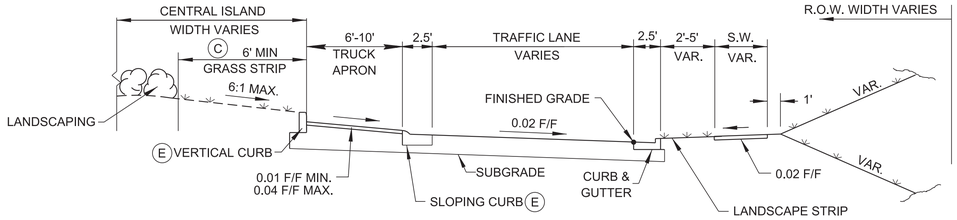
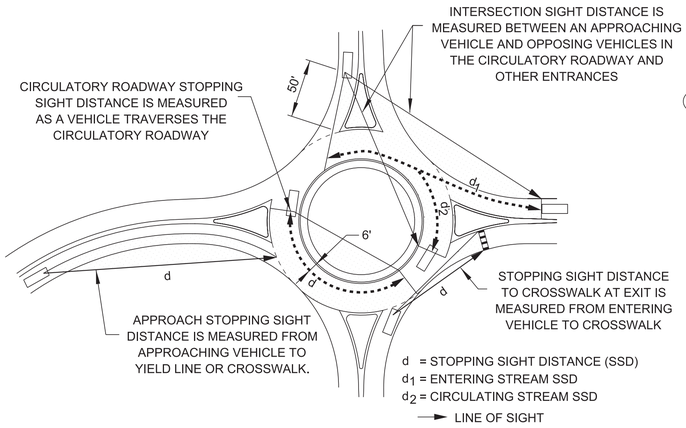
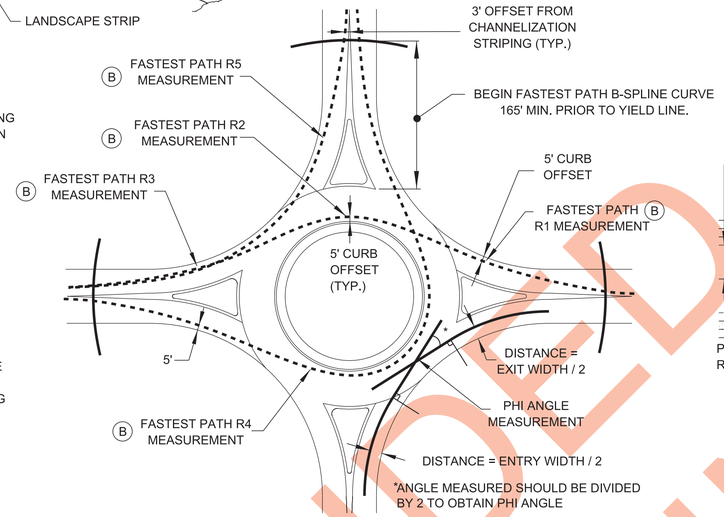


