

# Streets for **PEOPLE**

**Your Guide To Winning Safer And Quieter Streets**



**Transportation**  
**ALTERNATIVES**

New York City's Advocates for Walking,  
Bicycling and Sensible Transportation



## New Yorkers Are Fed up With Dangerous Traffic

**S**TREETS FOR PEOPLE IS A TOOL KIT—full of solutions for traffic problems that people all over the city are talking about. It’s also a description of how people everywhere are using these tools to beat back the threat that uncontrolled motorized traffic poses to their safety and quality of life. You can have a livable community while keeping motor vehicle access to homes and businesses. This booklet will show you the way.

*Streets for People* has two sections.

The first section is an introduction to “traffic

calming”. Traffic calming is a system that designs streets as shared space—shared between people walking, bicycling and driving. It was developed by people just like you, neighborhood residents who wanted to reclaim their streets from growing traffic and protect their communities. Traffic calming saves lives and makes neighborhoods more pleasant.

The second section is an action plan that will help you win safer and quieter streets for you and your community. Whether you are part of a large, well organized community group or a small group of concerned residents, there are steps that you

## Sound Familiar?

“When the highway gets backed up, cars get off and use our local streets—honking if they’re stuck, speeding if they’re not.”

—Carroll Gardens, Brooklyn

“Drivers ignore the stop signs and speed. If we can’t cross the street safely, how on earth will our children be able to?”

—West Village, Manhattan

“We complained to the City, but they told us we couldn’t have a traffic light or stop sign.”

—Richmond Hill, Queens

“When we moved to this neighborhood, it was nice and quiet. But every year, the traffic gets worse and worse. If it doesn’t get better, we might have to move.”

—Flushing, Queens

“This intersection is too dangerous. Not only that, but the unpleasant conditions keep people from shopping here.”

—Morrisania, Bronx

“I can’t let my children play outside or walk to school by themselves. I’m afraid they’ll get hit by a car.”

—Great Kills, Staten Island



can take to win the changes you want.

As you read through *Streets for People*, keep in mind:

- **Your streets belong to you and your neighbors.**
- **You have the right to a safer, quieter neighborhood.**

### Keeping Your Neighborhood Together

Our neighborhoods are more than just a group of streets and buildings, they are where we live, shop, work, raise children, make friends and relax. But all of these vital neighborhood functions are threatened by too much motorized traffic and dangerous speeding.

As traffic and speeding increase, communities erode. A study of San Francisco neighborhoods showed that people living on streets with low levels of motorized traffic interacted with neighbors on both sides of the street, but people living on streets with high levels of motorized traffic were almost completely cut off from their neighbors across the street.<sup>1</sup>

When people lose sense of their street as a shared resource, the physical environment begins

to deteriorate, vandalism and criminal activity may increase and neighbors are less likely to socialize with each other. Before too long, residents stop thinking about how to improve the neighborhood and start thinking about moving.

But there is hope. People across the city are fighting this threat, and you can too!

### Changing Streets to Discourage Speeding

Traffic calming is a way to design streets so that drivers are forced to drive safely. Most importantly, traffic calming measures force drivers to slow down.

Many people are surprised to learn that what they consider to be relatively low speeds are actually still extremely dangerous to people traveling on foot: 5% of people die when struck by motorists going 20 mph; 45% of people die when struck by motorists going 30 mph; and 85% of people die when struck by motorists going 40 mph.<sup>2</sup>

Clearly, enforcing New York City’s 30 mph speed limit and reducing speeds even further to 15-20 mph is a public safety priority. Slower motorists are far less dangerous, less noisy and

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less polluting. Plus, reducing speeds discourages highway drivers from using neighborhood streets as short cuts.

Traffic calming is based on the fact that the way a street is designed tells drivers what to do. Wide, straight and flat expanses of asphalt say to drivers, "It's okay to go fast." When driving lanes and streets are narrow, or when the areas where people on foot cross the street are raised; or when streets are made curvy by adding trees, lights and benches, drivers get the message, "Slow down! This is a shared space."<sup>3</sup>

One of the greatest benefits of traffic calming measures such as these is that they are self-enforcing, so they reduce the need to call on overworked police officers to ticket speeders and red light runners. According to the Office of Community Oriented Policing Services at the United States Department of Justice, "without traffic measures, it is difficult for police to reduce average vehicle speeds below 25 mph."<sup>4</sup>

In fact, the NYPD Traffic division has made tremendous efforts to reduce the number of crashes through tough crack-downs on reckless drivers in the past few years. Traffic calming will help the police be even tougher on reckless drivers by providing additional 24/7 enforcement.



Pleasant and safe streets promote community

### People Fighting for their Community

Traffic calming was invented by local residents in Holland and has since been embraced by concerned community members everywhere. The movement began in the Dutch city of Delft over 30 years ago. In Delft, residents grew tired of the danger and noise of motorized traffic on

their streets. The government didn't help, so residents took matters into their own hands; they pulled up cobblestones and arranged them to force drivers to slow down. The residents' action convinced their government that neighborhood quality of life and walking safety were priorities, and the Dutch government embraced traffic calming.

Now, traffic calming is a popular and effective tool that communities are using in New York City and around the world to return the streets to local residents. Cities considered the most livable in the country, like Seattle, Washington; Boulder, Colorado; and Portland, Oregon have embraced traffic calming. And New York City is beginning to use it on a wider basis because people like you have begun increasing the pressure to do something to make walking safer and protect neighborhood quality of life.

### Mainstream Practice

Thanks to these efforts, traffic calming is now a mainstream practice in the United States and throughout the world. Federal legislation, including the Intermodal Surface Transportation Efficiency Act of 1991, has helped guide transportation planners to look beyond increasing the flow of motorists through an area to the needs of the people living, walking and bicycling in that area. Both the Federal Highway Administration and Institute of Transportation Engineers have made traffic calming a priority, and the American Association of State Highway and Transportation Officials have begun to incorporate traffic calming into its literature. Even AAA is intrigued by traffic calming; the New York chapter offered it as a solution to neighborhood traffic problems in its December 1997 issue of *Car & Travel*.

It doesn't take a trained expert to see the value of traffic calming on New York City's streets. In a city where the majority of people do not own cars and depend on

Traffic crashes are a serious public health epidemic in New York City.

## TRAFFIC CALMING Is The Right Solution

**SAFER:** Devices that elevate or narrow sections of the street force drivers to pay attention and slow down, decreasing the chances that a driver will hit people walking or bicycling.<sup>5</sup>

**SELF-ENFORCING:** Unlike crossing guards or other police officers, traffic calming devices are always on duty, 24 hours a day, 7 days a week.

**CHEAP:** The cost of traffic calming varies by device, but most traffic calming devices are inexpensive. Plus, because traffic calming devices help reduce deaths and fatalities, the City saves money on emergency care.<sup>6</sup>

**QUIETER:** When there is less driving and less speeding, noise levels also decrease. Effective traffic calming means slower, more constant speed and less stopping and starting. Less stopping and starting mean less noise from acceleration and braking.<sup>7</sup>

**GOOD FOR BUSINESS:** Studies have shown that people are more likely to shop in a walking friendly environment than on a congested, polluted and unpleasant street.<sup>8</sup>

**CLEANER:** When motorists travel at slower, more constant speeds, they accelerate and decelerate less often, which can reduce tailpipe emissions up to 50%.<sup>9</sup>

public transportation and walking, putting the needs of motorists first just doesn't make sense. In 1999, the State Legislature passed a bill authorizing the City of New York to establish speed limits below 25 mph to facilitate the use of traffic calming devices. Indeed, numerous city councilmembers, state legislators and federal legislators from around the city have advocated for and dedicated money to local traffic calming plans. These elected officials have recognized that New York City's safety, noise and pollution problem is no joke.

