
Index 17346 Pavement Markings

ORIGINATION

Date: August 7, 2017

Name: Ed Cashman

Phone: (850) 414-4314

Email: ed.cashman@dot.state.fl.us

COMMENTARY

Sheet 5: Deleted sign detail.

Sheet 6: Deleted Typical Crosswalk Markings for Curb Ramps.

COMMENTS AND RESPONSES

BLACK = Industry Review Comments **RED** = Standard Plans Response

Name: Christopher W. Taylor, P.E.

Date: Thursday, August 31, 2017 8:30 AM

COMMENT:

On Sheets 5 and 6 of the new standards, is it correct for the edge line to continue around the curb radius (i.e. the area that would be in between the 12" crosswalk markings)? If this is correct you may want to place a leader calling it 6" white.

RESPONSE:

September 14, 2017

That is allowable, however the lines will be removed from the Index for consistency. There are some small returns where it is just not practical to require. Changes made.

Name: Ed Cashman, P.E.

Date: Wednesday, September 13, 2017 1:08 PM

COMMENT:

On proposed page 10 of 14, strike notes 3 & 4. These material callouts are unnecessary because sufficient guidance exists in the FDM.

RESPONSE:

September 14, 2017

Agreed, Notes removed. Changes made.

Index 17346 Pavement Markings

Name: Stephanie Sharp

Date: Thursday, September 14, 2017 11:26 AM

COMMENT:

- Sheet 1: Additional examples of Pavement Message “EXPRESS”.
- Sheet 2: Additional examples of Contrast Markings with Alternating Skip Pattern.
- Sheet 9: Where are the notes and signs W9-1, W9-2 and W4-2?
(See red lines for additional information)

RESPONSE:

September 21, 2017

- Sheet 1: This Has not been Requested. No Change made.
- Sheet 2: Already discussed in Index. No Change made.
- Sheet3: These signs are being moved into the FDM. No Change made.

Name: Karina Fuentes, P.E.

Date: Monday, September 25, 2017 5:30 PM

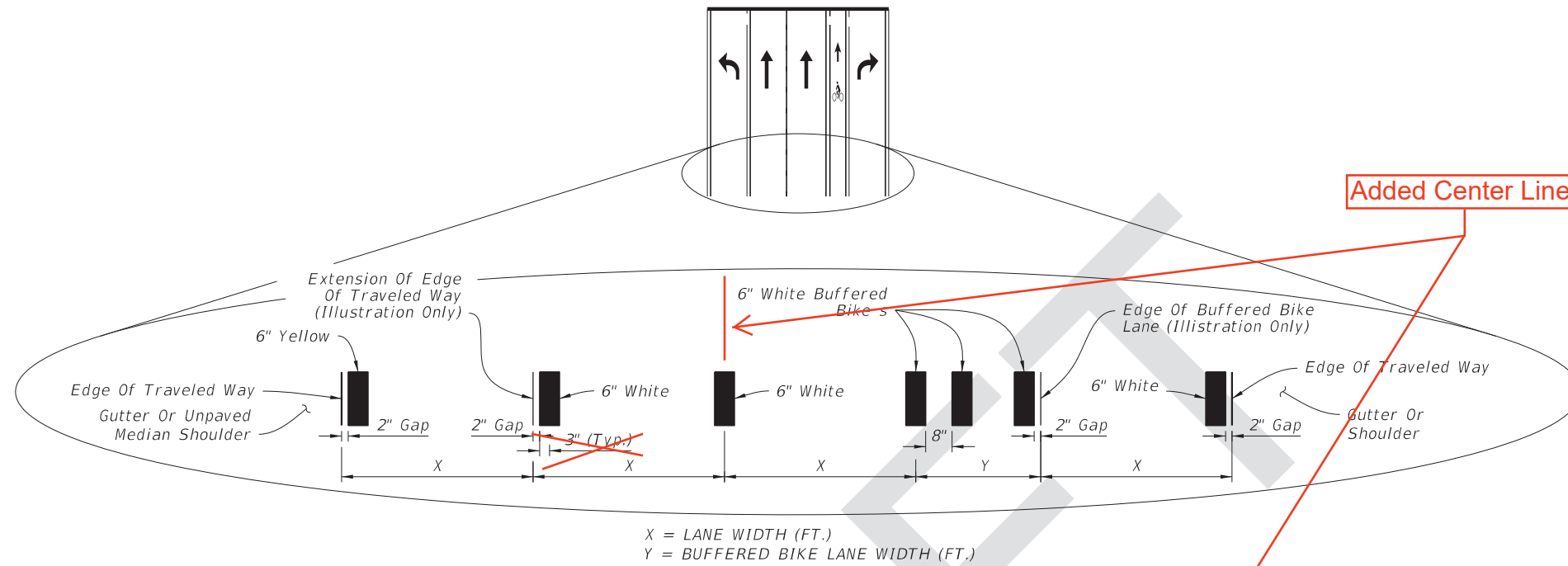
COMMENT:

Profile Thermoplastic index has been removed; however, FDM refers to it in Fig 230.3.1.

RESPONSE:

September 27, 2017

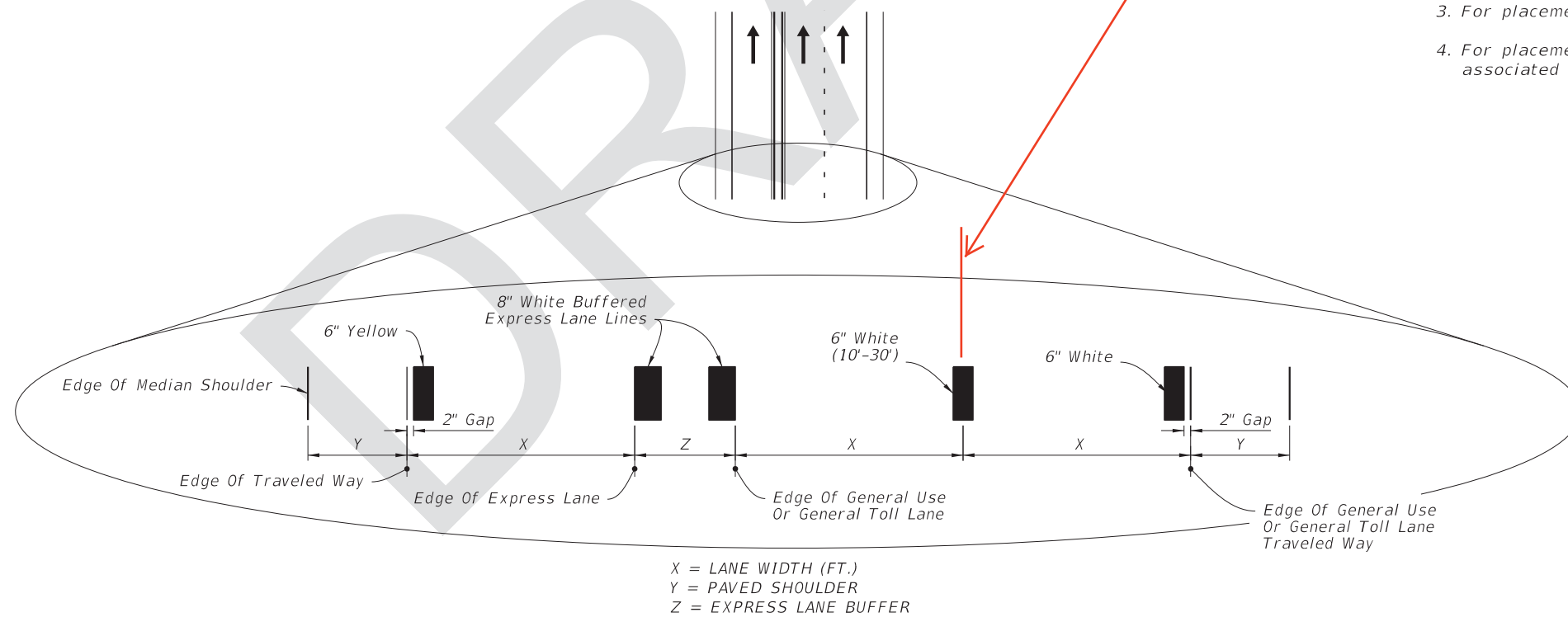
This is in the process of being revised. No change made.



INTERSECTION APPROACH STRIPING WITH TURN LANES AND BUFFERED BIKE LANE KEY HOLE

NOTES:


1. Lane widths (X) may not be same for each lane in the section.
3. For placement of RPMs, see Index 706-001.
4. For placement of Express Lane markers and associated RPMs, see the Plans.

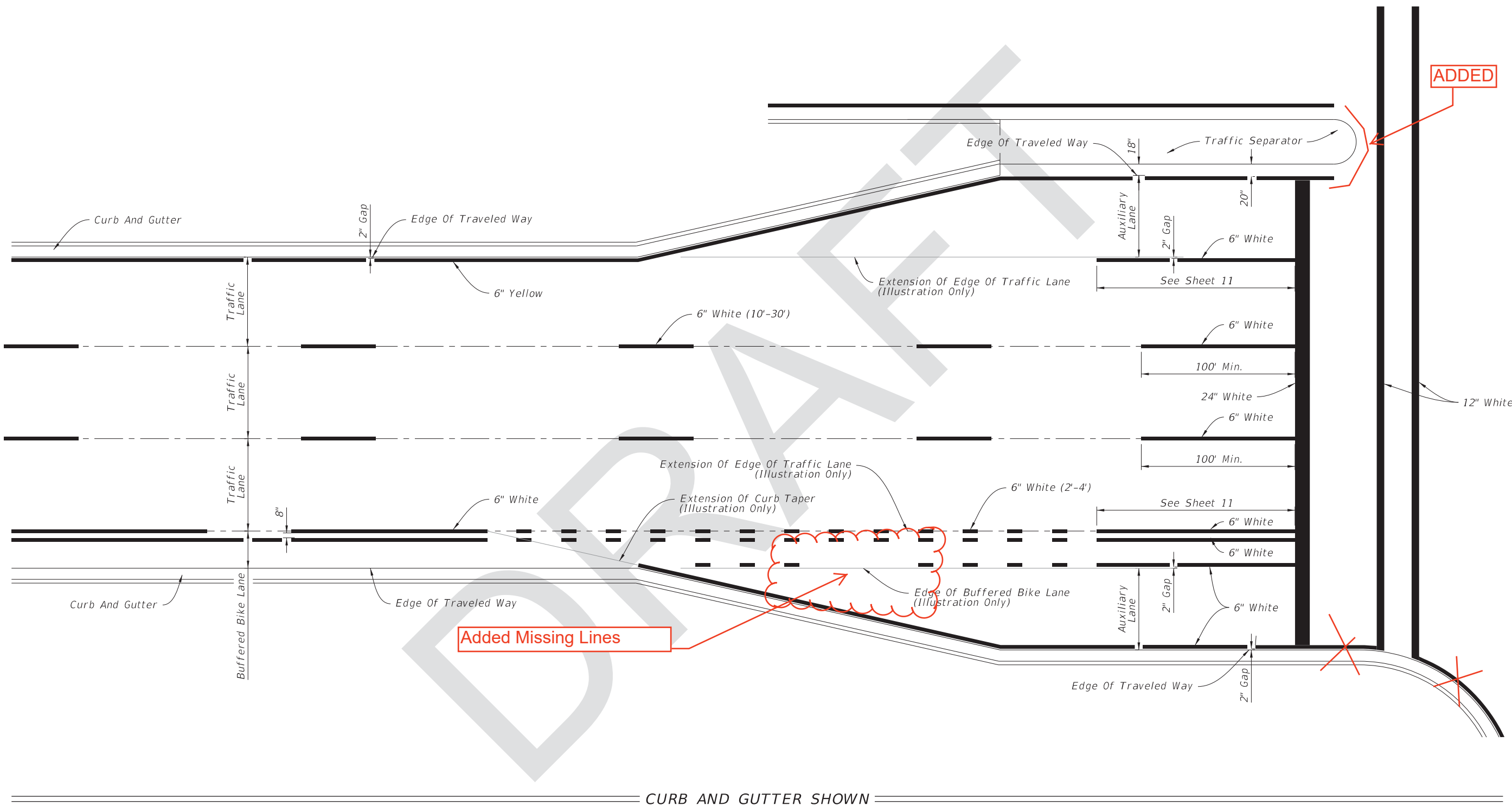


BUFFERED EXPRESS LANE STRIPING

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS


8/29/2017 3:52:56 PM

LAST REVISION 11/01/17	REVISION	DESCRIPTION:	 FY 2018-19 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 4 of 14
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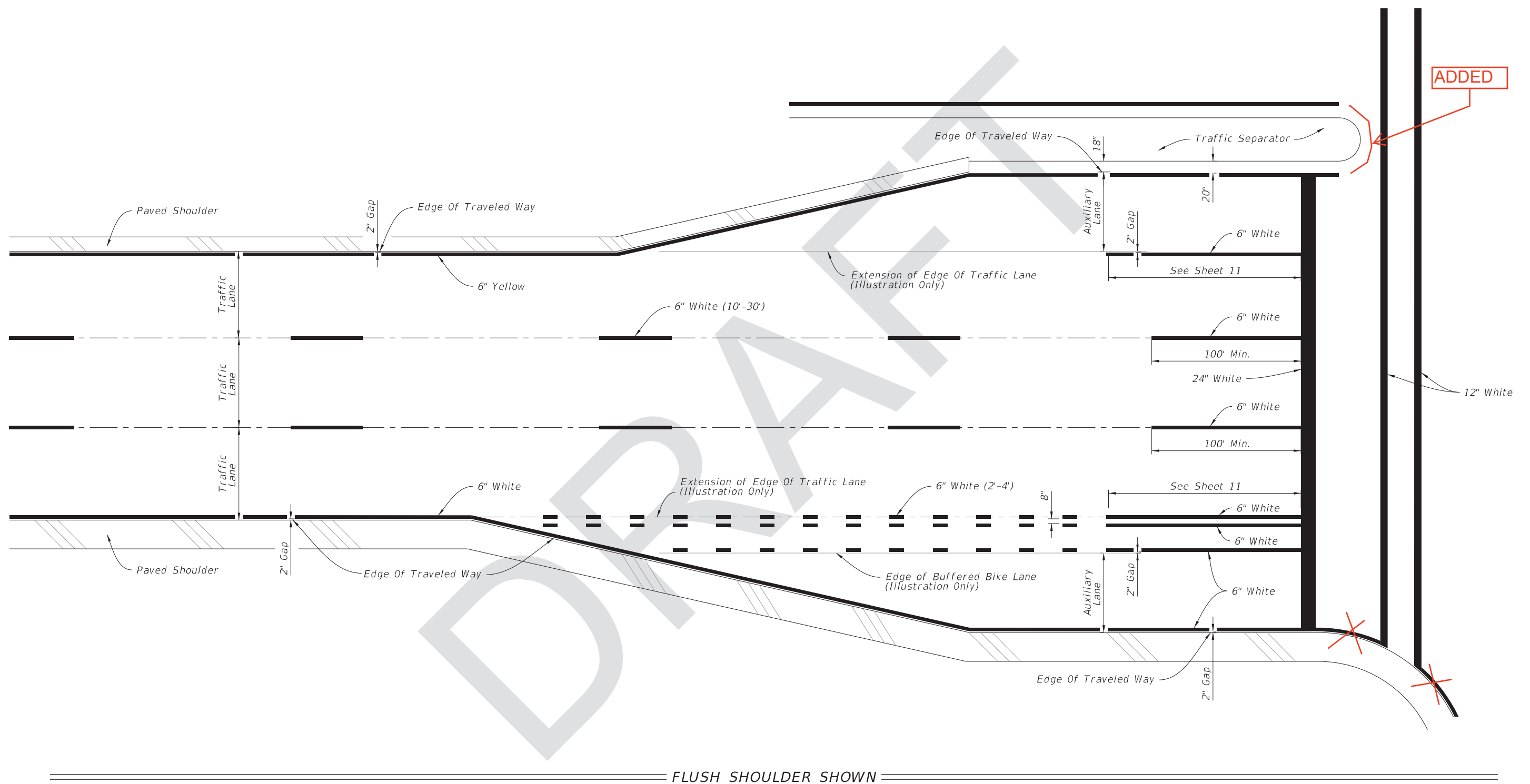


