

Moving the Goalposts How Bikes Become Public Transportation



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IF THE CITY MEETS ITS GOAL OF BUILDING OUT THE BIKE network by 2030, a few things are certain. There will be 900 miles of lanes crisscrossing all five boroughs. Biking will be easier, and the streets more friendly to those on two-wheels. The rights of bicyclists to the pavement will no longer be openly contested by drivers. But in the hearts of longtime NYC cyclists, there will also be pangs of disappointment.

Bicyclists in 2030 will still have problems with double-parked bike lanes. Painted lanes on streets like 2nd Avenue in Manhattan and Adams Street in Brooklyn will remain unusable to all but the intrepid. The age-old phenomenon of incredulous coworkers insisting that biking is just too dangerous will still be with us, too. Most regrettable of all, our streets will still be no place for a child to ride a bike. Biking in 2030 will be better and safer than in 2008, but the fundamentals of our streets won't have changed dramatically.

The Department of Transportation has committed to completing its 1997 Bicycle Master Plan by 2030, and to doubling the number of cyclists by 2015. Given the tools the DOT has in hand, these are solid goals that will likely be met. In the eighteen months since her appointment, DOT Commissioner Janette Sadik-Khan has taken on designs that are setting new standards in innovative bicycle planning around the country. And the DOT is putting them to the test in the nation's busiest city. The streets are better for it, as projects like Broadway Boulevard and the Madison Square redesign exemplify.

Each time the City has upped its game, T.A.'s bicycle advocacy campaign has in turn shifted gears. In the 1980s and 1990s, T.A. focused on bridge access and greenways. When the City adopted those priorities, T.A.'s focus shifted to neighborhood bike lane networks and better bike parking, both of which are poised for unprecedented breakthroughs in 2009.

It is time for another upward revision in expectations, looking beyond the linear growth that we have seen in biking over the past five years. T.A.'s new agenda will focus on boosting bicycling exponentially from the fewer than one percent of New Yorkers who take to two wheels today to five or ten percent of all transportation trips. What will it take to put a half million New Yorkers on bikes by 2010? What will it take to make bicycling as safe, expedient and routine as taking the subway? How do bikes, literally, become a form of public transportation?

The 21st Century Grid

Every day, 3,000 bike commuters cross the Williamsburg Bridge on their way to work in Manhattan. The multi-million dollar bike and pedestrian path is an encouraging testament to the City's commitment to biking. But once in Manhattan, things go terribly wrong. Eight lanes of car traffic clog Delancey Street and traffic agents wave drivers through red lights; bicyclists and pedestrians are left marooned in the middle. New routes shunting bikers onto area side streets remain little-used. Despite its status as one of the city's most heavily biked—and deadliest—streets, Delancey Street itself isn't slated for any bike improvements.

The 1997 Bicycle Master Plan conceded a lot of ground to the automobile. With the designs in hand at the time, little more than two painted white lines, the big arterial roads were declared off-limits. The ethic of leaving the city's most direct and expedient network of roadways to the big kids behind the wheel is still at work today. The DOT has resisted calls to bring a protected bike lane to Queens Boulevard. The efforts of Manhattan Community Board 2 and every local elected official to secure a protected lane on Houston Street has yet to force the City's hand. But whereas the DOT sees these streets as too dangerous for bicyclists, T.A. sees these critical arterial roads as the

biggest opportunity in developing a world-class bike network.

More than half of fatal bike crashes occur on large, four-lane arterials, even though most streets in the city are narrow, local roads. Arterials, while dangerous, remain the routes of choice for many of today's cyclists. And because it is impossible to navigate the city without biking on or across an arterial, they remain considerable obstacles to the masses of would-be cyclists. Half a million New Yorkers won't bike to work unless we tackle the major avenues and cross streets of Manhattan and their counterparts in the other boroughs.

T.A.'s new vision for a world-class bike network hinges on an ambitious two-year build-out of a comprehensive grid of interconnected, on-street cycle-tracks. It is crucial that these lanes mimic routes of subways or bus lines. Overlay with the transit system will ensure

The Verdict on NYC's First Cycle-Track

In the year since its inception, the 9th Avenue cycle-track in Manhattan has become a game-changer in United States street design. It has proven so successful in taming the dangerous corridor that it was recently extended north to 31st Street and paired with a northbound route along a 15-block stretch of 8th Avenue. The track record is clear:

- ↑ 57% in cycling traffic
- ↓ 36% in pedestrian-related injuries
- ↓ 50% in injuries (from all crashes)
- ↓ 41% in total crashes

good multi-modal connections, and also give bicyclists room on the dense, commercial streets where most New Yorkers work and recreate. In Manhattan, the cycle-track grid would be comprised of three pairs of north-south routes, in addition to crosstown cycle-tracks on major two-way east-west streets. The latter could be combined into protected bike/bus/taxi lanes, a design and multi-purpose solution to limited street space.

