

Diary Number: \_\_\_\_\_ Inspector Name: \_\_\_\_\_

TRACS Number: \_\_\_\_\_ Date: \_\_\_\_\_

Division VII: Traffic Control Facilities  
 Title: Arrow Panels and Changeable Message Boards

Route Name:
Location:
Type of Closure:
SMART Work Zone {SWZ} in use?
Traffic Control Plan Number:
Certified Traffic Control Supervisor
Traffic Control Coordinator:
Equipment Numbers and Type:

Attribute Numbers	Compliance	Narratives	References
0.		<p>All stakeholders have participated in the pre-activity meeting (which can be combined with other pre-activity).</p> <p><u>Standard Specifications</u> 701- 3.08 Page 705  <u>Standard Specifications Sub-section 701-3.01 Page 698</u></p>	<p>Standard Specifications 2021 701-3.01</p>
1.		<p>The contractor has provided to the Engineer, the name of their employee, who is responsible for implementing, monitoring, and altering, as necessary, the traffic control plan.</p> <p><u>Standard Specifications Sub-section 701-3.01 Page 698</u></p>	<p>Standard Specifications 2021 701-1</p>
2.		<p>The Contractor has provided ADOT with the name of the employee, or licensed professional engineer registered in the State of Arizona that has completed the ATSSA or the IMSA and is "certification" (Cert needs to be valid throughout the project for the person that is creating the plan).</p> <p><u>Special Provisions Subsection 108.03 (108PRCN, 5/3/16)</u>  <u>Standard Specifications Subsection 701-1(A) and 701-1(B) Page 693</u>  <u>Manual on Uniform Traffic Control Devices 6C.01 Line 03 Page 551</u></p>	<p>Standard Specifications 2021 701-1</p>

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3.		<p>The contractor has supplied the ADOT field office with a letter certifying that the traffic control devices meet NCHRP Report 350 criteria or M.A.S.H. (Manual for Assessing Safety Hardware) requirements.</p> <p><u>NCHRP Report 350</u>  <u>Traffic Control Design Guideline</u> Page 5  <u>Manual for Assessing Safety Hardware (M.A.S.H.)</u>  <u>Standard Specifications 2021 Sub-Section 701- 2.01 (B)(1)</u> Page 694</p>	<p>Standard Specifications 2021 701- 2.01 (B)(1)</p>
4.		<p>The Contractor has submitted at the pre-construction conference, a Certificate of Compliance for the changeable message boards to be used on the project.</p> <p><u>Standard Specifications 701- 3.08</u> Page 705  <u>Special Provisions 710-2.01 (A) (1)</u></p>	<p>Standard Specifications 2021 701- 3.08</p>
5.		<p><b>SMART Work Zone {SWZ}</b>, the Contractor has submitted the SWZ Technician name and Credentials to the Engineer for Approval. (The technician is employed by a Contractor that has a minimum of 3 years of experience deploying SWZ technologies on projects with roadway construction valued at one million dollars or more.)</p> <p><u>Special Provisions 710-2.01 (A) (2)</u></p>	<p>Special Provisions 710-2.01 (A) (2)</p>
6.		<p><b>SMART Work Zone</b>, the Contractor has submit a SWZ System Operations and Maintenance Plan for approved FOUR weeks before mobilizing field equipment for deployment to the Engineer for Approval.</p> <p><u>Special Provisions 710-2.01 (A) (5)</u></p>	<p>Special Provisions 710-2.01 (A) (5)</p>
7.		<p><b>SMART Work Zone</b>, the Contractor has submit a SWZ system plan with a communications site assessment and configuration plan to the Engineer for approval at least six weeks before mobilizing field equipment for deployment in the project area. The plan shall describe the system logic and field device layout concepts to be used.</p> <p><u>Special Provisions 710-2.01 (A) (3) and 710-2.01 (A) (4)</u></p>	<p>Special Provisions 710-2.01 (A)</p>
8.		<p>All traffic control representatives, both ADOT and the contractor have a current copy of the approved traffic control plan(s). This includes any changes or modifications that are approved for the plan.</p> <p><u>Standard Specifications Sub-section 701-1</u> Page 693</p>	<p>Standard Specifications 2021 701-1</p>
9.		<p><b>SMART Work Zone</b>, the Contractor has submitted the SWZ system and the associated field devices as part of the Traffic Control Plan.</p> <p><u>Standard Specifications Sub-section 701-1</u> Page 693  <u>Special Provisions 710-2.01 (A)</u></p>	<p>Standard Specifications 2021 701-1</p>
10.		<p><b>SMART Work Zone</b>, its being monitoring by the Approved SWZ technicians.</p> <p><u>Special Provisions 710-2.01 (A) (1)</u></p>	<p>Special Provisions 710-2.01 (A) (2)</p>

