

community, ahead of both jobs and beautification. Crime was first, but with rampant gentrification throughout the ward, those numbers are sure to change.

Smith says traffic calming is crucial to the long-term physical, social, economic, and environmental health of her ward. Walkable Edgewater, an award-winning neighborhood improvement program to develop a community-based physical plan for the pedestrian environment, was created in 1996 on the premise that dense areas support a less auto-oriented, pollution-generating lifestyle, and that livability is essential if such a lifestyle is to be sustained. With this in mind, Smith uses traffic calming as a single but necessary step toward a larger goal.

Several parallel efforts are not a function of Walkable Edgewater. These include work done to get three commercial districts in the ward onto the National Historic Register, use of TIF funds to spur redevelopment where needed, and groundbreaking for major streetscape im-

provements. However, Smith also knows that if snarled, unnerving traffic keeps residents homebound, her vision for the 48th Ward cannot be fully realized.

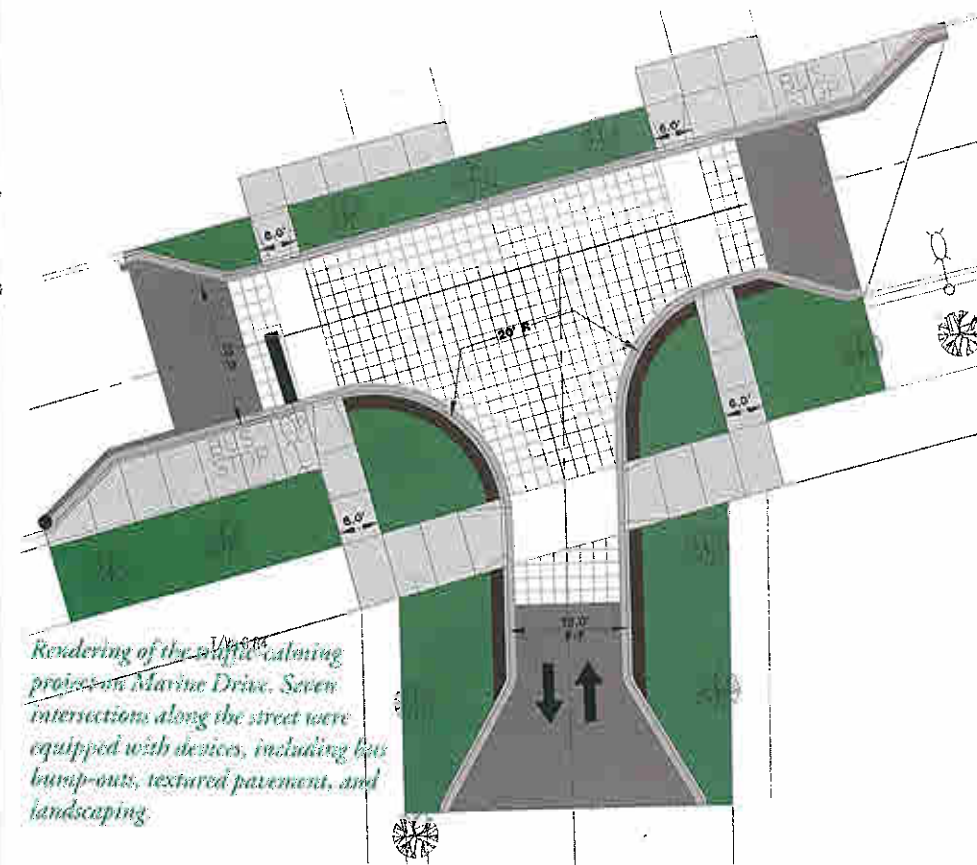
The in-house team consists of traffic-calming expert Tom Samuels, a Toronto native lured to Chicago by Mayor Daley and Smith; a planning and development aide; a zoning specialist; and a chief of staff who handles the budgetary and financial complexities accompanying the projects. Smith actively recruited "planning types" to help facilitate traffic-calming initiatives, and retains a "cabinet" of neighborhood experts to call on at any time, including land-use attorneys, architects, and landscape designers. Chicago aldermen are the gatekeepers for neighborhood development, but Smith's team practices an extraordinary level of governance.

