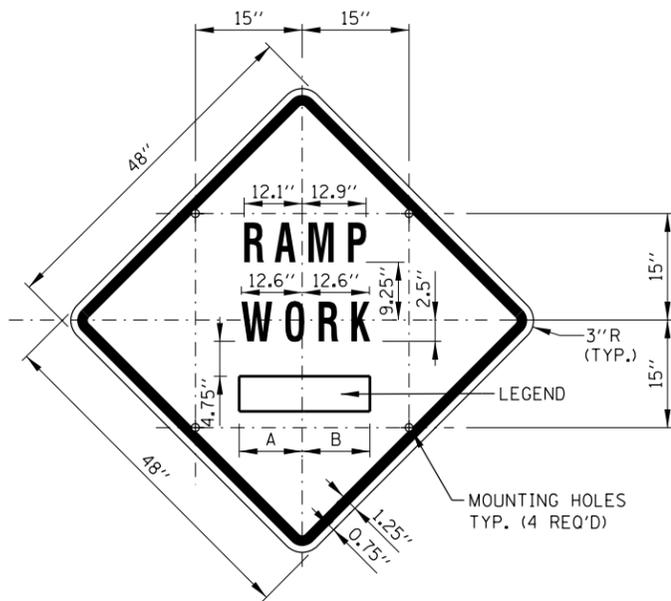


Illinois Tollway Standard Drawing Revisions
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Section E Maintenance of Traffic		Effective: 03-01-2024
Standard	Modification Summary	
E2-11	Lane Closure Details	
Sheet 1	Revised matchline callout	
Sheet 2	Revised matchline callouts	
	Deleted sign designation for arrow boards	
	Reduced Work Zone Area width for One-Lane Closure with Barrier & One-Lane Closure with Barricade	
	Revised Note 18 and added callout for Note 18 for Lane Closures with Barricades	
	Added Trailer Mounted Radar Speed Display Units	
Sheet 3	Added callout for work restrictions for free-standing TCB for One - Lane Closure with Barrier	
	Reduced Work Zone Area width for Two- and Three- Lane Closures with Barricade	
	Added callout for Note 18 for Lane Closures with Barricades	
E3-10	Shoulder Closure Details	
	Revised Notes 1 and 2. Replaced edge of pavement with edge of traveled way	
	Reduced Work Zone Area width for Work Zone with Barricades and Work Zone with Barriers	
	Added callout for Note 2 to Work Zone with Barricades	
E6-08	Contractor Access to Work Area	
	Sheet 2	Added Note 15 callout for Contractor Access to Work Area Without Barrier Wall

 New Sheet

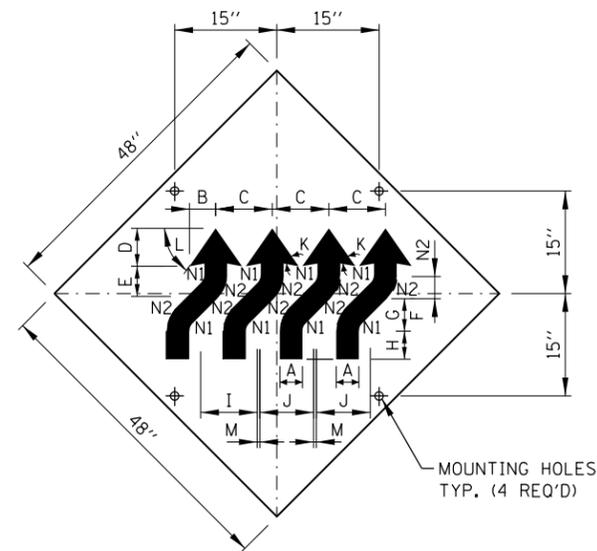
 Retired Standard



SIGN TS-2 (O)

COLOR: BACKGROUND - FLUORESCENT ORANGE (O)
 BORDER AND SYMBOL - BLACK
 SIZE: 48"x48"
 LETTERING: 7" FEDERAL SERIES D
 MOUNTING HOLES: 7/16" DIA., 4 HOLES SPACED AS SHOWN

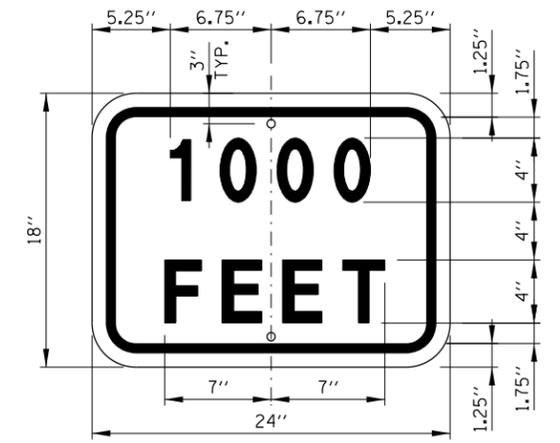
SIGN NO.	LEGEND	A	B
TS-2A	AHEAD	15.50"	15.50"
TS-2B	500 FT	14.25"	15.13"
TS-2C	1000 FT	14.88" L2	15.75" L2
TS-2D	1500 FT	14.88" L2	15.75" L2
TS-2E	1/2 MILE	15.75" L3	15.75" L3
TS-2F	1 MILE	13.06"	13.06"



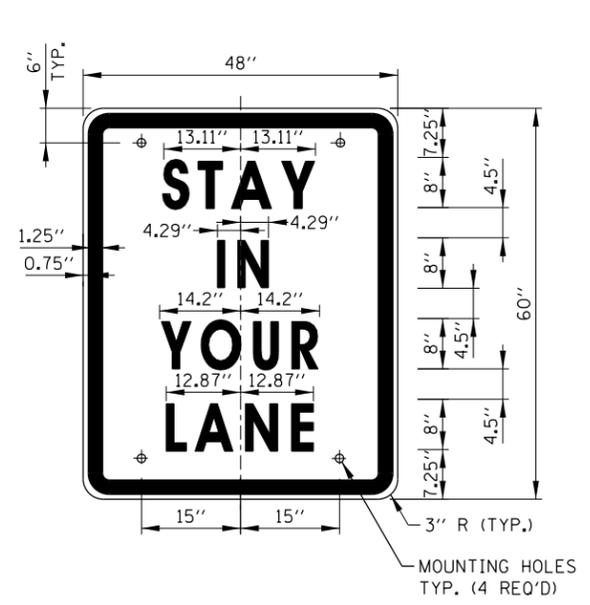
SIGN W1-4dR (O)

COLOR: BACKGROUND-FLUORESCENT ORANGE (O)
 TYPE A REFLECTIVE SHEETING PER STANDARD SPECIFICATIONS (*A)
 BORDER AND LETTERS-BLACK
 SIZE: 48"x48"
 MOUNTING HOLES: 7/16" DIA., 4 HOLES SPACED AS SHOWN.

A	4 1/2"
B	5 3/4"
C	12 1/2"
D	7 3/4"
E	6 1/2"
F	4 1/2"
G	6 1/2"
H	6"
I	12 3/4"
J	12"
K	45°
L	55°
M	3/4"
N1	2"
N2	6 1/2"

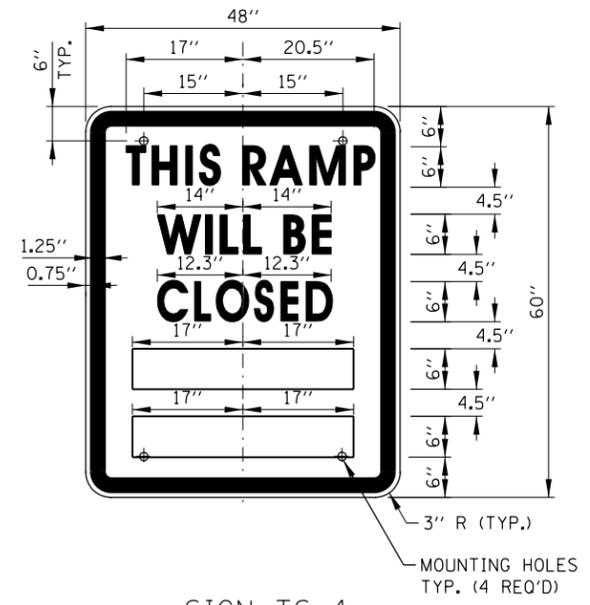


COLOR: BACKGROUND - FLUORESCENT ORANGE (O)
 BORDER AND LETTERS - BLACK
 SIZE: 24"x18"
 LETTERING: 4" FEDERAL SERIES D
 MOUNTING HOLES: 7/16" DIA., 2 HOLES SPACED AS SHOWN



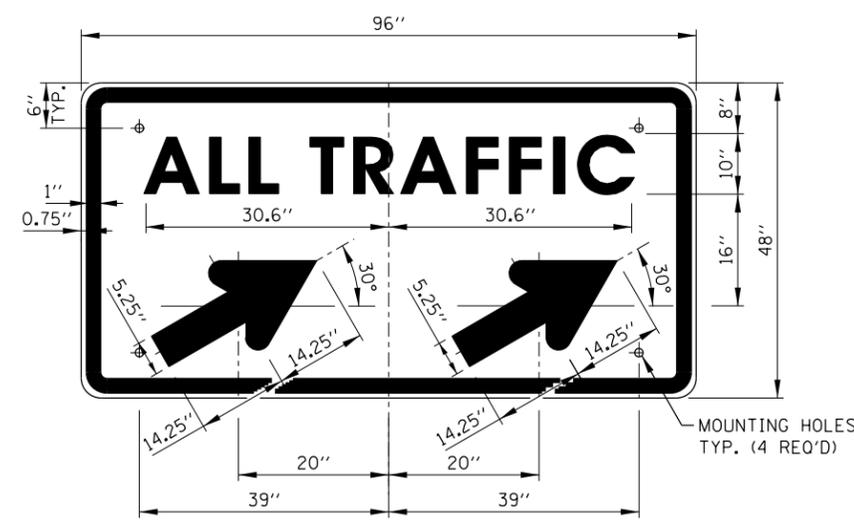
SIGN TS-3

COLOR: BACKGROUND - WHITE (REFLECTORIZED) (*A)
 BORDER AND LETTERS - BLACK
 SIZE: 48"x60"
 LETTERING: LEGEND - 8" FEDERAL SERIES D
 MOUNTING HOLES: 7/16" DIA., 4 HOLES, SPACED AS SHOWN



SIGN TS-4

COLOR: BACKGROUND - WHITE (REFLECTORIZED)(*A)
 BORDER AND LETTERS - BLACK
 SIZE: 48"x60"
 LETTERING: LEGEND - 6" FEDERAL SERIES C
 MOUNTING HOLES: 7/16" DIA., 4 HOLES, SPACED AS SHOWN



SIGN TS-5a & TS-5b

COLOR: BACKGROUND - WHITE (REFLECTORIZED)(*A)
 BORDER AND LETTERS - BLACK
 ARROW - BLACK
 SIZE: 96"x48"
 LETTERING: 10" FEDERAL SERIES D
 MOUNTING HOLES: 7/16" DIA., 4 HOLES, SPACED AS SHOWN
 NOTE: SIGN TS-5a IS SHOWN, SUBSTITUTE LEGEND "▲" FOR "▲" FOR SIGN TS-5b

NOTES:

- ALL LETTERING IS DESIGNATED BY SIZE AND SERIES IN ACCORDANCE WITH THE LATEST EDITION OF "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" AS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION. LETTERING SPACING SHALL BE IN ACCORDANCE WITH THIS GUIDE EXCEPT WHERE NOTED.
- SYMBOLS AND ARROWS SHALL CONFORM TO THE DETAILS SHOWN IN THE LATEST EDITION OF "STANDARD HIGHWAY SIGNS" AS PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION.
- SEE THE CONTRACT REQUIREMENTS FOR ADDITIONAL NOTES AND SPECIFICATIONS.
 (O) FLUORESCENT ORANGE REFLECTIVE SHEETING PER THE STANDARD SPECIFICATIONS.
 (*A) - REFLECTIVE SHEETING PER THE STANDARD SPECIFICATIONS.
- DIMENSIONS INDICATED THUS L ARE BASED ON A REDUCTION IN STANDARD LETTERING SPACING AS SHOWN BELOW:
 L1 SPACING REDUCED BY 25%
 L2 SPACING REDUCED BY 40%
 L3 SPACING REDUCED BY 50%