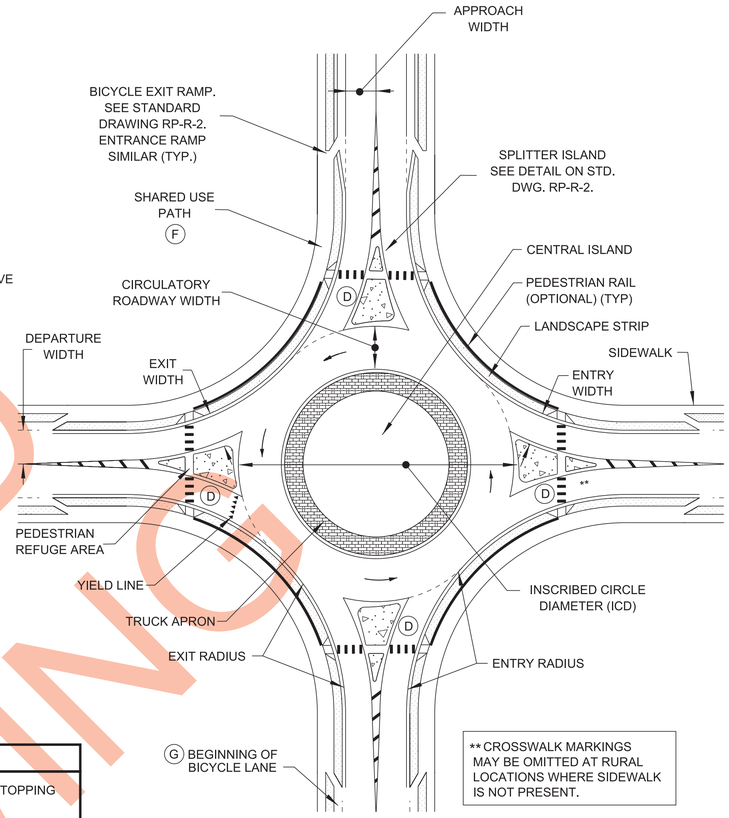
ROUNDABOUT TYPICAL SECTION



ROUNDABOUT SIGHT DISTANCE A

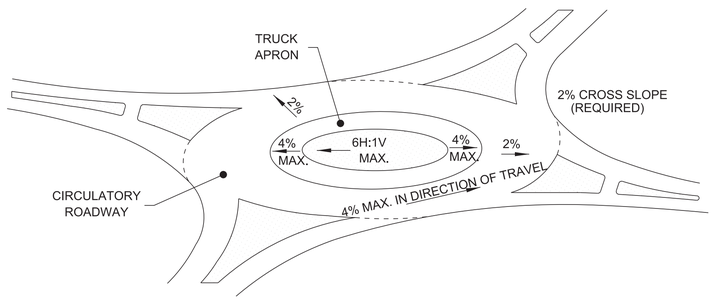


ROUNDABOUT DESIGN CHECKS



TYPICAL PLAN VIEW OF ROUNDABOUT

SEE GENERAL NOTE (11)



CIRCULATORY ROADWAY SLOPES

NOTE:
TRUCK APRON CROSS SLOPE SHOULD MATCH CIRCULATORY ROADWAY CROSS SLOPE OR MAY BE INCREASED UP TO 4 PERCENT MAX.

DESIGN STANDARDS FOR SINGLE LANE ROUNDABOUTS

	URBAN	RURAL	NOTES
DESIGN SPEED	20 MPH	25 MPH	SEE FHWA EXHIBIT 6-4
INSCRIBED CIRCLE DIAMETER (H)	100' - 130'	115' - 130'	MEASURED FROM CURB FACE TO CURB FACE
CIRCULATORY ROADWAY WIDTH	1.0 - 1.2 TIMES THE MAXIMUM ENTRY WIDTH	1.0 - 1.2 TIMES THE MAXIMUM ENTRY WIDTH	————
ENTRY WIDTH	18' - 22'	18' - 22'	MEASURED FROM CURB FACE TO CURB FACE
ENTRY RADIUS	65' - 90'	65' - 90'	————
EXIT WIDTH	SAME AS ENTRY WIDTH	SAME AS ENTRY WIDTH	SAME AS ENTRY WIDTH
EXIT RADIUS	200' - 1000'	200' - 1000'	————
APPROACH/DEPARTURE WIDTH	WIDTH OF APPROACHING LANE	WIDTH OF APPROACHING LANE	DOES NOT INCLUDE BIKE LANE OR GUTTER
DAILY SERVICE VOLUME (WITH CAPACITY ANALYSIS) APPROXIMATELY 25,000 VEH/DAY			

DESIGN NOTES

(A) FASTEST PATH CHECKS SHOULD BE COMPLETED PRIOR TO INTERSECTION SIGHT DISTANCE BEING CHECKED. STOPPING SIGHT DISTANCE AND INTERSECTION SIGHT DISTANCE SHOULD BE CHECKED FOR ALL APPROACHES. REFER TO "ROUNDABOUTS; AN INFORMATIONAL GUIDE," FHWA, 2000 AND RD11-SD-1 THRU 7 FOR ADDITIONAL GUIDANCE.

(B) CONSTRUCT A B-SPLINE (SHOWN AS DASHED LINE) FOR THE THROUGH, LEFT TURN, AND RIGHT TURN MOVEMENTS. B-SPLINE SHOULD TOUCH THE 5' CURB OFFSETS AT THE POINTS INDICATED FOR THE R1, R2, R3, R4 AND R5 MEASUREMENTS. MEASURE THE RADIUS OF THE B-SPLINE AT EACH POINT. MEASUREMENT SHOULD BE BETWEEN 65' AND 85' LONG. FOR THE R1 MEASUREMENT, THE RADIUS SHOULD NOT BE MEASURED THROUGH THE YIELD LINE.

(C) PROVIDE 6' MINIMUM UNOBSTRUCTED HORIZONTAL CLEARANCE FROM THE VERTICAL CURB TO THE CENTRAL ISLAND LANDSCAPING TO ALLOW FOR CIRCULATORY ROADWAY SIGHT DISTANCE, ACTUAL DISTANCE MAY BE GREATER AND SHOULD BE DETERMINED AFTER SIGHT DISTANCE CHECKS ARE COMPLETE, BUT SHALL NOT BE LESS THAN 6 FEET.

