

Safety Demonstration Projects

Case studies from Orlando, FL, Lexington, KY, and South Bend, IN



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Introduction

Even after decades of safety improvements, more people are now dying on our roadways every year, especially people walking. This happens in part because we continue to design our streets to prioritize moving cars—not people—as quickly as possible, creating a dangerous, high-speed environment for all people who use the street. To test out creative approaches to safer street design, the National Complete Streets Coalition launched the Safe Streets Academy. We worked with three cities around the country to build skills in safer street design, creative placemaking, and community engagement, then helped the cities put these skills into practice. Through demonstration projects, the City of Orlando, FL, the Lexington-Fayette Urban County Government, KY, and the City of South Bend, IN transformed their streets, intersections, and neighborhoods into slower, safer places for people. Communities around the country can learn from the stories of these demonstration projects to test out low-cost ways to create safer streets.

In 2016, more than 37,000 people died in traffic crashes in the United States, including almost 6,000 people walking, and sadly, these numbers are continuing to rise. Since 2011, traffic fatalities increased by 15 percent, and pedestrian fatalities went up more than twice as quickly, rising by 34 percent.¹

These deaths are not accidents. For decades, we have prioritized moving cars, not people, as quickly as possible on our roadways, creating an environment that's dangerous by design for all people who use the road.² Wide, straight, multi-lane roads encourage people to drive at high speeds, making crashes more likely—and more deadly.

These deaths are also preventable. We know how to create safer street environments, and for more than 10 years the National Complete Streets Coalition (NCSC) has been at the forefront of helping advocates and public officials change their policies and practices to improve safety and convenience for all people who use the street, including people walking or biking.

Governments, advocacy organizations, and professional associations across the country are also embracing a movement known as Vision Zero by committing to eliminate all traffic fatalities and severe injuries, as well as improve mobility. The Road to Zero Coalition helps lead this movement by bringing together almost 700 member organizations, all dedicated to the common goal of zero deaths on our roadways by the year 2050.³ Achieving this goal and saving lives will require a variety of different strategies, including deploying safer vehicles with crash prevention technologies and connecting people to better, faster trauma care following crashes.

Key terms to know

Creative placemaking = using arts, culture, and creativity—especially from underrepresented communities—to plan and design projects that better serve the community and celebrate local culture, heritage, and values.

Demonstration projects = making temporary improvements or changes to test how well they perform and demonstrate to the community the potential benefits.

Proven safety countermeasures⁴ = evidence-based street treatments recommended by the Federal Highway Administration to slow down traffic and improve safety for all people who use the street, including people walking, biking, and driving.

Tactical urbanism = a creative, often community-led approach that uses low-cost, temporary materials to transform streets and public spaces.

Vision Zero = a movement that combines strategies from a variety of disciplines to systemically work toward eliminating all traffic fatalities and serious injuries.

But to truly address the roots of the problem and protect the most vulnerable people who use the road, we must prioritize safer street design.

One way we can change the paradigm of street design is by using demonstration projects to show the public what's possible through fast, flexible design interventions. By implementing temporary demonstration projects, communities can test out and measure the impact of changes before potentially making them permanent. Often, demonstration projects use strategies like tactical urbanism and creative placemaking to make high-impact changes at low cost and transform streets into more vibrant, memorable places that people want to visit. Because demonstration projects start off as temporary changes, they are great opportunities for experimenting with new strategies to make streets safer and for introducing communities to unfamiliar street treatments that have already been proven in other places to improve safety. They also build support among the community, elected leaders, and transportation professionals for prioritizing safe speeds in street design.

NCSC worked with three cities around the country on temporary projects to develop skills in safer street design, creative placemaking, and community engagement. Through the Safe Streets Academy, teams from the City of Orlando, FL, the Lexington-Fayette Urban County Government, KY, and the City of South Bend, IN learned from national experts—and from each other—about new approaches to engage their communities and calm traffic on their streets. The teams attended a series of distance learning modules and in-person workshops where they visited each other's project sites then worked together to brainstorm and refine ideas for how to transform their streets, intersections, and neighborhoods into safer places for people through demonstration projects.

“We’re not just looking at transportation solutions here, we’re looking for ways that transportation solutions can make a place better. This is an opportunity to create something more out of an intersection.”

—Jeff Riegner, Safe Streets Academy instructor

The following case studies tell the stories of these three demonstration projects. They highlight lessons learned, including how these projects helped these cities build trust with the community and with other jurisdictions, test out new approaches for safer street design and make quick adjustments as needed, and change the conversation about the importance of slower, safer streets.

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1. National Highway Traffic Safety Administration. Fatality Analysis Reporting System. Available from <https://www-fars.nhtsa.dot.gov/Main/index.aspx>.
 2. Smart Growth America, National Complete Streets Coalition. Dangerous by Design 2016. Available from <https://smartgrowthamerica.org/dangerous-by-design/>.
 3. National Safety Council. Road to Zero Coalition. Available from <https://www.nsc.org/road-safety/get-involved/road-to-zero>.
 4. Federal Highway Administration. Proven Safety Countermeasures. Available from <https://safety.fhwa.dot.gov/provencountermeasures/>.



Curry Ford Road

Orlando, FL demonstration project

Budget: \$75,000



Orlando's demonstration project on Curry Ford Road added a new mid-block crossing with a painted, protected pedestrian refuge.

