



Will self-driving cars kill transit as we know it? It could be Charlotte's \$6 billion bet.

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Within the next decade or so, Charlotte residents might be able to dart around the city using four light rail lines and a streetcar, under a \$6 billion vision.

But could they choose to take self-driving cars instead?

Some experts caution that self-driving cars might upend the transit industry in 15 or 20 years, turning light rail into a relic.

One vision of cities in 2032: Fleets of small autonomous cars circle busy streets, picking up passengers who have used cellphone apps to summon them. With no driver, the cost of such a trip is less than what an Uber costs today – making such a trip more convenient than a bus or train and possibly cheaper.

“Fixed-route transportation won’t make any sense in 10 or 15 years,” said Paul Brubaker, president and CEO of the Alliance for Transportation in Washington D.C. “I think the whole paradigm will shift pretty significantly quickly. Justifying a \$6 billion investment without knowing where the hockey puck will go strikes me as a bit foolish.”

It’s unclear whether people would choose autonomous cars en masse, but it appears that self-driving cars are coming. Among the signs:

In Arizona and Pittsburgh, Uber now allows people to summon self-driving cars, though safety drivers are still in the front seat to take over if needed.

Ford has said it will have a self-driving car without a steering wheel by 2021. The company said it first hopes to use them in partnership with a ride-sharing service.

And the U.S. Department of Transportation recently named 10 “proving ground” test sites for driverless cars, including the Triangle Expressway outside of Raleigh.

The American Public Transportation Association believes that transit will always be relevant, but the lobbying group agrees that a transportation revolution is coming.

“We are on the precipice of as much change in transportation as we have seen in 100 years,” said Art Guzzetti, an APTA vice president of policy. “The clock is going to move fast.”

Guzzetti said transit systems, including CATS, will have to adapt to self-driving cars, but he said rail transit will always have advantages, such as a guaranteed time.

Ned Curran of the Bissell Companies, the former chair of the N.C. Department of Transportation board, supports a number of transportation options, including the Lynx Blue Line, whose extension to UNC Charlotte opens in August. But he said CATS needs to think about changes in transportation, such as express toll lanes and ride-share technology.

“Disruption is clearly coming,” he said. “Is it correct to pause and ask, ‘Is the transit plan from 20 years ago may not be the best plan for the next two decades from now?’ ”

CATS has big plans

For CATS, the stakes are high.

CATS chief executive John Lewis has said he would like to simultaneously build three new rail lines costing between \$5 billion and \$7 billion – from uptown to the airport; Matthews; and Lake Norman.

If the plan is approved, the first rail line would probably open by 2025 or 2027. That’s based on how long it has taken CATS to build the Lynx Blue Line and the Blue Line extension.

As CATS plans a big expansion, there are signs it’s already facing headwinds in keeping its market share, however.

Rail and bus ridership has been flat or declining for several years. Low gas prices are the most likely culprit, but it’s also possible people are using Uber for trips instead of riding the bus or train.

The decline has coincided with a boom in the Charlotte economy and population.

In 2012, CATS carried about 2 percent of all vehicle miles traveled in Charlotte, according to an analysis of Charlotte Department of Transportation estimates and CATS ridership reports. Three years later that dropped to 1.8 percent.

Curran of the Bissell Companies said he believes Uber is already impacting CATS. Thousands of new apartments have been built along the Lynx Blue Line, but ridership hasn’t increased at the same pace.

“We all thought ridership would be a lot higher by now,” he said.

Randal O’Toole of the libertarian Cato Institute – a foe of urban planners and transit supporters – has long argued that transit systems spend too much on rail projects, while they should spend that money on cheaper buses.

O'Toole said when self-driving cars are used in large numbers, they "will utterly decimate" transit.

He said traditional transit as we know it will survive in New York City and possibly Chicago because they are so dense. In those cities, congestion will be so great that riding a train will save people time, even compared to an autonomous car that brings you door-to-door.

But he said he doesn't think other cities will need transit systems by 2040 and possibly by 2030.

"Uber thinks (self-driving cars) will be less than the cost of driving because the cars will be in use 18 hours a day, instead of two," he said. "To me the calculus is that transit can't survive except in extremely dense places."

CATS believes light rail will always have an advantage over ride-share companies today or self-driving ride-share companies tomorrow.

"With light rail we are out of the congestion," said Olaf Kinard, director of marketing for CATS. "It's a guaranteed trip time."

Toll lanes as competition?

A guaranteed travel time is probably the biggest advantage that light rail offers passengers.

Traffic on Interstate 77 may be stop-and-go, but the Lynx Blue Line will reliably carry people from the I-485/South Boulevard station to uptown in 27 minutes.

But that advantage may be waning.

The N.C. Department of Transportation and the private firm Cintra are already building toll lanes on I-77 in north Mecklenburg, which would run parallel to the new Red Line train proposed for Lake Norman.

DOT is also planning toll lanes on I-77 south of uptown and I-485 in south Charlotte – two highways that compete with the Lynx Blue Line that runs along South Boulevard.

DOT also is planning express toll lanes on Independence Boulevard, which would run alongside the planned Silver Line light rail.

The I-77 north, I-485 and Independence Boulevard toll lanes will likely be open in three or five years – long before the new trains would be built.

The City Council discussed the \$6 billion plan briefly during a CATS budget presentation Monday.

Council members didn't discuss the impact to transit from express toll lanes or the long-term threat from self-driving cars.

Republican council member Ed Driggs said he thinks the city will grow so fast that "there will be plenty of demand for both modes of transportation (rail and cars)."

He added: “The main thing is we need to have the vision out there. The whole planning process is evolutionary. I don’t think we will go too far down a road that will prove to be completely out of step.”