

Augustine Cut Off Multimodal Improvements Study
Phase 2

Task 1 Report

Identify Issues, Opportunities, and Constraints

DRAFT October 2024

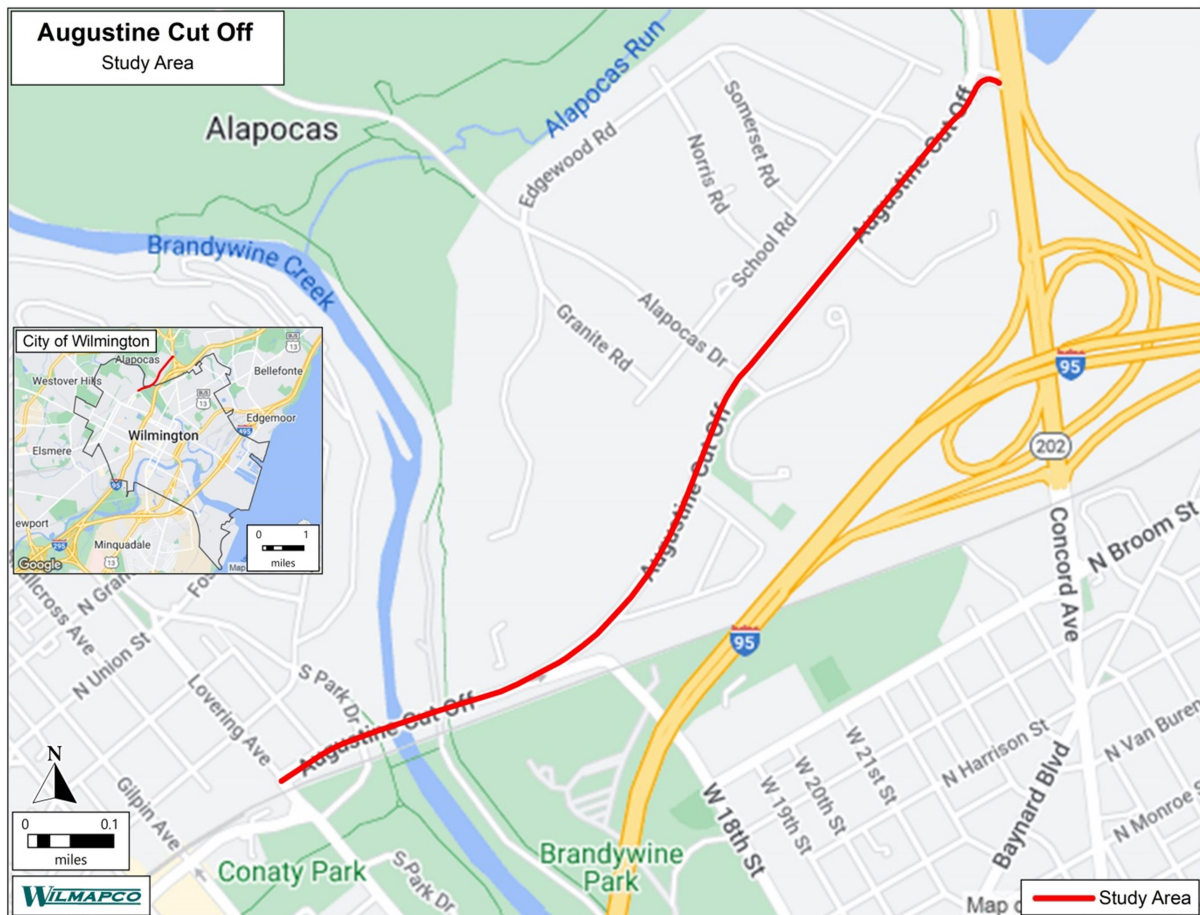
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Introduction

The Augustine Cut Off Multimodal Improvements Study, Phase 2 follows the Phase 1 study conducted by DelDOT in 2022, which led to a pathway/sidewalk improvement concept for Augustine Cut Off from Lovering Avenue to Cantera Avenue. This Phase 2 study will continue to develop a concept for the entire corridor to function more safely for all modes, including a program of traffic safety recommendations, strategies to affirm the changing land use context along the roadway, low-stress pedestrian and bicycle facilities, and context-sensitive aesthetic improvements from Lovering Avenue to US-202.

