October 20, 2022

Wisconsin Specific Trip Generation Rates
Convenience Store/Gas Station Land Use[1]

Weekday	Size of the Metro Area	
	Population < 300,000[(a)]	**Population ≥ 300,000[(a)]**
Daily[(b)]	$T = 80.61(VFP) + 898.30(GFA_{Class}) - 354.83$ Directional Distribution: 50% entering, 50% exiting	$T = 144.00(VFP) + 834.76(GFA_{Class}) - 1035.89$ Directional Distribution: 50% entering, 50% exiting
Peak Hour of Adjacent Street Traffic	**Size of the Metro Area**	
	Population < 300,000[(a)]	**Population ≥ 300,000[(a)]**
AM (One Hour Between 7 and 9 am)	$T = 5.91(VFP) + 63.51(GFA_{Class}) - 44.79$ Directional Distribution: 51% entering, 49% exiting	$T = 12.68(VFP) + 54.28(GFA_{Class}) - 108.66$ Directional Distribution: 51% entering, 49% exiting
PM (One Hour Between 4 and 6 pm)	$T = 5.91(VFP) + 60.09(GFA_{Class}) - 12.15$ Directional Distribution: 50% entering, 50% exiting	$T = 7.88(VFP) + 75.75(GFA_{Class}) - 65.54$ Directional Distribution: 50% entering, 50% exiting
Peak Hour of Generator	**All Populations**	
Friday	$T = 7.71(VFP) + 73.71(GFA_{Class}) - 29.06$ Directional Distribution: 51% entering, 49% exiting	
Saturday	$T = 6.76(VFP) + 76.48(GFA_{Class}) - 19.33$ Directional Distribution: 50% entering, 50% exiting	

T = Number of trips

Daily: T is measured in vehicles per day (vpd)

AM, PM, Fri. & Sat. Peak Hour: T is measured in vehicles per hour (vph)

VFP = Total number of vehicle-fueling positions[(c)]

GFA_{Class} = Category of C-Store GFA (enter 1, 2, or 3)

1: < 4,000 square feet

2: 4,000 – 5,999 square feet

3: ≥6,000 square feet

(a) The 2010 Wisconsin ArcGIS Population Map used for Saturation Flow Rate estimation should be referenced for determining whether the population of the proposed site is less than or greater than 300,000. Consult with WisDOT regional traffic staff before proceeding with calculations for developments that are proposed for areas near a 300,000 urban population area. WisDOT regional traffic staff reserve the right to modify the population coefficient based on development location, updated population data, and regional growth patterns.

(b) Daily trip generation equations were generated based on weekday data excluding Friday. Consult with WisDOT regional traffic staff prior to utilization of these equation for a Friday period.

(c) Diesel and non-diesel VFPs combined; not including diesel VFPs that when in use, would prevent the use of the non-diesel VFPs.

[1] Unless directed otherwise, continue to use the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition (TGM11) trip generation rates and equations for gasoline/service stations with C-stores less than 2,000 square feet (ITE Land Use Code 944) and developments (truck stops) that derive the majority of their business from truckers/large commercial vehicle traffic (ITE Land Use Code 950).