

BMTS Article Digest July – August 2023

BMTS Pedestrian & Bicycle Advisory Committee Members:

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Johnson City Community Engagement officers on the lookout to award children practicing bicycle safety

By Erin Lawlor

Published: Jul. 19, 2023 at 9:05 AM EDT | Updated: 3 hours ago

JOHNSON CITY (WBNG) -- Since last summer, the Johnson City Police Department has been rewarding children who practice bicycle safety.

Although this event runs all year round, with the warm weather kicking into full gear, more people are riding bikes around town.

Johnson City Community Engagement Officer Jay Peets said safety is important because the village can be a busy place.

“So, if these kids aren’t wearing a helmet they could fall and get hit by a car,” said Peets. “The protection of having a helmet is very important and we don’t want anyone to be injured.”

Peets partnered with Sugar Lips Ice Cream in order to reward those children in the community who are practicing bike safety. Some of those practices could be wearing a helmet, using hand signals for drivers to know where you are going, being aware of traffic and using sidewalks. If Peets sees a child doing this, they are rewarded with a card, awarding them one free ice cream.

Peets said he takes this time to get to know the people in his community.

“This is also building relationships,” Peets said. “I don’t just hand them out and leave and say, ‘good job!’ We sit and we talk, and I get to meet the families. Then the kids get to go spend time with their family and have ice cream and feel good about themselves.”

Officer Peets said he hopes this will promote bicycle safety and he sees more children practicing these tips.



COMMUNITY

The story behind Roanoke’s singing crosswalk

by: [Rhian Lowndes](#)

Posted: Jul 14, 2023 / 12:54 PM EDT

Updated: Jul 14, 2023 / 12:55 PM EDT

ROANOKE, Va. ([WFXR](#)) — The walking signal at Yellow Mountain Road and Jefferson Street doesn’t sound like the other crosswalks in Roanoke.

“I thought it’d be something the citizens would get a kick out of,” said Matt McCain, Traffic Signal Shop Supervisor for the City of Roanoke.

When you hit the button at the intersection just outside Carilion’s campus, you hear the voice of Bobby Johnson, former landscape coordinator, singing “Walk Sign Is On.”

“We use the crosswalk every day on my walk to and from work and hearing the Yellow Mountain Road ‘walk sign is on’ is the best part of the morning,” said pedestrian David Walker. “It actually puts a little smile on your face as you’re going in to and from work.”

The singing crosswalk has been a staple at the intersection for about two years now, and some pedestrians say it’s just become a part of their everyday.

McCain says it all started with a grant they used to put employees’ voices in downtown walking signals.

“We said hey, we have some of this extra money still left, let’s use it for this intersection as well because it’s so near the hospital and all the pedestrian traffic,” he said.

He asked Johnson, and as soon as they sat down to record, the traffic coordinator was crooning into the microphone.

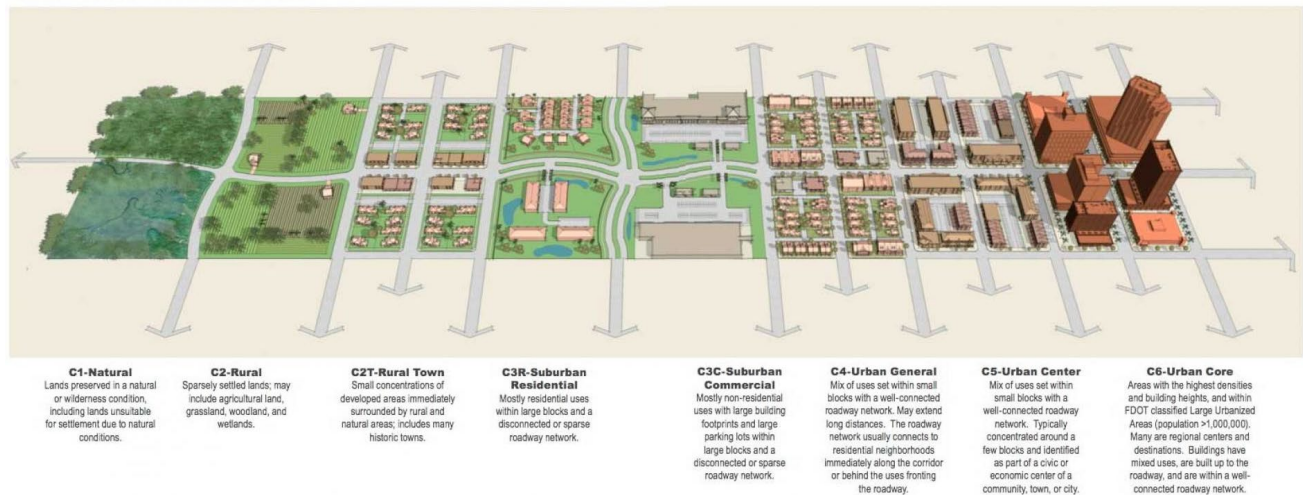
“We sit down, record it, I had no idea he was going to say this, put a tune to it,” said McCain. “We had to record it several times because we were laughing so much.”