### Dangerous Streets

In metropolitan New York City, people walking are killed in traffic crashes at a rate more than twice the national average.<sup>10</sup> Children and seniors in particular face higher risks when

## Mom of six run down in Harlem

By BONY DELAGUARD and FERNANDA SANTOS

A mother of six was struck by a hit-and-run driver who walked home with witnesses.

## Bx. cab hits schoolgirl, 8

An 8-year-old Bronx girl was in critical condition last night after she was hit by a livery cab while walking to school, police said.

The injured girl, Norma Damaris Rosado, was taken to Lincoln Hospital and later transferred to Presbyterian Medical



## Brooklyn schoolboy hit by car

A 12-year-old Brooklyn boy was critically injured when he was hit by a car as he walked home from school yesterday, police said.

Jorge Mora was struck as he was crossing the street

near the intersection of Lorimer Street and Broadway, near IS 388, in Williamsburg, his aunt said. He was in critical condition at Bellevue Hospital.

"Oh, God, everyone's so sad," said the aunt, Evella

Andon. "He's got a lot of friends and a big family," Andon said that relatives were hopeful that Jorge would recover. The driver of the car that hit the boy was not charged. Zach Haberman



Children suffer disproportionately from traffic crashes. Getting hit by a driver is the number one cause of death and injury for New York children ages 5 to 9.

City traffic engineers and planners focus on “congestion mitigation” i.e., adjusting street design and traffic signal timing to maximize the flow of cars and trucks. It is easy to assume that traffic calming policies might conflict with this goal and lead to even more congestion. This assumption is false. Motorized traffic is not like water; if it can’t go through one place, it won’t necessarily just spill over somewhere else. Why? Because motorized

they walk. In New York City, getting hit by a motorist is the number one cause of death and injury for New York children ages 5 to 9.<sup>11</sup> Although seniors account for about 13% of the city’s population, they make up 33% of its pedestrian fatalities.<sup>12</sup> Compared to similar cities, walking in New York City is downright dangerous. Twenty-eight percent more people on foot are hurt or killed in New York City compared to London, an ethnically and economically diverse city that closely resembles New York City in size, land use and transportation mix.<sup>13</sup>

### The Best Solution

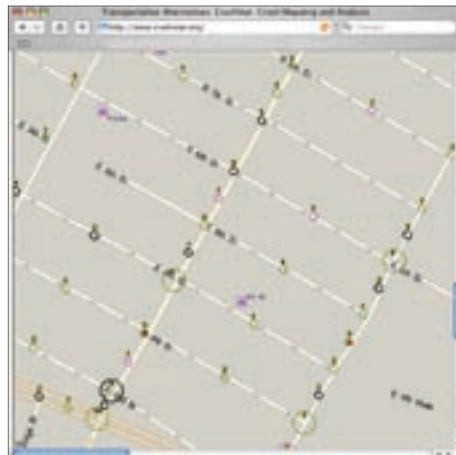
But is traffic calming the solution to this problem? Won’t traffic calming simply move the problem to someone else’s street? Most New York

traffic is not a force of nature, it’s a group of people. Unlike water, these people can make common sense decisions. This is especially true in New York City, where people have a wide variety of options for getting around: subway, bus, commuter rail, ferry, foot, bicycle or livery car service. When the City implements area wide traffic calming, drivers will rethink “shortcuts” through residential areas; they’ll switch back to the designated through-street or highway, drive during off-peak hours or take public transportation.<sup>14</sup>

### Success Stories

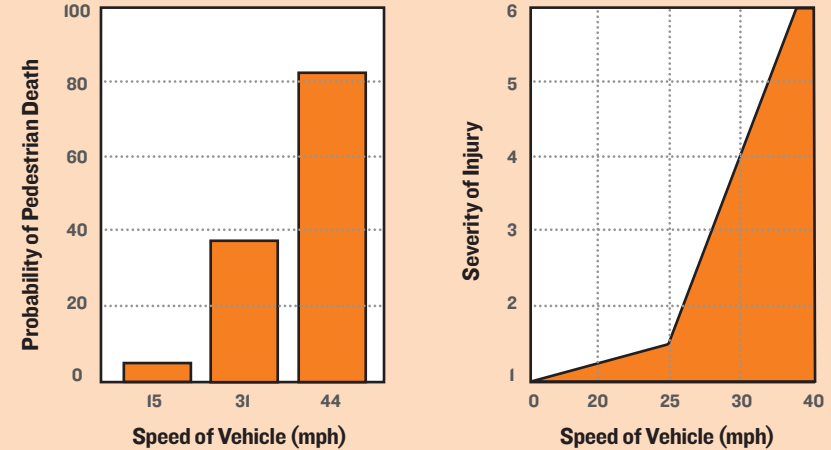
Want more proof? A massive British study commissioned by the respected London Transport and the Department of Environment, Transport and the Regions recently showed that

## CRASHSTAT



You can get the facts about the safety of your street by looking at Transportation Alternatives’ crash maps at [www.crashstat.org](http://www.crashstat.org).

## SPEED KILLS: The Surprising Facts



**M**any people are surprised to learn that what they consider to be relatively safe speeds are in fact extremely dangerous to people traveling on foot: 5% of people die when struck by motorists going 20 mph; 45% of people die when struck by motorists going 30 mph; and 85% of people die when struck by motorists going 40 mph.

Clearly, enforcing New York City’s 30 mph speed limit and reducing speeds even further to 15-20 mph is a public safety priority. Slower motorists are far less dangerous, less noisy and less polluting. Plus, reducing speeds also discourages highway drivers from using neighborhood streets as short cuts.

closing streets reduces motorized traffic. At fifty locations in the United States, Europe and Asia, researchers funded by the British government examined the traffic effects of closing major streets or bridges on surrounding areas. They found that in almost every instance, motorized traffic on surrounding streets decreased after the closures. The researchers concluded that, just as increasing space for driving increases the amount of overall motorized traffic, taking away space for driving decreases motorized traffic. For example, before the collapse of the West Side Highway in 1973, the road carried 110,000 vehicles a day. Afterwards, the remaining section carried 50,000 cars a day, but though there was less room for driving, there were no massive traffic jams in the area. In fact, overall north-south motorized traffic in Manhattan declined by 8%, or 50,000 vehicles.<sup>15</sup>

Though not nearly as dramatic as closing a highway, neighborhood traffic calming can also reduce the total amount of motorized traffic and make streets safer for people walking as well as drivers, wheelchair-bound individuals, bicyclists and people on their way to work, school and the subway. Crash rates have been reduced significantly in traffic calmed communities all over the world:

- **Seattle, WA:** Intersections where mini-roundabouts were installed have seen up to 90% fewer collisions.<sup>16</sup>
- **Oakland, California:** Children living on blocks with speed humps have a 53% to 60% lower chance of being injured or killed by motorists.<sup>17</sup>
- **London, England:** The introduction of 20 mph zones led to a 57% decrease in the number of people killed and seriously injured (60% for children) and a 42% decrease in the frequency of crashes that resulted in injuries.<sup>18</sup>

# YOUR TOOLBOX: Traffic Calming Solutions to Common Problems



## PROBLEM

### Speeding Drivers on Residential Streets

## SOLUTION



Speed Table

- A speed hump with a flat top. Speed tables work better than speed humps in New York City because they are easier to construct and are more adaptable to various conditions around the city. They also produce an easier ride, so drivers are less likely to complain.
- Can be used by itself or in a series of up to about five, depending on the context. More than that suggests another device should be used.
- Can be adapted for speeds ranging from 10-40 mph.
- Length ranges from 16-50 feet. For smaller spaces, a speed hump should be used.