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PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

LAST REVISION 11/01/17	REVISION	DESCRIPTION:	 FY 2018-19 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 5 of 14
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8/29/2017 3:52:56 PM

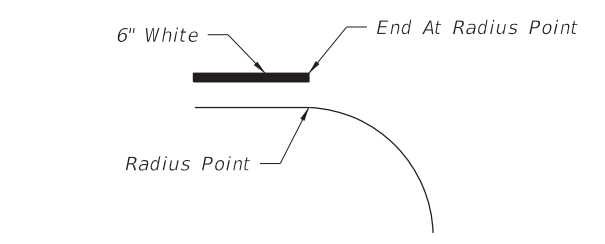
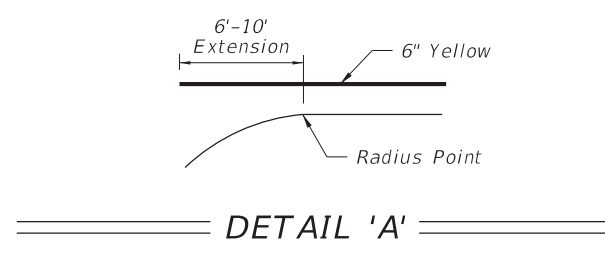
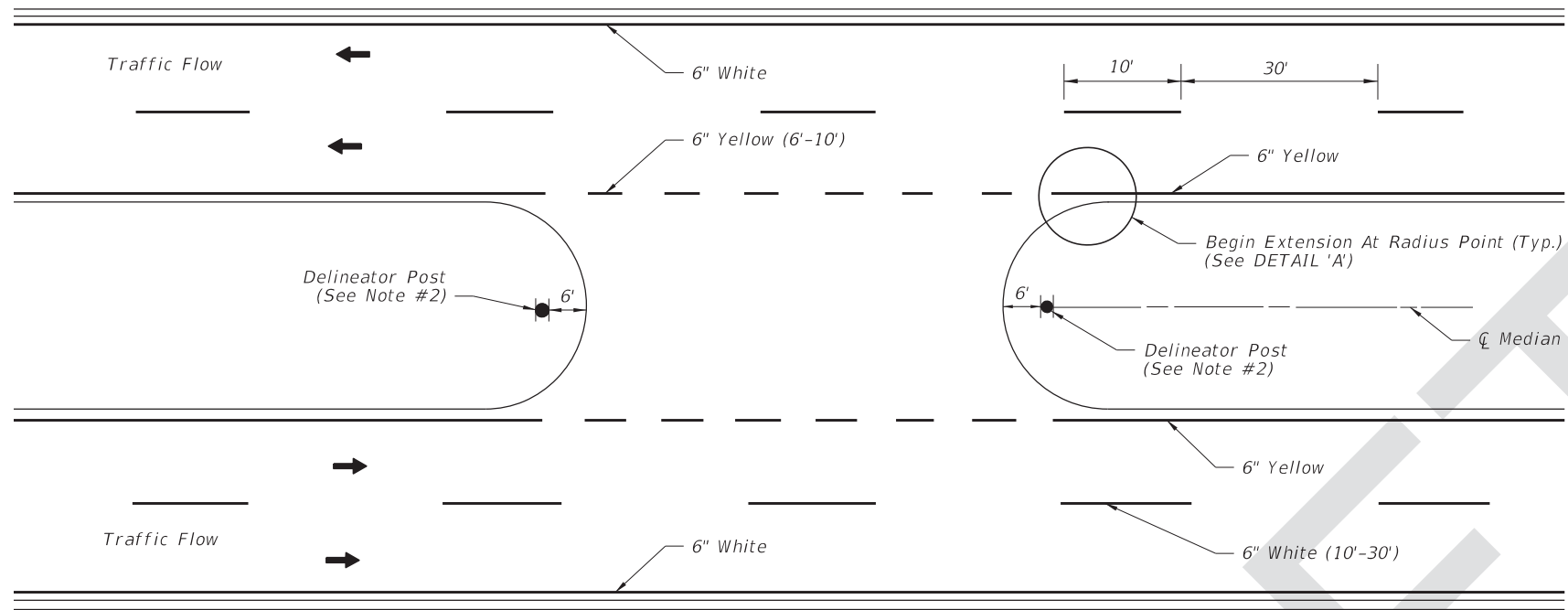


ADDED

FLUSH SHOULDER SHOWN

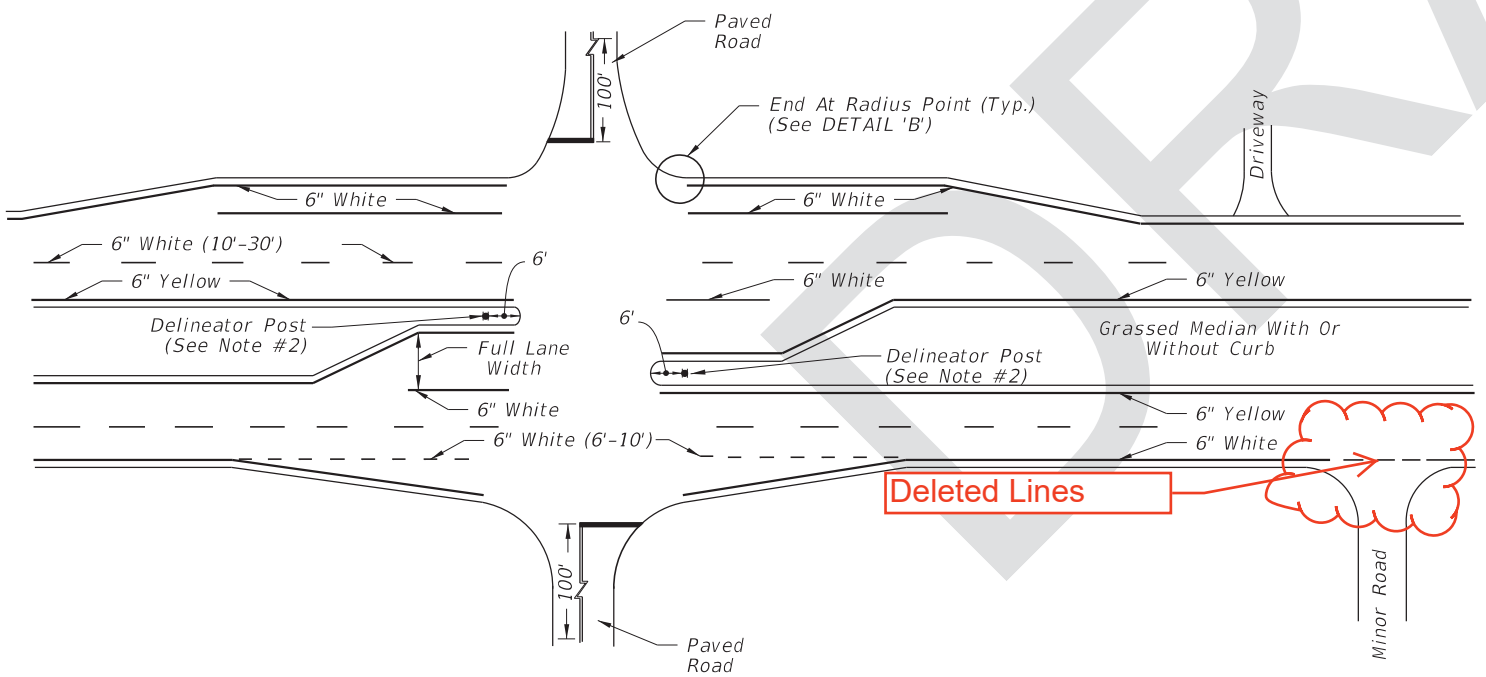
PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

LAST REVISION 11/01/17	DESCRIPTION:	 FY 2018-19 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 6 of 14
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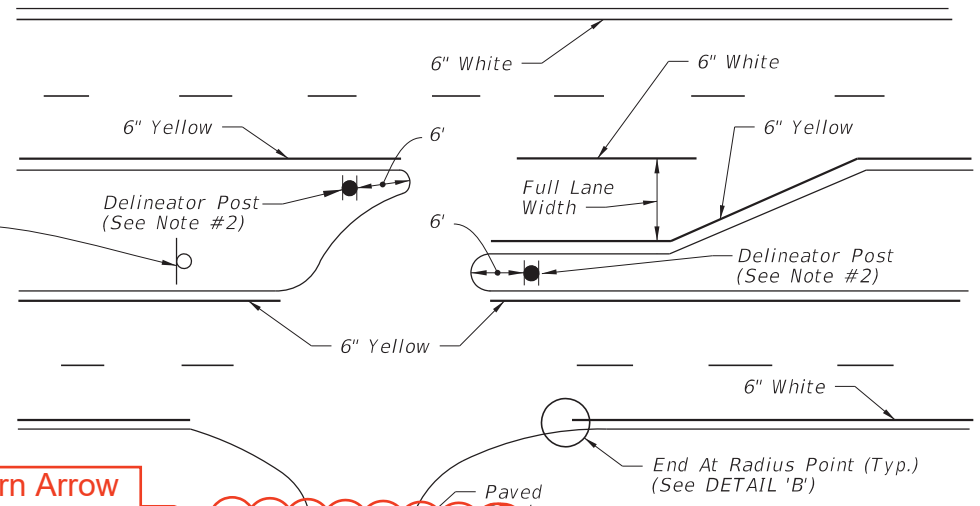


PAVEMENT MARKINGS AND DELINEATORS FOR MEDIAN CROSS-OVER

DETAIL 'B'




Added Turn Arrow and Dimension

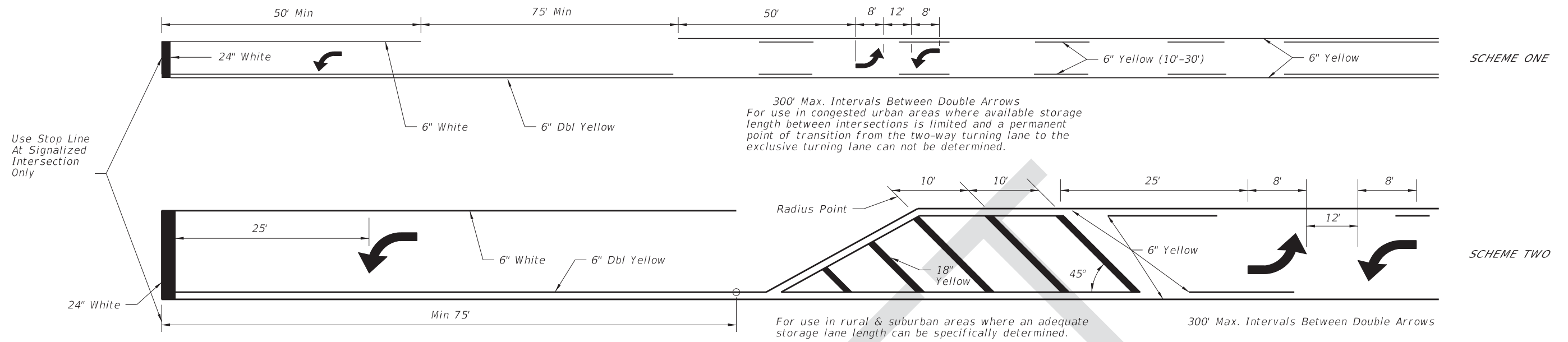


- NOTE:
1. See Index 706-001 for additional treatments on median noses.
 2. Use yellow retro-reflective sheeting on both sides of the delineator. Install the post so that the top is 4' above the grade at the edge of the pavement.

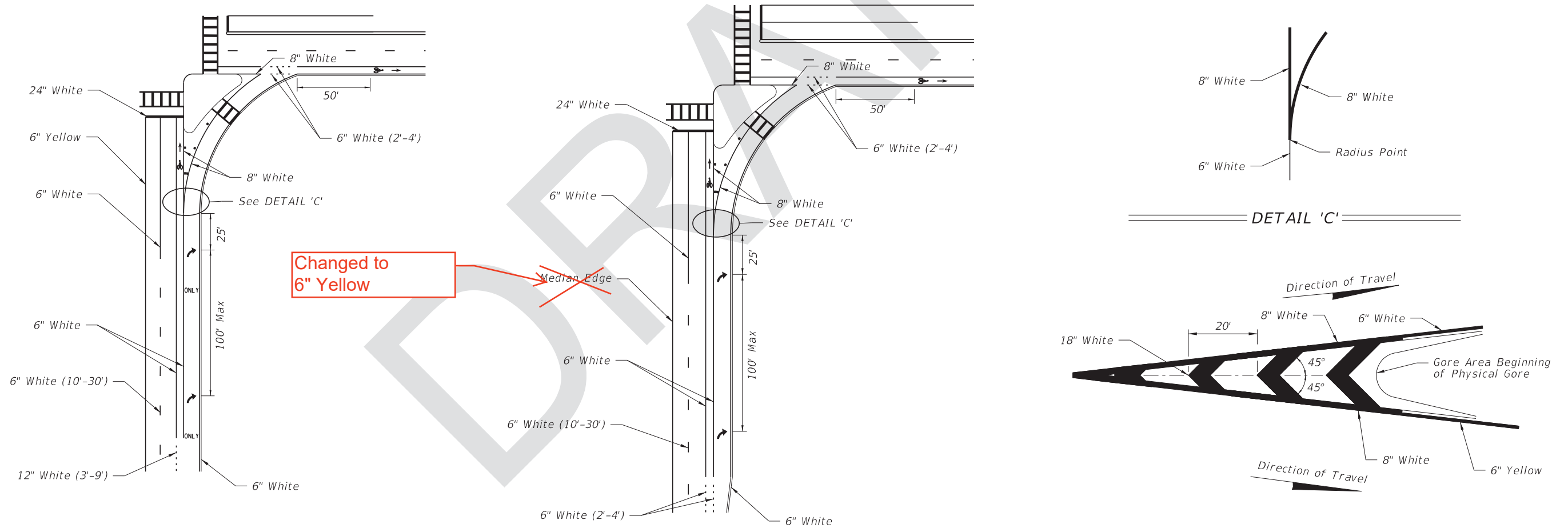
PAVEMENT MARKINGS FOR INTERSECTIONS WITH MAJOR AND MINOR ROADS

8/29/2017 3:52:57 PM

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TWO WAY LEFT TURN LANE
(With Single Lane Left Turn Channelization)