The Orlando metropolitan region has long had notoriously dangerous roadways, especially for people walking. A team from the City of Orlando dedicated to improving safety launched a demonstration project on Curry Ford Road, a commercial arterial with a history of crashes involving people walking and biking that spans both the city's and county's jurisdictions. By collaborating with Orange County staff and with local elected officials, the team transformed this four-to-five lane speedway into a three-lane Complete Street with protected cycle tracks and a mid-block crossing with a painted pedestrian refuge. Although local business owners and nearby residents supported the demonstration project, people who commute through the neighborhood were resistant to the changes, which raised important questions about the necessary trade-offs between safety and speed when designing safer streets for people.

Orlando has a serious traffic safety problem, especially for people walking. In NCSC's *Dangerous by Design* 2016 report, the Orlando metropolitan area ranked as the third most dangerous region in the country for people walking. The city has been taking steps to address this problem, including joining the Vision Zero network and developing a Vision Zero resolution and action plan to eliminate serious injuries and fatalities on its streets. A team from Orlando also applied for the Safe Streets Academy to learn more about creative ways to make their streets safer places for people. As part of the Academy, Orlando launched a demonstration project on Curry Ford Road, a commercial street with a dangerous speeding problem and a history of crashes involving people walking and biking. Through this project, the city hoped to show the community and elected officials how important street design is to traffic safety and build better working relationships with Orange County, a vital partner in creating safer streets throughout the region.



Engaging the community

To get residents and business owners from this low-income community involved in the demonstration project, the Orlando team used a combination of online tools and in-person engagement. They reached out via existing email lists to nearby neighborhood associations and bicycle and pedestrian interest groups. They also made use of social networks that the community was already using like Nextdoor to collect input on the project. Finally, they shared information about the project and related events on the city's website, including a frequently asked questions section that they updated regularly based on the questions they received from members of the community.

In addition to these online engagement strategies, the team led a walking tour of Curry Ford Road where they went door-to-door to speak with local business owners about the project. They then held a community meeting with over 60 people to discuss the project with residents, business owners, and city commissioners. In general, the attendees were enthusiastic about improving safety on the street, especially for people walking, and they were eager to get more involved. Some attendees did raise concerns about increased congestion with fewer travel lanes for cars, but for the most part they acknowledged this was a necessary trade-off to improve safety. The main problems people pointed out about the street were drivers speeding, not enough places for people walking to cross the street, and not enough facilities for people biking.



Business owners, community members, and elected officials attended a community meeting to learn more about the demonstration project on Curry Ford Road and share their thoughts on problems and solutions for the street.



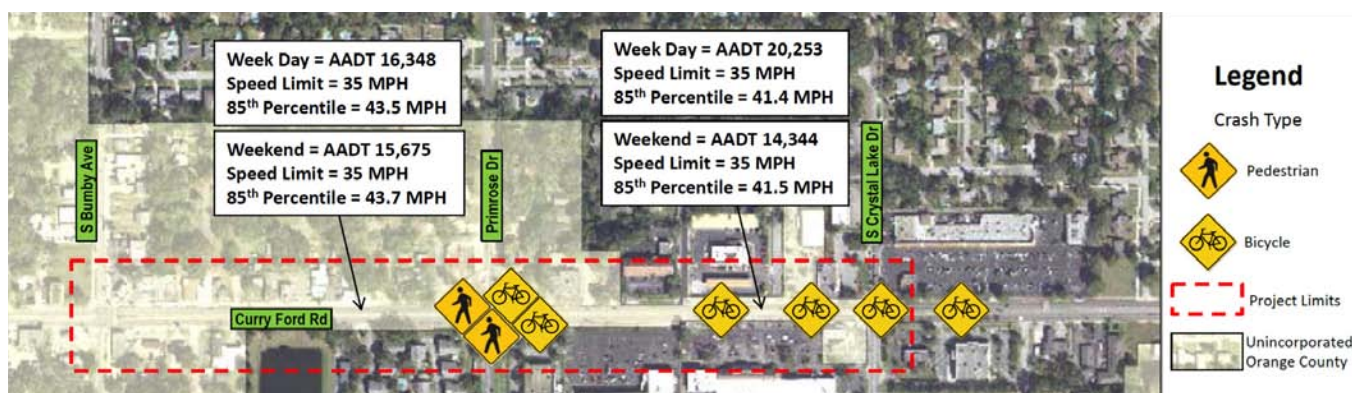
Because dangerous streets like Curry Ford Road are widespread throughout the Orlando region, the team knows that to eliminate traffic deaths in the long term, they will need to collaborate with local and regional agencies. They decided to use their demonstration project as an opportunity to strengthen partnerships with local and regional elected leaders and with regional agencies, including Orange County, to improve cooperation on safety projects moving forward. They held a hearing with their city council, scheduled three meetings with local commissioners to brief them about the project, and participated in biweekly coordinating meetings with Orange County, who has jurisdiction over a portion of Curry Ford Road included in the project. They also worked with Lynx, the local public transit agency, to evaluate how the project would impact bus stops along the street.

“What we have is a regional [safety] issue, and we need to work together for consistency and for greater audience. [Orange County] were actually really good partners with safety, and I see that only expanding to other counties and to metropolitan planning organizations.”

