β degree	L m	S m	U m	X m	Y m	V m	Shoulder gap m	Chord Lt. m	Chord Rt. m	M Lt. m	M Rt. m	Approach Areas (A) m²	Approach Areas (B) m²	Approach Areas Total m²	Auxiliary lane part.area (9) m²	β degree
110	33.49	20.00	19.96	7.76	8.90	7.78	97.61	16.11	8.88	3.04	0.84	280.83	145.90	671.92	312.43	110
109	33.04	19.59	19.53	8.00	9.09	7.74	97.33	15.95	9.08	2.97	0.88	275.41	147.96	665.05	311.37	109
108	32.57	19.19	19.12	8.23	9.28	7.69	97.05	15.79	9.28	2.90	0.92	270.15	150.07	658.47	310.38	108
107	32.11	18.80	18.71	8.46	9.48	7.65	96.80	15.63	9.47	2.83	0.96	265.05	152.23	652.16	309.44	107
106	32.03	18.42	18.31	8.69	9.68	7.61	96.55	15.46	9.67	2.76	1.00	260.09	154.43	648.80	308.55	106
105	32.33	18.05	17.91	8.93	9.88	7.57	96.33	15.30	9.86	2.70	1.04	255.29	156.67	648.48	307.73	105
104	32.64	17.69	17.53	9.17	10.09	7.54	96.12	15.13	10.06	2.63	1.09	250.61	158.96	648.35	306.96	104
103	32.95	17.33	17.15	9.42	10.30	7.51	95.92	14.97	10.25	2.57	1.13	246.07	161.30	648.43	306.23	103
102	32.27	16.99	16.79	9.66	10.51	7.48	95.74	14.79	10.44	2.50	1.17	241.66	163.69	648.70	305.56	102
101	33.58	16.65	16.43	9.91	10.73	7.45	95.57	14.63	10.63	2.44	1.22	237.36	166.13	649.16	304.94	101
100	33.90	16.32	16.08	10.17	10.95	7.43	95.41	14.46	10.83	2.37	1.27	233.19	168.62	649.81	304.37	100
99	34.22	16.00	15.73	10.42	11.17	7.41	95.27	14.28	11.02	2.31	1.32	229.12	171.17	650.64	303.84	99
98	34.55	15.68	15.39	10.68	11.40	7.39	95.13	14.11	11.21	2.25	1.36	225.17	173.78	651.67	303.36	98
97	34.88	15.37	15.06	10.94	11.63	7.37	95.02	13.94	11.39	2.19	1.41	221.32	176.45	652.88	302.93	97
96	35.21	15.07	14.73	11.21	11.87	7.35	94.91	13.76	11.58	2.13	1.46	217.56	179.18	654.27	302.54	96
95	35.54	14.77	14.41	11.48	12.10	7.34	94.82	13.58	11.77	2.07	1.51	213.91	181.98	655.85	302.20	95
94	35.88	14.48	14.09	11.75	12.35	7.33	94.74	13.41	11.95	2.00	1.57	210.35	184.83	656.63	301.91	94
93	36.22	14.19	13.78	12.03	12.60	7.32	94.67	13.23	12.14	1.95	1.62	206.88	187.75	659.57	301.66	93
92	36.56	13.92	13.48	12.31	12.85	7.32	94.61	13.05	12.32	1.89	1.67	203.49	190.76	661.71	301.45	92
91	36.91	13.64	13.18	12.59	13.11	7.32	94.57	12.87	12.51	1.84	1.73	200.19	193.82	664.04	301.28	91
90	37.27	13.37	12.88	12.88	13.37	7.32	94.53	12.69	12.69	1.78	1.78	196.97	196.97	666.55	301.16	90
89	37.63	13.11	12.59	13.18	13.64	7.32	94.51	12.51	12.87	1.73	1.84	193.82	200.19	669.25	301.09	89
88	37.99	12.85	12.31	13.48	13.92	7.32	94.51	12.32	13.05	1.67	1.89	190.76	203.49	672.14	301.05	88
87	38.36	12.60	12.03	13.78	14.19	7.32	94.51	12.14	13.23	1.62	1.95	187.75	206.88	675.23	301.07	87
86	38.73	12.35	11.75	14.09	14.48	7.33	94.52	11.95	13.41	1.57	2.00	184.83	210.33	678.51	301.13	86
85	39.11	12.10	11.48	14.41	14.77	7.34	94.55	11.77	13.58	1.51	2.07	181.98	213.91	682.00	301.23	85
84	39.50	11.87	11.21	14.73	15.07	7.35	94.59	11.58	13.76	1.46	2.13	179.18	217.56	685.68	301.37	84
83	39.89	11.63	10.94	15.06	15.37	7.37	94.64	11.39	13.94	1.41	2.19	176.45	221.32	689.57	301.56	83
82	40.29	11.40	10.68	15.39	15.68	7.39	94.71	11.21	14.11	1.36	2.25	173.78	225.17	693.66	301.79	82
81	40.69	11.17	10.42	15.73	16.00	7.41	94.78	11.02	14.28	1.32	2.31	171.17	229.12	697.97	302.07	81
80	41.11	10.95	10.17	16.08	16.32	7.43	94.87	10.83	14.46	1.27	2.37	168.62	233.19	702.49	302.40	80
79	41.52	10.73	9.91	16.43	16.65	7.45	94.97	10.63	14.63	1.22	2.44	166.13	237.36	707.23	302.77	79
78	41.95	10.51	9.66	16.79	16.99	7.48	95.09	10.44	14.79	1.17	2.50	163.69	241.66	712.21	303.19	78
77	42.39	10.30	9.42	17.15	17.33	7.51	95.22	10.25	14.97	1.13	2.57	161.30	246.07	717.41	303.66	77
76	42.83	10.09	9.17	17.53	17.69	7.54	95.36	10.06	15.13	1.09	2.63	159.96	250.61	722.85	304.17	76
75	43.28	9.88	8.93	17.91	18.05	7.57	95.51	9.86	15.30	1.04	2.70	156.67	255.29	728.54	304.74	75
74	43.74	9.68	8.69	18.31	18.42	7.61	95.68	9.67	15.46	1.00	2.76	154.43	260.09	734.46	305.36	74
73	44.21	9.48	8.46	18.71	18.80	7.65	95.87	9.47	15.63	0.96	2.83	152.23	265.05	740.66	306.03	73
72	44.69	9.28	8.22	19.12	19.19	7.69	96.06	9.28	15.79	0.92	2.90	150.07	270.15	747.11	306.76	72
71	45.18	9.09	8.00	19.53	19.59	7.74	96.27	9.08	15.95	0.88	2.97	147.96	275.41	753.85	307.53	71
70	45.68	8.90	7.76	19.96	20.00	7.78	95.50	8.88	16.11	0.84	3.04	145.90	280.83	760.87	308.36	70