This report highlights existing demographics, transportation, and land use conditions in the study area, which consists of the entire corridor from Lovering Avenue to US-202. The study area is shown below.

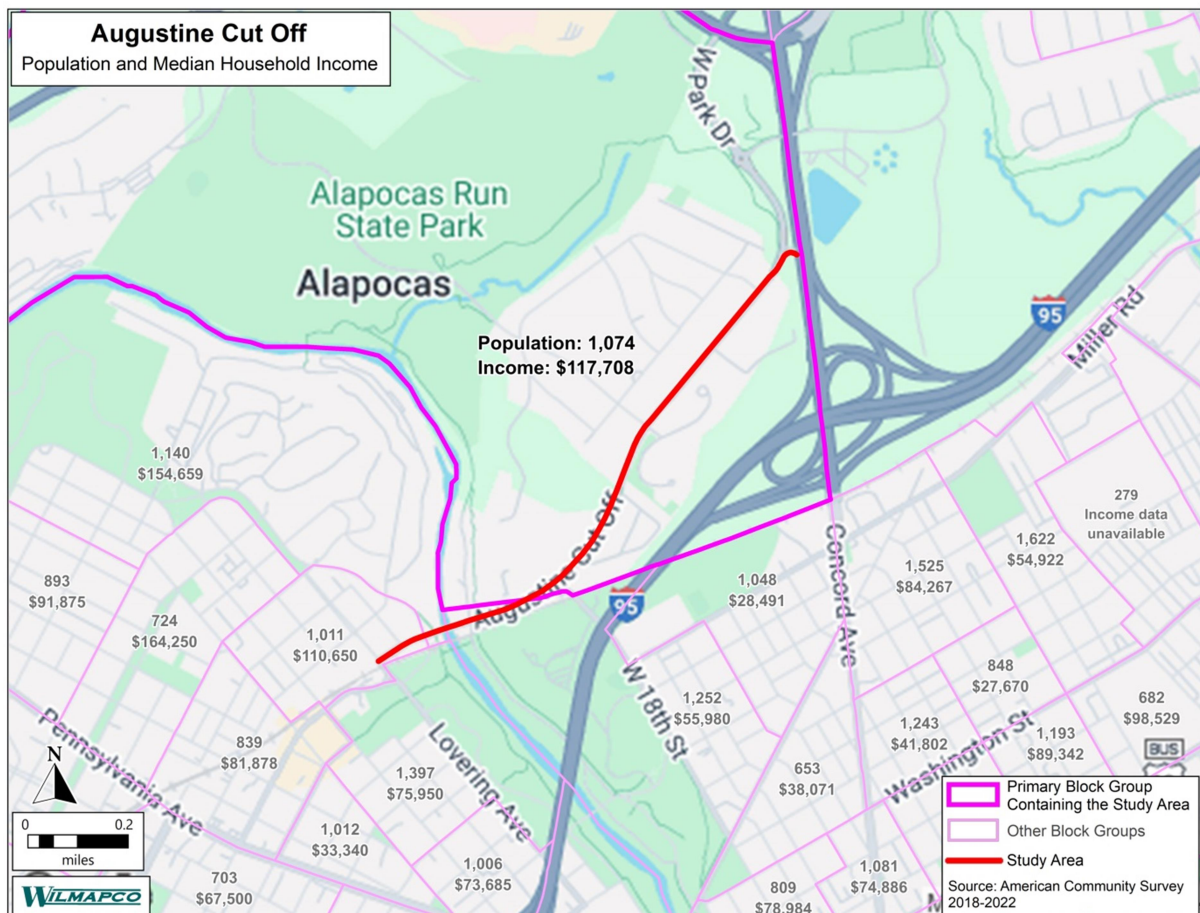


Demographics

The majority of the Augustine Cut Off corridor is located in one Census block group. According to the 2018-2022 American Community Survey, 1,074 people live within this block group, and median household income is \$117,708. Population and income are similar for the block group at the southern end of the corridor.

The primary block group is 91% non-Hispanic White, 3% Hispanic or Latino, 2.5% non-Hispanic Black, 1% non-Hispanic Asian, and 2.5% other or mixed race. 46% of the population is aged 65 or older. 14% of people and 13% of households are below the poverty line.

