

## “WHY URBANISM?” PANEL, MARCH 12, 2009

It is always helpful to remember good arguments for urbanism. We held this panel to help the Local Host Committee’s fundraising efforts for CNU 17. As the name implies, we wanted to remember why supporting urbanism as a cause is important, especially in these financially difficult times. We had three presentations. The first one by Scott Rodwin discussed urbanism from a sustainability point of view. The second by John Desmond provided the business perspective. John Norquist gave the third presentation and summarized CNU’s recent efforts in being an effective voice in guiding urban policies. The texts provided here are revised and edited versions by each author after their presentation. The following discussion however, is directly transcribed from our recording of March 12, with our minor edits. We express our gratitude to Tryba Architects, who gracefully hosted this event.

### URBANISM AND SUSTAINABILITY

**Scott Rodwin, AIA, LEED AP**  
Principal, Rodwin Architecture  
Member, Sprawl and Transportation  
Committee, Sierra Club



Many of us intuitively understand the connection between planning and sustainability. We know that a green building represents only a fraction of what makes a place truly sustainable. The building must be woven into a larger fabric that can support a socially and ecologically responsible lifestyle.

The United States is the largest emitter worldwide of the greenhouse gases (GHG) that cause global warming. Transportation is the fastest growing source of CO<sub>2</sub> emissions and accounts for a full third of GHG in the United States. That share is growing as others shrink in comparison, and personal vehicle use represents 60% of those CO<sub>2</sub> emissions (U.S. Dept. of Energy, 2003). This is due to the fact that we are making our buildings more energy efficient, while at the same time we are still largely practicing the same auto-centric land use policies developed over the last 50 years. Those have resulted in a rate of increase in vehicle

miles traveled (VMT) three times that of population growth between 1980 and 2000 (U.S. Bureau of Transportation). Since the Arab Oil Embargo of 1973, America’s per capita VMT -- the amount of driving per person -- has increased by roughly 250%. The U.S. Department of Energy forecasts that over the next 25 years, VMTs will increase another 48 %. Similarly, across the U.S., land was consumed for development at three times the rate of population growth between 1982 and 2002, as new roads and highways literally paved the way for endless sprawling subdivisions (ULI & SGA. “Growing Cooler”, 2007).

A large portion of our energy demand is being driven by land use patterns that require or encourage more driving, a concept known as “induced traffic.” When you make it easier to drive than to use alternative methods, this encourages people to do so. Over 60% of the growth in driving and associated forms of energy consumption is due to land use factors (Funders Network for Smart Growth, 2005). An analysis of 83 metro regions found that the degree of sprawl was the strongest influence on VMT per person - more than population growth and per capita income (SGA, Ewing, “Measuring Sprawl and its Impact”, 2002). Studies around the country have fairly consistently found that people in walkable, compact, mixed-use neighborhoods connected to mass transit drive upwards of 30% less than those in conventional auto-oriented settings, even after adjusting



Figures 1 & 2: Typical car landscapes from anywhere in U.S. (a view from Miami, FL, on the left, Longmont, CO on the right). The more we build for car the more we will drive. Induced traffic increases the dependence on oil in an unnecessary way.

for household size, income and auto ownership. “Smart Growth can reduce the need to drive. Just as inefficient land use increases VMT, a smarter approach can reduce it, lowering energy consumption and reducing harmful emissions” (SGA).

We all know that from a sheer quality of life perspective, walking to the neighborhood market is more enjoyable and convenient than driving to Walmart; letting your kids play with the neighbors’ in a nearby pocket park is more convenient and community-building than driving them through rush hour traffic for a “play date”; and that having dinner with friends next door is more economical and relaxed than going out on the town. But what if all those things also helped save the planet? That’s not a bad side benefit.

For climate stabilization, a commonly accepted target would require the United States to cut its CO<sub>2</sub> emissions by 60 to 80 percent as of 2050, relative to 1990 levels (ULI & SGA, “Growing Cooler”, 2007). “CNU is committing to a goal of reducing carbon emissions through a major reduction in driving miles, targeting a 50% reduction in per capita VMT by 2030. Through the 2030 Communities Campaign, CNU and its partners will help provide development models to help communities create valuable, low-carbon development along with tools such as form-based codes and street-design alternatives to help them break down the barriers that encourage auto-dependent sprawl.” (CNU)

The carbon footprint benefit of urban living is quantifiable. In the City Journal’s 2009 “Green Cities” report they present statistical graphs showing a strong correlation between density and decreased pounds of CO<sub>2</sub> per household. As a city becomes more dense, it typically becomes more walkable, bikeable and mixed in terms of uses and is able to support the critical mass necessary to make mass transit economically viable. If towns and cities are proactive in their planning, they can implement Transit Oriented Development to channel new growth into those areas best served by mass transit. People who live close to transit stops tend to use mass transit. A 2006 study in the Bay Area by the Metropolitan Transportation Commission found that for people who both live and work within a half mile of a rail or ferry stop, 42% of them commute by transit. For those who neither live nor work within such proximity, the number falls to 4%. Is mass transit really that much more efficient at moving people from one point to another? In one hour, one road-mile can accommodate approximately 2,000 people by car, or 8,000 people riding the bus, or 20,000+ people via rail (extrapolated from Tunlin, D.C. Great Streets Conference, 2006). What form of transportation we elect to use affects energy, land use, and the material resources (rock, water, steel, cement, etc.) necessary to provide that



Figure 3: An example for a multi-modal walkable street with street car; Christ Church, New Zealand.

transportation. Obviously it makes sense to be as efficient with all those resources as possible.

Sierra Club has a handy online “Healthy Growth Calculator” so you can directly see the quantified environmental impacts of various land use choices: [www.sierraclub.org/sprawl/density](http://www.sierraclub.org/sprawl/density)

So, if we do decide that for the sake of environmental sustainability we are going to transform our auto-dependent planning in for a smarter and more ecologically friendly development patterns, what would that look like and how do we do it? Visit [www.cnu.org](http://www.cnu.org) or [www.smartgrowthamerica.org](http://www.smartgrowthamerica.org) for a comprehensive look at the tools and thinking behind this approach. Or for a quick and really fantastic visualization tool to see what the various alternatives look like, go to [www.sierraclub.org/sprawl/community/transformations/index.asp](http://www.sierraclub.org/sprawl/community/transformations/index.asp).

Sierra Club, a flagship of environmental protection, has in fact become one of the leading advocates for smart growth because they understand the connection to both rural/wild land preservation and to fighting global warming. Smaller grass roots environmental activist groups like the YIMBYs (Yes in my back yard) of Liveable Berkley are a sign of a growing shift in understanding in the eco community. People that have historically fought all new development in an effort to protect local lands are coming to realize that stopping development in their environmentally friendly cities simply pushes it out further causing sprawl and leading to more traffic and GHG. We are beginning to take a more regional and global perspective. And not a moment too soon. With two thirds of the buildings that we expect to exist in 2050 as of yet unbuilt, what we do over the next 40 years will have a dramatic impact on energy use and the associated climate impact (Funder’s Network, 2005).