He says they’re open to adding a few more singing crosswalks to Roanoke if it’ll brighten some pedestrians’ day.

PUBLIC SQUARE

A CNU Journal

FIGURE 2 FDOT CONTEXT CLASSIFICATIONS



Florida context-based street classification is based on the Transect, but not identical to it because it must relate to existing conditions, which are largely sprawling.

STREETS

Florida’s success with context-based street classification

If context-based street design works in the most automobile-dominated state, it can make a difference anywhere.

[ROBERT STEUTEVILLE](#) JUL. 17, 2023

Attempts to create walkable places become an order of magnitude more difficult when state-owned thoroughfares are involved. The laudable goal of creating a human-scale neighborhood may descend into a multiyear battle—sometimes won by planners, more often by the engineers—and the outcome is nearly always unsatisfactory. In such cases, planners and the state DOT appear to speak two entirely different languages.

From Florida, which may be the most automobile-dominated state, comes a system that allows the state DOT and planners to understand each other from the get-go—using the

rural-to-urban Transect as a translator. The Florida Context Classification system has been successfully used since 2018 when the FDOT Design Manual (FDM) was adopted, according to Billy Hattaway with Fehr & Peers and DeWayne Carver of FDOT, who recently presented to CNU's [On the Park Bench](#).

Since adoption, context-based street classification is permeating the thinking at FDOT, finding its way into planning, traffic operations, and safety manuals. "This idea was not that hard for traffic engineers to get their heads around," says Carver, who led the department's complete streets program for many years. "I was honestly surprised at how quickly they adapted."

Implementation is taking longer than anticipated, due to the three-year pandemic and rising costs that have impacted infrastructure improvements. Applying the system to thousands of miles of state roads is a huge task that still underway, note Hattaway and Carver, who together have many decades of experience with FDOT and in were involved in creating the design manual. The accurate mapping of the land-use context of DOT streets and roads enables more appropriate thoroughfare design based on context. Moreover, the system recognizes *future context* when the municipality adopts a plan and form-based code calling for a new urban, walkable place. The FDOT system directly translates to place



types of form-based codes, which were pioneered in Florida and now are fairly common across the state. Take a look at the current conditions at an intersection in Woodville, Florida, and a future vision:



How context can change: Woodville, Florida, current and future vision. Source: Hattaway and Carver presentation

The existing context class shown is C2, which means a high-speed thoroughfare. The proposed classification is rural town, which is a main street environment.

Every design detail changes.

