



**Design Criteria for Rural State Trunk Highways**  
**Functionally Classified as Arterials**

Traffic Volume		Roadway Width Dimensions				
Design Class	Design AADT	Design Speed	Traveled Way Width (feet)	Shoulder Width (feet)	Roadway Width (feet)	Median Width for Speed Limit ≤ 55 mph (feet)
A1	Under 3,500	60	24	6	36	--
A2 <sup>1</sup> (2 lanes)	3,500 - 8,700 <sup>A</sup> 3,500 - 15,000 <sup>C</sup>	60	24	10	44	50
A3 <sup>1</sup> (4 lane divided)	8,700 <sup>A</sup> - 44,000 <sup>A</sup> 8,700 <sup>B</sup> - 53,500 <sup>B</sup> 15,000 <sup>C</sup> - 60,000 <sup>C</sup>	70	2 @ 24	6 LT 10 RT	2 @ 40	50
A4 (6 lane divided)	44,000 <sup>A</sup> - 69,000 <sup>A</sup> 53,500 <sup>B</sup> - 85,000 <sup>B</sup> 60,000 <sup>C</sup> - 90,000 <sup>C</sup>	70	2 @ 36	10	2 @ 56	50

<sup>A</sup> For non-freeway Corridors 2020 backbone and connector routes (LOS threshold is C/D, or 4.0) – US 14/WIS 11

<sup>B</sup> For freeway Corridors 2020 backbone routes (LOS threshold is C/D, or 4.0)

<sup>C</sup> For other principal and minor arterials (LOS threshold is D/E, or 5.0) – US 14 on northwest side of Janesville

<sup>1</sup> The top of the traffic volume range for design class A2 is 8,700 AADT for a Corridors 2020 route and 15,000 AADT for a non-Corridors 2020 route.

These volumes are based on the 2000 Highway Capacity Manual assuming: level terrain, 12-foot lanes, ≥ 6-foot shoulders, 80% passing, 10% trucks, K100 design factor, and 62/38 directional split. In cases where reduced level

of service is determined to be acceptable and the use of passing lanes is found to be adequate treatment for the facility, the 8,700 AADT value for a Corridors 2020 connector route may be increased to 12,000 AADT.

From WisDOT Facilities Development Manual, Procedure 11-15-1, Figure 1