## DESIGN CONSIDERATIONS

- Should be 3-4 inches high. Lower heights do not work.
- For use on streets with slopes of 8% or less.
- Should not be used on streets with regular city bus routes. May be used on streets with school bus or other routes.
- Should not be used where fire trucks or ambulances regularly traverse, i.e. directly in front of the fire house or hospital.
- No problem with sanitation and snow plowing.
- Where there is a park, school or playground, it should be located at or before (in the direction of travel) the entrance.
- Should be placed under a street light or directly after so that the light shines on the markings.
- Should be placed to avoid street utilities, especially directly after the device. Should not be placed directly in front of a driveway.
- Usually built with flat ramps but may have a sinusoidal (curved) profile. The latter produces a smoother ride.
- Should be as wide as the street minus about two feet for drainage. Can be narrower to avoid utilities, but this invites drivers to avoid the speed table by driving around it.
- Where there is a curb-side bicycling lane, the speed table should end at the edge of the bicycling lane.

## SOLUTION



Raised Crosswalk or Intersection

- A speed table at a crosswalk covering an entire intersection.
- Usually raised to sidewalk level, or slightly below.
- Works especially well when combined with curb extensions.

## DESIGN CONSIDERATIONS

- All design criteria for speed tables apply, except the height should equal the sidewalk, up to 6 inches.
- The transition between the crosswalk and sidewalk needs to be handled like a normal pedestrian ramp, i.e. a flat transition and truncated domes to make the change clear for people with limited vision.
- Should include bollards, trees, planters and street furniture on the curb line to make sure that drivers do not drive onto the sidewalk.

## SOLUTION



Curb Extensions/  
Bus Bulbs

- A horizontal extension of the sidewalk into the street at an intersection that reduces crossing distance, increases space for people on foot, reduces the space available for dangerous driving (passing on the right) and slows turning drivers.
- Especially helpful for enforcing truck turning prohibitions.
- Should only be used on streets with full-time on-street parking.
- Sometimes used as bus stops, where they decrease bus travel times because the bus doesn't have to pull in and out of traffic. This is known as a "bus bulb."

## DESIGN CONSIDERATIONS

- Curb extensions are generally 6 feet wide, which is just narrower than a car. They should not stick out past a parked car because this is where bicyclists ride. The exception is a chicane or pinch point (see below). If the parking lane is wider (diagonal parking), then the curb extension should be wider.
- The overall length should be greater than or equal to the width of the crosswalk.
- Specific signs and markings are not required for curb extensions. However some type of vertical element (tree, bollard, planter, sign) should be installed to alert snow plow drivers.
- Landscaping and street furniture help draw attention to the curb extension and may be used to direct the visually impaired.
- The curb extension may be detached from the curb for drainage purposes or to accommodate bicyclists. For the latter, a minimum of four feet is required.

## SOLUTION



### Chicane

- A series of curves introduced into an otherwise straight street. Drivers are forced to “slalom,” which slows them down. In New York City de facto chicanes often occur during street sweeping hours. Most vehicles are double parked but every now and then one vehicle is not. Drivers have to slowly “slalom” around this lone vehicle.
- Can be created by a series of curb extensions, islands, left and right turns or by simply alternating parking.
- Chicanes are best used on one- or two-lane roads with fairly full driving lanes so that drivers should not be able to avoid the chicane effect by changing lanes.
- Can be used on one- or two-way roads.

#### DESIGN CONSIDERATIONS

- Should have proper signs, lighting, landscaping and geometrics.
- If the chicane is designed to slow traffic to 20 mph or less, then bicyclists can safely merge with traffic. On streets where people are driving faster, then there should be a separate path for bicycling.

## SOLUTION



### Forced Turn

- An island at the mouth of an intersection, typically a triangle, that forces drivers to the left or right and doesn't let them go straight.
- Can include colored and/or textured pavement and landscaping.
- Also functions as a pedestrian refuge island.

#### DESIGN CONSIDERATIONS

- The top edge of the island should be in line with the preceding curb or curb extension.
- Bicyclists should still be allowed to go straight.

## SOLUTION



### Pinch Point

- A section of street that is narrowed dramatically, sometimes to one lane. Acts like a narrow bridge in slowing drivers.
- Can be created by curb extensions, islands, bollard or other geometric devices.
- Gives local residents space for planting and other landscaping.

#### DESIGN CONSIDERATIONS

- A single lane pinch point should be used only on streets with 2,000 average daily traffic or less.
- A double lane pinch point can be used on streets with up to 5,000 average daily traffic.
- Typically only 20 feet long, but may be shorter or longer to coordinate with pavement, streetscape, landscape or other urban design treatments. When it becomes longer than 50 feet, it turns into a narrowed street.
- If designed to slow drivers to 20 mph or less, then bicyclists can safely merge with drivers. At higher speeds, a path for bicyclists should be provided.

## SOLUTION



### Wider Sidewalks/ Narrower Street

- Driving lanes on New York City streets are typically 10-12 feet wide. Twelve feet is simply too wide for the urban context and all lanes should be narrowed to 10 feet or less.

- Slow drivers by 2-5 mph per foot.
- Reduce the crossing distance for pedestrians at the intersection and give people more room to walk on the sidewalk.
- Lanes can also be removed from serving drivers and designated for buses, bicycling or other uses.

#### DESIGN CONSIDERATIONS

- The right lane should be 11 feet wide on designated bus and truck routes.
- The right lane should be 13-14 feet wide to accommodate bicycling (where there is no bike lane).
- Adding trees, bollards, benches, lights and other tall sidewalk furniture further discourages speeding by visually narrowing the street.

## SOLUTION



### Bicycling Lane

- Narrows the driving lanes, which encourages drivers to go slower.
- On Oriental Boulevard in Brooklyn, the presence of a bicycle lane decreased average driving speeds 5-16% throughout the day.<sup>19</sup>
- Driving lanes can easily be converted into bike lanes; examples in New York City include Hudson and Lafayette Streets in Manhattan.

#### DESIGN CONSIDERATIONS

- Generally on the left side of the street in New York City.
- The preferred width is 6 feet (minimum 4 feet).
- A buffer can be striped between the bicycling and driving lanes to discourage drivers from crossing into the bicycling lane.
- Colored asphalt helps draw attention to the lane.

## PROFILE OF SUCCESS: Parents Can Win Safer Streets



This group of Bronx parents won a speed hump for their school, and so can you.

**A**fter four children were struck and injured and five successive crossing guards resigned, the parents at Bronx P.S. 90 knew that their school had a serious traffic safety problem. They also knew that mere signs and crosswalk paint were not going to make their children safe from speeding drivers; their children's lives demanded more robust traffic calming measures. Responding to calls from concerned parents from throughout the community, S.T.O.P. (Standing Together Organizing Parents) chose to divert resources from its education and lead paint campaigns to fight for a speed hump. Backed by the Citizens Advice Bureau's Julia Allen, S.T.O.P. won the backing of P.S. 90's Principal Patricia West, City Councilmember Helen Foster, State Assembly member Aurelia Green, Community Board 4, Bronx Borough President Adolfo Carrion and Transportation Alternatives.

“Parents must work together to get what we want for our kids. Even if we are denied something, we must still believe in what we want and work for it. You encourage yourself, and don't stop.”