### The democratic way

Smith prides her ward on being "the most democratic in the city." Her team works closely

with community organizations, 17 neighborhood block clubs, downtown agencies, and local fire, police, and streets and sanitation crews. All traffic-calming projects must meet the approval of the representative block club, complete with a letter of support from the block club president and, in the case of traffic circles and bump-outs, an agreement with the Bureau of Traffic for residents to water and maintain landscaped areas. In some cases, the Smith team has made its own agreement with adjacent apartment owners for landscaping maintenance and upkeep.

Some parts of the ward have yet to see traffic-calming devices because of ongoing talks among residents. "It took three years to get the first [traffic] circle done because we do so much community-based consensus building," Smith says. City service crews, including fire and rescue and streets and sanitation participated—somewhat hesitantly at first—in onsite test runs at potential traffic-calming sites, successfully negotiating snow plows and



Rendering of the traffic-calming project on Marine Drive. Seven intersections along the street were equipped with devices, including bus bump-outs, textured pavement, and landscaping.

## Livable Streets Revisited

People have always lived on streets. They have been the places where children first learned about the world, where neighbors met, the social centers of towns and cities. . . . But they have also been the channels for transportation and access; noisy with the clatter of horses' hooves and the shouts of the drivers. . . . The street has always been the scene of this conflict, between living and access, between resident and traveler, between street life and the street of death. Donald Appleyard, *Livable Streets*, 1981

With this rich notion of streets as thriving public spaces faced with competing demands, my father began his seminal book on street livability. Is his view still prevalent today? Or would most people simply say that streets are for cars and nothing else?

*Livable Streets* builds on research started in the late 1960s that focused on the effects of the automobile on a neighborhood's quality of life. It documented, among other things, how the level of traffic is inversely related to residents' level of social contact and sense of their home territory. As traffic on a street increases, people retreat from the neighborhood and try to shut it out of their lives,

leading to a gradual breakdown in the sense of community.

My father often looked to children for direction on how streets should be designed. When my siblings and I were in elementary school in Berkeley, California, my father would frequently follow us to school, observing how we interacted with our neighborhood, seeing what paths we chose and which activities we engaged in along the way. Every so often, he and his graduate students visited our school to find out how we, along with our classmates, perceived our neighborhood and streets. They would lead us through a cognitive mapping exercise that allowed them to capture how we viewed the world: what elements we considered important, including both the threats and highlights.

This early experience inspired me to use these cognitive mapping tools for a 1995 study on the effects of traffic on schoolchildren in two suburban neighborhoods in California. As with the original *Livable Streets* study, my colleagues and I found there was indeed an inverse correlation between the level of traffic and the quality of the neighborhood experience. In addition, we captured

By Bruce S. Appleyard

how the lack of sidewalks and other pedestrian amenities—a common enough situation in most suburbs—negatively affected children.

More generally, my father provided a vision for what neighborhood streets could and should be. "[W]e should raise our sights for the moment," he wrote. "What could a residential street—a street on which our children are brought up, adults live, and old people spend their last days—what could such a street be like?" Has this promise of what streets *could be* been lost as well?

In a tragic irony, Donald Appleyard died in 1982, a victim of a speeding drunk driver. Fortunately, a committed number of individuals and communities have realized this promise of neighborhood streets, and have worked towards reestablishing neighborhood livability by means of traffic calming and other measures. While there are a number of successful examples across the country, it is obvious that more needs to be done.

After decades of sprawling development patterns with overbuilt roads, we are left with an almost overwhelming legacy of streets in need of retrofitting. The expense and effort

required to improve these auto-oriented environments is daunting. The federal government, now considering its next transportation law, needs to play an active role in guiding and funding this effort.