—Christopher Cairns, City of Orlando

Creating a slower, safer street

The Orlando team used their demonstration project to transform Curry Ford Road into a safer place for people walking, biking, and driving. They focused on a half-mile segment of the street between Bumby Avenue and Crystal Lake Drive where in just five years, cars struck 16 people biking and eight people walking. The street ranged from four to five lanes wide with narrow sidewalks, no amenities for people biking, and very few marked places to cross the street. In Florida, drivers are legally required to yield to people crossing the street at any intersection, but they seldom do if crosswalks aren't marked, as in the case of much of Curry Ford Road.



Orlando's analysis of Curry Ford Road revealed hotspots of crashes involving people walking and biking. The analysis also showed that speeding is a common problem on Curry Ford Road by comparing the posted speed limits to the 85th percentile speed, or the speed that 85 percent of people drive at or below. Finally, the Orlando team also measured the volume of cars on the road, or the Average Annual Daily Traffic (AADT) on both weekdays and weekends to show that the street did not warrant four to five lanes for cars.

“What we've done in the past is not working, so you need to try different things. It's not all about moving cars or being convenient for commuters. It's balancing everybody.”

—Christopher Cairns, City of Orlando



The Orlando team decided to implement a road diet on Curry Ford Road by reducing the number of lanes from five to three and replacing the outside travel lanes with protected cycle tracks. They also added a mid-block crossing at the main entrance to the streets' strip mall using paint, tape, vertical posts, and signage. They also used green paint to mark conflict zones where the cycle track shared space with bus stops.



Workers used paint and tape to install a new mid-block crossing on Curry Ford Road.

Proven safety countermeasures

The Federal Highway Administration (FHWA) promotes specific road treatments, proven through research to reduce crashes, injuries, and fatalities on our streets. Orlando's demonstration project used the following proven safety countermeasures recommended by the FHWA:



Road diet

19-47 percent fewer crashes [FHWA]

Orlando's demonstration project slowed down traffic by reducing the number of travel lanes and replacing the reclaimed space with a protected cycle track.



Pedestrian crossing island

56 percent fewer pedestrian crashes [FHWA]

Orlando's demonstration project also introduced a new mid-block crosswalk with a painted pedestrian refuge to make it easier and safer to cross the street.



To introduce the community to the new and improved Curry Ford Road, Orlando hosted a community safety fair. Local business owners set up stalls with giveaways and the city ran drills on biking safety skills with free helmet fittings. The event helped the community learn more about the project and about local amenities on Curry Ford Road. Nearby residents in particular were enthusiastic about the changes and felt much more comfortable walking and biking along the street.



Assorted photos from Orlando's community safety fair on Curry Ford Road.

"I am extremely happy that Orlando is willing to test out these types of programs so that we can learn better ways to incorporate alternative transportation into our city. As Orlando continues to grow, these alternatives will become necessary to make the city safer and more accessible for everyone. Orlando is already one of the worst cities in the country for pedestrian safety, and simply adding more roads and cars is not the solution to our problem ... During this 30-day test I only ever experienced congestion during the 1-2 hours of peak traffic each day, and I was never personally delayed for more than a few minutes. I find this to be a minor inconvenience when considering the increased safety it provides for the remaining days/hours of the week."

-Todd Schenck, Conway/Orlando Resident since 2003



Unfortunately, many people disagreed with the changes on Curry Ford Road. In particular, people who expect to travel at a high speed through the neighborhood were resistant to the project. They called and emailed the city with negative feedback, primarily to complain about the added travel time and congestion the project created. In the first two weeks of the demonstration, the Orlando team received 142 emails, of which 39 percent were in favor of the project and 61 percent were opposed. This backlash started important conversations between city staff and the community about the trade-offs between speed and safety, especially on arterial roads that have to balance moving cars with moving people safely and comfortably. Some of the naysayers who spoke with city staff ultimately conceded that safety was important and that the delays were a necessary inconvenience. However, others thought that the project was unnecessary because “only” so many people died on Curry Ford Road in traffic crashes in recent years, despite the fact that the only acceptable number of deaths on our roadways should be zero.

“Do you want to be a drive to or a drive through community? If you want to be a drive to, there’s going to be a trade-off. You can’t have both.”
—Cade Braud, City of Orlando

Despite the backlash the project received, the transformation of Curry Ford Road successfully slowed down travel speeds to create a safer, more comfortable place for people walking, biking, and shopping. Cars yielded correctly to people walking at the new mid-block crossing, and although travel times increased by up to five or six minutes during rush hour, during most other times and days, travel times for cars did not increase significantly. The project also improved the working relationship between the city and the county who were able to coordinate effectively on a shared safety project in a very rapid timeline. Although the city removed the project at the end of the one-month demonstration, the team hopes to continue negotiations with Orange County for permanent safety improvements on Curry Ford Road.

Lessons learned

Based on Orlando’s experience transforming Curry Ford, communities around the country can learn from the following lessons to launch their own safety demonstration projects:

1. Collaboration across jurisdictions is important—and possible.

Creating safer, Complete Streets on state and county roads can sometimes be a challenge, but the Orlando team was able to collaborate successfully with Orange County on their demonstration project despite working on an accelerated timeline. Their experiences demonstrate that working together on safety projects is not only possible, it is also necessary to address persistent safety issues that impact people at a regional scale. This demonstration project will make it easier for Orlando and Orange County to collaborate on safety on this and other projects moving forward.

