








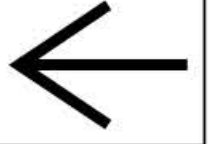
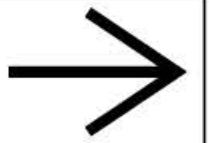
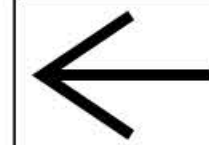
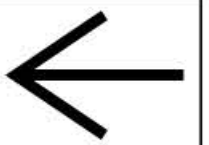
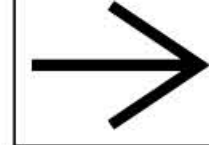
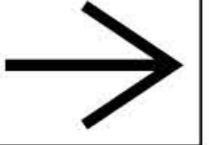
LEGEND FOR TP-29 THROUGH TP-34

-  TMA TYPE 1 OR 2 WITH MOUNTED VMS
-  TMA TYPE 3 WITH ARROW BOARD IN CAUTION MODE
-  TMA TYPE 4 WITH ARROW BOARD IN LEFT/RIGHT ARROW MODE
-  PROJECT SUPERVISOR
-  NEW JERSEY STATE POLICE
-  SERVICE VEHICLE
-  DIRECTION OF TRAVEL

TRUCK MOUNTED ATTENUATOR (TMA) TYPES

TYPE	DEVICE	DISPLAY
1	VMS	SEE LEGENDS TO RIGHT
2	VMS	SEE LEGENDS TO RIGHT
3	ARROW BOARD	CAUTION MODE - WHEN LOCATED WITHIN SHOULDER CLOSING
4	ARROW BOARD	ARROW MODE - WHEN LOCATED WITHIN LANE CLOSING

TRUCK MOUNTED VARIABLE MESSAGE SIGN LEGENDS (TMA TYPES 1 AND 2)

TYPE OF CLOSING AND ROADWAY CONDITIONS	TMA TYPE 1		TMA TYPE 2	
	FIRST PHASE	SECOND PHASE	FIRST PHASE	SECOND PHASE
RIGHT SINGLE LANE CLOSING WITH NO EMERGING QUEUES	RIGHT LN CLOSED 1 MILE	MERGE LEFT	RIGHT LN CLOSED 1/2 MILE	
RIGHT SINGLE LANE CLOSING WITH EMERGING QUEUES (SEE NOTE 10)	RIGHT LN CLOSED 1 MILE	BE PREPARED TO STOP	RIGHT LN CLOSED 1/2 MILE	BE PREPARED TO STOP
LEFT SINGLE LANE CLOSING WITH NO EMERGING QUEUES, LEFT SHOULDER 10 FEET OR GREATER IN WIDTH	LEFT LN CLOSED 1 MILE	MERGE RIGHT	LEFT LN CLOSED 1/2 MILE	
LEFT SINGLE LANE CLOSING WITH NO EMERGING QUEUES, LEFT SHOULDER LESS THAN 10 FEET IN WIDTH	LEFT LN CLOSED 1 MILE	MERGE RIGHT	LEFT LN CLOSED 1/2 MILE	MERGE RIGHT
	NOTE: TMA IN RIGHT SHLDR		NOTE: TMA IN RIGHT SHLDR	
LEFT SINGLE LANE CLOSING WITH EMERGING QUEUES (SEE NOTE 10)	LEFT LN CLOSED 1 MILE	BE PREPARED TO STOP	LEFT LN CLOSED 1/2 MILE	BE PREPARED TO STOP
RIGHT TWO LANE CLOSING WITH NO EMERGING QUEUES	2 RT LNS CLOSED 1 MILE		2 RT LNS CLOSED 1/2 MILE	
RIGHT TWO LANE CLOSING WITH EMERGING QUEUES (SEE NOTE 10)	2 RT LNS CLOSED 1 MILE	BE PREPARED TO STOP	2 RT LNS CLOSED 1/2 MILE	BE PREPARED TO STOP
LEFT TWO LANE CLOSING WITH NO EMERGING QUEUES, LEFT SHOULDER 10 FEET OR GREATER IN WIDTH	2 LT LNS CLOSED 1 MILE		2 LT LNS CLOSED 1/2 MILE	
LEFT TWO LANE CLOSING WITH NO EMERGING QUEUES, LEFT SHOULDER LESS THAN 10 FEET IN WIDTH	2 LT LNS CLOSED 1 MILE	MERGE RIGHT	2 LT LNS CLOSED 1/2 MILE	MERGE RIGHT
	NOTE: TMA IN RIGHT SHLDR		NOTE: TMA IN RIGHT SHLDR	
LEFT TWO LANE CLOSING WITH EMERGING QUEUES (SEE NOTE 10)	2 LT LNS CLOSED 1 MILE	BE PREPARED TO STOP	2 LT LNS CLOSED 1/2 MILE	BE PREPARED TO STOP
RAMP LANE CLOSING	N/A		RAMP WORK AHEAD	BE PREPARED TO STOP