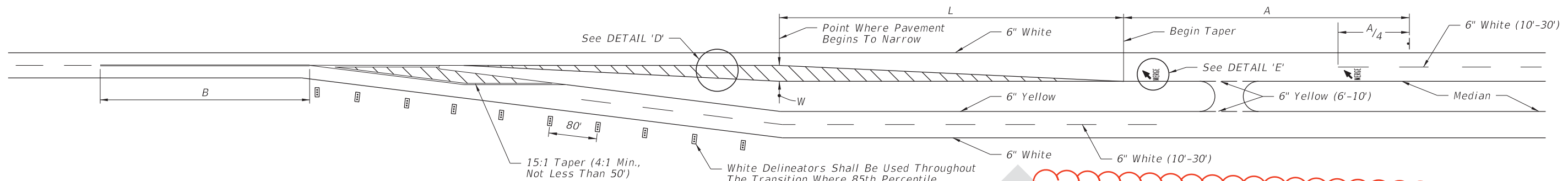
RIGHT TURN LANE DROP AND ISLAND DETAILS
LEFT TURN LANE DROP IS MIRROR IMAGE

RIGHT TURN LANE AND ISLAND DETAILS

TRAFFIC CHANNELIZATION AT GORE

8/29/2017 3:52:57 PM

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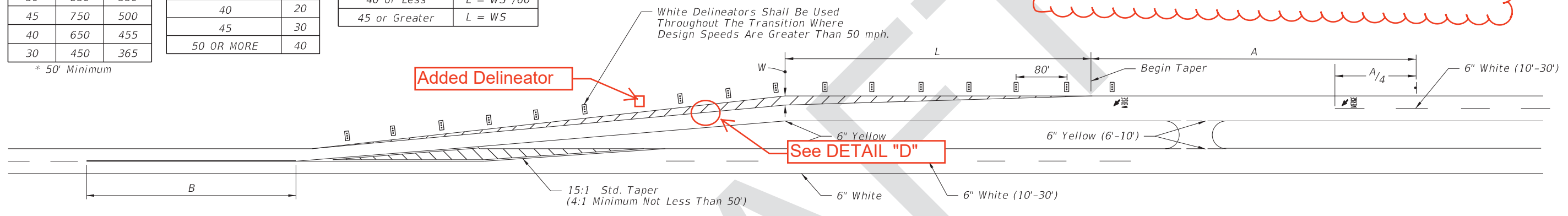
DESIGN SPEED (MPH)	"A" (FT.)	"B" * (FT.)
60	---	640
55	950	595
50	850	550
45	750	500
40	650	455
30	450	365

* 50' Minimum

POSTED SPEED LIMIT MPH	"Y" (FT.)
30 OR LESS	10
35	20
40	20
45	30
50 OR MORE	40

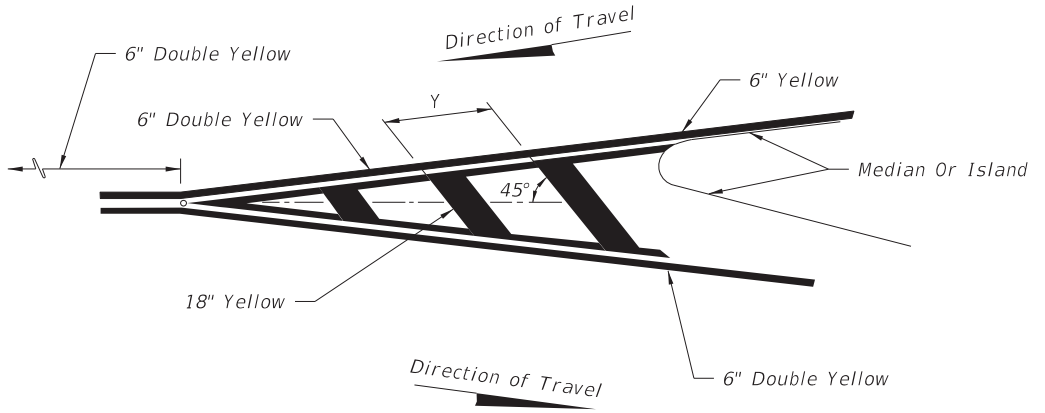
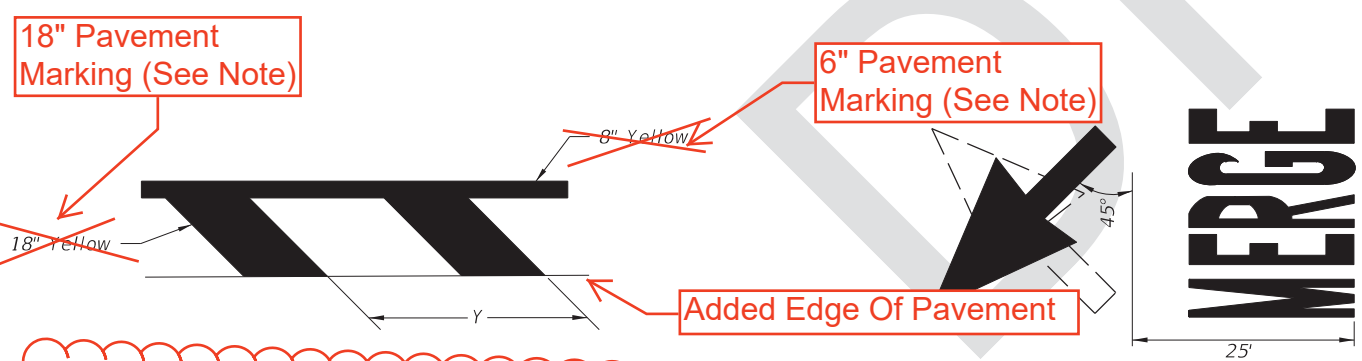
LEFT ROADWAY CENTERED ON EXISTING ROADWAY

W9-1, W9-2 and W4-2 Signs Were Moved to the FDOT Design Manual (FDM).



RIGHT ROADWAY CENTERED ON EXISTING ROADWAY

SCHEMES FOR TRANSITION - 2 LANE / 4 LANE ROADWAY



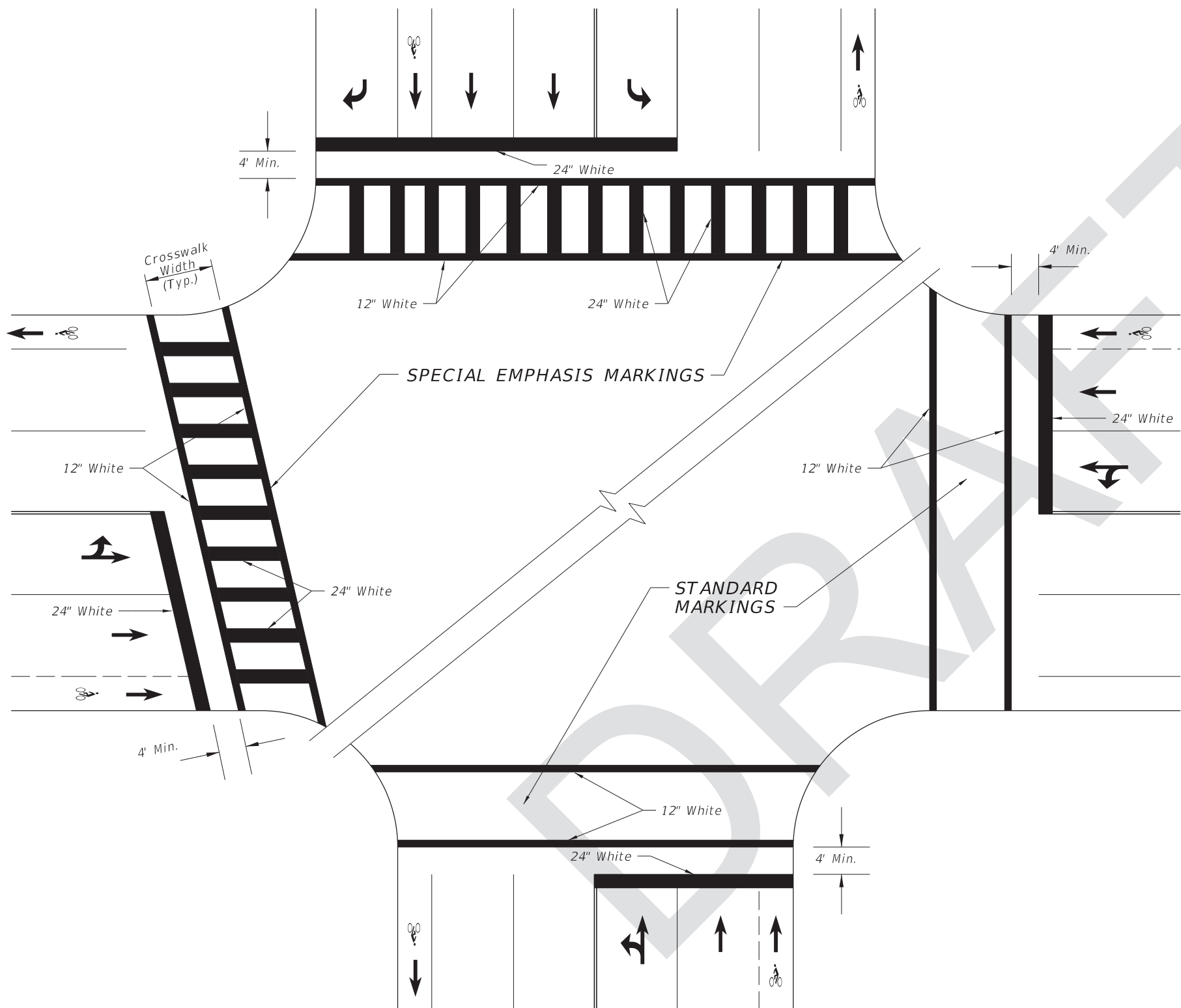
Added Note

DETAIL 'D'

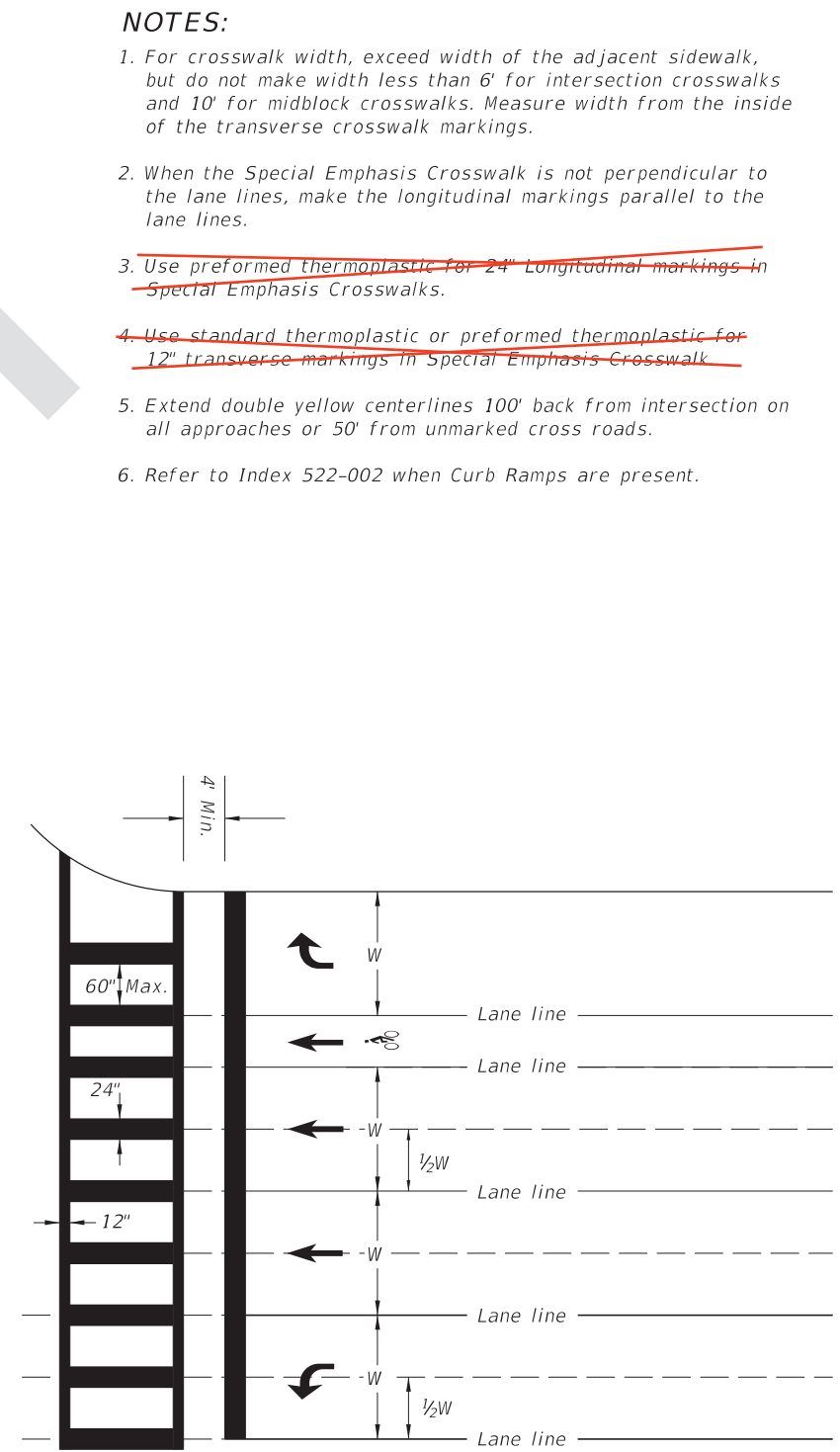
DETAIL 'E'

MARKINGS FOR TRAFFIC SEPARATION

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INTERSECTION DETAILS



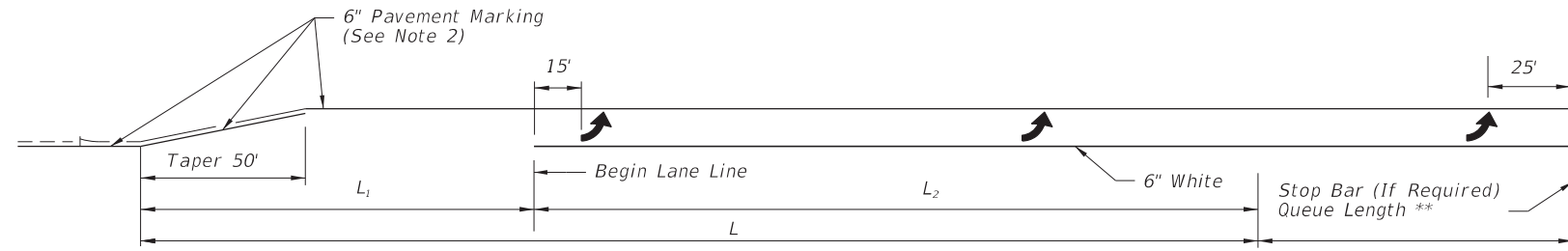
SPECIAL EMPHASIS CROSSWALK DETAILS

NOTES:

1. For crosswalk width, exceed width of the adjacent sidewalk, but do not make width less than 6' for intersection crosswalks and 10' for midblock crosswalks. Measure width from the inside of the transverse crosswalk markings.
2. When the Special Emphasis Crosswalk is not perpendicular to the lane lines, make the longitudinal markings parallel to the lane lines.
3. ~~Use preformed thermoplastic for 24" Longitudinal markings in Special Emphasis Crosswalks.~~
4. ~~Use standard thermoplastic or preformed thermoplastic for 12" transverse markings in Special Emphasis Crosswalk~~
5. Extend double yellow centerlines 100' back from intersection on all approaches or 50' from unmarked cross roads.
6. Refer to Index 522-002 when Curb Ramps are present.