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11.		<p><b>SMART Work Zone</b> in use, The technician is locally available while the SWZ system is in use and able to respond to the SWZ system issues in person within one hour of notification.</p> <p><u>Special Provisions 710-2.01 (A) (1)</u>  <u>Special Provisions 710-2.01 (A) (2)</u></p>	Special Provisions 710-2.01 (A)
12.		<p><b>SMART Work Zone</b>, Contractor has coordinated with the Engineer and provides the SWZ software user training to the Department representatives and has provided the Department representatives with SWZ software user access privileges including alert messages. During deployment in the SWZ area, the contractor has submit the required SWZ system data reports to the Engineer for approval within the Engineer time frames.</p> <p><u>Special Provisions 710-3</u></p>	Special Provisions 710-3
13.		<p><u>Changeable Message Boards (CMB)</u> are located and used per the Approved Traffic Control Plan.</p> <p><u>Standard Specifications 701- 3.08 Page 705</u></p>	Standard Specifications 2021 701-3.08
14.		<p>Changeable Message Boards, whether it be day or night, should be clearly visible and legible from 800-feet.</p> <p><u>MUTCD 6F.60 Line 11 Page 599</u>  <u>Standard Specifications 701- 3.08 Sub-Section (K) Page 706</u></p>	Standard Specifications 2021 701-3.08 (K)
15.		<p>When a changeable message is divided into two phases (each phase is a maximum of Three Lines), the display time for each phase should be at least 2 seconds, and the sum of the display times for both of the phases should be a maximum of 8 seconds.</p> <p><u>MUTCD 6F.60 Line 17 Page 600</u>  <u>MUTCD 6F.60 Line 20 Page 600</u>  <u>Traffic Control Design Guideline 09/2019 Page 9</u>  <u>Standard Specifications 701- 3.08 Page 706</u></p>	Standard Specifications 2021 701-3.08
16.		<p>Changeable Message Boards are protected with a clear Lexan-type or equivalent shield that does not interfere with or diminish the visibility of the sign message.</p> <p><u>Standard Specifications 701- 3.08 Page 706</u></p>	Standard Specifications 2021 701-3.08

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17.		<p>Changeable Message Board trailers are offset at least 8-feet from the nearest edge of the pavement. When located behind a temporary concrete barrier (TCB), a minimum offset of 6-feet will be required. When shoulder-width is not available, a minimum 2-foot offset from the nearest edge of pavement or TCB shall be required.</p> <p><u>Standard Specifications 701- 3.08 Page 706</u>  <u>Traffic Control Design Guideline 09/2019 Page 15</u>  <u>MUTCD 6F.60 Line 30 Page 600</u></p>	Standard Specifications 2021 701-3.08
18.		<p>Changeable Message Boards when positioned on the shoulder, it will be delineated with a minimum of 10 Type II barricades or vertical panels with Type C steady burn lights with a spacing of 10 to 20 feet, or as shown on the approved traffic control plan or installed per ADOT Temporary Traffic Control Design Guidelines, Figures SA 13 thru SA 17.</p> <p><u>Standard Specifications 701- 3.08 Page 706</u>  <u>Traffic Control Design Guideline 09/2019 Page A15 thru A19 Page</u>  <u>MUTCD 6F.60 Line 33 Page 601</u></p>	Standard Specifications 2021 701-3.08
19.		<p>Changeable Message Boards trailer is placed on a level surface or the sign is adjusted to level with the roadway surface. The contractor shall provide any necessary incidental grading and clearing work required.</p> <p><u>Standard Specifications 701- 3.08 Page 707</u>  <u>MUTCD 6F.60 Line 29 Page 600</u></p>	Standard Specifications 2021 701-3.08
20.		<p>Changeable Message Boards panel is 5-feet (in Rural areas) or 7-feet (in Urban Areas) from the top of the roadway to the bottom of the panel when in operation.</p> <p><u>Standard Specifications 701- 1 Page 693</u>  <u>MUTCD 6F.60 Line 26 Page 600</u></p>	Standard Specifications 2021 701-1
21.		<p>When portable Changeable Message Boards are not in use, they should be moved a minimum of 30 feet from the edge of the pavement, outside of the clear zone or shielded behind a traffic barrier and turned away from traffic. If relocation or shielding is not practical, they should be delineated with retro-reflective Temporary Traffic Control devices.</p> <p><u>Standard Specifications 701- 3.08 Page 706</u>  <u>MUTCD 6F.60 Line 32 Page 601</u></p>	Standard Specifications 2021 701- 3.08
22.		<p>Ninety percent or more of the pixels per character module are operating properly. The message must be understood, regardless of pixel count.</p> <p><u>Temporary Traffic Control Devices</u>  <a href="https://adotnet.az.gov/content/quality-guidelines-temporary-traffic-control-devices">https://adotnet.az.gov/content/quality-guidelines-temporary-traffic-control-devices</a></p>	Standard Specifications 2021 701- 3.08