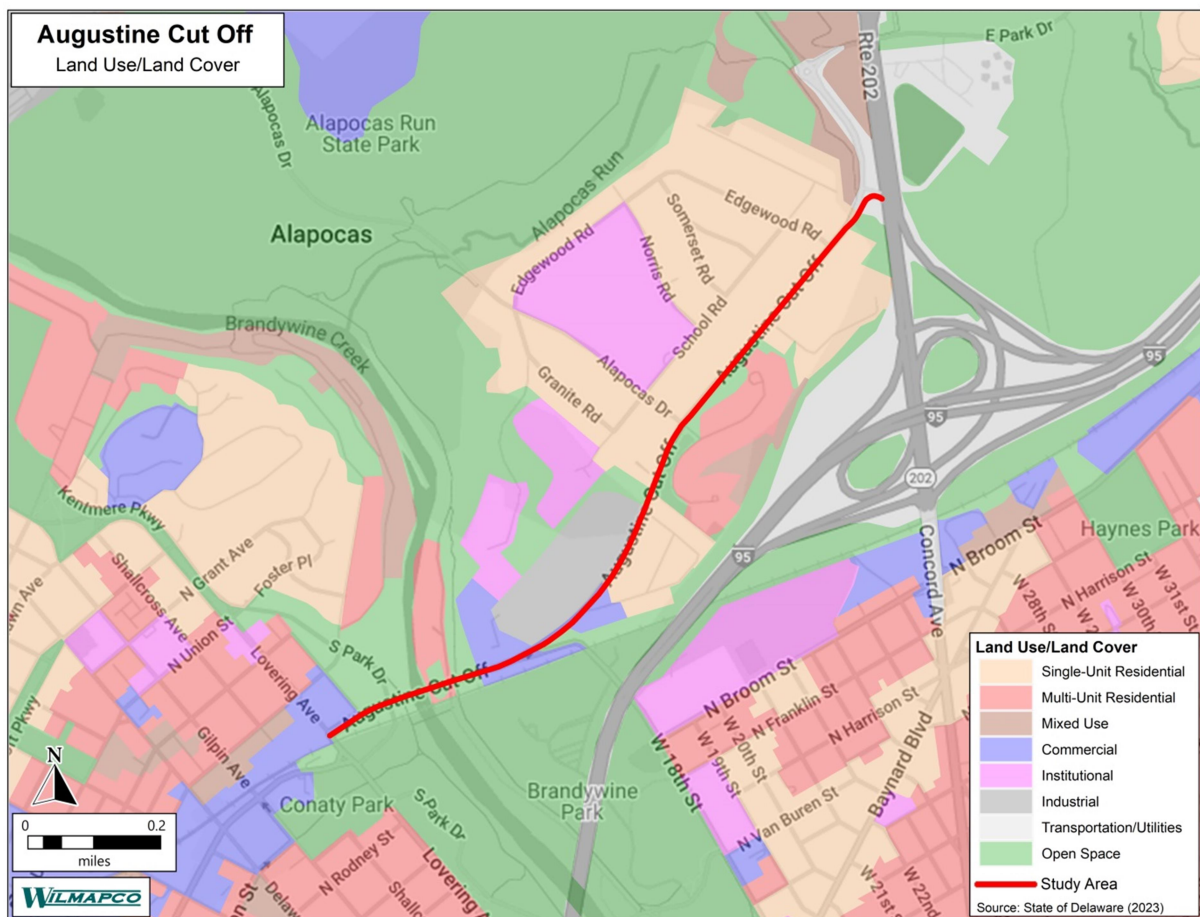
93% of workers drive alone to work and 7% work from home. Less than 2% of households do not have access to a motor vehicle.



