Growth Targets and Zoned Development Capacity

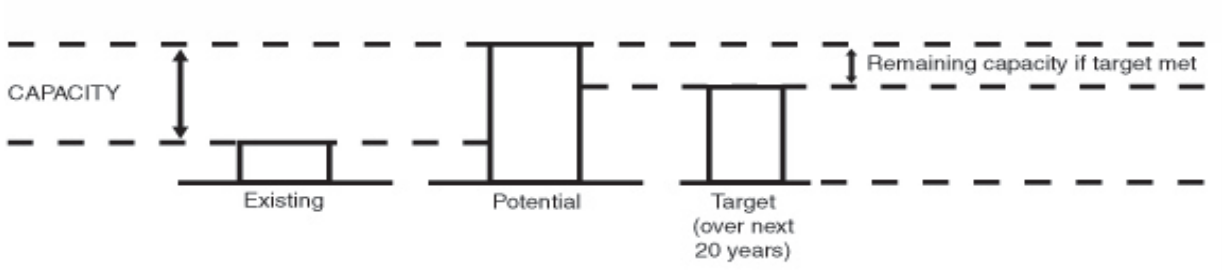
The Department of Planning and Development uses a development capacity model. This model estimates the amount of new development that could be built in the City by comparing existing land uses, housing units and commercial square feet to what could be built under current or proposed zoning. The difference between potential and existing development yields the capacity for new development. This capacity is measured as the number of housing units, the amount of commercial square feet and the number of potential jobs that could be added.

Evaluation of each of the EIS alternatives and their potential impacts references two distinct measures – growth targets and development capacity. The Growth target represents the assumed level of growth that will occur in the South Lake Union neighborhood by the year 2031 and is based on allocating a share of citywide growth that is expected by the year 2031. Development Capacity represents the maximum level of development possible under each alternative with no effort to estimate the likely level of development that will actually occur. Growth targets are based on actual growth projections prepared by the State of Washington Department of Finance. Development capacity is based on assumptions about how much land is redevelopable and the type of projects that could be developed under existing zoning. Below is a brief description of how capacity estimates are achieved and their relationship to growth targets.

Indefinite Time Period Covered by the Estimates

Development capacity is not a prediction that a certain amount of development will occur in some fixed time period. The capacity estimates do not include a time dimension because they do not incorporate any direct measurement of demand, which would help determine when parcels would be developed. Many parcels in the city today have zoning that allows for more development than currently exists on them, but not all of them are available or have a demand for development. Consider a single-family house in a commercial zone that is occupied by an owner who has no plans to sell. Some day that land will change hands and the new owner may be more willing to develop the parcel to its full development potential.

Aside from the relatively small number of parcels that have either active or pending development permits, there is no way to know when actual redevelopment will happen. For the purposes of determining development capacity, though, it is assumed within the model that development will eventually occur regardless of market forces. Therefore, development capacity is not a forecast and has no planning horizon. It is simply an estimate of the additional development that could occur under the current zoning regulations. This additional development could happen all in one year or not at all depending on the economy, attractiveness to development, or other market conditions. Capacity represents the amount of new growth that could be accommodated. The amount of growth that is expected to occur and that City policy intends to accommodate is established as the 20-year growth targets in the Comprehensive Plan.



Comparison of existing development to potential to expected, or target.

Development Capacity Analysis

The actual level of development activity that occurs is controlled by a variety of future factors, many of which are beyond our ability to predict or influence. These factors include such things as the future demand for a particular type of development (such as for townhouses, high-amenity multifamily or small-unit multifamily), whether the owner of any particular land is willing to sell or redevelop it, the financial feasibility of developing the land, and the intensity of development when it does occur. Other factors, such as the relative attractiveness of certain areas for living and commerce, and the relative densities allowed by the existing zoning, can cause some areas to be developed earlier or later than others. No one can predict with certainty the total effect of all these factors on the choices made by land developers.

These limitations notwithstanding, the City has created a model that identifies parcels that have the potential to develop and to estimate the amount of development that could occur. The two key determinants in this model are: 1) available land and 2) zoning. Available land refers to land that is either vacant or developed sufficiently below the potential allowed by the zoning to allow a significant increase in density if it were redeveloped. Zoning represents the rules to which new development must adhere including the uses and densities that are allowed.