– NELSY RAMOS, S.T.O.P Parent

## SOLUTION



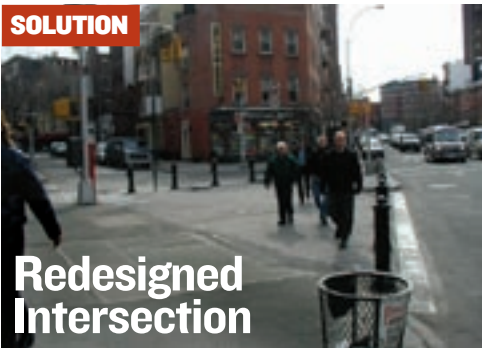
### Mini Roundabouts

- Small raised islands in intersections. Drivers travel around the circle.
- Unlike intersections with traffic lights or stop signs, every driver who travels through an intersection with a mini roundabout has to slow down.
- Operates on “yield on entry” principle.
- Fountains, sculpture or attractive landscaping can draw attention to the island and serve as a community icon.

#### DESIGN CONSIDERATIONS

- Drivers will slow down more if the island is high visible.
- To accommodate fire trucks and other large vehicles, a “truck apron” can be built at the perimeter of the circle. This is a slightly raised area on which trucks can travel, but other drivers tend to avoid.
- On-street bicycling lanes should end before a mini roundabout so that bicyclists mix with drivers going through the intersection. Bicycling lanes should not be marked within the circle. Off-street bicycling paths can be routed around the intersection entirely or end before the intersection so that bicyclists mix with drivers going through the intersection.

## SOLUTION



### Redesigned Intersection

- Complete redesign of the shape of an intersection to slow turning drivers, provide better sight lines, reduce crossing time for people on foot, provide a walking refuge area between different traffic directions, make drivers behave more predictably and improve driver compliance with stop or yield signs.

- The most common realignment converts a Y to a T intersection (the letters describe the shape of the street intersections). T intersections are far safer because they create less confusion, provide shorter crossing distances and force drivers to turn more slowly at corners.

#### DESIGN CONSIDERATIONS

- Reduce the driving turn radius by tightening the corner radius, installing a curb extension and/or installing a median or island.
- Get rid of excess signs and keep the space as uncluttered as possible.
- Use street markings to tell drivers where to go.

## SOLUTION

### Street Closing

- Street closures are the most commonly used cure for cut-through traffic. They are also the most controversial, and effective. All communities worry about the effects of closures on emergency response, street network connectivity and capacity on parallel local streets. Yet most communities, after the closure, find that they work without impeding access.
- Preserve access to homes and businesses while eliminating through traffic. It is not unlike creating a residential cul-de-sac or shopping plaza.
- Drivers have less access to the street, but people walking or bicycling have full access.

## SOLUTION



### Full Closure

- Closes a street to drivers at an intersection or midblock.

#### DESIGN CONSIDERATIONS

- Can range from a line of bollards or planters placed across the street, to a full street reconstruction complete with trees, landscaping and vehicle turnarounds.

- In a simple full closure, bollards or planters are installed in a line across the street with five feet gaps (for bicyclists). Drainage and curbs are not affected. In the center, a 10 foot wide gap is provided for EMS vehicles. This is designed in such a way as to allow careful access by EMS vehicles but not the general public.



### Half Closure

- Closes a street to drivers in one direction.
- May be installed at an intersection or midblock.
- Often occurs where the land use changes, i.e. residential to commercial or industrial.

#### DESIGN CONSIDERATIONS

- Bicyclists are allowed two-way access.
- Can accommodate emergency vehicles.

## SOLUTION

### Lower Speed Limit

Apply New York State laws that allow the City Department of Transportation to sign and design streets for speeds as low as 15 mph.

- The New York State Traffic Calming Law allows the New York City Department of Transportation to use a 15 mph speed limit on contiguous neighborhood streets as long as there are traffic calming devices.



- The New York State School Speed Limit Law gives the New York City Department of Transportation the authority to establish speed limits as low as 15 mph within 1,320 feet of a school.

#### DESIGN CONSIDERATIONS

- Works especially well if enforced with traffic calming or police officers.

## OVERRUN By Trucks!

Does unwanted truck traffic barrel through your neighborhood? Neighborhood-wide traffic calming will keep unwanted through traffic—especially trucks—out of your neighborhood. While traffic calming does not prevent truck drivers from entering a street, it does make streets undesirable as through routes. Therefore, truck drivers will be able to access your traffic calmed street to make a delivery or provide a service on that street. Your street won't be used as a shortcut.

**ARE YOU ON A TRUCK ROUTE?** If not, trucks shouldn't be there unless they're making local deliveries. Write to your police precinct or your Department of Transportation borough commissioner and ask them to enforce the law.

**ARE THE TRUCKS OVERSIZED?** New York City law limits trucks to 55 feet. If the trucks are longer than 55 feet, then their owners should receive significant fines. If you see tractor trailers with big interstate sleeper cabs, that's too big.



Signs alone will not keep trucks out. Curb extensions are an easy and effective way to keep trucks from using your street as a shortcut.



## PROBLEM

# Inappropriate Through-Traffic on Residential Streets

## SOLUTION



## Signal Progression

- The City Department of Transportation times traffic signals to allow motorists to drive a particular speed, and that speed is sometimes higher than the speed limit. The agency can retime the traffic signals to force drivers to drive slower throughout the neighborhood.

## SOLUTION

## Lower Speed Limit

Apply New York State laws that allow the City Department of Transportation to sign and design streets for speeds as low as 15 mph.

- The New York State Traffic Calming Law allows the New York City Department of Transportation to use a 15 mph speed limit on contiguous neighborhood streets as long as there are traffic calming devices.



- The New York State School Speed Limit Law gives the New York City Department of Transportation the authority to establish speed limits as low as 15 mph within 1,320 feet of a school.

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- Works especially well if enforced with traffic calming or police officers.

## SOLUTION



## Forced Turn

- An island at the mouth of an intersection, typically a triangle, that forces drivers to the left or right and doesn't let them go straight.
- Can include colored and/or textured pavement and landscaping.
- Also functions as a pedestrian refuge island.

### DESIGN CONSIDERATIONS

- The top edge of the island should be in line with the preceding curb or curb extension.
- Bicyclists should still be allowed to go straight

## SOLUTION

## Street Closing

- Street closures are the most commonly used cure for cut-through traffic. They are also the most controversial. All communities worry about the effects of closures on emergency response, street network connectivity and capacity and parallel local streets. Yet nearly all communities can cite a case or two where a street was closed, as a last resort, and it was justified.

## SOLUTION



## Full Closure

- Closes a street to drivers at an intersection or midblock.

### DESIGN CONSIDERATIONS

- Can range from a line of bollards or planters placed across the street, to a full street reconstruction complete with trees, landscaping and vehicle turnarounds.
- In a simple full closure, bollards or planters are installed in a line across the street with five feet gaps (for bicyclists). Drainage and curbs are not affected. In the center, a 10 foot wide gap is provided for EMS vehicles. This is designed in such a way as to allow careful access by EMS vehicles but not the general public.

## SOLUTION



## Half Closure

- Closes a street to drivers in one direction.
- May be installed at an intersection or midblock.
- Often occurs where the land use changes, i.e. residential to commercial or industrial.

### DESIGN CONSIDERATIONS

- Bicyclists are allowed two-way access.