Characteristic of existing context class, C2

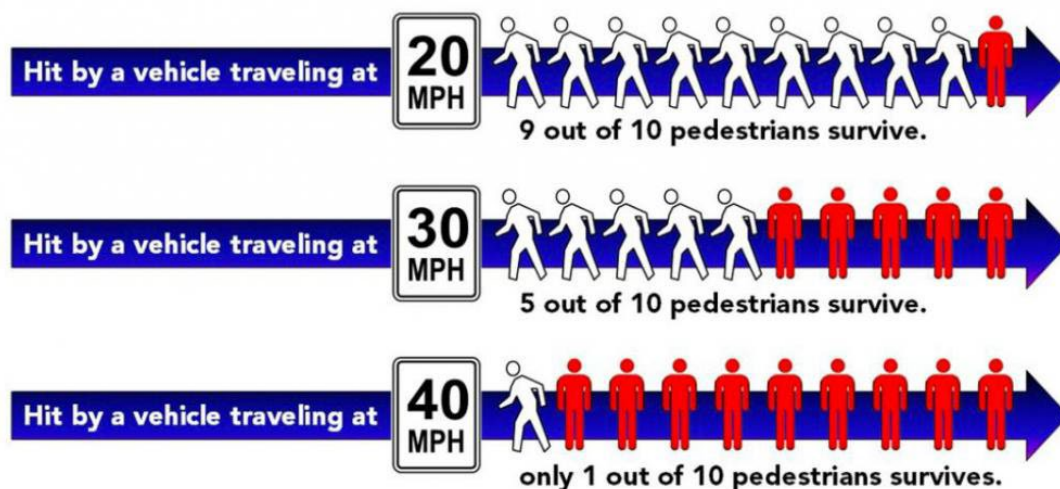
- High Speed
- Buildings set back
- Surface parking in front
- Water retention in front
- No sidewalks

Characteristic of proposed context class, C2T

- Low speed
- Buildings at back of sidewalk
- On-street parking
- Closed drainage system
- Wide sidewalks
- Street trees
- Pedestrian-scale lighting

Design speed is critical, because it determines pedestrian safety and comfort. The FDM does not permit street design in excess of target speed. Also, target speed dramatically changes in the four pedestrian-friendly context zones—C2T, C4, C5, and C6.

The FDOT standards previously recognized only two design speeds, above 45 mph and below 45 mph. Most of Florida's 4-, 6-, and 8-lane arterials and collectors are designed for 45 mph traffic, Hattaway says. At that speed, 10 percent of pedestrians will survive getting hit by a car. Chances are that those who survive will have a lifelong debilitating illness, Hattaway notes.



Speed and safety. Source: Hattaway and Carver presentation

The current FDM includes eight design speeds, from 25 mph to 70 mph. In the four pedestrian-friendly zones, 25 mph is now the default speed. Higher design speeds must be justified by the engineer.

Many aspects of this presentation are informative, such as the difference between three kinds of safety: Normative, substantive, and perceived.

Normative safety is when typical traffic engineering standards are met, and these streets are often not very safe at all. Commercial strip arterials meet all of the current standards, and yet they are among the most dangerous thoroughfares, according to the presenters. Smart Growth America's *Dangerous by Design* cites suburban arterials as the most deadly thoroughfare type for pedestrians and bicyclists. Hattaway explains that AASHTO Green Book standards are not predicated on safety research—rather they are based on maintaining the speed and capacity of the roadway.

On the other hand, many historic streets do not meet standards of the last seven decades—and yet they are among the safest streets. They have what Carver calls *substantive*, or real-world, safety. These streets are typically *perceived* by pedestrians to be very safe (sometimes streets that appear safe have some kind of specific flaw that reduces substantive safety, however). The FDOT classification system is designed to unite these disparate kinds of safety.

The classification system is consistent with a “vision zero” approach, which views traffic deaths as preventable, not inevitable.

The current situation is the result of:

- A focus on moving cars (roadway design)
- Sprawling land development patterns
- Government zoning that separates uses



Fowler Ave, Tampa

Photo by Billy Hattaway. Source: Hattaway and Carver presentation

The photo above was taken by Hattaway of a mother pushing a stroller with twins on a road without sidewalks—and with multiple other high-speed design aspects. State thoroughfare design is under Florida DOT's control, but the department has no say over adjacent land use or zoning, which also have contributed to dangerous existing thoroughfares.