And just as the subway system radiates out to the other boroughs, the network of protected lanes must extend past the East and Harlem River bridges. In Brooklyn, Flatbush, Fourth, Atlantic, Kent and Bedford Avenues would form a new grid of cycle-tracks for the borough. In Queens, protected lanes on Queens and Northern Boulevards would finally become the east-west axes needed to link the borough's residential neighborhoods together in elegant, direct routes. Vernon Boulevard, its painted lanes replaced with physically separated ones, would skirt the East River waterfront from Newtown Creek to Long Island Sound. The Grand Concourse, Westchester Avenue and Fordham Road in The Bronx and Hylan Boulevard in Staten Island will realign biking and connect to the developing greenway systems in each borough. In all cases, connectivity will prove crucial, with convenient links between existing bridge paths, greenways and neighborhood bike networks.

In Focus

From Bike Lanes to Bike Boulevards

The unimaginative residential streetscape to which New Yorkers have grown accustomed demands its own overhaul. NYC need look no further than California and Oregon to learn how best to thread the needle of providing safe streets without declaring war on homeowners who cling to curbside parking. On Berkeley and Portland's bicycle boulevards, traffic calming reaches a dramatic climax. Whereas arterials demand expansive structural changes, residential side streets employ minimal and strategically placed traffic calming devices to reduce vehicle speeds, effectively converting streets into quiet traffic cells. Thru-traffic can be eliminated by alternating the street's direction every few blocks, preserving car access for homeowners without inviting vehicles looking for a high-speed short cut. Heavy traffic calming at intersections slows speeds even further.

The exception to the thru-traffic restriction is bicycles. Bike routes, marked with symbols and signage more often than painted stripes, facilitate free flowing bicycling through these residential side streets, even as car traffic is diverted. Bicycle boulevards in NYC will serve to further expand cycling ridership by increasing convenience (cyclists can enjoy lower traffic without significant increases in trip time) and encouraging new riders (for less experienced cyclists, bicycle boulevards can serve as confidence building connections between busier streets). Bicycle boulevards speak to the proven design standard that all levels of cyclists can safely mix with motor vehicles going at or below 20mph. A systematic transformation of NYC's residential streets into bicycle boulevards, complemented by an across-the-board lowering of the speed limit on these streets, will improve safety and quality of life for bikers and non-bikers alike.

Bikes as True Public Transport

There is an undisputed new center of gravity in the world of urban bicycling. Of course, Copenhagen and Amsterdam still hold their heads high. But it is Paris to which cities like New York, Chicago and San Francisco are looking today. In Paris, design and innovation have overcome a car-enamored status quo. To be sure, former Mayor Bertrand Delanoë's implementation of protected bike lanes and busways shared with bikes and taxis played its part. But ultimately it was the city's launch of Vélib', the world's largest public bicycle share program, that fixed the spotlight on Paris.

Cities like Copenhagen have utilized bike shares successfully for years, but viewed from here in New York it was difficult to see public bikes as anything more than a novelty of that well-heeled Scandinavian metropolis. They don't have our theft or vandalism, we thought. They don't have the sort of anti-social streak that might lead someone to throw a perfectly good bike into the East River for catharsis.

Paris's implementation of Vélib' in July of 2007 changed the conversation. The system owes its success to its grand scale. Vélib' is comprised of 20,000 public bikes at 1,450 stations, overlaid with the city's extensive subway and bus rapid transit system. Users purchase an annual, monthly, weekly or day-long membership at a nominal fee, and swipe their membership card to remove a bike from one of the kiosks. Parisians can even have their card tied into their equivalent of a monthly Metrocard. Bikes are free for the first thirty minutes, with fees accruing thereafter in order to encourage short trips. To carve out space for bikes near Metro stations and cultural destinations, 5,000 on-street car parking spaces were replaced with Vélib' stations.

