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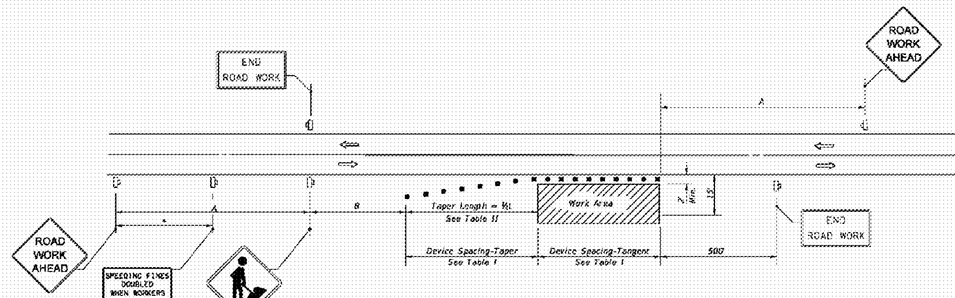
TWO-LANE, TWO-WAY, WORK ON SHOULDER (Index No. 602)



DISTANCE BETWEEN SIGNS		
Speed	Spacing (ft.)	
	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

*Midway between signs.

Table I Device Spacing				
Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

Table II Taper Length - Shoulder				
Speed (mph)	⅓L (ft)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	42	$L=\frac{WS^2}{60}$
30	40	50	60	
35	55	68	82	
40	72	90	107	
45	120	150	180	L=WS
50	133	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

8' minimum shoulder width

⅓L = Length of shoulder taper in feet

W = Width of total shoulder in feet (combined paved and unpaved width)

S = Posted speed limit (mph)

SYMBOLS

- Work Area
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Lane Identification + Direction of Traffic

GENERAL NOTES

1. When four or more work vehicles enter the through traffic lanes in a one hour period or less (excluding establishing and terminating the work area), the advanced FLAGGER sign shall be substituted for the WORKERS sign. For location of flaggers and FLAGGER signs, see Index No. 603.
2. SHOULDER WORK sign may be used as an alternate to the WORKER symbol sign only on the side where the shoulder work is being performed.
3. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with other applicable TCZ Indexes.
4. For general TCZ requirements and additional information, refer to Index No. 600.

DURATION NOTES

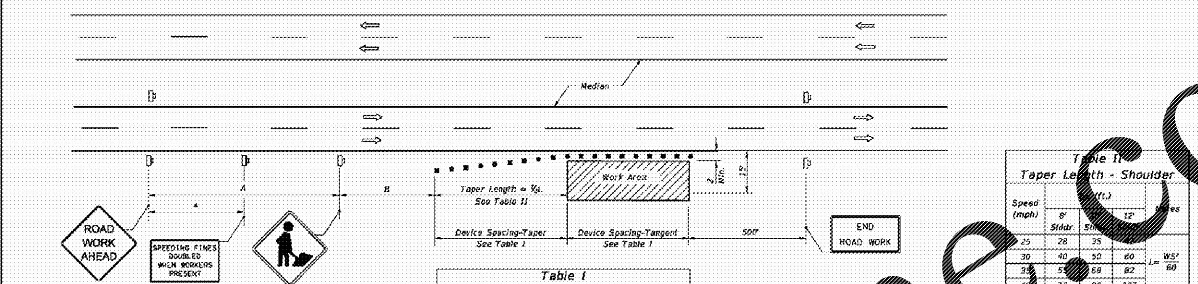
1. Signs and channelizing devices may be omitted if all of the following conditions are met:
   a. Work operations are 60 minutes or less.
   b. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

LAST REVISION	REVISION	DESCRIPTION:	FDOT 2016 DESIGN STANDARDS	TWO-LANE, TWO-WAY, WORK ON SHOULDER	INDEX NO.	SHEET NO.
07/01/15					602	1 of 1

MULTILANE, WORK ON SHOULDER (Index No. 612)



DISTANCE BETWEEN SIGNS		
Speed	Spacing (ft.)	
	A	B
40 mph or less	200	200
45 mph	350	350
50 mph or greater	500	500

*250' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

Table I Device Spacing				
Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	[illegible]
30 to 45	25	50	30	[illegible]
50 to 70	25	50	50	[illegible]

Table II Taper Length - Shoulder				
Speed (mph)	⅓L (ft.)			Notes
	8' Shldr.	10' Shldr.	12' Shldr.	
25	28	35	[illegible]	$L=\frac{WS^2}{60}$
30	40	50	60	
35	55	68	82	
40	72	90	107	
45	120	150	180	L=WS
50	133	167	200	
55	147	183	220	
60	160	200	240	
65	173	217	260	
70	187	233	280	

8' minimum shoulder width.

