



## WALKABILITY: A Street is a Terrible Thing to Waste

-- by John Massengale, Architect & Urban Designer in New York

There is a revolution going on in the design of streets and roads in America. It combines both revolution and evolution, uniting the phenomenally successful Complete Streets movement with a popular desire around the country for more walkable streets. The still-evolving work promises to change public life on the Main Streets and in the downtowns of our cities, villages and towns.

New York State's Complete Streets Act requires "state, county and local agencies to consider the convenience and mobility of all users when developing transportation projects that receive state and federal funding." That means thinking not only about cars sharing the road with bicycle lanes and mass transit, but also about the needs and wants of pedestrians, who are as interested in places to stop and enjoy public life as they are about transportation to other destinations. In other words, it's not only about "transportation." This is particularly true in the centers of our villages and cities, where we want people to get out of their transportation, so that they can walk around and stay awhile.

The revolutionary part of this change is that we're reversing 50 to 100 years of turning walkable places into transportation corridors that made it easier and safer to drive but more difficult and dangerous to walk. For years, transportation planners have looked at things like trees (known as F.H.O.s, or -- Fixed Hazardous Objects) and pedestrians (M.H.O.s -- Moving Hazardous Objects) as things that got in the way of their job, which was to make the flow of cars on the street as smooth and fast as the flow of water in a pipe. But to continue the plumbing analogy, many of our most important streets became "auto sewers." That's what we call the big, ugly roads where no one wants to walk or ride a bike if they can avoid it. For those who had to walk or ride there anyway, the fatality rate was high.

Many auto sewers are now being transformed into Complete Streets, but that doesn't necessarily mean that they will become places where people will want to walk. The revolution that will lead to great walkability got an enormous boost this year in New York City, however, where Mayor Bill de Blasio and his DOT Commissioner Polly Trottenberg took what's called "the Vision Zero pledge." That's a promise to reduce auto fatalities in New

York City to zero in ten years, and that's a radical policy, because the Vision Zero movement (which began in Sweden), correctly tells us that there are only two ways to get to zero. The first is to separate the cars and the people, so that cars can never hit pedestrians. But in places where cars and people come into contact, the only way to eliminate pedestrian killings is to slow the cars way, way down.

These principles apply to the streets in all our neighborhoods, villages, cities, and towns where people want to walk. In those places, it is impossible to separate the cars from the people without turning our city streets into urban auto sewers where no one wants to be unless they're in a car. In fact, as you can see in any city, village, town, or hamlet in New York, we've moved quite far in that direction since World War II. We have both degraded the experience of the public realm and made places where speeding cars frequently kill pedestrians.

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The good news is that once we do slow the cars way down, we can make safer and more beautiful streets where people want to get out of their cars and walk, enjoying public life. Fast streets require bold striping and large signs, because the faster we drive the less we see. Studies by the National Association of City Transportation Officials show that drivers going as slowly as 25 mph

see only half what a driver going 15 mph sees. The drivers going slowly also have more time to react, which means they are less likely to hit anyone. Most importantly, a person hit by a car going 25 mph is 10 times more likely to die as someone hit by a car going 15 mph. Yes, 15 mph is very slow for our modern cars, but once we realize how many people are killed by cars going 30, 40 and faster, we have to ask ourselves why we allow that trade-off.

In Mayor de Blasio's first week in office, three pedestrians were killed near the intersection of Broadway and 96th Street. The initial instinct of many observers was that pedestrians were causing the problem, but New Yorkers reacted loudly. "We're not killing the cars," they said, "the cars are killing us." Eighty percent of the residents of Manhattan don't own cars, and they pay high rents and even higher purchase prices for small apartments at least partly because they like the public life of the streets.

Now, the city has passed a 25 mph limit on almost all city roads, and it is studying what to do on the big streets where most of the traffic fatalities happen. Those are mainly suburban-style auto sewers, designed to make it easy for suburbanites to drive in and out of the city. All their suburban-style street design techniques -- wide lanes, turn lanes, bold markings that are easy for speeding drivers to see, one-way designation with staggered lights that encourage drivers to go faster than the speed limit to avoid fender-benders -- encourage fast driving and induce traffic by making drivers feel comfortable.