2. You need thorough community engagement to build support for projects that improve safety, especially when these projects come with trade-offs for driving speed.

Orlando’s project faced significant resistance, especially from people who care more about their speed than others’ safety. To create a culture of safety moving forward and make it easier to implement future projects, Orlando—and communities like it around the country—will need to engage and educate the community earlier and more often in project planning processes, explaining upfront the difficult but necessary trade-offs these people, especially commuters will face. They’ll also need to work harder to engage not only local business owners and residents who move along and across the street, but also the people who regularly pass through the street about the importance of safety over speed.





Bryan Avenue intersections

Lexington, KY demonstration project

Budget: \$43,000



Lexington's demonstration project added a protected crosswalk with signage to the intersections of Bryan and East Loudon Avenues where no crosswalks existed previously.

Two particular intersections along Bryan Avenue in Lexington, KY were dangerous and confusing places for everyone, including people walking, biking, and driving. Both intersections had unusual turning angles and missing crosswalks, and it was often unclear who had the right of way. To slow the speeds of cars traveling through these two intersections and transform them into safer, more predictable, and more comfortable places for people, a team from the Lexington-Fayette Urban County Government launched a temporary demonstration project. They worked closely with the local community and used inexpensive, flexible materials to redesign the intersections by redirecting cars and adding crosswalks and pedestrian refuges. Lexington also tested out more interactive strategies for letting the people in the community most affected by the project take the lead on envisioning safer streets.

The Lexington-Fayette Urban County Government wanted to make traffic safety a higher priority when designing its streets, especially for people walking. Too many people were being hurt or killed while trying to walk along or across Lexington's streets, especially when crosswalks were few and far between. Lexington knew prioritizing safer streets would require support from both the community and elected officials, so a team from Lexington applied for the Safe Streets Academy to learn how to better engage these groups. As part of the Academy, they launched a demonstration project at two confusing, dangerous intersections in a diverse, mixed-income neighborhood with low rates of car ownership to show how low-cost tactical urbanism improvements can create places that are safer and more comfortable for people walking, biking, and driving to share.



Engaging the community

Typically, the Lexington-Fayette Urban County Government has conducted community engagement for transportation projects through online surveys and meetings to inform the public about already planned projects. But the Lexington team wanted to use their demonstration project as an opportunity to test out the more creative ways to engage the community that they learned through the Safe Streets Academy. Instead of coming up with a solution and then bringing it to the public for comment, the team collaborated with a group of residents who led peer-to-peer engagement efforts. By letting the local community take the lead pinpointing problems at these intersections and guiding solutions to address them, Lexington was able to implement a much more effective, relevant project that enjoyed stronger support from the public.

To collect input from the community, the Lexington-Fayette Urban County Government teamed up with the Citizens Environmental Academy, a program Lexington runs to teach people more about how local government works. As a reward for perfect attendance throughout the Citizens Environmental Academy, participants received \$2,500 to invest in an on-the-ground project of their choice. Six of these members chose to pool resources with the Lexington Safe Streets team to fund streetscape improvements on Bryan Avenue and make two key intersections on this street safer, especially for people walking.



The Citizens Environmental Academy led an interactive meeting to learn how people move along and across Bryan Avenue and how they want the street to look.



The Citizens Environmental Academy took the lead on engaging their peers in the community, which allowed them to move beyond the conventional engagement strategies the city uses and think outside the box on how to connect with the community. They canvassed door-to-door to businesses and residences and hosted two interactive listening sessions—one during an already scheduled neighborhood association meeting, the other at a local church. They brought maps of the site to the first listening session so people could point out barriers to getting around, opportunities for improvement, and the routes they use to navigate the area on foot, on bike, and by car. The team also conducted visual preference surveys, where attendees placed stickers to vote for how they want crosswalks, intersections, and other design features of the street to look.



The Lexington team mapped what they learned about the site at their interactive community meeting to help them design their demonstration project.

“The people that came to the public meetings were really enthusiastic. They knew that there were a lot of safety concerns in the area, and they had those concerns themselves. They were excited that people other than people who live in the neighborhood were looking at it and going to try to do something about it.”

—Sandra Broadus, Citizens Environmental Academy

The main concerns people raised about these intersections included cars moving at high speeds, limited visibility for both people driving and walking at and approaching crosswalks, and general confusion about who has the right of way at intersections. The Lexington team realized these problems resulted from the way the street was designed, with wide lanes and gradual curves that made drivers feel comfortable driving through intersections at high speeds without needing to stop or slow down. Using this input, the team brainstormed solutions for the site, then, at the second listening session, they refined these ideas with the community and discussed how specific changes would address their concerns and improve safety.



Creating slower, safer intersections

Bryan Avenue runs through an older, historic neighborhood of Lexington called North Limestone. People in the neighborhood have low rates of car ownership and are more likely to depend on public transit, and the neighborhood as a whole is more diverse and mixed-income compared to other parts of Lexington. Because North Limestone pre-dates Lexington's historic street grid, it has some unusually shaped intersections that create confusing, unsafe situations for people walking, driving, and biking. For their demonstration project, the Lexington team focused on two intersections along Bryan Avenue: East Loudon Avenue and Maple Avenue. Using feedback from the local community, they worked with the Safe Streets Academy teams from Orlando and South Bend to brainstorm ways to redesign these intersections to make them safer and easier to navigate.



