

STORRS CENTER

Trip Generation Comparison
Hotel versus Residential Use
Storrs Center Special Design District

May 14, 2013

OVERVIEW

Storrs Center Alliance LLC has proposed an amendment to the text of the Mansfield Zoning Regulations that would add "hotels" to the list of allowed uses within the Storrs Center Special Design District. This memo considers what traffic impacts, if any, would result from the development of a hotel instead of a comparable number of residential units in Storrs Center. For the purpose of this comparison, we have assumed that a 100 room hotel is developed instead of 100 residential units. We conclude that no perceptible change in traffic operations would result from the development of a 100 room hotel instead of 100 residential units in Storrs Center.

METHODOLOGY OF TRIP GENERATION COMPARISON

The approved Master Traffic Study, prepared in February of 2007 and the initial State Traffic Commission (STC) Application for Storrs Center, submitted in April of 2008, utilized trip rates for the residential component of the project as shown in Table 1. The rates for a hotel, also shown in Table 1, are those found in "Trip Generation", 9th Edition, published by the Institute of Transportation Engineers (ITE).

**Table 1
Peak Hour Vehicle Trip Rates**

Use	Unit	AM Peak Hr	PM Peak Hr
Residential	Dwelling Unit (DU)	0.31	0.57
Hotel	Rooms	0.67	0.70

In addition, due to the nature of the development and the unique project area, the computed gross change in the number of trips was adjusted downwards by 10% for internal capture and transit/walking, as per the prior allowance approved by the State Traffic Commission (now Office of State Traffic Administration). Given the location of Storrs Center, in a mixed use environment near a college campus, automobile usage may be considerably lower than these figures suggest, but can't be quantified.

Table 2 shows the trip generation estimated for the currently approved 100 residential units as well as that for a 100 room hotel (at a good average occupancy rate of 80%).

**Table 2
Peak Hour Trip Generation**

Use	Size	Unit	AM Peak	PM Peak
Hotel	100	Rooms	54	56
Residential	100	DU	31	57
Gross Change			23	-1
Less 10% Capture, Walking, Transit			-2	-
Net Change in Vehicle Trips			21	-1



In the afternoon peak hour, a 100 room hotel would generate slightly fewer trips than 100 residential units. In the morning peak hour, a hotel would generate a slightly higher number of trips than the residential uses. This net increase of 21 vehicle trips during the morning peak hour is very small as compared to the overall peak hour trips that were projected for Stars Center, which were 420 trips in the morning and 970 trips in the afternoon. Moreover, the morning time period is not the critical one in terms of traffic capacity and level of service. The critical time period is the afternoon peak hour, which is not projected to exhibit any change in trips generated by the land use change to a hotel. The nearby Stars Road (Route 195) intersections were projected to accommodate 1200-1300 morning peak hour and 1600-1900 afternoon peak hour trips at the full build out of Stars Center. In conclusion, no perceptible change in traffic operations would result from the replacement of the 100 residential units with a 100 room hotel.

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