## PROBLEM

# Dangerous Intersections

## SOLUTION



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## Raised Crosswalk or Intersection

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## SOLUTION



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- A horizontal extension of the sidewalk into the street at an intersection that reduces crossing distance, increases space for people on foot, reduces the space available for dangerous driving (passing on the right) and slows turning drivers.
- Especially helpful for enforcing truck turning prohibitions.
- Most effective way to raise drivers' awareness of people waiting to cross.
- Should only be used on streets with full-time on-street parking.
- Sometimes used as bus stops, where they decrease bus travel times because the bus doesn't have to pull in and out of traffic. This is known as a "bus bulb."

### DESIGN CONSIDERATIONS

- Curb extensions are generally 6 feet wide, which is just narrower than a car. They should not stick out past a parked car because this is where bicyclists ride. The exception is a chicane or pinch point (see below). If the parking lane is wider (diagonal parking), then the curb extension should be wider.
- The overall length should be greater than or equal to the width of the crosswalk.
- Specific signs and markings are not required for curb extensions. However some type of vertical element (tree, bollard, planter, sign) should be installed to alert snow plow drivers.
- Landscaping and street furniture help draw attention to the curb extension and may be used to direct the visually impaired.
- The curb extension may be detached from the curb for drainage purposes or to accommodate bicyclists. For the latter, a minimum of four feet is required.

## TRAFFIC LIGHTS & STOP SIGNS Are NOT The Answer

Many communities turn to traffic lights or stop signs as the solution to dangerous intersections and speeding. Yet these conventional traffic control devices are not always as effective and easy to get as traffic calming.

### NOT DESIGNED FOR YOUR SAFETY

Traffic lights and stop signs were not designed as speed control or walking safety devices. They were designed to control the flow of drivers and to make sure that drivers don't crash into each other at intersections. Therefore, in many cases, they do little to slow drivers or keep people walking safe. Indeed, traffic lights and stop signs can exacerbate conflicts and they may make an intersection more dangerous. If a driver approaches an intersection when the light is green, s/he will have no incentive to slow down. If the light is yellow, a driver may even speed up in order to catch the light. Mini roundabouts and speed tables, on the other hand, consistently slow motorists and improve walking safety.

### HARD TO GET

The City Department of Transportation relies upon a federal government publication called the Manual of Uniform Traffic Control Devices (MUTCD) to provide it with standards and criteria for installing traffic lights and stop signs. The MUTCD provides a detailed list of conditions that must be met at an intersection before a traffic light or stop sign can be installed. Speed tables and other traffic calming devices do not have to meet the same set of conditions that restrict the installation of traffic lights and stop signs.

### EXPENSIVE

Traffic lights are expensive to install and need regular maintenance. Signals cost \$50,000 to \$100,000 each and require regular maintenance as well as a continuous flow of electricity. Traffic calming devices, on the other hand, can cost as little as \$2,000 and, because they have no mechanical parts, require little maintenance.<sup>21</sup>

### NOT SELF-ENFORCING

If the City installs stop signs or signals at places where drivers perceive no need for them, drivers will ignore them without additional police enforcement.<sup>22</sup> Traffic calming devices, on the other hand, are physically self-enforcing, so drivers must obey them.

## SOLUTION



## Signal Timing

- Leading Pedestrian Intervals give people on foot a head start (three to eight seconds) before the light turns green for turning drivers. This allows the people walking to get about half way into the intersection before drivers start turning, making them more visible to drivers.
- Leading Pedestrian Intervals have reduced pedestrian injuries by 26% and pedestrian injury severity by 36% in New York City.
- Lengthening the WALK phase at a traffic signal gives people on foot more time to cross and is especially helpful for people who walk slower, like children and senior citizens. Some people cross the street at up to 7 feet per second, but children and seniors only walk at 3 feet per second.

### DESIGN CONSIDERATIONS

- Twelve inch signal heads on the traffic lights are easier to see.

## SOLUTION



## Mini Roundabouts

- Small raised islands in intersections. Drivers travel around the circle.

- Unlike at intersections with traffic lights or stop signs, every driver who travels through an intersection with a mini roundabout has to slow down.
- Operates on a “yield on entry” principle.
- Fountains, sculpture or attractive landscaping can draw attention to the island and serve as a community icon.

### DESIGN CONSIDERATIONS

- Drivers will slow down more if the island is high visible.
- To accommodate fire trucks and other large vehicles, a “truck apron” can be built at the perimeter of the circle. This is a slightly raised area on which trucks can travel, but other drivers tend to avoid.
- On-street bicycling lanes should end before a mini roundabout so that bicyclists mix with drivers going through the intersection. Bicycling lanes should not be marked within the circle. Off-street bicycling paths can be routed around the intersection entirely or end before the intersection so that bicyclists mix with drivers going through the intersection.

## SOLUTION



## Redesigned Intersection

- Complete redesign of the shape of an intersection to slow turning drivers, provide better sight lines, reduce crossing time for people on foot, provide a walking refuge area between different traffic directions, make drivers behave more predictably, give bicyclists a more predictable route and improve driver compliance with stop or yield signs.
- The most common realignment converts a Y to a T intersection. T intersections are far safer because they create less confusion, provide shorter crossing distances and force drivers to turn more slowly at corners.

### DESIGN CONSIDERATIONS

- Reduce the driving turn radius by tightening the corner radius, installing a curb extension and/or installing a median or island.
- Get rid of excess signs and keep the space as uncluttered as possible.
- Use street markings to tell drivers where to go.



## PROBLEM

# Scary Big Streets

## SOLUTION



## Diagonal Parking

- Drivers park diagonally rather than parallel to the curb.
- The narrowed street encourages drivers to slow down.
- Drivers are more aware of all activity around them, including people walking, because of all of the conflicting motion.
- Can add up to 40% more parking space than parallel parking.

### DESIGN CONSIDERATIONS

- Diagonal parking in New York City is back-in, which means drivers exiting the space have a better view of other street users.

- The length of a space (whether individually marked or not) is typically 20-22 feet.
- Should be combined with curb extensions.
- Coloring the pavement of the parking lane can make the street look narrower.
- Typically only installed on streets with little motorized traffic.

## SOLUTION



## Medians, Striped & Raised

- A median in the center of a divided roadway, i.e. Broadway and Park Avenue in Manhattan, Fourth and Atlantic Avenues in Brooklyn, Queens Boulevard in Queens and Mosholu and Pelham Parkways in the Bronx.
- Drivers slow down because the street looks narrower.

- Striped medians are a poor substitute for raised medians. Drivers generally have no problem with driving over painted lines, but generally avoid running into a curb.
- The Parks Department has a program to landscape medians striped by the Department of Transportation.

#### DESIGN CONSIDERATIONS

- Striped medians, though a poor substitute for raised medians, can be used to test whether a permanent median will work.

#### SOLUTION



## Pedestrian Refuge Island

- Raised islands located along the center of a street that provide a safe place for people waiting to cross the street.
- Can be nicely landscaped.
- Bollards placed on the island tips protect people waiting.

#### DESIGN CONSIDERATIONS

- Refuge islands should not be less than 6 feet wide. This width allows a person with a stroller to be fully protected by the median; smaller widths will expose the stroller to the driving lane.
- Must comply with the Americans with Disabilities Act.
- The narrowed street should safely accommodate bicycling.

#### SOLUTION



## Signal Timing

- Leading Pedestrian Intervals give people on foot a head start (three to eight seconds) before the light turns green for turning drivers. This allows people on

foot to get about half way into the intersection before drivers start turning, making them more visible to drivers.

