

Residential Capacity Analysis

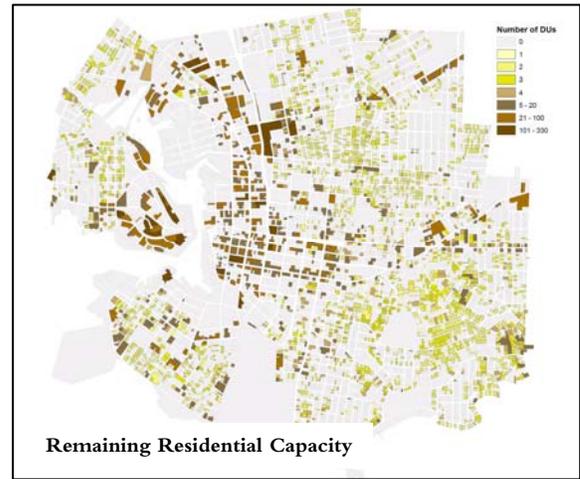
Studying residential zoning capacity and development potential

Location: City of Victoria, British Columbia, Canada

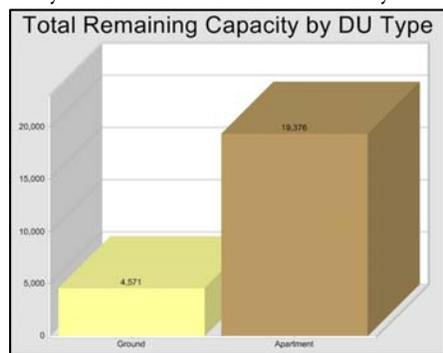
Partners: Urban Systems Ltd.; Placeways, LLC

Context: The capital of British Columbia, Victoria is a scenic, compact city of approximately 83,000 that lies on the southern tip of Vancouver Island. With European settlement dating from 1841, Victoria is one of the oldest cities in the Pacific Northwest and its character and buildings reflect a rich historical legacy. Zoning codes and development patterns have changed over the years, so that today the zoning maps form a complex patchwork. The city is almost completely built out, and virtually all new growth comes in the form of redevelopment.

The City is engaged in an update of its Official Community Plan. To make effective plans for the future, Victoria's city planners needed an accurate assessment of the City's residential growth capacity; that is, how much development and redevelopment the current zoning allows, where, and how likely it is to occur given realistic market conditions. For help, they turned to Urban Systems and Placeways to perform an in-depth capacity analysis using CommunityViz.



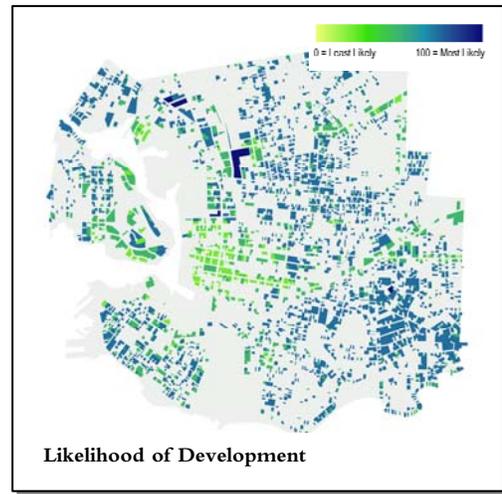
Project Description: The City provided the team with a parcels layer and a property database that included reliable data about existing development conditions and zoning categories. Development estimates from a previous development projection along with the City's current population and dwelling unit count also provided a good baseline to compare with existing development statistics from the property tax assessor. Building constraints were also clearly laid out: this is a well-established urban area where the only unbuildable areas are clearly designated parks or public facilities.



The first task was to compress the more than 500 zoning districts into a smaller number of classifications. Since many of the unique characteristics of the districts related to accessory uses or minor differences in setbacks, the team found that combining districts by density and floor area ratio was effective in reducing the number of zones without reducing accuracy. Analysis ultimately focused on 12 different classifications, and distinguished between “ground-oriented units” (one and two story structures with unit access from the ground level) and “apartments” (minimum of two stories, with access through common spaces).