The rural-to-urban Transect is the gold standard in describing land use, Carver says. The FDOT classification system is based on the Transect, but does not provide a one-to-one translation to Transect zones. That's because the system must react to current land patterns in Florida, which are heavily sprawling. "This is reactionary—It describes what is there," Carver explains.

In unifying land use and transportation, the system creates a common language. In terms of context, engineers previously understood the distinction between urban and rural, yet planners often had a hard time explaining why an "urban arterial" downtown should be different from an "urban arterial" in a rural area. That is especially true when it comes to speed and design criteria. "This was an attempt to get engineers and planners on the same page," Carver says. "Context classifications convey to engineers how fast we want traffic to move on these roadways."

In rural conditions, high speed is usually good, because the idea is just to carry traffic long distances, Carver explains. But the speed must be reduced as the road enters a town, and go back up again on the other side. This system and manual gives engineers clear instructions on how to adjust speed to conditions.

The design guidance relates to the width of travel lanes, and much more. Sidewalks, landscaping and trees, parking, infrastructure design, lighting, street furniture like benches—all respond to context. Thoroughfare elements are impacted by adjacent development and land use. Buildings should come up to the sidewalk in a main street format, for example.

Why would anyone outside of Florida care about this system? The vast majority of transportation infrastructure built after World War II, especially in Sunbelt states, is automobile dominant. Yet the problem is not inevitable. Sweden, Netherlands, Australia, and New Zealand show how a change in philosophy can radically reduce the traffic fatalities, especially among pedestrians, Hattaway explains.

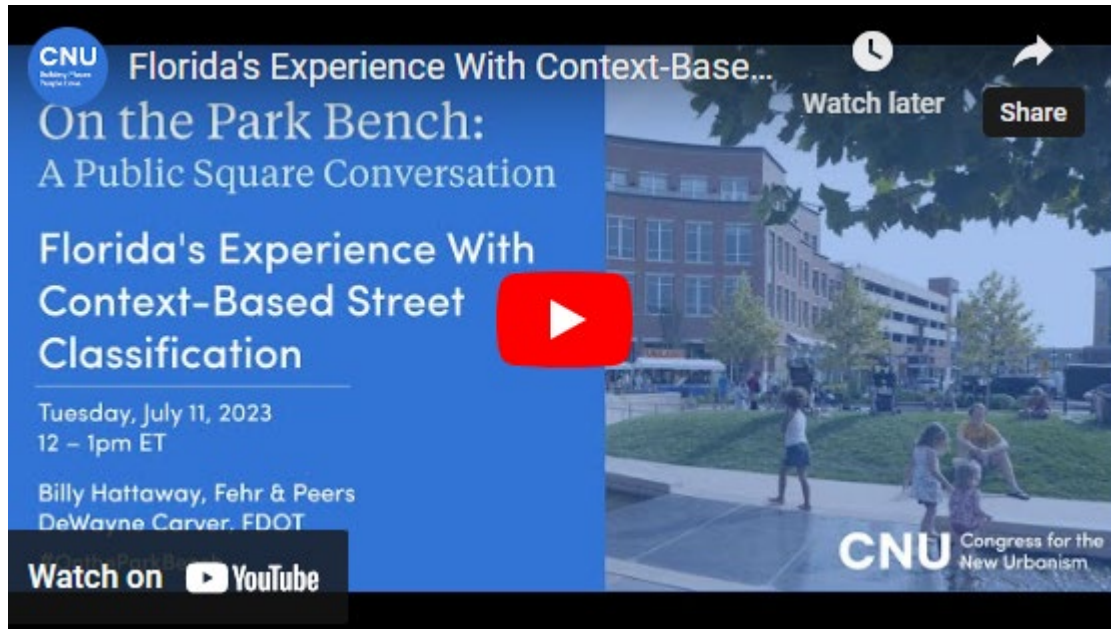
Florida has found that a high number—up to nearly 80 percent in some regions—of injuries occur on a few short segments of roadway. If safety on these streets is addressed, the state could achieve large improvements in safety, Hattaway notes. Safety is a virtuous cycle, he adds—when streets are designed for lower speeds, drivers change their behavior and become safer road users.