NOTES FOR TP-29 THROUGH TP-34:

1. STANDARD DRAWINGS TP-28 THROUGH TP-34 FOR USE ON THE NEW JERSEY TURNPIKE ONLY.
2. MOBILE LANE, SHOULDER OR RAMP CLOSINGS ARE PERMITTED ONLY FOR PERMANENT THERMOPLASTIC LINE STRIPING INSTALLATIONS, LANDSCAPE SPRAYING, ROADWAY SWEEPING OR SNOW REMOVAL. WHEN PERMANENT THERMOPLASTIC STRIPING OF THE MAINLINE SHOULDER EDGE LINE IS PERFORMED IN A MOBILE CLOSING, THE SINGLE LANE CLOSING DETAILS SHALL BE USED. THE TWO LANE CLOSING DETAILS ARE FOR MAINLINE THERMOPLASTIC LINE STRIPING ONLY.
3. A SLOWDOWN OR SHORT-TERM RAMP CLOSING WILL BE REQUIRED WHENEVER MOBILE CLOSING VEHICLES MUST CROSS A RAMP ROADWAY OR WHEN A MOBILE CLOSING PROCEEDS THROUGH A RAMP ENTRANCE TERMINAL.
4. USE MAXIMUM SPACINGS SHOWN UNLESS OTHERWISE JUSTIFIED BY CONSTRAINED CONDITIONS OR ABSENCE OF HEAVY VEHICLES (TRUCKS AND BUSES). PROJECT SUPERVISOR TO DETERMINE VEHICLE SPACING IN COORDINATION WITH NJTA OPERATIONS DEPARTMENT. NEED FOR VARYING VEHICLE SPACING DUE TO ROADWAY GEOMETRY, OVERPASSES, OBSTRUCTIONS OR OTHER SIGHT DISTANCE LIMITATIONS SHALL BE DISCUSSED AT PRE-MEETING PRIOR TO WORK.
5. THE PROJECT SUPERVISOR SITUATED IN THE VEHICLE LOCATED UPSTREAM OF TMA TYPE 3 OR TYPE 4 SHALL BE RESPONSIBLE FOR IDENTIFYING WHERE CONSTRAINED CONDITIONS REQUIRE VARIATIONS IN VEHICLE SPACINGS AND WHERE "EMERGING QUEUES" (TRAFFIC OPERATING AT 40 MPH OR SLOWER) REQUIRE ACTIONS AS DESCRIBED IN NOTES 10 AND 11.
6. FOR SINGLE LANE CLOSINGS WITH SHOULDERS 10 FEET OR GREATER IN WIDTH, THE FIRST SHADOW VEHICLE DOWNSTREAM OF THE STATE POLICE VEHICLE SHALL STRADDLE THE SHOULDER LINE AS SHOWN.
7. FOR TWO LANE CLOSINGS (STD. DWG. NOS. TP-31 AND TP-32), THE SECOND TMA TYPE 4 SHADOW VEHICLE SHALL STRADDLE THE LANE LINE AS SHOWN.
8. MOBILE CLOSING DETAILS ARE NOT APPLICABLE FOR CLOSURES OF MORE THAN TWO LANES. SHORT DURATION WORK REQUIRING CLOSURE OF MORE THAN TWO LANES SHALL INSTEAD BE ACCOMPLISHED USING NJ STATE POLICE SLOWDOWNS DURING HOURS APPROVED BY THE NJTA OPERATIONS DEPARTMENT. MOBILE CLOSINGS SHALL NOT BE USED TO CLOSE A CENTER LANE WITHOUT ALSO CLOSING THE ADJACENT LEFT OR RIGHT LANE AND SHOULDER.
