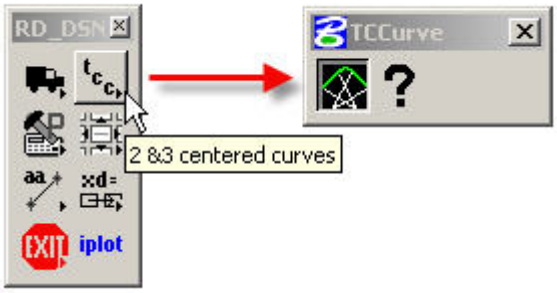
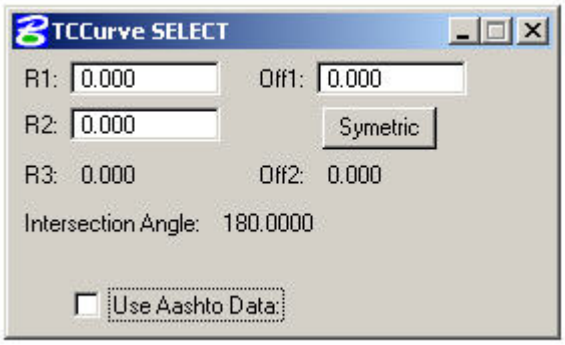
Three Centered Curve Guideline

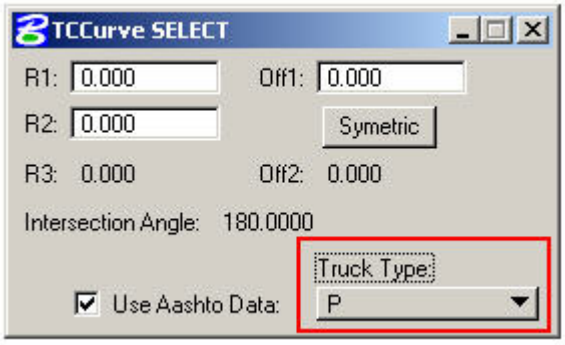
OPERATING INSTRUCTIONS:

Step 1.
Load the Three Centered Curve Application by clicking RD_DSN ---> RD_MDLApps ---> TTCurve toolbox.