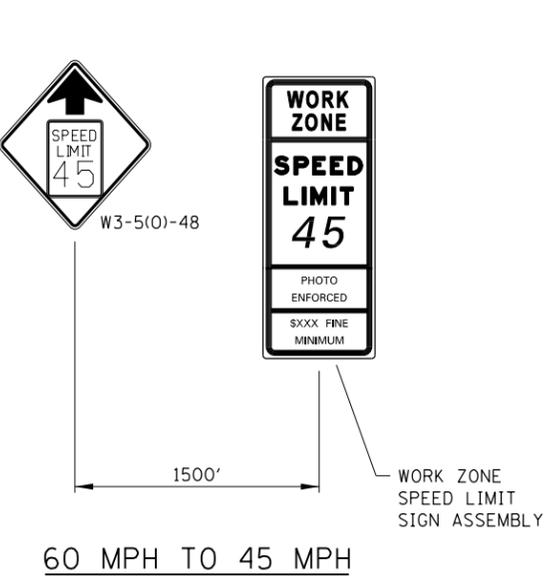
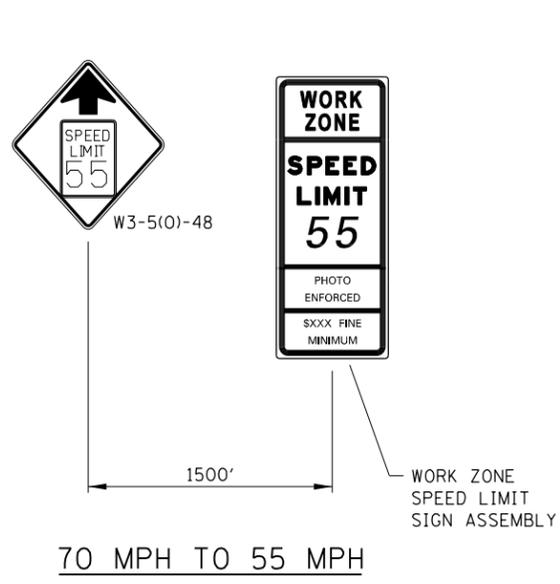
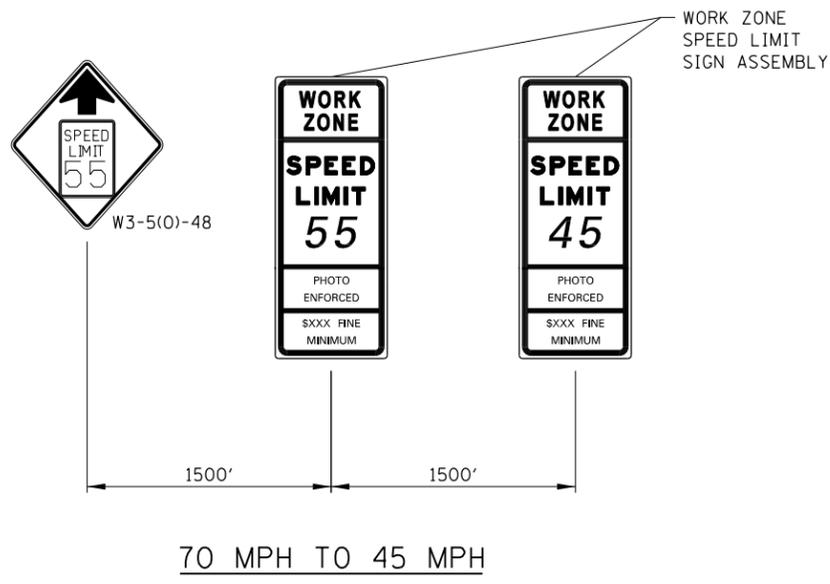
RAMP CLOSURE ADVANCE INFORMATION SIGN

THE VARIABLE MESSAGE WITH DATES FOR THE BOTTOM TWO LINES SHALL BE DETERMINED BY THE ENGINEER AND GIVEN TO THE CONTRACTOR BEFORE THE REQUIRED FIELD ERECTION DATE.

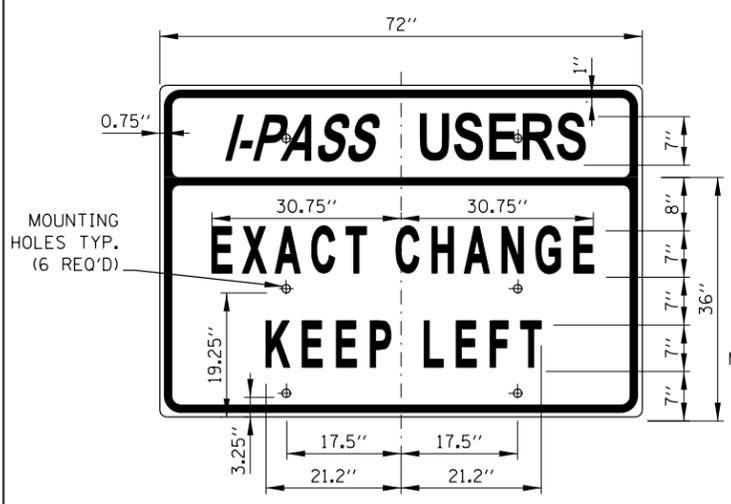
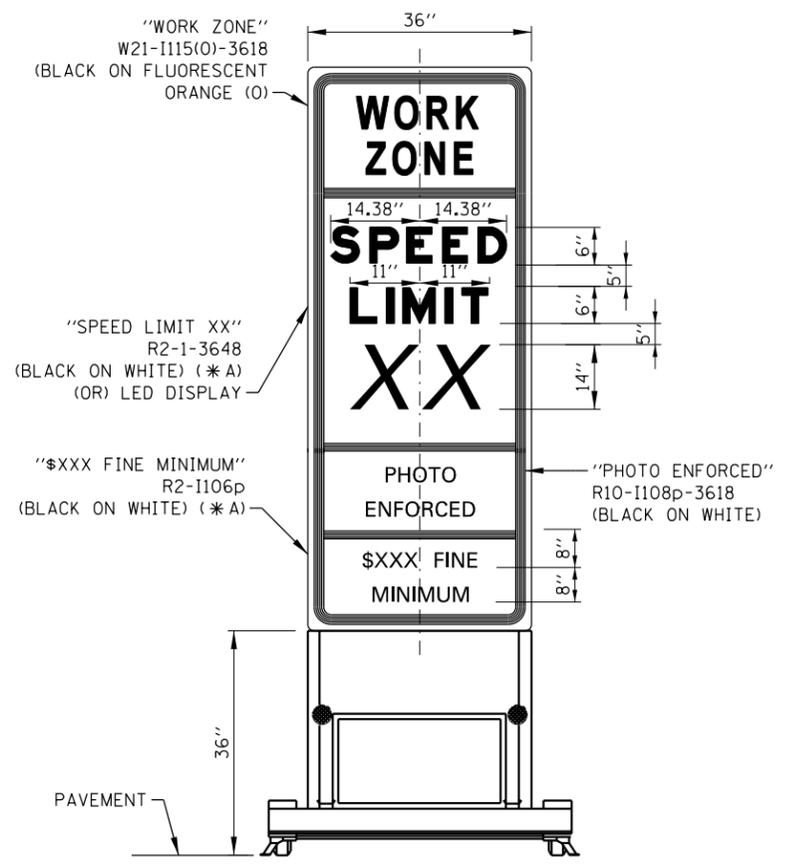
APPROVED BY: *Paul Kovacs* CHIEF ENGINEERING OFFICER
 DATE: 05/01/2009

DATE	REVISIONS
3-01-2019	REMOVED STANDARD IDOT SIGNS, REVISED WZSL ASSEMBLY, ADDED WZSL TRANSITION
3-31-2017	REVISED END WZSL SIGN COLOR
3-11-2015	REVISED NOTES

CONSTRUCTION SIGNS
 STANDARD E1-07

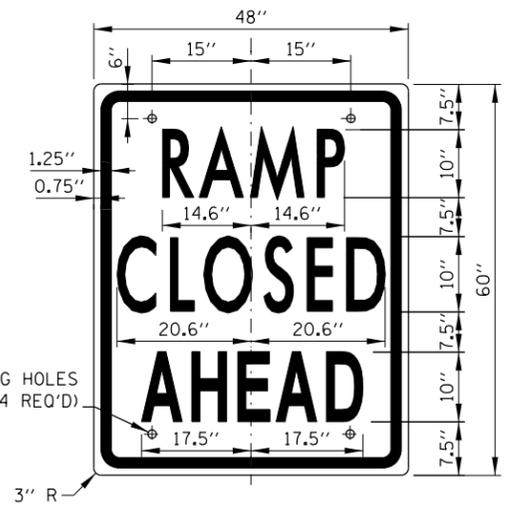


WORK ZONE SPEED LIMIT TRANSITION SIGNAGE



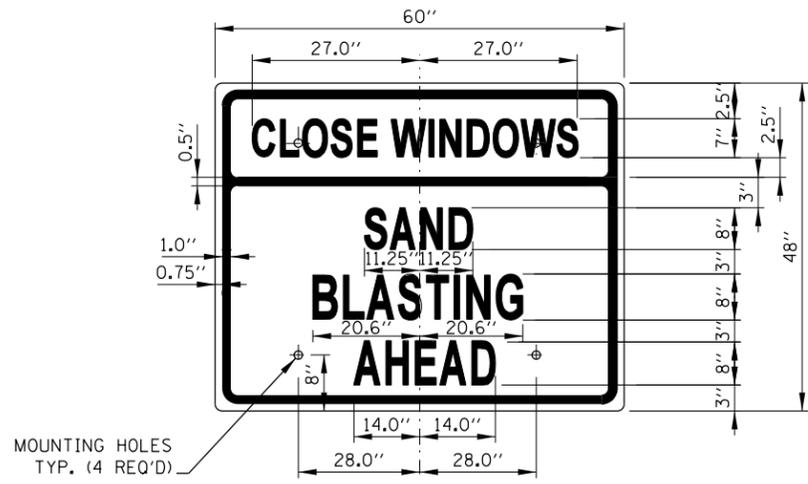
SIGN TS-7

COLOR: BACKGROUND - WHITE (REFLECTORIZED) (* A)
 BORDER AND LETTERS - BLACK
 SIZE: 72"x36"
 LETTERING: 7" FEDERAL SERIES C
 MOUNTING HOLES: 1/16" DIA., 4 HOLES SPACED AS SHOWN



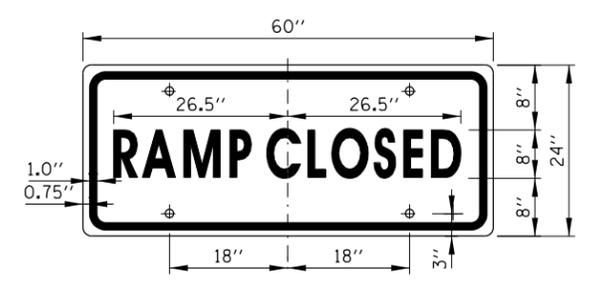
SIGN TS-9

COLOR: BACKGROUND - WHITE (REFLECTORIZED) (* A)
 BORDER AND LETTERS - BLACK
 SIZE: 48"x60"
 LETTERING: 10" FEDERAL SERIES C
 MOUNTING HOLES: 1/16" DIA., 4 HOLES SPACED AS SHOWN



SIGN TS-10 (O)

COLOR: BACKGROUND - FLUORESCENT ORANGE (O)
 BORDER AND LETTERS - BLACK
 SIZE: 60"x48"
 LETTERING: 8" FEDERAL SERIES C, 7" FEDERAL SERIES B
 MOUNTING HOLES: 1/16" DIA., 4 HOLES SPACED AS SHOWN



SIGN TS-6

COLOR: BACKGROUND - WHITE (REFLECTORIZED) (* A)
 BORDER AND LETTERS - BLACK
 SIZE: 60"x24"
 LETTERING: 8" FEDERAL SERIES C
 MOUNTING HOLES: 1/16" DIA., 4 HOLES SPACED AS SHOWN