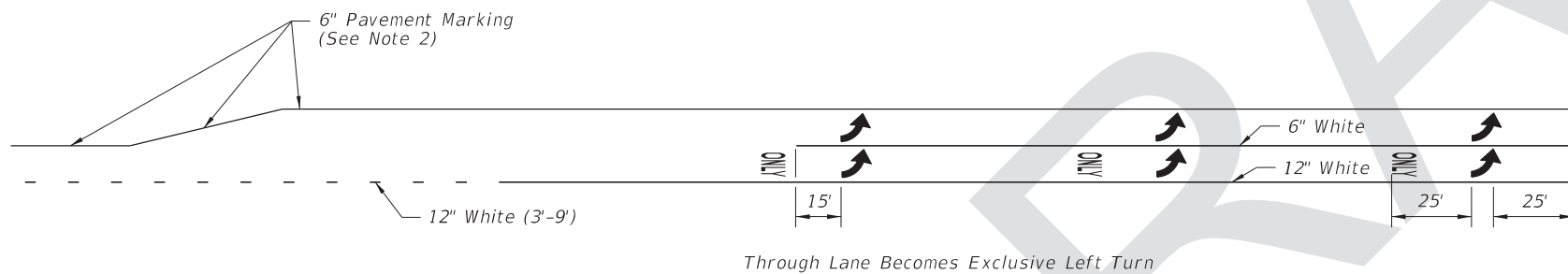
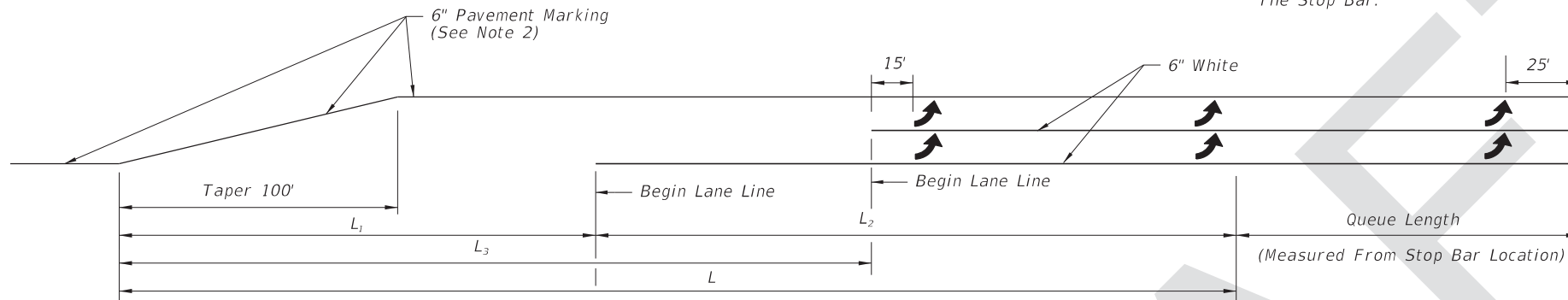
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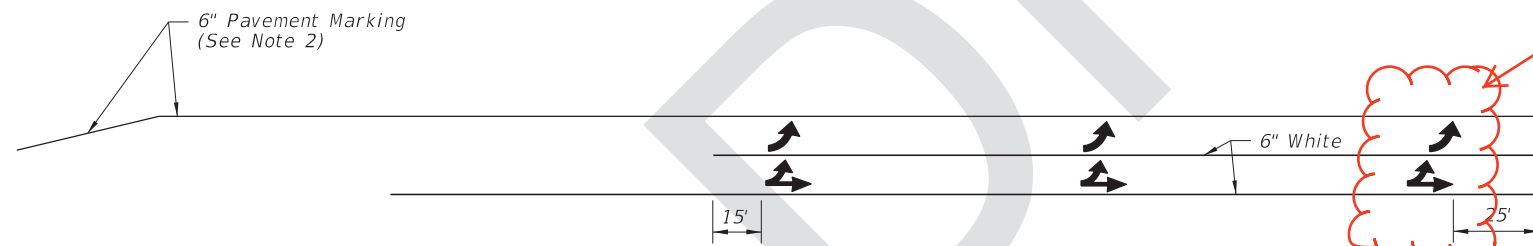


SINGLE LEFT TURNS

** Queue Length Is Measured From The Median Nose Radial Point Or, When A Stop Bar Is Required, From The Stop Bar.



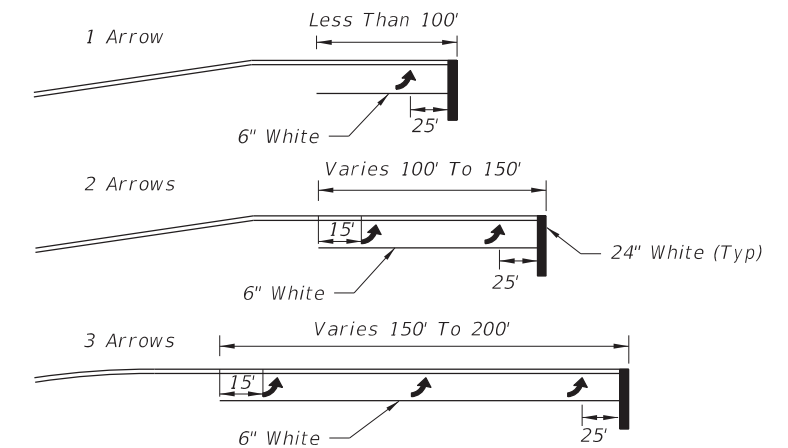
Through Lane Becomes Exclusive Left Turn



Through Lane Becomes Optional Left Turn

DOUBLE LEFT TURNS

TURN LANES - CURBED AND UNCURBED MEDIANS							
Design Speed (mph)	Clearance Distance	URBAN CONDITIONS			RURAL CONDITIONS		
		Brake To Stop Distance	Total Decel. Distance	Clearance Distance	Brake To Stop Distance	Total Decel. Distance	Clearance Distance
	L ₁	L ₂	L	L ₃	L ₂	L	L ₃
35	70'	75'	145'	110'	—	—	—
40	80'	75'	155'	120'	—	—	—
45	85'	100'	185'	135'	—	—	—
50	105'	135'	240'	160'	185'	290'	160'
55	125'	—	—	—	225'	350'	195'
60	145'	—	—	—	260'	405'	230'
65	170'	—	—	—	290'	460'	270'



Arrow should be evenly spaced between first and last arrow. Turn lanes longer than 200' add one arrow for each 100' additional length.

ARROW SPACING

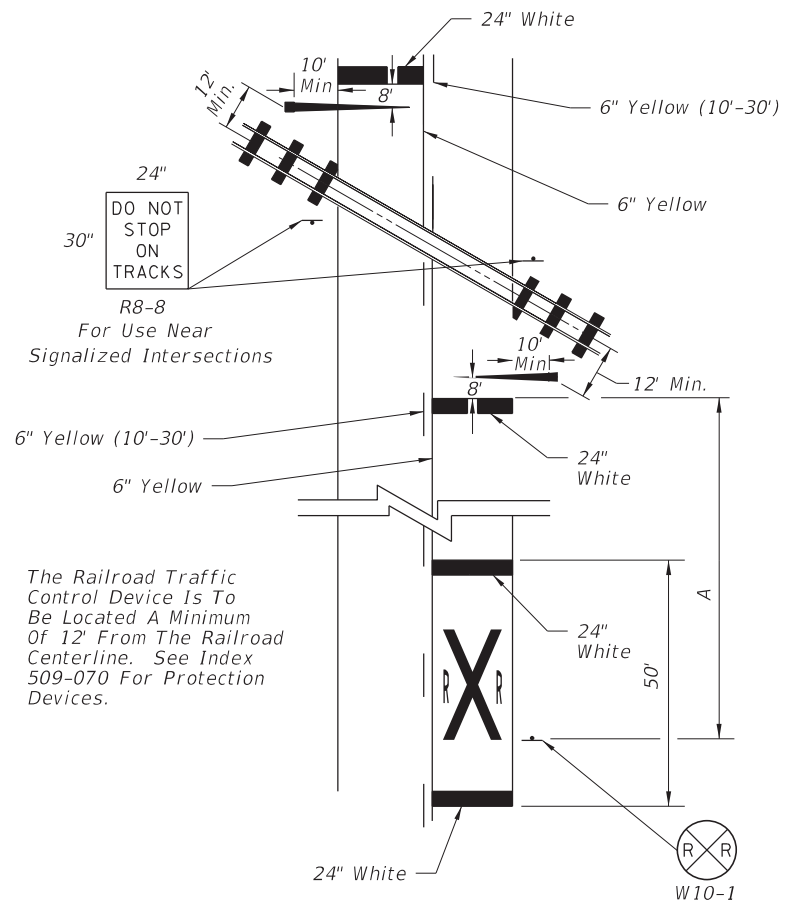
NOTES:

1. This Index also applies to right turn lanes.
2. Make pavement marking yellow for left-turn lanes and white for right-turn lanes.

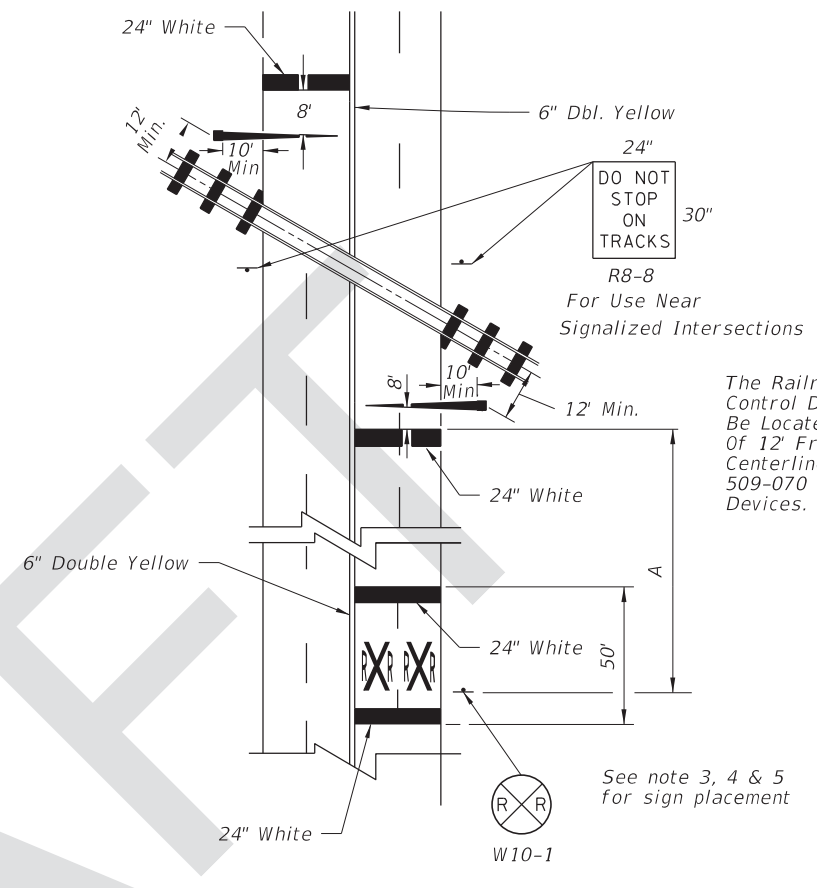
Aligned Arrows

TURN LANE MARKINGS

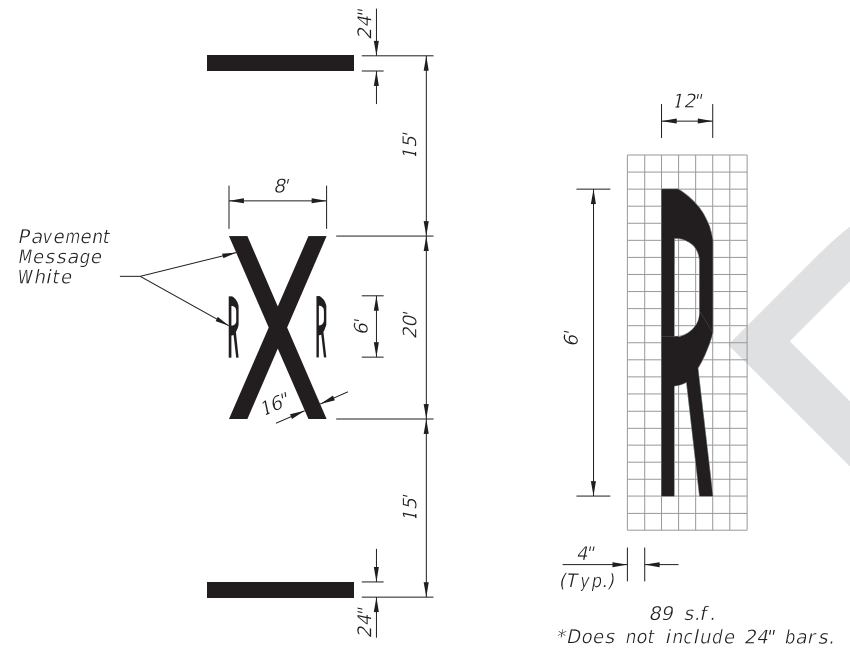
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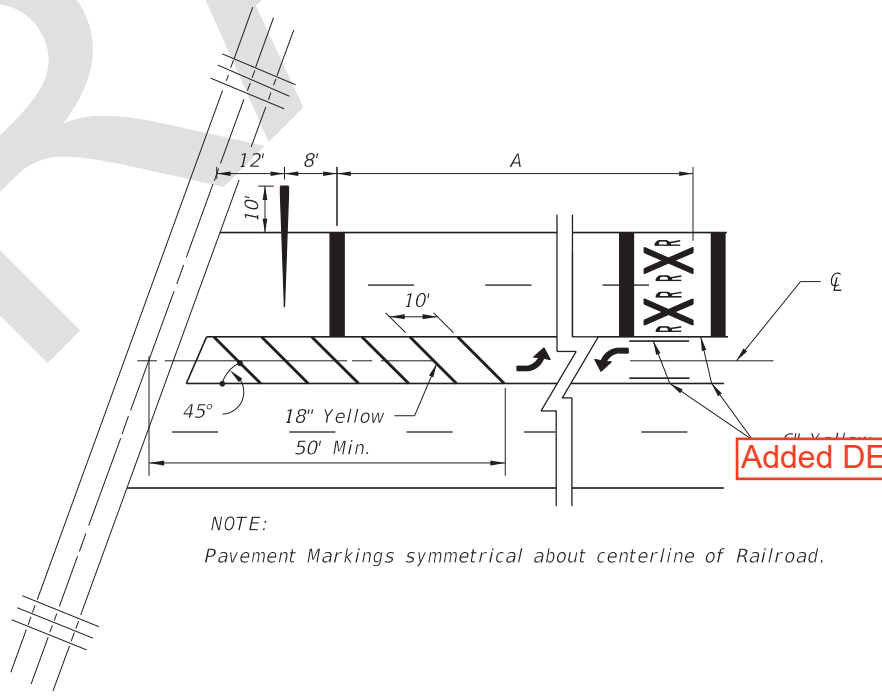
RAILROAD CROSSING AT 2-LANE ROADWAY