Before Lexington's demonstration project, there were no marked crosswalks at Bryan and East Loudon Avenues. The intersection had only three stop signs instead of four, requiring traffic from all directions to stop except for drivers moving east on East Loudon Avenue (from right to left in the above image) who could make left turns onto Bryan Avenue without slowing down or yielding to opposing traffic.

Bryan Avenue intersects East Loudon Avenue at a confusing, unusually angled intersection. Although four directions of traffic meet at this site, only three legs at the intersection had stop signs, so cars traveling east on East Loudon Avenue could speed through without stopping. Based on community input, the team knew a lot of people walk along and across these streets, but there were no marked crosswalks at this intersection. To make it safer and easier to navigate for people walking and driving alike, the Lexington team extended the landscaped median to create a new pedestrian refuge for people crossing. They used reflective posts that the city had in storage to protect this pedestrian island and to create bump outs that narrowed the road, encouraging people to drive more slowly. They also used these bump outs to reshape the atypical angle of the intersection into a more conventional right-angled corner, so people driving south on Bryan Avenue would have to come to a more complete stop before turning.



Proven safety countermeasures

The Federal Highway Administration (FHWA) promotes specific road treatments, proven through research to reduce crashes, injuries, and fatalities on our streets. Lexington's demonstration project used the following proven safety countermeasures recommended by the FHWA:



Corridor access management

19-47 percent fewer crashes [FHWA]

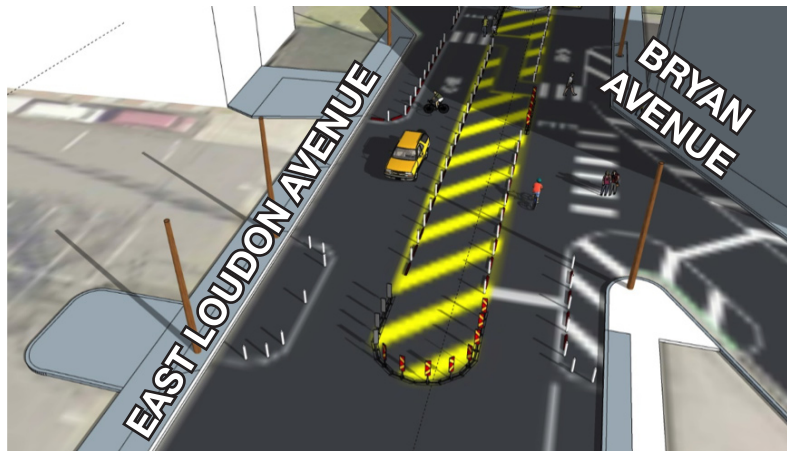
By extending the median past the intersection of Bryan and East Loudon Avenues, Lexington's demonstration project limited the movement of cars across the intersection to make the street safer and more predictable.



Pedestrian crossing island

56 percent fewer pedestrian crashes [FHWA]

Lexington's demonstration project introduced a new crosswalk at the intersections of Bryan and East Loudon Avenues with a protected refuge to make it safer and easier for people to cross the street.



Lexington's redesign of Bryan and East Loudon Avenues included bump outs and a protected mid-block crossing using temporary vertical posts.



The intersection of Bryan and Maple Avenues was also difficult to navigate, especially for people walking and biking. The intersection's unusual triangular shape allowed cars to bypass stop signs and speed through the space. It also lacked marked crosswalks to connect people to the adjacent church and park, and the community pointed out that the few crosswalks that did exist had little to no visibility of the rapidly approaching cars—and vice versa—making it dangerous to cross the street. To address these safety concerns and transform this intersection into a place where people felt comfortable walking, the Lexington team added crosswalks where the community noted they were missing and closed off one leg of the intersection to cars entirely, redirecting drivers to a stop sign so they could no longer speed straight across.



By temporarily closing a leg of Bryan Avenue at Maple Avenue, the Lexington team redirected cars to a stop sign and created more space for people to walk along and across the street.

One advantage of using a temporary demonstration project meant the team could make small adjustments and changes as needed. For example, the project interfered with stormwater drainage at the intersection of Bryan and East Loudon Avenues. After a heavy rain, the team discovered some “ponding” up against their installation, but because their demonstration project used flexible materials, they were able to quickly resolve this problem by making a strategic saw cut to allow water to pass through. Troubleshooting minor challenges like this one through a demonstration project will help the team make informed decisions—and justify them—if they convert these temporary improvements into permanent changes to make their intersections safer.



Stormwater started pooling at Lexington's demonstration project, but the team was able to quickly resolve the problem with a saw cut.



“Our biggest goal was just to improve safety for the most vulnerable road users, which are people without access to cars, and I think we did that really well. It does slow down traffic, and that’s the most frustrating part for people that just drive through the area. But I think the overall safety aspects of the project outweigh the little bit of delay that people might experience going through there.”