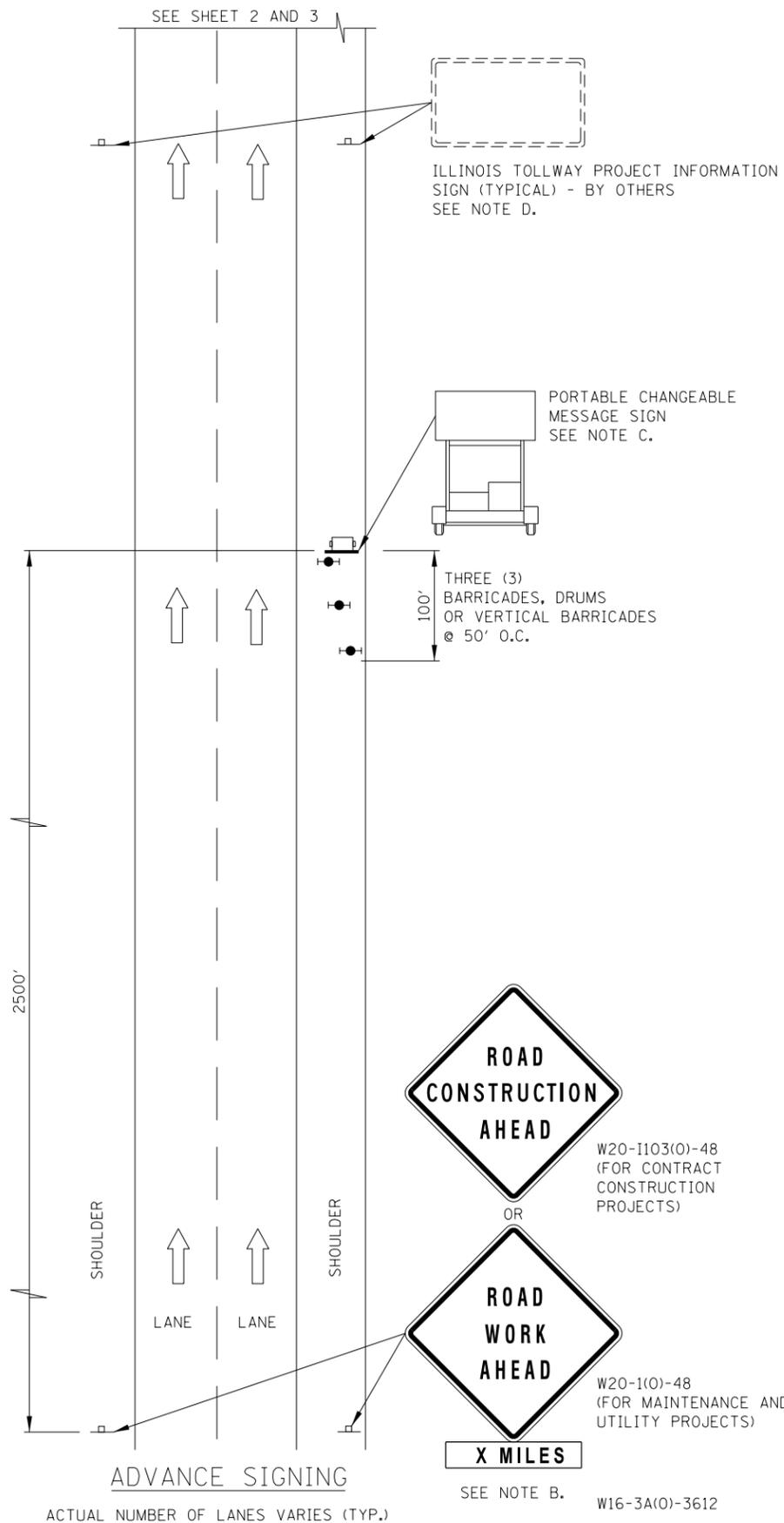


CONSTRUCTION SIGNS

STANDARD E1-07

APPROVED BY: *Paul Kovacs*
 CHIEF ENGINEERING OFFICER
 DATE: 05/01/2009

NOTE:
 SEE SHEET 1 OF THIS SERIES FOR NOTES.



ADVANCE SIGNING NOTES:

- A. THE ADVANCE SIGNING SHOWN ON THIS STANDARD SHALL APPLY ANY TIME THE CONTRACTOR CLOSES ONE OR MORE LANES, OR IS REQUIRED TO SHIFT THE LANE ALIGNMENT. THE "ROAD WORK AHEAD" OR "ROAD CONSTRUCTION AHEAD" SIGNS, WORK ZONE PUBLIC INFORMATION SIGNS AND PORTABLE CHANGEABLE MESSAGE ARE STATIONARY.
- B. THE ROAD CONSTRUCTION AHEAD SIGN (W20-1A, WITH W16-3a SUPPLEMENTAL PLATE) OR ROAD WORK AHEAD SIGN (W20-1, WITH W16-3A SUPPLEMENTAL PLATE) SHALL BE LOCATED UP TO 5 MILES IN ADVANCE OF THE PROJECT LIMITS, WITH THE LOCATION BEING DETERMINED BY THE ENGINEER.
- C. THE PORTABLE CHANGEABLE MESSAGE SIGN SHALL BE USED TO DISPLAY THE STATUS OF LANE WITHIN THE CONTRACT LIMITS. THE PRIMARY MESSAGES SHALL BE: "RIGHT LANE(S) CLOSED" / "X MILES AHEAD", "LEFT LANE(S) CLOSED" / "X MILES AHEAD", "LANE(S) SHIFT" / "X MILES AHEAD", "ALL LANES OPEN". THE PORTABLE CHANGEABLE MESSAGE SIGN MAY BE MOVED TO THE MEDIAN SHOULDER WHEN THE LANE CLOSURES ARE ON THE LEFT, PROVIDED THE EXISTING SHOULDER WIDTH IS ADEQUATE.
- D. THE ILLINOIS TOLLWAY WILL FURNISH AND INSTALL STATIC PROJECT INFORMATION SIGNS IN ADVANCE, THROUGH AND AT THE END OF THE WORK ZONE. THESE SIGNS WILL BE INSTALLED ALONG THE OUTSIDE SHOULDER WITH THE ADVANCE SIGNS LOCATED BEYOND THE PORTABLE CHANGEABLE MESSAGE SIGN. THE ENGINEER AND CONTRACTOR SHALL COORDINATE WITH THE ILLINOIS TOLLWAY REGARDING THE LOCATION OF THESE SIGNS AND NOTIFY THE ILLINOIS TOLLWAY OF ANY DAMAGE TO THE SIGNS OR SUPPORTS.

LEGEND

- ARROW BOARD
- WORK AREA
- SIGN
- DIRECTION INDICATOR BARRICADE WITH SEQUENTIAL FLASHING WARNING LIGHT
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5)
- FLAGGER WITH TRAFFIC CONTROL SIGN
- WORKER
- LANE CLOSED
- CHECK BARRICADE
- TRUCK MOUNTED ATTENUATOR

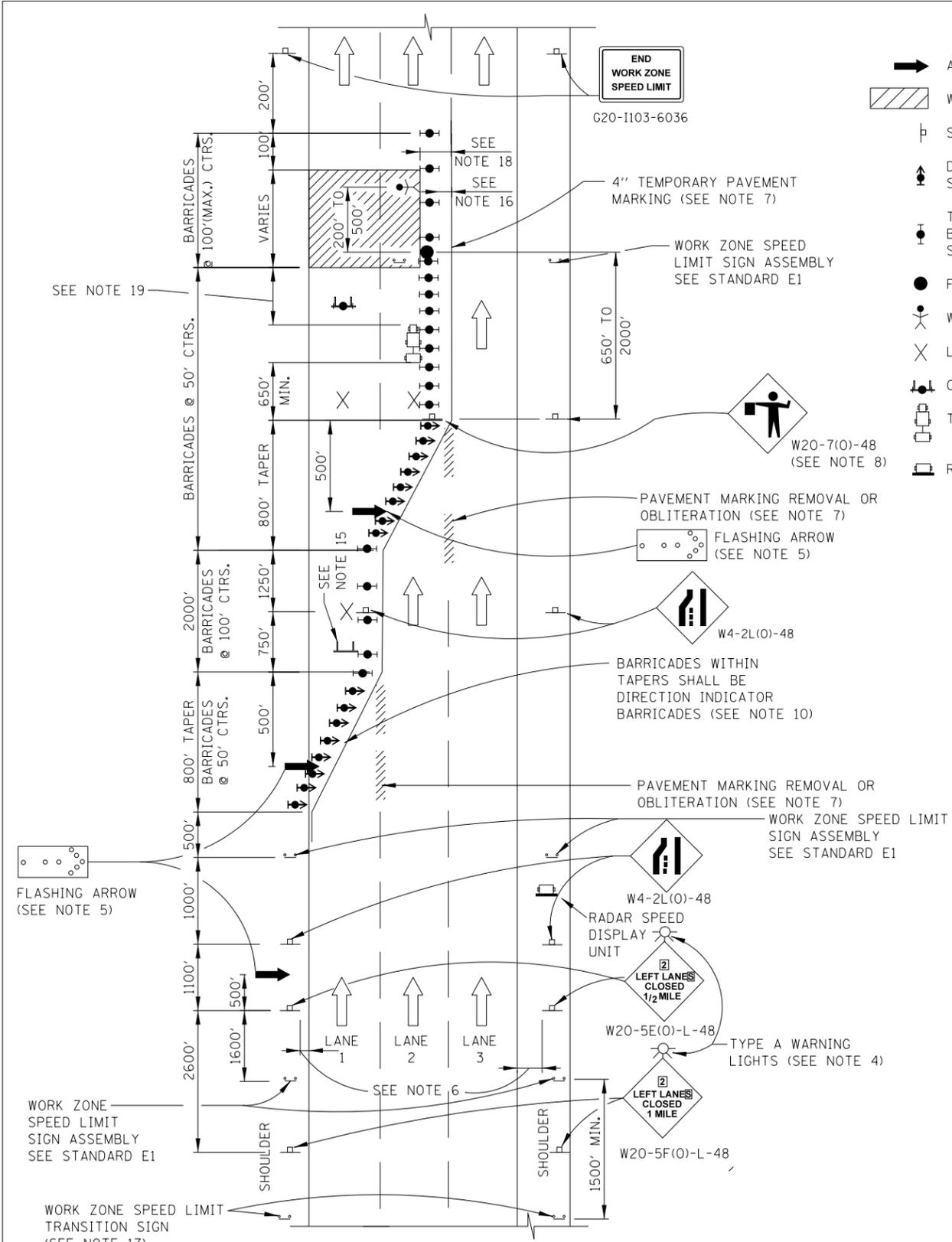


DATE	REVISIONS
3-01-2024	REVISED MATCHLINE DETAIL & NOTE 18
	ADDED NOTE 18 CALLOUT, RSDU SIGN & LEGEND, CALLOUT FOR FREE-STANDING
	TCB WITH BARRIER
3-01-2021	DELETED WORK ZONE PUBLIC INFORMATION SIGN.

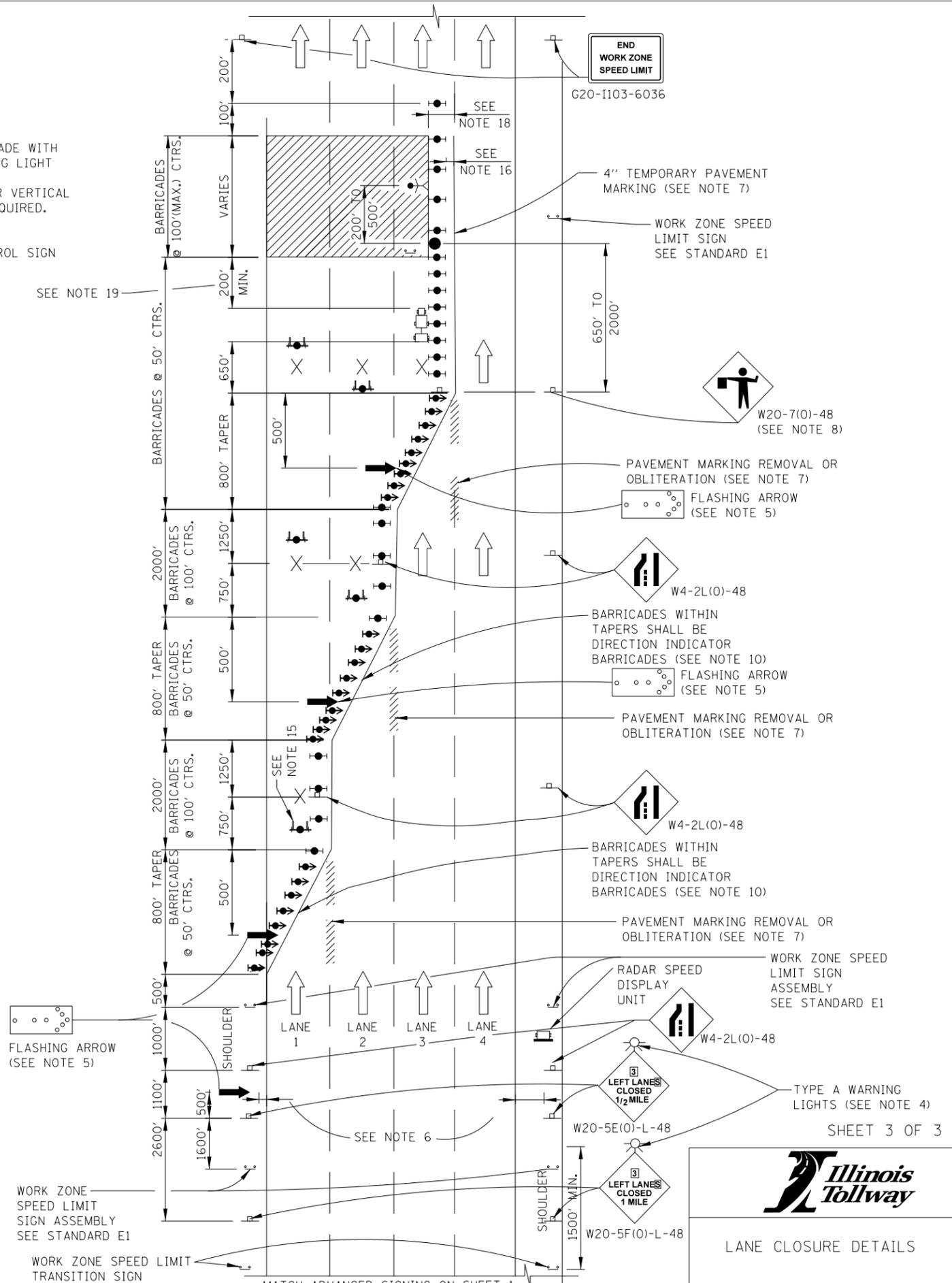
APPROVED BY: *Mamun Nashif*
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

LEGEND

-  ARROW BOARD
-  WORK AREA
-  SIGN
-  DIRECTION INDICATOR BARRICADE WITH SEQUENTIAL FLASHING WARNING LIGHT
-  TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5)
-  FLAGGER WITH TRAFFIC CONTROL SIGN
-  WORKER
-  LANE CLOSED
-  CHECK BARRICADE
-  TRUCK MOUNTED ATTENUATOR
-  RADAR SPEED DISPLAY UNIT



MATCH ADVANCED SIGNING ON SHEET 1
TWO - LANE CLOSURE WITH BARRICADE
 ACTUAL NUMBER OF LANES VARIES (TYP.)



