

# BACON'S REBELLION

The Op/Ed Page for Virginia's New Economy

## Design by Fire Truck

**Why can't developers today create walkable communities like the small towns of the 1920s? Go ask your fire marshal.**

By James A. Bacon

**E**lizabeth Plater-Zyberk, a world-renowned architect and urban planner, huddled with Deputy Fire Marshal David Seay to work out a critical issue regarding the rezoning and redevelopment of the Tree Hill farm in Henrico County. They were taking a break from the scheduled agenda of a charrette -- an intensive planning and design session -- to haggle over one of the pricklier issues to emerge from meetings with neighbors, county officials and other interested parties.

The point of contention: the width and turning radius of Tree Hill's streets. Plater-Zyberk, a leading visionary of the New Urbanism school of development, regarded narrow streets as a critical component of the pedestrian-friendly community she envisioned for the river-side community. But Seay, an anonymous public servant, stood in the way. If the streets were too narrow and the corners too tight, he said, the county's fire trucks couldn't reach every house. County regulations called for turning radii of 25 feet, Seay said. No exceptions allowed.

What if parking were prohibited near the intersections, allowing the fire trucks more room to turn? On a hand-held pad, Plater-Zyberk sketched out a street intersection. That would

give an effective radius of 25 feet. She drew a dotted line to show the wider arc that a truck might travel.

Seay looked dubious.

Plater-Zyberk tried another tack: What if fire trucks gained access to houses by means of alleys in the back?



Nope, said Seay. County regulations require fire-truck access to the front of the house. He'd like to be accommodating, he said, he really would. But not at the expense of peoples' safety.

Building "pedestrian friendly" communities is all the rage now in the Richmond region and much of Virginia. As consumer tastes change, developers have gotten that old-time religion: People want mixed-use communities with the scale, look and feel of 1920s-era small towns. They want to live where they can work and play, and they want streetscapes that invite them to walk instead of drive.

Even county planners and local elected officials are seeing the light: When people walk to a restaurant, the drug store or the corner video store, it means they're not driving. Pedestrian-friendly communities take cars off the road and alleviate traffic

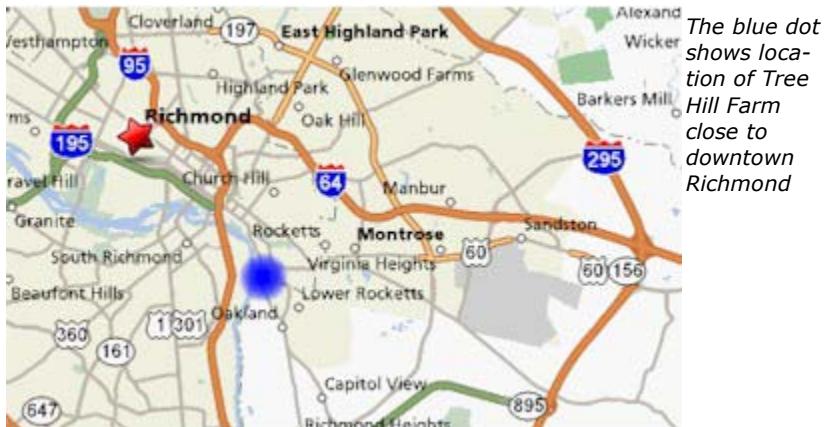
congestion, relieving the pressure on state and local governments to lay more asphalt at great expense.

While many local government officials are increasingly comfortable with New Urbanism design, the fire-fighting profession still mans the barricades. When it comes to regulations that might save peoples' lives, fire fighters aren't inclined to compromise. The result, as land use attorney Daniel K. Slone puts it caustically, is "design by fire truck."

Slone, who works as part of the Commonwealth Properties team that wants to develop Tree Hill, isn't singling out Henrico County's fire fighters. They're doing their job, he says, and they're safeguarding their vision of the public good. He just happens to think that there's a stronger case for narrower streets and tighter turning radii.

Tree Hill farm, located a mere three miles from downtown Richmond, offers spectacular vistas of the city skyline. The property is a short distance from the massive Rocketts Landing development, now underway, a few hundred yards upstream. Commonwealth Properties envisions building the equivalent of a small town: about 3,000 dwelling units -- single-family homes, townhouses and mansion-like apartment buildings with courtyards -- plus 1.5 million square feet of commercial space, and civic buildings such as an elementary school, a library and, ironically enough, a fire station.