–Sandra Broadus, Citizens Environmental Academy

The team plans to leave the demonstration project in place for two to five months and hopes to make permanent safety improvements at the site. To do so, they’ll need support from the local community and local elected officials, but they can use the success of their demonstration project and the positive response from the community to justify future investments in safer streets.

Lessons learned

Based on Lexington’s experience transforming these two intersections on Bryan Avenue, communities around the country can learn from the following lessons to launch their own safety demonstration projects:

1. Let the community lead the way.

Instead of going through the typical process of coming up with a solution for how to change the street and then presenting an already refined plan to the public for comment, the Lexington team used their demonstration project as an opportunity to test out more interactive methods of community engagement, and even surrendered control of parts of the process to encourage greater buy-in and support from the community. They let the community lead the way in defining the specific problems at these intersections and guiding the vision for how to address these problems. They also empowered volunteers from the Citizens Environmental Academy to take the lead on conducting peer-to-peer engagement. This level of public engagement helps build a constituency for supporting the project or others like it. By giving the community increased ownership over this project, the Lexington team tailored the type and location of safety improvements more closely to the actual needs and desires of the public. This also helped to generate stronger support for the project from both the community and elected officials. Community support and ownership will be essential to convert the changes on Bryan Avenue into permanent safety improvements and to launch future demonstration projects.

2. Make the most of the resources at your disposal.

The Lexington team was able to cut costs and work more effectively by making the most of existing opportunities for supplies and partnerships. The team recycled some of their materials for the project from city storage, including the reflective posts, and they used low-cost, high-impact materials such as chalk and paint to temporarily reconfigure the intersections. They also collaborated with on-call consultants and with volunteers who shared their goals for improving Bryan Avenue, including the Citizens Environmental Academy. As a result, they were able to implement their demonstration project at very low cost.





Neighborhood traffic calming

South Bend, IN demonstration project
Budget: \$12,000



South Bend's demonstration project used tactical urbanism to slow down cars and included educational signs about how the new street designs calm traffic.

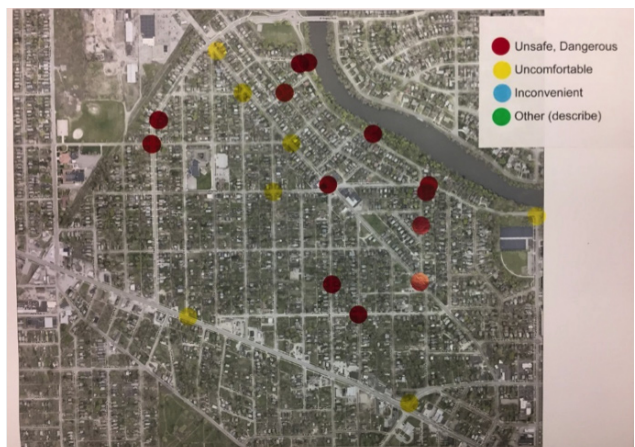
To address recurring, dangerous speeding problems on neighborhood streets, the City of South Bend launched a demonstration project to test out traffic-calming tools they had never used before including traffic circles, chicanes, and bump outs. They worked closely with the local community to decide where these traffic-calming strategies were most needed. They also added educational signs to help teach people how street design can improve safety by encouraging drivers to slow down while simultaneously creating more vibrant places for people. As a result of this demonstration project, drivers drove slower on these streets, and South Bend also built trust with the community. To replicate the success of this project elsewhere, South Bend will develop a toolkit based on this experience to launch additional traffic calming projects in other neighborhoods throughout the city to improve safety and convenience for people on foot or bike.

In the City of South Bend, speeding in neighborhoods is a common, unaddressed safety concern. In some neighborhoods, people feel uncomfortable walking along their own streets or letting their children play outside and frequently raise these concerns with the city, requesting speed humps and stop signs to slow down drivers. To better address speeding on neighborhood streets, a team from South Bend applied for the Safe Streets Academy. They used the strategies they learned through the Academy to test out new traffic calming techniques and show the community the variety of different tools at their disposal to encourage drivers to slow down. The team focused their efforts on one neighborhood west of downtown South Bend with frequent speeding problems where they knew they could count on strong, vocal support from the community for safety improvements.



Engaging the community

In South Bend, community engagement is sometimes thought of as a cumbersome process that could delay or kill projects. However, through their short-term demonstration project, the South Bend team discovered that the more creative community engagement tactics they learned through the Safe Streets Academy can actually help deliver projects more quickly and effectively, because the community's local knowledge can be a better guide for the planning process. The team went beyond typical informational public meetings in city buildings by hosting pop-up workshops at local events, including the neighborhood's annual chili cook-off and a local coffee shop. At these interactive workshops, the team collected input from residents about where they felt most unsafe or uncomfortable walking in their neighborhood. They also held small group discussions about the safety benefits of slower speeds and introduced people to new tools for traffic calming. People were initially apprehensive about some of the unfamiliar road design features, but because these safety improvements were only temporary to start, they were willing to try them out.



Local residents helped the South Bend team pinpoint opportunities to test our new traffic calming tools, especially at dangerous (red) and uncomfortable (yellow) intersections in their neighborhood.