⅓L =Length of shoulder taper in feet

W = Width of total shoulder in feet (combined paved and unpaved width)

S = Posted speed limit (mph)

SYMBOLS

- Work Area
- Channelizing Device (See Index No. 600)
- Work Zone Sign
- Lane Identification + Direction of Traffic

GENERAL NOTES

1. When a high volume of work vehicles are enter[illegible] Work Area at speeds slower than 10 MPH below the pos[illegible] speed, place on [illegible] sign in the ROAD WORK AHEAD sign location and [illegible] the ROAD WORK A[illegible] sign upstream 500 ft.
2. This TCZ plan also applies to work perfor[illegible] in the median more than [illegible] but less than 15' from the edge of travelway.
3. When work is [illegible] performed on a multilane [illegible] roadway the s[illegible] normally [illegible] in the median (as shown) shall [illegible] omitted.
4. WORKERS sign[illegible] removed or fully covered when [illegible] work is [illegible] performed.
5. SHOULDER WORK [illegible] may be used as an alternate to [illegible] WORKER symbol sign.
6. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accordance with [illegible] applicable TCZ Indexes.
7. For general TCZ requirements [illegible] additional information, refer to Index No. 600.

DURATION NOTES

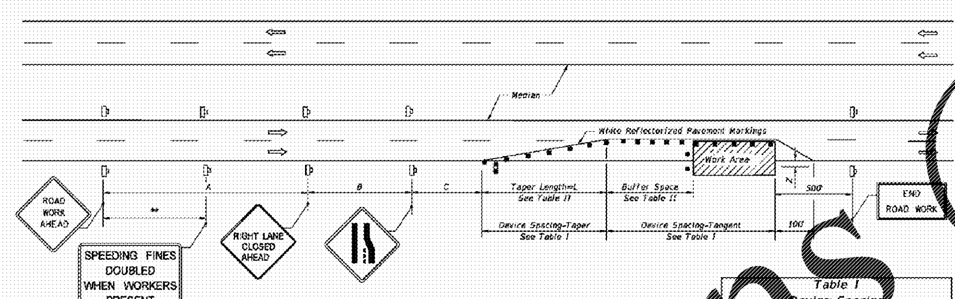
1. Signs and channelizing devices may be omitted if all of the following conditions are met:
   a. Work operations are 60 minutes or less.
   b. Vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH THE AREA CLOSER THAN 15' BUT NOT CLOSER THAN 2' TO THE EDGE OF TRAVEL WAY.

LAST REVISION	REVISION	DESCRIPTION:	FDOT 2016 DESIGN STANDARDS	MULTILANE, WORK ON SHOULDER	INDEX NO.	SHEET NO.
07/01/15					612	1 of 1

MULTILANE, WORK WITHIN TRAVEL WAY MEDIAN OR OUTSIDE LANE (Index No. 613)



DISTANCE BETWEEN SIGNS			
Speed	Spacing (ft.)		
	A	B	C
40 mph or less	200	200	200
45 mph	350	350	350
50 mph	500	500	500
*55 mph or greater	2640	1640	1000

* The ROAD WORK 1 MILE sign may be used as an alternate to the ROAD WORK AHEAD sign and the RIGHT LANE CLOSED ½ MILE sign may be used as an alternate to the RIGHT LANE CLOSED AHEAD sign.

** 500' beyond the ROAD WORK AHEAD sign or midway between signs whichever is less.

Table I Device Spacing				
Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50
50 to 70	25	50	50	100

Table II Buffer Space and Taper Length			
Speed (mph)	Buffer Space	Taper Length (12' Lateral Transition)	
	Dist. (ft.)	(ft.)	Notes (Merge)
25	[illegible]	[illegible]	$L=\frac{WS^2}{60}$
30	[illegible]	[illegible]	
35	[illegible]	245	
40	305	320	
45	360	540	L = WS
50	425	[illegible]	
55	495	[illegible]	
60	570	720	
65	645	780	
70	730	840	

When Buffer Space cannot be attained due to geometric constraints, the greatest attainable length shall be used, but not less than 200 ft.