9. ALL SHADOW VEHICLES WITH TRUCK MOUNTED ATTENUATORS SHALL BE EQUIPPED WITH AMBER FLASHING LIGHTS, ARROW BOARDS OR TRUCK MOUNTED VMS (DEPENDING ON TMA TYPE), AND A STATIC "SLOW MOVING VEHICLES" SIGN (MUTCD SIGN W21-4). NO SIGN SHALL BE MOUNTED ON THE REAR CHEVRON PATTERN OF THE ATTENUATOR MOUNTED TO THE SHADOW VEHICLE. ALL OTHER WORK VEHICLES SHALL BE EQUIPPED WITH AMBER FLASHING LIGHTS. ALTERNATIVE SIGN MESSAGES SHALL BE APPROVED BY THE NJTA OPERATIONS DEPARTMENT. FLASHING LIGHTS, ARROW BOARDS AND TRUCK MOUNTED VARIABLE MESSAGE SIGNS SHALL BE ACTIVATED AND ALL TRUCK MOUNTED ATTENUATORS SHALL BE LOWERED INTO POSITION PRIOR TO WORK VEHICLES ENTERING THE MAINLINE OR RAMP ROADWAY.
10. ON THE TURNPIKE, DISPLAY MESSAGES ON ALL OVERHEAD VMS (E.G. "MOVING LANE CLOSURE / NEXT X MILES", "MOVING CLOSURE / INTERCHANGE XX RAMP / BE PREPARED TO STOP", ETC.), AND REDUCE SPEED LIMIT TO 45 MPH ON ALL VARIABLE SPEED LIMIT SIGNS (VSLs) WITHIN THE WORK ZONE AND UP TO 3 MILES IN ADVANCE OF THE BEGINNING OF THE WORK ZONE. ON THE PARKWAY, DISPLAY MESSAGES (E.G. "MOVING LANE CLOSURE / NEXT X MILES / REDUCE SPEED", ETC.) ON ALL OVERHEAD VMS WITHIN THE WORK ZONE AND UP TO 3 MILES IN ADVANCE OF THE BEGINNING OF THE WORK ZONE. COORDINATE THESE EFFORTS WITH THE NJTA OPERATIONS DEPARTMENT. ALSO SEE NOTE 10.
11. THE PROJECT SUPERVISOR SHALL BE RESPONSIBLE FOR MONITORING "EMERGING QUEUES" (MAINLINE TRAFFIC OPERATING AT 40 MPH OR SLOWER) AS DESCRIBED IN NOTE 11. THE MESSAGE "BE PREPARED TO STOP" SHALL BE ACTIVATED TO ALTERNATE WITH THE LANE CLOSING MESSAGE ON OVERHEAD VMS AND, AS SHOWN IN THE "VARIABLE MESSAGE SIGN LEGENDS" DETAIL ON THIS DRAWING, ON TRUCK MOUNTED VMS (TMA TYPE 1 AND TMA TYPE 2) IN THE FOLLOWING CIRCUMSTANCES:
  - SINGLE LANE CLOSING: WHEN THE EMERGING QUEUE REACHES THE TMA TYPE 3 IN THE SHOULDER.
  - TWO LANE CLOSING: WHEN THE EMERGING QUEUE REACHES THE TMA TYPE 4 CLOSING THE FIRST LANE.

