



## **MEMORANDUM**

**DATE:** April 1, 2016  
**To:** File CAM13-000465  
**FROM:** Eric Shields, Planning and Building Director  
**SUBJECT:** Comprehensive Plan Development Capacity Analysis - REVISED

Under the Growth Management Act, Kirkland is required to plan for 20 year housing and employment growth targets allocated by the King County Countywide Planning Policies. The City must document that the Comprehensive Plan and development regulations allow the targets to be met. This development capacity analysis, prepared by the City's Geographic Information System (GIS) and Planning Departments, provides the methodology and data used to determine that Kirkland can meet its allocated growth targets.

### **Growth Targets**

Kirkland has been assigned housing and employment growth targets through the King County Countywide Planning Policies (CPP's). The Growth Management Act requires the City to plan to accommodate the targets. The assigned targets per the CPP's are for the period 2006-2031. Since a significant portion of that period has passed and since the 20 year planning period of the Comprehensive Plan extends beyond 2031 to 2035, the assigned targets were adjusted to reflect the period 2013- 2035. The adjustment involved extending the targets for three years by an amount equal to the average growth rate necessary to meet the targets and subtracting the growth that already occurred between 2006 and 2012. The resulting targets are:

Housing Target: 8,361 units  
Employment Target: 22,435 jobs

### **Summary of Analysis**

The land capacity analysis documented by the [Development Capacity Chart](#) shows that the City has more than enough capacity to accommodate the growth targets:

Housing Capacity: 9,245 housing units  
Employment Capacity: 20,816 jobs

Furthermore, using an alternative methodology developed by King County for designated Urban Centers, additional capacity was calculated for the Totem Lake Neighborhood. This resulted in the following city-wide capacity:

Housing Capacity: 17,290 housing units

Employment Capacity: 47,113 jobs

## Methodology

The purpose of this memorandum is to document the general methodology used in analyzing the capacity of land to accommodate new development during the 20 year time horizon of the Kirkland Comprehensive Plan adopted in 2015.

The methodology used was based on principles established for all King County cities as coordinated by the King County Demographer, Chandler Felt. The methodology was somewhat modified to reflect the particular circumstances in Kirkland.

The analysis had two broad components

1. Determining the parcels on which development would likely occur between 2015 and 2035; and
  2. Determining the amount of development that would be likely to occur on each newly developed parcel.
1. Parcels Likely to Develop. Developable parcels include both those that are vacant and those that are likely to redevelop.
- a. Vacant parcels are those without any development as of the date of the analysis.
  - b. Redevelopable parcels are those that are currently developed, but due to the nature of existing development, are expected to redevelop within the following 20 years.
    - i. Parcels within single family residential zones were considered to be redevelopable if they were large enough to be subdivided into two or more lots that meet the minimum or average lot size established in the Zoning Code for the zone in which the parcels are located;
    - ii. Parcels within multi-family zones were considered to be redevelopable only if:
      - Existing density is less than 60% of the maximum permitted density; and
      - Existing dwelling units are rentals. All condominium developments were assumed to not be redevelopable due to inherent problems with divided ownership;
    - iii. Parcels within commercial, industrial and office zones were assumed to be redevelopable only when the assessed value of the land was high in relationship to the assessed improvement value. All parcels where the improvement value was less than half of the land value were redeveloped; and
    - iv. In addition to the methodology described in paragraph c. above, an alternative methodology was used for properties with the Totem Lake Business District. As an Urban Center designated in the King County Countywide Planning Policies, Totem Lake is targeted to accept a significant amount of future growth. Consequently, the alternative methodology assumes a greater number of redevelopable parcels. With the alternative methodology, parcels are considered redevelopable if the density/intensity of existing development is less than 25% of the potential development under existing zoning.
2. Amount of Development on Vacant and Redevelopable Parcels. The amount of development assigned to vacant and redevelopable properties reflects the maximum density or intensity allowed under the existing zoning or, in cases where the maximum was considered unlikely to occur, a somewhat lesser than maximum amount based on past actual developments in the same or similar zones.

- a. In single family residential zones, the number of new lots was calculated by dividing the size of the vacant and redevelopable parcels by the minimum or average lot size within the applicable zoning districts. Minor adjustments;
  - b. In multifamily zones, the number of new units was calculated based on the maximum number of dwelling units per acre allowed by the applicable zoning districts; and
  - c. In commercial, industrial and office zones, floor area ratios were assigned to each major use in each zone. The FARs were intended to reflect the intensity of new development for different kinds of uses that was thought likely to occur, based in part on actual recent development in the applicable or similar zones. For example, in the CBD 1A, 1B, 4, 6 and 8 zones, the FARs assigned were: .2 for commercial uses, .3 for office uses and 2.5 for residential uses (the residential FAR was then converted to a density of 125 units/acre).
3. Adjustments. In addition to the calculations above, a number of adjustments were made to account for real life circumstances, including:
- a. Streets. Depending on the circumstances, the area of parcels was reduced up to 5% to account for potential right of way dedications and access easements;
  - b. Critical areas. Using Geographic Information System maps of known stream and wetlands, the area of parcels containing streams, wetlands and required buffers were deducted from parcel area prior to calculating potential new development; and
  - c. Market Factors. To account for the fact that not all land that is vacant or redevelopable will actually develop, vacant land was reduced by 5% and redevelopable land was reduced by 10%.
4. Calculating Households and Employees. Following calculation of development potential for each parcel, the number of potential households and employees was calculated:
- a. Households were assumed to be the same as the number of dwelling units;
  - b. Employees were calculated using the following rates:
    - i. Commercial uses: two employees per 1000 sq. ft. of building area;
    - ii. Office uses: four employees per 1000 sq. ft. of building area; and
    - iii. Industrial uses: one employee per 1000 sq. ft. of building area.

### **Allocating Growth to Transportation Analysis Zones**

After calculating capacity, it was necessary to allocate growth to Transportation Analysis Zones (TAZs). TAZs are small geographical areas best suited to analyzing traffic. Since capacity is calculated at the parcel level, it is a simple matter to aggregate capacity from parcels to TAZs. However, rather than assume that development in 2035 will occur at capacity levels, for planning purposes it is assumed that growth will occur at target levels. Therefore, in distributing growth to TAZs it was also necessary to adjust the capacity figures to target levels. The process used included the following steps:

- The capacity figures used were those derived from the more conservative methodology common to all neighborhoods, rather than the special methodology for Totem Lake;
- The capacity figures were reduced by 5% to account for presumed vacancies. This resulted in 704 more dwelling units and 585 fewer jobs than the targets;
- The 704 excess dwelling units were removed to TAZs proportionately to TAZ capacity;
- The entire 585 jobs shortage was added to TAZs in Totem Lake since the special capacity methodology for Totem Lake showed excess capacity there.