

## Ogden Road

July 27, 2020

The Virginia Department of Transportation launched a statewide bike/ped count program in the fall of 2020 and provided Eco-Vision MultiModal EcoCounters, some accessories, training, and data management to RVARC. Roanoke County requested Ogden Road near Tanglewood Mall to be counted because Ogden Road is a priority for sidewalks. Several planners and citizens walked along Ogden Road in 2019 as part of scoping for a sidewalk. Ogden Road has an average annual daily vehicle traffic of 8,000. The #55/#56 bus serves large apartment complexes and developments on and near Ogden Road, including:

- Honeywood Apartment Homes
- Pebble Creek Apartment Homes
- Woodland Hills Independent Living, Assisted Living, and Memory Care
- Windward condo development
- Bent Tree Apartments on Colonial Avenue
- Sunscape Apartments on Colonial Avenue

Many residents walk on Ogden Road to access Tanglewood Mall, Old Country Plaza, and other destinations nearby. These residents may use the bus as well as walk when the bus schedule doesn't serve them, such as on Sundays, later in the evening, or when the hourly bus schedule doesn't align with their travel times.

RVARC staff installed a counter on a post provided by Roanoke County on the southwest side of Ogden Road where there is a well-defined informal trail through the grass leading to Old Country Plaza (Figure 1). Pedestrian counts were collected March 17 – June 12, 2020.



Figure 1. Location of counter, standing on the southwest side of Ogden Road facing north.

The intention was to collect data for one month. Due to the onset of the COVID-19 pandemic, the decision was made to continue collecting counts longer because the next location wasn't ready. However, vegetation caused erroneous counts during the last month. Vegetation or wildlife may have also caused erroneous counts on other days. The scrubbed dataset was March 17 – May 14, 2020 with the following dates removed: April 9, April 13, April 17, April 29, and May 10 for a total of 53 days.

Ideally, permanent counters collect data for a full year so that day-of-year factors can be applied to the raw data from temporary counters such as the one on Ogden Road to calculate Average Annual Daily Traffic for that location. In July 2019, Virginia Tech professor Dr. Steve Hankey partnered with RVARC to install four pedestrian counters at two locations. After examining travel patterns, the two counters at 10<sup>th</sup> Street NW near the Lick Run Greenway were selected to provide day-of-year factors to the Ogden Road pedestrian counts because the travel characteristics of that location are more similar than the other location (Campbell Ave SW) to Ogden Road. Day-of-year factors were determined for each of the two 10<sup>th</sup> Street NW counters by dividing the day's count for each counter by the average of 365 days of counts for that counter. The day-of-year factor was the average of the two counters' day-of-year factors. Each day's counts on Ogden Road were divided by the day-of-year factor for the corresponding date. The adjusted counts were averaged to calculate the annual average daily pedestrian traffic at that location.

The pandemic may have altered pedestrian use. The Campbell Ave reference counters showed a dramatic change in pedestrian activity, but the 10<sup>th</sup> St NW reference counters did not show a change in pedestrian activity. It would be worthwhile to count again at this location in the future for a week or two to check the usage.

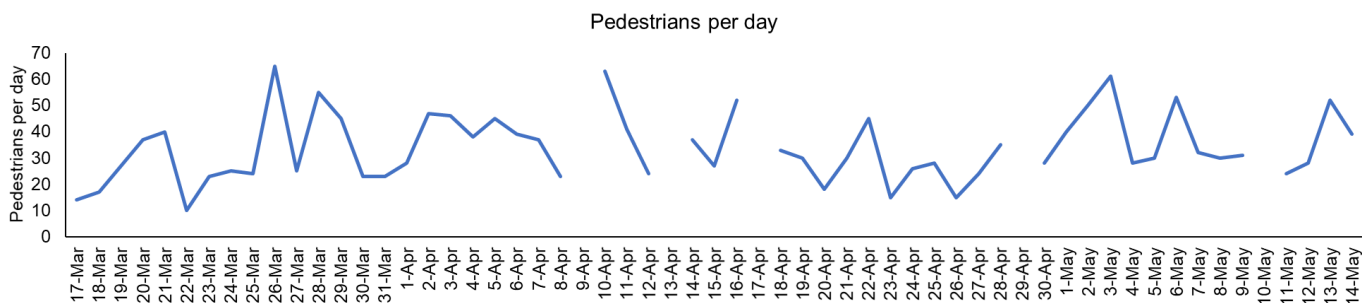


Figure 2. Daily counts of scrubbed dataset, not adjusted by day-of-year factor.

