**Adopt a 10-Foot Standard for Free-Flow Lanes**

*Any wider is an invitation to speeding.*

**Simply put,** different-width driving lanes correspond to different driving speeds. A typical American urban lane has historically been 10 feet wide, which comfortably supports speeds of 45 mph. A typical American highway lane is 12 feet wide, which comfortably supports speeds of 70 mph. Drivers instinctively understand the connection between lane width and driving speed, and speed up when presented with wider lanes, even in urban locations. For this reason, any urban lane more than 10 feet wide encourages speeds that increase risk to people walking.

These lanes are everywhere. In the second half of the twentieth century, city engineers began importing highway standards into their downtown cores, such that many American cities now have a lane-width requirement of 11 feet, 12 feet, or more. Omaha, NE, is one of many cities that has 12-foot lanes, and drivers can be observed approaching highway speeds when using them. It is surprising to learn, then, that the correlation between lane width and driving speed, accident frequency, and accident severity is a very recent discovery of the traffic engineering profession and contradicts decades of conventional wisdom within that profession. Even today, many traffic engineers will still claim that wider lanes are safer. Fortunately, a number of recent studies provide ample evidence of the dangers posed by lanes 12 feet wide and wider.

These studies, published by the National Cooperative Highway Research Program and others, demonstrate that...
urban and suburban 12-foot lanes are clearly associated with higher speeds and higher crash frequencies than 10-foot lanes. Additionally, a June 2015 report by the Canadian Institute of Transportation Engineers found that lanes wider than 10 feet generate risk for higher crash severity.

Given that 10-foot lanes handle no less traffic than 12-foot lanes—also documented—there is clearly no justification for 12-foot lanes in urban locations. In acknowledgement of this body of research, numerous organizations and agencies, like the National Association of City Transportation Officials, have recently begun to endorse 10-foot lanes for use in urban contexts. NACTO’s Urban Street Design Guide lists 10 feet as the standard, saying, “Lane widths of 10 feet are appropriate in urban areas and have a positive impact on a street’s safety without impacting traffic operations.” They add: “Narrower streets help promote slower driving speeds which, in turn reduce the severity of crashes.”

This same conclusion was reached by ITE, the Institute of Transportation Engineers. According to the ITE Traffic Engineering Handbook, 7th Edition, “Ten feet should be the default width for general purpose lanes at speeds of 45 mph or less.” That statement is very telling, as it implies, accurately, that lanes wider than 10 feet encourage speeds greater than 45 mph. And 45 mph is a full 20 mph over the posted speed limit in most downtowns.

Rule 48: Replace all urban lane standards greater than 10 feet with a 10-foot standard.
Restripe to a 10-Foot Standard

Put dangerously wasted pavement to better use.

NOW THAT WE’VE GOT A 10-FOOT STANDARD, what do we do with it? The answer to this question is wondrous indeed.

Every urban lane in your city that is more than 10 feet wide represents both an obligation and an opportunity. The obligation is clear: the extra width is only doing one thing, and that’s causing drivers to speed, creating a completely unnecessary risk to themselves and others. The opportunity is manifold, and depends on the total number of extra feet available.

If the extra space is less than 5 feet, there are few options. But don’t give up too soon... if the parking stalls are more than 7 feet wide, they can be narrowed too. Harvard Street in Boston has 5-foot bike lanes sandwiched between 10-foot driving lanes and 7 feet of parking—hardly ideal, but much better than the wide-lane alternative. But if 4 feet or less is all you have to play with, the safest solution is to add it to the width of the parking lanes. This will slow drivers slightly.

Five feet and above, the best approach is usually to add a bike lane. Beyond 7 feet, you could instead add a flank of parallel parking, if one is missing. The choice between biking and parking is a tricky one, and must be considered with an eye to the larger bike network. (More on that in Rule 55.)

As yet more space becomes available, more options present themselves, including cycle tracks, angle parking, and—if there’s a good budget—wider sidewalks. Most often, economy dictates a solution in which curbs are not moved. (see Rule 97.)

What about buses?
When all other hurdles to 10-feet lanes seem to have been cleared, that’s when the transit agency shows up and demands 11 feet for its buses.

Most buses are 8’6” wide, plus mirrors. When a bus in a 10-foot lane passes a car in a 10-foot lane, there is no friction. When a bus passes another bus under similar circumstances, the resulting squeeze requires the bus to slow down slightly for a moment that is too short to impact bus schedules but has a positive impact on the safety of the street for all users.

A few rare transit agencies appreciate the traffic-calming value of 10-foot lanes. The administrators of DART, in
Des Moines, advocate for 10-foot lanes, reminding us that “every transit ride begins and ends with walking, and without walkable streets we are undermining the opportunities for public transit in the community.” But DART is the exception, so most transit agencies need to be reminded that streets that kill pedestrians threaten their customer base.

What about snow?
It is useful to discover that some of the communities with the skinniest streets have a ton of snowfall. Somehow they manage, even under many feet of snow, to maintain higher property values than nearby places that have been designed around the needs of the snowplow. Allowing snow-emergency inconvenience to override neighborhood livability is to confuse the end with the means.

But try telling that to a local public works department. More useful arguments include the fact that, in a snow emergency, a parking lane is typically a snow storage lane, and that, in a true crisis, bike lanes can serve the same purpose—at least in America. In Copenhagen, they plow the bike lanes first.

Cities should be admonished to remember that, the wider a street is, the more there is to plow.

**RULE 49:** Restripe streets with wide lanes to a 10-foot standard, allowing parking lanes to become as narrow as 7 feet in order to gain space for other uses. Then, with that extra space:
- Less than 5 feet, widen the parking spaces.
- 5 to 7 feet, insert a bike lane.
- Above 7 feet, insert bike lane(s) or curb parking, as appropriate.

Before and after: Many streets that should have been built 35 feet wide are 40 feet wide. Inserting a bike lane, whether it is needed or not, will make these streets safer.