In its simplest form, an estimate of capacity is the product of: 1) determining what land is available; 2) multiplying the area of that land by the future expected densities of development zoning allows; and 3) subtracting the existing development. The formulas below summarize the model process.

Potential Development =
Developable Land Area x Future Density Assumption

Development Capacity =
Potential Development - Existing Development

The City's development capacity estimate is the difference between the amount of development on the land today and the amount that could be built under the current zoning. On vacant land, we only need to estimate what the zoning would permit. For a parcel that already contains one or more buildings, the amount of development in those buildings is subtracted from the total that zoning would allow.

Availability of Land for Development

The first task is to determine the land that is available for development. Seattle's capacity model excludes a number of parcels from the calculations based on ownership, use or zoning. For instance, all parcels owned by a public entity—federal, state, county, city, school district, port district—are excluded from the calculations. Parcels used for cemeteries, public and private schools, churches, nursing homes,

boarding houses, military bases, public utilities, railroads, hospitals, libraries, law enforcement and that contain landmark structures are excluded. All of the land within the major institution overlay (MIO) is excluded; the jobs and housing units that institutions may provide are determined by each institution's master plan and are counted over and above the capacity. In addition, some parcels are excluded based on specific knowledge of unique circumstances.

No land is excluded to represent additional rights-of-way or other public purposes because Seattle's street system is nearly completely laid out, and most facilities to satisfy public purposes are already in place to the point that no significant quantity of land now within private parcels will be needed for these uses. Nor was land excluded from the calculations because of critical area designations (except for parcels that are shown as creeks or streams) since the City's critical areas ordinance does not prohibit development on critical areas and allows clustering to enable the property developer to achieve the same densities on the developable portion of the parcel as would be allowed on the entire parcel.

Parcels not in the categories listed above are considered available for development. Subsequently their development status is determined through a comparison of existing development to potential future development and classified as developed, vacant, or redevelopable.

Future Density Assumptions

To determine the number of potential housing units or commercial floor area that could be developed on each parcel, two assumptions are made: 1) the density of housing units to be built, and 2) a floor area ratio (FAR) to determine the commercial floor area that could be built. Table 1 below shows the equations for calculating potential housing and floor area using the density assumptions.

Residential	Commercial
Potential Housing Units = Developable Land Area ÷ Expected Square Feet per Unit	**Potential Building Floor Area = Developable Land Area x Expected Floor Area Ratio**

Table 1.

For those zones where the Land Use Code defines maximum density limits, the capacity estimates have, in past practice, assumed that those maximums would be achieved on the parcels that developed. However, examination of historical permitting data has shown that those maximums are not actually being achieved in all zones. Moreover, not all of Seattle's zones have prescribed minimum or maximum density limits, requiring an analysis to make a best-guess of what densities would be achieved.

An analysis of the actual densities that have resulted from development in each different zone from 1996-2005 has led to the creation of a set of "expected" density assumptions. These density assumptions are revised every five years as part of the City's reporting under the Buildable Lands program mandated by the Growth Management Act and are used in capacity analysis related to the Comprehensive Plan. Alternatively, maximum density assumptions, or the maximum densities a zoning category allows, can be used to examine "build-out" scenarios where appropriate.

Determination of What Land Will Redevelop

In a built city such as Seattle, where nearly every parcel already has some building or improvement on it, new buildings often come as redevelopment i.e., expansion or replacement of existing buildings. A developer's decision to demolish and replace an existing building - one that may be generating revenue

for its owner - involves many considerations, such as whether the land is owned outright, how much revenue the current building brings in, how much it would cost to demolish and replace it, and how much revenue a new structure could generate. There is no way to know about these considerations for all the parcels in the city today, let alone for five or 20 years into the future.

In place of such detailed knowledge, the City uses three different measures to identify parcels likely to redevelop depending on the type of zone: 1) *residential development ratio* - the existing residential units compared to potential residential units, 2) *commercial development ratio* - existing building floor area compared to potential floor area; and 3) *improvement to land value ratio* - the value of buildings and other improvements on a parcel compared to its land value.
The assumption for assessing developability is that the value of the ratio measure is inversely proportional to the tendency to develop - that is the lower the ratio the higher the probability that the parcel will redevelop. In practice for capacity determination, developability of a parcel is determined by comparison of the appropriate ratios with a predetermined threshold value.