For lateral transitions other than 12', use Where:

L = Length of taper in feet
W = Width of lateral transition in feet
S = Posted speed limit (mph)

GENERAL NOTES

1. Work operations shall be confined to one traffic lane, leaving the adjacent [illegible] open to traffic.
2. On undivided highways the median signs as shown [illegible] to be omitted.
3. When work is performed in the median lane on [illegible] highways, the channelizing [illegible] plan is [illegible] and left lane closed and lane ends signs substitute[illegible] the right [illegible] closed and lane [illegible] signs.

   The same applies to undivided highways with the follo[illegible] exceptions:
   a. Work shall be confined within one median lane.
   b. Additional barricades, cones, or drums shall be placed [illegible] the centerline abutting the work area and across the trailing end of the work area.

   When work on undivided highways [illegible] across the centerline [illegible] to encroach on both median lanes, the inverted plan is applie[illegible] the approach of both roadways.
4. Signs and traffic control dev[illegible] are to be modified in accordance with INTERMITTENT WORK STOPPAGE details (she[illegible] when no [illegible] is being performed and the highway is open to traffic.
5. The two channelizing devices direc[illegible] in front of the work area may be omitted provided vehicles in the work ar[illegible] have high-intensity rota[illegible], flashing, oscillating, or strobe lights operating.
6. When paved shoulders havin[illegible] a width of 8 ft. or more are closed, channelizing devices shall be used to [illegible] the [illegible] in advance of the merging taper to direct vehicular traffic to remain within the travel [illegible]. See [illegible] shoulder taper formulas.
7. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed in accor[illegible] with other applicable TCZ Indexes.
8. This TCZ plan does not apply when work is being performed in the middle lane(s) of a six or more lane [illegible]. See Index No. 614.
9. For general TCZ requirements and additional information, refer to Index No. 600.

SYMBOLS

- Work Area
- Channelizing Device (See [illegible] No. [illegible])
- [illegible] Zone Sign
- Advan[illegible] Arrow Board

DURATION NOTES

1. Temporary white edgeline may be omitted for work operations less than 3 consecutive calendar days.
2. For work operations up to approximately 15 minutes, signs, channelizing devices, arrow board, and buffer space may be omitted if all of the following conditions are met:
   a. Speed limit is 45 mph or less.
   b. No sight obstructions to vehicles approaching the work area for a distance equal to the buffer space and the taper length combined.
   c. Volume and complexity of the roadway has been considered.
   d. The closed lane is occupied by a class 5 or larger, medium duty truck(s) with a minimum gross weight vehicle rating (GWVR) of 16,001 lb with high-intensity, rotating, flashing, oscillating, or strobe lights mounted above the cab height and operating.
3. For work operations up to 60 minutes, arrow board and buffer space may be omitted if conditions a, b, and c in DURATION NOTE 2 are met, and vehicles in the work area have high-intensity, rotating, flashing, oscillating, or strobe lights operating.

CONDITIONS

WHERE ANY VEHICLE, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH ON THE LANE ADJACENT TO EITHER SHOULDER AND THE AREA 2' OUTSIDE THE EDGE OF TRAVEL WAY.

LAST REVISION	REVISION	DESCRIPTION:	FDOT 2016 DESIGN STANDARDS	MULTILANE, WORK WITHIN TRAVEL WAY MEDIAN OR OUTSIDE LANE	INDEX NO.	SHEET NO.
[illegible]					613	1 of 2

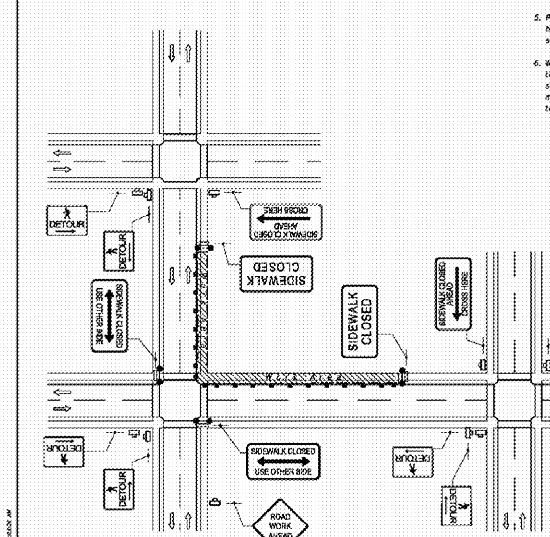
PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS (Index No. 660)