Land Use and Zoning

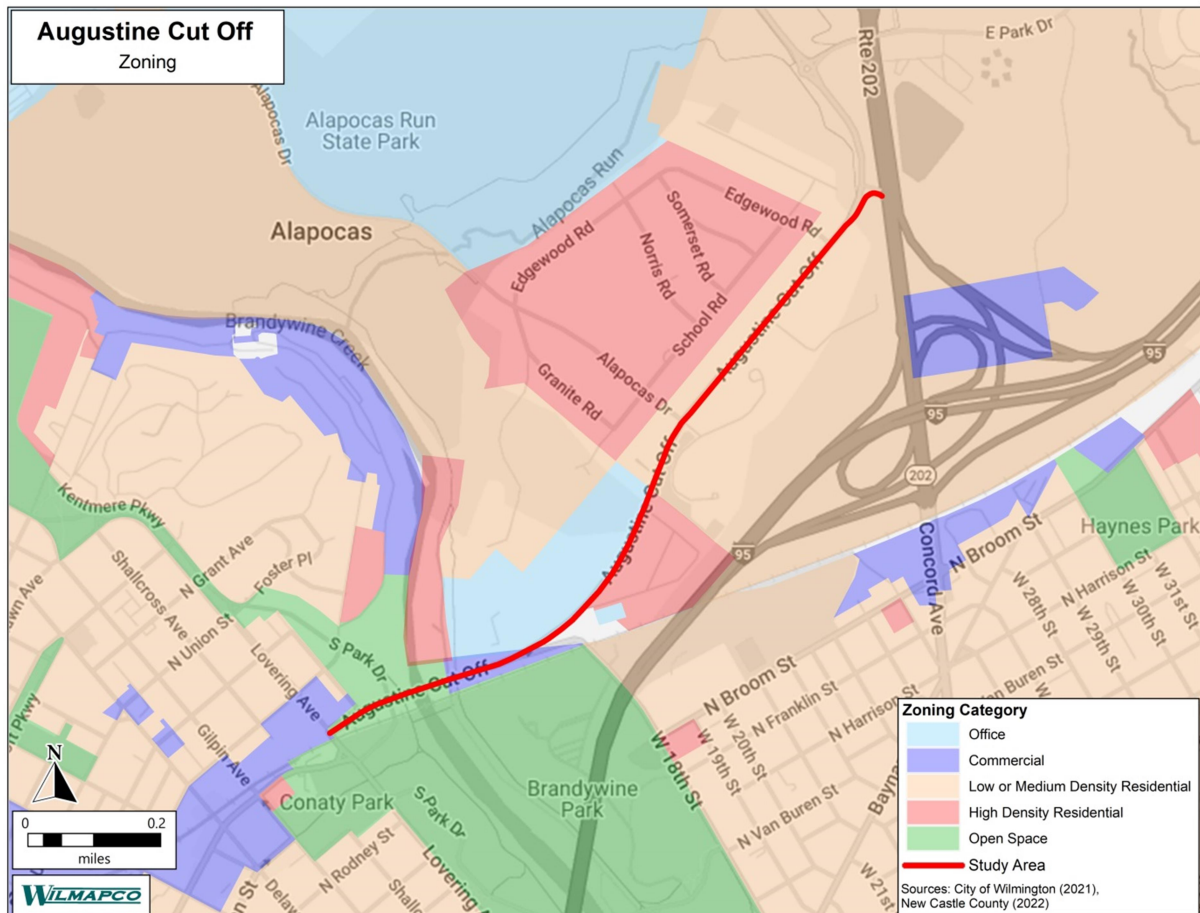
Land Use/Land Cover

The Augustine Cut Off corridor is primarily lined with single-unit residential housing, though there is also multi-unit residential, institutional, and industrial uses nearby. The Wilmington Friends School is located just northwest of the corridor, surrounded by low-density housing. Alapocas Run State Park is located further northwest and Brandywine Park is to the south. Nearby Wilmington neighborhoods contain a mixture of single-unit residential, multi-unit residential, and commercial uses.



Zoning

The Augustine Cut Off corridor is primarily lined with low- to high-density residential zoning, as well as office zoning just north of the Brandywine Creek. Though it is a park, Alapocas Run State Park contains residential and office zoning. Nearby Wilmington neighborhoods are primarily zoned for low- to medium-density residential.



Ecological Network

The Delaware Ecological Network is a statewide conservation network developed from GIS and field data. It was last updated in September 2023. Alapocas State Park is designated as a Core area, which contains relatively intact natural ecosystems and provide high quality habitat for native plants and animals. Otherwise, no conservation areas are in or near the study area.