In a closing summary of the



The blue dot shows location of Tree Hill Farm close to downtown Richmond

charrette, Plater-Zyberk explained that the design team envisioned Tree Hill as heavily settled by Baby Boomers turned Empty Nesters who want to live in a campus-like setting where people can walk to many of the places they want to go. In the plan and renderings that Plater-Zyberk's design team presented, the pedestrian experience was a central focus.

According to the tenets of New Urbanism as articulated by Plater-Zyberk and her husband Andres Duany, there is more to creating pedestrian-friendly streets than planting trees in the sidewalk and laying fancy brick pavers at the intersections. Their design schema creates clear boundaries: buildings abut the sidewalks; lines of parked cars separate pedestrians from the traffic. The sidewalks are broad, and the streetscape visually interesting. Another crucial element: Narrow streets tilt the balance of power from cars to people.

The problem with conventional suburban streets, argue Plater-Zyberk and Duany in their book "Suburban Nation", is that they are designed for the sole purpose of providing an unimpeded flow for cars. "They have become, in effect, traffic sewers. No surprise, then, that they fail to sustain pedestrian life."

To allow greater speeds, traffic engineers require wider streets and wider turning radii at the intersections. Thus, not only are the streets wider overall, they flare at the intersections. A 20-foot-wide crossing between sidewalks in a traditional neighborhood becomes 40 feet in a modern development. And those crossings are far more hostile. Few things are more intimidating to pedestrians than two tons of steel hurtling past at 35 miles per hour only a few feet away. Such speeds may be fine for an arterial road or even a connector, but not for local streets.

**W**hen Plater-Zyberk and Seay finished their conversation, I managed to corner the deputy fire marshal and his boss, Fire Chief R. Mastin. The dotted lines on Plater-Zyberk's sketches had made sense to me -- it appeared that the fire trucks had ample room to make their turns. Didn't the fire regulations allow for any flexibility, I asked.

"We try to work with developers where we can, but we don't compromise on safety," said Mastin. There's not much point in having the fire trucks if they can't get to the house that's on fire.

Mastin's response triggered memory of a passage I'd read in "Suburban Nation":

"Fire departments [purchase] oversized trucks, vehicles that have trouble maneuvering through anything but the widest of streets. Sometimes these trucks are required by outdated union regulations, but more often they are simply the result of a town's desire to have the most effective machinery it can afford.\*

The asterisk takes the reader to the following footnote: "This activity may also be the result of what the fire marshals do when they go to their fire marshal conventions, which is to compare the size of their trucks."

Why the necessity for the big fire trucks, I asked Mastin. Do fire chiefs have some kind of macho, "mine is bigger than yours" thing going on?

Not at all, the chief insisted. The size of trucks is governed by regulations that are largely out of the fire department's hands. Once upon a time, firemen hung onto the backs of fire trucks as they sped off to a blaze. No longer -- that's a safety violation. Now, trucks come equipped with seats in the back, which increases their length. Also, he said, trucks need increased fire-fighting capacity to meet insurance regulations.

In sum, contemporary society is a Chinese puzzle of interlocking parts -- try to move one piece, and another piece blocks it. You can't have narrow streets because fire trucks need to turn the corners. Fire trucks need more space to turn the corners because the trucks have gotten bigger. The trucks have gotten bigger because of safety and insurance regulations.

Fair enough. But the New Urbanists have a response. Inju-

ries and deaths from fires are relatively few in number in our society today. But traffic accidents are still endemic. "Suburban Nation" again:

Fire departments have yet to acknowledge that fire safety is but a small part of a much larger picture that others refer to as *life safety*. The biggest threat to life safety is not fires but car accidents, by a tremendous margin. Since the vast majority of fire department emergencies involve car accidents, it is surprising that fire chiefs have not begun to reconsider response time in this light; if they did, narrow streets would logically become the norm in residential areas. In the meantime, the wider streets that fire departments require are indeed quite effective at providing them with quick access to the accidents they help cause.

So, who won the argument in Henrico County? Will Tree Hill wind up with broad streets or narrow?

Street widths are "still a work in progress," says Slone, the land use attorney representing Commonwealth Properties. "[The fire marshal] is focused on home safety. Their issue is going to be on the table as we move forward in the zoning. We're going to ask people to balance that issue with other elements like pedestrian safety."

-- December 18, 2006

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