The same auto-centric design techniques that are scaled to the needs of speeding cars and trucks make pedestrians uncomfortable. We've all grown up in the age of the automobile, so it's easy to forget that. But the evidence is mounting that slow streets with fewer signs and markings for vehicles are both safer and more popular for walking and cycling. In fact, the safest streets in the world are in places where all traffic lights, traffic signs, and traffic markings are removed. Few American cities (or DOTs) are willing to try that solution yet, but cars go slowly in those situations and it's more accepted in Europe. The large historic center of Amsterdam has few stop signs, stop lights, or traffic signs or markings, while Paris is going to 20 and 12 mph limits on almost all streets. Like the "shared spaces" in the Netherlands, the 12 mph streets in Paris will probably have no signs or markings for auto traffic.

That forces drivers to deal with pedestrians, rather than vice versa. When you visit these places on foot, you understand how accustomed we have become to mentally blocking out the harsh, overscaled markings of the traffic engineer. But the truth is, our senses notice them, to our detriment. Step out into a one-way arterial in any city and the gross scale of the turn lane arrows, for example, will clearly tell your limbic system (which activates the "fight or flight" portion of the brain) that you should get back over to the side of the road, where you belong. But all that ugliness out in the street makes the sidewalk unpleasant too.

Here in America we have a harder time dethroning King Car. We built a massive and costly system in which everyone drives everywhere for everything (even though 40% of the population



is too young, too old, or too poor to drive), and undoubtedly that will continue (at least until gasoline becomes too expensive, or we decide the planet can't take the pollution). Our traffic engineers have developed suburban-style traffic calming techniques like roundabouts and painted "road diets" that reduce pedestrian deaths while maintaining the ever-important traffic flow. Most importantly, they reduce traffic deaths but never get them down to zero. This becomes more and more obvious as we modify the old in-city, suburban-style arterials with more modern suburban-style traffic calming techniques.

But the paradigm is changing. Millennials, the largest generation in America, are famously not only driving less but increasingly not even getting their drivers' licenses. Boomers, the next largest generation, are driving less as they grow older, and many are moving back to cities, where it's often less convenient to drive. This changes the cities, leading places like New York City to see that we are literally killing ourselves. In the last two years, Chicago, New York, and San Francisco have all adopted Vision Zero. That starts a public discussion about pedestrian deaths and walkability, and this is affecting our Main Streets and our downtowns. Increasingly, we no longer buy the argument that wider roads are safer, because we know now that "safer" meant "fewer accidents when cars go faster," and the pedestrian was seen more as a hindrance than someone to be protected. Fifty-seven municipalities and seven counties around New York State have adopted Complete Street policies. Soon they will be talking about Completer Streets where people want to get out of their cars and walk around.

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Once you go down this road, so to speak, no mayor or DOT Commissioner will ever publicly say anything like, “I’ve decided that 100 more deaths is worth going 5 mph faster, so we’re going to put the speed limit back where it was.” Speeding in cities might even become the new DUI. Mothers in Queens have organized protests about unsafe roads where children are killed. This is the point at which the evolutionary phase of this process comes in. We are still learning how to move from the design of roads built to move cars to the design of streets where people want to be, while discovering that suburban road diets are not the right solution for downtowns that want walkability. We know now that the small number of road types given to us by the Functional Classification system to assign DOT funding -- highways, arterials, collector roads, and local roads -- are good for auto-oriented places but inadequate for walkable neighborhoods, villages, and cities. We will need a new menu of roads, so that we can convert many of our auto-centric arterials into pedestrian

friendly avenues, boulevards, Main Streets, and neighborhood streets. It’s an interesting and exciting time for mayors.

*Additional photos for this article, some with long captions, can be seen at <http://photos.massengale.com/nycom>.*

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*With Robert A.M. Stern, Massengale wrote **The Anglo-American Suburb and New York 1900: Metropolitan Architecture and Urbanism 1890-1915**, winner of a National Book Award, as well as the first architectural history book to be nominated. He is a Board member of the Congress for the New Urbanism (CNU), the founding Chair of CNU New York, and a former Board member of the Institute for Classical Architecture and Art (ICAA) and Federated Conservationists of Westchester County.*



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