An estimated 26 million bike trips were taken on Vélib' during

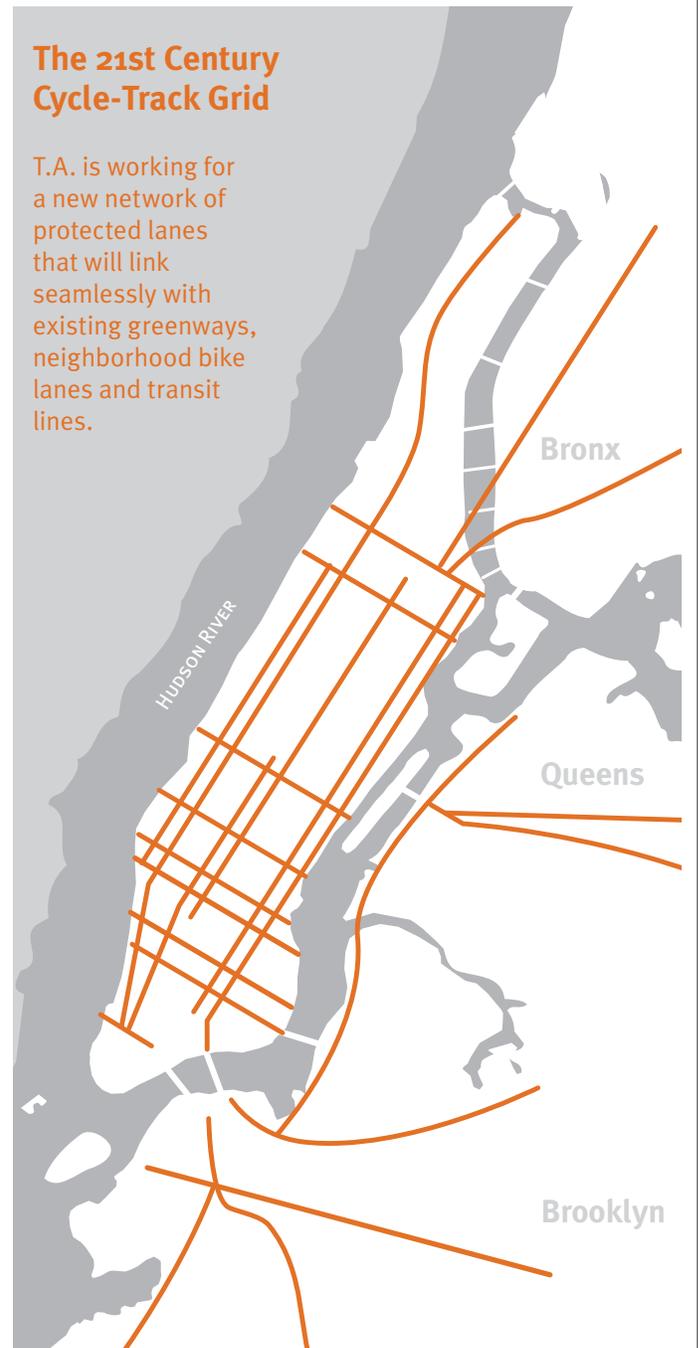
the first year, with an average trip length of about 3 miles. Of the roughly 65 million miles worth of new bike trips, 10% were former car trips. This is a massive shift of transportation modes and illustrates the potential of bike shares to reduce single-occupancy car trips in particular. Vélib' has also freed up space on Paris' strained buses and subways, increasing their capacity.

What is perhaps most compelling about the program is that 2% of trips are not converted from other modes; they are new trips which Vélib' itself has made possible. Parisians who might have shied from taking a taxi across town during rush hour, or foregone an evening out because the Metro closes at 1 am, are using Vélib' to make hitherto unworkable trips.

From the inception of Vélib', T.A. has been a leading advocate of a

The 21st Century Cycle-Track Grid

T.A. is working for a new network of protected lanes that will link seamlessly with existing greenways, neighborhood bike lanes and transit lines.





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Protecting the Bike Share Brand

With so much interest in bike shares, it is tempting to apply the bike share moniker to initiatives such as free bike rentals and the like. While stoking demand for public bicycles, it is critical that these small-scale endeavors not revise the definition of bike share. To do so would lower the bar for both businesses and government entities; a Paris-scale program must remain the goal for New York City. The most important elements are size and ubiquity. As T.A. marshals advocacy, business and government groups to bring a bike share to NYC, here are the make-or-break criteria on which we insist:

- One bike per every 100-300 residents
- One station every 1000 feet (5-10 minute walk)
- Connectivity to where people need to go, with emphasis on multi-modality
- Integration into other modes of public transportation, via a Metrocard
- Strong anti-theft technology
- Strong Mayoral leadership and inter-agency cooperation in planning and implementation

public bicycle program through our co-sponsorship of the New York City Bike Share Project in 2007 and 2008 with the Forum for Urban Design. T.A. also sponsored Free Bike Fridays on Governors Island, where more than 20,000 New Yorkers went this summer to bicycle for free, making the demand for public bikes and safe spaces to ride them resoundingly clear. Most importantly, T.A. formed the NYC Bike

Share Working Group to centralize the bike community's outreach to the City and potential private sector partners regarding the recent Request for Expressions of Interest in a public bike share proposal for NYC. By holding community meetings regarding bike share as well as meeting with the corporate and civic entities submitting expressions of interest to the DOT, T.A. is working hard to ensure that NYC will win a Vélib'-style public bike program.

Vélib' is so compelling because there are enormous similarities between the dramatic Parisian transformation and what is afoot in New York City today. Vélib' originated, in part, from the city's need to fill and justify its contested and underused new bike lanes, as well as to reach its larger goal of reducing traffic by 40%. With similar objectives, and challenges accruing from the expansion of NYC's bike network, the case for implementing North America's first Paris-scale bike share is clear.

If projections prove correct, 2009 will be the most prolific year in the history of bicycling in NYC. With the City on track to double the bike network by the time Mayor Bloomberg finishes his second (and possibly, last) term in office, T.A. is planning to pull from a new direction. The two-front push for world-class design and unprecedented public access to bicycling will mean a full-scale transformation of New York City's streets. And as experience elsewhere has shown, the impact of both of these changes will manifest itself in mere months. The revolution may be closer than anyone thinks. □



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