SYMBOLS

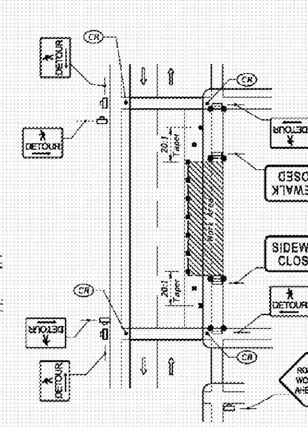
- Work Area
- Channelizing Device (See Index 600)
- Work Zone Sign
- (CR) Required Locations For Either Temporary Or Permanent Curb Ramps.
- Lane Identification + Direction of Traffic
- Pedestrian Longitudinal Channelizing Device (LCD) with Mounted Work Zone Sign
- Pedestrian Longitudinal Channelizing Device (LCD)

GENERAL NOTES

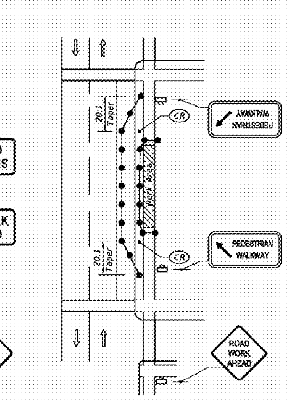
1. Route pedestrian traffic around work areas when construction activities encroach on the sidewalk for more than 60 minutes using the devices and remedies shown on this Index. Use project specific designs for scenarios not included on this Index.
2. For spacing of traffic control devices and general TCZ requirements refer to Index 600. The maximum spacing between barricades, vertical panels, drums or tubular markers is 25'.
3. Use delineators on longitudinal channelizing devices separating the work area from vehicular traffic.
4. Cover or deactivate pedestrian traffic signal display(s) controlling closed crosswalks.
5. Post mounted signs located near or adjacent to a sidewalk must have a 7' minimum clearance from the bottom of sign to the surface of the sidewalk.
6. When construction activities involve sidewalks on both sides of the street, stage the construction so that one sidewalk is in service at all times. If this is not feasible and both sidewalks must be closed, as determined by the Engineer, provide a detour to guide pedestrians around the construction zone.
7. Provide a 5' wide temporary walkway, except where space restrictions warrant a minimum width of 4'. Provide a 5' x 5' passing space for temporary walkways less than 5' in width at intervals not to exceed 200'.
8. Provide a cross-slope with a maximum value of 0.02 for all temporary walkways.
9. Temporary walkway surfaces and ramps must be stable, firm, slip resistant, and kept free of any obstructions and hazards such as holes, debris, mud, construction equipment and stored materials.
10. Remove temporary walkways immediately after reopening of the sidewalk, unless otherwise noted in the plans.
11. Meet the requirements of Index 304 for temporary curb ramps.
12. Place pedestrian longitudinal channelizing device(s) across the full width of the closed sidewalk. For temporary walkways, similar to the Sidewalk Diversion, place LCD's to delineate both sides of the temporary walkway.



CROSSWALK CLOSURE AND PESESTRIAN DETOUR



SIDEWALK DETOUR



SIDEWALK DIVERSION

LAST REVISION	REVISION	DESCRIPTION:	FDOT 2016 DESIGN STANDARDS	PEDESTRIAN CONTROL FOR CLOSURE OF SIDEWALKS	INDEX NO.	SHEET NO.
07/01/15					660	1 of 1

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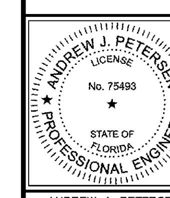
MAINTENANCE OF TRAFFIC DETAILS
KISSIMMEE 7-ELEVEN #38227
SW C/O CARROLL ST. AND DYER BLVD.
KISSIMMEE, FL 34741
OSCEOLA COUNTY FLORIDA



ANDREW J. PETERSEN
LICENSE NO. 75493
01/03/2018

PLAN STATUS

DATE	DESCRIPTION	
AW DESIGN	EC DRAWN	AJP CHKD
SCALE	NONE	
JOB No. 010063-02-087		
DATE 01/03/2018		
FILE 010063-02-D-CP-087-12-D3.0-DET.DWG		
SHEET D9.0		