| a. Traffic Volumes                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Signal Timing                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Origin-Destination                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Travel Time                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Crash History                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Speed                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Delay                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Other _____                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| <b>Work Zone Analysis</b>  | YES                      | NO                       | N/A                      |
|--|--------------------------|--------------------------|--------------------------|
| 1. Has the work zone traffic analysis been completed?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| a. Have work zone and ramp capacities been identified?<br>Work Zone Capacity = _____<br>Ramp Capacity = _____  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Have required number of maintained lanes and allowable lane closure hours been identified?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Have the appropriate analysis tools been identified/used?   |                          |                          |                          |
| MD QuickZone   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| QUEWZ-98   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| HCS  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Synchro/SimTraffic   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Corsim   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Vissim   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other _____  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Have the appropriate traffic analyses been conducted?   |                          |                          |                          |
| Queuing analysis   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Signal timing optimization   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Ramp meter analysis  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Travel time analysis   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Delay analysis   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other _____  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Does the project comply with the requirements in the Work Zone Lane Closure Analysis Guidelines?<br>If no, has an exception request been submitted? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Was a Maintenance of Traffic Alternative Analysis (MOTAA) conducted? **required for significant projects**  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Mobility Impacts</b>  | YES                      | NO                       | N/A                      |
| 1. Has the work zone traffic analysis identified impacts on any of the following?  |                          |                          |                          |
| a. Ability to maintain all accesses (business, community, etc.)  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Pedestrian, bicycle, and ADA facilities   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Public safety (workers and traveling public)  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Emergency vehicle access  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Construction equipment access & movement through the work zone  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Specific user groups (businesses, communities)  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Over-height, over-weight vehicles   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Transit services  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Traffic operations in and around the work zone (freeway queues, network operations, effect on local roads and detour routes)                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Ramp capacity   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Intersection traffic control (signal timing, adequate signage, etc.)  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Existing special traffic operations (HOV lanes, contraflow, draw-bridges, etc.)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. User Costs (delay)  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| <b>Construction Related Impacts</b>  | <b>YES</b>               | <b>NO</b>                | <b>N/A</b>               |
|--|--------------------------|--------------------------|--------------------------|
| 1. Has the Maintenance of Traffic Alternative Analysis (MOTAA) identified impacts on any of the following? |                          |                          |                          |
| a. Ability to provide required decision sight distance and merge/diverge areas at ramps                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Right-of-way  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Environment   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Required bridge widths  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Earthwork, retaining walls, pier clearances, profile differences, etc.                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Ability to maintain existing drainage, utility and lighting systems                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Construction duration   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Construction costs  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Constructability  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Noise levels  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Roadway surface conditions  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Storage of equipment or materials   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. Service life (bridges, pavements, etc.)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| <b>STEP 3 - IDENTIFY IMPACT MANAGEMENT STRATEGIES</b>                           |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|
| <b>Temporary Traffic Control</b>  | <b>YES</b>               | <b>NO</b>                | <b>N/A</b>               |
| <i>Traffic Control Devices</i>  |                          |                          |                          |
| 1. Traffic control signing and striping will be located:                        |                          |                          |                          |
| a. In the plans   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Reference to standard drawings   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Will sign message modifications be required on permanent signage for MOT?    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Are temporary signals required?  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Will existing signals need to be kept operational?                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Will temporary roadway lighting be required?                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Will striping removal be required?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| a. Has the work zone been set up to minimize striping removal?                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Will Portable Changeable Message Signs (PCMS) be required?                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>Project Coordination, Contracting and Innovative Construction Strategies</i> |                          |                          |                          |
| 1. Has the project been coordinated with:                                       |                          |                          |                          |
| a. Other projects in the area   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Utilities  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Right-of-Way   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Other transportation infrastructure  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Have innovative contracting strategies been considered?                      |                          |                          |                          |
| a. Design-build   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. A+B Bidding  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Incentive/Disincentive clauses   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Lane Rental  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Performance specifications   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| <b>Temporary Traffic Control (Continued)</b>   | YES                      | NO                       | N/A                      |
|--|--------------------------|--------------------------|--------------------------|
| 3. Have innovative or accelerated construction techniques been considered?                               |                          |                          |                          |
| a. Prefabricated/precast elements  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Rapid cure materials  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Accelerated Construction Technology Transfer (ACTT) Workshop  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Transportation Operations</b>   | YES                      | NO                       | N/A                      |