MATCH ADVANCED SIGNING ON SHEET 1
THREE - LANE CLOSURE WITH BARRICADE

APPROVED BY: *Mamun Nashif*
 CHIEF ENGINEERING OFFICER
 DATE: 03/01/2024

SEE SHEET 1 IN THIS SERIES FOR NOTES

SHEET 3 OF 3



LANE CLOSURE DETAILS

STANDARD E2-11

GENERAL NOTES:

1. THE SHOULDER SHALL BE CLOSED WHEN A WORK ACTIVITY REQUIRING 15 OR MORE MINUTES IS PERFORMED AT A DISTANCE WHICH IS LESS THAN 15 FEET BUT NO CLOSER THAN 2 FEET FROM THE EDGE OF TRAVELED WAY.
2. THE ADJACENT EXTERIOR LANE SHALL BE CLOSED WHEN WORK IS PERFORMED WITHIN 2 FEET FROM THE EDGE OF TRAVELED WAY.
3. THE CHANNELIZING DEVICES WHICH SEPARATE THE WORK SPACE FROM THE ADJACENT TRAVEL LANE SHALL BE SPACED AT 25' FOR (200 FEET) AND AT A MAXIMUM OF 50' FOR ALL ADDITIONAL DEVICES.
4. WHEN THE WORK SITE IS UNATTENDED, SUBSTITUTE - "SHOULDER WORK AHEAD" SIGN.
5. WORKER SIGNS OR SHOULDER WORK SIGNS AND CHANNELIZATION DEVICES ARE PLACED ONLY ON THE SIDE OF THE ROADWAY ON WHICH THE ACTIVITY IS PERFORMED.
6. FOR SHOULDER CLOSURE EXTENDING OVERNIGHT, BARRICADE TYPE II SHALL BE USED. SEE ARTICLE 701.05(a)(5) FOR BARRICADE LIGHT REQUIREMENTS
7. FOR SHORT TERM CLOSURE (SUNRISE TO ONE HOUR BEFORE SUNSET) NOT EXTENDING INTO DARKNESS, CONES MAY BE USED.
8. ONE WORK ZONE SPEED LIMIT SIGN ASSEMBLY SHALL BE PLACED AT A DISTANCE OF 500' TO 2,500' MAXIMUM IN ADVANCE OF WORKERS THROUGHOUT THE SHOULDER CLOSURE. MOVING OPERATIONS MAY REQUIRE CONTINUOUS ADJUSTMENT OF THE SIGN ASSEMBLY LOCATION TO MAINTAIN THE ABOVE INTERVAL.
9. AN ADDITIONAL SIGN ASSEMBLY SHALL BE PLACED 500' BEYOND THE LAST ENTRANCE RAMP FOR EACH INTERCHANGE THAT FALLS WITHIN THE 2,500'.
10. THE SIGN ASSEMBLY SHALL BE PLACED NO CLOSER THAN 500' TO ANY OTHER SIGN.
11. THE WORK ZONE SPEED LIMIT SIGNS AND SIGN ASSEMBLY SHALL BE PROMPTLY REMOVED OR COVERED WHEN SHOULDER CLOSURE IS REMOVED.
12. ALL CONFLICTING SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED.
13. "END WORK ZONE SPEED LIMIT" SIGNS SHALL BE IN PLACE ONLY WHEN THE EXISTING POSTED SPEED > 55MPH.
14. FOR SHOULDER REPAIRS OR REPLACEMENT THE CHANNELIZING DEVICES SHALL BE PLACED AT THE EDGE OF PAVEMENT WHENEVER THE WORK ACTIVITIES RESULT IN A DROP OFF AT THE EDGE OF PAVEMENT.
15. ANY UNATTENDED OBSTACLE OR EXCAVATION LEFT ON THE SHOULDER OVERNIGHT SHALL BE IN COMPLIANCE WITH THE ROADWAY TRAFFIC CONTROL AND COMMUNICATIONS MANUAL.
16. A 1'-0" MINIMUM/2'-0" DESIRABLE SHY DISTANCE SHALL BE PROVIDED, MEASURED BETWEEN EDGE OF PAVEMENT LANE MARKING TO THE EDGE OF THE TRAFFIC CONTROL DEVICE.
17. SEE STANDARD E1 FOR ADDITIONAL SIGNAGE REQUIRED WHEN WORK ZONE SPEED LIMIT IS REDUCED BY MORE THAN 10 MPH.
18. IN WORK ZONES WITH NO POSITIVE PROTECTION, A TRUCK MOUNTED ATTENUATOR SHALL BE PROVIDED WITH A BUFFER AREA BETWEEN THE FRONT OF THE TMA AND WORKERS OR EQUIPMENT. THE BUFFER AREA SHALL BE 200' UNLESS OTHERWISE DETERMINED. WHERE WORKERS OR EQUIPMENT ARE PRESENT BEYOND THE WORK AREA, AN ADDITIONAL TMA SHALL BE PROVIDED FOR EACH WORK AREA IS DEFINED AS STARTING AT THE END OF THE BUFFER AREA, EXTENDING 1000 FEET BEYOND THIS POINT.

END WORK ZONE SPEED LIMIT

G20-I103-6036 (SEE NOTE 13)

TAPER RATES

WORK ZONE SPEED (mph)	SHY LINE (ft.)	BARRIER INSIDE SHY LINE	BARRIER AT OR BEYOND SHY LINE
65	8.5	28:1	19:1
60	8	26:1	18:1
55	7	24:1	16:1
50	6.5	21:1	14:1
45	6	18:1	12:1
40	5	16:1	10:1
35	4.5	15:1	9:1
30	4	13:1	8:1

END WORK ZONE SPEED LIMIT

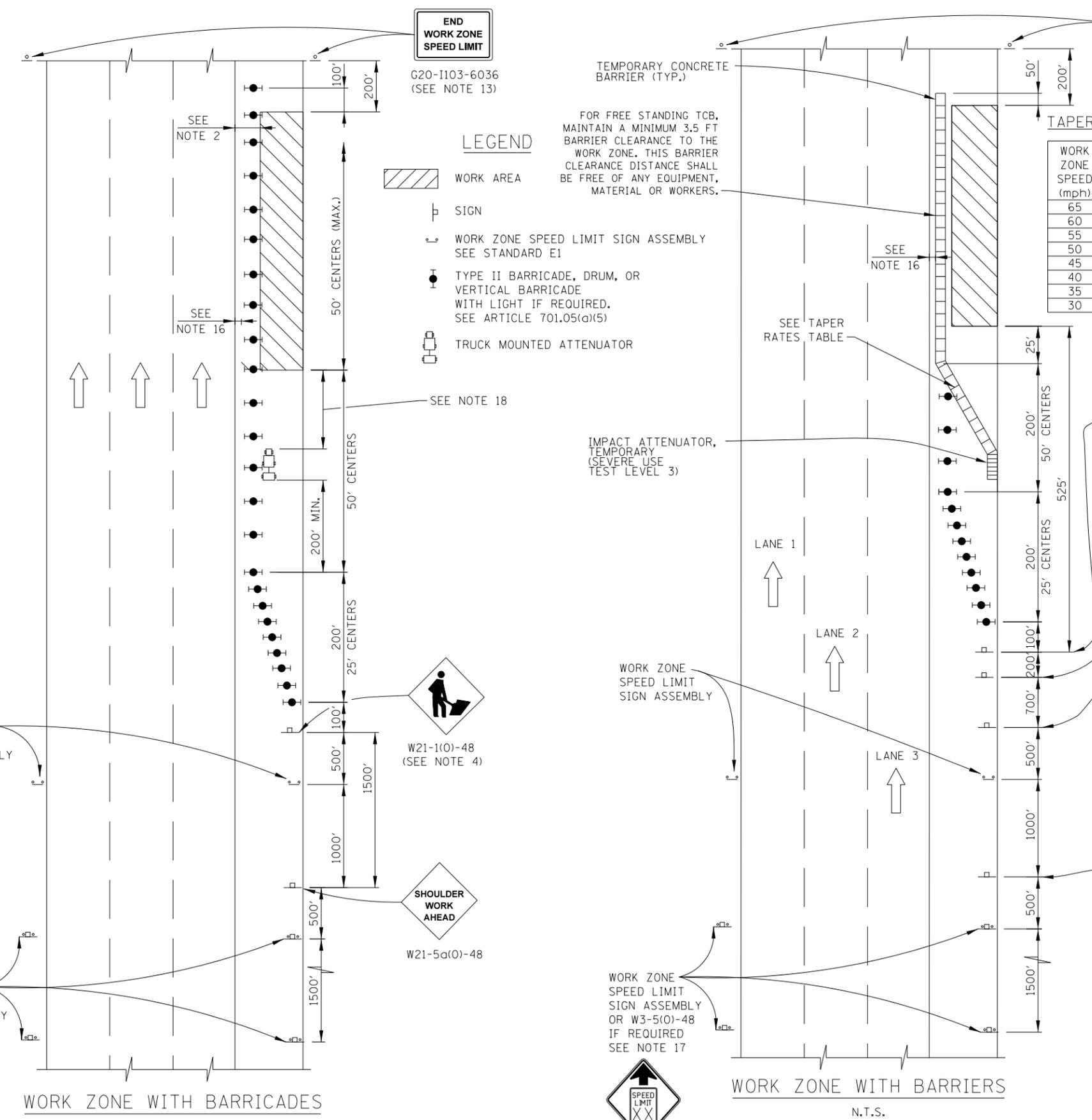
G20-I103-6036 (SEE NOTE 13)

LEGEND

- WORK AREA
- SIGN
- WORK ZONE SPEED LIMIT SIGN ASSEMBLY SEE STANDARD E1
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5)
- TRUCK MOUNTED ATTENUATOR

FOR FREE STANDING TCB, MAINTAIN A MINIMUM 3.5 FT BARRIER CLEARANCE TO THE WORK ZONE. THIS BARRIER CLEARANCE DISTANCE SHALL BE FREE OF ANY EQUIPMENT, MATERIAL OR WORKERS.

IMPACT ATTENUATOR, TEMPORARY (SEVERE USE TEST LEVEL 3)



WORK ZONE WITH BARRICADES
N.T.S.

WORK ZONE WITH BARRIERS
N.T.S.