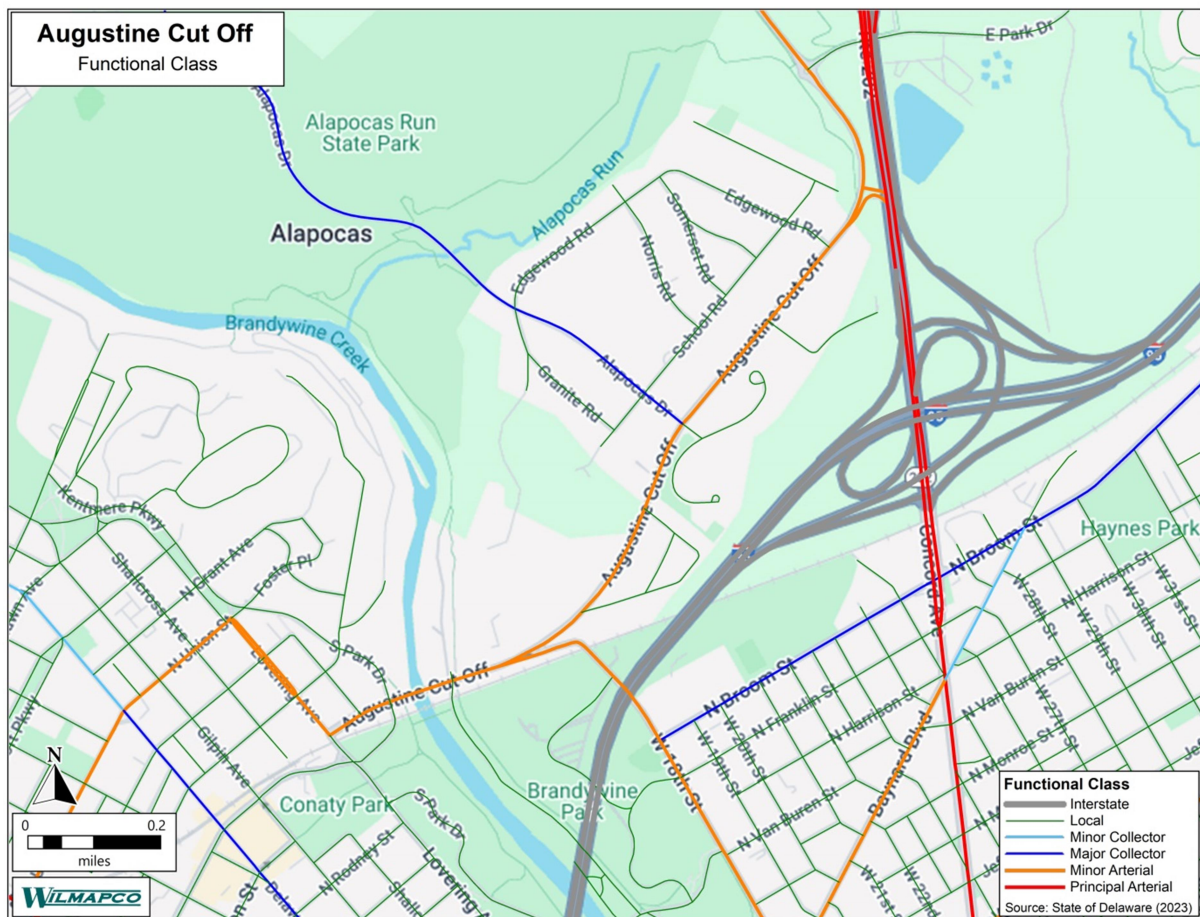
Historic Properties

According to the National Register of Historic Places, there are no registered historic properties in or near the study area.

