

Growing Smarter Cities: Planning Sustainable Urban Centers Through New Urbanism

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Abstract:

New Urbanism is a planning strategy developed to reduce the negative impacts of urban sprawl—the expansion of the city into outer fringes. Sprawl leads to many environmental and social issues such as increased carbon emissions, resource waste, habitat destruction and loss of community. This sustainable planning method offsets harmful environmental and social effects by establishing a variety of transportation options (including walking and biking), high-density/compact design, and access to green and open spaces. Through these methods New Urbanism reduces driving dependency and supports more efficient use of land. How is New Urbanism being implemented in urban centers to promote sustainability? Cities can learn to apply New Urbanism by looking at urban centers that have already implemented it. Portland, Oregon and Minneapolis, Minnesota are two examples. Viewing the success in these cities' sustainability models provides ways for other cities to implement them in a way that creates economic, environmental, and communal benefits.

What is New Urbanism?

New Urbanism aims to create vibrant cities centered around sustainability in design that promotes walking and biking, use of public transit, green and open spaces and efficient use of land through infill or redevelopment while maintaining the health of the community. For New Urbanism designers an ideal community has all amenities located within a 10-minute walk from work and home, so vehicle dependency is at a minimum. There is also a focus on the diversity of the urban center in the forms of people, housing options, and commercial and employment sectors, so as to keep the community thriving economically.

Methods:

Data was gathered through literature reviews of urbanization, suburbanization and New Urbanism, census studies, and supply and demand surveys of New Urbanism methods. Case studies were also evaluated in examples of Portland, OR and Minneapolis, MN. This required analyzing transportation infrastructure (planned and in place), compact design of the city in housing and commercial areas, and creation or preservation of green spaces within the city. Reading local and state documents on implementation plans for sustainability within the city was essential for these case studies. In the case of Minneapolis an interview was conducted with a community development firm, Seward Redesign.



Photo: **Levittown.** A 1950's example of urban sprawl. Image depicts development of low-density housing.

<http://destroywhatboresyou.wordpress.com/>



Photo: **Traditional Neighborhood Development.** This is an example of New Urbanism that mixes employment, housing, and commercial areas in a compact space easily accessible by walking.

<http://www.genesisgroup.com/projects/134.php>

Case Studies:

Using Portland and Minneapolis as examples of sustainable urban development methods, makes it possible to see how cities with different geographic locations are implementing aspects of New Urbanism.

Portland

In Portland one of the main policy actions used to limit the physical expansion of the city is the Urban Growth Boundary. The city also has a strong commitment to making public transportation easy and accessible in the form of trains, streetcars, and buses. Downtown Portland has a "Fareless Square" with free transportation for riders on trains and streetcars. The city is also known for its compact design with businesses on the street level and lofts and apartments built on top. Their green and open spaces are popular for farmers markets and parks along the Willamette River encourage walking and biking.

Minneapolis

In Minneapolis the main improvement in transportation options has been the creation of the light-rail train connecting downtown Minneapolis. The Greenway is another initiative funded by a non-profit to promote biking and walking in downtown. It is a bike lane with access to parks and plazas along the way for community activities to take place, to reduce the need for cars, while increasing green space. Lake Calhoun is also a public space that allows people to enjoy green space within the city. Finally, Minneapolis's preservation of a pre-sprawl neighborhood (Seward) is the perfect example of the traditional neighborhood design that New Urbanism seeks, with no car access once one enters the neighborhood.

Results and Conclusions:

Models such as New Urbanism seek to reduce the expansion of development of the city as much as possible. It also aims to reduce the dependency of the car, promote access to all the services necessary within walking/biking distance, and the opportunity to have access to communal green space. The sprawl of a city can be limited by creating an urban growth boundary, expanding transportation infrastructure and infill of old development with compact/high-density design or green and open spaces. This can be done through state and local government initiatives, help from non-profits, and interest from the public. By looking at implementation in Portland and Minneapolis, it provides other U.S. cities with a tangible model to inspire sustainable urban areas with economic, environmental and community benefits. Overall demand is relatively low, but when New Urbanism infrastructure has been in place in areas, people generally have adopted the lifestyle. 55% of people have said they would rather walk than drive somewhere, but 74% of people still want the luxury of a home in the suburbs.