W3-5(0)-48
WORK ZONE SPEED LIMIT SIGN ASSEMBLY OR W3-5(0)-48 IF REQUIRED SEE NOTE 17



W21-1(0)-48 (SEE NOTE 4)



W21-5a(0)-48



W21-1(0)-48 (SEE NOTE 4)



W21-5a(0)-48



W21-5b(0)-48



W21-5a(0)-48



W3-5(0)-48

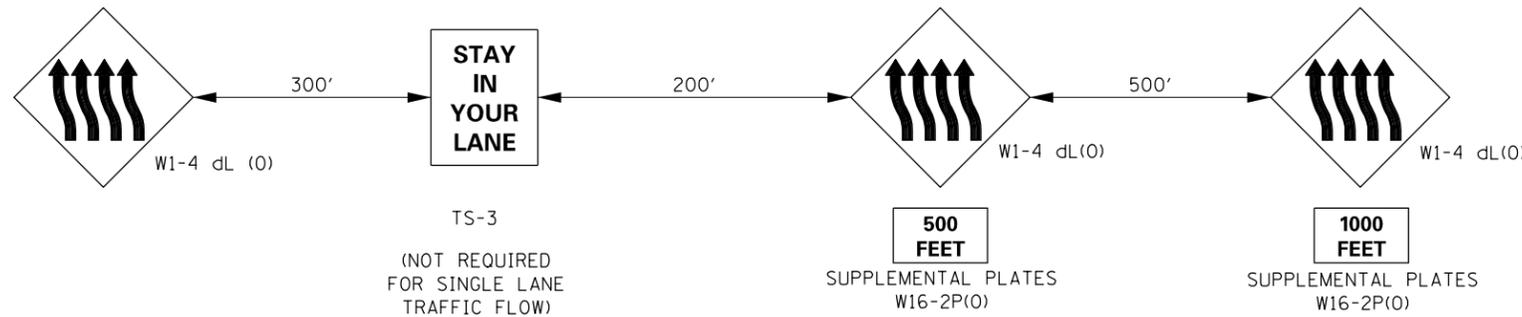
APPROVED BY: *Mamun Nashif*
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

DATE	REVISIONS
3-01-2024	REVISED NOTE 1, 2 AND 6, ADDED CALLOUT FOR NOTE 2, REDUCED WORK ZONE HATCH
3-01-2021	DELETED WORK ZONE PUBLIC INFORMATION SIGN

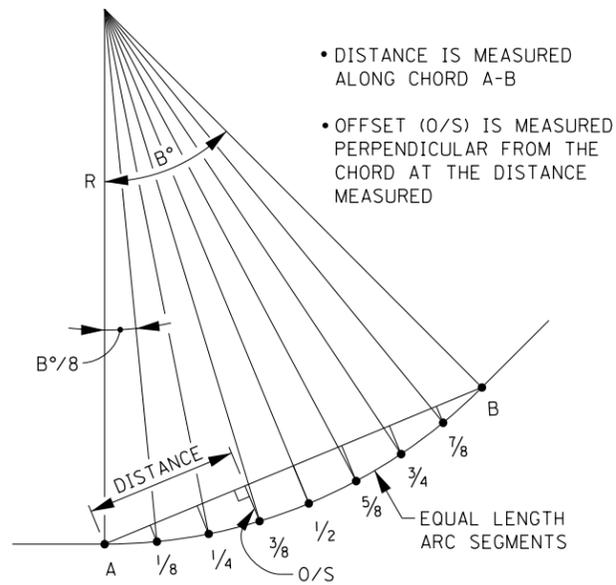
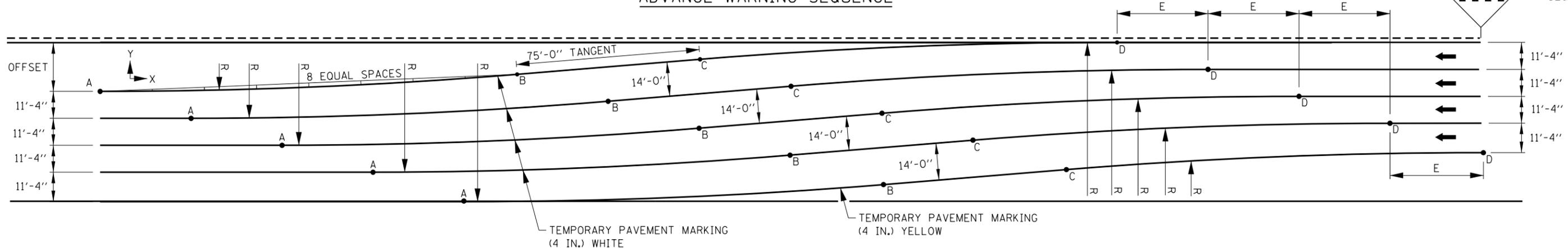
Illinois Tollway

SHOULDER CLOSURE DETAILS

STANDARD E3-10



ADVANCE WARNING SEQUENCE



CHORD OFFSET SKETCH

- DISTANCE IS MEASURED ALONG CHORD A-B
- OFFSET (O/S) IS MEASURED PERPENDICULAR FROM THE CHORD AT THE DISTANCE MEASURED

GENERAL NOTES:

1. REVERSE CURVE INFORMATION CAN BE USED FOR SINGLE LANE OR MULTILANE TRAFFIC FLOWS, SHIFTING RIGHT TO LEFT (AS SHOWN) OR LEFT TO RIGHT BY CHANGING TO THE APPROPRIATE ADVANCE WARNING SEQUENCE.
2. THE REVERSE CURVE SHALL NOT BE USED OUTSIDE THE ACTIVITY AREA. LANE SHIFTS IN ADVANCE OF OR ON THE APPROACH TO THE ACTIVITY AREA SHALL BE IMPLEMENTED WITH A SHIFT RATE OF 65:1.
3. LANE SHIFTS FOR DEPARTURES OUT OF THE ACTIVITY AREA SHALL BE IMPLEMENTED WITH A SHIFT RATE OF 65:1.

APPROVED BY: *Paul Kovacs*
CHIEF ENGINEERING OFFICER
 DATE: 02/07/2012

DATE	REVISIONS
3-31-2017	REVISED TABLE DATA ON SHEET 2.
3-31-2016	REVISED TABLE DATA ON SHEET 2.
3-11-2015	REVISED NOTES AND ADDED RADIUS DIMENSIONS TO TABLES.
3-31-2014	REVISED CURVE DATA PER MPH AND REVISED NOTES.

SHEET 1 OF 2

**MAINTENANCE OF TRAFFIC
REVERSE CURVE**

STANDARD E4-07

TYPE I (45 MPH) (RADIUS: 2100')

TYPE II (50-55 MPH) (RADIUS: 3100')

OFFSET	POINT LAY-OUT											
	E		B		A		B		C		D	
	X	Y	X	Y	X	Y	X	Y	X	Y		
10	50.23	3.06	0	0	112.2	3.0	187.1	7.0	299.2	10.0		
12	44.94	3.43	0	0	125.6	3.8	200.4	8.2	326.0	12.0		
14	40.96	3.77	0	0	138.0	4.5	212.8	9.5	350.8	14.0		
16	37.86	4.08	0	0	149.5	5.3	224.3	10.7	373.9	16.0		
18	35.34	4.38	0	0	160.4	6.1	235.2	11.9	395.6	18.0		
20	33.26	4.66	0	0	170.7	7.0	245.5	13.0	416.2	20.0		
22	31.50	4.93	0	0	180.5	7.8	255.3	14.2	435.8	22.0		
24	30.00	5.19	0	0	189.9	8.6	264.6	15.4	454.6	24.0		
26	28.68	5.44	0	0	199.0	9.4	273.6	16.6	472.6	26.0		
28	27.53	5.67	0	0	207.7	10.3	282.3	17.7	489.9	28.0		
30	26.51	5.90	0	0	216.0	11.1	290.6	18.9	506.7	30.0		
32	25.59	6.13	0	0	224.2	12.0	298.7	20.0	522.9	32.0		
34	24.76	6.34	0	0	232.0	12.9	306.6	21.1	538.6	34.0		
36	24.02	6.55	0	0	239.7	13.7	314.2	22.3	553.8	36.0		
38	23.33	6.76	0	0	247.1	14.6	321.6	23.4	568.7	38.0		
40	22.71	6.96	0	0	254.3	15.5	328.8	24.5	583.1	40.0		
42	22.13	7.15	0	0	261.4	16.3	335.8	25.7	597.2	42.0		
44	21.60	7.34	0	0	268.3	17.2	342.7	26.8	611.0	44.0		
46	21.11	7.53	0	0	275.0	18.1	349.4	27.9	624.4	46.0		
48	20.65	7.71	0	0	281.6	19.0	356.0	29.0	637.6	48.0		
50	20.22	7.89	0	0	288.1	19.9	362.4	30.1	650.5	50.0		
52	19.82	8.06	0	0	294.4	20.7	368.7	31.3	663.1	52.0		
54	19.44	8.23	0	0	300.6	21.6	374.9	32.4	675.5	54.0		
56	19.09	8.40	0	0	306.7	22.5	380.9	33.5	687.7	56.0		
58	18.76	8.56	0	0	312.7	23.4	386.9	34.6	699.6	58.0		
60	18.44	8.73	0	0	318.6	24.3	392.7	35.7	711.4	60.0		

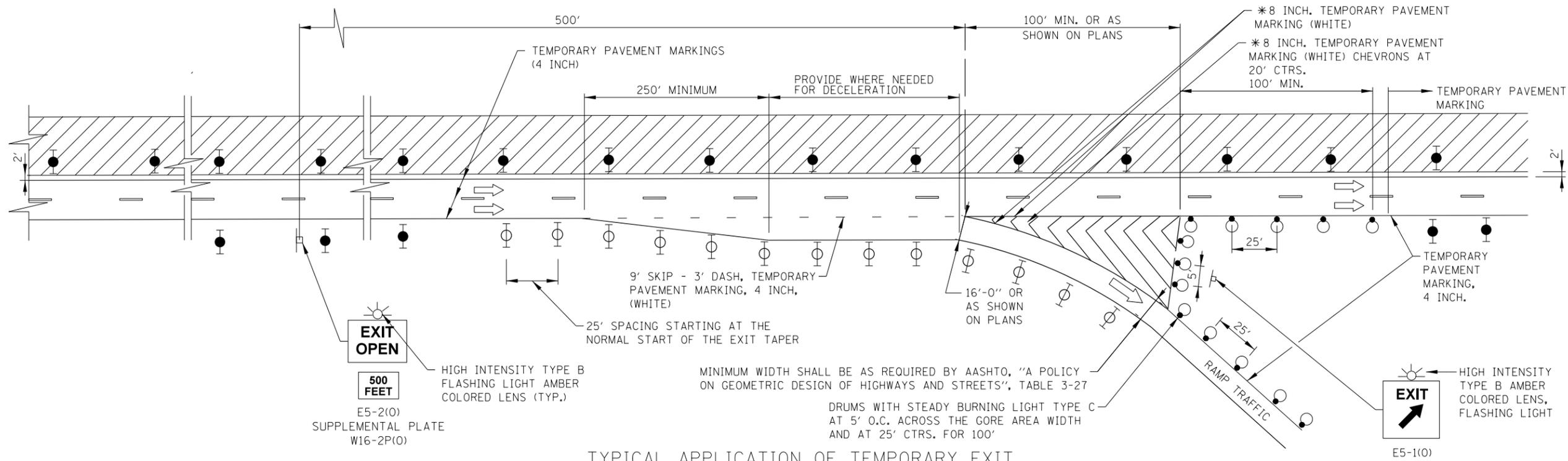
CHORD OFFSET DATA							
1/8 & 7/8		1/4 & 3/4		3/8 & 5/8		1/2	
O/S	DIST	O/S	DIST	O/S	DIST	O/S	DIST
0.3	14.0	0.6	28.0	0.7	42.1	0.7	56.1
0.4	15.7	0.7	31.4	0.9	47.1	0.9	62.8
0.5	17.3	0.9	34.5	1.1	51.8	1.1	69.0
0.6	18.7	1.0	37.4	1.2	56.1	1.3	74.8
0.7	20.1	1.2	40.1	1.4	60.2	1.5	80.3
0.8	21.4	1.3	42.7	1.6	64.1	1.7	85.4
0.9	22.6	1.5	45.2	1.8	67.8	1.9	90.4
0.9	23.8	1.6	47.5	2.0	71.3	2.2	95.1
1.0	24.9	1.8	49.8	2.2	74.7	2.4	99.6
1.1	26.0	1.9	52.0	2.4	78.0	2.6	104.0
1.2	27.0	2.1	54.1	2.6	81.1	2.8	108.2
1.3	28.0	2.3	56.1	2.8	84.2	3.0	112.2
1.4	29.0	2.4	58.1	3.0	87.1	3.2	116.2
1.5	30.0	2.6	60.0	3.2	90.0	3.4	120.0
1.6	30.9	2.7	61.9	3.4	92.8	3.7	123.8
1.7	31.8	2.9	63.7	3.6	95.5	3.9	127.4
1.8	32.7	3.1	65.4	3.8	98.2	4.1	131.0
1.9	33.6	3.2	67.2	4.0	100.8	4.3	134.4
2.0	34.4	3.4	68.9	4.2	103.3	4.5	137.8
2.1	35.2	3.6	70.5	4.5	105.8	4.7	141.1
2.2	36.1	3.7	72.2	4.7	108.3	5.0	144.4
2.3	36.9	3.9	73.7	4.9	110.7	5.2	147.6
2.4	37.6	4.1	75.3	5.1	113.0	5.4	150.7
2.5	38.4	4.2	76.8	5.3	115.3	5.6	153.8
2.6	39.2	4.4	78.3	5.5	117.6	5.9	156.8
2.7	39.9	4.6	79.8	5.7	119.8	6.1	159.8