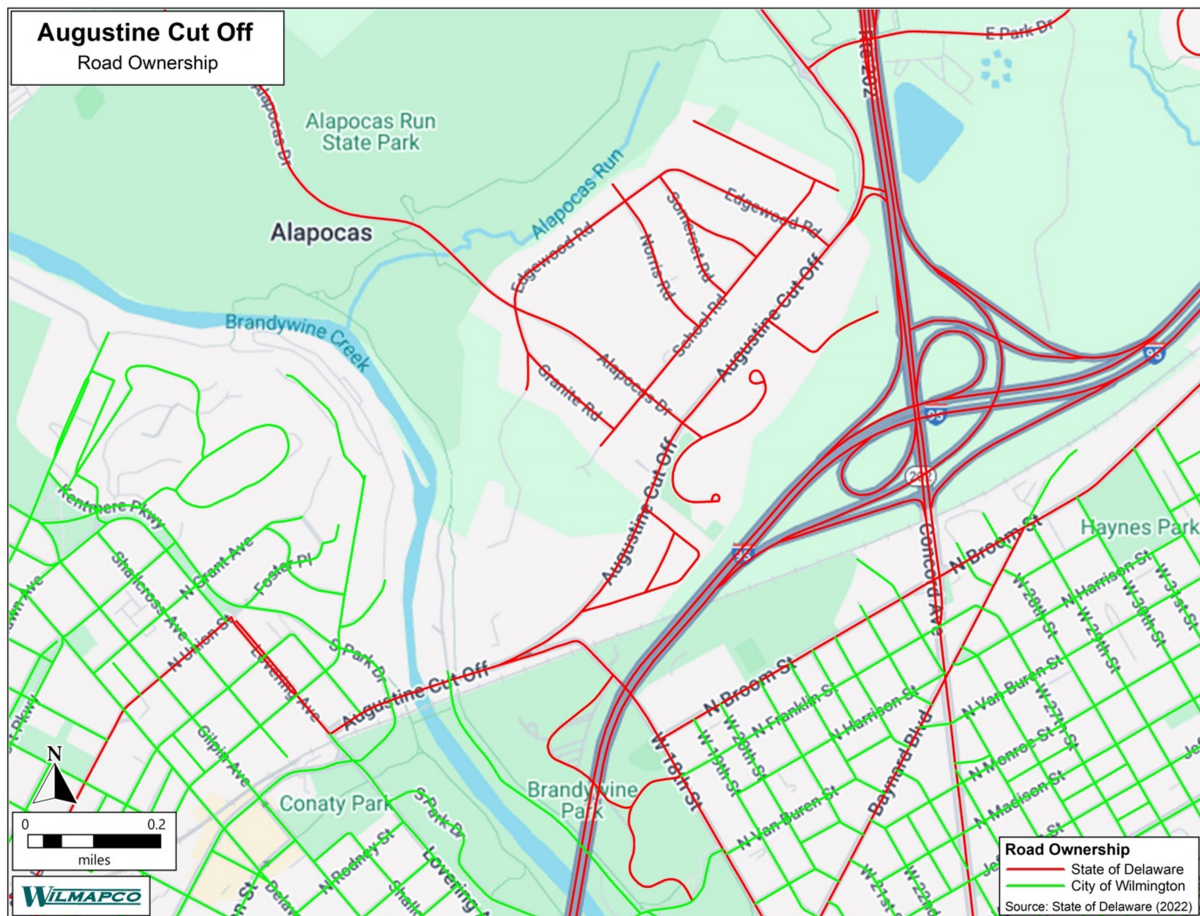
Transportation Conditions

Functional Class

As identified by the State of Delaware, Augustine Cut Off is classified as a minor arterial. Alapocas Drive is a major collector. Augustine Cut Off connects to other minor arterials, including Lovering Avenue and 18th Street. US-202 is a principal arterial. All other roadways along the corridor are local roads.



