

Amazon fulfillment center in Triad may not lead to quicker deliveries

By Richard Craver Winston-Salem Journal - June 3, 2018



A clerk reaches picks an item for a customer order at an Amazon Prime warehouse in New York. Amazon is considering putting a similar warehouse in the Triad Business Park in Kernersville.

Triad consumers may not benefit from same-day delivery services — at least at first — from having a 1-million-square-foot Amazon fulfillment center in their back yard, economists and retail researchers say.

However, the proposed center in Kernersville likely will increase the odds of receiving a delivery within 24 hours, depending on the products being purchased and what kind of goods the center will keep in constant inventory.

Kernersville planning officials are reviewing a permit request from an Atlanta commercial real-estate firm for what could be a \$150 million project near Old Greensboro Road in the Guilford County part of the community.

That site is near a 483,000-square-foot FedEx Ground facility that opened in 2011 and expanded in 2013. It's also within seven miles of FedEx's sorting hub at Piedmont Triad International Airport.



According to a project site map compiled by Triad Design Group, Amazon would acquire a 94-acre site where it would have up to 952 full-time and full-time equivalent employees.

Amazon has not returned interview requests about plans for the center.

A December 2016 study on Amazon's fulfillment centers by economists from Cornell, Pennsylvania and Pennsylvania State determined the average fulfillment center had

517 employees.

The economists said Amazon had nearly doubled the number of fulfillment centers over the past four years from 54 to 102 in large part "to shorten the outbound shipping distance that is handled by one of the contracted shipping companies."

In most instances, according to Business Insider, when a customer makes a purchase, the order "will get pinged onto an employee's handheld scanner."

"It will direct them to the areas where each item is located. Employees scan the item, place it in a tote, scan the tote and then send it on a conveyor belt for shipping preparation."

Oftentimes, products are fulfilled at the site closest to the manufacturing and production sites of suppliers.

Depending on how Amazon designs the potential Kernersville center, it could eliminate the sorting step of the delivery process. For Amazon, sorting organizes each day's shipments as close to the customer destination as possible, typically by ZIP code, before being sent out.

Katja Seim, an economics professor with the Wharton School of the University of Pennsylvania, said “under that scenario, the service’s costs are lower, giving Amazon more bargaining power when negotiating their per-package shipping costs.”

Amazon centers

According to MWPVL, a global supply chain and logistics consultant, Amazon operates fulfillment and distribution centers that include: small sortable; large sortable; small non-sortable; large non-sortable; Prime Now centers; specialty apparel, footwear and textbooks; specialty small parts; regional sorting centers; and returns processing centers.

Small sortable is defined as multiple items that can fit in one box. Large sortable is larger items that can fit in one box. Non-sortable is large items that require their own box. Prime Now centers stock a limited line of high-demand products for delivery within two hours.

It is not clear from the project site map submitted to the Kernersville Planning Board whether Amazon is potentially considering a small or large sortable center here.

In North Carolina, Amazon has about 2,000 employees. Its facilities are: large non-sortable in Concord; same-day Prime Now centers in Charlotte and Raleigh; redistribution center and Prime Air service in Charlotte; sorting centers in Concord and Durham; and a delivery station in Charlotte.

Regional sorting centers are part of a collaboration with the U.S. Postal Service that allows Amazon to have products delivered on Sunday.

The potential Kernersville fulfillment center appears to be part of Amazon’s strategy for “condensing the delivery time to what the consumer is demanding in the marketplace,” said Carter Smith, executive vice president of Spartanburg (S.C.) Economic Futures Group.

In September 2012, Amazon opened in Spartanburg a similar sized fulfillment center dedicated to large sortable goods. It is one of two large fulfillment centers in the state; the other in Lexington, S.C., has 1.2 million square feet dedicated to small sortable goods.

“For some markets, it’s going from two days to one day, or from one day to same day,” Smith said.

“Clearly, the closer you are to the center, the quicker you are likely to get your delivery, but factors such as traffic congestion and access to interstates also are taken into consideration by Amazon,” Smith said.