Although Florida remains the only state that has created such a context-based road classification system, interest elsewhere is growing. "I'm on several national panels that are looking at creating national criteria," Carver says. "AASHTO is moving in this direction." Since all states look to AASHTO for guidance and direction, Carver believes

change is inevitable. “You can do it now, or wait 10 years for the AASHTO manual, but this is coming.”

The Florida Context Classification System for thoroughfares is an innovative and revolutionary system that should be emulated nationwide.

Watch the whole webinar: <https://youtu.be/cXXhPqtMluU>



Deadly battery fires from e-bikes, scooters prompt action in NYC

The city launched an education campaign, as legislators push for new policy and community groups strive to reach micromobility-reliant delivery workers.

Published July 21, 2023

By Kalena Thomhave

To educate New Yorkers about the fire risks of lithium-ion batteries in some e-bikes and e-scooters, the New York fire department brings a van displaying dramatic video of such fires to community events. *Permission granted by FDNY*



In New York City's Chinatown in June, four people died in a fire caused by lithium-ion batteries in micromobility vehicles, bringing the city's 2023 death toll related to such fires to 13. Since 2020, there have been nearly 500 of these fires in the city.

Mobilized by the growing risk, the city has launched an education campaign as local leaders push for new policies to prevent future micromobility battery fires. Community groups have joined in the effort as well, with many focusing on reaching the tens of thousands of delivery workers whose livelihoods depend on e-bikes and scooters.

Lithium-ion batteries power many modern conveniences beyond e-bikes and scooters, including laptops, cell phones and power tools. Yet these ubiquitous batteries can be dangerous, particularly if they are after-market batteries or have previously been repaired or damaged.

After the June fire in Chinatown, the city announced a partnership between the mayor's office, New York City Fire Department and New York City Small Business Services that will ramp up education and outreach about the dangers of defective lithium-ion batteries.

A lithium-ion battery fire is "almost an instantaneous combustion, not a small fire that builds slowly over time," said Captain Michael Kozo of FDNY's fire safety education unit. Kozo and the fire safety education unit are conducting multiple outreach campaigns. They've created literature specific to lithium-ion batteries in nine languages and are reaching out to all the bike shops and repair shops in the city, aiming to spread the word about what can happen with lithium-ion batteries as well as how to safely care for batteries to avoid fires.

The FDNY is also using its "media truck" to display PSAs at community events, such as parades. The PSAs — shown on screens that take up both sides of a large truck — depict real footage from lithium-ion battery fires.

Kozo said that when viewing the PSAs for the first time, people are often taken aback that faulty batteries can go "from failure to completely engulfed [by flames] in a matter of seconds."

He said, "It's one thing to tell everybody about it and another thing for them to see what we're talking about."

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Local leaders are also pushing policies to prevent micromobility battery fires. In March, New York City Mayor Eric Adams signed into law new requirements that by September will ban the sale, lease or rental of electric micromobility devices that are not certified by safety accreditation company Underwriters Laboratories.

The upcoming city ban of unsafe batteries "was a solid first step, but does not address the several thousand unsafe batteries already out there and the true root issue: these unsafe batteries are far cheaper to obtain than a certified, safe one," said New York City Council Member Keith Powers in an email. Powers, who represents parts of Manhattan, has sponsored several pieces of legislation related to battery fires, including a bill currently in committee that proposes a battery-swap program.

The program would allow New Yorkers to swap unsafe batteries with certified ones, helping to “reduce the demand for cheap, unsafe lithium-ion batteries,” Powers said.

Ultimately, Powers said, federal regulation of lithium-ion batteries needs to be improved and standardized.