OFFSET	POINT LAY-OUT											
	E		B		A		B		C		D	
	X	Y	X	Y	X	Y	X	Y	X	Y		
10	58.28	2.63	0	0	142.5	3.3	217.4	6.7	359.9	10.0		
12	52.30	2.94	0	0	158.9	4.1	233.8	7.9	392.8	12.0		
14	47.80	3.22	0	0	174.1	4.9	249.0	9.1	423.1	14.0		
16	44.25	3.48	0	0	188.3	5.7	263.1	10.3	451.4	16.0		
18	41.38	3.73	0	0	201.6	6.6	276.4	11.4	478.0	18.0		
20	38.99	3.96	0	0	214.2	7.4	289.0	12.6	503.2	20.0		
22	36.96	4.18	0	0	226.2	8.3	301.0	13.7	527.2	22.0		
24	35.22	4.40	0	0	237.7	9.1	312.5	14.9	550.1	24.0		
26	33.70	4.60	0	0	248.7	10.0	323.5	16.0	572.1	26.0		
28	32.36	4.80	0	0	259.3	10.9	334.0	17.1	593.3	28.0		
30	31.16	4.99	0	0	269.5	11.7	344.2	18.3	613.8	30.0		
32	30.10	5.17	0	0	279.4	12.6	354.1	19.4	633.6	32.0		
34	29.13	5.35	0	0	289.0	13.5	363.7	20.5	652.7	34.0		
36	28.25	5.52	0	0	298.4	14.4	373.0	21.6	671.4	36.0		
38	27.45	5.69	0	0	307.4	15.3	382.1	22.7	689.5	38.0		
40	26.72	5.86	0	0	316.3	16.2	390.9	23.8	707.1	40.0		
42	26.04	6.02	0	0	324.9	17.1	399.5	24.9	724.3	42.0		
44	25.41	6.17	0	0	333.3	18.0	407.9	26.0	741.1	44.0		
46	24.83	6.32	0	0	341.5	18.9	416.1	27.1	757.6	46.0		
48	24.29	6.47	0	0	349.6	19.8	424.1	28.2	773.6	48.0		
50	23.78	6.62	0	0	357.4	20.7	431.9	29.3	789.4	50.0		
52	23.31	6.76	0	0	365.2	21.6	439.6	30.4	804.8	52.0		
54	22.86	6.91	0	0	372.7	22.5	447.2	31.5	819.9	54.0		
56	22.44	7.04	0	0	380.2	23.4	454.6	32.6	834.8	56.0		
58	22.05	7.18	0	0	387.5	24.3	461.9	33.7	849.4	58.0		
60	21.67	7.31	0	0	394.7	25.2	469.1	34.8	863.7	60.0		

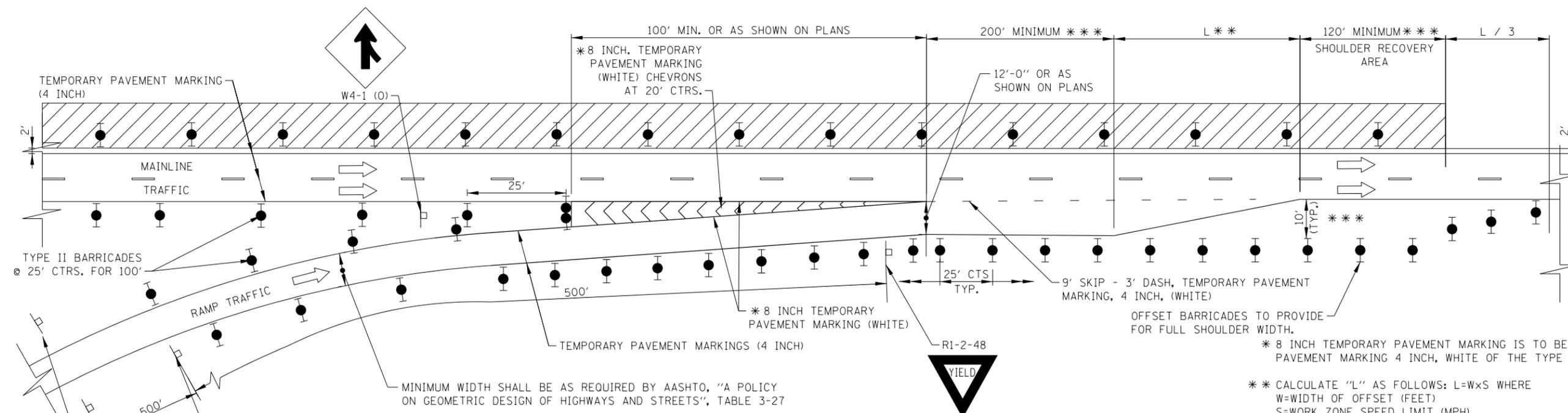
CHORD OFFSET DATA							
1/8 & 7/8		1/4 & 3/4		3/8 & 5/8		1/2	
O/S	DIST	O/S	DIST	O/S	DIST	O/S	DIST
0.4	17.8	0.6	35.6	0.8	53.4	0.8	71.3
0.4	19.9	0.8	39.7	1.0	59.6	1.0	79.5
0.5	21.8	0.9	43.5	1.1	65.3	1.2	87.1
0.6	23.5	1.1	47.1	1.3	70.6	1.4	94.2
0.7	25.2	1.2	50.4	1.5	75.6	1.6	100.8
0.8	26.8	1.4	53.6	1.7	80.4	1.9	107.2
0.9	28.3	1.5	56.6	1.9	84.9	2.1	113.2
1.0	29.7	1.7	59.5	2.1	89.2	2.3	118.9
1.1	31.1	1.9	62.2	2.3	93.3	2.5	124.4
1.2	32.4	2.0	64.9	2.5	97.3	2.7	129.8
1.3	33.7	2.2	67.4	2.8	101.2	2.9	134.9
1.4	34.9	2.4	69.9	3.0	104.9	3.2	139.9
1.5	36.2	2.5	72.3	3.2	108.5	3.4	144.7
1.6	37.3	2.7	74.7	3.4	112.0	3.6	149.4
1.7	38.5	2.9	76.9	3.6	115.4	3.8	153.9
1.8	39.6	3.0	79.1	3.8	118.7	4.0	158.3
1.9	40.6	3.2	81.3	4.0	122.0	4.3	162.7
2.0	41.7	3.4	83.4	4.2	125.1	4.5	166.9
2.1	42.7	3.5	85.5	4.4	128.2	4.7	171.0
2.2	43.7	3.7	87.5	4.6	131.3	4.9	175.1
2.3	44.7	3.9	89.5	4.8	134.2	5.2	179.0
2.4	45.7	4.0	91.4	5.1	137.2	5.4	182.9
2.5	46.6	4.2	93.3	5.3	140.0	5.6	186.7
2.6	47.6	4.4	95.2	5.5	142.8	5.9	190.5
2.7	48.5	4.6	97.0	5.7	145.6	6.1	194.1
2.8	49.4	4.7	98.8	5.9	148.3	6.3	197.7

TYPE III (60-65 MPH) (RADIUS: 4400')

OFFSET	POINT LAY-OUT											
	E		B		A		B		C		D	
	X	Y	X	Y	X	Y	X	Y	X	Y		
10	67.06	2.29	0	0	175.6	3.5	250.5	6.5	426.1	10.0		
12	60.34	2.54	0	0	195.3	4.3	270.2	7.7	465.5	12.0		
14	55.24	2.78	0	0	213.5	5.2	288.4	8.8	501.8	14.0		
16	51.22	3.00	0	0	230.4	6.0	305.3	10.0	535.7	16.0		
18	47.95	3.21	0	0	246.3	6.9	321.2	11.1	567.5	18.0		
20	45.22	3.41	0	0	261.4	7.8	336.3	12.2	597.7	20.0		
22	42.90	3.59	0	0	275.8	8.6	350.6	13.4	626.4	22.0		
24	40.91	3.77	0	0	289.5	9.5	364.3	14.5	653.8	24.0		
26	39.16	3.94	0	0	302.6	10.4	377.5	15.6	680.1	26.0		
28	37.62	4.11	0	0	315.3	11.3	390.1	16.7	705.4	28.0		
30	36.24	4.27	0	0	327.5	12.2	402.3	17.8	729.9	30.0		
32	35.01	4.42	0	0	339.4	13.1	414.2	18.9	753.5	32.0		
34	33.90	4.57	0	0	350.8	14.0	425.6	20.0	776.4	34.0		
36	32.88	4.72	0	0	362.0	14.9	436.7	21.1	798.7	36.0		
38	31.95	4.86	0	0	372.8	15.8	447.5	22.2	820.4	38.0		
40	31.10	5.00	0	0	383.4	16.7	4					



TYPICAL APPLICATION OF TEMPORARY EXIT GORE DELINEATION AND SIGNING



TYPICAL APPLICATION OF TEMPORARY ENTRANCE GORE DELINEATION AND SIGNING

NOTES:

1. WHEN TEMPORARY PAVEMENT MARKING IS NOT REQUIRED, TEMPORARY GORES MAY BE DELINEATED BY DRUMS WITH STEADY BURN LIGHTS AT 25' C-C ACCORDING TO THE CONFIGURATIONS SHOWN.
2. THE TAPER LENGTHS ARE MINIMUMS. EXISTING ACCELERATION, DECELERATION, AND TAPER LENGTHS SHOULD BE PRESERVED TO THE EXTENT POSSIBLE.

LEGEND

	WORK AREA
	SIGN
	TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5) BARRICADE TYPE USED ON MAINLINE SHALL BE DIFFERENT THAN BARRICADE TYPE USED ON TAPER.
	DRUM WITH LIGHT IF REQUIRED SEE ARTICLE 701.05(a)(5)
	TYPE III BARRICADE

* 8 INCH TEMPORARY PAVEMENT MARKING IS TO BE MADE OF 2-TEMPORARY PAVEMENT MARKING 4 INCH, WHITE OF THE TYPE SPECIFIED.

** CALCULATE "L" AS FOLLOWS: L=WxS WHERE W=WIDTH OF OFFSET (FEET) S=WORK ZONE SPEED LIMIT (MPH)

*** WHERE VIABLE WITH STAGED CONSTRUCTION

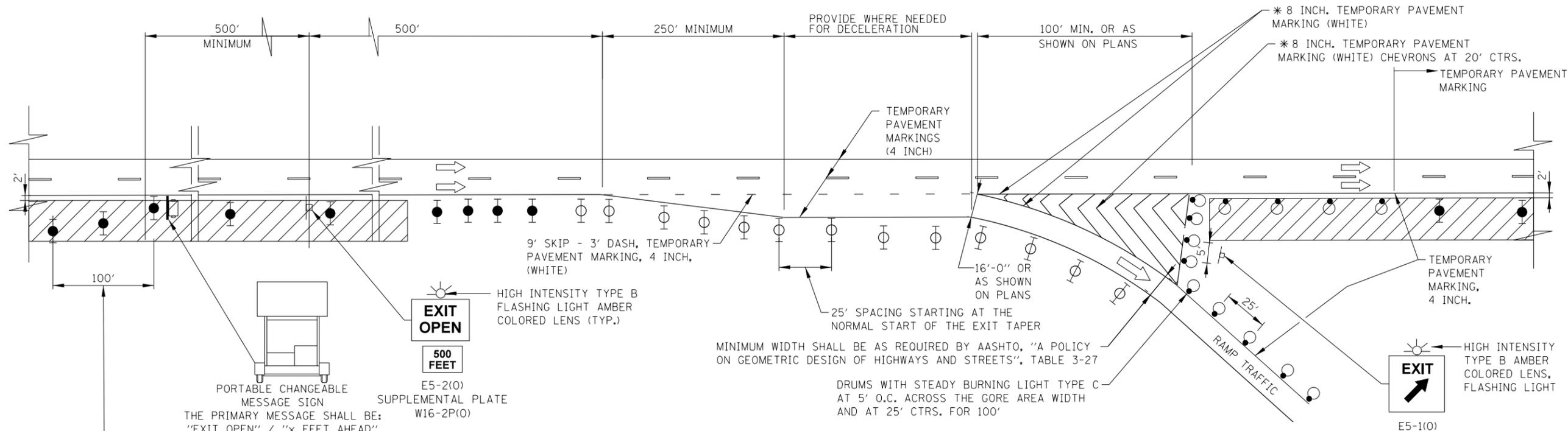
APPROVED BY: *Mona Nashif* CHIEF ENGINEERING OFFICER
DATE: 03/01/2023