The economists said their research determined that the expansion strategy has not led to additional demand for Amazon services, “most likely due to the fact that expansion did not

actually result in faster shipping speeds for the vast majority of consumers apart from the possibility of one-day shipping.”

Taxes

The main reason why Kernersville may be getting the state’s first full-sized Amazon fulfillment center is as much about the online retail giant conceding on a state sales tax dispute in 2013 as geography and retail trends.

Before 2013, Amazon’s fulfillment center strategy was to place facilities in communities with low county and state sales tax rates, such as Delaware, New Hampshire and Nevada, that were adjacent to large metropolitan areas, such as California and New York.

The reasoning was that federal law required Amazon to collect sales tax on the customer’s behalf where it had a physical presence, such as a fulfillment center. Operating out of states with lower sales taxes shaved the overall costs for some consumers.

“Consumers dislike paying taxes, meaning there must be gains of network expansion due to faster shipping and/or reduced shipping costs” to offset the potential for making less revenue from sales in states with higher sales taxes.

The economists in the Amazon fulfillment study said Amazon “faced a trade-off between the revenue consideration from exposing local customers to sales tax, and the cost savings from reducing the shipping distance to those customers.”

“The (sales) tax effects dominate any willingness-to-pay more response (from consumers) due to increased delivery convenience. It ruled out such demand-side benefits from proximity as a consideration for Amazon’s network formation.”

As Amazon began charging the sales tax to consumers, it also launched its major surge in fulfillment and other centers that made the Prime Now center concept more economically viable.

“As Amazon grew in scale, the network of fulfillment centers expanded, presumably to be closer to population hubs despite sales-tax implications and higher fixed costs of warehousing in densely populated states,” according to the economists’ study.

The bulk of Amazon’s first wave of new fulfillment centers from 2014 to 2017 went into California, Tennessee and Virginia. The economists noted Amazon had plans to enter North Carolina in 2018, as well as expand in Georgia, Illinois and Ohio.

Expansion

In 2006, Amazon had eight fulfillment centers in six states with an average distance between the facilities of 297 miles.

By the start of 2018, it had 102 fulfillment centers in 28 states with the average distance between facilities being 116 miles. There are plans to build 35 more fulfillment centers and 10 other facilities, according to MWPVL.

Another potential factor in making North Carolina more attractive to Amazon: In 2013, the state had a 6.9 percent corporate tax rate.

The Republican-controlled legislature reduced the rate to 3 percent in 2017 — lowest in the country for states that have a corporate tax rate. There is the potential for the rate to drop to 2.5 percent in 2019. However, the result has led to a \$600 million annual reduction in corporate tax dollars paid to North Carolina.

The economists said one reason for the quicker shipping times not producing a sharp increase in sales is that brick-and-mortar retailers, such as Costco, Target and Walmart, began emphasizing their online shopping options, including the click-and-collect strategy at their stores.

“With respect to Amazon’s growing network of fulfillment centers, it’s all speed of delivery — hours now in many U.S. markets, same-day in more than 8,000 cities — so as to blur the lines between brick and mortar retailing and online shopping,” said John H. Boyd, a national site-selection expert based in New Jersey.

“Hard good and soft good vendors all want to hook their wagons to Amazon’s winning hand, not to mention leverage the billions of dollars in logistics infrastructure that Amazon is investing in throughout North America and the globe.”

Roger Beahm, executive director of the Center for Retail Innovation at Wake Forest School of Business, said Amazon’s fulfillment center expansion strategy is necessary as retail stores, such as Walmart and Macy’s, are maintaining customer loyalty through enhancing their online shopping options.

“While Amazon may have a competitive advantage with its breadth of product offerings, without further shortening its delivery times, Amazon could begin to experience a loss in share of wallet among online shoppers as traditional brick-and-mortar retailers learn to leverage their local proximities with faster home delivery or click-and-collect opportunities,” Beahm said.

“Brick-and-mortar retailers, particularly Walmart, are demonstrating they can compete effectively online in a wide array of categories and with competitive pricing.

“That leaves home delivery or local pick-up as a key competitive point of difference.”