RAILROAD CROSSING AT 4-LANE ROADWAY



TYPICAL MARKINGS FOR R/R CROSSING



TERMINATION OF TWO WAY LEFT TURN AT R/R CROSSINGS

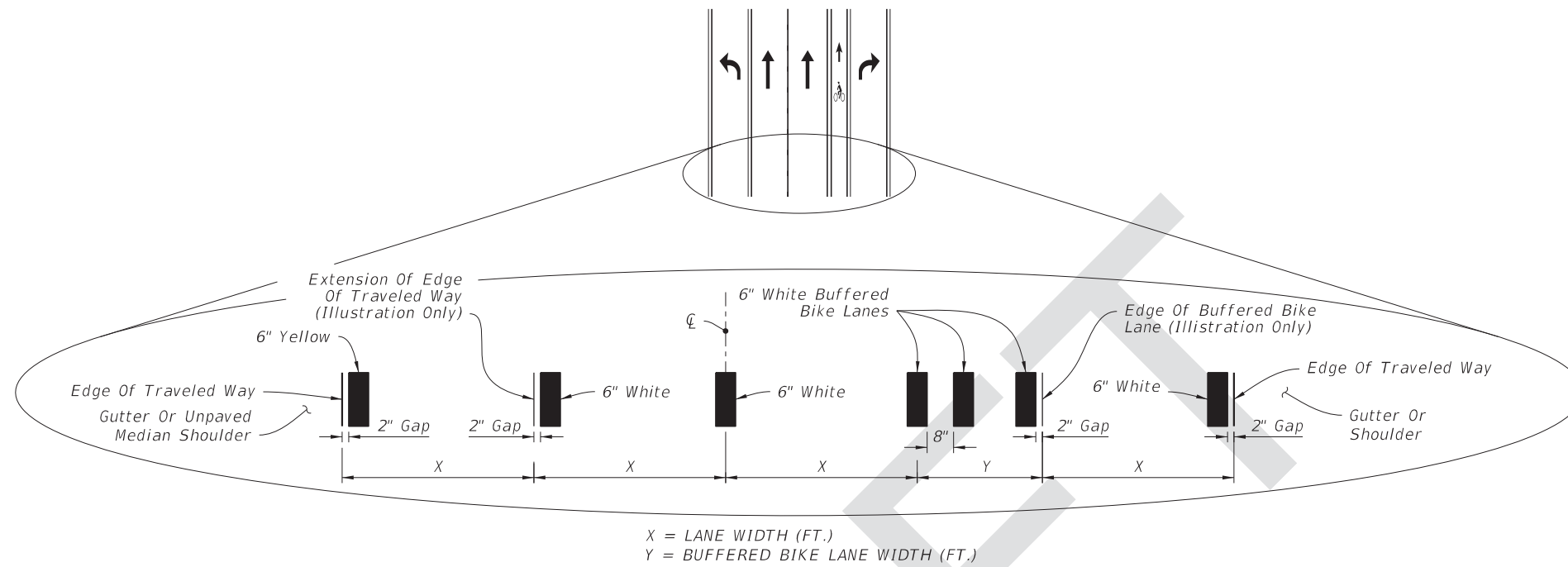
NOTES:

1. Do not include transverse markings in pavement message quantities.
2. When dynamic devices are not present or are to be installed, place the crossbuck at the future location of the RR gate or signal and gate in accordance with Index 509-070.
3. Place an additional W10-1 sign where street intersections occur between the R/R pavement message and the tracks.
4. Place FTP-61-06 sign or FTP-62-06 sign 100' in advance of the crossing for urban locations and 300' in advance of the crossing for rural locations.

Added DESIGN

SPEED MPH	A" IN FT.
60	400
55	325
50	250
45	175
40	125
35	100
URBAN	85 MIN.

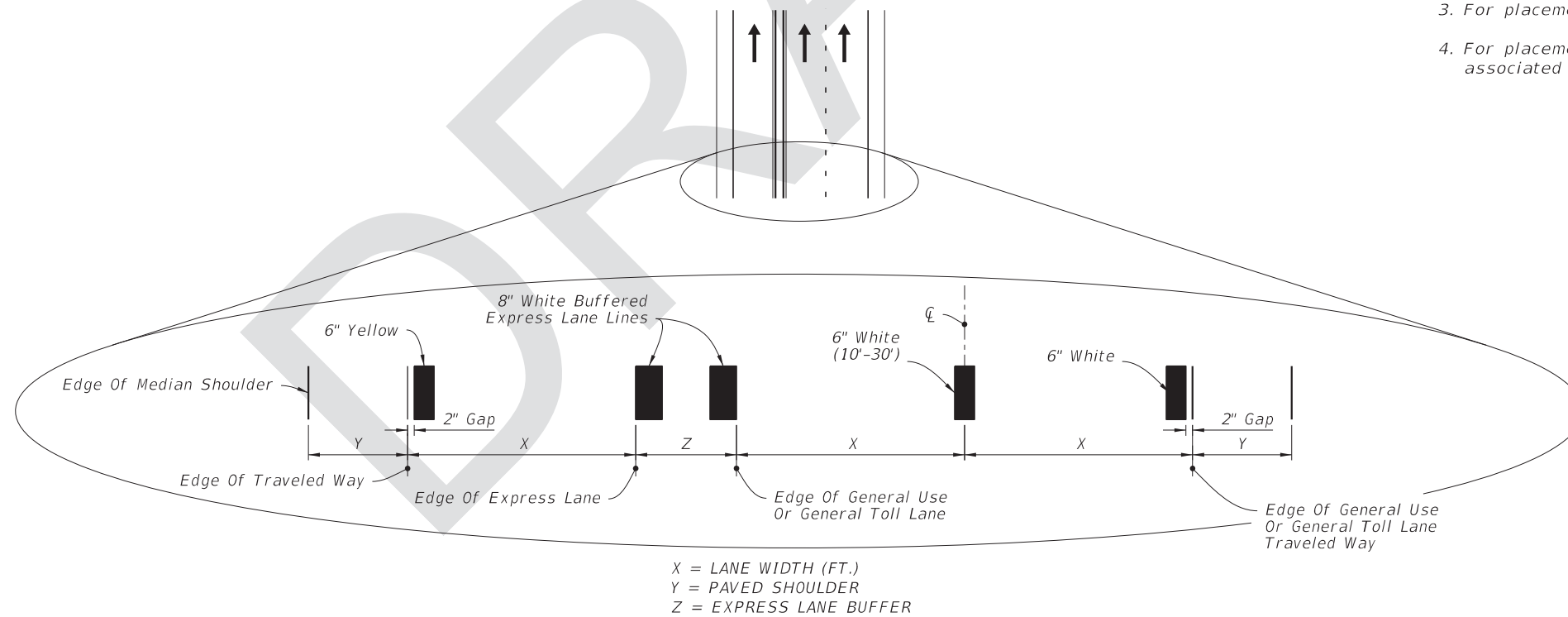
8/29/2017 3:52:59 PM



INTERSECTION APPROACH STRIPING WITH TURN LANES AND BUFFERED BIKE LANE KEY HOLE

NOTES:


1. Lane widths (X) may not be same for each lane in the section.
3. For placement of RPMs, see Index 706-001.
4. For placement of Express Lane markers and associated RPMs, see the Plans.



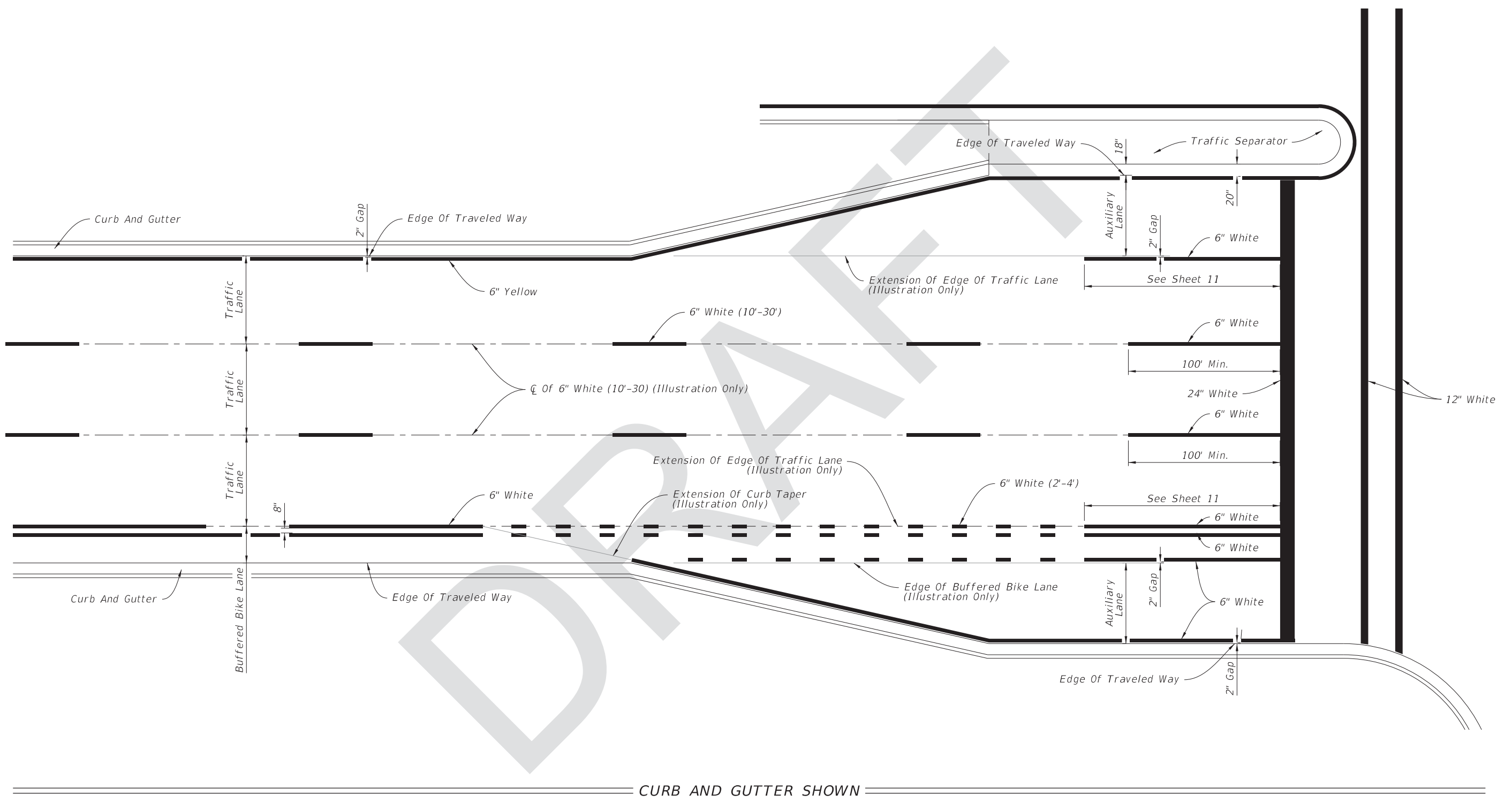
BUFFERED EXPRESS LANE STRIPING

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS


9/28/2017 10:05:00 AM

LAST REVISION 11/01/17	REVISION	DESCRIPTION:	 FY 2018-19 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 4 of 14
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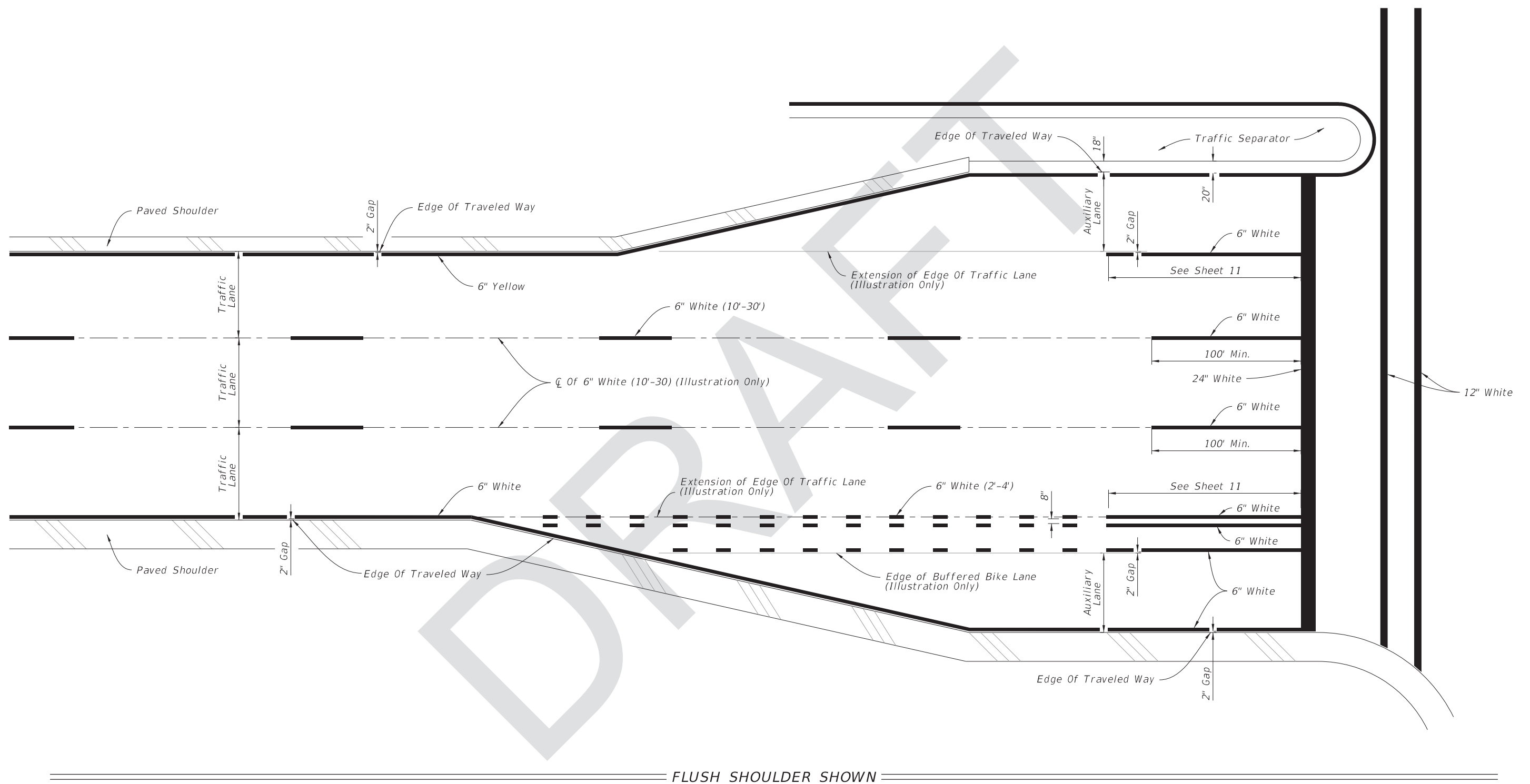
9/28/2017 10:05:01 AM



PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS


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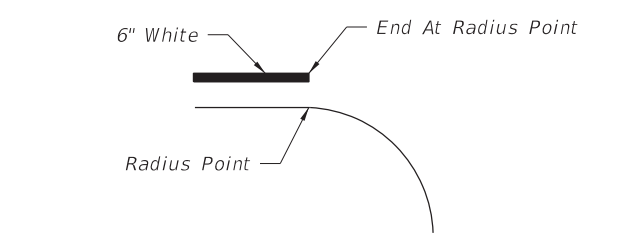
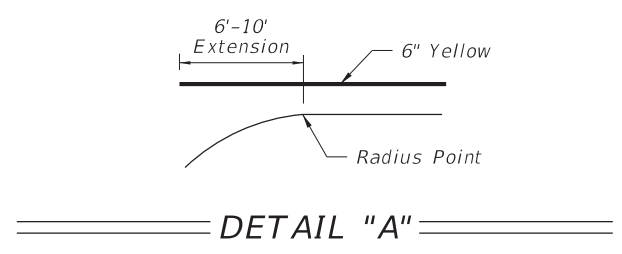
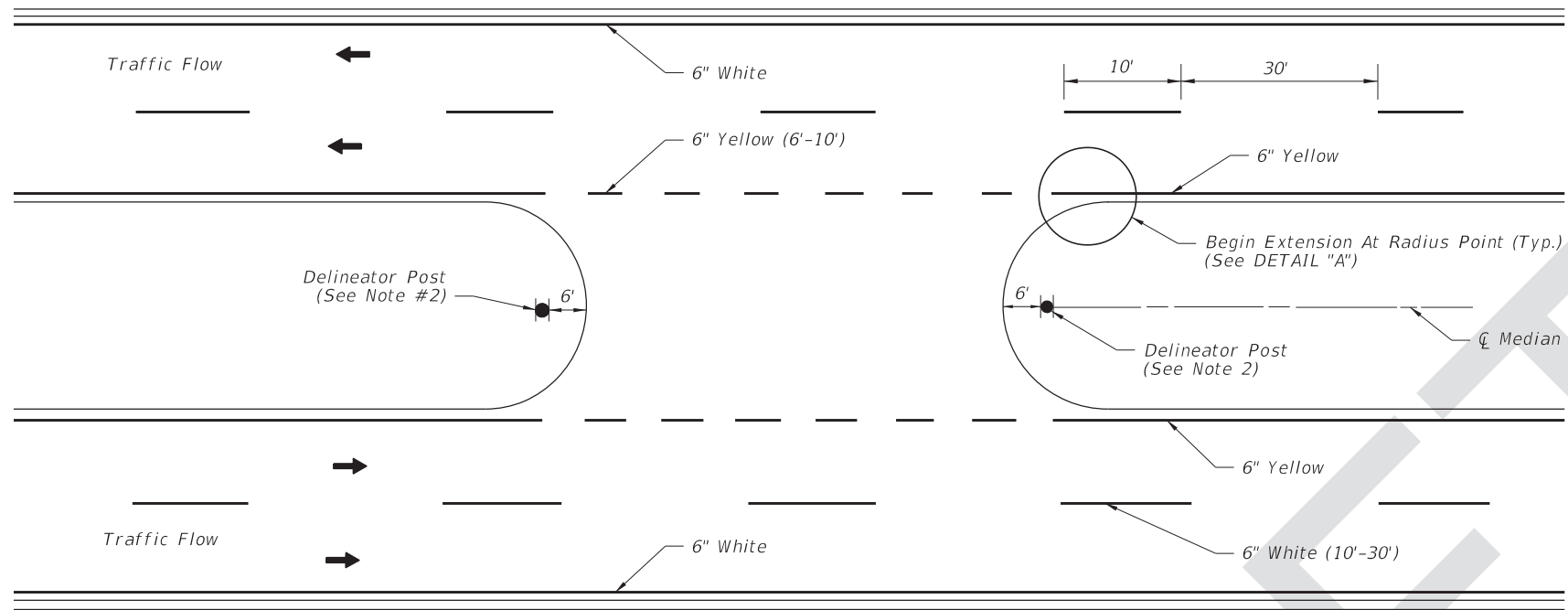
9/28/2017 10:05:01 AM



FLUSH SHOULDER SHOWN

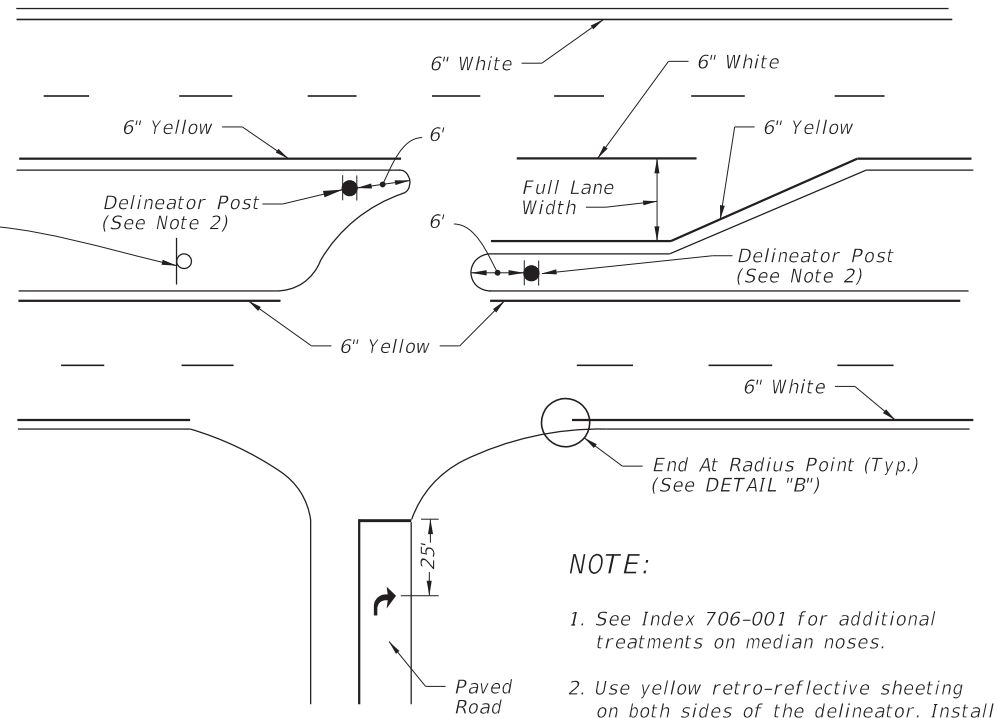
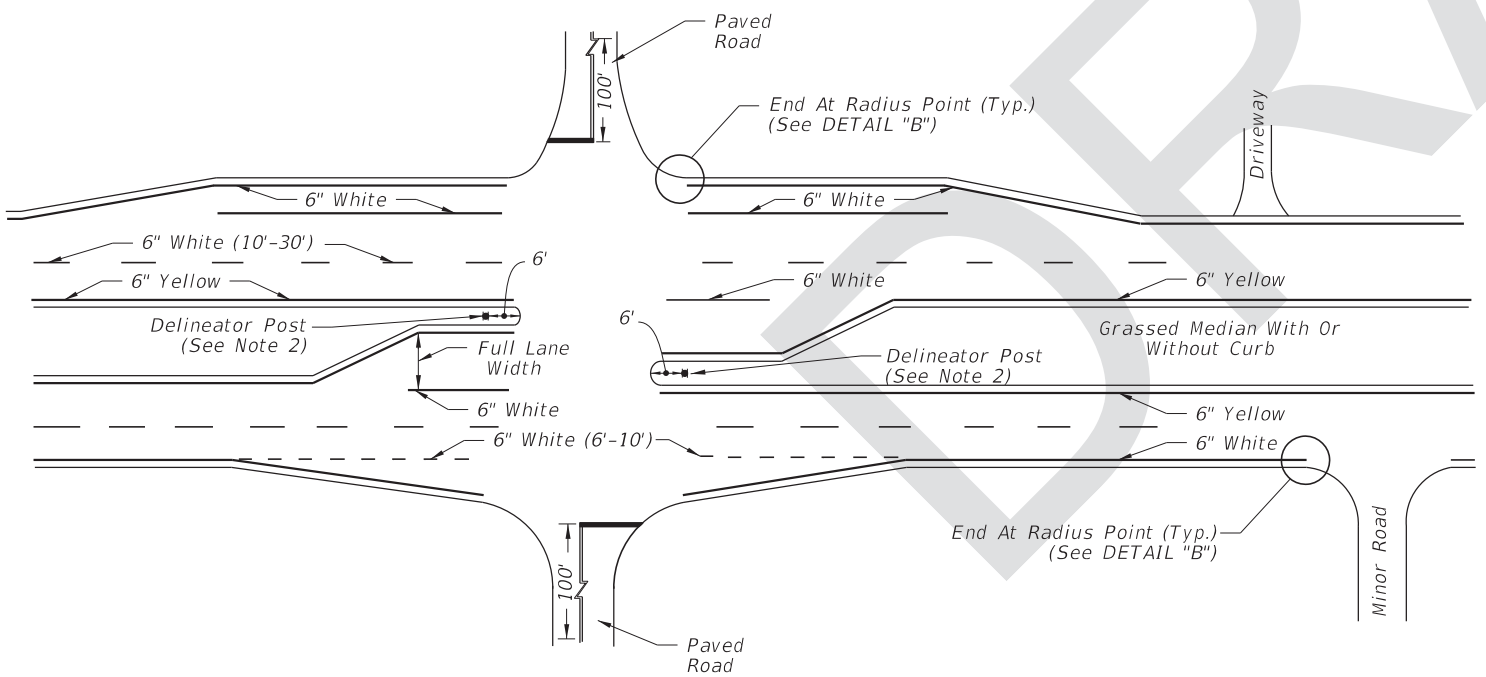
PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

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PAVEMENT MARKINGS AND DELINEATORS FOR MEDIAN CROSS-OVER

DETAIL "B"

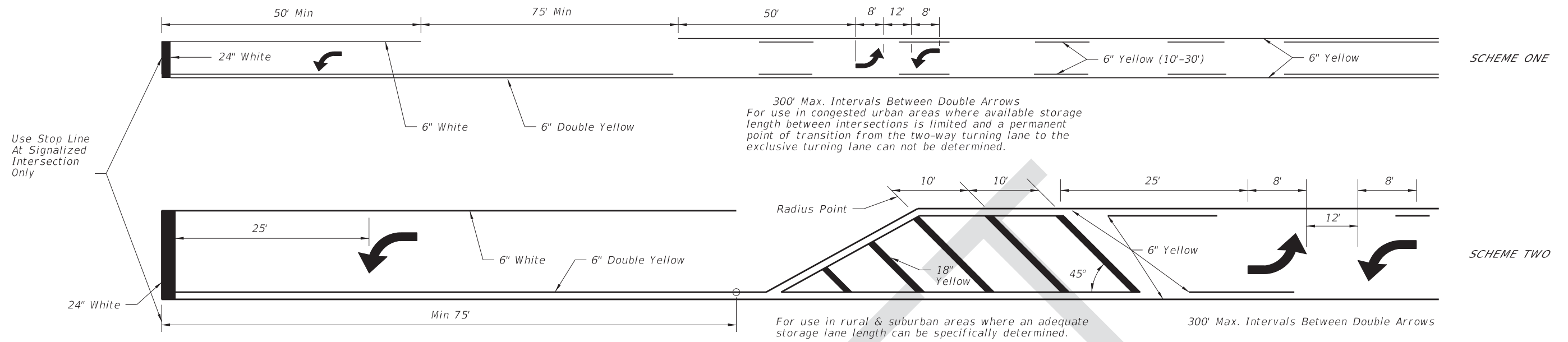


- NOTE:**
1. See Index 706-001 for additional treatments on median noses.
 2. Use yellow retro-reflective sheeting on both sides of the delineator. Install the post so that the top is 4' above the grade at the edge of the pavement.

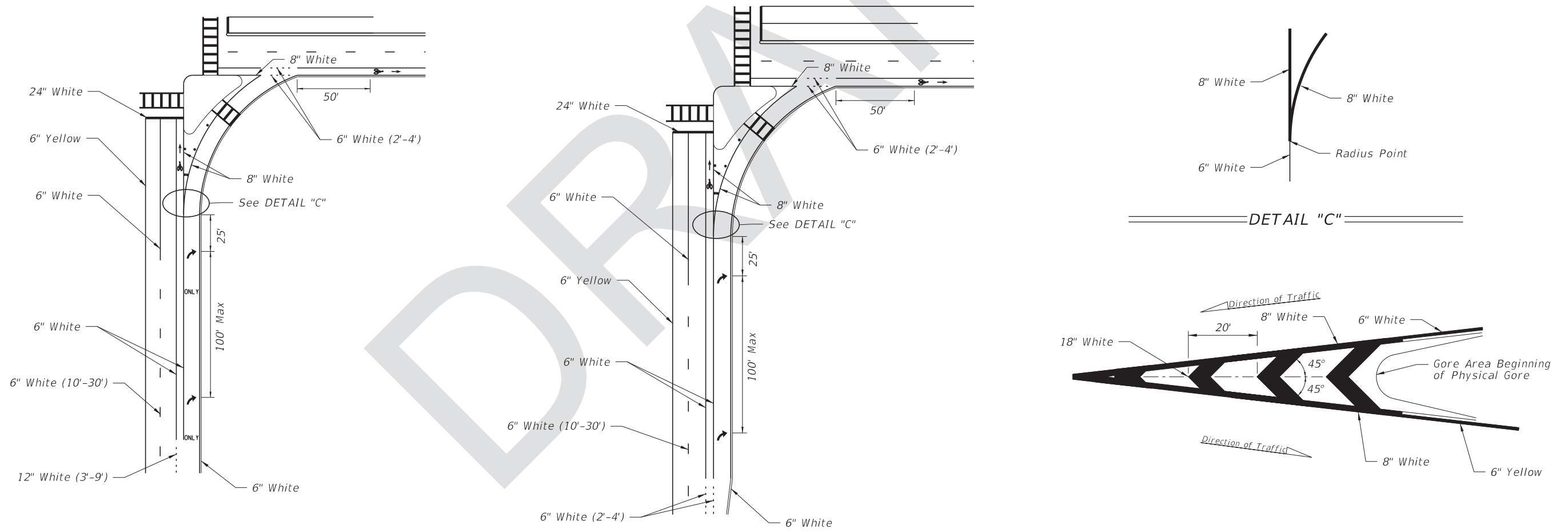
PAVEMENT MARKINGS FOR INTERSECTIONS WITH MAJOR AND MINOR ROADS

9/28/2017 10:05:01 AM

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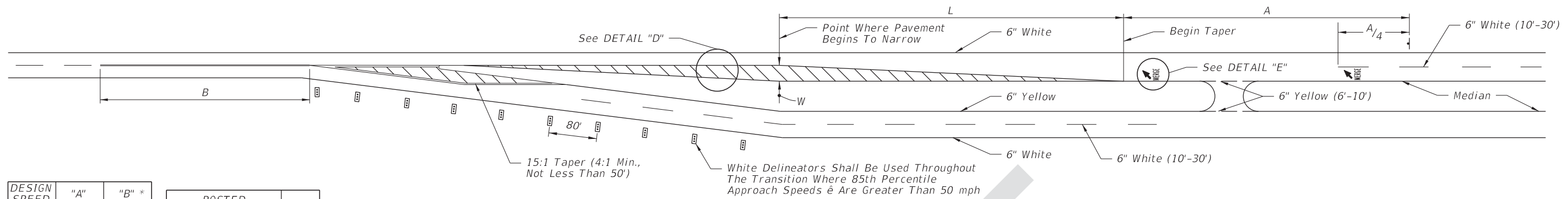


TWO WAY LEFT TURN LANE
 (With Single Lane Left Turn Channelization)



9/28/2017 10:05:02 AM

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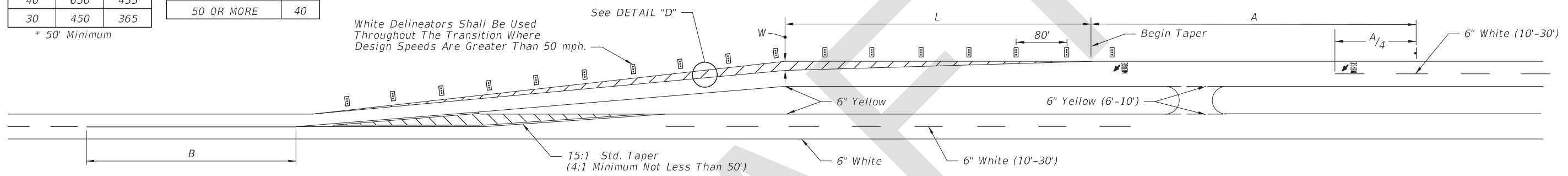


DESIGN SPEED (MPH)	"A" (FT.)	"B" * (FT.)
60	---	640
55	950	595
50	850	550
45	750	500
40	650	455
30	450	365

POSTED SPEED LIMIT MPH	"Y" (FT.)
30 OR LESS	10
35	20
40	20
45	30
50 OR MORE	40

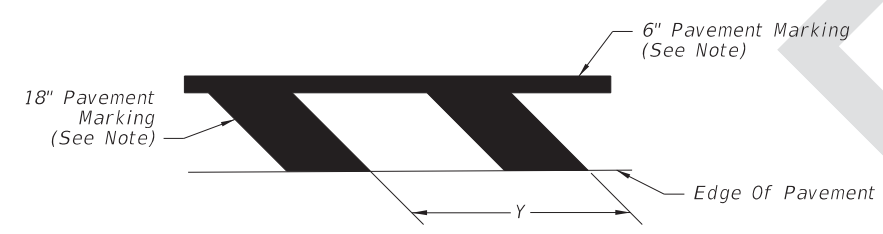
DESIGN SPEED 'S' (MPH)	Length 'L' (FT.)
40 or Less	$L = WS^2/60$
45 or Greater	$L = WS$

LEFT ROADWAY CENTERED ON EXISTING ROADWAY



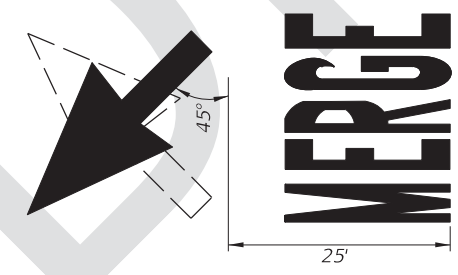
RIGHT ROADWAY CENTERED ON EXISTING ROADWAY

SCHEMES FOR TRANSITION - 2 LANE / 4 LANE ROADWAY

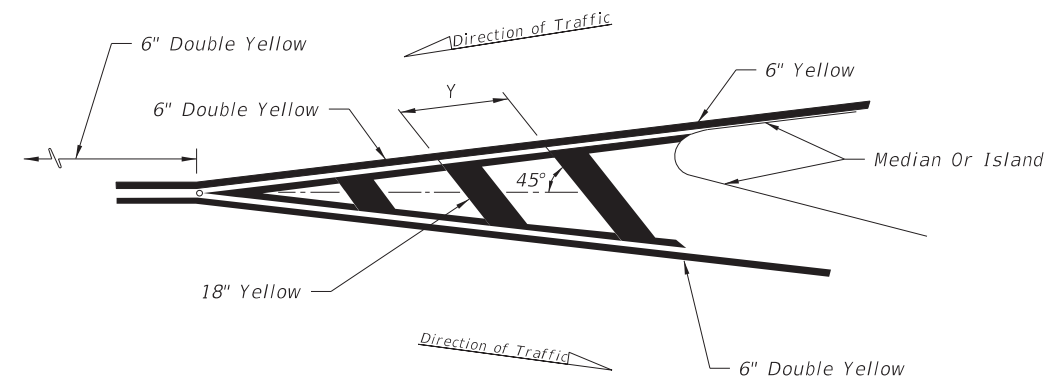


NOTE:
Make pavement markings yellow for left roadway centered on existing roadway. Right roadway centered on existing roadway is similar with white pavement markings.

DETAIL "D"

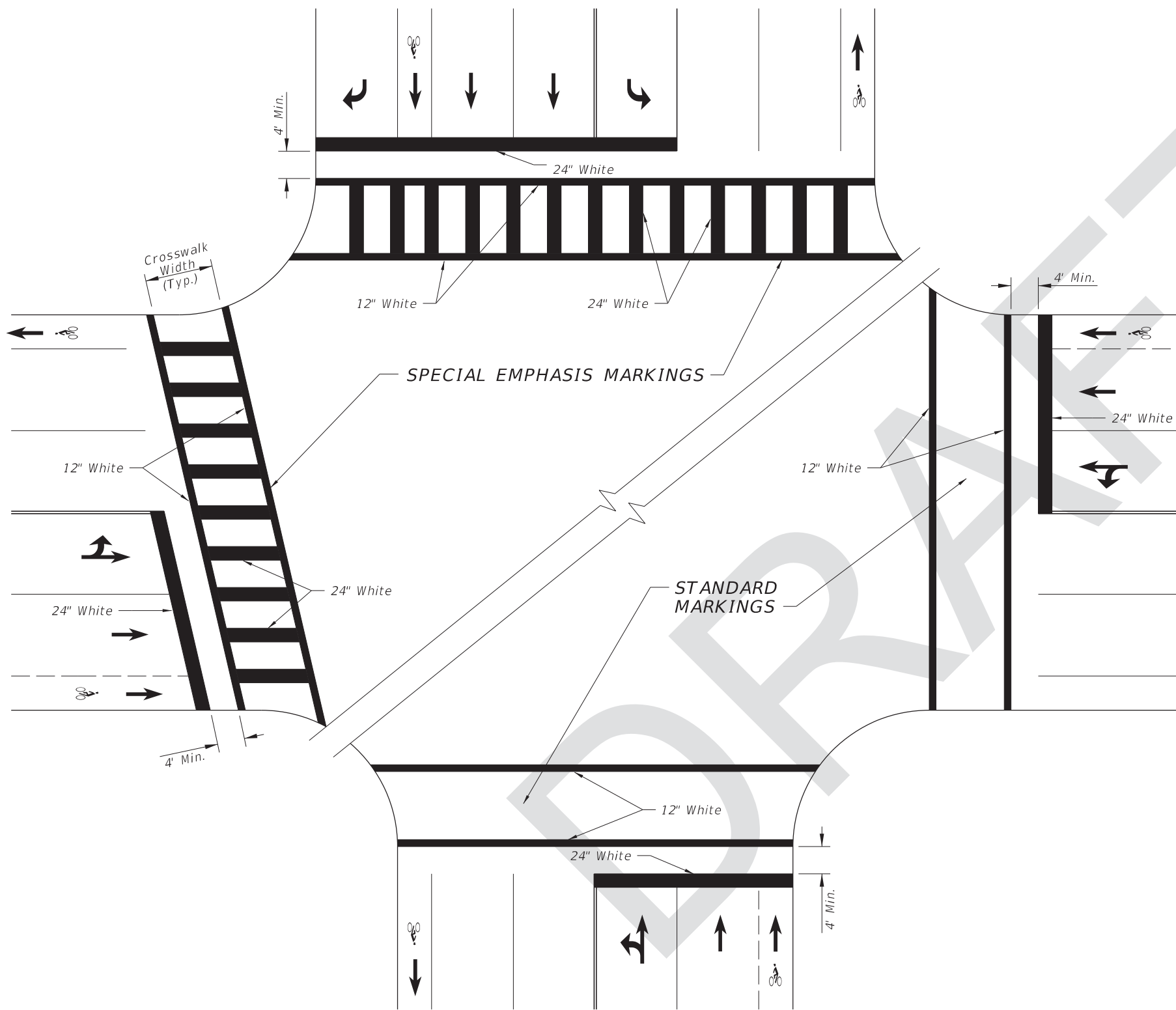


DETAIL "E"

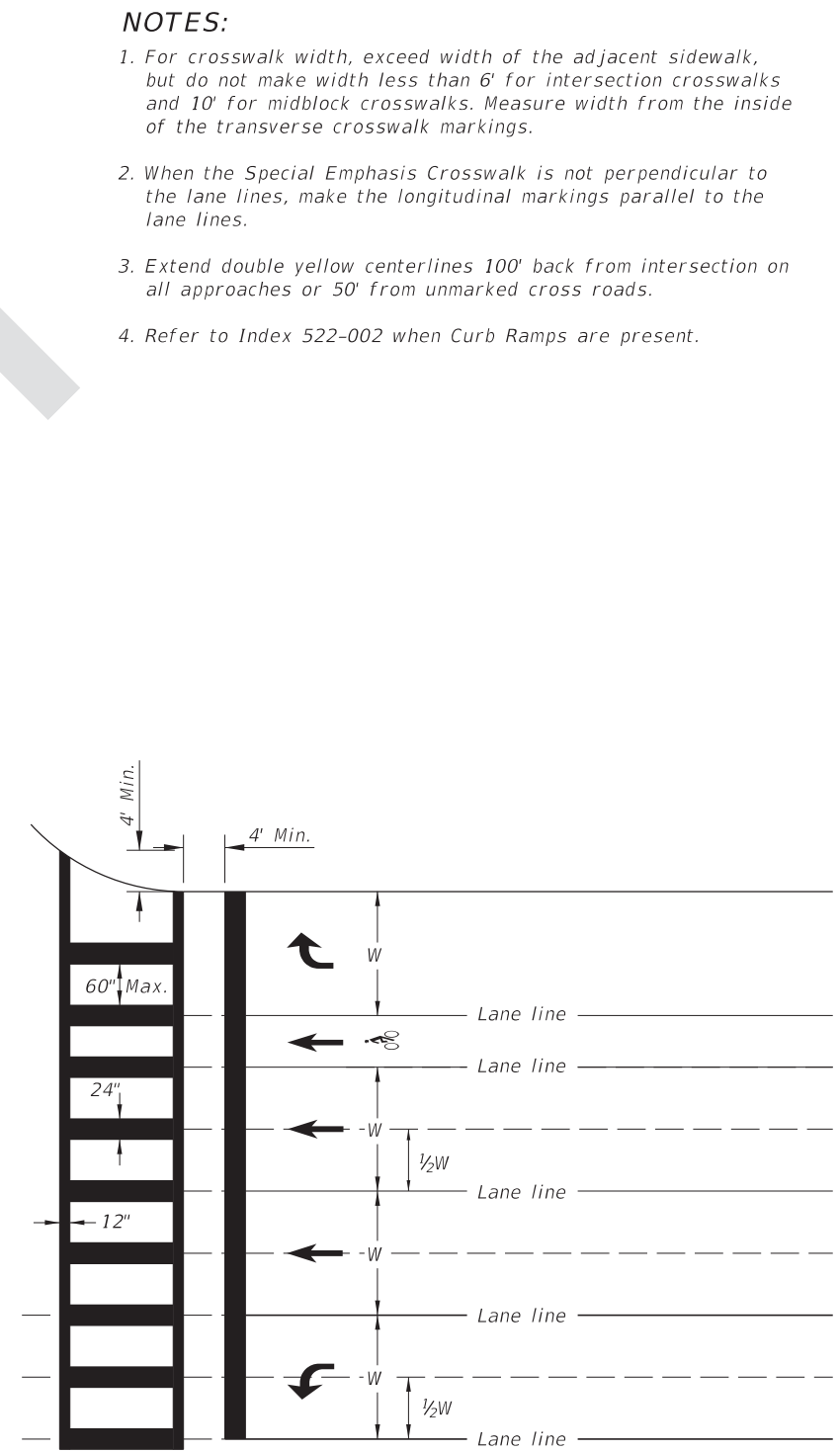


MARKINGS FOR TRAFFIC SEPARATION

9/28/2017 10:05:03 AM



INTERSECTION DETAILS



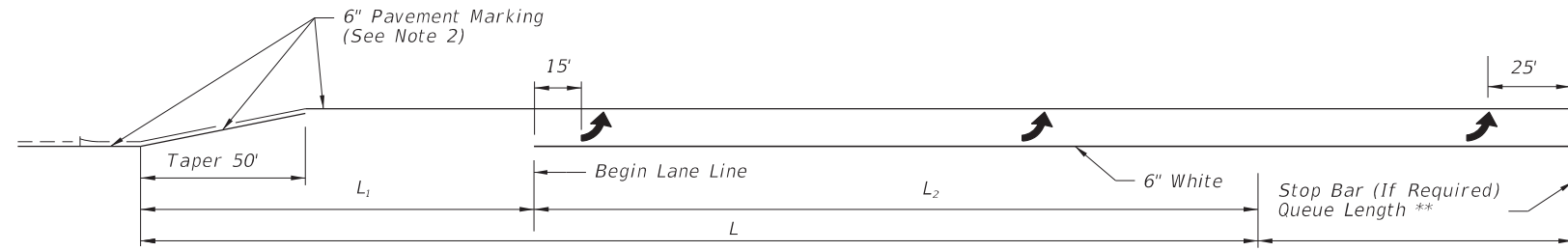
SPECIAL EMPHASIS CROSSWALK DETAILS

NOTES:

1. For crosswalk width, exceed width of the adjacent sidewalk, but do not make width less than 6' for intersection crosswalks and 10' for midblock crosswalks. Measure width from the inside of the transverse crosswalk markings.
2. When the Special Emphasis Crosswalk is not perpendicular to the lane lines, make the longitudinal markings parallel to the lane lines.
3. Extend double yellow centerlines 100' back from intersection on all approaches or 50' from unmarked cross roads.
4. Refer to Index 522-002 when Curb Ramps are present.

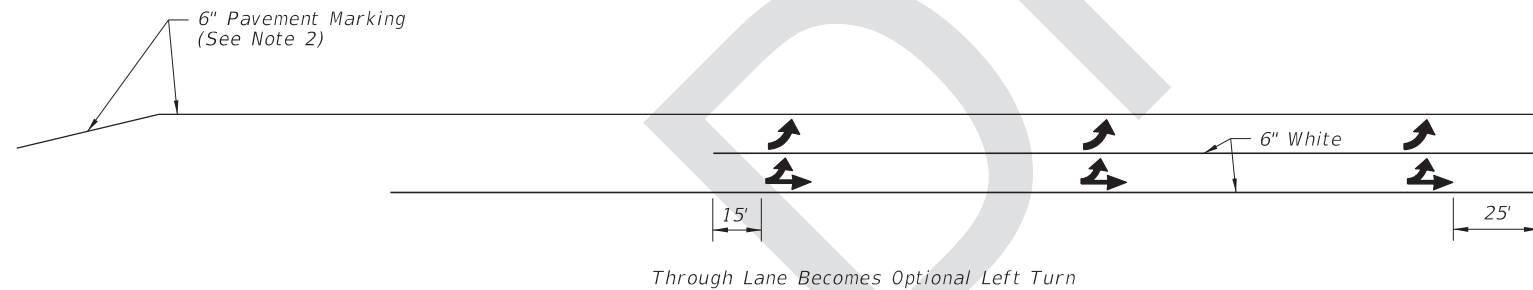
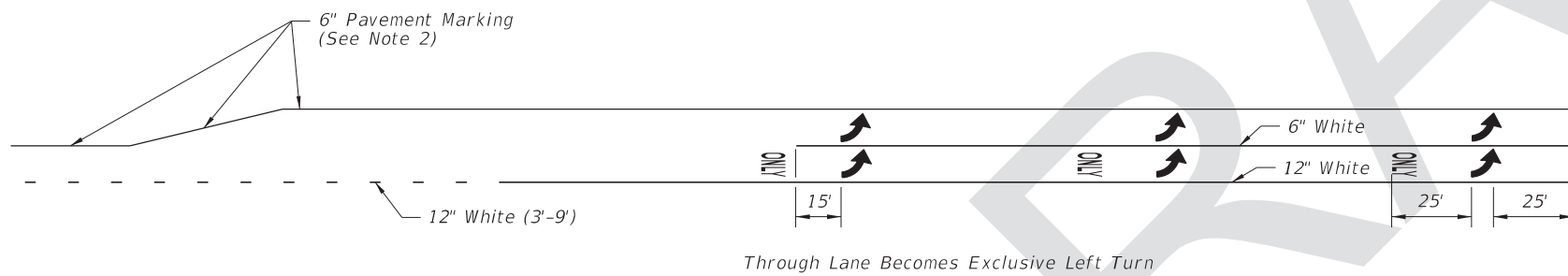
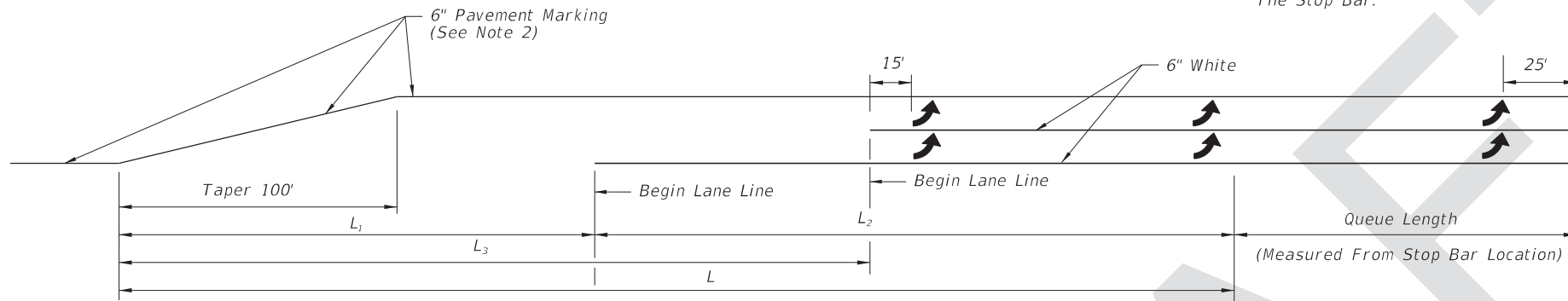
9/28/2017 10:05:04 AM

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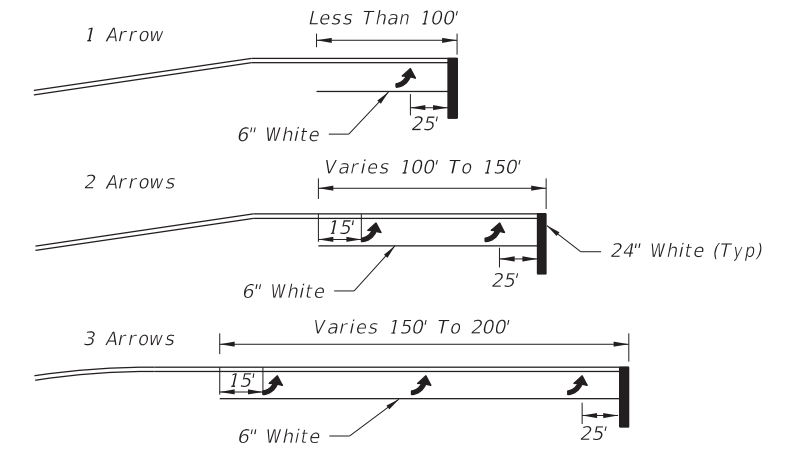
SINGLE LEFT TURNS

** Queue Length Is Measured From The Median Nose Radial Point Or, When A Stop Bar Is Required, From The Stop Bar.



DOUBLE LEFT TURNS

TURN LANES - CURBED AND UNCURBED MEDIANS							
Design Speed (mph)	Clearance Distance	URBAN CONDITIONS			RURAL CONDITIONS		
		Brake To Stop Distance	Total Decel. Distance	Clearance Distance	Brake To Stop Distance	Total Decel. Distance	Clearance Distance
	L ₁	L ₂	L	L ₃	L ₂	L	L ₃
35	70'	75'	145'	110'	---	---	---
40	80'	75'	155'	120'	---	---	---
45	85'	100'	185'	135'	---	---	---
50	105'	135'	240'	160'	185'	290'	160'
55	125'	---	---	---	225'	350'	195'
60	145'	---	---	---	260'	405'	230'
65	170'	---	---	---	290'	460'	270'



Arrow should be evenly spaced between first and last arrow. Turn lanes longer than 200' add one arrow for each 100' additional length.

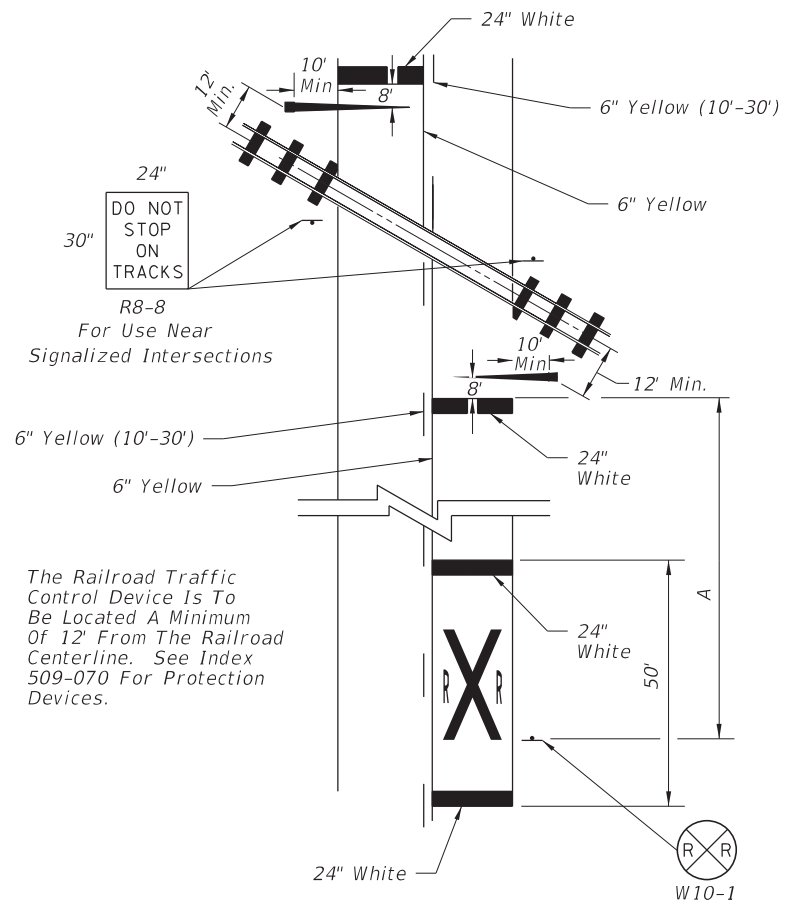
ARROW SPACING

NOTES:

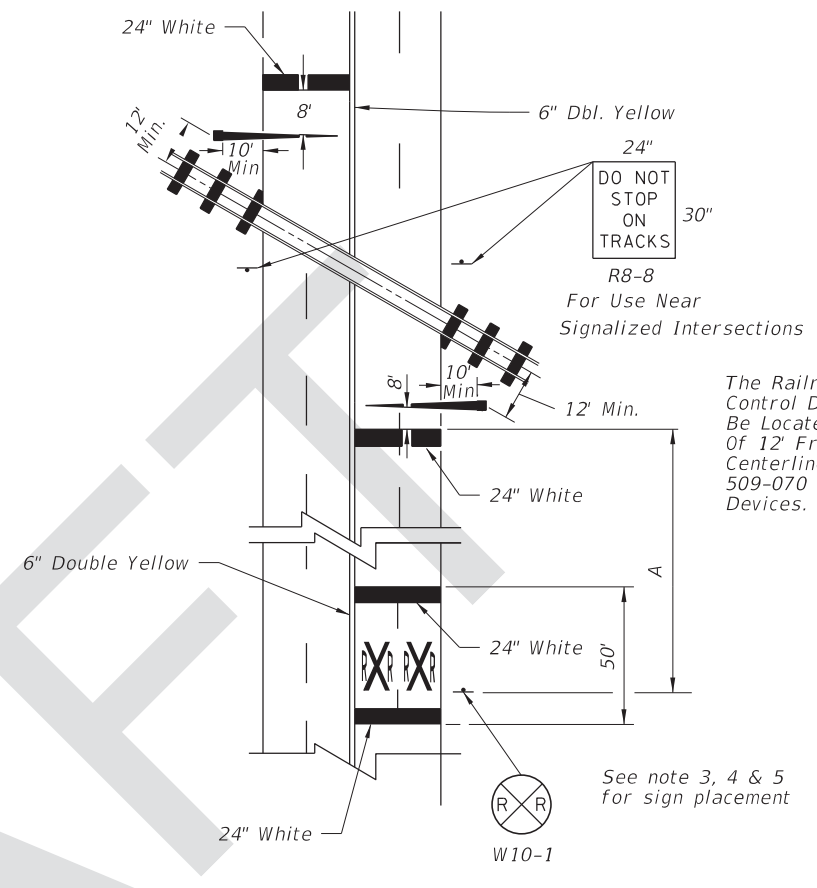
1. This Index also applies to right turn lanes.
2. Make pavement marking yellow for left-turn lanes and white for right-turn lanes.

TURN LANE MARKINGS

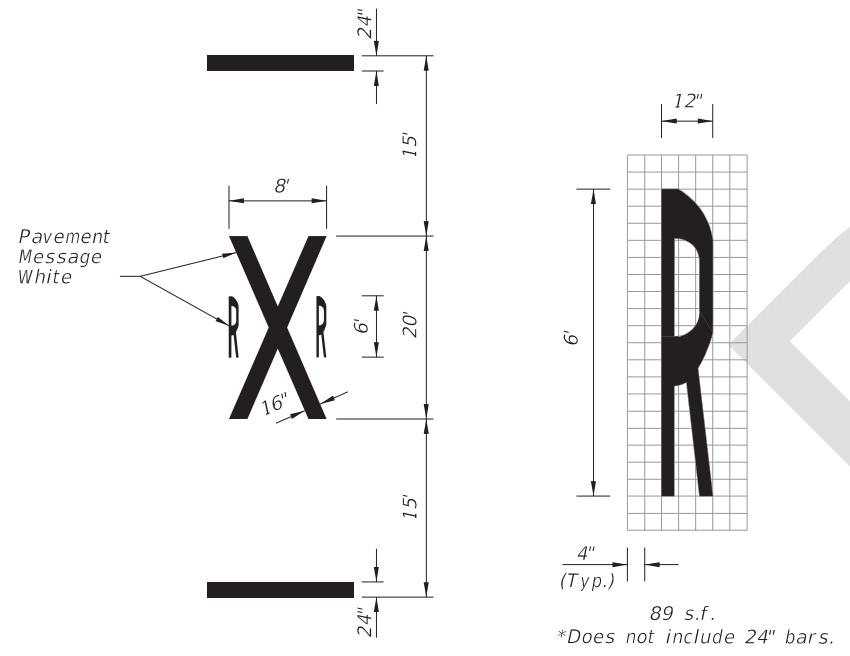
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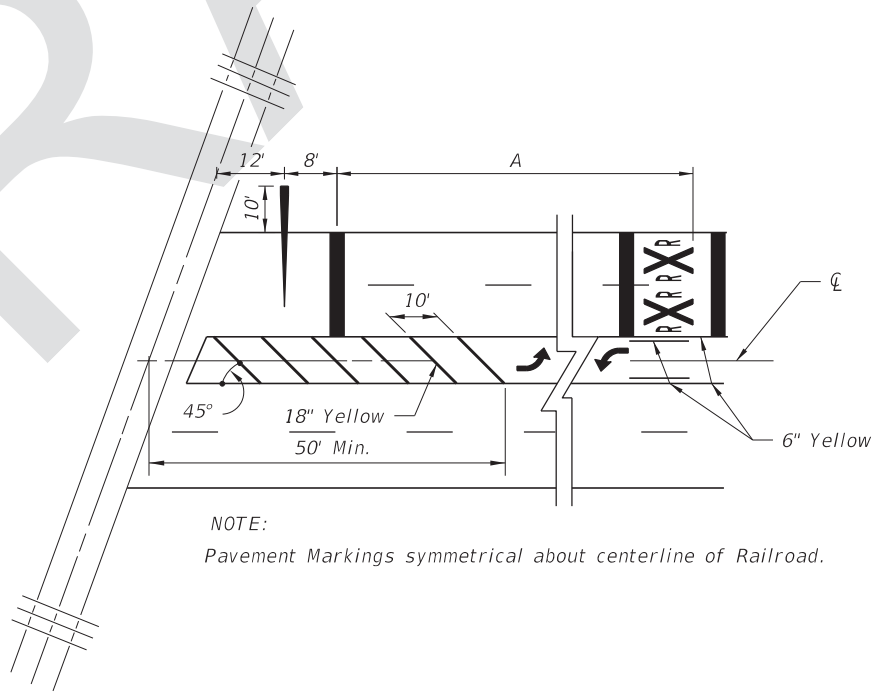
RAILROAD CROSSING AT 2-LANE ROADWAY



RAILROAD CROSSING AT 4-LANE ROADWAY



TYPICAL MARKINGS FOR R/R CROSSING



TERMINATION OF TWO WAY LEFT TURN AT R/R CROSSINGS

NOTES:

1. Do not include transverse markings in pavement message quantities.
2. When dynamic devices are not present or are to be installed, place the crossbuck at the future location of the RR gate or signal and gate in accordance with Index 509-070.
3. Place an additional W10-1 sign where street intersections occur between the R/R pavement message and the tracks.
4. Place FTP-61-06 sign or FTP-62-06 sign 100' in advance of the crossing for urban locations and 300' in advance of the crossing for rural locations.

DESIGN SPEED MPH	" A " IN FT.
60	400
55	325
50	250
45	175
40	125
35	100
URBAN	85 MIN.

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