The *residential development ratio* is a straightforward indication of whether a parcel will redevelop. The basic assumption is that over time property owners will attempt to maximize the value of their property by maximizing the number of residential units that can be rented or sold on that property. However, if the number of units currently on-site is close to the total number of potential units that could be developed on the site, the cost of building additional units would exceed the revenue that can be generated by building new units. Therefore in residential zones, a ratio of existing units to total potential units is used to determine if a site is likely to be redeveloped at some point in the future. This measure is called the Development Ratio using Units (DR:UNITS in the model) and is used for single-family and multi-family zones.

The number of potential units on a site is based on the assumed densities. See the discussion labeled "Future Density Assumptions" below for a description of how these densities are selected.

Development Ratio:Units =
Existing Units / Potential Housing Units

The *commercial development ratio* is similar to residential except that it compares the above-ground building square footage of the existing buildings to the potential floor area. This ratio is called the Development Ratio using Square Feet (DR:SQFT) and is used for commercial, neighborhood commercial and Seattle-mixed zones.

Development Ratio:Sqft =
Existing Building Square Feet / Potential Building Square Feet

To determine the *improvement to land value ratio* (ILR), the City relies on data from the King County Assessor. Appraisers in the Assessor's office assign two monetary values to a given parcel – one for the land and one for the improvement (structures) on the site. The value of land is an indication of the demand for that land in its "highest and best" use. For vacant land, different values may be assigned to different parcels for a variety of reasons, including that those parcels are inherently more desirable because of location or physical features, or because they are zoned for higher development potential. Similarly, in the case of developed parcels, a land value that is higher than the structure value often indicates that more intense use of the land is possible. This measure is used for downtown and industrial zones.

Improvement to Land Value Ratio =
Existing Building Values / Parcel Land Value

Again, one cannot know precisely at what point a particular parcel is likely to redevelop, but an analysis of parcels that have been redeveloped in Seattle over the past ten years has provided guidance for the development of thresholds of existing development compared to potential development below which parcels are more likely to redevelop. These thresholds are outlined in the Assumptions section below. The development ratios are compared to the appropriate thresholds (depending on the zone), and a development status is determined for each parcel - developed, redevelopable, or vacant.

Residential/Commercial Split in Mixed-Use Zones

Seattle's commercial zones are primarily intended to provide locations for commercial uses, e.g., retail shops, offices and restaurants. However, the Land Use Code also allows residential uses in these zones. Analysis of permitting data has informed assumptions about the "split" between residential and commercial development in a mixed-use project in the commercial zones. These splits are represented as percentages of the type of use that, in aggregate for a zone, actually occurred. For example, in a C2-40 zone about 80% of development is commercial and 20% is residential, as opposed to an NC3/R-40 zone where development is about 80% residential.

It is important to note that the split of residential and commercial space applies across a broad area, and may not be relevant on a site-by-site basis. Any particular site or small area may be developed with residential, mixed-use or commercial uses, depending on the market. For the capacity estimates, results derived from the following three assumptions are provided to present a range of potential development in these zones: 1) all development is commercial, 2) all development is residential and 3) all development is mixed according to observed proportions expressed as the following:

Total Development in Mixed-Use Zones =
(Potential Housing Units x Percent Residential) +
(Potential Building Floor Area x Percent Commercial)

South Lake Union Development Capacity Assumptions

Development of capacity estimates for the four EIS alternatives required several assumptions:

1) Residential density estimates assume an average residential unit size of 1,000 gross square feet. This assumption is consistent with recent trends in the neighborhood.
2) One parking space per unit would be provided in residential structures and an equal amounts of parking would be below and above grade.
3) Employment density is assumed to be one employee for every 350 square feet.
4) The mix of residential and commercial development is assumed to be approximately 55% residential and 45% commercial.

Residential Densities by Height

Tower Height	45 foot podium	65 foot podium	85 foot podium
400 Feet	720 units/acre	890 units/acre	n/a
300 Feet	562 units/acre	596 units/acre	655 units/acre
240 Feet	465 units/acre	490 units/acre	535 units/acre
160 Feet	327 units/acre	353 units/acre	385 units/acre