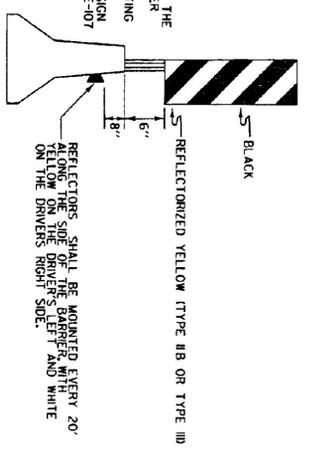
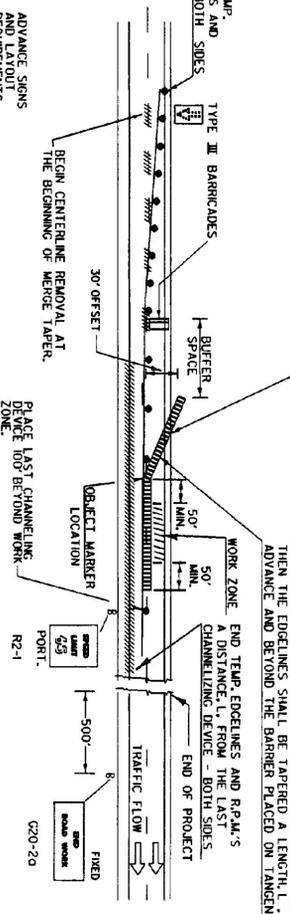


TRAVEL LANE REQUIREMENTS

BARRIER SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE CENTERLINE TO ALLOW THE TRAFFIC TO USE THE NORMAL LANE WIDTH.
 EDGELINES SHALL BE REMOVED AND NEW TEMPORARY TAPE EDGELINES APPLIED. THE DRIVER'S LEFT EDGELINE SHALL BE A MINIMUM OF ONE FOOT (TWO FEET IS DESIRABLE) FROM BARRIER. TRAVEL LANE SHALL BE 12 FEET WIDE.
 THE TEMPORARY TAPE EDGELINES SHALL BE OF A TYPE WHICH CAN BE COMPLETELY REMOVED AFTER THE PROJECT IS COMPLETED WITHOUT SCARRING OR MARKING THE PAVEMENT SURFACE. PAYMENT FOR THE TAPE MARKINGS SHALL BE UNDER THE APPROPRIATE ITEM NUMBERS.
 PAVEMENT MARKING REMOVALS SHALL BE PAID UNDER THE APPROPRIATE ITEM NUMBER. TEMPORARY TAPE REMOVAL IS NOT PAID UNDER THE REMOVAL ITEM. IT IS SUBSIDIARY TO THE TAPE ITEM.
 THE RAISED PAVEMENT MARKERS (RPM'S) SHALL BE OF A TYPE WHICH CAN BE EASILY REMOVED AND THEY SHALL BE PLACED TO THE OUTSIDE OF THE TEMPORARY TAPE PAVEMENT MARKINGS. THE RPM'S SHALL BE SPACED AT 20 FT. AS AN INTEGRAL PART OF THE TEMPORARY TAPE PAVEMENT MARKINGS. THEN THE COST OF THE RAISED MARKERS SHALL BE CONSIDERED A PART OF THE TEMPORARY PAVEMENT MARKING. PAYMENT FOR THE RPM'S SHALL NOT BE REQUIRED.