THE MESSAGE SHALL BE ACTIVATED ON THE TMA TYPE 1 AND TMA TYPE 2 TRUCK MOUNTED VMS AND THE OVERHEAD VMS IN ADVANCE OF AND THROUGHOUT THE WORK ZONE UNLESS/UNTIL EMERGING QUEUES DISSIPATE UPSTREAM OF THE TMA TYPE 3 (SINGLE LANE CLOSING) OR TMA TYPE 4 (TWO LANE CLOSING) SHADOW VEHICLE AND ARE NOT ANTICIPATED TO FORM AGAIN. THE PROJECT SUPERVISOR SHALL NOTIFY THE NJTA OPERATIONS DEPARTMENT WHEN THE MESSAGE IS ACTIVATED AND WHEN IT IS DEACTIVATED.
12. THE PROJECT SUPERVISOR SHALL BE RESPONSIBLE FOR MONITORING QUEUING. WHEN QUEUES OR "EMERGING QUEUES" (MAINLINE TRAFFIC OPERATING AT 40 MPH OR SLOWER) REACH THE TMA TYPE 2 SHADOW VEHICLE, THE PROJECT SUPERVISOR SHALL HAVE ALL WORK VEHICLES LEAVE THE ROADWAY AS PER NOTE 12 AND SHALL NOTIFY THE NJTA OPERATIONS DEPARTMENT.
13. IF ALL WORK VEHICLES MUST LEAVE THE ROADWAY DUE TO QUEUING AS DESCRIBED IN NOTE 11 OR IF INSTRUCTED TO LEAVE THE ROADWAY BY NEW JERSEY STATE POLICE OR THE NJTA OPERATIONS DEPARTMENT, WORK VEHICLES SHALL ASSUME THE POSTED SPEED LIMIT AND SAFELY LEAVE THE TRAVEL LANES WHERE POSSIBLE. WORK VEHICLES MAY NOT PULL TO THE SHOULDER BUT MUST USE AN EXIT, MAINTENANCE YARD, U-TURN ROADWAY, ETC. THE PROJECT SUPERVISOR SHALL COORDINATE WITH THE STATE POLICE, THE NJTA OPERATIONS DEPARTMENT OR BOTH AS APPROPRIATE AS TO WHETHER AND WHEN MOBILE OPERATIONS MAY RESUME.
14. WORK ZONE LIGHTING SHALL BE POSITIONED AND DIRECTED SO AS NOT TO INTERFERE WITH DRIVERS' VISION OR WITH THE VISIBILITY OF TRAFFIC CONTROL DEVICES, INCLUDING TRUCK MOUNTED ARROW BOARDS AND VMS.
15. MOBILE OPERATIONS SHALL REMAIN CONTINUOUSLY MOVING WHILE WORK IS BEING PERFORMED. UNDER NO CIRCUMSTANCES SHALL OPERATIONS REMAIN STATIONARY.
16. EXCEPT AS PROVIDED IN NOTE 16, THE MINIMUM DISTANCE BETWEEN WORK ZONES IS THREE (3) MILES AS DEFINED BELOW:
  - FROM THE LAST CONE OF AN UPSTREAM STATIONARY WORK ZONE TO THE BEGINNING MILEPOST OF THE MOBILE CLOSING.
  - FROM THE END MILEPOST OF THE MOBILE CLOSING TO THE FIRST CONE OF A DOWNSTREAM STATIONARY WORK ZONE.
  - FROM THE END MILEPOST OF THE UPSTREAM MOBILE CLOSING TO THE BEGINNING MILEPOST OF THE DOWNSTREAM MOBILE CLOSING.
17. A MOBILE CLOSING SHALL NOT BE INSTALLED WITHIN A SHORT TERM LANE OR SHOULDER CLOSING. WITHIN A LONG TERM SHOULDER CLOSING, A MOBILE LANE CLOSING MAY ONLY BE INSTALLED IF THE SHOULDER CLOSING IS LESS THAN 500 FEET IN LENGTH, LANES ARE NOT SHIFTED AND WORKERS ARE NOT PRESENT.

MESSAGES SHALL BE DISPLAYED IN TWO PHASES AT ALL TIMES.



App.	No.	DATE	REVISION
	0	08/15	REISSUED DRAWING

NEW JERSEY TURNPIKE AUTHORITY	
<b>MOBILE CLOSING - 1</b>	
OFFICE OF THE CHIEF ENGINEER	STANDARD DRAWING
	TP-28