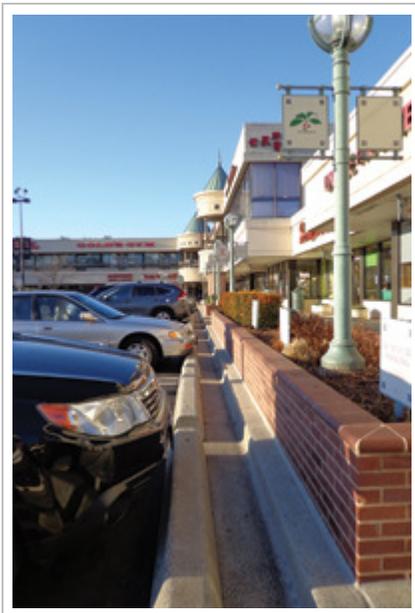


## DEVELOPMENT - OWNERSHIP

# How Safe Is Your Parking Lot?

By: Rob Reiter and Mark Wright, cofounders of the Storefront Safety Council (StorefrontSafety.org)  
Spring 2014



Brick planter-box barrier walls and bollards between parking areas and storefronts protect stores and shoppers from vehicle-into-building crashes at Wintergreen Plaza in Rockville, Md.

While “going green” is all the rage, an under-the-radar safety problem in the space where parking lots meet buildings suggests that “going safe” is just as vital. The issue: vehicle-into-building crashes.

These incidents have become a serious problem. Research published in 2013 by Texas A&M University shows that thousands of buildings are struck every year by errant vehicles. We estimate that more than 50 vehicle-into-building accidents per day impact commercial buildings in the United States, particularly at small retail centers and pad developments.

“It’s pretty surprising to see the numbers of these sorts of incidents that are occurring regularly across retail and service businesses,” said risk control expert David Natalizia, founder and principal of Denver-based Nuent Consulting. “This is an important issue that may have been beneath the radar because of the difficulty in understanding its magnitude and scope.”

If these crashes resulted only in some broken windows and related property damage, they could be viewed as mere annoyances; a sensible response would simply be to maintain appropriate insurance coverage. Unfortunately, vehicles often hit people as they crash into retail and other commercial space. Fatalities, while rare, do occur; broken bones and crush injuries are common.

## Parking and Demographics

Two factors particularly influence the incidence of vehicle-into-building crashes: parking space configuration and driver demographics.

Positioning spaces perpendicular (i.e., “nose-in”) to a building in effect aims vehicles directly at the structure and at people. A certain amount of driver error is inevitable, as any insurance company knows. With this parking configuration, vehicles are poised to crash directly forward into the building in the event of any momentary lapse in driver judgment or attention. Nose-in parking maximizes the potential for tragedy.

That risk is compounded by driver demographics. Drivers of all ages commit pedal error: their foot slips from one pedal to the other, or they mistakenly press the gas instead of the brake. But pedal error is especially common among drivers aged 16 to 20 and those 76 and over, according to the National Highway Traffic Safety Administration (NHTSA). The Texas A&M data show that as many as 40 percent of storefront crashes are a result of pedal error.

That combination of driver error and risky design (pointing cars directly at storefronts, sidewalks, curb cuts, ramps or outdoor dining areas) is resulting in expensive property damage and, even more importantly, injuries and fatalities among building patrons — including employees, customers and pedestrians. The good news is that most of these crashes can be prevented with some simple and inexpensive steps that can be taken either in the design phase of a development or as part of a retrofit.

“There is no reason why a design for an average parking area has to include nose-in parking,” says Warren Vander Helm, managing partner of Parking Design Group. “And if there is a client-driven requirement that there be nose-in parking, then inexpensive and very effective solutions need to be included in the design.”

## Local Governments Take Notice

Vehicle-into-building crashes have drawn attention at the municipal level as well as at standards-setting organization ASTM International. In Florida, Miami-Dade County passed Ordinance No. 12-47 in 2012, amending its zoning code to require the placement of “anti-ram fixtures” in shopping centers. In New York, the town of Amherst explored a change to its building codes in 2011 that would have required vehicle impact protection adjacent to certain parking spaces and structures, following a rash of vehicle-into-building crashes in the region, but did not pass an ordinance.