| 1. Have the following <b>Work Zone ITS</b> strategies been considered for traffic monitoring/management? |                          |                          |                          |
| a. Late Lane Merge Concept   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Advanced Speed Information  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Advanced Congestion Warning   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Conflict Warning  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Travel Time Monitoring  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Freeway Queue Monitoring  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. CCTV Monitoring   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Real-time Detour (or other traffic diversion strategies)  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Have the following <b>demand management strategies</b> been considered?                               |                          |                          |                          |
| a. Transit service improvements  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Transit incentives  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Shuttle services  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Ridesharing/carpooling incentives   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Park-and-ride promotion   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. High-occupancy vehicle (HOV) lanes  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Toll/congestion pricing   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Ramp metering   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Parking supply management   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Variable work hours   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Telecommuting   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Have the following <b>corridor/network management strategies</b> been considered?                     |                          |                          |                          |
| a. Signal timing/coordination improvements   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Temporary traffic signals   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Street/intersection improvements  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Bus turnouts  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Turn restrictions   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Parking restrictions  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Truck/heavy vehicle restrictions  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Separate truck lanes  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Reversible lanes  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Ramp metering   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Ramp closures   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Railroad crossing controls  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. Coordination with adjacent construction site(s)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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| <b>Transportation Operations (Continued)</b>   | <b>YES</b>               | <b>NO</b>                | <b>N/A</b>               |
|--|--------------------------|--------------------------|--------------------------|
| 4. Have the following <b>work zone safety management strategies</b> been considered? |                          |                          |                          |
| a. Speed limit reduction/variable speed limits                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Temporary traffic signals   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Temporary traffic barrier   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Movable traffic barrier systems   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Crash-cushions  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Temporary transverse rumble strips  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Warning lights  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Project task force/committee  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. PCMS with speed display (refer to WZ Safety Toolbox)                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Rolling road blocks (refer to WZ Safety Toolbox)                                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Wider lane lines (refer to WZ Safety Toolbox)                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Construction safety supervisors/inspectors  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. Road safety audits  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| n. TMP monitor/inspection team   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Have the following <b>incident management strategies</b> been considered?         |                          |                          |                          |
| a. Standby Towing Service  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Planned detour routes   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Emergency Pull-outs   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Crash Investigation/Emergency Access Location                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. ITS for Incident Management   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Coordination with CHART   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ★ 6. Have the following <b>enforcement strategies</b> been considered?               |                          |                          |                          |
| a. Cooperative police enforcement ( <i>refer to Note 3 on page 1</i> )               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Drone radar   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**MARYLAND STATE HIGHWAY ADMINISTRATION  
WORK ZONE DESIGN CHECKLIST**

| Public Information and Outreach   | YES                      | NO                       | N/A                      |
|---|--------------------------|--------------------------|--------------------------|
| 1. Have the following <b>public awareness strategies</b> been considered?     |                          |                          |                          |
| a. Branding   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Brochures and mailers  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Newsletters  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Press releases   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Media alerts   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Mass media (earned and/or paid)  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Press kits   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Business survival kits   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Public service announcements   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Project information center   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Project website  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Web-connected traffic cameras   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Real-time traffic data  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| General project information   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Construction progress   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Others _____  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Public meetings, workshops and community events                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. Community task forces  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| n. Coordination with media, schools, businesses, and emergency services       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| o. Work zone education and safety campaigns                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| p. Work zone safety highway signs   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| q. Rideshare promotions   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| r. Visual information (videos, slides, presentations) for meetings and web    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| s. Public opinion surveys   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Have the following <b>motorist information strategies</b> been considered? |                          |                          |                          |
| a. Radio traffic news   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Changeable message signs   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Temporary motorist information signs                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Billboards   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Highway Advisory Radio (HAR)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. SHAZAM Signs   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Project information hotline  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Travelers Advisory Telephone (TAT)   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Email alerts   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| j. Highway Information Network (web-based - I-95 Coalition)                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| k. Freight travel information   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. CB Wizard Alert system   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. Coordination with CHART  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |