

ORIGINATION FORM

Proposed Revisions to a Standard Plans Index
(Please provide all information – Incomplete forms will be returned)

Contact Information:

Date: June 28, 2018
Originator: **Ed Cashman**
Phone: (850) 414-4314
Email: edward.cashman@dot.state.fl.us

Standard Plans:

Index Number: **711-001**
Sheet Number (s): 1, 7-12 of 14
Index Title: Typical Placement of Raised Pavement Markers

Summary of the changes:

Sheet 1: Added Route Shield details. Added pavement message table. Added general notes. Updated pavement message notes. Sheet 7: Added note 3. Sheet 8: Deleted "100' max." for Right Turn Lane Drop Details. Sheet 9: Updated pavement message spacing distance to S. Sheet 10: Changed Intersection Details to Standard Crosswalk Details. Moved note 3 to Sheet 7. Sheet 11: Updated pavement message spacing distance to S. Sheet 12: Deleted this Sheet.

Commentary / Background:

Added the route shield details because route shields are not standardized in the Standard Signs and Pavement Markings book. Added the pavement message table to correspond with the guidance in the MUTCD. Revised the crosswalk details to make it clear that crosswalks do not only apply to full four-leg intersections. Deleted Sheet 12 because railroad crossing pavement markings and signage are fully detailed in Index 509-070.

Other Affected Offices / Documents: (Provide name of responsible personnel)

- | Yes | No | |
|-------------------------------------|-------------------------------------|-----------------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Other Standard Plans – Ed Cashman |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | FDOT Design Manual – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Basis of Estimates Manual – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Standard Specifications – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Approved Product List – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Construction – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Maintenance – |

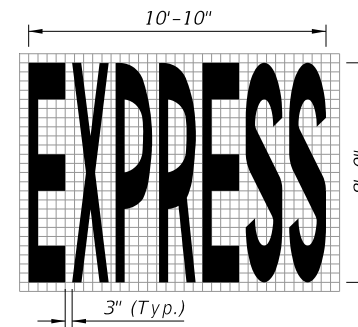
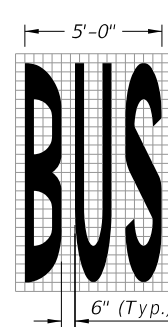
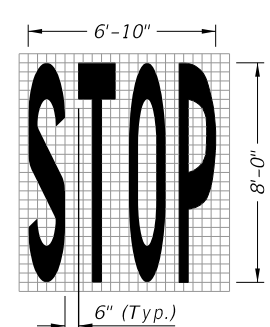
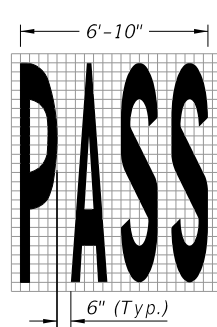
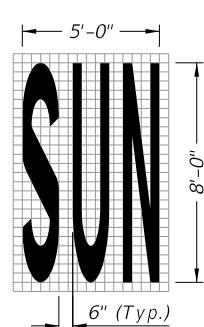
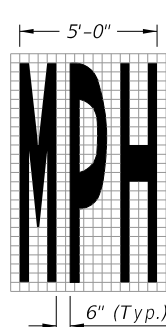
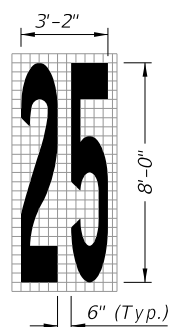
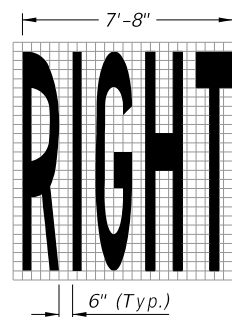
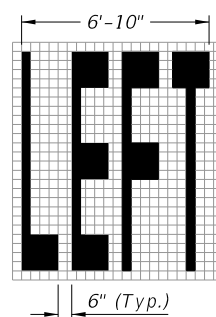
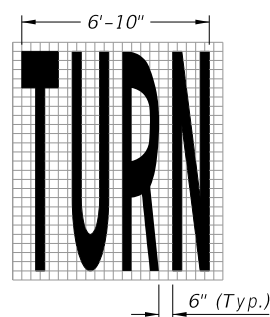
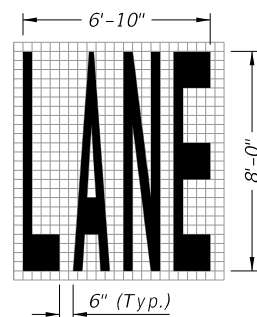
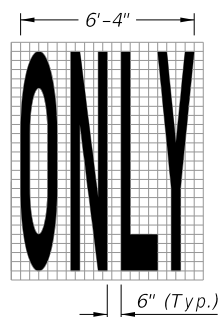
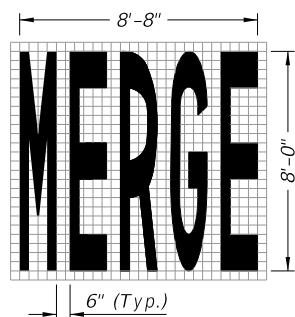
Origination Package Includes: (Email or hand deliver package to Derwood Sheppard)

- | Yes | N/A | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Proposed Standard Plan Instructions (SPI) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Revised SPI |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Other Support Documents |

Implementation:

- Design Bulletin (Interim) DCE Memo Program Mgmt. Bulletin FY-Standard Plans (Next Release)

Contact the Roadway Design Office for assistance in completing this form



Added General Notes

Added Pavement Message Table

Added Route Shield Details

NOTES:

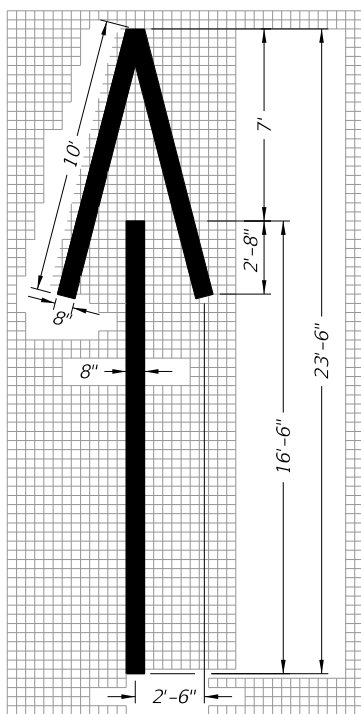
1. When an arrow and a pavement message are used together, locate the arrow 25' downstream from the pavement message. Measure the distance from the base of the arrow to the base of the pavement message. **Changed**

2. Place stop message 25' back from the stop line.

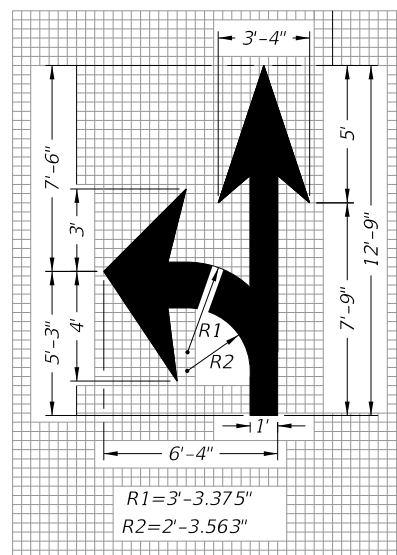
3. Dimensions are within 1" ±.

4. All grids are 4" x 4".

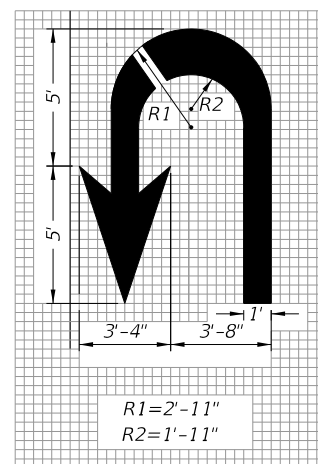
Added Notes 5 & 6.



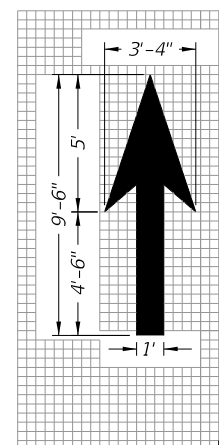
Wrong-Way Arrow
24 S.F.



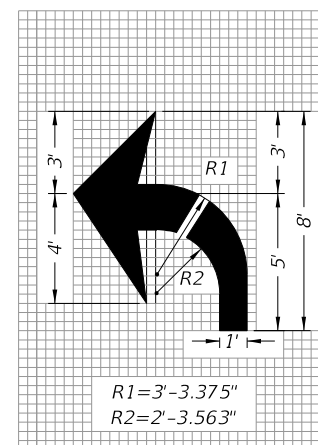
Turn and Through Lane-Use Arrow
29 S.F.



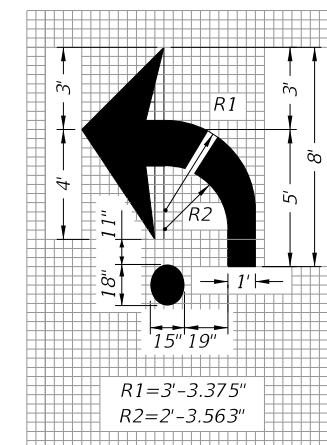
U Turn Lane-Use Arrow
27 S.F.



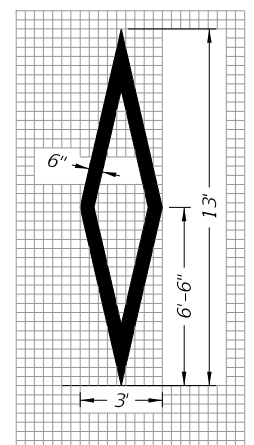
Through Lane-Use Arrow
12 S.F.



Turn Lane-Use Arrow (Left Turn Shown - Right Turn Similar by Opposite Hand)
17 S.F.



Roundabout Approach Arrow
19 S.F.



Preferential Lane Symbol
11 S.F.

PAVEMENT MESSAGE AND ARROW DETAILS

2019-20

FY ~~2018-19~~
STANDARD PLANS

PAVEMENT MARKINGS

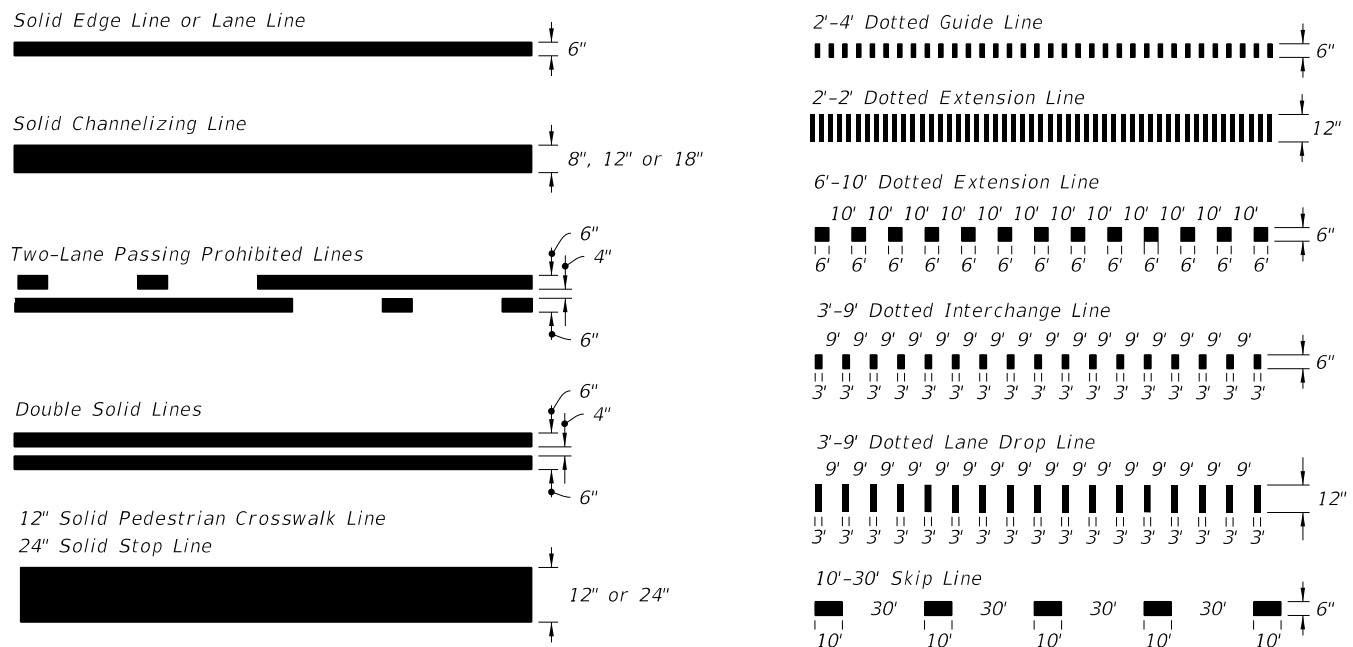


LAST REVISION	DESCRIPTION:
11/01/17	11/01/18

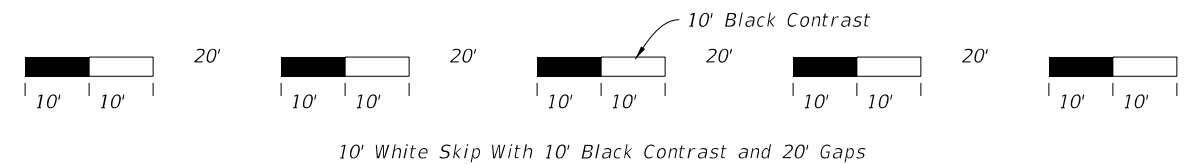
INDEX
711-001

SHEET
1 of 13

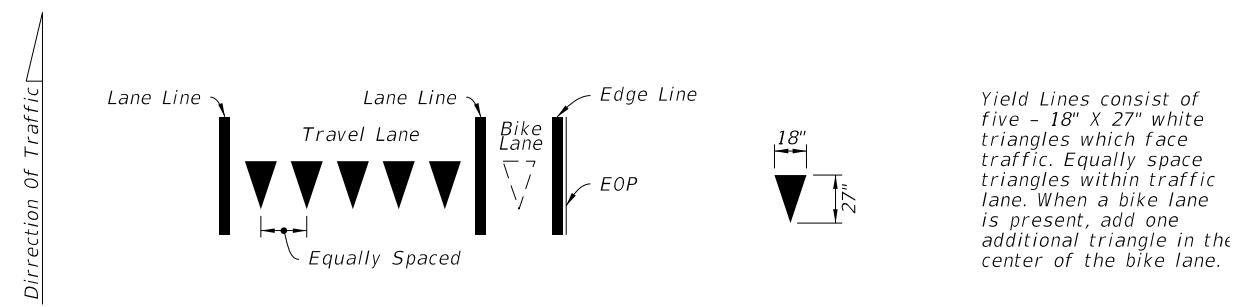
12/19/2017 11:43:19 AM



PAVEMENT MARKING LINES



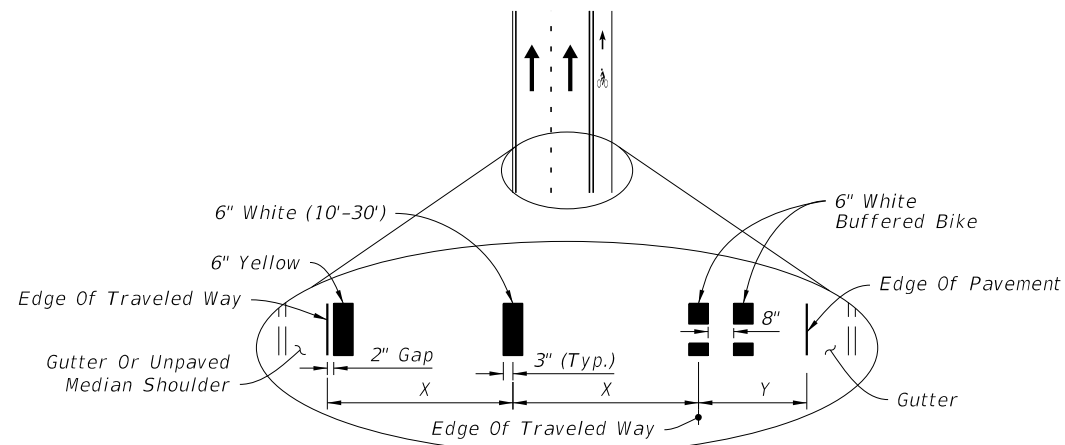
CONTRAST MARKINGS WITH ALTERNATING SKIP PATTERN
 (10'-30' Skip Line Shown, Dotted Lines Similar)



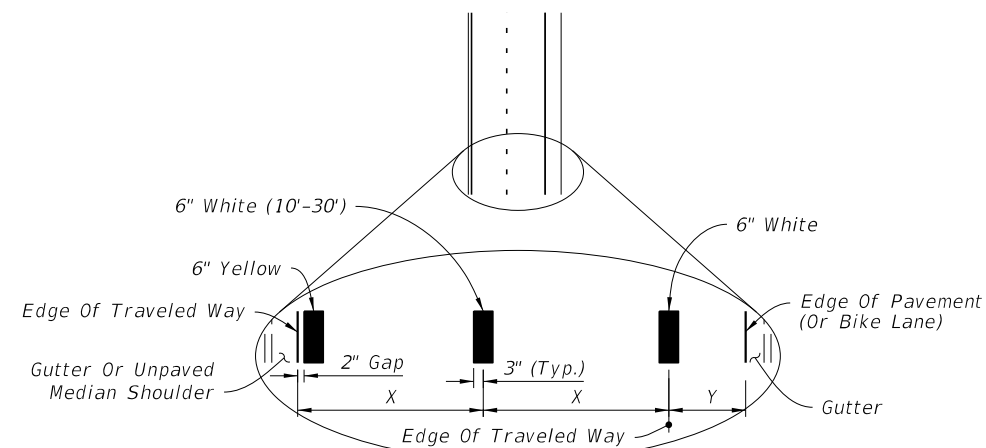
YIELD LINES

11/1/2017 2:33:12 PM

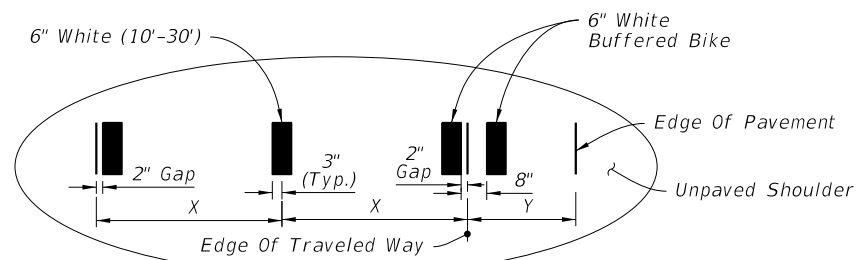
LAST REVISION 11/01/17 → 11/01/18		DESCRIPTION: 2019-20 FY 2018-19 STANDARD PLANS	FDOT	PAVEMENT MARKINGS	INDEX 711-001	SHEET 2 of 14
--------------------------------------	--	--	------	-------------------	------------------	------------------



CURB AND GUTTER

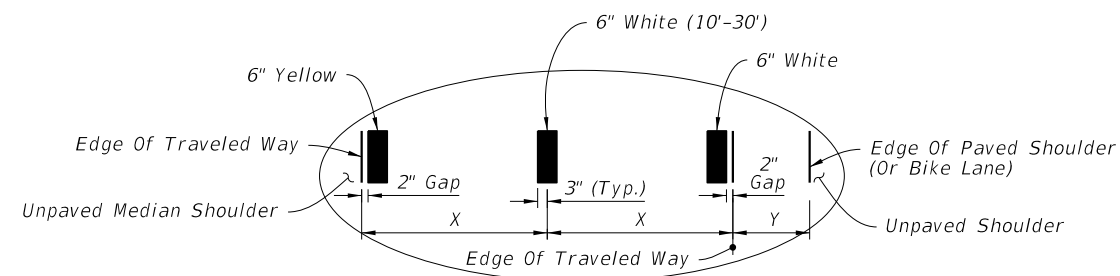


CURB AND GUTTER



FLUSH SHOULDER

X = LANE WIDTH (FT.)
Y = BUFFERED BIKE LANE WIDTH (FT.)

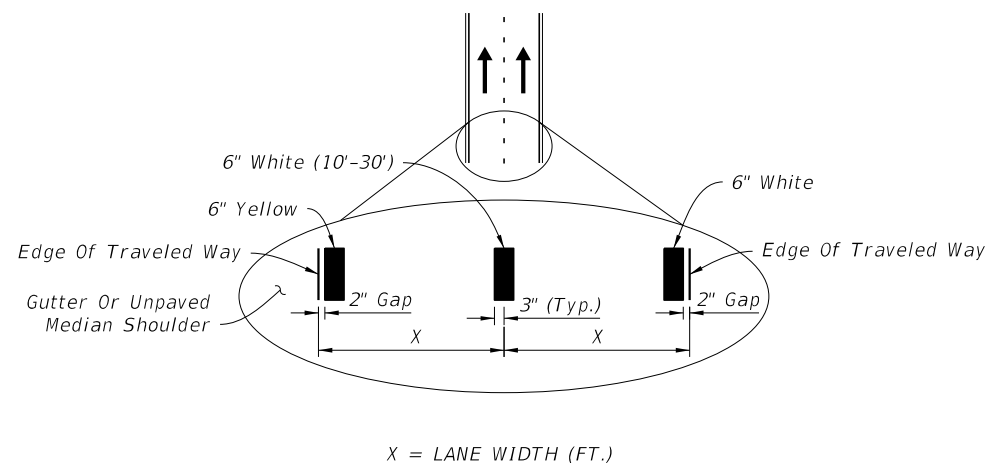


FLUSH SHOULDER

X = LANE WIDTH (FT.)
Y = PAVED SHOULDER / BIKE LANE

STRIPING FOR BUFFERED BIKE LANE

STRIPING WITH SHOULDER OR NON-BUFFERED BIKE LANE



X = LANE WIDTH (FT.)

STRIPING WITH NO SHOULDER OR BIKE LANE

NOTES:

1. Lane widths (X) may not be same for each lane in the section.
2. For placement of RPMs, see Index 706-001.

11/1/2017 2:33:12 PM

LAST REVISION	DESCRIPTION:
11/01/17	← 11/01/18

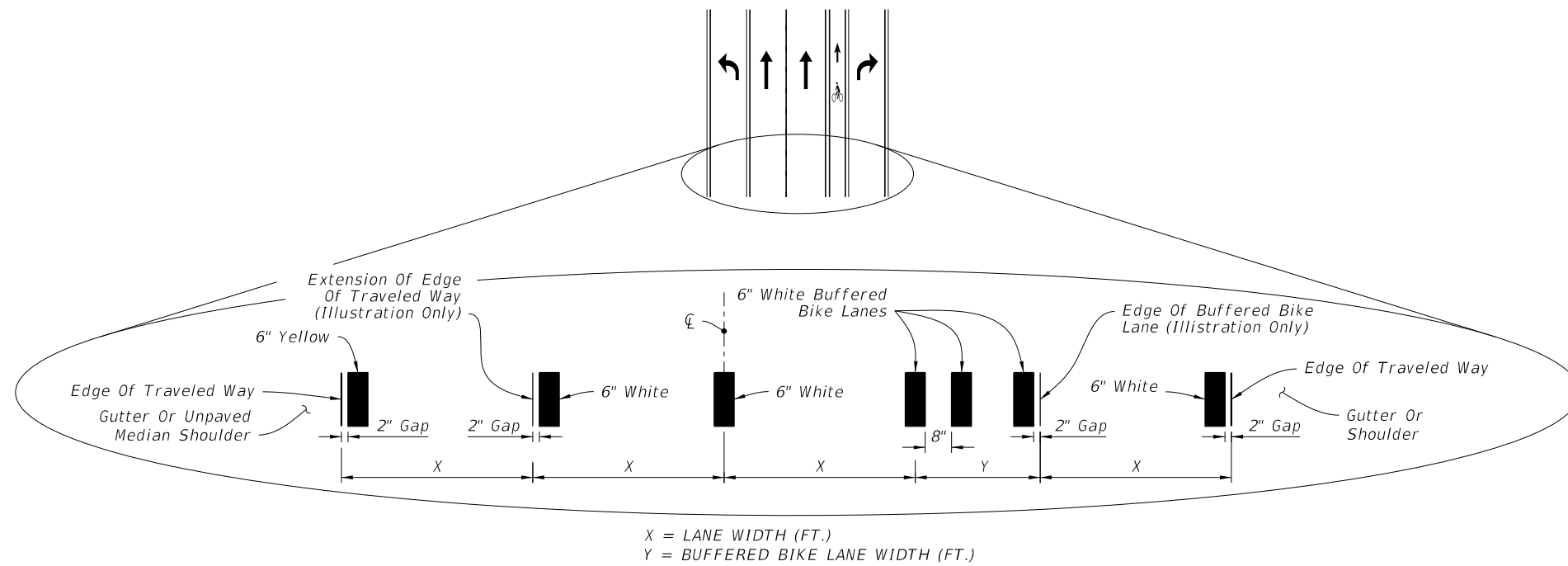


2019-20
FY ~~2018-19~~
STANDARD PLANS

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS
PAVEMENT MARKINGS

INDEX
711-001

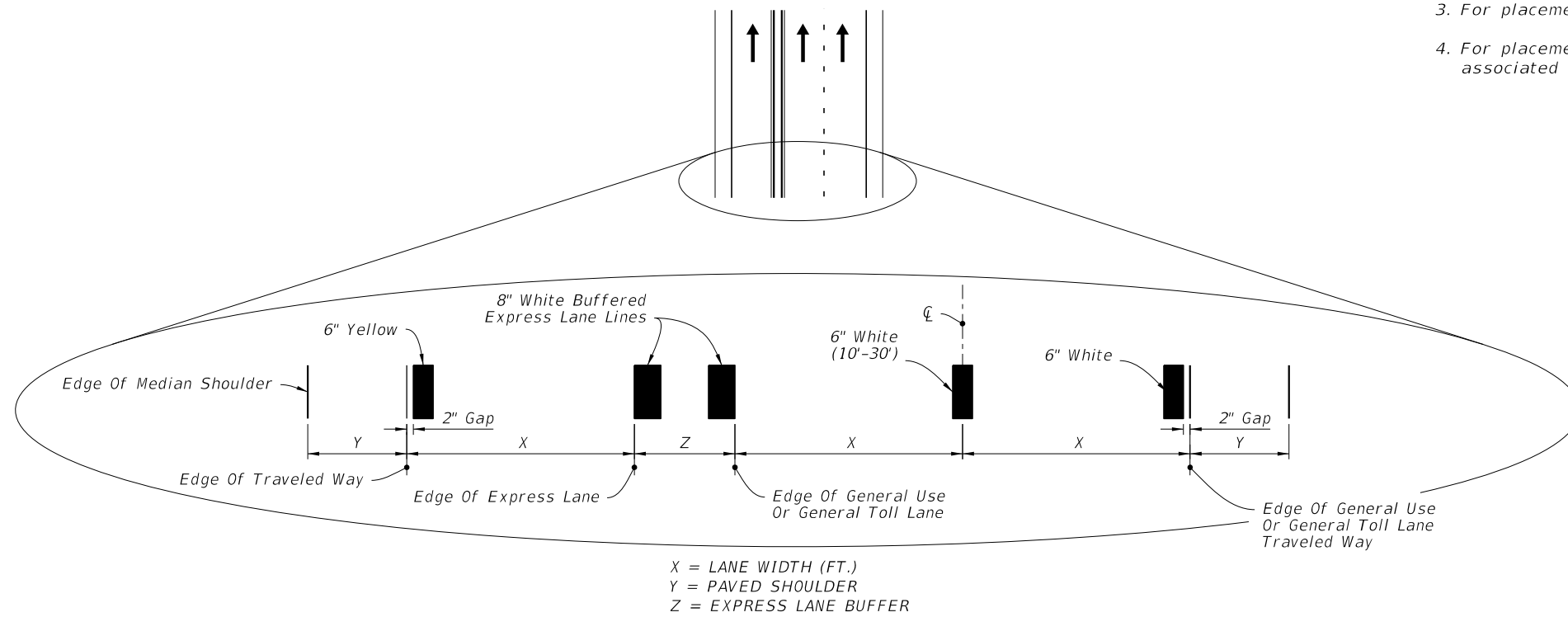
SHEET
3 of 13



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

2019-20

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

LAST REVISION	DESCRIPTION:
11/01/17	11/01/18

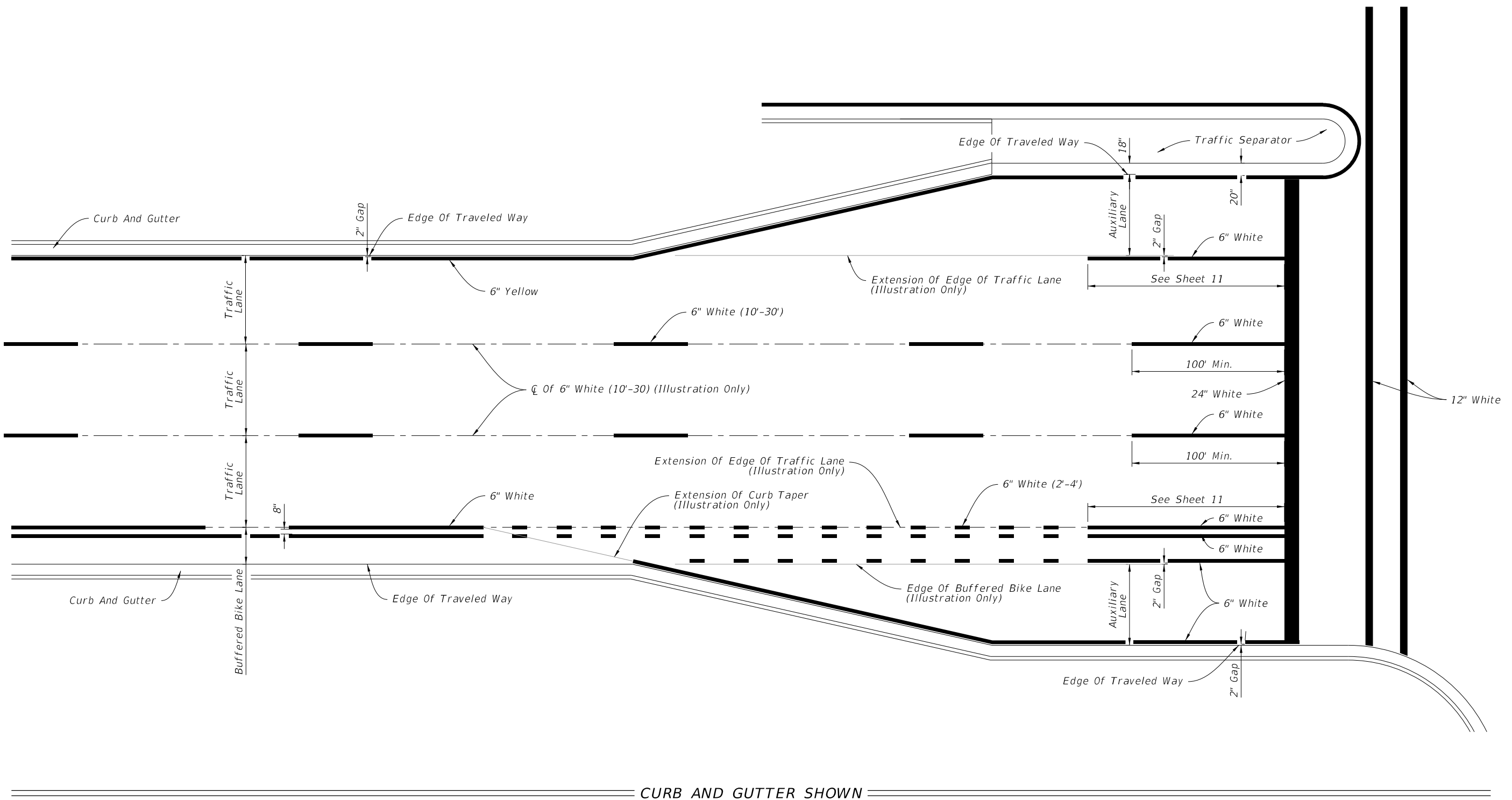
FDOT
 FY ~~2018-19~~
 STANDARD PLANS

PAVEMENT MARKINGS

INDEX	SHEET
711-001	4 of 13

11/1/2017 2:33:12 PM

11/1/2017 2:33:13 PM



2019-20

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

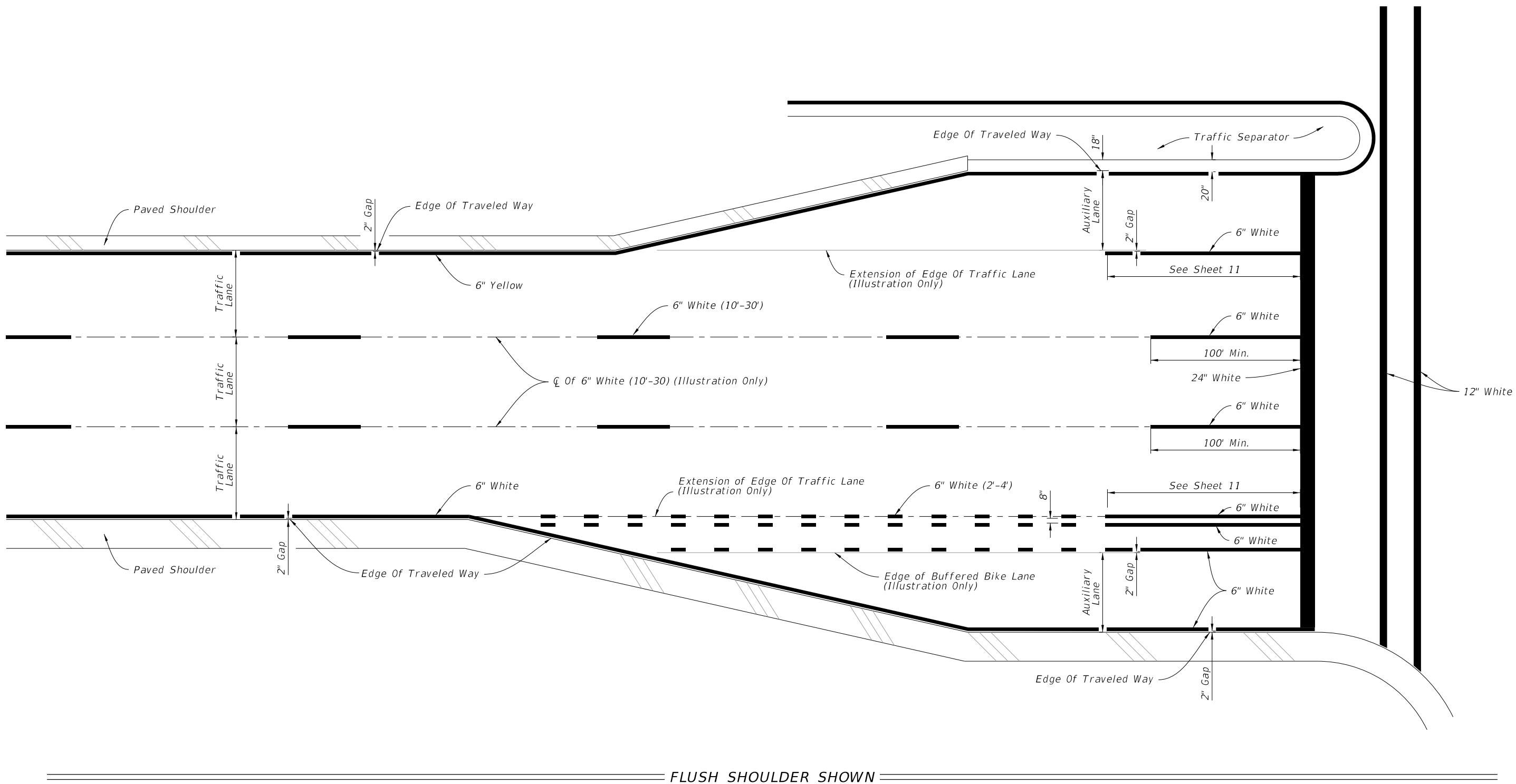
LAST REVISION	DESCRIPTION:
11/01/17	11/01/18


 FY ~~2018-19~~
 STANDARD PLANS

PAVEMENT MARKINGS

INDEX	SHEET
711-001	5 of 14

11/1/2017 2:33:13 PM



FLUSH SHOULDER SHOWN

2019-20

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

LAST REVISION	DESCRIPTION:
11/01/17	11/01/18



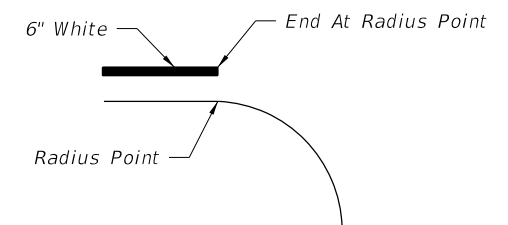
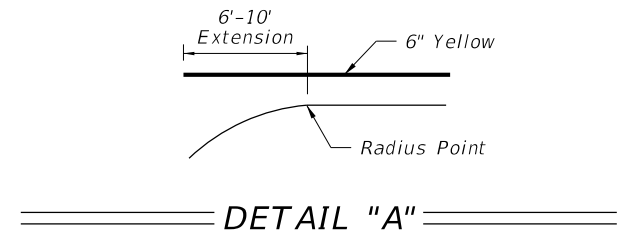
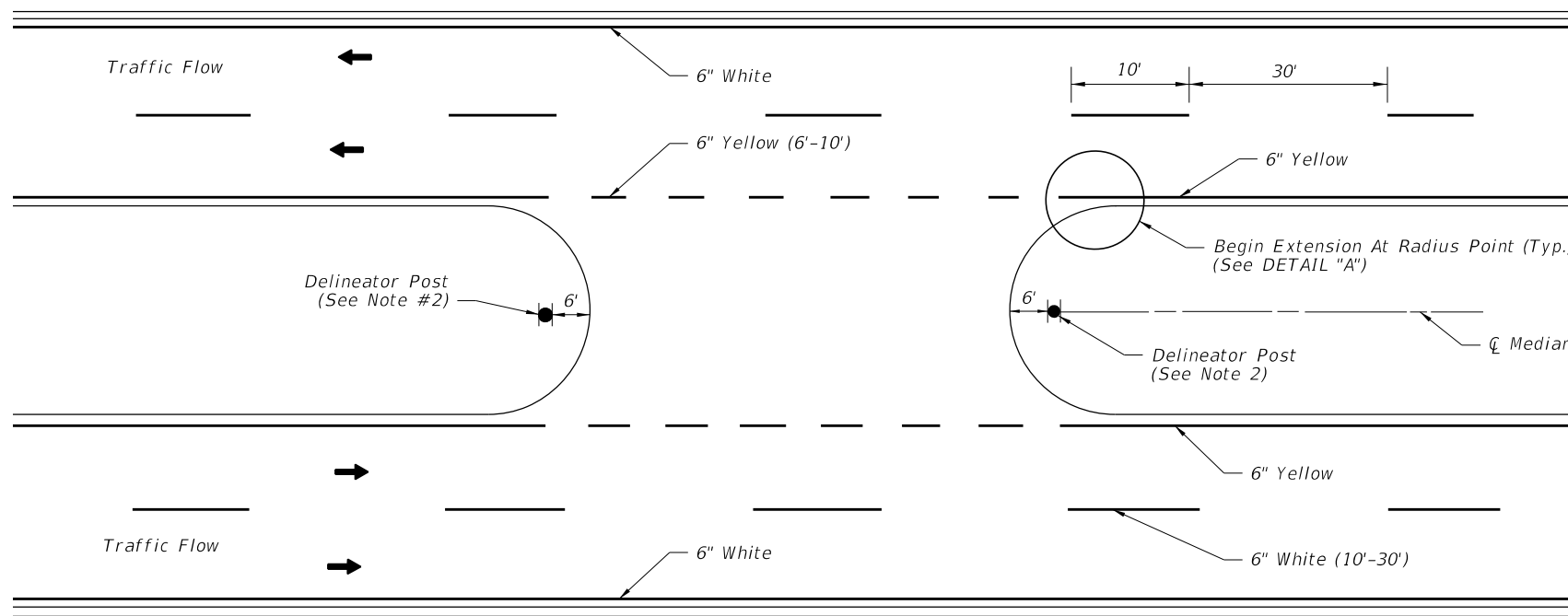
FY ~~2018-19~~
STANDARD PLANS

PAVEMENT MARKINGS

INDEX
711-001

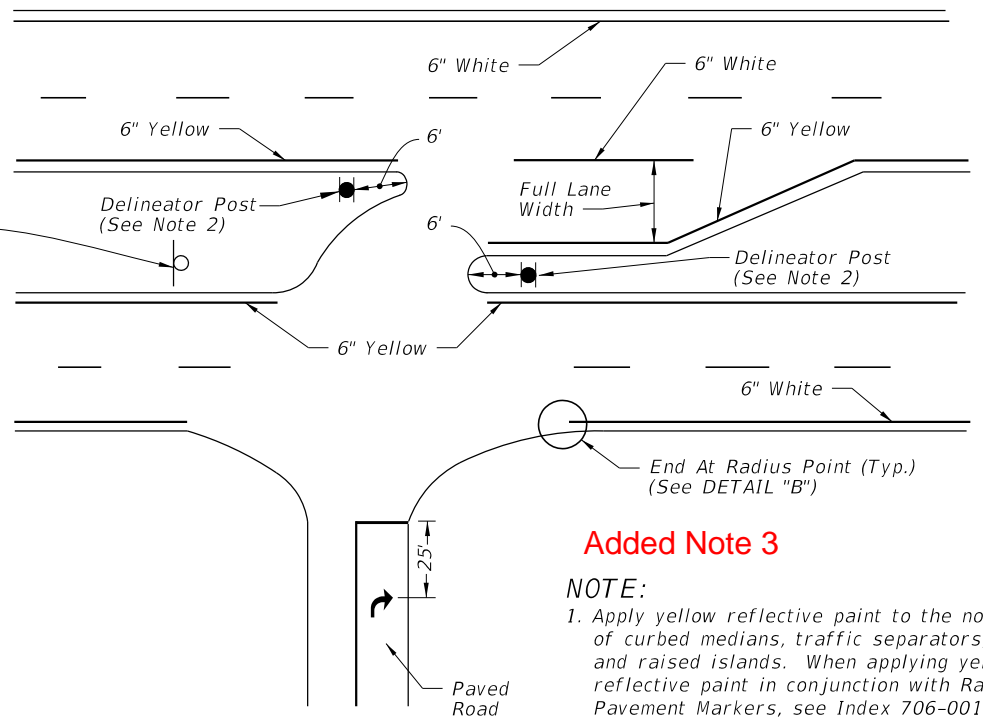
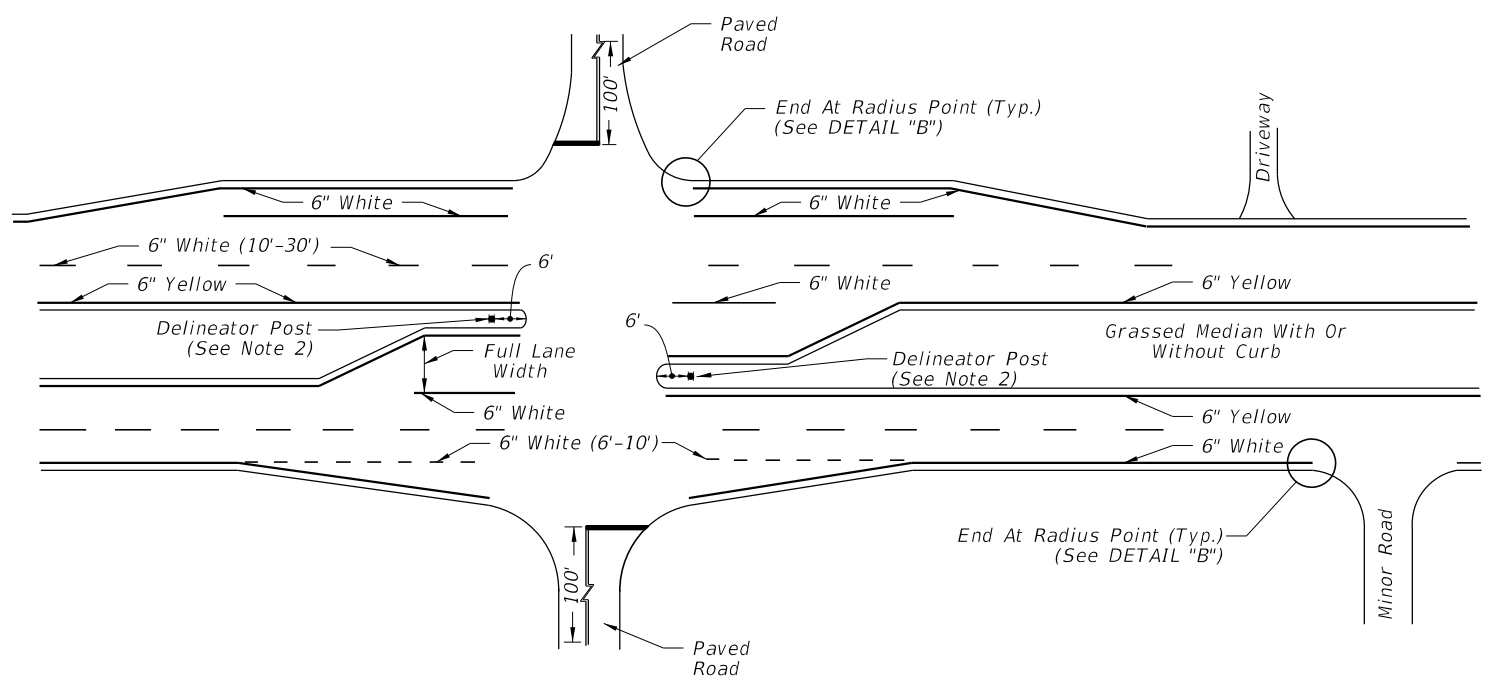
SHEET
6 of 14

13



PAVEMENT MARKINGS AND DELINEATORS FOR MEDIAN CROSS-OVER

DETAIL "B"



Added Note 3

- NOTE:**
1. Apply yellow reflective paint to the noses of curbed medians, traffic separators, and raised islands. When applying yellow reflective paint in conjunction with Raised Pavement Markers, see Index 706-001.
 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

2019-20



FY ~~2018-19~~
STANDARD PLANS

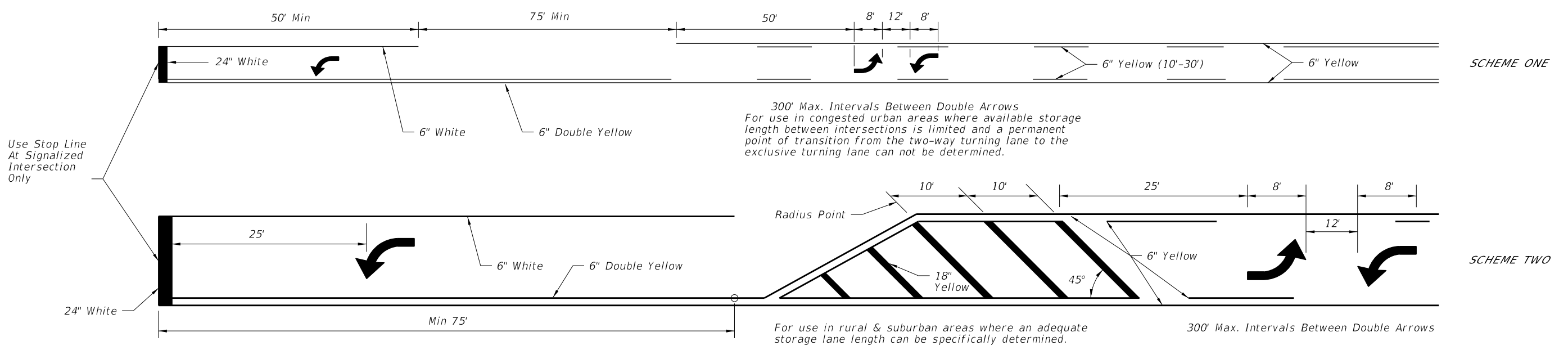
PAVEMENT MARKINGS

INDEX
711-001

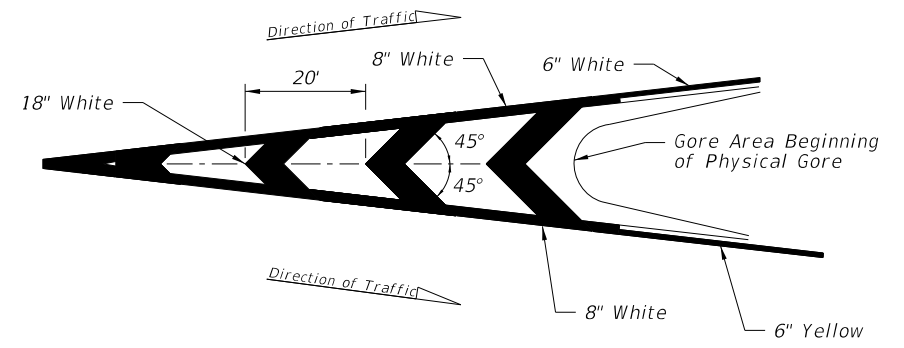
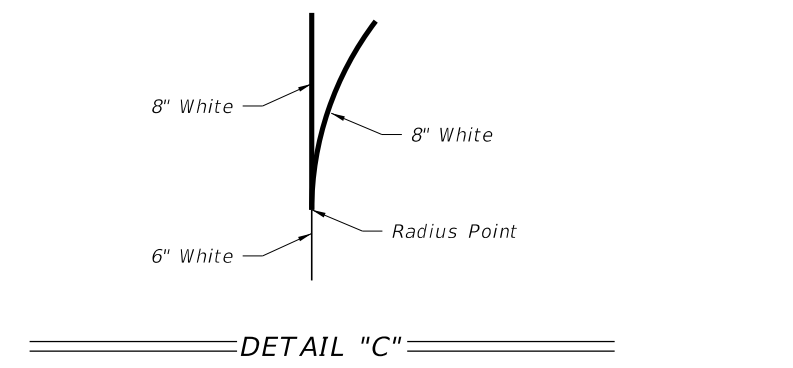
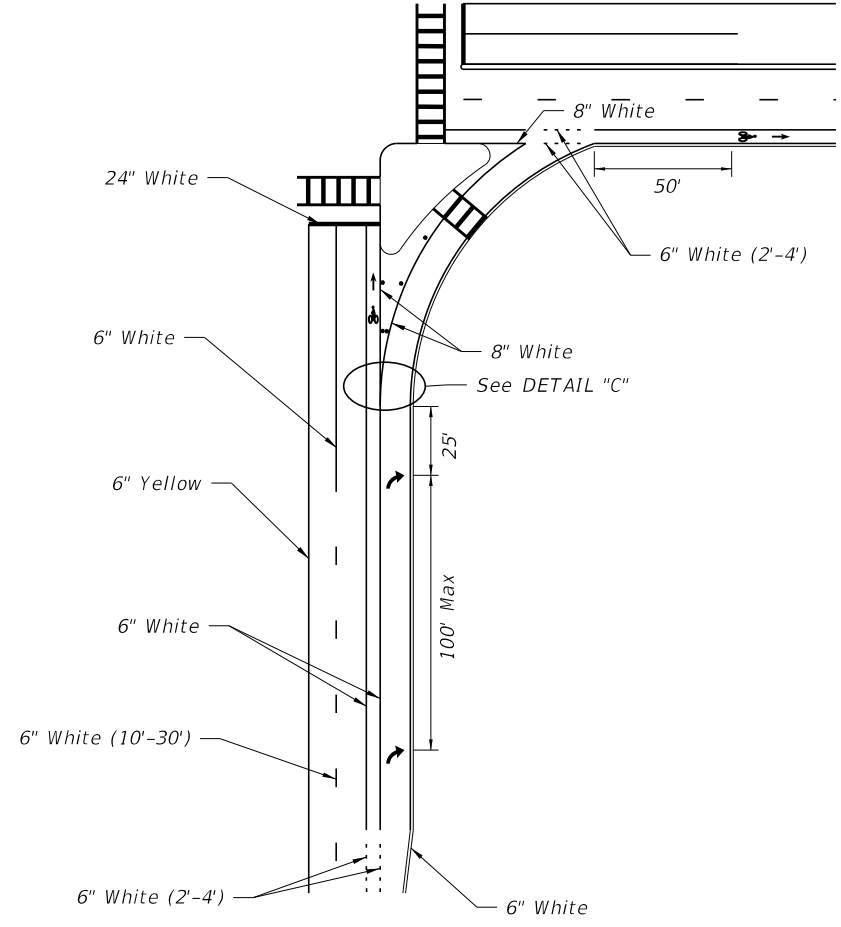
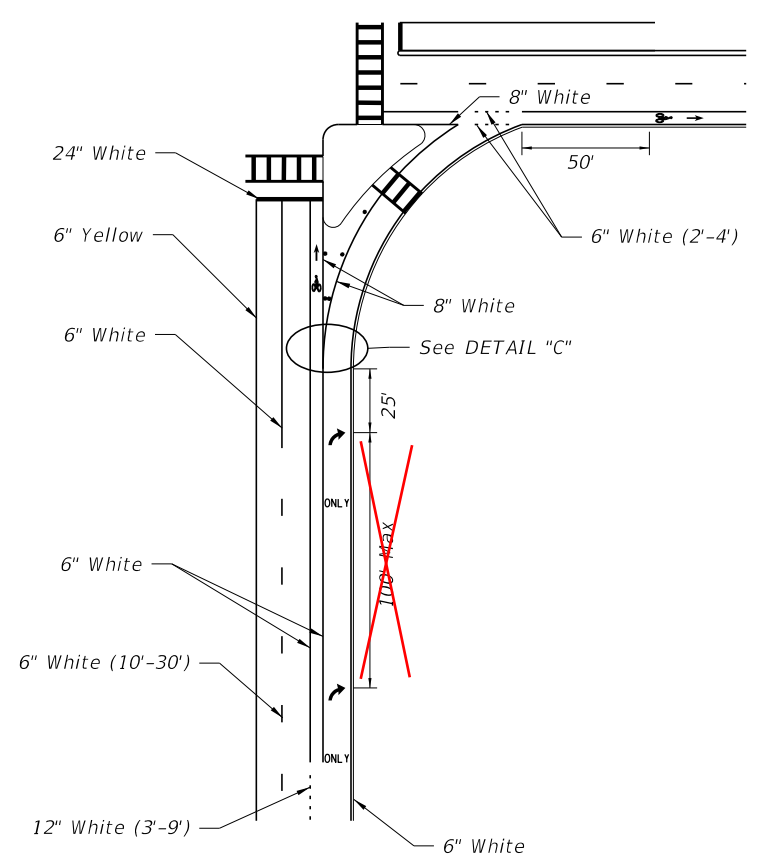
SHEET
7 of 14

LAST REVISION	DESCRIPTION:
11/01/17	11/01/18

11/1/2017 2:33:13 PM



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

7/31/2018 6:29:11 AM

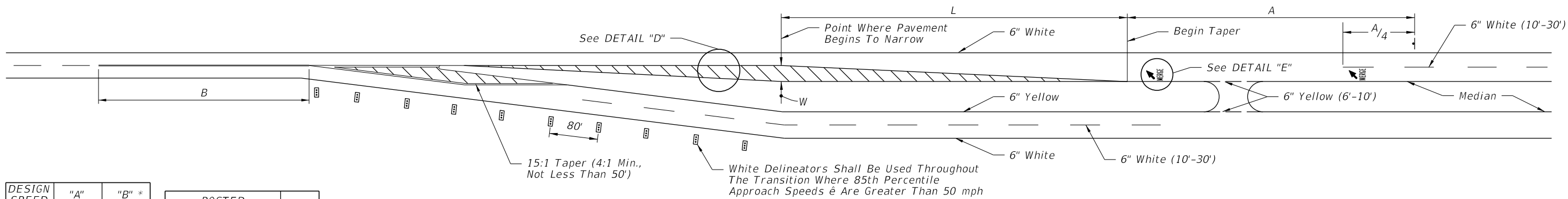
LAST REVISION	DESCRIPTION:
11/01/17	11/01/18

2019-20

FY ~~2018-19~~
STANDARD PLANS

PAVEMENT MARKINGS

INDEX	SHEET
711-001	8 of 14



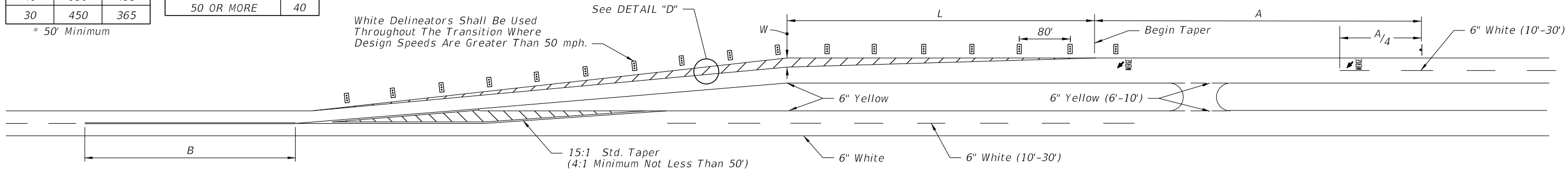
DESIGN SPEED (MPH)	"A" (FT.)	"B" * (FT.)
60	---	640
55	950	595
50	850	550
45	750	500
40	650	455
30	450	365

* 50' Minimum

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

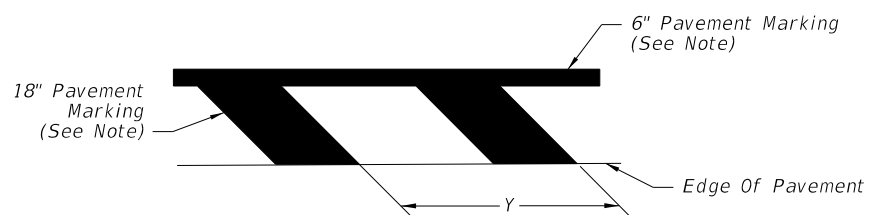
DESIGN SPEED 'S' (MPH)	Length 'L' (FT.)
40 or Less	$L = WS^2/60$
45 or Greater	$L = WS$

LEFT ROADWAY CENTERED ON EXISTING ROADWAY



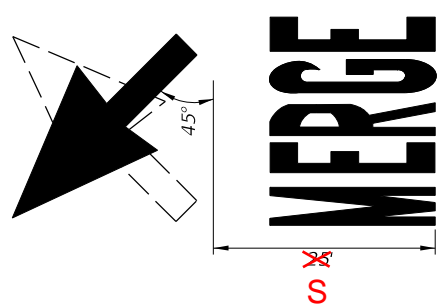
RIGHT ROADWAY CENTERED ON EXISTING ROADWAY

SCHEMES FOR TRANSITION - 2 LANE / 4 LANE ROADWAY

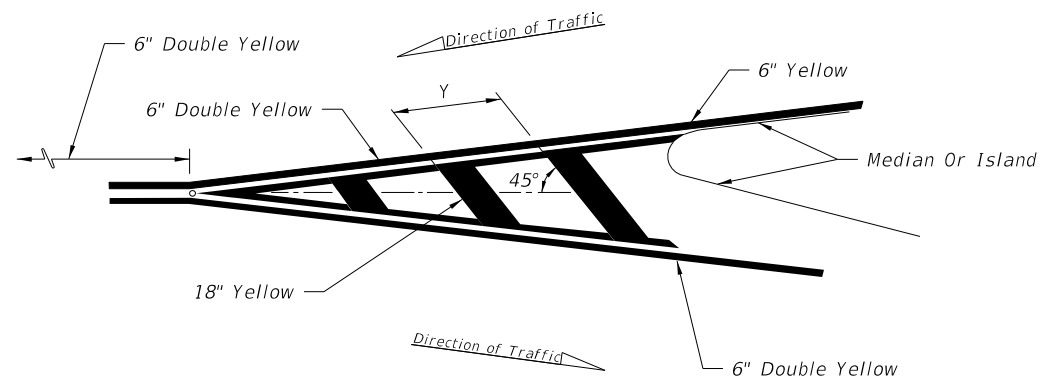


NOTE:
Make pavement markings yellow for left roadway centered on existing roadway. Right roadway centered on existing roadway is similar with white pavement markings.

DETAIL "D"



DETAIL "E"

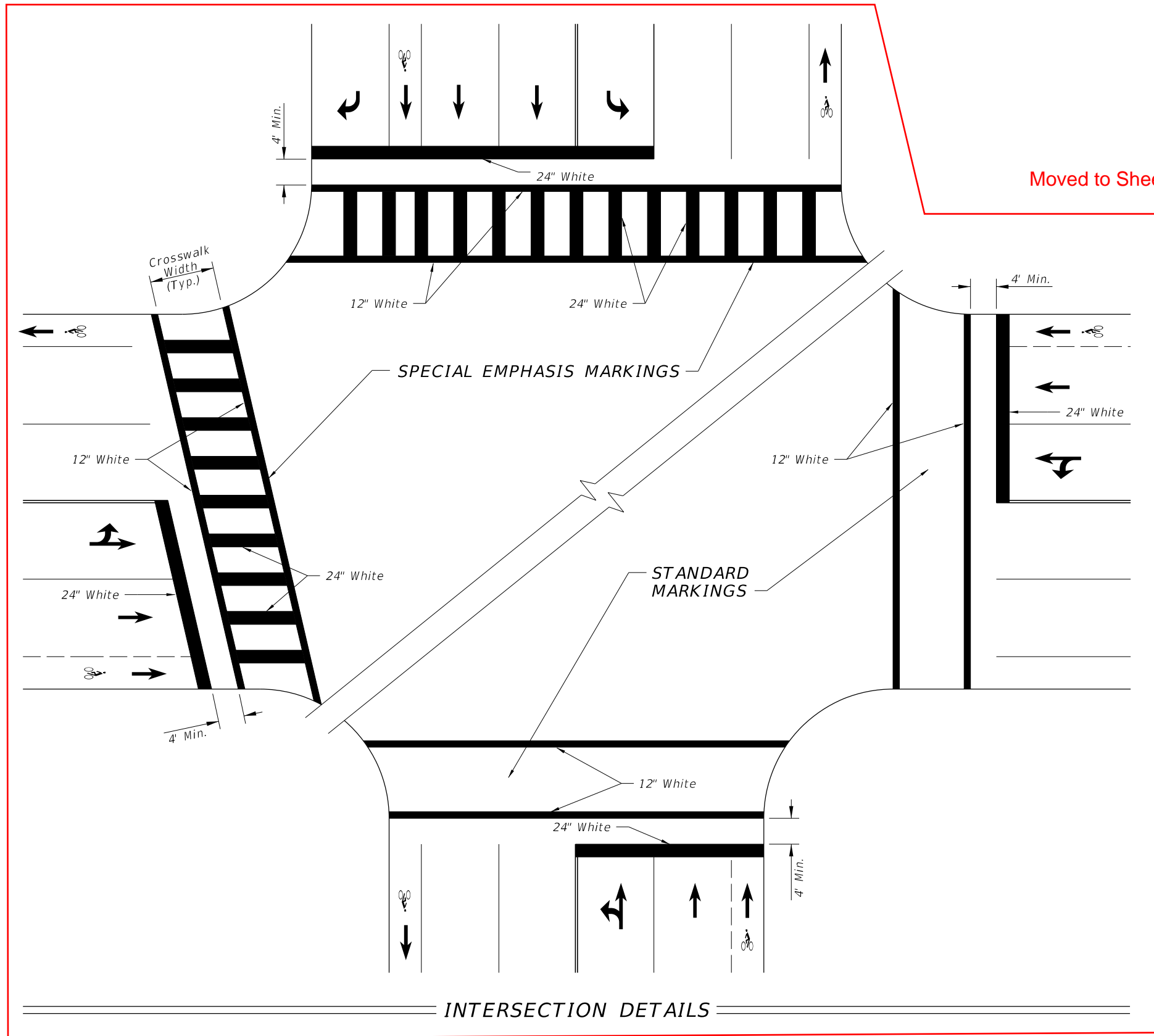


MARKINGS FOR TRAFFIC SEPARATION

11/1/2017 2:33:15 PM

LAST REVISION	REVISION	DESCRIPTION:
11/01/17	←	11/01/18

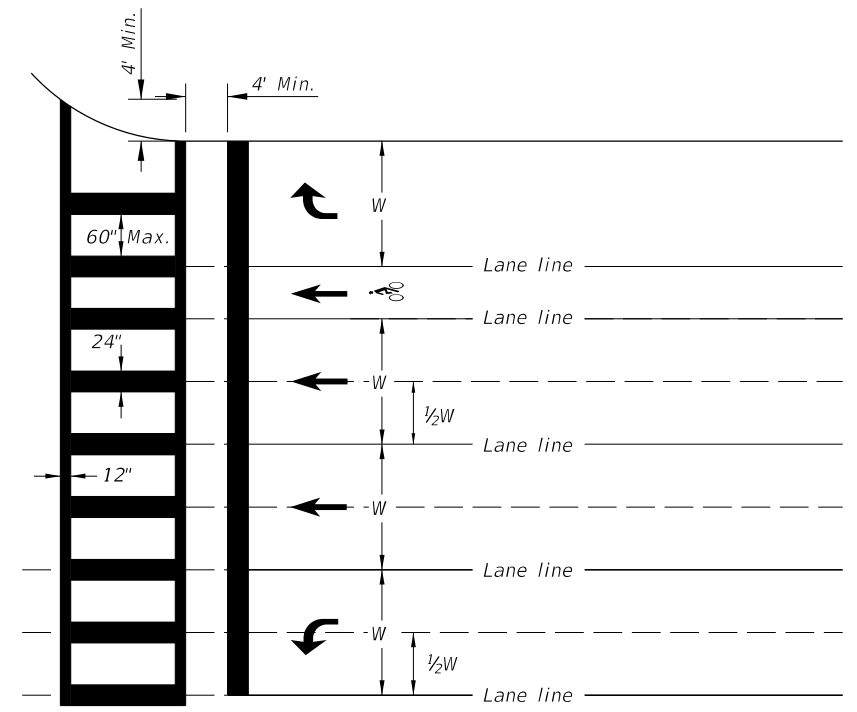
Changed Detail to only show Standard Crosswalk



Moved to Sheet 7

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' for unmarked cross roads.
4. Refer to Index 522-002 when Curb Ramps are present.



SPECIAL EMPHASIS CROSSWALK DETAILS

11/1/2017 2:33:15 PM

LAST REVISION	DESCRIPTION:
11/01/17	11/01/18

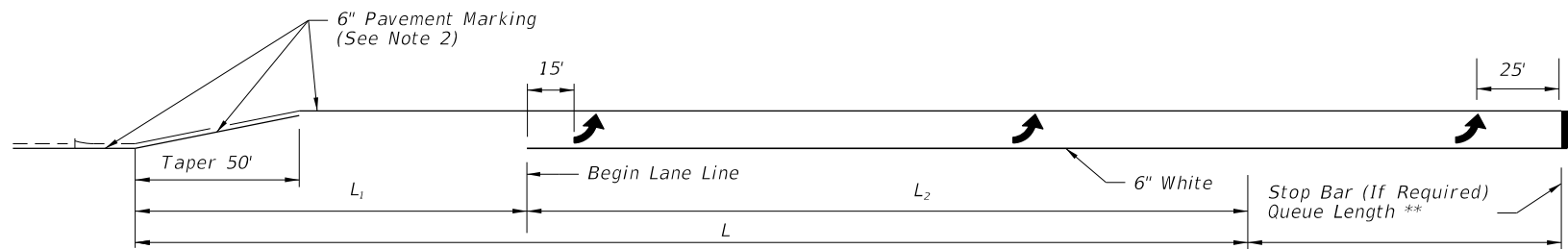
2019-20

~~FY 2018-19~~

STANDARD PLANS

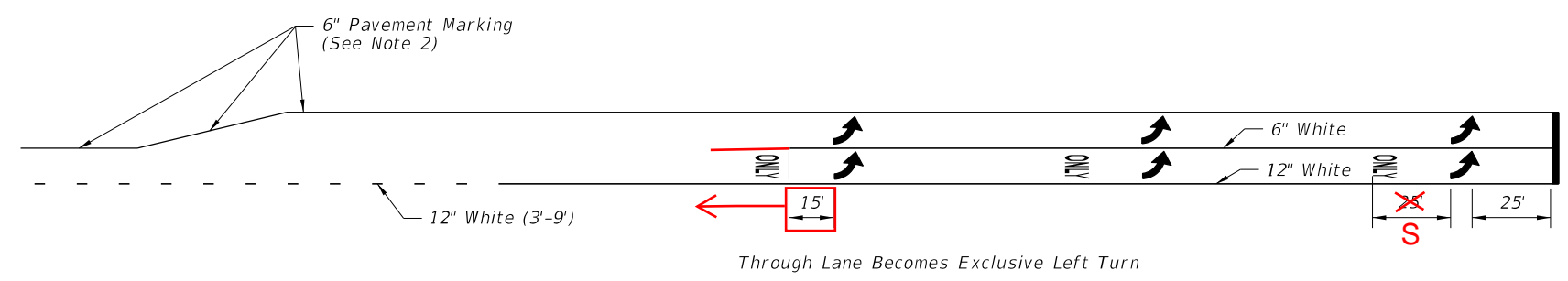
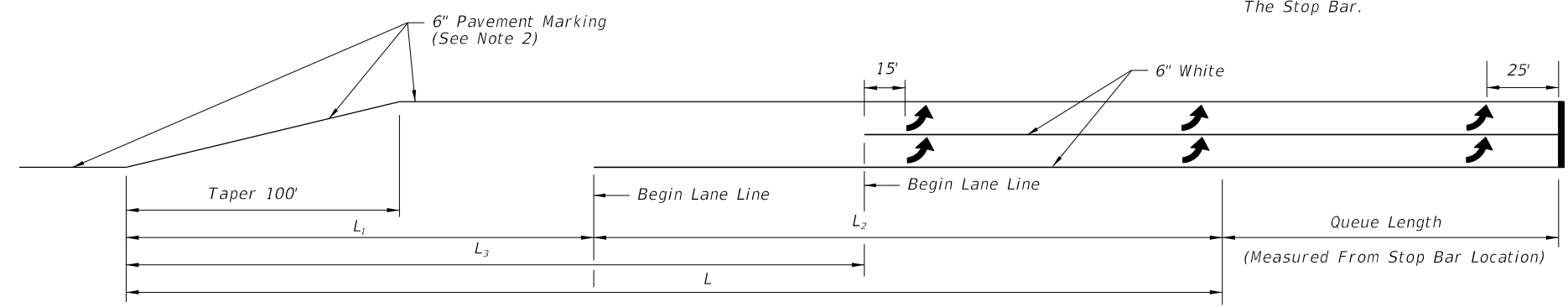
PAVEMENT MARKINGS

INDEX	SHEET
711-001	10 of 14

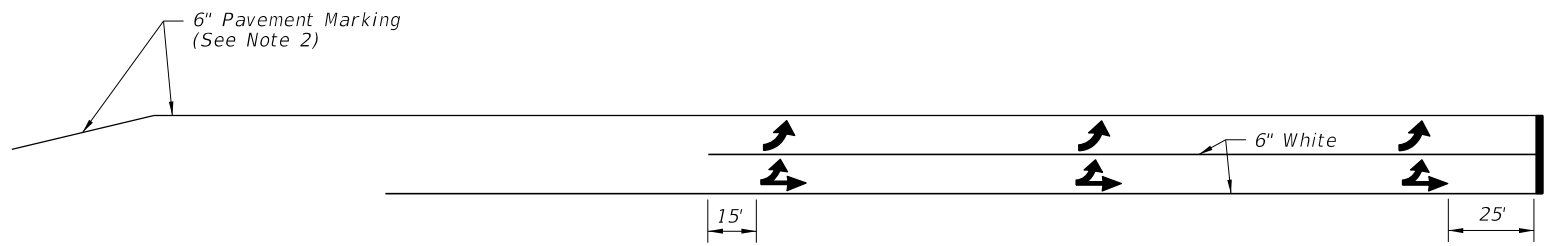


SINGLE LEFT TURNS

** 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

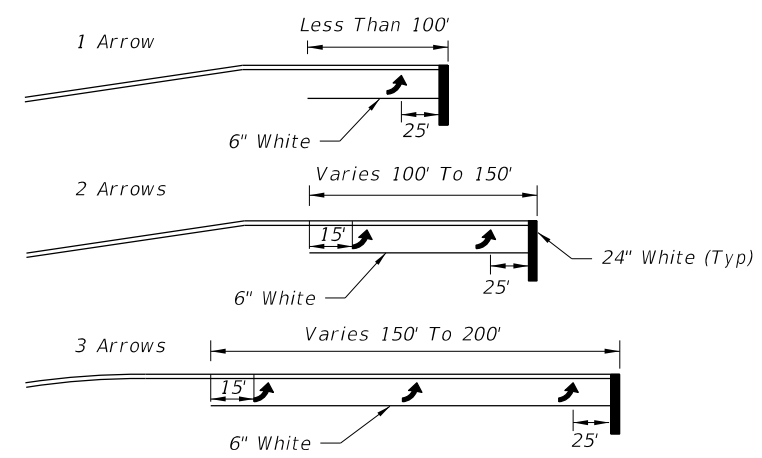


Through Lane Becomes Optional Left Turn

DOUBLE LEFT TURNS

TURN LANE MARKINGS

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'



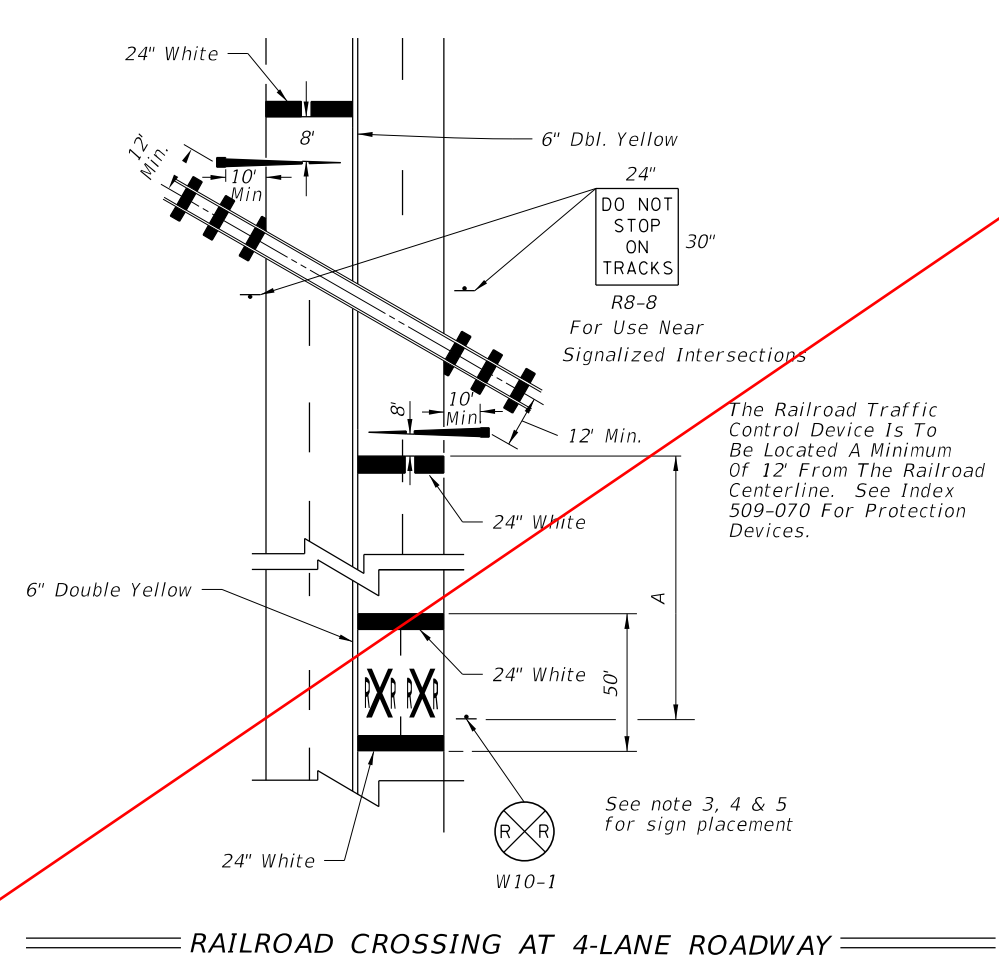
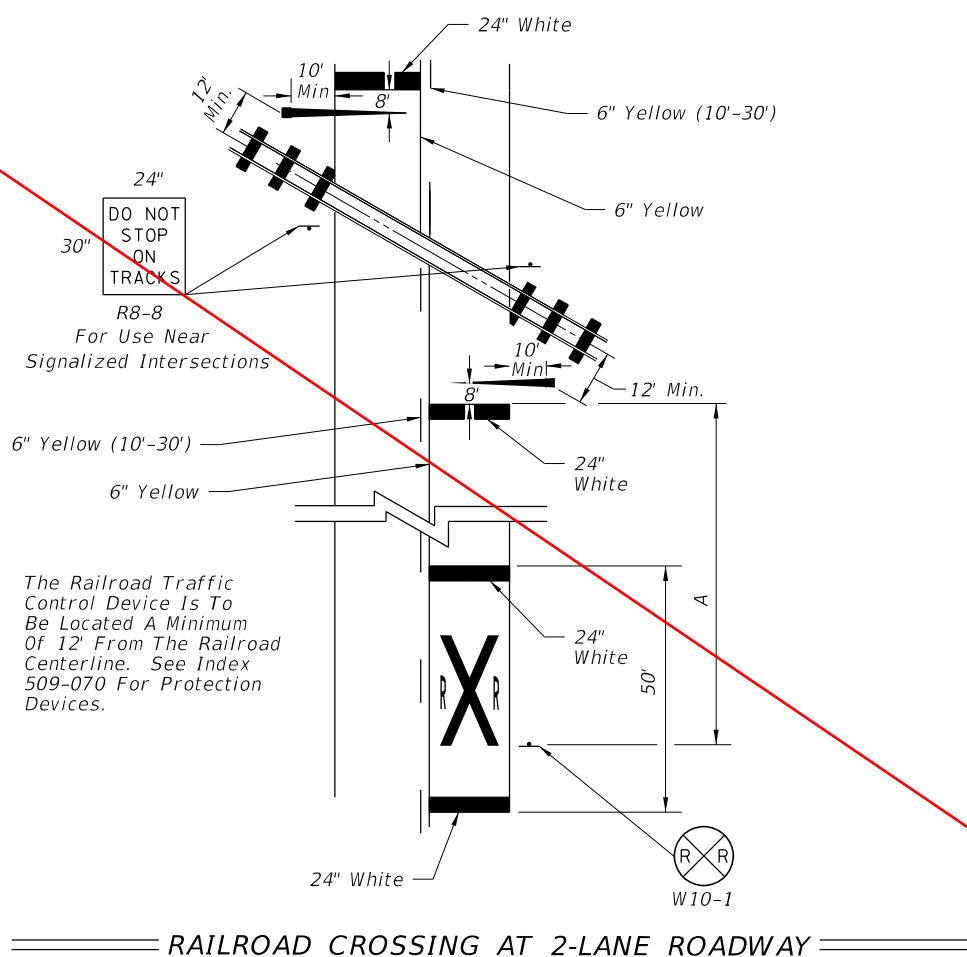
Arrow should be evenly spaced between first and last arrow. Turn lanes longer than 200' add one arrow for each 100' additional length.

ARROW SPACING

NOTES:

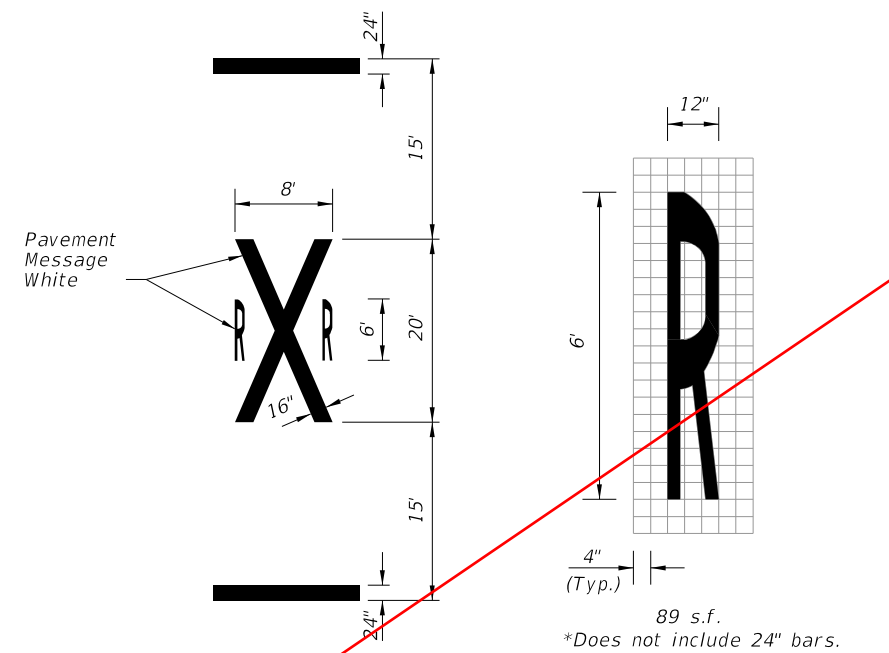
1. This Index also applies to right turn lanes.
2. Make pavement marking yellow for left-turn lanes and white for right-turn lanes.

11/11/2017 2:33:16 PM

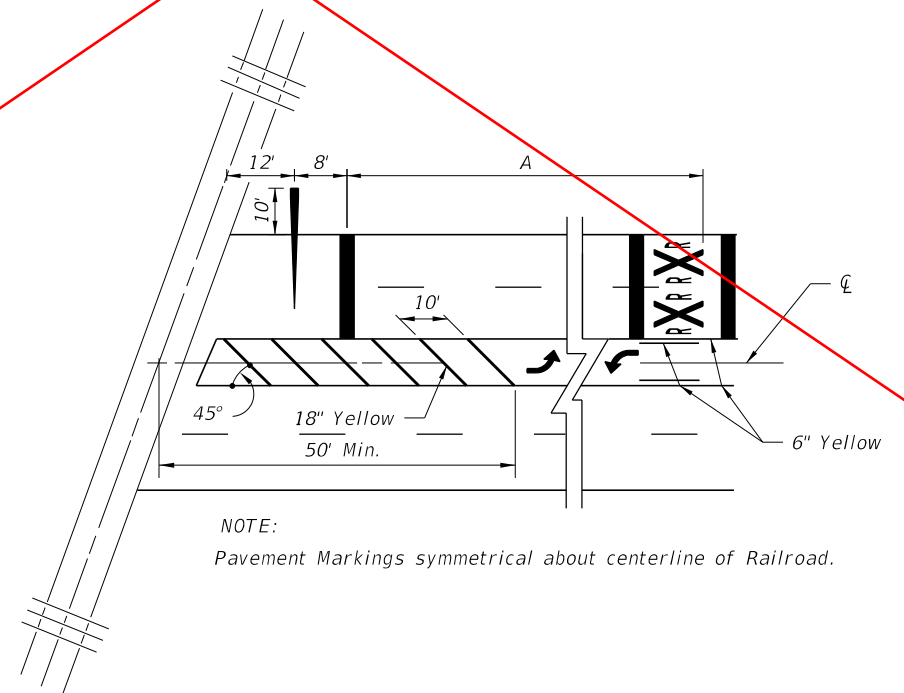


RAILROAD CROSSING AT 2-LANE ROADWAY

RAILROAD CROSSING AT 4-LANE ROADWAY



TYPICAL MARKINGS FOR R/R CROSSING



TERMINATION OF TWO WAY LEFT TURN AT R/R CROSSINGS

NOTES:

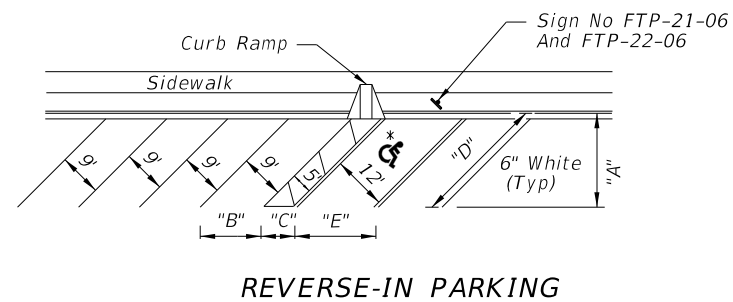
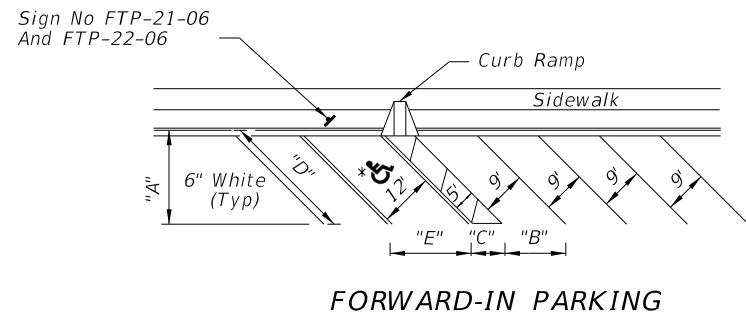
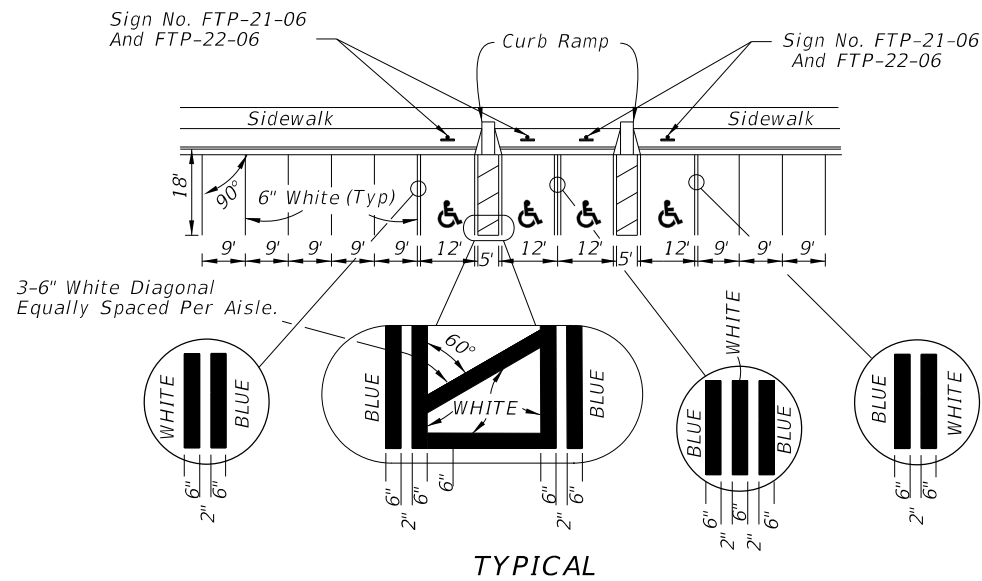
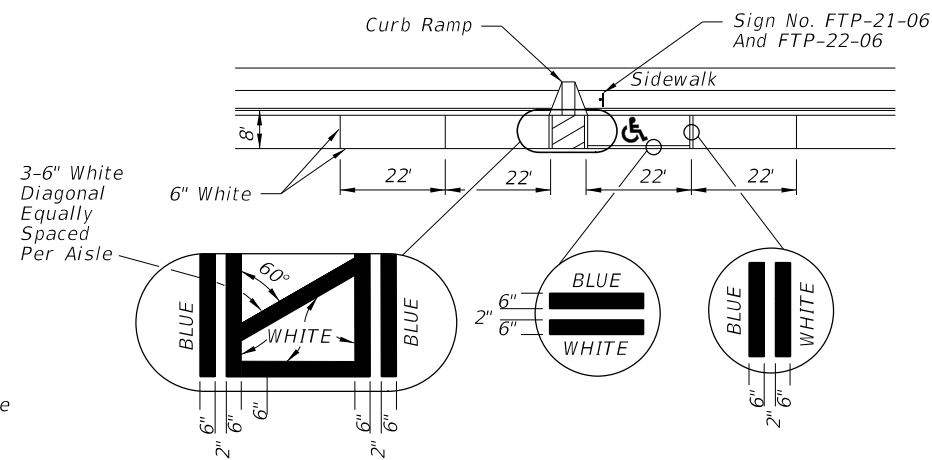
1. Do not include transverse markings in pavement message quantities.
2. When dynamic devices are not present or are to be installed, place the crossbuck at the future location of the RR gate or signal and gate in accordance with Index 509-070.
3. Place an additional W10-1 sign where street intersections 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.

11/11/2017 2:33:16 PM

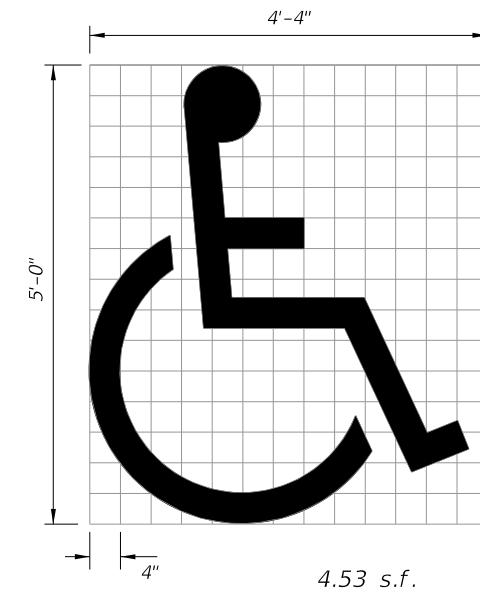
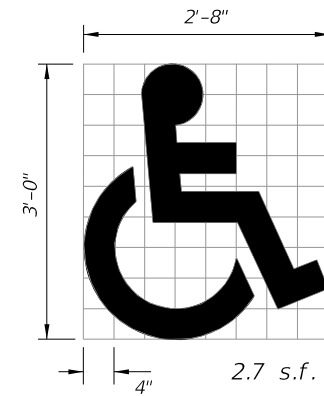
NOTES:

1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Tint blue pavement markings to match color 15180 of Federal Standards 595a.
5. Mount FTP-22-06 sign below the FTP-21-06 sign.



* FOR ACCESSIBLE MARKINGS - SEE ABOVE

"DIMENSIONS"					
∠ θ	"A"	"B"	"C"	"D"	"E"
45°	19'-1"	12'-9"	7'-0"	27'-0"	17'-0"
60°	20'-1"	10'-5"	5'-9"	23'-2"	13'-10"



Use of pavement symbol in accessible parking spaces is optional, when used the symbol shall be 3' or 5' high and white in color.

PAVEMENT MARKING FOR PARKING

UNIVERSAL SYMBOL OF ACCESSIBILITY

11/1/2017 2:33:17 PM

2019-20



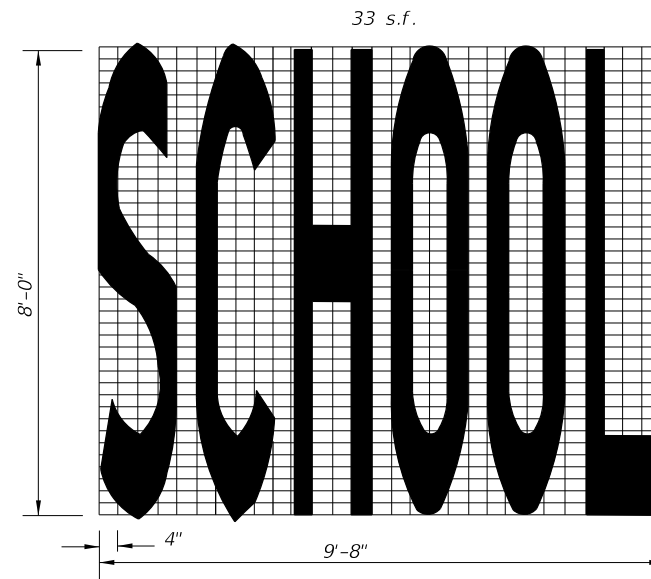
FY ~~2018-19~~
STANDARD PLANS

PAVEMENT MARKINGS

LAST REVISION 11/01/17
REVISION 11/01/18

INDEX 711-001

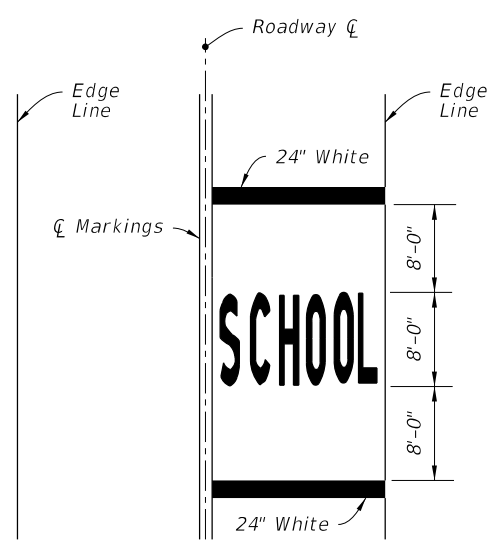
SHEET 12 of 13



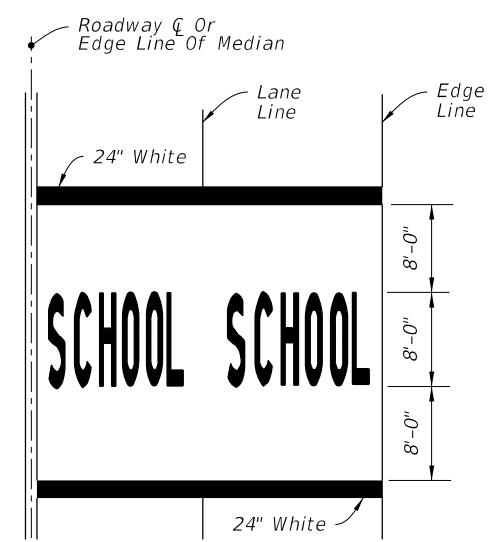
NOTES:

1. All grids are 4" x 4".
2. Pavement Marking Should Not Extend Into Opposing Lane.
3. Center School Pavement Marking in lane.

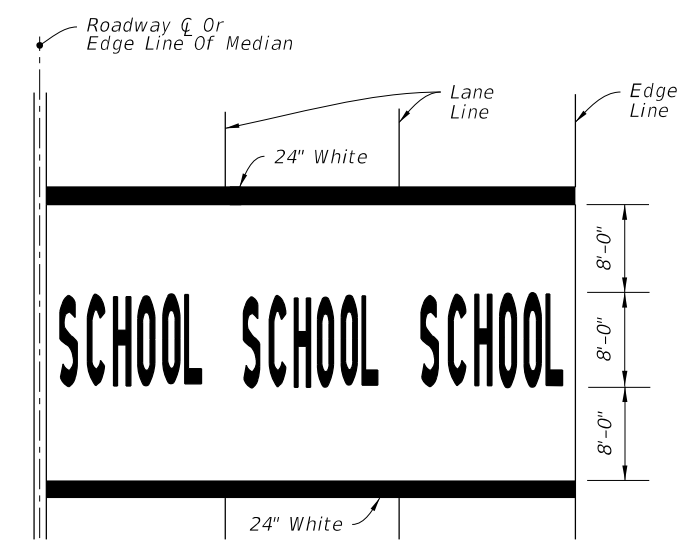
SCHOOL PAVEMENT MARKING



SINGLE-LANE APPROACH



TWO-LANE APPROACH

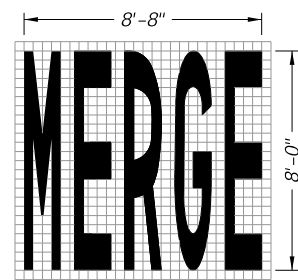


MULTI-LANE APPROACH
(Three or More)

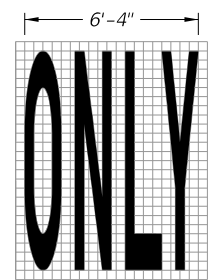
MARKINGS FOR SCHOOL ZONES

11/1/2017 2:33:17 PM

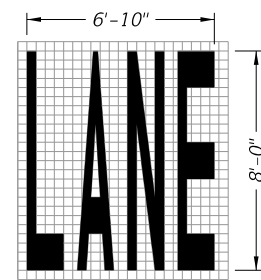
LAST REVISION 11/01/17	REVISION 11/01/18	DESCRIPTION: 2019-20 FY 2018-19 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 14 of 14 13 of 13
---------------------------	----------------------	---	-------------------	------------------	---



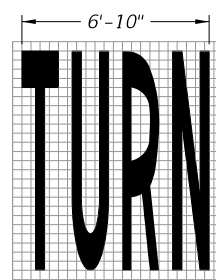
34 S.F.



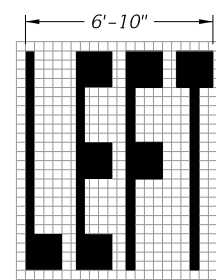
22 S.F.



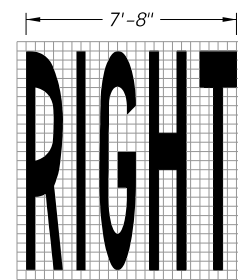
23 S.F.



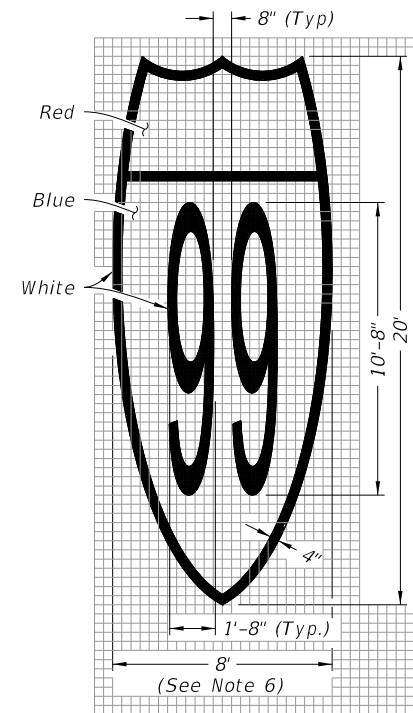
24 S.F.



20 S.F.

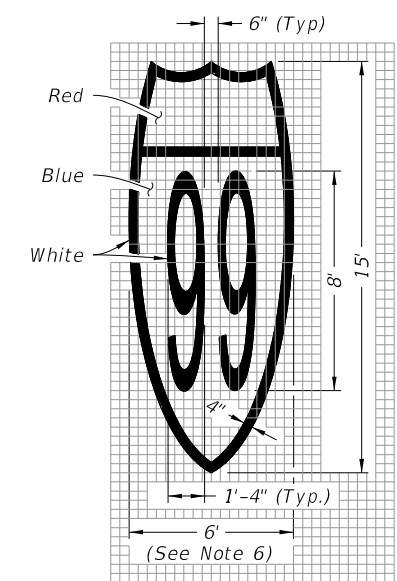


26 S.F.



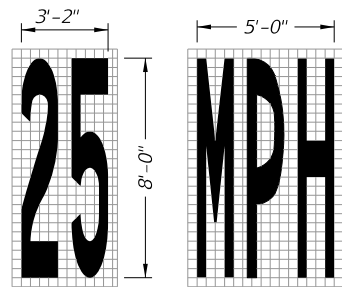
Route Shield for Limited Access Roadways (Interstate Route Shield Shown; U.S. and State Route Shield Similar)

128 S.F.

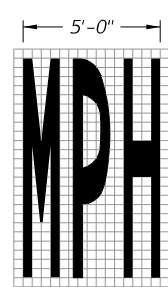


Route Shield for Arterials and Collectors (Interstate Route Shield Shown; U.S. and State Route Shield Similar)

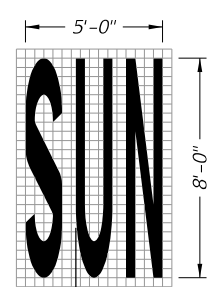
72 S.F.



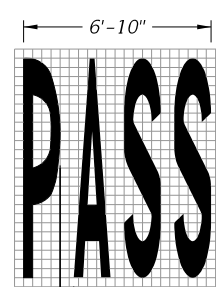
13 S.F.



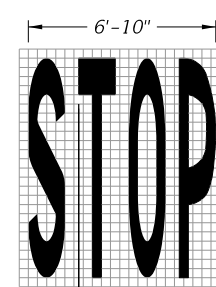
20 S.F.



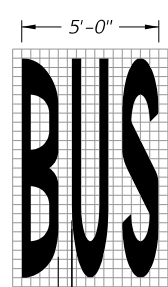
20 S.F.



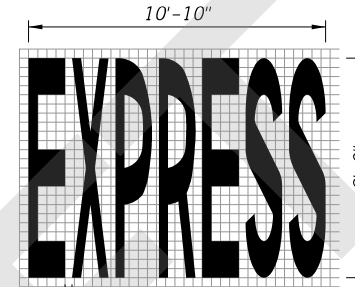
23 S.F.



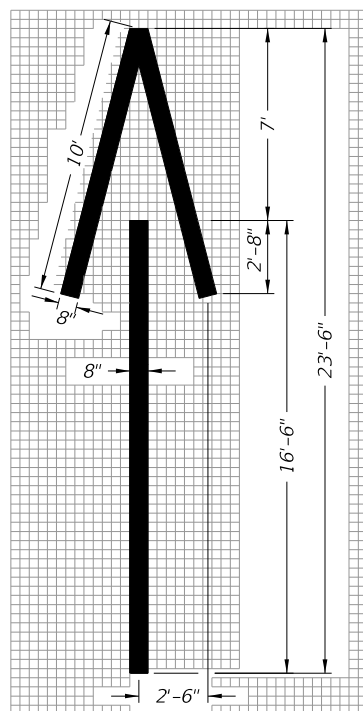
22 S.F.



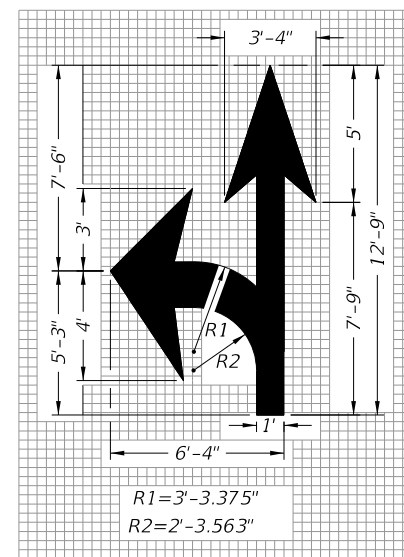
20 S.F.



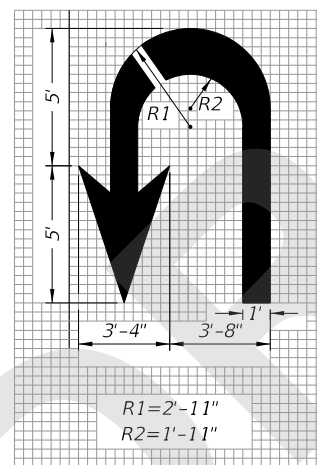
43 S.F.



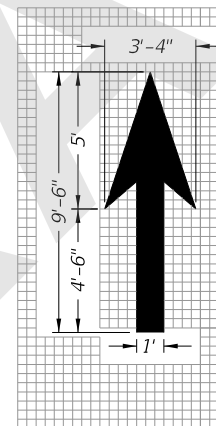
Wrong-Way Arrow
24 S.F.



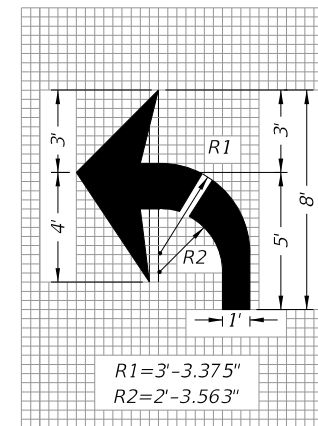
Turn and Through Lane-Use Arrow
29 S.F.



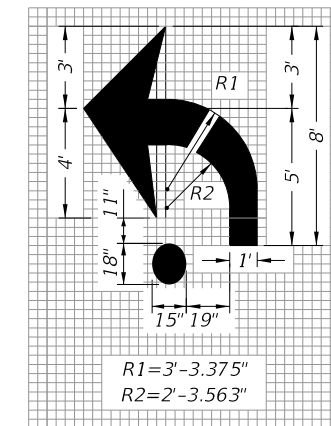
U Turn Lane-Use Arrow
27 S.F.



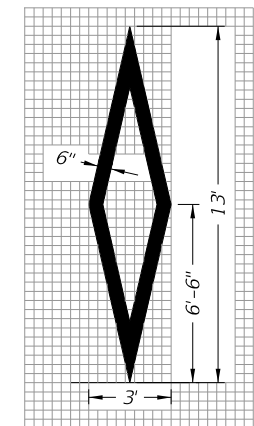
Through Lane-Use Arrow
12 S.F.



Turn Lane-Use Arrow (Left Turn Shown - Right Turn Similar)
17 S.F.



Roundabout Approach Arrow
19 S.F.



Preferential Lane Symbol
11 S.F.

NOTES FOR PAVEMENT MESSAGES:

- When an arrow and a pavement message are used together, locate the arrow a distance of "S" downstream from the pavement message. Measure the distance from the base of the arrow to the base of the pavement message. See the Pavement Message Spacing Table for "S" value.
- Place all pavement messages 25' back from the stop line.
- Dimensions are within 1" ±.
- All grids are 4" x 4".
- All pavement messages must be white except route shields.
- Increase width of route shield for routes with three digits.

PAVEMENT MESSAGE SPACING TABLE	
Posted Speed (mph)	Distance "S" (feet)
≤ 25	40
30 - 35	56
40 - 45	72
≥ 50	88

PAVEMENT MESSAGE AND ARROW DETAILS

GENERAL NOTE:

- See Index 509-070 for pavement markings at railroad crossings.

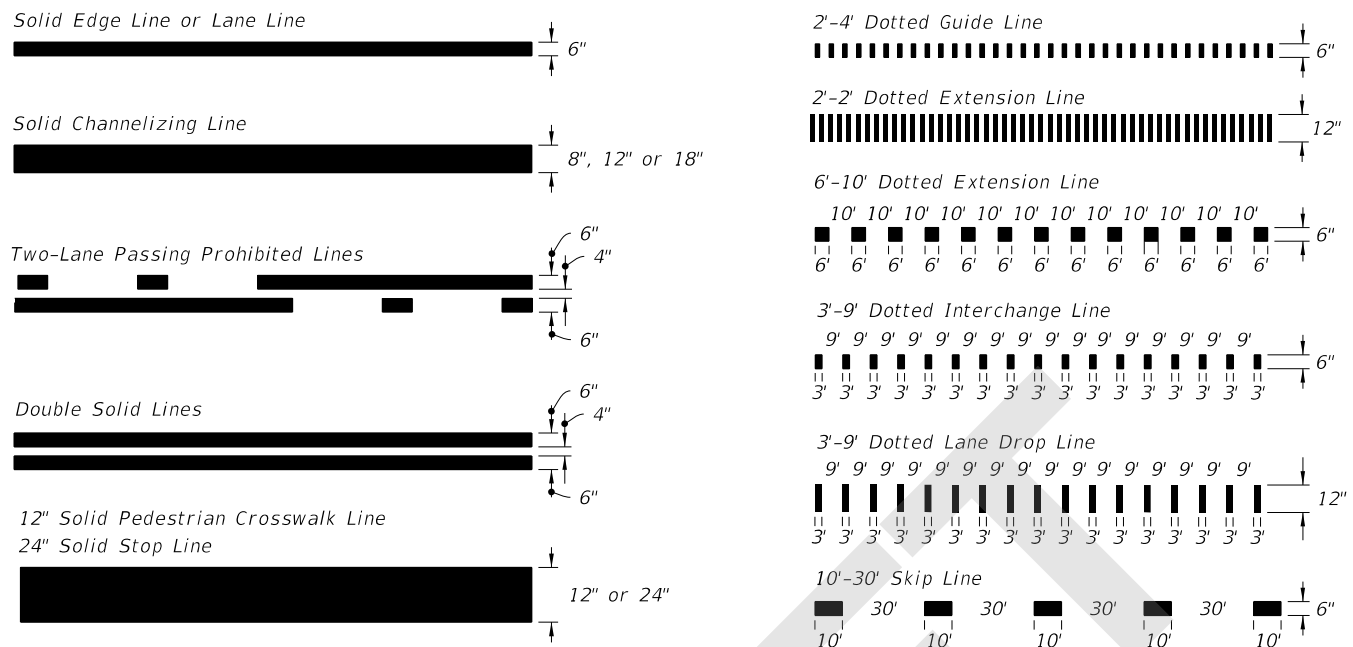
8/15/2018 8:02:34 AM

LAST REVISION	DESCRIPTION:
11/01/18	

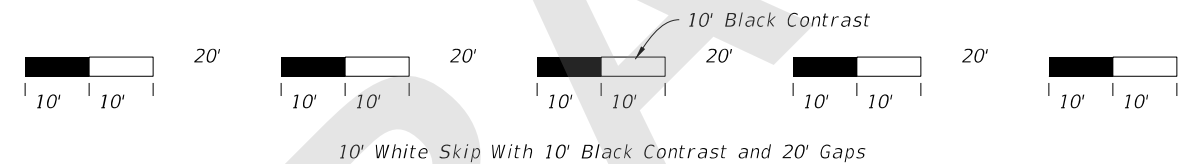
**FY 2019-20
STANDARD PLANS**

PAVEMENT MARKINGS

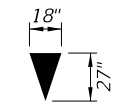
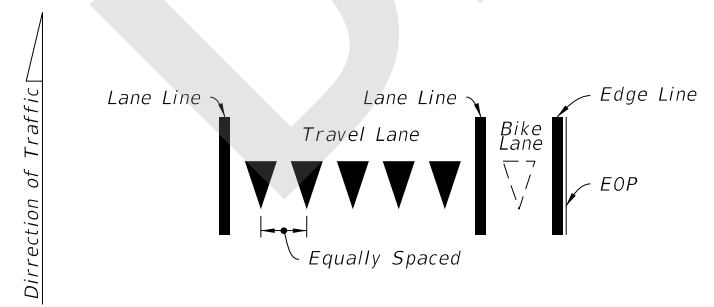
INDEX	SHEET
711-001	1 of 13



PAVEMENT MARKING LINES



CONTRAST MARKINGS WITH ALTERNATING SKIP PATTERN
(10'-30' Skip Line Shown, Dotted Lines Similar)

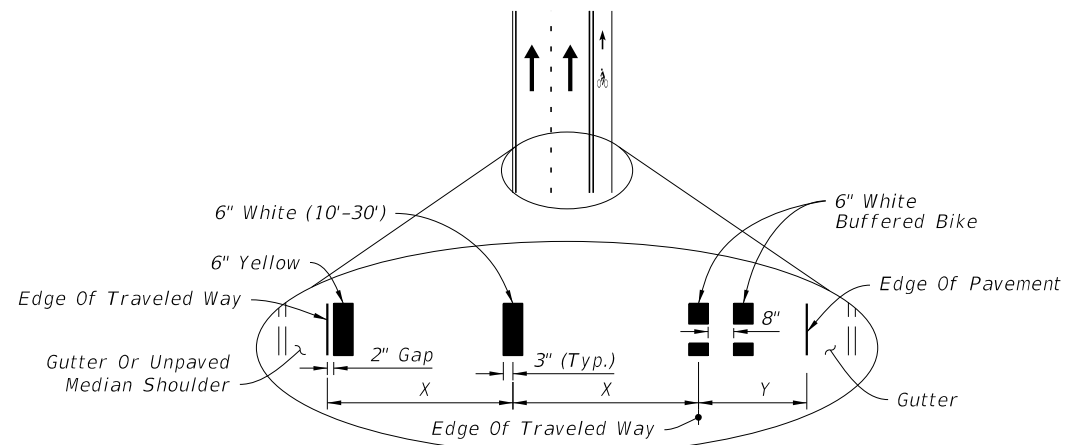


Yield Lines consist of five - 18" X 27" white triangles which face traffic. Equally space triangles within traffic lane. When a bike lane is present, add one additional triangle in the center of the bike lane.

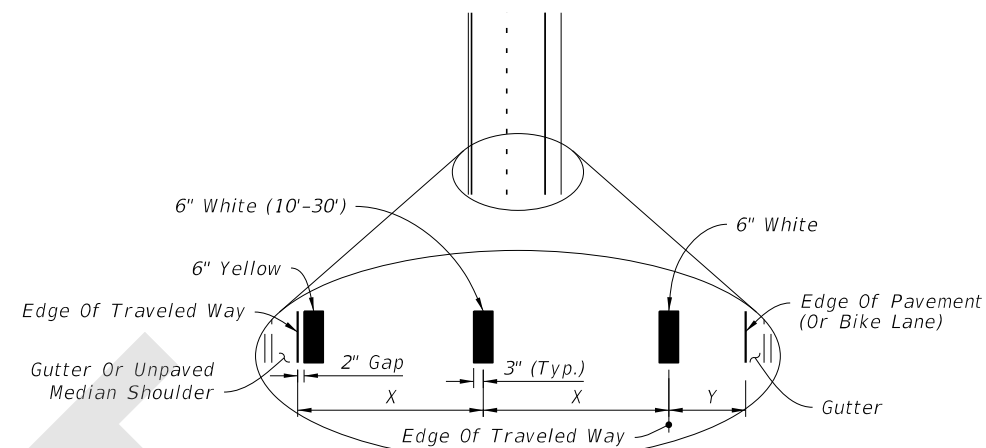
YIELD LINES

8/15/2018 8:02:37 AM

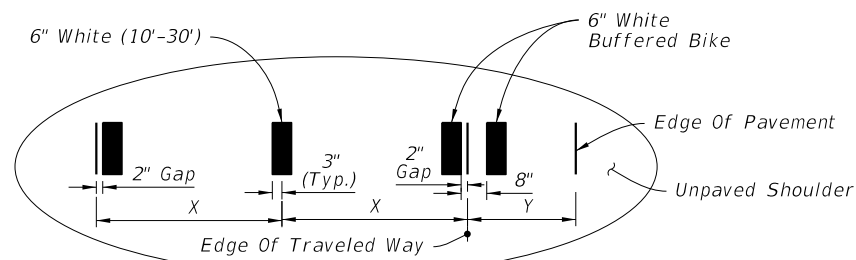
LAST REVISION 11/01/18	REVISION	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 2 of 13
---------------------------	----------	--------------	--	-------------------	------------------	------------------



CURB AND GUTTER

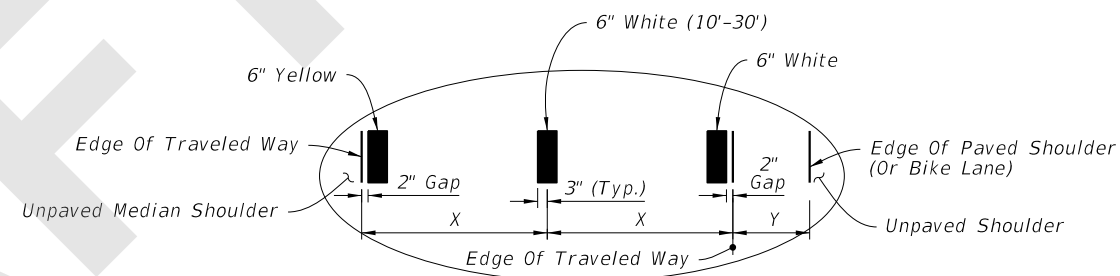


CURB AND GUTTER



FLUSH SHOULDER

X = LANE WIDTH (FT.)
Y = BUFFERED BIKE LANE WIDTH (FT.)

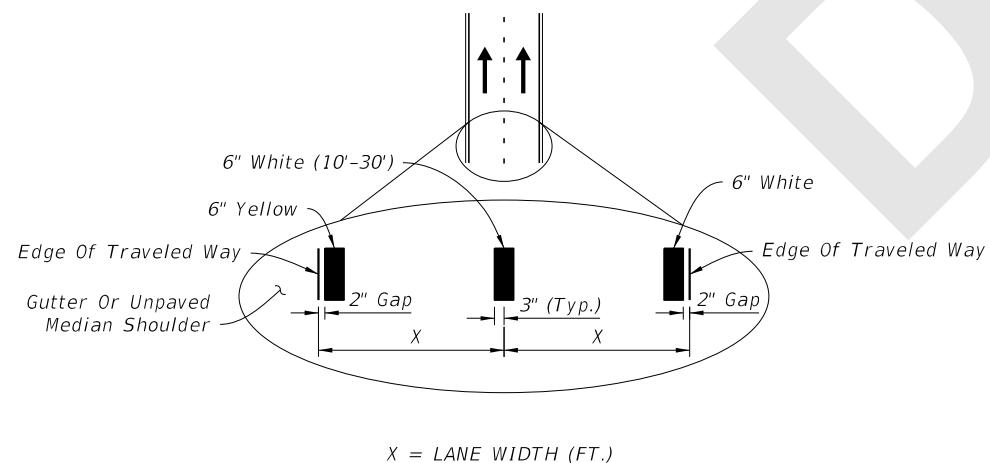


FLUSH SHOULDER

X = LANE WIDTH (FT.)
Y = PAVED SHOULDER / BIKE LANE

==== STRIPING FOR BUFFERED BIKE LANE =====

==== STRIPING WITH SHOULDER OR NON-BUFFERED BIKE LANE =====



X = LANE WIDTH (FT.)

==== STRIPING WITH NO SHOULDER OR BIKE LANE =====

NOTES:

1. Lane widths (X) may not be same for each lane in the section.
2. For placement of RPMs, see Index 706-001.

8/15/2018 8:02:37 AM

LAST REVISION 11/01/18	REVISION	DESCRIPTION:
---------------------------	----------	--------------



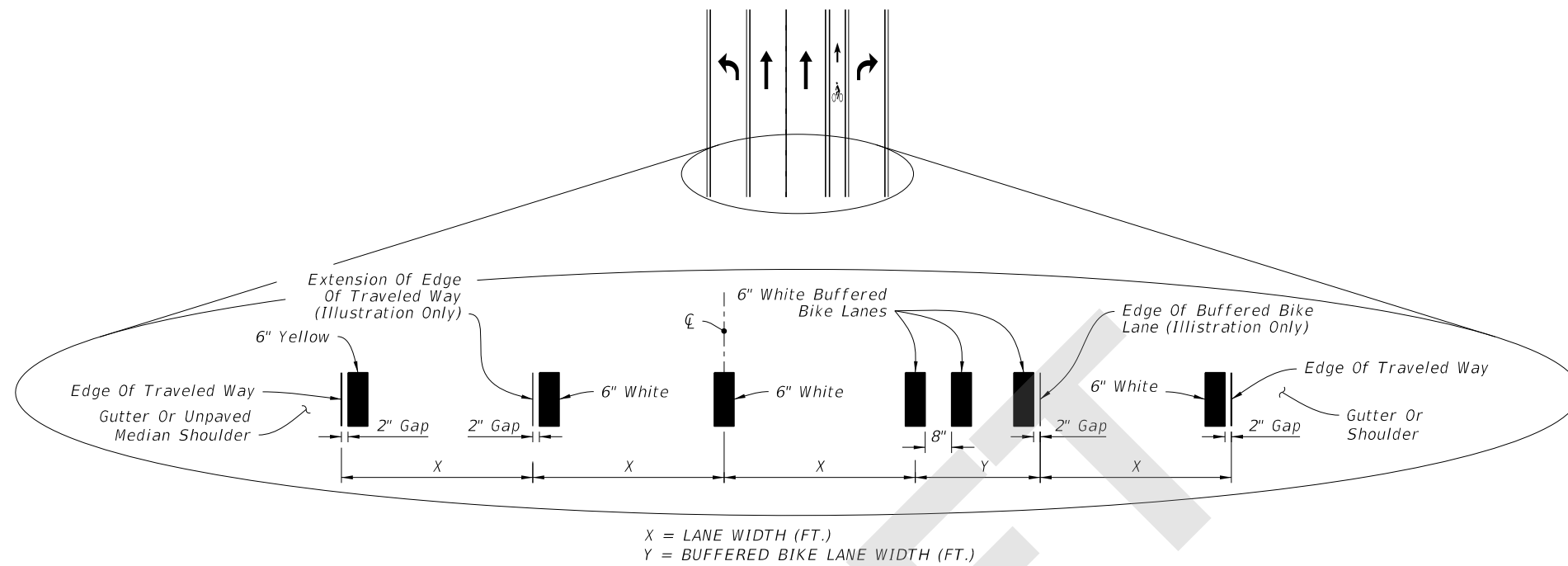
FY 2019-20
STANDARD PLANS

PAVEMENT MARKINGS

INDEX
711-001

SHEET
3 of 13

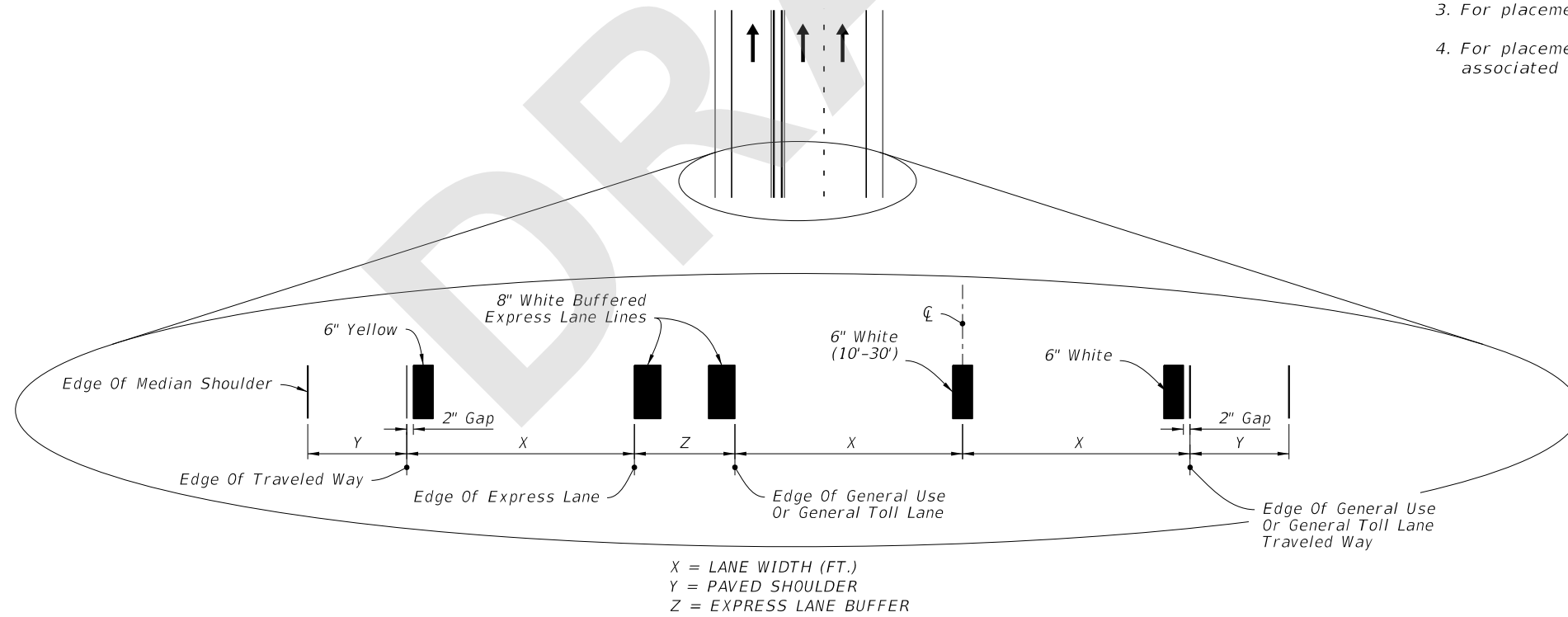
PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS



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.



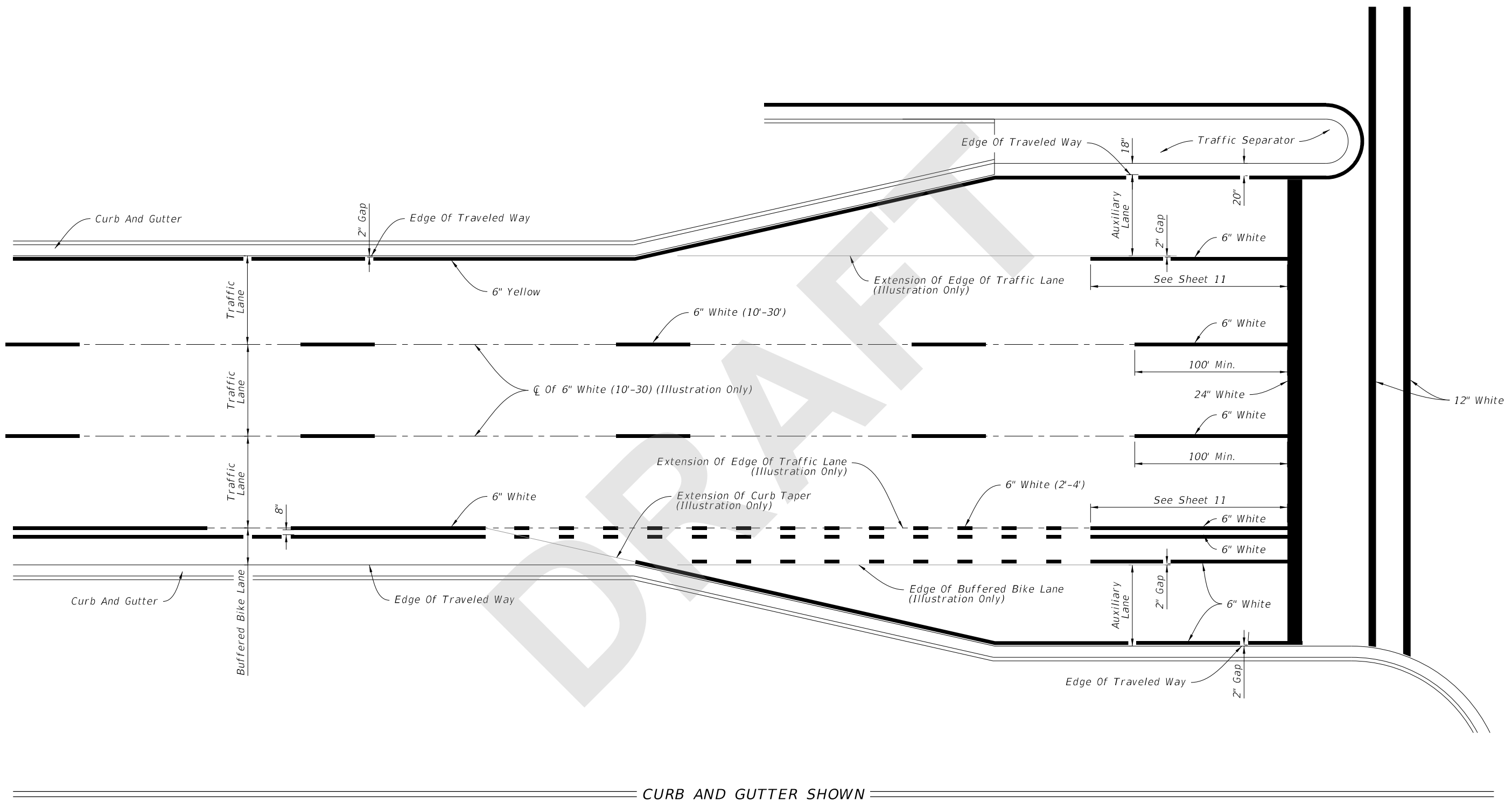
BUFFERED EXPRESS LANE STRIPING

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

8/15/2018 8:02:37 AM

LAST REVISION 11/01/18	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 4 of 13
---------------------------	--------------	--	-------------------	------------------	------------------

8/15/2018 8:02:38 AM



CURB AND GUTTER SHOWN

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

LAST REVISION 11/01/18	DESCRIPTION:
---------------------------	--------------



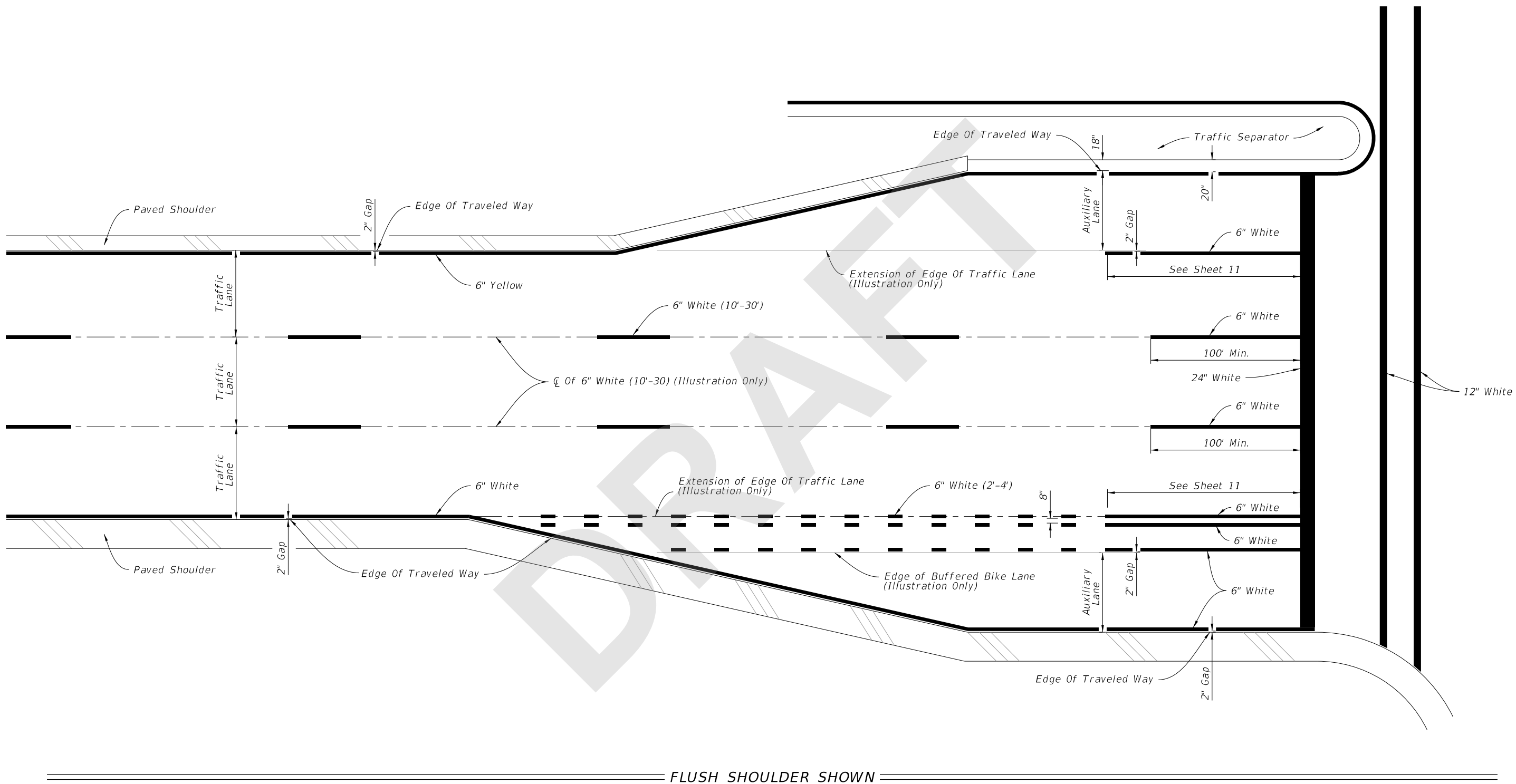
FY 2019-20
STANDARD PLANS

PAVEMENT MARKINGS

INDEX
711-001

SHEET
5 of 13

8/15/2018 8:02:38 AM



FLUSH SHOULDER SHOWN

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

LAST REVISION 11/01/18	DESCRIPTION:
---------------------------	--------------

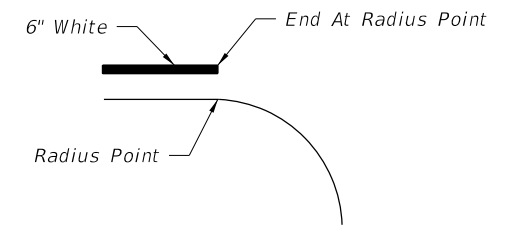
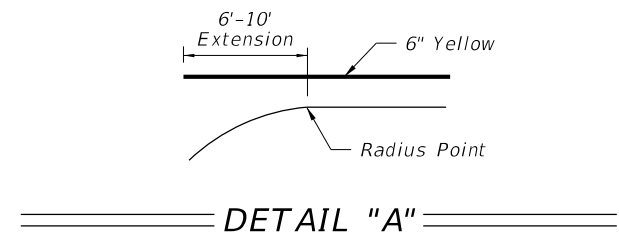
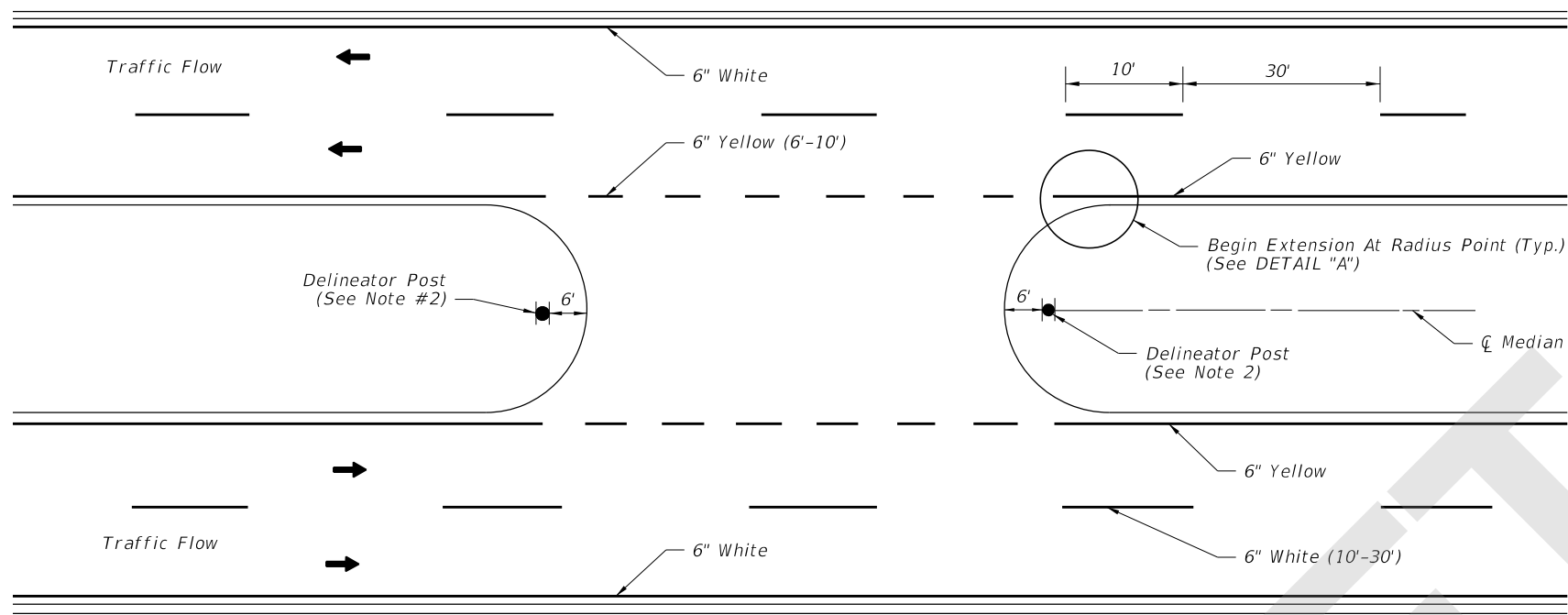


FY 2019-20
STANDARD PLANS

PAVEMENT MARKINGS

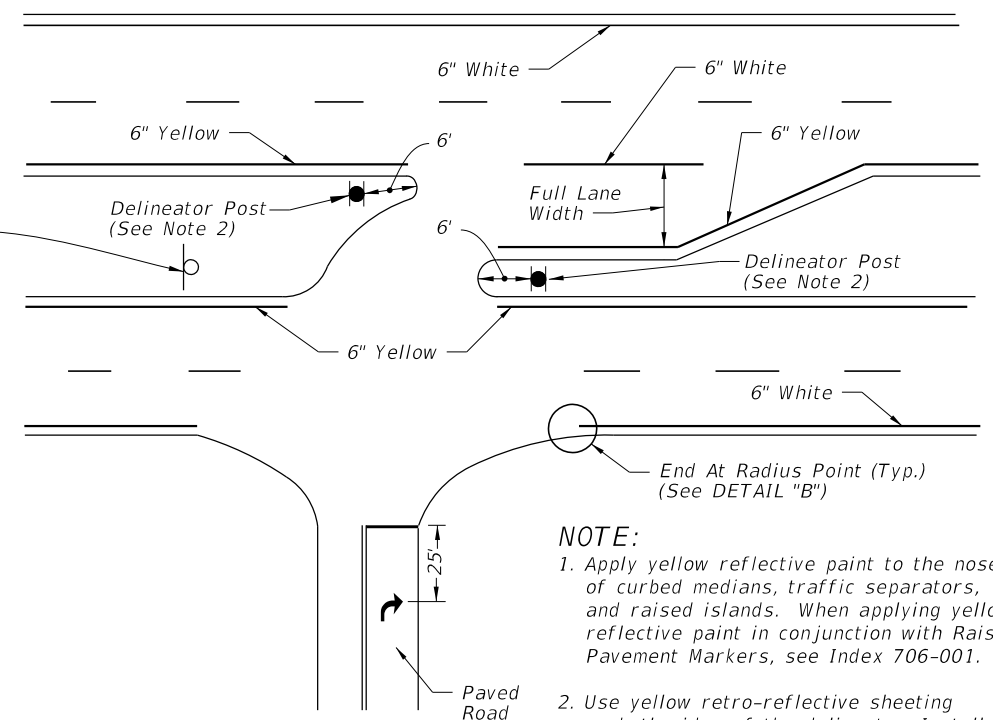
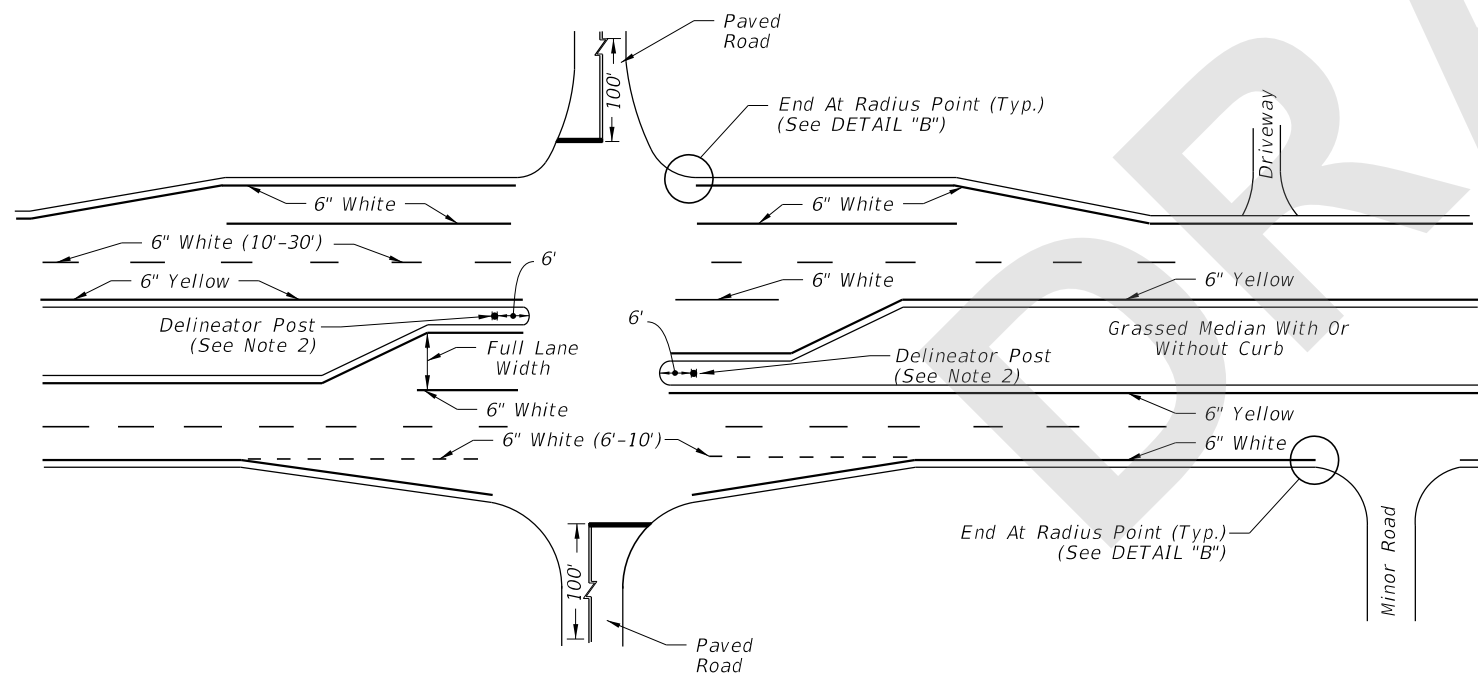
INDEX
711-001

SHEET
6 of 13



PAVEMENT MARKINGS AND DELINEATORS FOR MEDIAN CROSS-OVER

DETAIL "B"

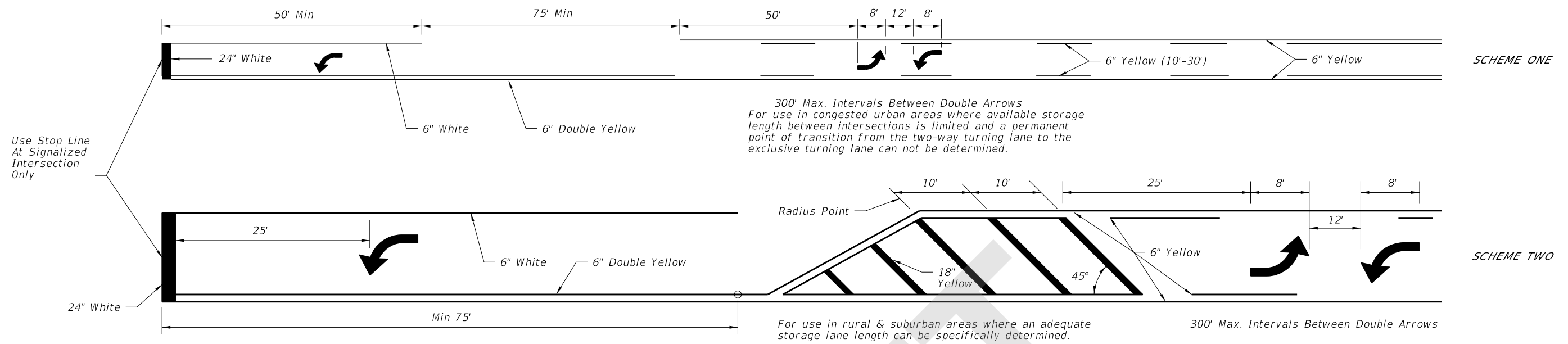


- NOTE:**
1. Apply yellow reflective paint to the noses of curbed medians, traffic separators, and raised islands. When applying yellow reflective paint in conjunction with Raised Pavement Markers, see Index 706-001.
 2. Use yellow retro-reflective sheeting on both sides of the delineator. Install the post so that the top is 4' above the grade at the edge of the pavement.
 3. Extend double yellow centerlines 100' back from intersection on all approaches or 50' for unmarked cross roads.

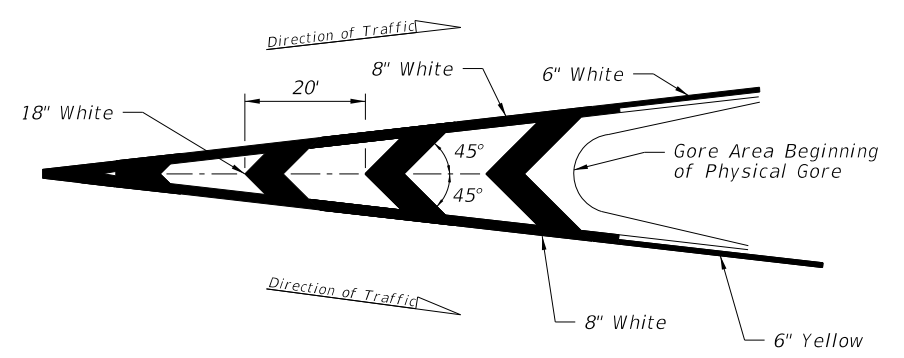
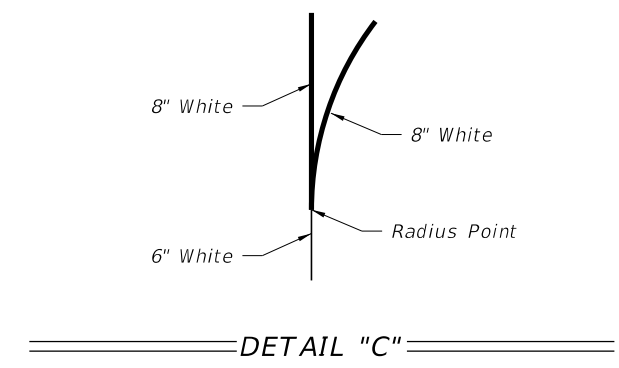
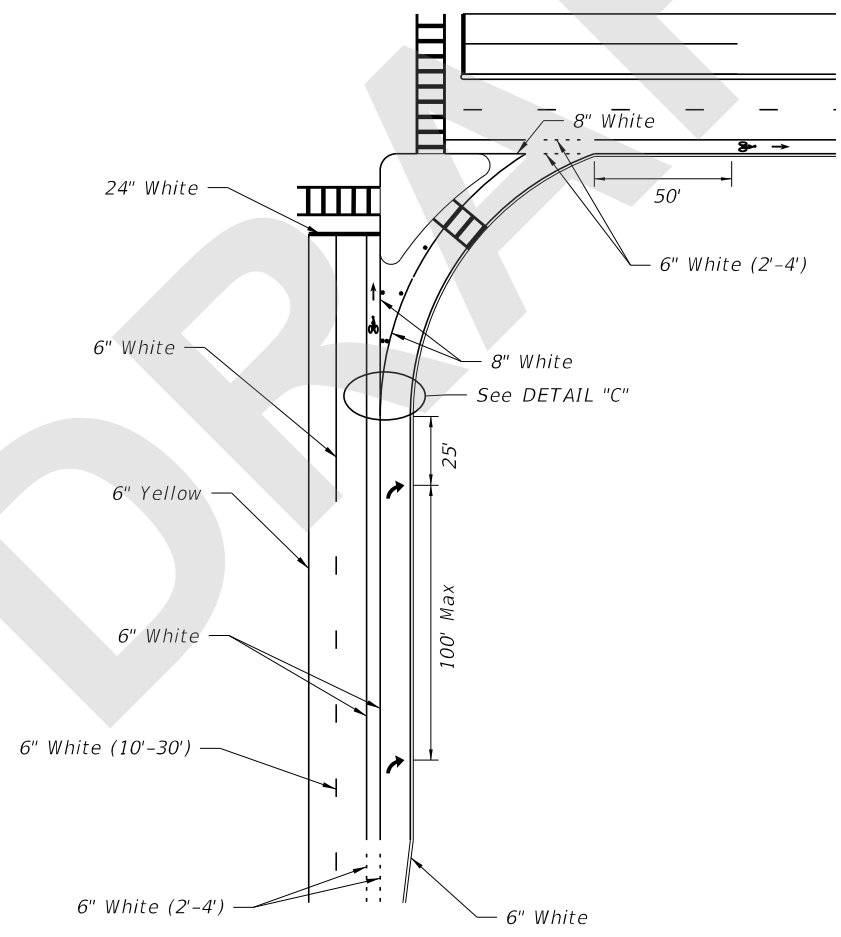
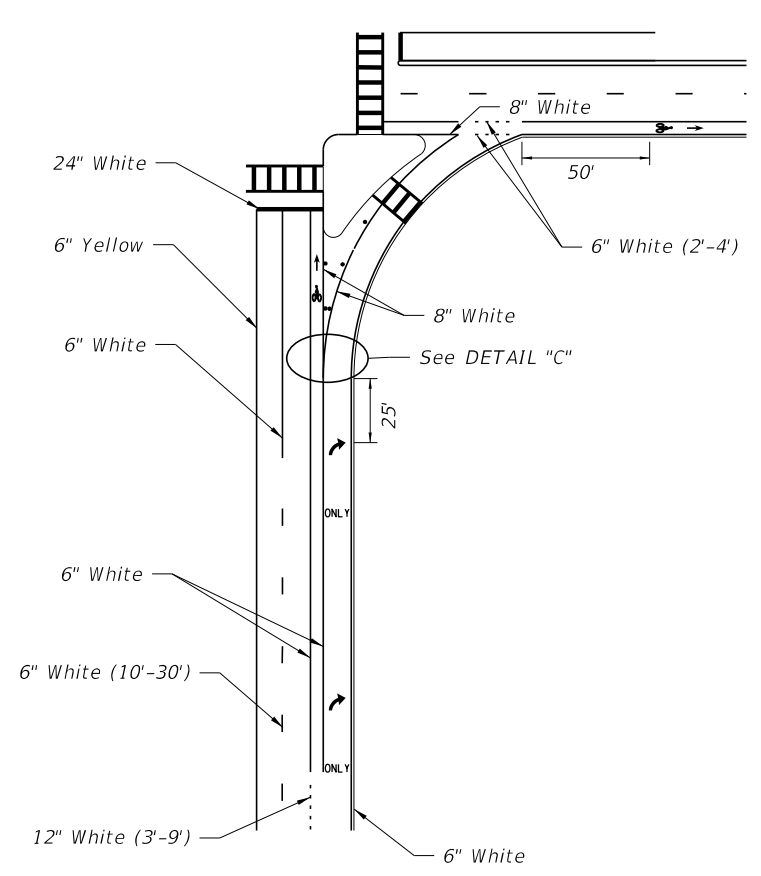
PAVEMENT MARKINGS FOR INTERSECTIONS WITH MAJOR AND MINOR ROADS

8/15/2018 8:02:38 AM

LAST REVISION 11/01/18	DESCRIPTION:		FY 2019-20 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 7 of 13
---------------------------	--------------	--	------------------------------	-------------------	------------------	------------------



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



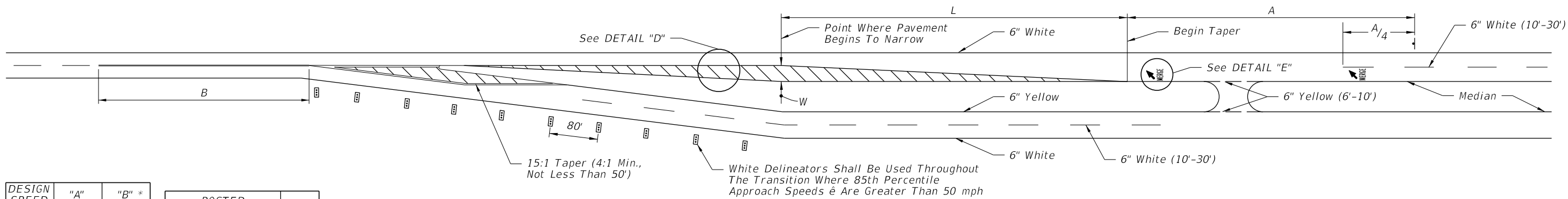
RIGHT TURN LANE DROP AND ISLAND DETAILS
 LEFT TURN LANE DROP IS MIRROR IMAGE

RIGHT TURN LANE AND ISLAND DETAILS

TRAFFIC CHANNELIZATION AT GORE

8/15/2018 8:02:39 AM

LAST REVISION 11/01/18	DESCRIPTION:		FY 2019-20 STANDARD PLANS	PAVEMENT MARKINGS	INDEX	SHEET
					711-001	8 of 13



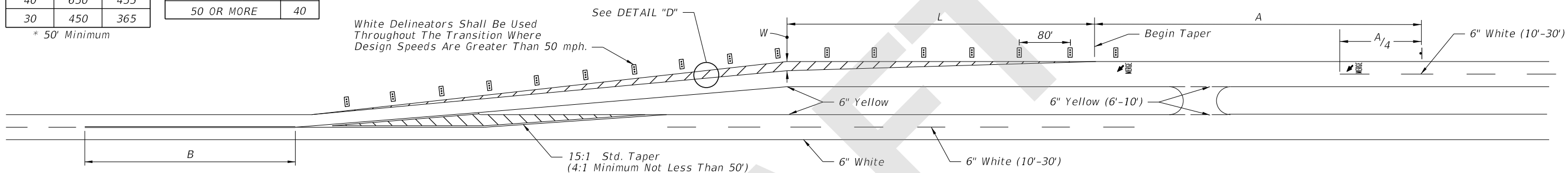
DESIGN SPEED (MPH)	"A" (FT.)	"B" * (FT.)
60	---	640
55	950	595
50	850	550
45	750	500
40	650	455
30	450	365

* 50' Minimum

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

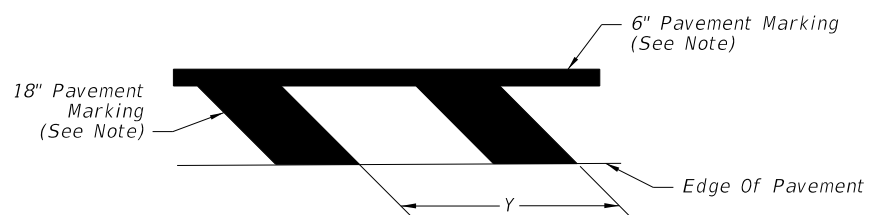
DESIGN SPEED 'S' (MPH)	Length 'L' (FT.)
40 or Less	$L = WS^2/60$
45 or Greater	$L = WS$

LEFT ROADWAY CENTERED ON EXISTING ROADWAY

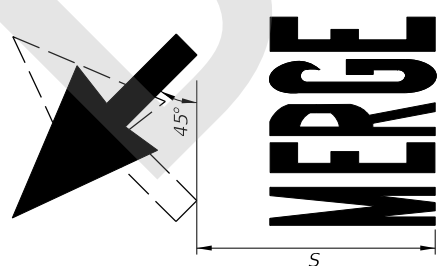


RIGHT ROADWAY CENTERED ON EXISTING ROADWAY

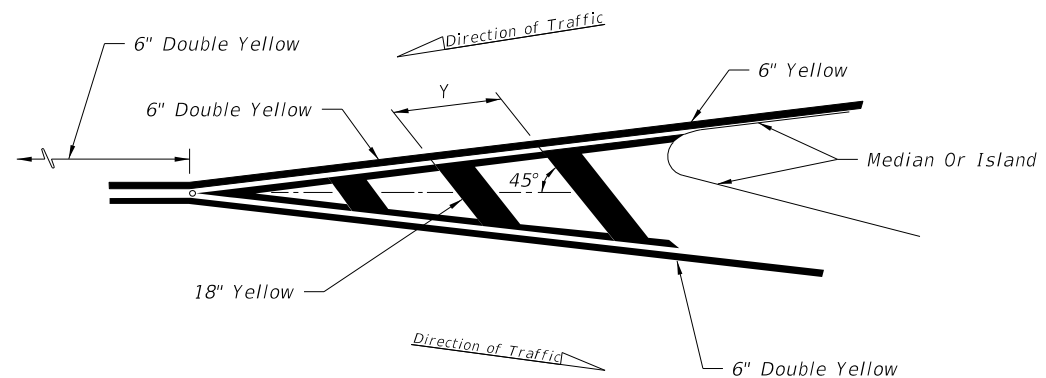
SCHEMES FOR TRANSITION - 2 LANE / 4 LANE ROADWAY



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



NOTE: See Sheet 1 for "S" value.

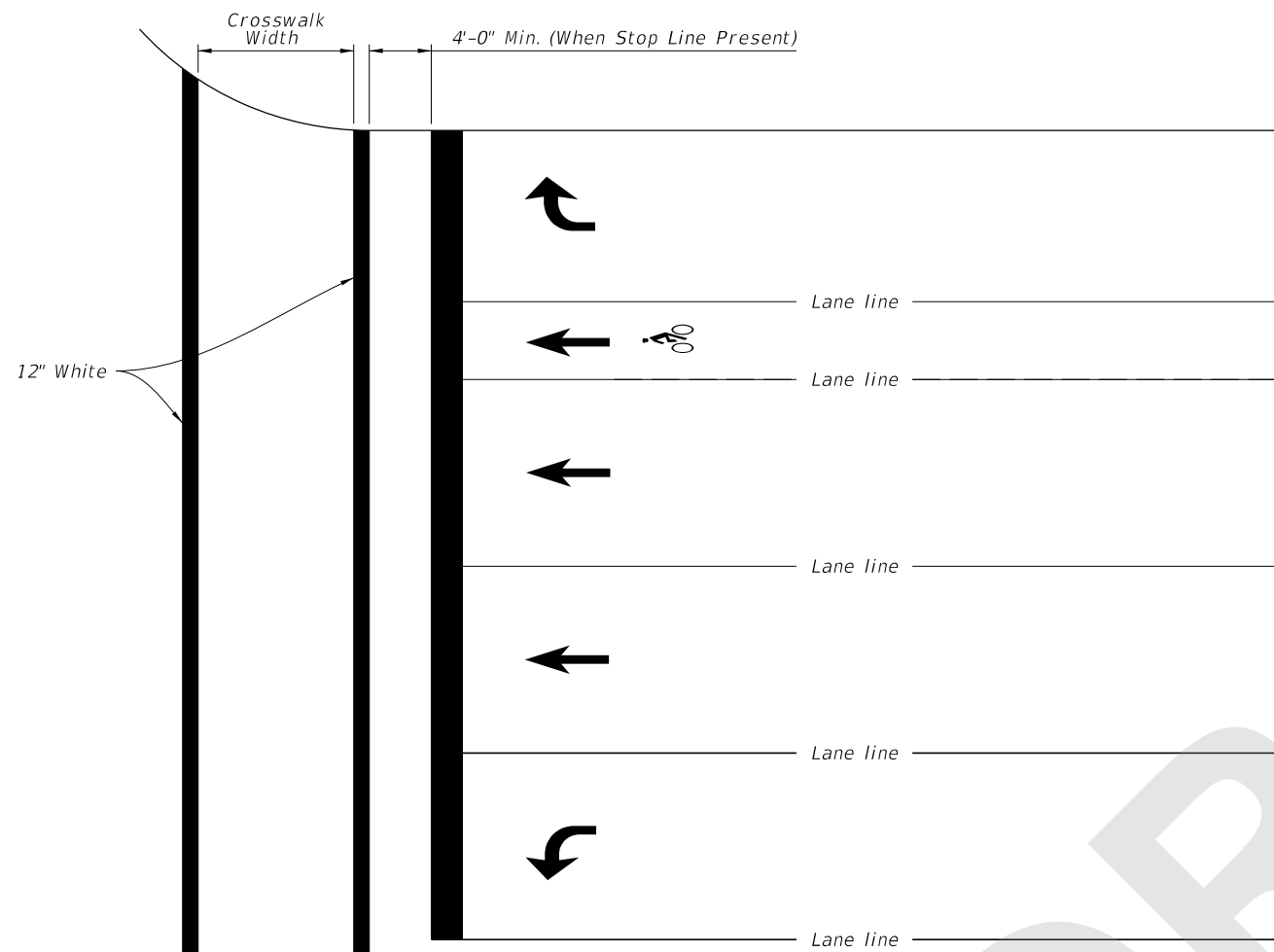


MARKINGS FOR TRAFFIC SEPARATION

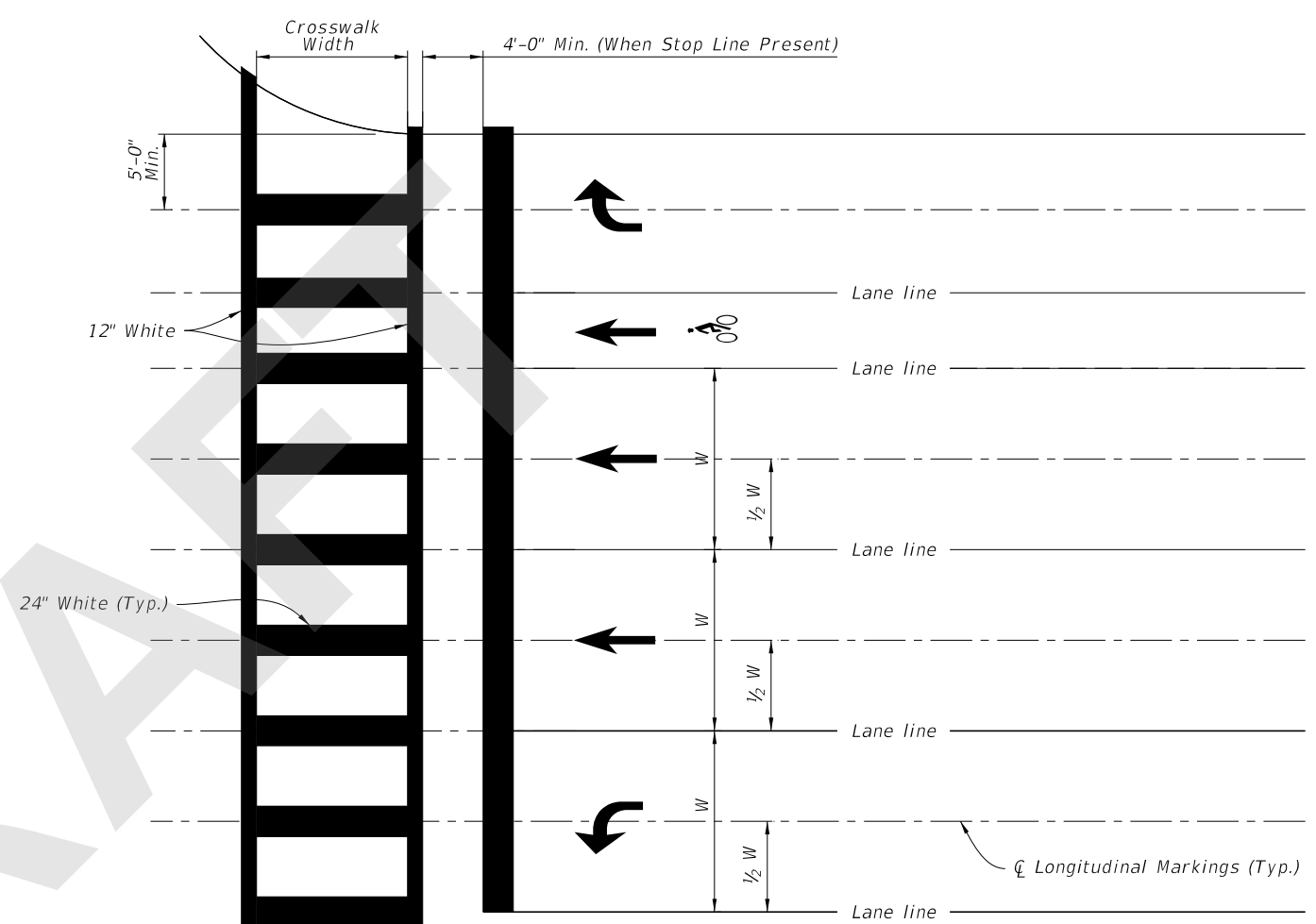
DETAIL "D"

DETAIL "E"

8/15/2018 8:02:39 AM



STANDARD CROSSWALK DETAILS



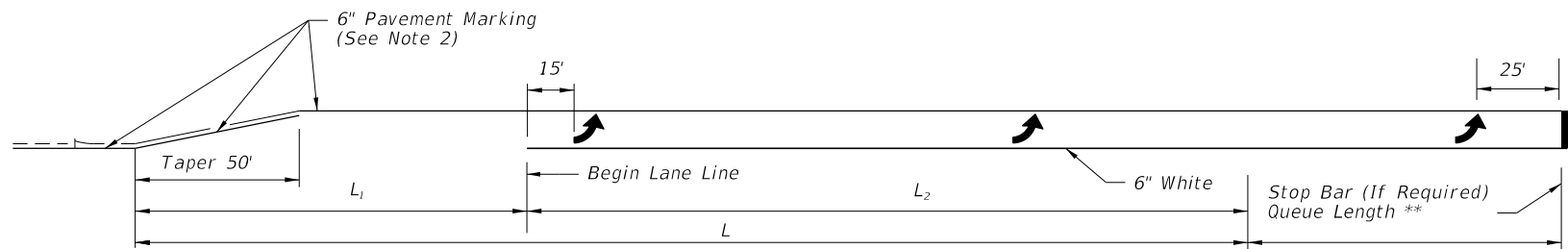
SPECIAL EMPHASIS CROSSWALK DETAILS

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. Refer to Index 522-002 when Curb Ramps are present.

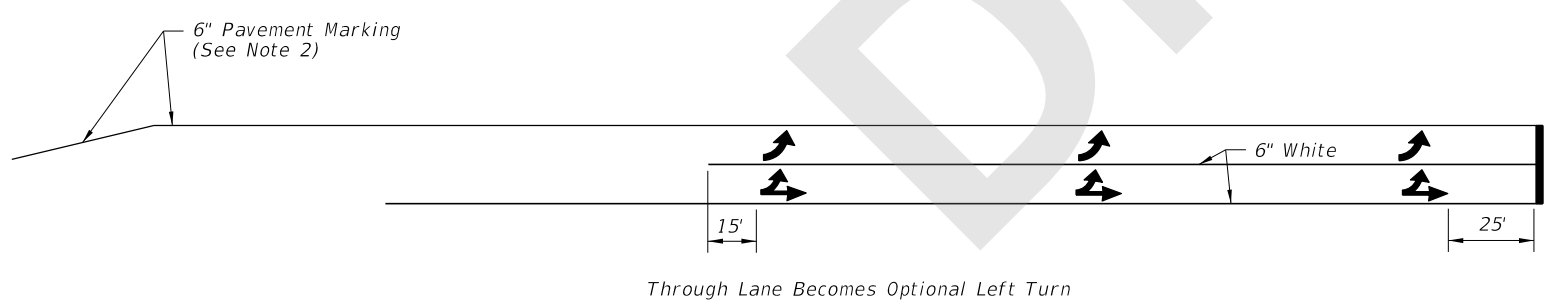
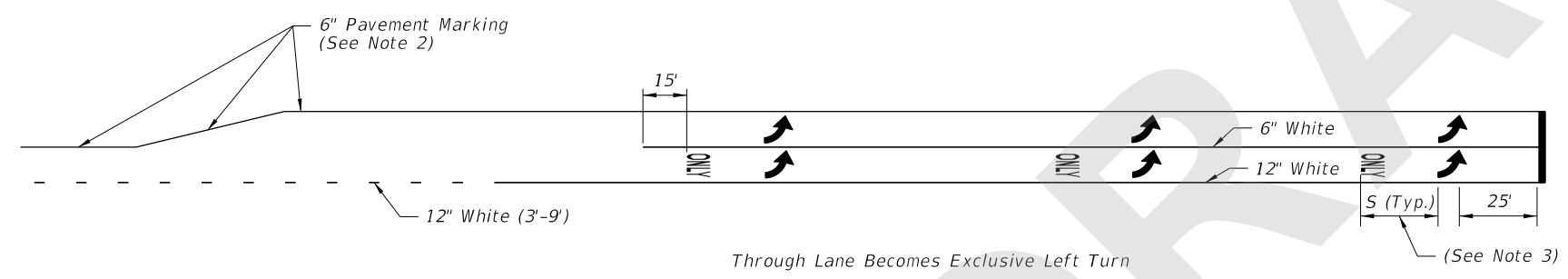
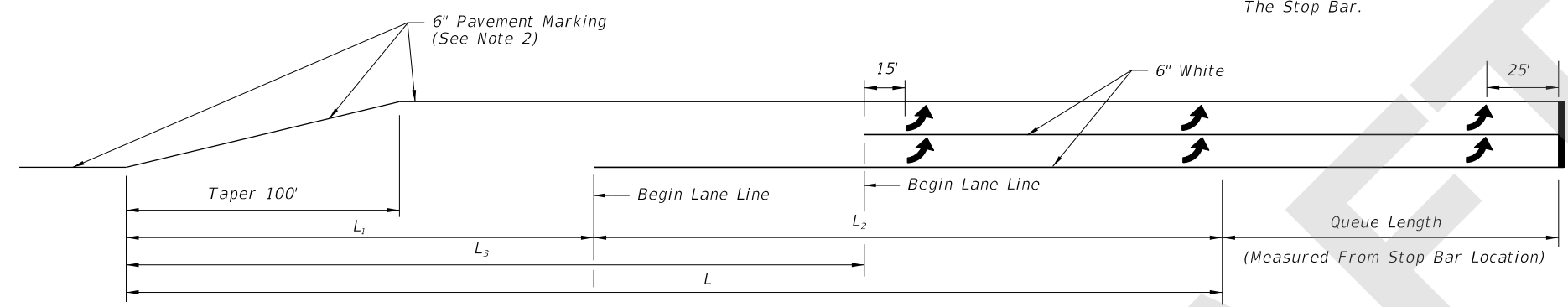
8/15/2018 8:02:40 AM

LAST REVISION 11/01/18	REVISION	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 10 of 13
---------------------------	----------	--------------	---	-------------------	------------------	-------------------



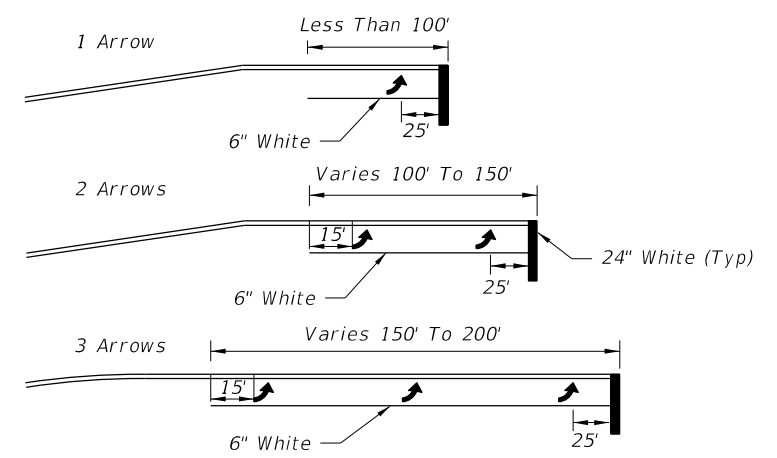
SINGLE LEFT TURNS

** 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

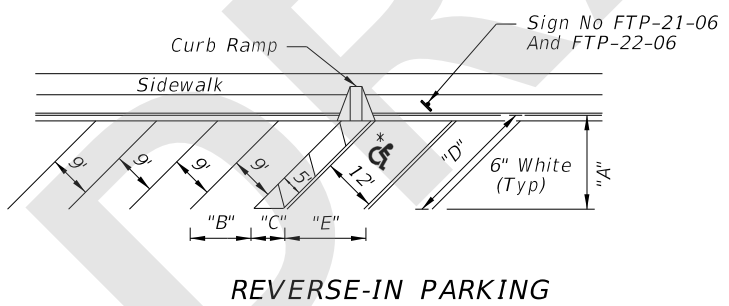
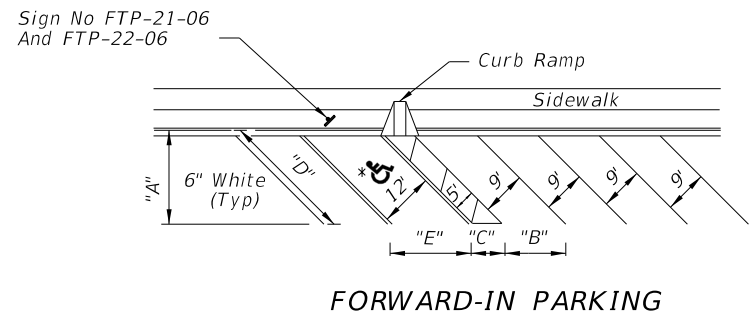
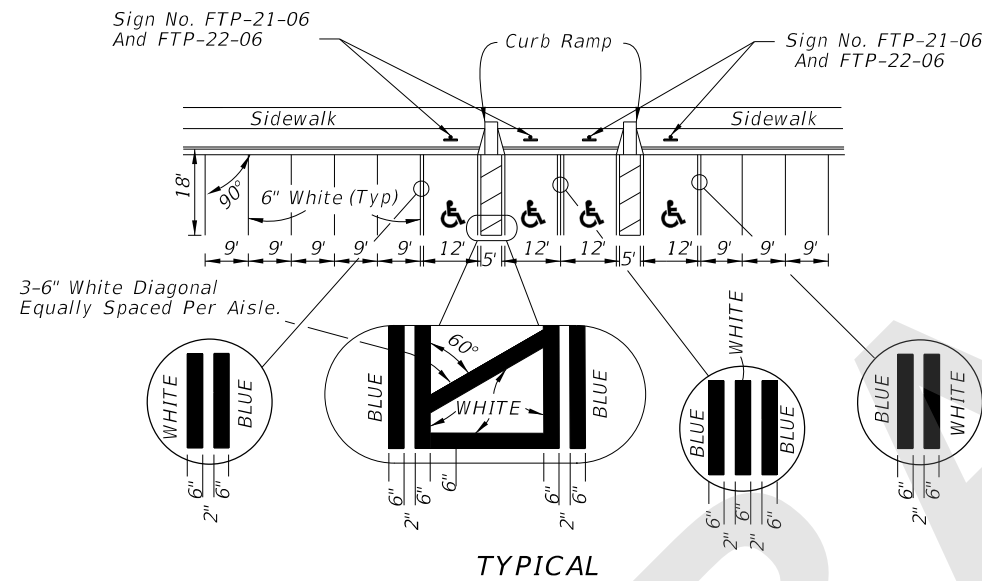
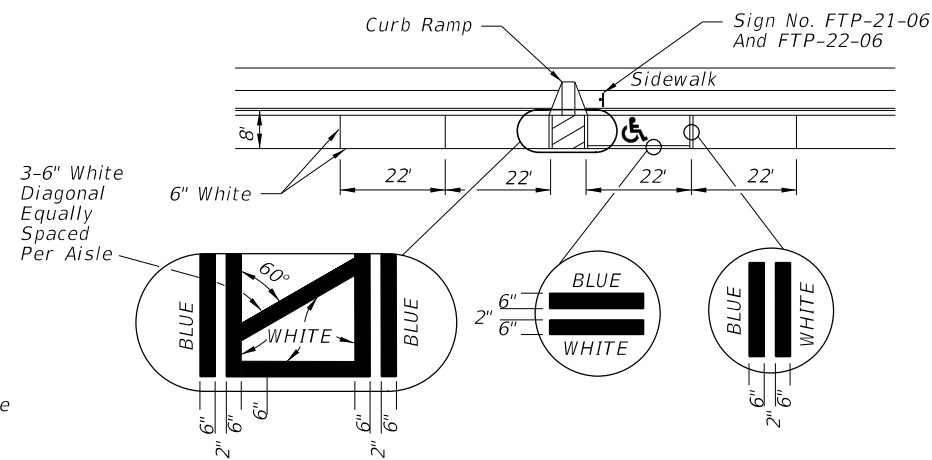
- NOTES:
1. This Index also applies to right turn lanes.
 2. Make pavement marking yellow for left-turn lanes and white for right-turn lanes.
 3. See Sheet 1 for "S" value.

TURN LANE MARKINGS

8/15/2018 8:02:40 AM

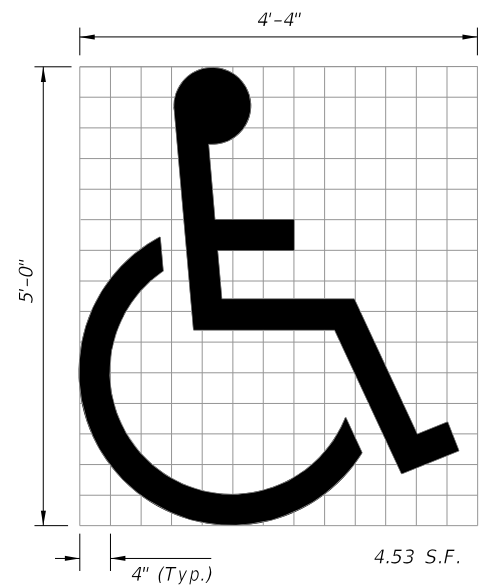
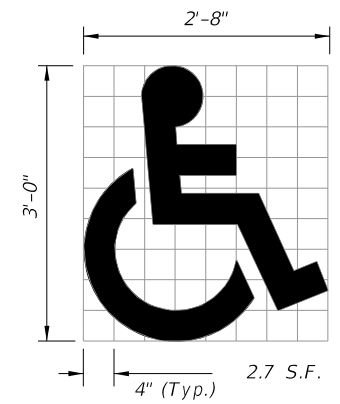
NOTES:

1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Tint blue pavement markings to match color 15180 of Federal Standards 595a.
5. Mount FTP-22-06 sign below the FTP-21-06 sign.



* FOR ACCESSIBLE MARKINGS - SEE ABOVE

"DIMENSIONS"					
∠ θ	"A"	"B"	"C"	"D"	"E"
45°	19'-1"	12'-9"	7'-0"	27'-0"	17'-0"
60°	20'-1"	10'-5"	5'-9"	23'-2"	13'-10"



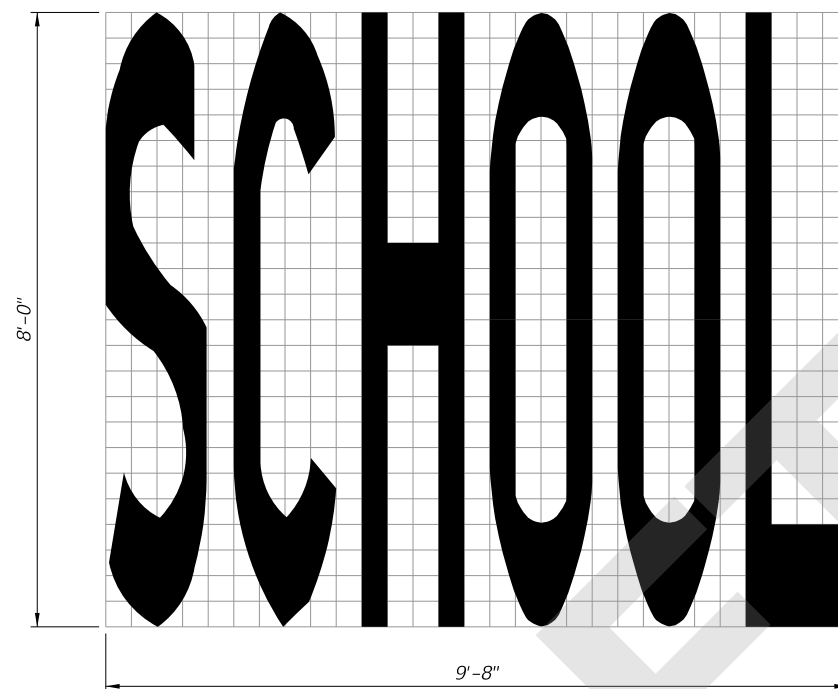
Use of pavement symbol in accessible parking spaces is optional, when used the symbol shall be 3' or 5' high and white in color.

PAVEMENT MARKING FOR PARKING

UNIVERSAL SYMBOL OF ACCESSIBILITY

8/15/2018 8:02:41 AM

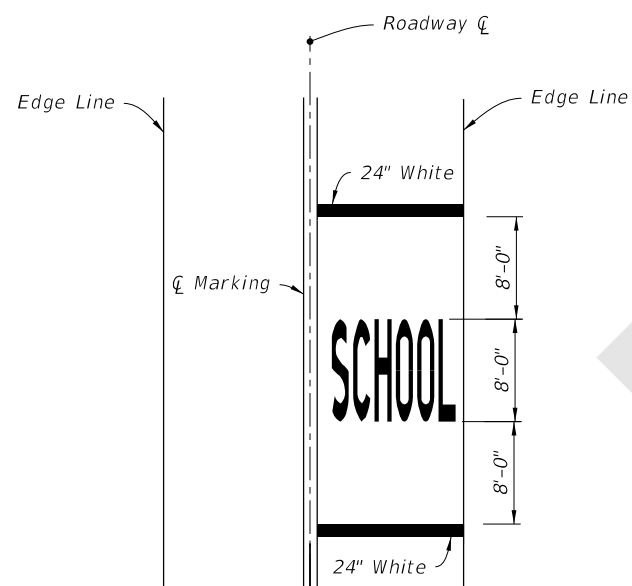
33 S.F.



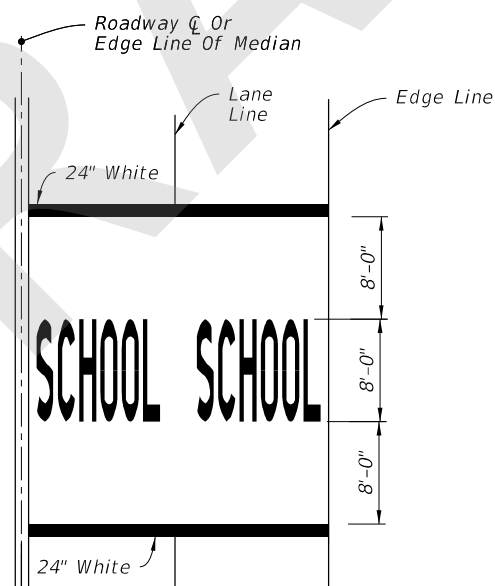
SCHOOL PAVEMENT MARKING

NOTES:

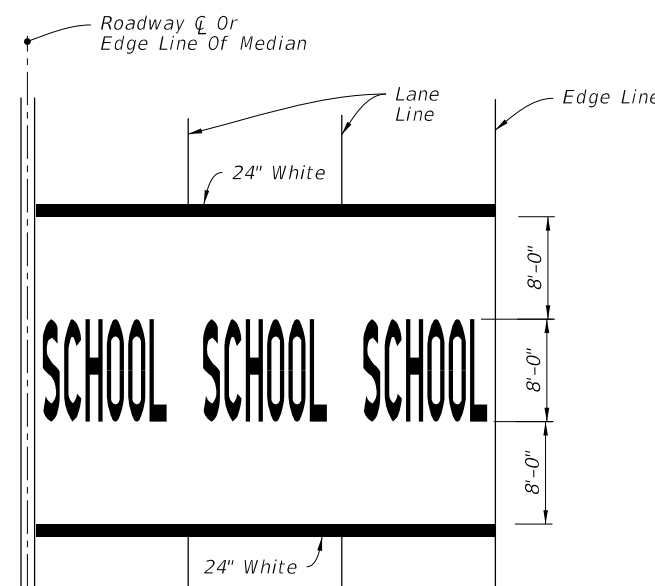
1. All grids are 4" x 4".
2. Pavement Marking Should Not Extend Into Opposing Lane.
3. Center School Pavement Marking in lane.



SINGLE-LANE APPROACH




TWO-LANE APPROACH



MULTI-LANE APPROACH
(Three or More)

MARKINGS FOR SCHOOL ZONES

8/15/2018 8:02:42 AM

LAST REVISION 11/01/18	REVISION	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 13 of 13
---------------------------	----------	--------------	---	-------------------	------------------	-------------------