Bringing fire-safe micromobility to delivery workers

Many of New York City’s approximately 65,000 delivery workers, who are mostly low-income immigrant men, rely on e-bikes and scooters for their jobs. But purchasing a high-quality, fire-safe micromobility vehicle may be difficult for workers, given their low pay — roughly \$7.09 per hour, according to the city, though the minimum wage for app-based delivery workers in New York City increased to \$17.96 per hour as of mid-July.

In late June, the Equitable Commute Project, a coalition of organizations working to connect low-income New Yorkers to e-bikes, launched an e-bike trade-in program targeted at delivery workers. Delivery workers may be eligible for a \$1,500 rebate toward a quality e-bike if they trade in their e-bike, scooter or moped that isn’t compliant with fire-safety standards. The UL-certified bike available via the trade-in program retails for nearly \$4,000.

In addition to preventing battery fires, quality e-bikes and scooters can make delivery workers’ lives easier and safer.

Delivery work is a dangerous job, Gustavo Ajche, founder of worker group Los Deliveristas Unidos and deliverista (delivery worker), told Spectrum News NY1 in May. “[Y]ou have to travel long-distance, 40 blocks, 30 blocks, 20 blocks to drop a delivery,” Ajche said. “So by the end of the day, if you’re using a regular bike, it’s really tough and hard for workers.”

Melinda Hanson, founder of urban mobility company Brightside, a member of the Equitable Commute Project, echoed this sentiment. “Delivery workers push their bikes very hard,” she said. As a result, the e-bike subsidized by the Equitable Commute Project needed to be able to withstand New York City weather and terrain as well as the distance demands of delivery workers, Hanson said.

Delivery workers that can’t afford the \$2,200 upfront cost of the subsidized bike can access a loan through Spring Bank, a South Bronx-based community development financial institution. During the pandemic, Spring Bank created a small-dollar bicycle loan targeted at essential workers, as part of its work with the Equitable Commute Project. But now, the GoGreen Cycle Loan, which requires no minimum credit score, has “become a critical component [of] the initiative [to trade] out bikes with bad batteries,” Spring Bank’s director of consumer lending, Melanie Stern, said.

Getting delivery workers better bikes “became an issue of safety around the fires, but [was] also an equity issue,” she said, because “even with the subsidy, a good bike is still expensive.”

To be eligible for the loan, delivery workers need to apply for the program and be selected, Stern said. The application requires proof of address, a photo ID and proof of employment (such as 1099 tax forms for independent contractors), she said. A number of documents

could serve as a photo ID, Stern said, such as an ID NYC card or matrícula consular issued by Mexico.

The Equitable Commute Project is hosting test rides of the e-bike throughout the month. As of early July, more than 70 delivery workers had filled out the trade-in program interest form, Stern said.

But that figure pales in comparison to the tens of thousands of delivery workers in the city. “Our goal would be to do another round [of the program] with thousands” of bikes available to workers, Stern said.



Some people who live near an old steel deck bridge in the town of Fenton say they oppose removing it when a new span is completed.

Construction of a \$12.6 million replacement bridge over the Chenango River is nearing completion. The new structure is being built in the town of Greene about a half-mile upstream from the old bridge.

The state Department of Transportation has said the existing bridge will be demolished after the new span is opened to traffic.



The old steel deck bridge near Chenango Forks on August 3, 2023. (Photo: Bob Joseph/WNBF News)

Nearby residents told WNBF News they plan to circulate a petition calling for the 86-year-old bridge to be retained for use by pedestrians and bicyclists.

Residents who are against the planned demolition said using the new bridge will create a convenience for many of those who have been able to travel across the existing span for decades.

The Chenango River Bridge under construction in the town of Greene on August 3, 2023. (Photo: Bob Joseph/WNBF News)

According to the DOT, once the existing bridge has been removed, the defunct section of Route 79 between the old and new bridges will be repaved. Local municipalities then will be responsible for maintaining access to home on that stretch of roadway.



Most of the work on the new bridge has been finished. It appears that it may be opened to traffic by the end of this month.