Donald Appleyard recommended national action to protect neighborhoods, but *Livable Streets* was published at a time when the nation's attention was turned elsewhere. In the early 1980s, the U.S. was emerging from a decade of crises: the Vietnam War, Watergate, recession, and bouts with high inflation. Revising our settlement patterns, let alone our streets, was not a national priority. However, the words and images captured by Donald Appleyard and others provided a beacon for a committed group of planners and policy makers as well as a handful of communities.

In 1991, a decade after *Livable Streets* was published, the federal transportation funding legislation known as ISTEA, through such funding efforts as the popular transportation enhancements program, furthered the idea that our streets were not for cars alone. In 1998, TEA-21, the successor to ISTEA, took this notion even further by making bicycle, pedestrian, and traffic-calming projects eligible for federal safety funds.

However, few state transportation departments have amended their safety programs to bring broad changes to the livability of our

streetscapes in order to support alternatives to driving. As we look toward the next federal transportation funding bill, yet to be formally named but referred to as TEA-3, we must recognize the need for that broad vision.

One example of a national effort currently seeking to increase the use of transportation dollars to make streets more livable and inviting is the Safe Routes to School movement. In 1999, California was the first state to pass such Safe Routes to School legislation, earmarking federal safety funds for the construction of sidewalks, bike lanes, and traffic calming along corridors leading to schools in an effort to make them safe and attractive for children who wish to walk or bike. According to the Surface Transportation Policy Project, less than 10 percent of schoolchildren now walk to school—down from over 66 percent just 30 years ago.

Since 1999, nine other states have considered implementing similar programs. Unfortunately, the demand for these improvements far outpaces the funds available. California, for example, had \$240 million dollars worth of project requests but only \$45 million dollars available over the first two years of its program. Texas, which recently passed similar legislation, has allocated only \$3 million per year. Clearly we need more realistic funding levels so that we can broadly recapture the

fire trucks around construction cones and chalk markings. Now each of the city services is represented on the Chicago Public Way Task Force, a consortium whose approval is required for traffic-calming projects citywide.

Physical devices installed so far include traffic circles, curb extensions, speed humps, and chicanes. All traffic-calming devices are installed and landscaped by CDOT, and then turned over to neighborhood residents for maintenance.

A pilot project has already been completed for water permeable alleys, which slow down vehicles by providing a gravel-textured driving surface. The project was facilitated through the Chicago Department of Energy with money from Commonwealth Edison's Green Dollars Program. Within the next year, a property tax rebate will be offered as an incentive for more of these alleys, and Smith retains the ward's century-old cobblestone alleys whenever possible.

Perhaps the best example of traffic calming

livability of our streets. A solution is to have a national Safe Routes to School infrastructure funding program a prominent part of TEA-3.

Through TEA-3, we need to fund the retrofitting of our existing streets, and we need to promote planning strategies to change the way streets are designed and the way communities grow. Through better coordination of transportation, land-use planning, and design, we can create attractive street environments and communities for walkers, bikers, transit riders, and yes, even drivers.

Bruce Appleyard recently founded Appleyard Consulting, a transportation, land-use, and urban design firm in Charlottesville, Virginia. He was formerly with the Southern Environmental Law Center.

## Resources

Donald Appleyard's *Livable Streets* was published in 1981 by the University of California Press, Berkeley. Bruce Appleyard's "Image Mapping as a Tool to Guide Transportation and Community Planning" was published on the web by STPP in January 2000; see [www.stpp.net/tools/other/january.asp](http://www.stpp.net/tools/other/january.asp). For details about California's Safe Routes program, see [www.transact.org/ca/saferoutes\\_bill.htm](http://www.transact.org/ca/saferoutes_bill.htm). Contact Bruce Appleyard at [appleyard1@earthlink.net](mailto:appleyard1@earthlink.net).