The South Bend team also wanted to use their demonstration project to get the community excited about opportunities for creative placemaking. Through the Safe Streets Academy, the team learned how communities are working with artists to implement creative placemaking transportation projects that increase safety and give the community greater ownership over the planning and design process. They decided to do the same and reached out to an artist who lives in the neighborhood to design an art installation for the project. Once it was time to install the project on the ground, the team invited local residents to help paint the artist's design onto the street.

A local artist designed street art to paint on the pavement as part of South Bend's demonstration project and presented his concept to the community.



“We were listening before, but the residents didn’t know we were listening. This gave us an opportunity to face-to-face talk in a casual setting.”

—Jitin Kain, City of South Bend

As a result of this hands-on community engagement, local residents and city staff developed stronger working relationships. The residents learned to trust that city staff were listening to their safety concerns and working to address them, and the team learned to trust the local community to pinpoint problem areas and, once the project was implemented, to provide feedback about which measures were working and which needed some further adjustments.

Creating slower, safer neighborhoods

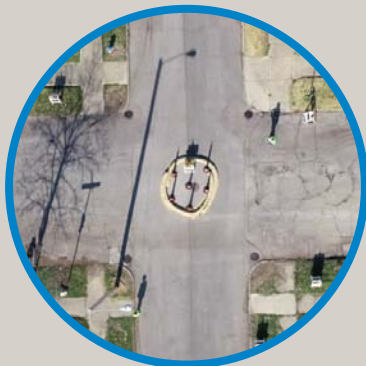
Based on community feedback, the South Bend team decided to test out three different traffic-calming measures in five locations throughout the neighborhood. They installed two traffic circles, two chicanes, and one bump out all within the same neighborhood to give people a sense of the variety of tools at the city’s disposal to make local streets slower and safer.

“People are familiar with speed humps and stop signs, but we’re trying to show them that there’s a whole range of tools available.”

—Jitin Kain, City of South Bend

Traffic-calming measures

South Bend’s demonstration project used the following tools to encourage drivers to slow down on neighborhood streets:



Traffic circles add a round center island to intersections. Drivers must slow down and change directions to navigate around the circle.



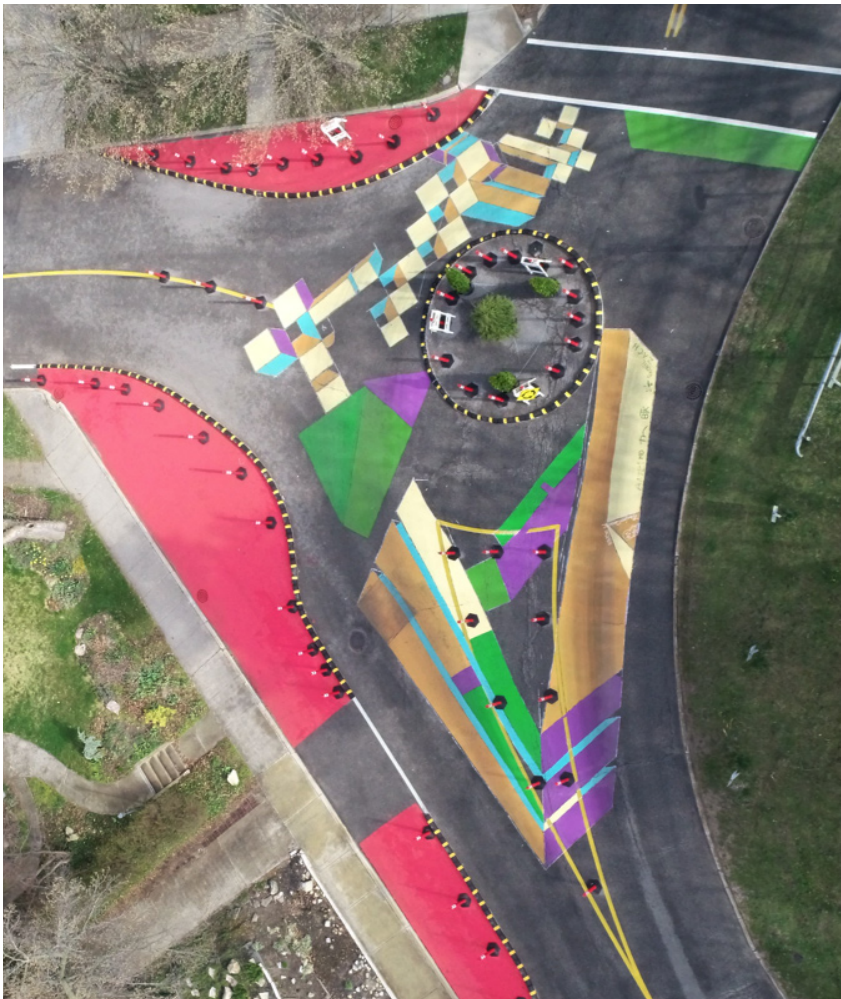
Bump outs strategically narrow streets and intersections to encourage people to slow down.