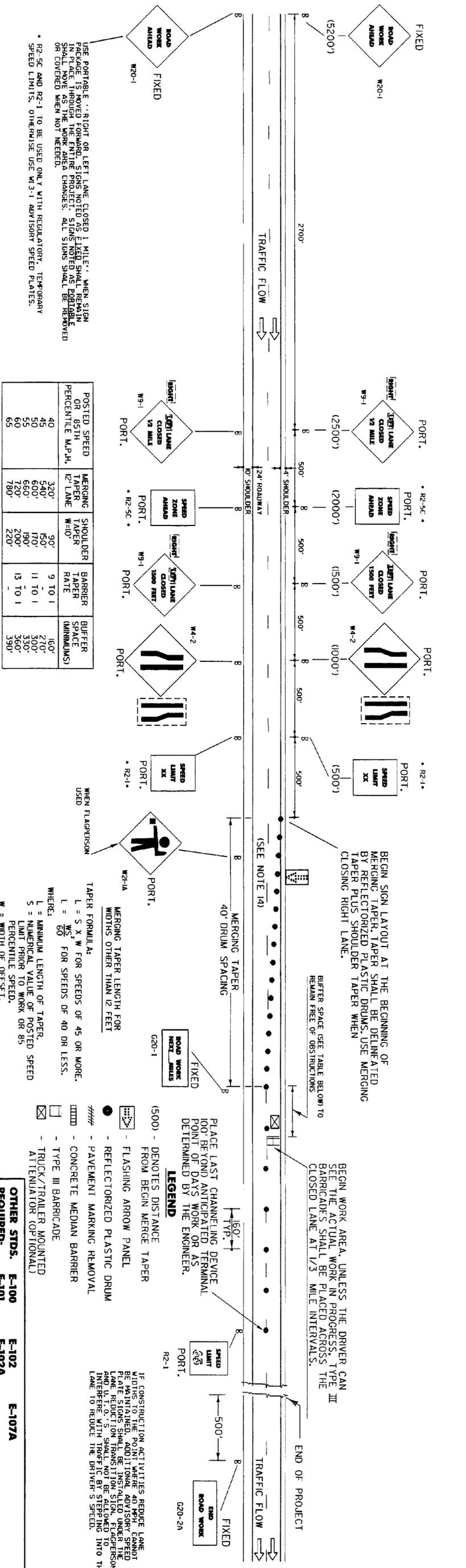


CONCRETE MEDIAN BARRIER: PROVIDE A MINIMUM TAPER RATE AS SHOWN IN THE TABLE BELOW WITH A MINIMUM OF 50 FT. OF TANGENT SECTION ON EACH END OF THE WORK ZONE. THE END OF THE BARRIER SECTION APPROXIMATELY 100 FEET FROM THE BEGINNING OF THE BARRIER SECTION. IF THE BARRIER IS PLACED SUCH THAT THE TEMPORARY TAPE EDGELINES DO NOT COVER THE EXISTING DASHED LINE, THEN THE BARRIER SHALL BE COVERED BY THE TEMPORARY TAPE EDGELINES. IF GUARDRAIL IS PRESENT, THEN CONCRETE BARRIER CAN BE TAPERED TO A DISTANCE BEYOND THE DEFLECTION DISTANCE OF THE GUARDRAIL. IF A 30' OFFSET IS NOT ATTAINABLE OR TO A DISTANCE BEYOND THE DEFLECTION DISTANCE OF THE GUARDRAIL, A TANGENT SECTION SHALL BE PROVIDED.
 BEGIN TEMP. EDGELINES AND SIGNS
 TYPE III BARRICADES
 BEGIN CENTERLINE REMOVAL AT THE BEGINNING OF MERGE TAPER.
 ADVANCE SIGNS AND REQUIREMENTS ARE THE SAME AS SHOWN BELOW USING TRIED SIGN MOUNTING THROUGHOUT