DATE	REVISIONS
3-01-2023	REVISED DRUM W/LIGHT ARTICLE NO., REVISED SKIP DASH, REVISED RAMP MINIMUM WIDTH NOTE
3-01-2020	PROVIDED DETAILS FOR INSIDE AND OUTSIDE WORK ZONES, PROVIDED ACCEL. & DECEL. DISTANCE WHERE VIABLE

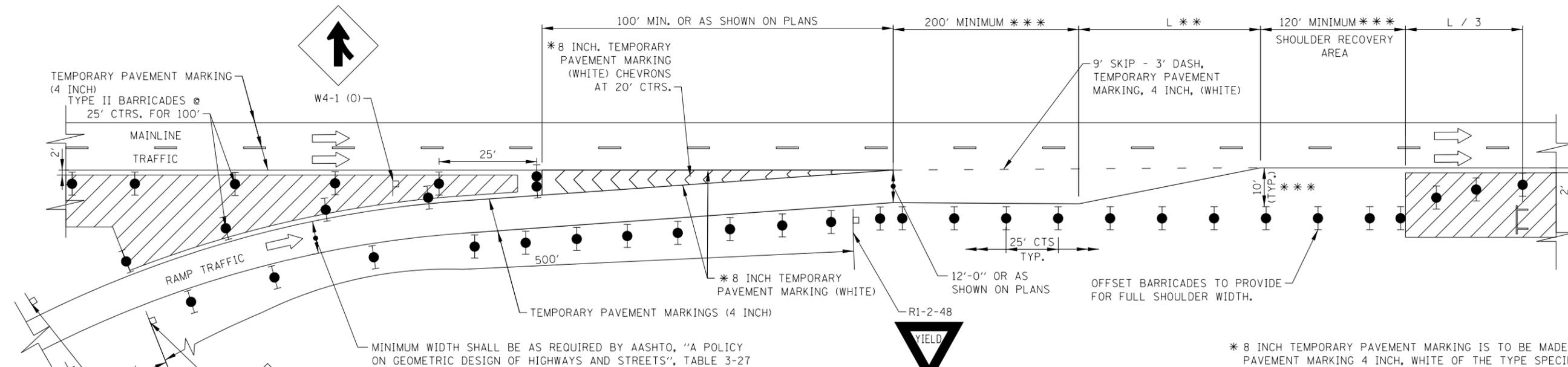
SHEET 1 OF 2

TEMPORARY GORE DETAILS

STANDARD E5-10



TYPICAL APPLICATION OF TEMPORARY EXIT GORE DELINEATION AND SIGNING



TYPICAL APPLICATION OF TEMPORARY ENTRANCE GORE DELINEATION AND SIGNING

NOTES:

1. WHEN TEMPORARY PAVEMENT MARKING IS NOT REQUIRED, TEMPORARY GORES MAY BE DELINEATED BY DRUMS WITH STEADY BURN LIGHTS AT 25' C-C ACCORDING TO THE CONFIGURATIONS SHOWN.
2. THE TAPER LENGTHS ARE MINIMUMS. EXISTING ACCELERATION, DECELERATION, AND TAPER LENGTHS SHOULD BE PRESERVED TO THE EXTENT POSSIBLE.

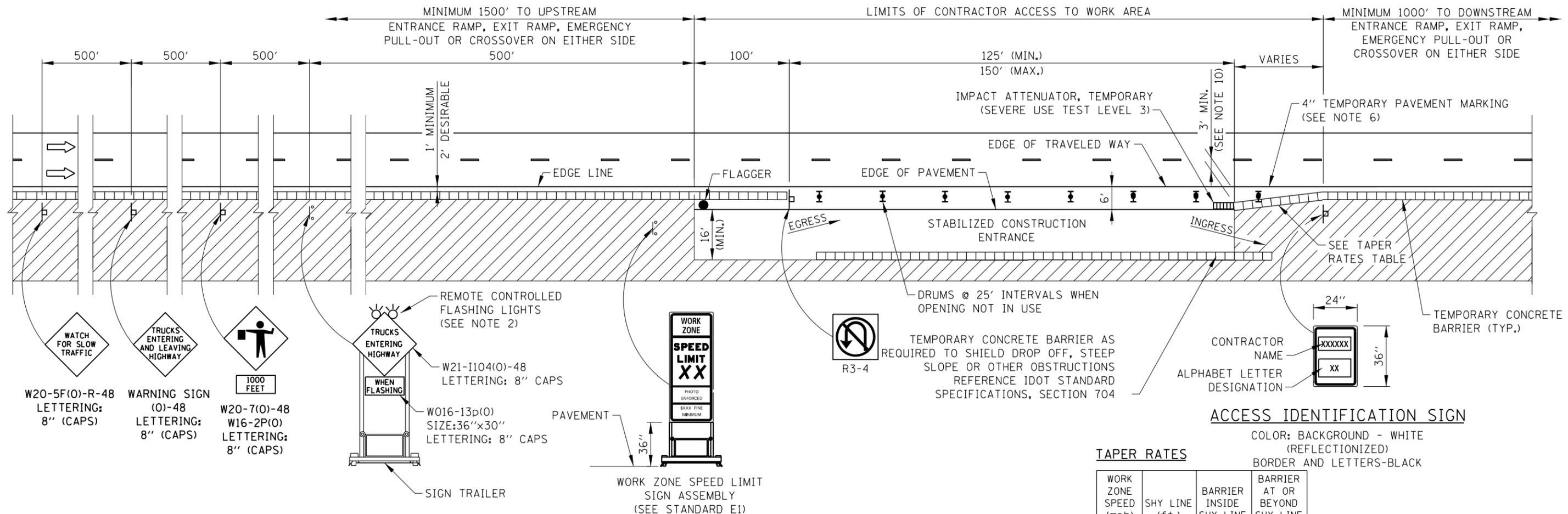
LEGEND

- WORK AREA
- SIGN
- TYPE II BARRICADE, DRUM, OR VERTICAL BARRICADE WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5) BARRICADE TYPE USED ON MAINLINE SHALL BE DIFFERENT THAN BARRICADE TYPE USED ON TAPER.
- DRUM WITH LIGHT IF REQUIRED SEE ARTICLE 701.05(a)(5)
- TYPE III BARRICADE

- * 8 INCH TEMPORARY PAVEMENT MARKING IS TO BE MADE OF 2-TEMPORARY PAVEMENT MARKING 4 INCH, WHITE OF THE TYPE SPECIFIED.
- ** CALCULATE "L" AS FOLLOWS: $L=W \times S$ WHERE W=WIDTH OF OFFSET (FEET) S=WORK ZONE SPEED LIMIT (MPH)
- *** WHERE VIABLE WITH STAGED CONSTRUCTION
- **** MINIMUM STOPPING DISTANCE



APPROVED BY: *Manar Nasrif* DATE: 03/01/2023
CHIEF ENGINEERING OFFICER



ACCESS IDENTIFICATION SIGN

COLOR: BACKGROUND - WHITE (REFLECTIONIZED)
BORDER AND LETTERS-BLACK

TAPER RATES

WORK ZONE SPEED (mph)	SHY LINE (ft.)	BARRIER INSIDE SHY LINE	BARRIER AT OR BEYOND SHY LINE
65	8.5	28:1	19:1
60	8	26:1	18:1
55	7	24:1	16:1
50	6.5	21:1	14:1
45	6	18:1	12:1
40	5	16:1	10:1
35	4.5	15:1	9:1
30	4	13:1	8:1

LEGEND

- FLAGGER
- SPOTTER
- ▮ CONSTRUCTION SIGN ON SUPPORT PER ILLINOIS TOLLWAY STANDARD UNLESS NOTED
- ➡ DIRECTION OF TRAFFIC FLOW
- ▨ WORK AREA
- ⊥ DRUM WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(α)(5)
- 🚚 TRUCK MOUNTED ATTENUATOR (TMA) (ROLL WITH MOVING OPERATION)

CONTRACTOR ACCESS TO WORK AREA WITH BARRIER WALL

NOTES:

1. SIGNS DESIGNATED FOR THIS ACCESS TO WORK AREA SHALL BE COVERED OR TURNED AWAY FROM THE TRAFFIC WHEN THE FLAGGER IS NOT ON STATION AND THE ACCESS OPENINGS ARE NOT IN USE.
2. THE FLASHING WARNING LIGHT SHALL MEET THE REQUIREMENTS OF ILLINOIS TOLLWAY SUPPLEMENTAL SPECIFICATIONS AND BE OPERATED BY THE FLAGGER REMOTELY. THE LIGHTS SHALL BE FLASHING ONLY WHEN A VEHICLE IS ENTERING THE ILLINOIS TOLLWAY.
3. WHEN THREE LANES OR MORE ARE OPENED TO TRAFFIC, ADVANCE WARNING SIGNS AND ASSEMBLIES SHALL BE PROVIDED ON BOTH SIDES OF TRAVELED WAY.
4. WHEN CONTRACTOR ACCESS TO WORK AREA IS ON OPPOSITE SIDE FROM SHOWN, ALL INSTALLATIONS ARE MIRROR IMAGE.
5. FOR NIGHTTIME OPERATIONS, TEMPORARY LIGHTING OF CONSTRUCTION ACCESS TO WORK AREA SHALL BE PROVIDED.
6. TEMPORARY PAVEMENT MARKINGS SHALL BE REPLACED AS OFTEN AS NECESSARY TO DELINEATE OPENINGS.
7. IF POSSIBLE, LANE CLOSURES SHALL BE UTILIZED TO ELIMINATE THE MERGING OF CONSTRUCTION TRAFFIC INTO THROUGH TRAFFIC LANES.
8. A 1'-0" MINIMUM/2'-0" DESIRABLE SHY DISTANCE SHALL BE PROVIDED, MEASURED BETWEEN EDGE OF PAVEMENT LANE MARKING TO THE EDGE OF THE TRAFFIC CONTROL DEVICES.
9. "TRUCKS ENTERING HIGHWAY" SIGN MAY BE SUPPORTED BY OPTIONAL POST OR STAND MOUNTED DEVICES WHEN POSITIONED BEHIND TEMPORARY CONCRETE BARRIER.
10. A TEMPORARY EXCEPTION TO THE 3' MINIMUM CLEARANCE BETWEEN EDGE OF TRAVELED WAY AND EDGE OF ATTENUATOR MAY BE REQUESTED FOR PCC PAVING OPERATIONS WHEN THIS CONFIGURATION DOES NOT PROVIDE 4' OF CLEARANCE BETWEEN BACK OF ATTENUATOR AND THE PROPOSED EDGE OF THE LANE BEING CONSTRUCTED IN THE CURRENT STAGE. THE DURATION OF REDUCED CLEARANCE SHALL BE LIMITED TO 24 HOURS.
11. CONTRACTOR ACCESS LOCATIONS SHALL BE SPACED NO CLOSER THAN 2,600 FEET BETWEEN AREAS, EXCEPT FOR BRIDGE WORK WHERE 1 ACCESS LOCATION MAY BE PROVIDED ON EACH SIDE OF THE STRUCTURE. AT THESE LOCATIONS, ONLY 1 ACCESS LOCATION AT A TIME WILL BE ALLOWED TO BE OPEN FOR USE.
12. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT WORK ZONE EXIT OPENING WILL BE PROHIBITED.
13. ALL VEHICLES SHALL USE THEIR TURN SIGNALS TO WARN MOTORISTS WHEN ENTERING AND EXITING THE WORK ZONE OPENINGS.
14. FLAGGERS SHALL NOT STOP TRAFFIC OR DIRECT TRAFFIC INTO AN ADJACENT LANE.
15. IN WORK ZONES WITH NO POSITIVE PROTECTION, A TRUCK MOUNTED ATTENUATOR (TMA) SHALL BE PROVIDED WITH A BUFFER AREA BETWEEN THE FRONT OF THE TMA AND WORKERS OR EQUIPMENT. THE BUFFER AREA SHALL BE 200' UNLESS OTHERWISE DETERMINED. WHERE WORKERS OR EQUIPMENT ARE PRESENT BEYOND THE WORK AREA, AN ADDITIONAL TMA SHALL BE PROVIDED FOR EACH WORK AREA. A WORK AREA IS DEFINED AS STARTING AT THE END OF THE BUFFER AREA, EXTENDING 1000 FEET BEYOND THIS POINT.

