

Memorandum

To: Scott Greenberg, City of Mercer Island
From: Michael Lapham and John Davies, KPG
Date: 3/15/2016
Re: Traffic Analysis for the Proposed Changes to Town Center Housing Capacity

As part of the proposed 2015 update to Transportation Element of the Comprehensive Plan, KPG analyzed existing and future projected 2035 traffic conditions on Mercer Island. The 2035 analysis used the employment and housing forecasts developed for the Land Use and Housing Elements. These forecasts assumed that the majority of growth on the island would occur within the Town Center, where the greatest capacity is available.

As part of its' work on updating the Town Center vision and development code, the City provided two revised land use alternatives for the Town Center. Both alternatives would reduce housing capacity by changing the allowable building heights on selected parcels within the Town Center. Alternative A was proposed as part of the 2015 Town Center Stakeholders Group process and Alternative C is a further reduction in allowable building heights under consideration by the Planning and Design Commissions.

The Buildable Lands methodology was used to calculate the number of housing units based on Town Center height limits. Compared to current height limits, it was determined that Alternative A would reduce housing capacity by 61 units and Alternative C would reduce housing capacity by 180 units. Table 1 summarizes the changes to Town Center housing units that would occur with Alternatives A and C. The Town Center employment forecast is assumed to remain the same with both Alternatives A and C.

Table 1. Modifications to Town Center Housing Capacity

	Proposed Capacity (Housing Units)	Change (Housing Units)
Current Height Limits	786	--
Alternative A	725	-61
Alternative C	606	-180

Source: City of Mercer Island and Buildable Lands methodology.

Future Traffic Volumes

The 2035 employment and housing forecasts were converted to traffic volumes using standardized rates per unit of development. The analysis used for the Transportation Element forecasted 1,073 new vehicle trips in the Town Center from 2014 to 2035, based on the Comprehensive Plan's proposed land use map and current development standards. This is a 35 percent increase in Town Center traffic volumes compared to 2014 existing conditions.

Table 2 shows the number of new vehicle trips projected in the Town Center by 2035 for the three alternatives. Alternative A is forecast to result in 1,047 new Town Center vehicle trips, a 3 percent reduction compared to current height limits. Alternative C is forecast to result in 997 new Town Center vehicle trips, an 8 percent reduction compared to current height limits.

Table 2. New Town Center Vehicle Trips from 2014 to 2035 – Afternoon Peak Hour

	New Vehicle Trips	Change in New Vehicle Trips from Current Height Limits
Current Height Limits	1,073	--
Alternative A	1,044	-29 (-3%)
Alternative C	988	-85 (-8%)

Source: KPG and Trip Generation 9th Edition, Institute of Transportation Engineers