ONE LANE CLOSED WITH POSITIVE BARRIER PROTECTION

- NOTES**
- WHEN CONSTRUCTION EQUIPMENT IS WORKING AT OR NEAR THE EXIT OR ENTRANCE RAMP, FLAGPERSONS OR UNIFORMED TRAFFIC CONTROL OFFICERS (UTO'S) SHOULD BE USED TO ASSIST IN CONTROLLING TRAFFIC. SEE STD. E-106 FOR TRAFFIC CONTROL DETAILS.
 - ALL SIGNS SHALL BE PLACED BEFORE ANY WORK BEGINS OR EQUIPMENT IS PUT ON THE ROADWAY. SIGNS SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE. SEE STANDARD SHEET E-100 FOR REQUIREMENTS.
 - CONTRACTOR SHALL HAVE CHANNELIZING DEVICES AND SIGNS FOR LEFT SIDE CLOSURE AND RIGHT SIDE CLOSURE ON PROJECT BEFORE STARTING PROJECT.
 - EXISTING SPEED LIMIT SIGNS SHALL BE COVERED WHEN REDUCED SPEED SIGNS ARE POSTED.
 - CHANNELIZING DEVICES OTHER THAN REFLECTORIZED PLASTIC DRUMS WILL BE ALLOWED ALONG TANGENT SECTIONS AS LONG AS THEY CONFORM TO THE M.U.T.C.D. AND ARE APPROVED BY THE NEAREST ENGINEER. THE TYPE OF DEVICE SHALL BE CONSISTENT THROUGHOUT THE TANGENT SECTION.
 - THE "SPEED LIMIT XX" AND OTHER RELATED SIGNS SHALL BE REMOVED OR COVERED WHEN WORK IS NOT IN PROGRESS AND ROADWAY IS NOT RESTRICTED.
 - REDUCED SPEED AHEAD SIGNS MAY BE USED IN LIEU OF "SPEED ZONE AHEAD".
 - FOR RELATIVELY SHORT TERM PROJECTS WITH NO OFFICIAL SPEED ZONE ENACTMENT, A SPEED LIMIT AND REDUCED SPEED LIMIT SIGNS CAN BE SUBSTITUTED WITH ADVISORY SPEED PLACARDS ROUNDED AS SUPPLEMENTAL SIGNS ON OTHER WARNING SIGNS.
 - ALL FIXED SIGNS SHALL BE MOUNTED ON YIELDING STEEL, ALUMINUM OR WOOD SUPPORTS AS SHOWN ON APPROPRIATE STANDARD SHEETS.
 - PORTABLE SIGNS SHALL BE KEPT LEVEL WITH PLACED ON THE EDGE OF ROADWAY BE RE-AND ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED FROM THE SIGN. PORTABLE SIGNS SHALL BE PLACED ABOVE THE TOP OF THE GUARDRAIL.
 - WARNING LIGHTS SHALL NOT BE USED ON CHANNELIZING DEVICES.
 - THE NUMBER OF CHANNELIZING DEVICES, TYPE III BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHOWN ON THIS SHEET ARE FOR ILLUSTRATIVE PURPOSES ONLY. THE ACTUAL NUMBER REQUIRED ARE TO BE DETERMINED BASED ON INDIVIDUAL DETOUR CONDITIONS (TAPERS, SPEED LIMITS, LENGTH OF DETOUR CURVE, ETC.).
 - FOR ANY LONG TERM CLOSURE (GREATER THAN 3 DAYS) EXISTING CENTERLINE SIGNS SHALL BE REMOVED AND TEMPORARY EDGELINES PLACED AS SHOWN WITH POSITIVE BARRIER.



POSTED SPEED OR 85TH PERCENTILE M.P.H.	MERGING TAPER PERCENTAGE	SHOULDER TAPER PERCENTAGE	BARRIER TAPER RATE	BUFFER SPACE (MINIMUMS)
40	320'	90'	9 TO 1	150'
45	540'	150'	11 TO 1	270'
50	600'	170'	11 TO 1	300'
55	660'	190'	13 TO 1	330'
60	720'	200'	13 TO 1	360'
65	780'	220'	13 TO 1	390'

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPROVEMENTS
 FHWA FINAL APPROVAL PERMITS

MAINLINE TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED

STANDARD E-103

REVISIONS AND CORRECTIONS
 OCT. 30, 1987 - DATE OF ORIGINAL ISSUE
 JAN. 23, 1989 - FHWA COMMENTS - CHANGE TO 65 M.P.H. TAPER RATES
 OCT. 21, 1992 - ADDED TAPER RATE TABLE & REVISED TITLE BLOCK
 AUG. 08, 1995 - DELETED AN INVALID NOTE

1/10 of std/std0103.dgn : std0103.1