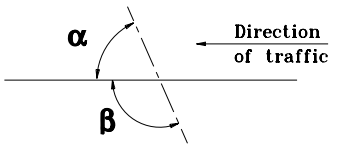
LEGEND

α = ANGLE OF TURN

The angle which a vehicle travels on the public road approach toward making a right hand turn. It is measured from the extention of the tangent on which a vehicle approaches the intersecting road to the corresponding tangent on the intersecting road to which the vehicle turns.

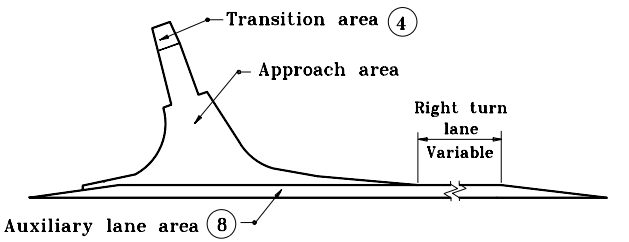
β = INTERSECTION CONTROL ANGLE

β = 180° − α



NOTES:

1. See Standard Drawing 610-PRAP-10 for public road approach type D.
2. See Standard Drawing 610-PRAP-11 for General Notes.



PAY LIMITS FOR HMA FOR APPROACHES

All dimensions are in mm unless otherwise specified.

INDIANA DEPARTMENT OF TRANSPORTATION

PUBLIC ROAD APPROACH TYPE D – TABLE OF VALUES

SEPTEMBER 2001

STANDARD DRAWING NO. **610-PRAP-12**

ANTHONY L. UREMOVICH REGISTERED No. 18095 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

/s/ Anthony L. Uremovich 9-04-01
DESIGN STANDARDS ENGINEER DATE

/s/ Firooz Zandi 9-04-01
CHIEF HIGHWAY ENGINEER DATE