- Leading Pedestrian Intervals have reduced pedestrian injuries by 26% and pedestrian injury severity by 36% in New York City.
- Lengthening the WALK phase at a traffic signal gives people on foot more time to cross and is especially helpful for people who walk slower, like children and senior citizens. Some people cross the street at up to 7 feet per second, but children and seniors only walk at 3 feet per second.

#### DESIGN CONSIDERATIONS

- Twelve inch signal heads on the traffic lights are easier to see.

#### SOLUTION



## Curb Extensions/ Bus Bulbs

- A horizontal extension of the sidewalk into the street at an intersection that reduces crossing distance, increases space for people on foot, reduces the space available for dangerous driving (passing on the right) and slows turning drivers.
- Especially helpful for enforcing truck turning prohibitions.
- Should only be used on streets with full-time on-street parking.
- Sometimes used as bus stops, where they decrease bus travel times because the bus doesn't have to pull in and out of traffic. This is known as a "bus bulb."

#### DESIGN CONSIDERATIONS

- Curb extensions are generally 6 feet wide, which is just narrower than a car. They should not stick out past a parked car because this is where bicyclists ride. The exception is a chicane or pinch point (see below). If the parking lane is wider (diagonal parking), then the curb extension should be wider.

- The overall length should be greater than or equal to the width of the crosswalk.
- Specific signs and markings are not required for curb extensions. However some type of vertical element (tree, bollard, planter, sign) should be installed to alert snow plow drivers.
- Landscaping and street furniture help draw attention to the curb extension and may be used to direct the visually impaired.
- The curb extension may be detached from the curb for drainage purposes or to accommodate bicyclists. For the latter, a minimum of four feet is required.

#### SOLUTION



## Speed Table

- A speed hump with a flat top. Speed tables work better than speed humps in New York City because they are easier to construct and are more adaptable to various conditions around the city. They also produce an easier ride, so drivers are more likely to like them.
- Can be used individually or in a series of up to about five, depending on the context. More than that suggests another device should be used.
- Can be adapted for speeds ranging from 10-40 mph.
- Length ranges from 16-50 feet. For smaller spaces, a speed hump should be used.

#### DESIGN CONSIDERATIONS

- Should be 3-4 inches high. Lower heights do not work.
- For use on streets with slopes of 8% or less.
- Should not be used on streets with regular city bus routes. May be used on streets with school bus or other routes.
- Should not be used where fire trucks or ambulances regularly traverse, i.e. directly in front of the fire house or hospital.
- No problem with sanitation and snow plowing.
- Where there is a park, school or playground, it should be located at or before (in the direction of travel) the entrance.
- Should be placed under a street light or directly after so that the light shines on the markings.
- Should be placed to avoid street utilities, especially directly after the device. Should not be placed directly in front of a driveway.
- Usually built with flat ramps but may have a sinusoidal (curved) profile. The latter produces a smoother ride.
- Should be as wide as the street minus about two feet for drainage. Can be narrower to avoid utilities, but this invites drivers to avoid the speed table by driving around it.
- Where there is a curb-side bicycling lane, the speed table should end at the edge of the bicycling lane.

## SAFETY IN NUMBERS: The More People Walking, the Safer

If walking is so dangerous, wouldn't it be safer just not to walk? Interestingly, the answer is no. A mounting body of research conducted in a wide range of cities, intersections and time periods, proves just the opposite: as walking increases, the chance that a given walker will be struck by a driver actually decreases. The main cause for this "safety in numbers" phenomenon is simply that, as drivers become more accustomed to seeing people on foot on the street, they become more attentive and cautious overall.

Most street-safety campaigns place the burden on the potential crash victim. While it's important that people on foot understand risk and act accordingly, these types of campaigns convey the powerful negative message that people are better off driving than being in harm's way. Their end result may be to make walking more dangerous to the extent that they encourage people to stay at home or use cars.

Instead of "get out of the way" campaigns, we need messages that discourage and place the onus on drivers to increase their awareness of walkers. Great Britain is showing the way with its true-to-life and shocking campaigns, "Kill your Speed, Not a Child" and "THINK! Slow Down." After two years of ads, the proportion of drivers to whom it is "extremely unacceptable" to drive 40 mph in a 30 mph zone increased by 15% over pre-campaign levels. During a one-year airing of the "THINK! Slow Down" campaign, drivers exceeding the 30 mph limit fell by 10%.

To make the streets safer, we need to support walkers instead of maintaining a "blame the victim" mentality. The City should encourage walking while also making drivers accountable for their conduct to make streets safer for everyone.



## SOLUTION



### Bicycling Lane

- Narrows the driving lanes, which encourages drivers to go slower.
- On Oriental Boulevard in Brooklyn, the bicycle lane decreased average driving speeds 5-16% throughout the day.<sup>20</sup>
- Driving lanes can easily be converted into bike lanes; examples in New York City include Hudson and Lafayette Streets in Manhattan.

#### DESIGN CONSIDERATIONS

- Generally on the left side of the street in New York City.
- The preferred width is 6 feet (minimum 4 feet).
- A buffer can be striped between the bicycling and driving lanes to discourage drivers from crossing into the bicycling lane.
- Colored asphalt helps draw attention to the lane.

## SOLUTION



### Wider Sidewalks/ Narrower Street

- Driving lanes on New York City streets are typically 10-12 feet wide. Twelve feet is simply too wide for the urban context and all lanes should be narrowed to 10 feet or less.

- Slow drivers by 2-5 mph per foot.
- Reduce the crossing distance for pedestrians at the intersection and give people more room to walk on the sidewalk.
- Lanes can also be removed from serving motorists and designated for buses, bicycling or other uses.

#### DESIGN CONSIDERATIONS

- The right lane should be 11 feet wide on designated bus and truck routes.
- The right lane should be 13-14 feet wide to accommodate bicycling (where there is no bike lane).
- Adding trees, bollards, benches, lights and other tall sidewalk furniture further discourages speeding by visually narrowing the street.

## SOLUTION



### Redesigned Intersection

- Complete redesign of the shape of an intersection to slow turning drivers, provide better sight lines, reduce crossing time for people on foot, provide a walking refuge area between different traffic directions, make drivers behave more predictably, give bicyclists a more predictable route and improve driver compliance with stop or yield signs.
- The most common realignment converts a Y to a T intersection (the letters describe the shape of the street intersections.) T intersections are far safer because they create less confusion, provide shorter crossing distances and force drivers to turn more slowly at corners.

#### DESIGN CONSIDERATIONS

- Reduce the driving turn radius by tightening the corner radius, installing a curb extension and/or installing a median or island.
- Get rid of excess signs and keep the space as uncluttered as possible.
- Use street markings to tell drivers where to go.

## Action Plan

**S**ICK OF DANGEROUS AND NOISY motorized traffic barreling through your neighborhood? You can do something about it.

To get safer and quieter streets, you'll have to identify the problems, develop a plan and get support from your community and elected officials.

### 1. Identify the problem.

This first step is the most important.

You must have a solid understanding of what the problems are in your area. Is there too much speeding? Too many people driving through your street? Are you and your neighbors worried about the safety of your children or elderly friends and relatives? When you request traffic calming from the City Department of Transportation, you may encounter excuses, not solutions. But if you always frame your arguments in terms of solving the problems on your street, then a "no" to any of the elements listed in this book simply puts the responsibility on the naysayer to come up with an acceptable solution that still solves your problems.

### 2. Identify interested parties.

Who do you want on your side, and who can you call on for assistance? Consider:

- Local residents/tenant associations
- Local business people
- Chamber of Commerce
- The Metropolitan Transit Authority if bus lines are involved
- City Department of Transportation Borough Commissioner
- Community Board
- Elected officials
- Other civic groups



Fed up Brooklyn residents successfully won a full traffic calming study. You can too.