Chicanes are pairs of bump outs that introduce curves into otherwise straight roads and encourage people to drive 10 to 30 percent slower as they weave through them. [FHWA]



The largest installation in South Bend's demonstration project was a traffic circle at the intersection of Riverside and Hudson Avenues. This intersection is often used as a cut-through to downtown, with drivers speeding through the wide, unusually angled intersection at over 30 miles per hour or more, even though the speed limit is 20 miles per hour. To encourage drivers to slow down and watch out for people walking, the team used rubber curbing and vertical posts to transform the intersection into a traffic circle. They also invited the fire department and first aid squad to come test out the circle first to ensure fire trucks and ambulances could fit through before securing the curbing in place. Then, to make the project more exciting and memorable, they invited local families and elected officials to help paint colorful patterns on the pavement. This traffic circle was designed to remain in place for 90 days with the option of installing more permanent safety improvements with support from the community and elected officials.



Local families worked together with city staff and elected officials (including Council Member Jo Broden, bottom right) to paint bump outs and decorate the temporary traffic circle at Riverside and Hudson.



To demonstrate the variety of potential neighborhood traffic calming strategies, the South Bend team also installed four shorter-term demonstration projects for 30 days each. They used cones and straw logs to mark out bump outs, chicanes, and another traffic circle at various points in the neighborhood so people could see how these other types of safety improvements work in practice. The team also included informational signs at all five project sites to teach people about safer street design. The signs introduced people to the traffic calming feature, explained how it improved safety, and directed people to a website where they could find more information about the project.



The other Safe Streets Academy teams from Orlando and Lexington visited South Bend's demonstration project and tested out the traffic calming installations on foot and on bike.



Using temporary materials like cones and straw logs made it easy for the South Bend team to make adjustments to their project as needed. For example, local residents observed that larger vehicles like school buses had difficulty navigating the smaller traffic circle and making turns at the new bump out, so the team was able to quickly respond to this feedback and reshape these intersections accordingly. Neighbors also noticed that people were driving down the middle of the road instead of properly weaving through the new chicanes. As South Bend considers converting the chicanes into permanent improvements or introducing them in other neighborhoods, they'll know to bring the chicanes closer to the center lines of the road or add a physical barrier down the middle.

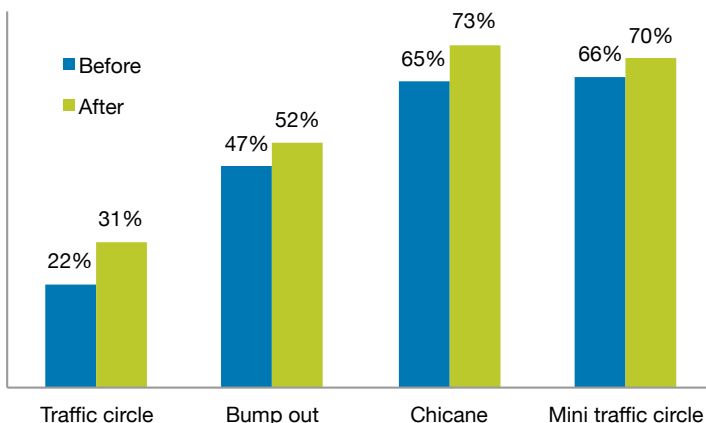
"The feedback we received was really positive from the people who lived really close, just right adjacent to those implementations. They would often times come out when we were out there installing them or adjusting them partway through. They would come out and tell us about different behaviors that they'd observed or how much they were enjoying watching people drive through them and learning the new traffic patterns. And they'd also share with us things that weren't working."

—Alicia Czarnecki, City of South Bend



The South Bend team adjusted their temporary bump out based on feedback from nearby residents.

Percentage of people driving 25 miles per hour or less before and after South Bend's demonstration project



Thanks to South Bend's safety improvements, traffic slowed down measurably. The share of people driving 25 miles per hour or less increased at all five installations, especially at the main traffic circle. Before the project, only one out of every five people drove 25 miles per hour or less at this intersection, but once the team installed their traffic circle, one out of every three drivers drove this slowly. As a result of these projects, South Bend generated support from the community and from elected officials for future traffic calming projects and other safety improvements. The team will use this experience to develop a traffic calming toolkit to be used with other communities throughout the city to make neighborhood streets slower and safer for people.



Lessons learned

Based on South Bend's experience calming traffic on neighborhood streets, communities around the country can learn from the following lessons to launch safety demonstration projects in their own neighborhoods:

1. Temporary demonstration projects are a great opportunity to test out new ideas.

Because they start out as temporary, demonstration projects can be especially useful for testing out new ideas that the community might otherwise be resistant to. In South Bend's case, people were unfamiliar with traffic circles, bump outs, and chicanes, but despite their skepticism, they were willing to at least test them out on a short-term basis. Thanks to their use of flexible materials, the team made minor tweaks and adjustments to the project in response to neighbors' observations about how the traffic calming tools were working on the ground. Now that they've tested out these changes temporarily, it will be easier for South Bend to make permanent safety improvements with stronger support from the community and more confidence in how to design and implement these traffic-calming tools moving forward.

2. Trust with the community goes both ways.

The South Bend team relied heavily on input from the local community to pinpoint problem areas throughout the neighborhood and to observe how the projects were working on the ground. Trusting the community to provide local knowledge and insight helped the South Bend team more effectively tailor their project to the neighborhood's needs on a very short timeframe. Additionally, the team's trust in the community helped build up the community's trust in the city because residents knew that the team was not only listening to their concerns, but also taking action to address them.



The Safe Streets Academy teams from Orlando, Lexington, and South Bend reconvened to share the results of their demonstration projects and celebrate what they learned.