After adjusting each day's count with the day-of-year factor, the Average Annual Daily Pedestrian Traffic for Ogden Rd was 35.3. The raw counts ranged from 10 to 65 (Figure 2). During the time (approximately half hour) that the counter was being installed, five pedestrians were observed on Ogden Road. One of the five walked past the counter location and the other four walked behind it (i.e. on the other side of Ogden Road or on the other side of the counter, not turning toward Old Country Plaza). Therefore, 35.3 may be an underestimate of the actual pedestrian use of Ogden Road.

Daily traffic patterns were analyzed. Pedestrian traffic was lowest on Monday, 24% lower than average, and highest on Saturday, 17% above average (Figure 3). Hourly pedestrian traffic rises showed a morning peak at 10:00 am and an evening peak at 4:00 pm (Figure 4).

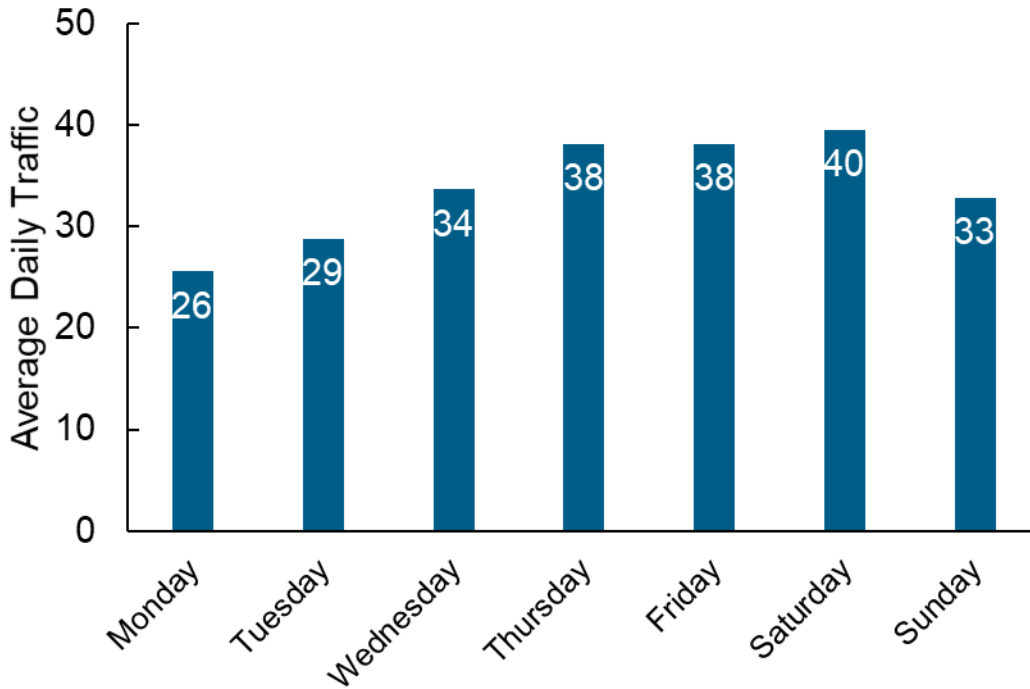


Figure 3. Day of week average annual pedestrian traffic.

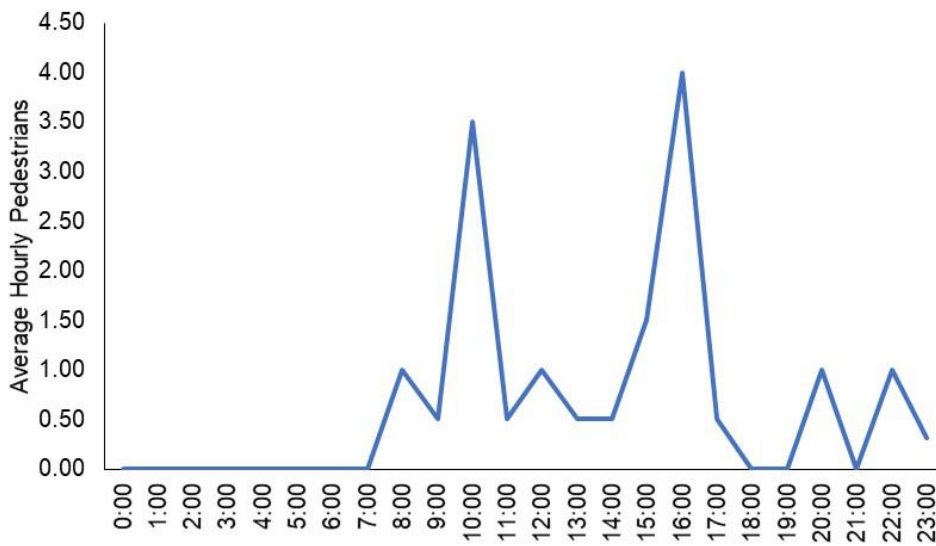


Figure 4. Average hourly pedestrian traffic (not adjusted for day-of-year factor which is only relevant to daily counts).