### 3. Notify the interested parties, describe your problem and invite them to participate in creating a solution.

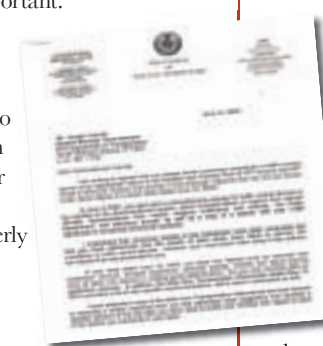
You might even want to invite them to come and see the problems themselves. If the problems are sporadic, set up a "field visit" where people can come at a specific time and meet with you to see the problems.

### 4. Develop a solution.

Work with your neighbors and the interested parties to come up with a list of traffic calming solutions that you'd like to see installed. Explain how each traffic calming measure will help solve the specific problem you've identified.

### 5. Develop support and apply it to the solution.

This step is why you made a list of "interested parties" and invited them to participate in creating the solution; you'll need them to help get something done. Ask elected officials and the community board for their support and help calling on the City Department of Transportation to implement your plan. Everyone you convince to write a letter or postcard of support will bring you one step closer to making your streets safer and calmer. Sometimes you will also need to ask your elected officials for money for the project.



Ask your elected officials and other groups to support your effort.

## Key Contacts

### TRANSPORTATION ALTERNATIVES

6,000 member public interest group whose advocacy introduced the term “traffic calming” to New York City.

#### Transportation Alternatives

115 West 30th Street  
New York, NY 10001  
Phone: 212-629-8080  
Fax: 212-629-8334  
info@transalt.org  
www.transalt.org

### YOUR ELECTED OFFICIALS

Visit [www.nypirg.org](http://www.nypirg.org) and click on “Who Represents Me?” to find the names and contact information of all of your elected representatives. Or, call 311 and a live person will give you the contact information of all of your elected representatives.

### NEW YORK CITY DEPARTMENT OF TRANSPORTATION BOROUGH COMMISSIONERS:

Your liaison to the New York City Department of Transportation.

#### Bronx Borough Commissioner

1400 Williamsbridge Road  
Bronx, NY 10461  
Phone: 718-792-8010x117  
Fax: 718-409-2664

#### Brooklyn Borough Commissioner

16 Court Street #1108  
Brooklyn NY 11241  
Phone: 718-222-7259  
Fax: 718-222-7256

#### Lower Manhattan Borough Commissioner

40 Worth Street 10th Floor  
New York NY 10013  
Phone: 212-788-8989  
Fax: 212-788-8986

#### Manhattan Division Borough Commissioner

40 Worth Street 11th Floor  
New York, NY 10013  
Phone: 212-442-7447  
Fax: 212-442-7260

#### Queens Borough Commissioner

30-30 Thomson Avenue, 5th Floor North  
Long Island City, NY 11101  
Phone: 718-391-2718  
Fax: 718-391-2709

#### Staten Island Borough Commissioner

10 Richmond Terrace, Room 300  
Staten Island, NY 10301  
Phone: 718-816-2373  
Fax: 718-816-2385

### NEW YORK CITY DEPARTMENT OF TRANSPORTATION

[www.nyc.gov/dot](http://www.nyc.gov/dot)

### NEW YORK CITY COMMUNITY BOARDS

[www.nyc.gov/html/cau/html/cb/cb\\_find.shtml](http://www.nyc.gov/html/cau/html/cb/cb_find.shtml)

## Important Tips

- **Write a letter.** Elected and city agency officials place more value on a letter than a phone call. Plus, a letter is a record of your request; remember, if it's not written down, it didn't happen. Getting your neighbors to write short letters of support can be a big help; keep copies of these letters as well.
- **Start a file.** Keep copies of all your letters and notes, along with replies from officials. Also keep copies of letters that your supporters send. You should also clip and keep news stories about traffic crashes in your neighborhood.
- **Send a copy of all correspondence to your city councilmember.**
- **Send a copy of all correspondence to your community board.** Community boards are supposed to be your liaison to the bureaucracy. Keep the board informed so it can get involved if needed.
- **Contact your City Department of Transportation Borough Commissioner.** Each borough in New York City is represented by a DOT Borough Commissioner, whose job is to deal with community concerns. If your Borough Commissioner doesn't know about what's happening on your block, take a minute to write or call her or him. If s/he has already heard from you, get your friends and neighbors to take a minute to write or call.

## Frequently Asked Questions

**1 What are the legal issues surrounding the installation of traffic calming devices? What are government's rights and responsibilities regarding traffic calming?**

Traffic calming is a political, not a legal, issue. The City Department of Transportation may cite legal obstacles and the threat of lawsuits as excuses for not installing traffic calming devices. But these excuses have no basis in reality. City agencies are not prevented by law from implementing traffic calming techniques. In New York State, the Vehicle and Traffic Law gives local traffic agencies the freedom to use their discretion when implementing traffic control devices. Indeed, hundreds of traffic calming devices in the five boroughs have existed for years without a lawsuit. Other cities throughout the country, such as Seattle, Washington; Portland, Oregon; Arlington, Virginia; Montgomery County, Maryland; and Bridgeport, Connecticut have installed traffic calming devices without lawsuits.<sup>23</sup>

**2 If traffic is reduced on my block where will it go? Will it wind up on my neighbor's block?**

Neighbors are rightfully concerned that if one street in their neighborhood is traffic calmed, motorists may choose instead to drive on the next block over even though traffic calming usually leads to a decrease in the overall amount of motorized traffic. This is why neighborhood-wide traffic calming is so important. However, keep in mind that traffic engineers frequently don't account for the fact that motorized traffic isn't a force of nature, so they may present you with inaccurate doomsday gridlock scenarios. You should always question what you hear from the City's traffic engineers; ask them if they've factored in walking traffic data and the likelihood of drivers choosing better driving routes or switching to the subway, bus or ferry. Make sure you get a hard copy of the Department of Transportation's full study. You can also encourage them to conduct experiments to see if a traffic calming idea will work.

## CASE STUDY: Mulry Square

Temporary materials will reduce the cost and also test the effectiveness of a permanent traffic calming plan. At Mulry Square in Manhattan, the City painted lines at the corners to simulate curb extensions and installed temporary bollards at the outer edges of the curb extensions to discourage motorists from driving over the painted areas; eventually, the City converted these temporary measures into attractive permanent measures.



BEFORE



AFTER: Temporary Improvements



AFTER: Permanent Improvements

**3 How much does traffic calming cost?**

The cost of traffic calming applications varies from project to project and depends on the size of the project, materials used, varying regional labor costs, etc. Keep in mind, though, that what

may seem like a lot of money is often small when compared to other street projects. For example, simply repaving one mile of street costs \$100,000 to \$400,000!<sup>24</sup> Also, reducing the number of crashes can lead to big savings in legal and medical costs, especially when the City gets sued for causing the crash (a regular occurrence). In the end, implementing a traffic calming plan on your street is a matter of politics. The money is there if your elected officials get behind you. However, there are ways to bring down the cost:

● **Is the area or street due for reconstruction?**

Occasionally, streets have to be completely reconstructed. Rebuilding the street with a traffic calming design under this situation can cost almost exactly the same amount as returning the street to its previous condition. Check out [www.ci.nyc.ny.us/html/ddc/home.html](http://www.ci.nyc.ny.us/html/ddc/home.html), the Web site of the City Department of Design and Construction, to see if your street is scheduled for reconstruction.