“Protecting facilities against vehicle-into-building crashes is becoming an important consideration for risk professionals,” said Natalizia. ASTM International has been working on a proposed low-speed test standard for devices designed to protect against an accidental or deliberate crash into a building. Distinct from existing standards for high-speed anti-terrorist barriers, this new standard will address passenger cars and SUVs at common street traffic speeds. While ASTM’s standard will provide a uniform testing method and, as such, serve as the basis for future codes and ordinances, it will be the responsibility of local agencies to decide whether to require the installation of protective devices.

## Education and Protection

One approach to preventing these accidents focuses on educating drivers, particularly those in the high-risk age ranges of 16 to 20 and 76 and over. While education and awareness are important, such efforts are battling against the strong demographic headwinds of a continually fresh supply of first-time drivers plus the “silver tsunami” of aging baby boomers who prize their behind-the-wheel independence. The fact remains that drivers continue to crash into buildings and likely will do so for years to come.

That reality has inspired at least a few safety-conscious companies to take action to protect their properties — along with their patrons and employees — from errant drivers. Convenience store chains Wawa and Spinx, for example, use steel bollards to create a perimeter barrier between the store and nose-in parking areas. Wal-Mart and Target no longer build stores with nose-in parking across their

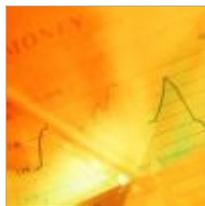
storefronts, and they protect their entrances with bollards.

Wintergreen Plaza, an upscale high-traffic retail center in Rockville, Md., provides an excellent example of architectural elements that enhance both safety and aesthetics. The development, a joint venture of Fordham Development Company LLC and Baier Properties Inc., integrates brick planter-box barrier walls and bollards between storefronts and parking areas throughout the center. The nose-in parking spaces across the front of the center's two pad sites face substantial yet attractive brick barrier walls. These elements create an environment that feels — and is — safer.

“The owners wanted to make the sidewalk areas more appealing to customers by adding planter features with attractive landscaping for a more enjoyable experience while shopping,” said Kim Nordheimer, Fordham Development Company's property manager for Wintergreen Plaza. “The planters, too, were intended to somewhat separate the parking lot from the storefront to make the sidewalk area more inviting to stroll, sit and shop.”

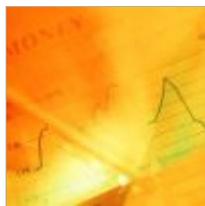
Going safe, in short, is no more difficult than going green.

## Related Links



### **U.S. Macro Forecast, by Cassidy Turley**

Cassidy Turley Research's February “U.S. Macro Forecast: Look Through the Snow at the Fundamentals” describes the impacts of this winter's weather on the U.S. economy as well as the outlook for the economy and commercial real estate.



### **Single-Tenant Cap Rates Increase, by the Boulder Group**

Office and retail properties leased to single tenants posted moderate cap rate increases for the first time in nearly two years in the third quarter of 2013, according to latest edition of “The Net Lease Market Report,” published by the Boulder Group.

## **From the Archives: Development Ownership Articles from the Previous Issue**



### **U Square @ The Loop: Public-Private Collaboration Revitalizes Cincinnati**

### Development magazine Winter 2013

Situated just across the street from the University of Cincinnati campus, U Square @ the Loop buzzes with activity. The two city blocks of LEED-certified, mid-rise, mixed-use development house students and young professionals; provide a welcome array of restaurants, shops and gathering spaces; and are home to several university offices.



### Water Tower Shoppes Retail Rebirth

Development magazine Winter 2013

Water Tower Shoppes in Celebration, Fla., was not always the destination retail center that it is today. Just three years ago, Walt Disney Company (developer of Celebration) executives and most locals detested the “black eye” they drove past every day.

### Selected For You



### Effective Workplaces Survey

“U.S. workers are struggling to work effectively. A confluence of factors, from economic challenges to longer workdays, is compromising the ability to get work done.” So concludes Gensler’s “2013 U.S. Workplace Survey,” which represents the responses of 2,035 randomly sampled knowledge workers worldwide. How can developers, architects, and employers better design work-places to drive innovation, improve performance, and increase satisfaction, given new workplace realities? The report offers some tantalizing suggestions.



### Eight Steps Toward More Functional Office Space

Many companies have heard the siren call for open office space that allows for greater collaboration, attracts younger workers and reduces real estate costs. But before tenants take the plunge into a new office environment, building owners and architects can help them conduct a careful analysis of the way they work now and how they will work in the future. Joe Flynn, senior associate and workplace strategist at Margulies Perruzzi Architects offers the eight suggestions.