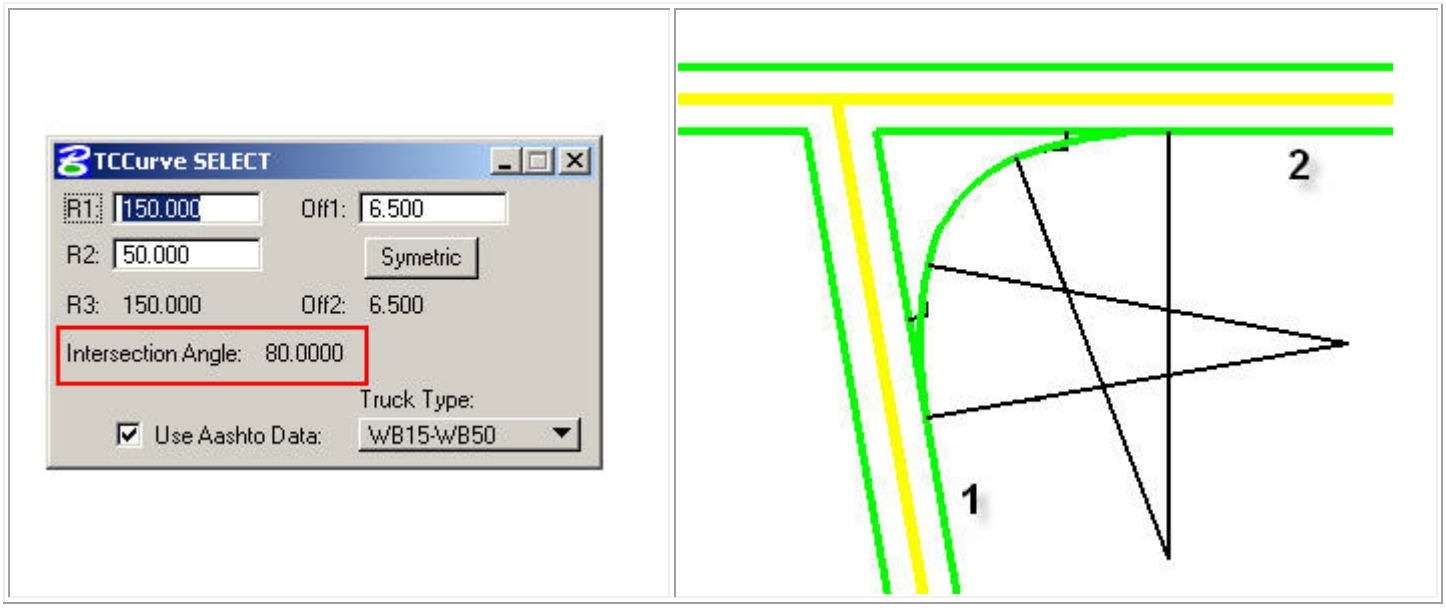


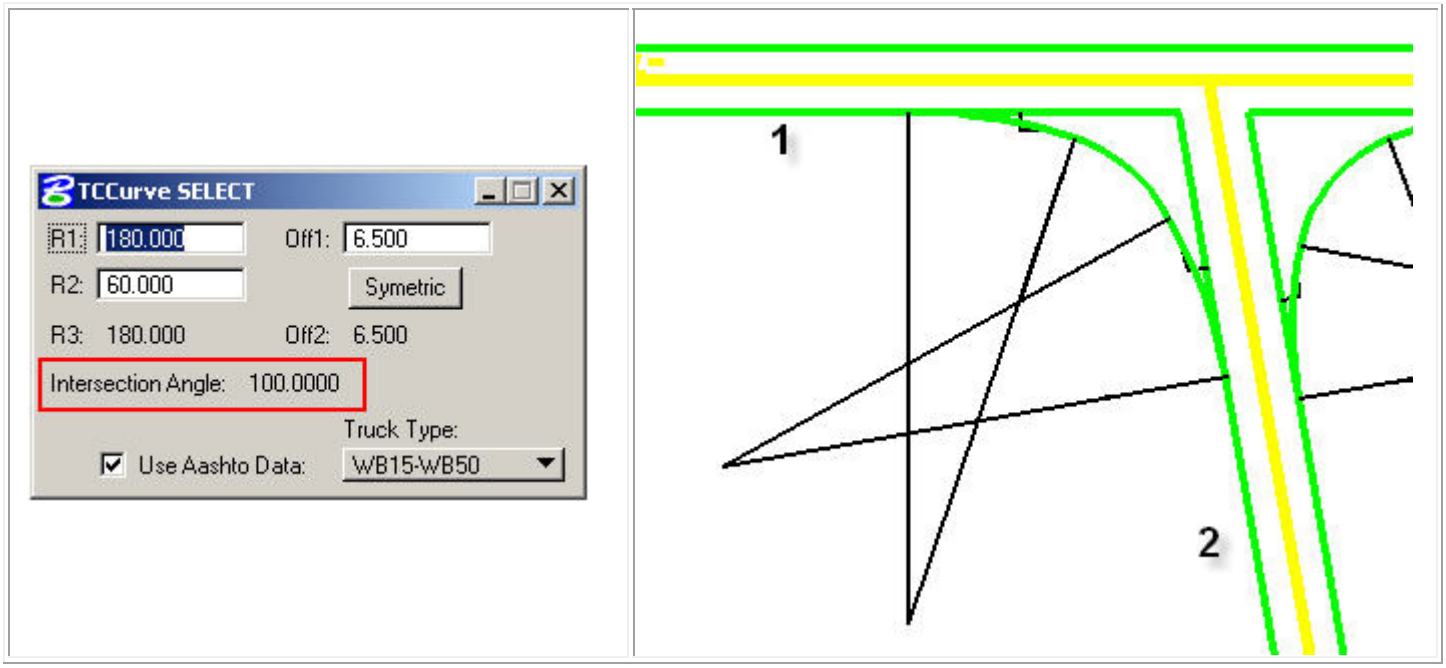


Step 2.
Check **Use AASHTO Data** and select the **Truck Type** to analyze.



Step 3.
Lastly, select the two EOT elements base on the order of traffic movement.