● **Can temporary measures be designed?**

The Department of Transportation may come back with an inflated cost estimate that assumes ripping up drains or utilities to accommodate traffic calming. If this happens, ask if the agency can use temporary measures to simulate the effect. Temporary materials will reduce the cost and also test the effectiveness of a permanent traffic calming plan. At Mulry Square in Manhattan, the City painted lines at the corners to simulate curb extensions and installed temporary bollards at the outer edges of the curb extensions to discourage motorists from driving over the painted areas; eventually, the City converted these temporary measures into attractive permanent measures. This tactic is especially useful if your street is scheduled to be reconstructed, but not for a few years.

● **Can inexpensive regulatory measures like street reversals be used to lessen the need for capital construction?** Very often, regulatory measures like street reversals, parking regulations and speed limits involve little or no construction. They are inexpensive to implement, yet can have profound effects on calming motorized traffic.

**4** **What about access for emergency vehicles? Won't traffic calming slow them down as well?**

Traffic calming devices can be designed and built to accommodate emergency vehicles, while

still controlling the behavior of other motorists. For example, the City can cut channels into a speed table to allow a fire truck with a wide wheel base to pass over it without slowing down. These channels would be too far apart, however, to accommodate an automobile. Emergency vehicles can also easily ignore street reversals and speed limits.<sup>25</sup>

In order to insure that traffic calming is successfully implemented, traffic planners and emergency services officials must cooperate to



**Traffic calming can be designed to accommodate emergency vehicles.**

find solutions to access problems. In Seattle, the Fire Department and the Department of Transportation are in constant communication about the design of traffic calming devices. When the City proposes a mini roundabout, representatives from both agencies meet at the project site and use cones to test whether firefighters can negotiate the proposed mini roundabout without significant loss of time. Fire and Transportation Department officials then discuss the design and agree upon appropriate dimensions. This cooperation is possible because the Seattle Department of Transportation has taken the time to make presentations to Fire Department officials, educating them about the safety benefits of traffic calming. As a result, the Fire Department is able to see the bigger picture, and realize that the Department of Transportation and the Fire Department are striving toward the same goal: saving lives. As a result, the Fire Department agrees to concede a few seconds of response time in the interest of overall public safety.<sup>26</sup>

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- 1 Donald Appleyard and Mark Lintell, "Environmental Quality of City Streets: The Residents' Viewpoint," *Highway Research Record 356* (National Academy of Sciences—National Academy of Engineering, Highway Research Board, 1971), 69-84.
- 2 R. Limpert, *Motor Vehicle Accident Reconstruction and Cause Analysis*. (Charlottesville, VA: Michie Company, 4th ed. 1994), 663.
- 3 Wolfgang S. Homburger and others, eds., *Residential Street Design and Traffic Control* (Institute of Transportation Engineers, Prentice Hall, 1989), 58.
- 4 Michael S. Scott, "Speeding in Residential Areas," *The Problem-Oriented Guide for Police Series* (United States Department of Justice, Office of Community Oriented Policing Services, 2001), 12.
- 5 Reid Ewing, *Traffic Calming: State of the Practice*, U.S. Department of Transportation Federal Highway Administration (Institute of Transportation Engineers: 1999), 103.
- 6 Ewing, *Traffic Calming*, 58. The cost of traffic calming devices vary. Speed humps are consistently the least expensive option and usually cost no more than a couple thousand dollars. Costs increase quickly when measures require landscaping, draining improvements or land acquisition. Seattle estimated that its savings in property and casualty losses thanks to traffic calming were estimated to be in the millions of dollars each year.
- 7 Ewing, *Traffic Calming*, 116. A study in Boulder, CO found that traffic circles were perceptibly less noisy than untreated streets. Raised crossings also produced lower and more uniform noise levels than did untreated streets. "Interestingly, since STOP signs are viewed as a panacea for traffic problems by many citizens and elected officials, this option may be the worst from a noise standpoint. Although deceleration is relatively quiet, acceleration from rest or near rest is not. Noise levels rise until drivers shift gears, and then rise again until they shift again."
- 8 Carmen Hass Klau, "Impact of Pedestrianization and Traffic Calming in Retailing: A Review of the Evidence from Germany and the UK," *Transport Policy*, Vol. 1, No. 1 (1993), 21-31.
- 9 Brian Ketcham and Charles Komanoff, *Win-Win Transportation: A No-Losers Approach To Financing Transport in New York City and the Region* (Brooklyn: Konheim & Ketcham, 1992 Draft).
- 10 *Mean Streets 2002: Pedestrian Safety, Health and Federal Transportation Spending* (Washington D.C.: Surface Transportation Policy Project, 2002), 10.
- 11 "Injury Facts for New York State," *Injury Control Program* (Albany: New York State Department of Health, 1997).

12 NYCDOT Commissioner Iris Weinshall, *Seniors Out for Safety* (New York: NYCDOT, 2004).

13 In 1984, London actually had more pedestrian deaths than New York: 300 versus 293. Yet, by 1997, London had reduced its pedestrian fatalities to 150, compared to 249 here. And, most importantly, London did not stop there. In 2000, the city's transportation officials seized the opportunity to further reduce pedestrian fatalities and injuries; responding to Mayor Ken Livingston's strong mandate to make the city's transportation system safe, fast, sustainable and accessible, the agency set goals for making Livingston's vision a reality. In 2003, London's pedestrian fatality total was 111.

14 Anthony Downs, *Stuck in Traffic: Coping with Peak Hour Traffic Congestion* (Washington D.C.: The Brookings Institution and the Lincoln Institute of Land Policy, 1992).

15 Sally Cairns, Carmen Hass-Klau and Phil Goodwin, *Traffic Impact of Highway Capacity Reductions: Assessment of the Evidence* (London: London Transport, 1998).

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18 "Mayor's Proposed London-wide Transport Strategy" (London: Office of the Mayor, 2004).

19 *Oriental Boulevard: Bicycle Lane Impacts Final Report*, (New York: New York City Department of Transportation, 2004), 3-4.

20 *Oriental Boulevard: Bicycle Lane Impacts Final Report*, (New York: New York City Department of Transportation, 2004), 3-4.

21 Ewing, *Traffic Calming*, 58.

22 Homburger, *Residential Street Design*, 80.

23 Ewing, *Traffic Calming*, 127-137.

24 *1991 Transportation Costs Report* (Florida: Florida Department of Transportation Office of Policy Planning and Economic Analysis, 1991), 4.

In 1990, national average cost of resurfacing a two-lane road was \$506,000 per mile and national average cost of adding two lanes to a two-lane road was \$1,912,000 per mile.)

25 See Ewing, *Traffic Calming*, 138-153 for a discussion of emergency response concerns.

"As reported by the Portland, OR, Bureau of Traffic Management, this challenge will require 'public policies, traffic calming practices, and emergency response strategies that strike a balance between the desire for slower and safer traffic conditions and the desire for prompt emergency response.'" (138)

26 "Neighborhood Traffic Calming: Seattle's Traffic Circle Program," in the *Institute of Transportation Engineers District 6 Annual Meeting in Salt Lake City, Utah, July 20-23, 1997* (Salt Lake City: ITE, 1997).

# TRAFFIC CALMING Is The Right Solution



**Safer • Self-Enforcing • Cheap • Quieter**



**Good for Business • Cleaner**

**Transportation  
ALTERNATIVES**

New York City's Advocates for Walking,  
Bicycling and Sensible Transportation