(D) SPLITTER ISLAND SHOULD BE A RAISED MEDIAN WITH CONCRETE HARDSCAPING (PREFERRED). SPLITTER ISLAND SHOULD EXTEND A MINIMUM OF 50' FROM THE YIELD LINE. SEE STANDARD DRAWING MM-CR-4 FOR ADDITIONAL DETAILS.

(E) FOR SLOPING CURB BETWEEN CIRCULATORY ROADWAY AND TRUCK APRON, SEE STANDARD DRAWING RP-R-2. FOR VERTICAL CURB BETWEEN TRUCK APRON AND CENTRAL ISLAND, SEE STANDARD DRAWING RP-VC-10.

(F) SIDEWALK SHALL BE WIDENED TO ACCOMMODATE BICYCLES AND PEDESTRIANS AT ROUNDABOUT (SHARED USE PATH). SEE STANDARD DRAWING MM-TS-3 FOR ADDITIONAL DETAILS.

(G) SEE STANDARD DRAWINGS MM-PM-1, 2 AND 3 FOR SIGNING AND PAVEMENT MARKINGS FOR SHARED USE PATHS AND BICYCLE LANES.

(H) ASSUMES APPROXIMATELY 90-DEGREE ANGLES BETWEEN ENTRIES AND NO MORE THAN FOUR ENTRIES TO THE ROUNDABOUT.

GENERAL NOTES

1. FOR SPECIFIC CONDITIONS NOT COVERED ON THIS SHEET, REFERENCE SHOULD BE MADE TO "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS", AASHTO, 2011.
2. REFERENCE SHOULD BE MADE TO "ROUNDABOUTS: AN INFORMATIONAL GUIDE", FHWA, 2000. REFERENCE SHOULD ALSO BE MADE TO THE "ROADSIDE DESIGN GUIDE", AASHTO, 2011.
3. THIS STANDARD DRAWING IS INTENDED TO BE USED AS GUIDANCE FOR THE DESIGN OF SINGLE LANE URBAN AND RURAL ROUNDABOUTS. FOR MULTI-LANE DESIGNS, SEE STANDARD DRAWING RD11-TS-10.
4. TRUCK TURNING TEMPLATES SHOULD BE PERFORMED ON ALL TURNING MOVEMENTS WITHIN THE ROUNDABOUT. A WB-62 VEHICLE SHOULD BE USED WHERE APPROPRIATE.
5. STANDARD AASHTO GUIDELINES FOR ISLAND DESIGN SHOULD BE FOLLOWED FOR SPLITTER ISLAND DESIGNS, INCLUDING LARGER NOSE RADII AT APPROACH CORNERS AND OFFSETTING CURB LINES AT THE APPROACH ENDS OF THE SPLITTER ISLAND.
6. MAXIMUM LONGITUDINAL GRADE IN THE DIRECTION OF TRAVEL THROUGH THE CIRCULATORY ROADWAY SHALL BE 4 PERCENT.
7. USE OF A RIGHT-TURN BYPASS LANE MAY BE WARRANTED FROM THE ROUNDABOUT TRAFFIC MODEL.
8. ROUNDABOUT APPROACHES WITH SPEEDS OF 45 MPH OR GREATER ARE CONSIDERED HIGH SPEED APPROACHES. REFER TO SECTION 6.5 OF THE "ROUNDABOUTS: AN INFORMATIONAL GUIDE", FHWA, 2000 FOR ADDITIONAL INFORMATION ON DESIGN OF ROUNDABOUTS WITH HIGH SPEED APPROACHES.
9. MINI ROUNDABOUTS, TRAFFIC CIRCLES, AND ROTARIES ARE NOT CONSIDERED ROUNDABOUTS AND SHOULD NOT BE DESIGNED TO THE STANDARDS ON THIS DRAWING.
10. ROADWAY SHOULDERS AND BICYCLE LANE SHALL END PRIOR TO THE CIRCULATORY ROADWAY.
11. FOR ROUNDABOUT CONSTRUCTION DETAILS, SEE STANDARD DRAWING RP-R-2.
12. OPTIONAL PEDESTRIAN RAIL SHALL NOT CAUSE A CONFLICT WITH INTERSECTION SIGHT DISTANCE.
13. SEE T-M-17 FOR MARKING DETAILS.

NOT TO SCALE

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

DESIGN STANDARDS FOR SINGLE LANE URBAN AND RURAL ROUNDABOUTS

01-01-2019 | RD11-TS-9