After selecting the second EOT element, note the intersection angle boxed in red. The Three Centered Curve MDL Application references **Exhibit 9-2. Edge of Traveled Way for Turns at Intersection** in the 2004 AASHTO Manual. In the above examples, the intersection angle of 80° will have a TCC WB-50 symmetrical dimension values of 150-50-50 Offset 6.5 because the intersection angle falls between 75° and 90°. In the second example, the intersection angle of 100° will have a TCC WB-50 symmetrical dimension values of 180-60-180 Offset 6.5 because the intersection angle falls between 90° and105°.

Metric						US Customary					
Angle of turn (degrees)	Design vehicle	3-centered compound Curve radii (m)	Symmetric offset (m)	3-centered compound Curve radii (m)	Asymmetric offset (m)	Angle of turn (degrees)	Design vehicle	3-centered compound Curve radii (ft)	Symmetric offset (ft)	3-centered compou Curve radii (ft)	Asymm offset
75	P	30-8-30	0.6	—	—	75	P	100-25-100	2.0	—	—
	SU	36-14-36	0.6	—	—		SU	120-45-120	2.0	—	—
	WB-12	36-14-36	1.5	36-14-60	0.6–2.0		WB-40	120-45-120	5.0	120-45-195	2.0–6
	WB-15	45-15-45	2.0	45-15-69	0.6–3.0		WB-50	150-50-150	6.5	150-50-225	2.0–1
	WB-19	134-23-134	4.5	43-30-165	1.5–3.6		WB-62	440-75-440	15.0	140-100-540	5.0–1
	WB-20	128-23-128	3.0	61-24-183	0.3–3.0		WB-67	420-75-420	10.0	200-80-600	1.0–1
	WB-30T	76-24-76	1.4	30-24-91	0.5–1.5		WB-100T	250-80-250	4.5	100-80-300	1.5–5
	WB-33D	213-38-213	2.0	46-34-168	0.5–3.5		WB-109D	700-125-700	6.5	150-110-550	1.5-1
90	P	30-6-30	0.8	—	—	90	P	100-20-100	2.5	—	—
	SU	36-12-36	0.6	—	—		SU	120-40-120	2.0	—	—
	WB-12	36-12-36	1.5	36-12-60	0.6–2.0		WB-40	120-40-120	5.0	120-40-200	2.0–6
	WB-15	55-18-55	2.0	36-12-60	0.6–3.0		WB-50	180-60-180	6.5	120-40-200	2.0–1
	WB-19	120-21-120	3.0	48-21-110	2.0–3.0		WB-62	400-70-400	10.0	160-70-360	6.0–1
	WB-20	134-20-134	3.0	61-21-183	0.3–3.4		WB-67	440-65-440	10.0	200-70-600	1.0–1
	WB-30T	76-21-76	1.4	61-21-91	0.3–1.5		WB-100T	250-70-250	4.5	200-70-300	1.0–5
	WB-33D	213-34-213	2.0	30-29-168	0.6–3.5		WB-109D	700-110-700	6.5	100-95-550	2.0–1
105	P	30-6-30	0.8	—	—	105	P	100-20-100	2.5	—	—
	SU	30-11-30	1.0	—	—		SU	100-35-100	3.0	—	—
	WB-12	30-11-30	1.5	30-17-60	0.6–2.5		WB-40	100-35-100	5.0	100-55-200	2.0–8
	WB-15	55-14-55	2.5	45-12-64	0.6–3.0		WB-50	180-45-180	8.0	150-40-210	2.0–1
	WB-19	160-15-160	4.5	110-23-180	1.2–3.2		WB-62	520-50-520	15.0	360-75-600	4.0–1
	WB-20	152-15-152	4.0	61-20-183	0.3–3.4		WB-67	500-50-500	13.0	200-65-600	1.0–1
	WB-30T	76-18-76	1.5	30-18-91	0.5–1.8		WB-100T	250-60-250	5.0	100-60-300	1.5–6
	WB-33D	213-29-213	2.4	46-24-152	0.9–4.6		WB-109D	700-95-700	8.0	150-80-500	3.0–1

Exhibit 9-20. Edge of Traveled Way for Turns at Intersections (Continued)

It is important to understand how this program reads the table from the 2004 AASHTO Manual.