The next step was to calculate the potential residential development capacity of each parcel. In principle, a parcel's total capacity is its area times its allowed density. If you subtract the existing dwelling units from the total capacity, you get the remaining development capacity. It is not that simple, however. Redevelopment needed to be factored in. Most of Victoria's residential development activity involves redeveloping existing structures into denser housing (such as redeveloping a larger single family home into

smaller apartment building, or a commercial site to residential uses). But the analysis could not be done on the broad assumption that every parcel would be redeveloped to its maximum potential, because a variety of constraints might apply. These include historic designations, actual use that was perpetually non-residential in a residential zoned area (such as a school), site-specific zoning that reflected current maximum actual use, multi-family zoning on parcels that were too small to support multi-family construction, and actual use that was a recent single-family-to-multi-family conversion but still below capacity (a 3 unit apartment on a parcel that allowed 4 units). To manage these considerations, the team developed a CommunityViz analysis that evaluated each parcel by checking for various restrictions, thereby allowing the team to calculate each parcel's remaining development capacity based on these constraints.



To understand how the remaining development capacity might be used over time, the team used the CommunityViz Suitability Wizard. The wizard allowed the City to consider factors that could affect the likelihood of development, including: remaining residential development capacity (more capacity, high

"CommunityViz was a critical tool for assessing existing land conditions and development capacity in the City, and for developing a solid foundation to make policy decisions and to perform subsequent analysis."

- Cameron Scott, Senior Planner,
City of Victoria

likelihood of development), building age (older buildings, higher likelihood of redevelopment), lot coverage (more available land, higher likelihood of development), and heritage restrictions (existence of historic designations and considerations, less likelihood of development).

The team was provided with forecasted demand for ground-oriented and apartment units to the year 2041. In overall terms, analysis indicated that *theoretical* remaining capacity for both ground-oriented and apartment units somewhat exceeded forecast demand, but that when one

considers various constraints much of the remaining theoretical capacity is on currently developed land. Analysis of a more *realistic* remaining capacity indicated that to meet the projected demand for ground-oriented housing, the City will need to maintain strong policies to encourage residential infill and intensification. To meet the projected demand for apartments, the City will need strong policies and possibly incentives to encourage mixed use re-development of existing commercial parcels, and maximum build-out on parcels zoned for apartments.

Technology and Tools: CommunityViz Scenario 360™ including the Suitability Wizard and custom formulas.

Outcomes: The project yielded several useful products, including an interactive map of the City's remaining residential development capacity and a suitability analysis that is being used by the City staff to develop more detailed plans, for example, to analyze the suitability of alternative village centers. Project findings confirmed the direction of a core area plan that was in draft, and emphasized the need for more concentrated housing in selected areas. Victoria has since adopted the "Official Community Plan Framework for Plan Development," which calls for an increased focus on concentrating development in the downtown core (50% of forecast population), in large scale village centers (40%), and in small scale village centers (10%). Once the Plan is approved, changes in zoning will follow.

KEY LINKS

- CommunityViz
<http://placeways.com/communityviz>
- Placeways LLC
<http://placeways.com>
- Urban Systems Ltd.
<http://www.urban-systems.com>
- City of Victoria
<http://www.victoria.ca>
- <http://www.shapeyourfuturevictoria.ca>

Sources: Placeways; Urban Systems Ltd; City of Victoria; Reports at <http://www.shapeyourfuturevictoria.ca/content/uploads/2010/01/FINAL-Victoria-Discussion-Paper-1328-0015-01.pdf> and <http://www.shapeyourfuturevictoria.ca/research-facts/discussion-papers>. CommunityViz is a registered trademark of Placeways LLC. Scenario 360 is a trademark of Placeways LLC.