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23.		<p>Additional Changeable Message Boards are added whenever a message is longer than two phases (each phase = three lines).</p> <p><u>Manual on Uniform Traffic Control Devices</u> 6F.60 Line 17 Page 601  <u>MUTCD</u> 6F.60 Line 20 Page 601</p>	<p>Standard Specifications 2021 701- 3.08</p>
24.		<p>The correct size of the Changeable Message Board is being used.</p> <p><u>Standard Specifications</u> 701- 3.08 Page 705 and 706  <u>MUTCD</u> 6F.60 Line 14</p>	<p>Standard Specifications 2021 701- 3.08</p>
25.		<p>The Changeable Messages Board is using the approved messages. Word Message meets MUTCD Section 1A.15, Tables 1A-1 or 1A-2 when abbreviated is applicable. (Messages are on file)</p> <p><u>MUTCD</u> Section 1A.15 Page 24  <u>MUTCD</u> Table 1A.-1 Page 24  <u>MUTCD</u> Table 1A-2 Page 25  <u>MUTCD</u> Section 2A.13 Page AZ-31  <u>MUTCD</u> Section 2E.17 Abbreviations Page 192  <u>Temporary Traffic Control Devices</u> Page 9</p>	<p>Traffic Control Plan</p>
26.		<p>Arrow Panels are located and used per the Approved Traffic Control Plan (TCP). When a traffic control plan is included in the project plans, this plan shall govern unless an alternate plan, submitted by the contractor, is signed and accepted by the Engineer.</p> <p><u>Standard Specifications</u> 701-1 Page 693</p>	<p>Standard Specifications 2021 701-1</p>
27.		<p>The height of the arrow panel is 7' from the top of the roadway to the bottom of the panel (except on vehicle-mounted panels - should be as high as practicable).</p> <p><u>MUTCD</u> 6F.61 Line 09 Page 601</p>	<p>MUTCD 6F.61</p>
28.		<p>Arrow panels are only used for lane closures. They are not used to shifting the travel lanes.</p> <p><u>MUTCD</u> 6F.61 Line 25 Page 603</p>	<p>MUTCD 6F.61</p>
29.		<p>The correct size of arrow panels is used (Type A, Type B, Type C, or Type D).</p> <p><u>MUTCD</u> 6F.61 Figure 6F-6 Page 602</p>	<p>MUTCD 6F.61</p>
30.		<p>Arrow Panels are visible for the type in use (A = 1/2 mile, B = 3/4, C = 1 mile and D = 1/2 mile).</p> <p><u>MUTCD</u> 6F.61 Figure 6F-6 Page 602</p>	<p>MUTCD 6F.61</p>
31.		<p>All Arrow Panel lights are working properly.</p> <p>Quality Guidelines for Temporary Traffic Control Devices Figures 10 thru 12  <a href="https://adotnet.az.gov/content/quality-guidelines-temporary-traffic-control-devices">https://adotnet.az.gov/content/quality-guidelines-temporary-traffic-control-devices</a></p>	<p>Quality Guidelines for Temporary Traffic Control Devices Figures 10 thru 12</p>

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32.		An adequate number of arrow panels are used (one per lane closed). <u>MUTCD 6F.61 Line 21 Page 603</u>	MUTCD 6F.61
33.		Arrow panels are removed from the Clear Zone when not in use. If not removed they are protected from traffic with barrier/attenuator devices. <u>MUTCD 6F.61 Line 04 Page 601</u>	MUTCD 6F.61
34.		The Approved Traffic Control plan is being followed. <u>Standard Specifications 701-1 Page 693</u>	Standard Specifications 2021 701-1
35.		Quantlist Minimum Frequency is being followed, one per set up / one per week.	Construction Bulletin 07-01