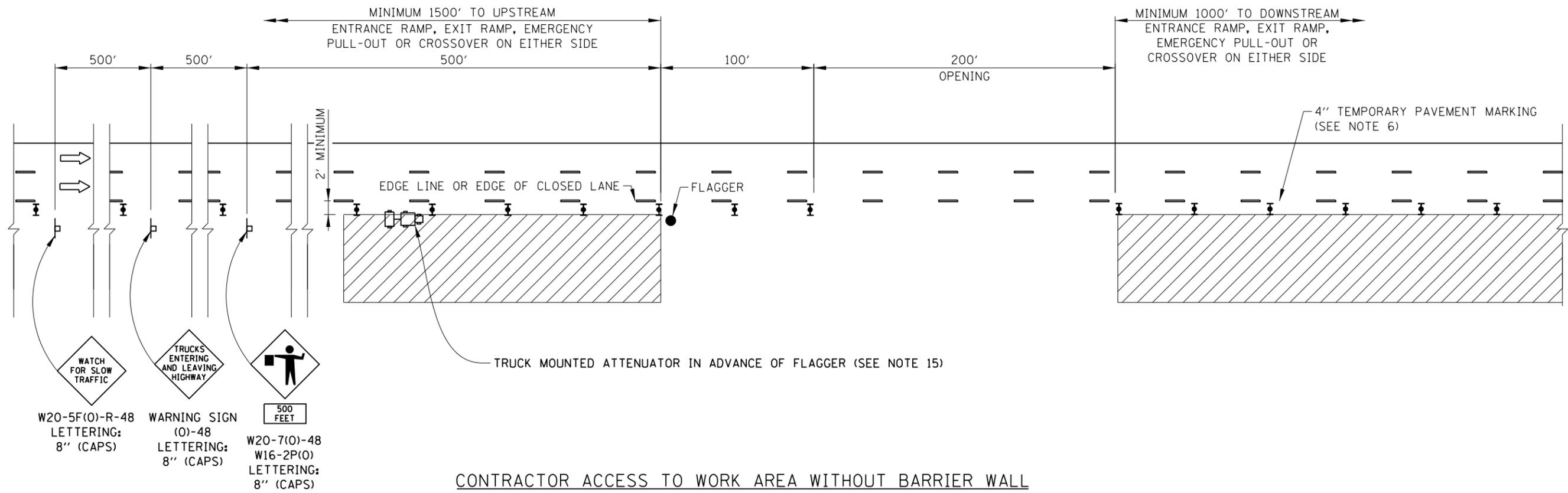


DATE	REVISIONS
3-01-2024	ADDED NOTE 15 IN CALLOUT
3-01-2023	REVISED DRUM W/LIGHT ARTICLE NO.
3-01-2020	CLARIFIED TMA REQUIREMENTS & UPDATED BARRICADE LIGHT REQ.
3-01-2019	ADDED SHEET FOR DETAILS WITHOUT BARRIER WALL

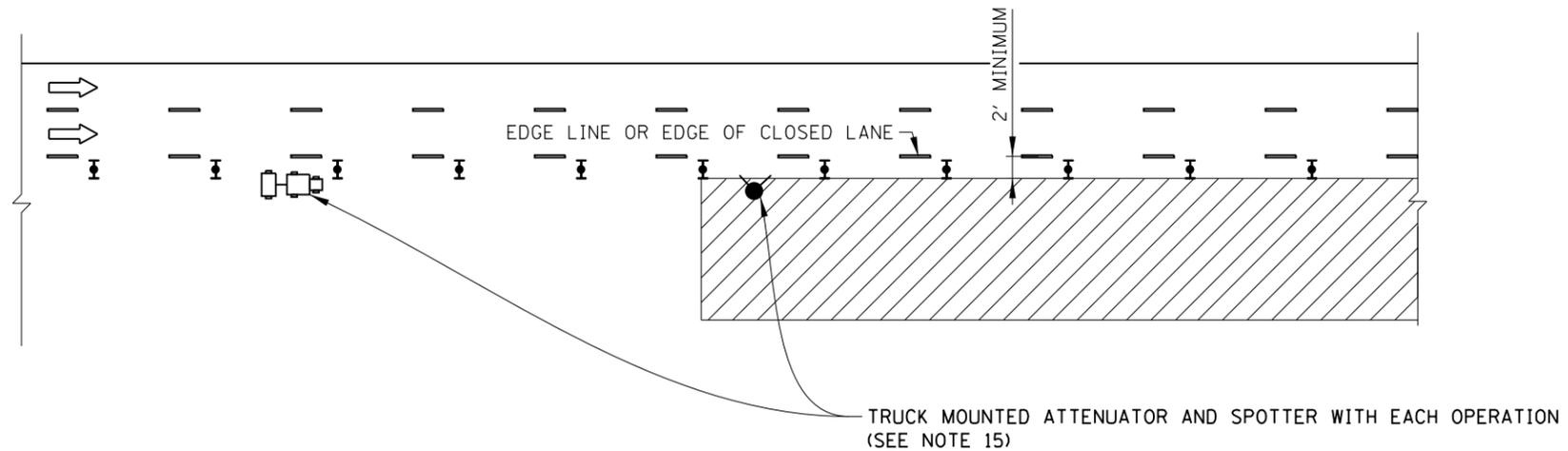
CONTRACTOR ACCESS TO WORK AREA

STANDARD E6-08

APPROVED BY: *Mama Nashif*
CHIEF ENGINEERING OFFICER
DATE: 03/01/2024

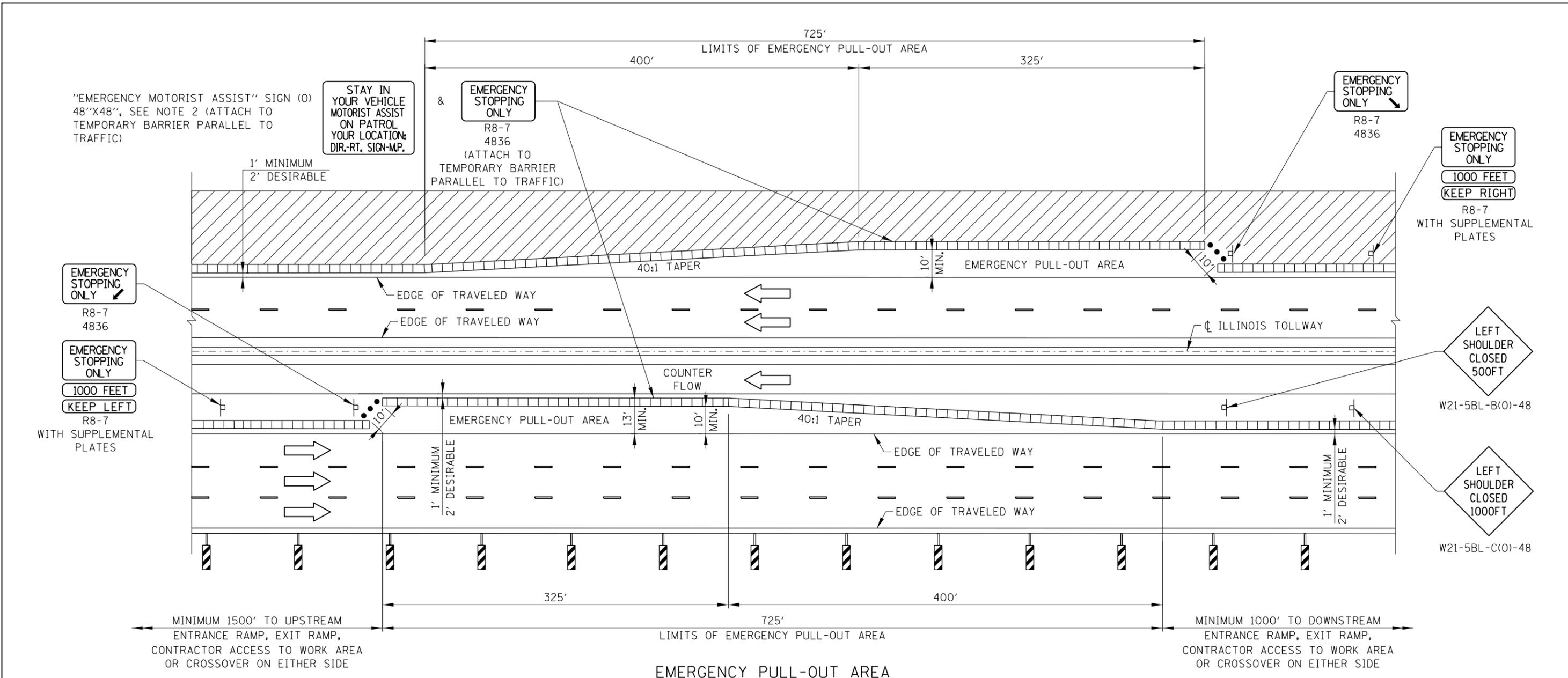


- LEGEND**
- FLAGGER
 - SPOTTER
 - CONSTRUCTION SIGN ON SUPPORT PER ILLINOIS TOLLWAY STANDARD UNLESS NOTED
 - DIRECTION OF TRAFFIC FLOW
 - WORK AREA
 - DRUM WITH LIGHT IF REQUIRED. SEE ARTICLE 701.05(a)(5)
 - TRUCK MOUNTED ATTENUATOR (TMA) (ROLL WITH MOVING OPERATION)



SPOTTER AND TMA AT WORK AREA





"EMERGENCY MOTORIST ASSIST" SIGN (O) 48"x48", SEE NOTE 2 (ATTACH TO TEMPORARY BARRIER PARALLEL TO TRAFFIC)

STAY IN YOUR VEHICLE MOTORIST ASSIST ON PATROL YOUR LOCATION DIR.-RT. SIGN-M.P.

EMERGENCY STOPPING ONLY R8-7 4836 (ATTACH TO TEMPORARY BARRIER PARALLEL TO TRAFFIC)

EMERGENCY STOPPING ONLY R8-7 4836

EMERGENCY STOPPING ONLY 1000 FEET KEEP RIGHT R8-7 WITH SUPPLEMENTAL PLATES

EMERGENCY STOPPING ONLY R8-7 4836

EMERGENCY STOPPING ONLY 1000 FEET KEEP LEFT R8-7 WITH SUPPLEMENTAL PLATES

LEFT SHOULDER CLOSED 500FT W21-5BL-B(0)-48

LEFT SHOULDER CLOSED 1000FT W21-5BL-C(0)-48

LEGEND

- TEMPORARY CONCRETE BARRIER WITH BARRIER DELINEATORS ON TRAFFIC SIDE
- VERTICAL PANELS @ 100 FT CENTERS ALONG ROADWAY (TANGENT) AND 50 FT CENTERS ALONG TAPERS.
- WORK AREA
- FLEXIBLE DELINEATOR POSTS
- DIRECTION OF TRAFFIC FLOW
- CONSTRUCTION SIGN ON SUPPORT PER ILLINOIS TOLLWAY STANDARD UNLESS NOTED.

NOTES:

1. PULL-OUT AREA SPACED PER CONTRACT DOCUMENTS.
2. ENGINEER TO DETERMINE EMERGENCY ASSIST SIGN'S INFORMATION FOR DIRECTION - ROUTE SIGN - MILEPOST ONCE THE LOCATION HAS BEEN ACCEPTED.
3. A 1'-0" MINIMUM/2'-0" DESIRABLE SHY DISTANCE SHALL BE PROVIDED, MEASURED BETWEEN EDGE OF PAVEMENT LANE MARKING TO THE EDGE OF THE TRAFFIC CONTROL DEVICE.
4. FLEXIBLE DELINEATORS TO BE 48" IN HEIGHT ABOVE BASE, TUBULAR POSTS (ORANGE) WITH 360 DEGREES FULL VIEW TWO-4" FLORESCENT ORANGE REFLECTORIZED TAPE BANDS. FLEXIBLE DELINEATORS SHALL BE CAPABLE OF BENDING UNDER REPEATED IMPACTS AND RETURN TO AN UPRIGHT POSITION WITHOUT DAMAGE TO THE IMPACTING VEHICLE OR THE DELINEATORS. THE DELINEATOR'S BASE SHALL BE SECURELY MOUNTED TO THE ROADWAY SURFACE. THE POSTS SHALL BE REMOVABLE FROM THE BASES TO PERMIT REPLACEMENT OF DAMAGED UNITS AS REQUIRED.

APPROVED BY: *Paul Kovacs* CHIEF ENGINEERING OFFICER DATE: 02/07/2012

DATE	REVISIONS
3-01-2020	REMOVED LIGHTS FROM VERTICAL PANELS
3-11-2015	REVISED NOTES
3-31-2014	ADDED ENFORCEMENT PULL-OUT AREA
3-01-2013	REVISED "EMERGENCY MOTORIST ASSIST" SIGN NOTE.

SHEET 1 OF 2

PULL-OUT AREA

STANDARD E7-05