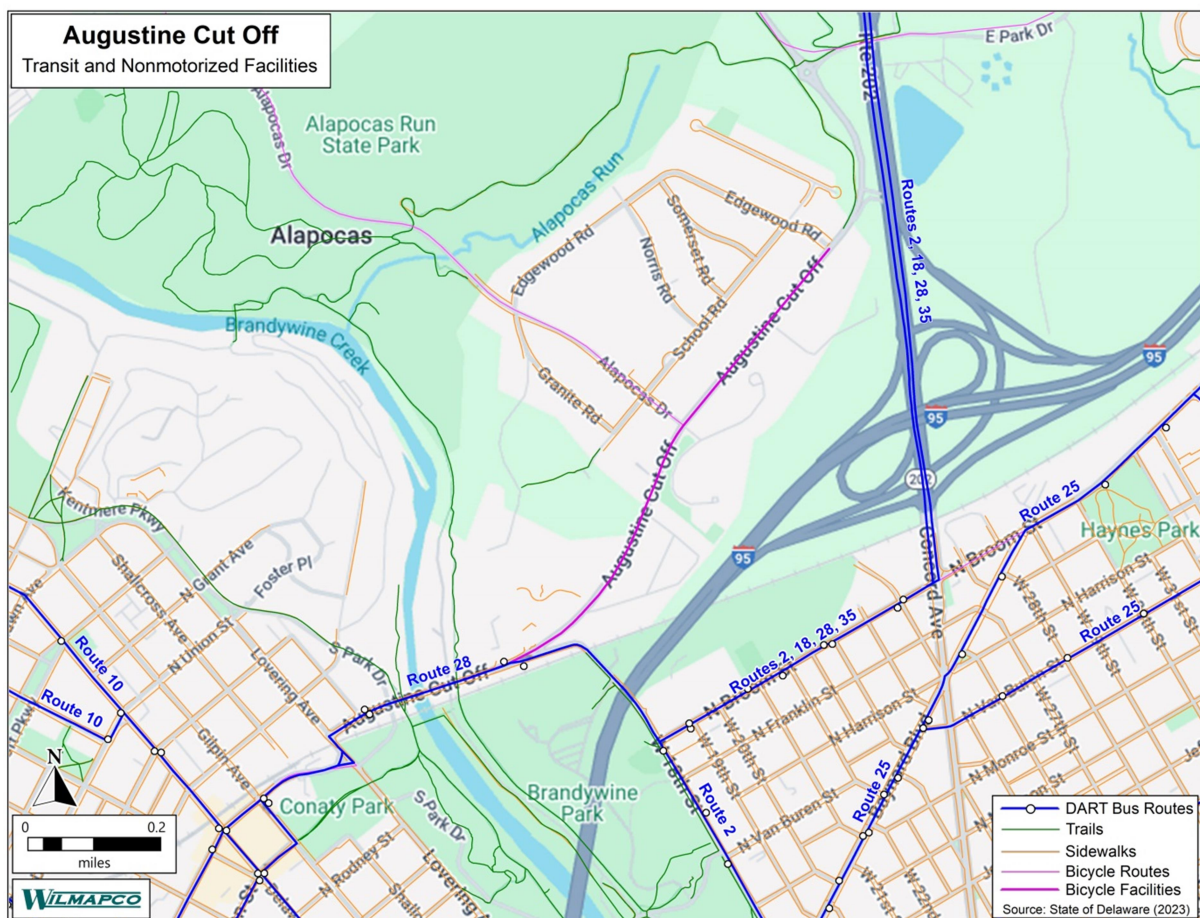
The State of Delaware owns and maintains Augustine Cut Off, Alapocas Drive, local roads along the corridor, and nearby arterials in the city of Wilmington. The state also maintains US-202 and I-95 through the study area. The City of Wilmington owns and maintains nearby local streets within its boundaries.



Transit and Nonmotorized Facilities

DART's Route 28 bus serves a portion of the Augustine Cut Off corridor, but it bypasses the portion of the corridor outside of the city by way of 18th Street, Broom Street, and US-202. The rest of the corridor is not served by transit.

Augustine Cut Off has sidewalks on both sides from Lovering Avenue to 18th Street. Between 18th Street and Cantera Road, there is a paved sidepath on the west side of the corridor, but no path or sidewalk on the east side. The majority of the corridor has painted on-road bike lanes or shoulders. Most nearby residential streets have sidewalks. There are many trails nearby, which connect Alapocas Run State Park and Brandywine Park along the Brandywine Creek.



Bicycle Level of Traffic Stress

Bicycle level of traffic stress (bike LTS) is a measure of how stressful roads are for bicycling, based on infrastructure conditions including traffic speeds, traffic volumes, the number of lanes, and the presence of dedicated bicycle facilities. In 2019, DelDOT developed its own bike LTS methodology, giving each road segment in Delaware a bike LTS score ranging from 1 (least stressful) to 4 (most stressful).

The sidepath along sections of Augustine Cut Off was identified as LTS 1; full separation from motorized traffic makes this sidepath safe for nearly everyone. The corridor's on-road bike lanes and shoulders were identified as LTS 3. Though these are dedicated facilities, lack of physical protection along with 85th percentile speeds exceeding 40 mph makes biking on-road only suitable for confident riders.

Nearly all residential streets near the study area were identified as LTS 1; light traffic and slower speeds make these streets comfortable for almost everyone. Alapocas Drive, Lovering Avenue, and other nearby arterials and collectors were identified as LTS 3. 18th Street was identified as LTS 2. US-202 contains LTS 3 and LTS 4 sections.



Traffic Volumes

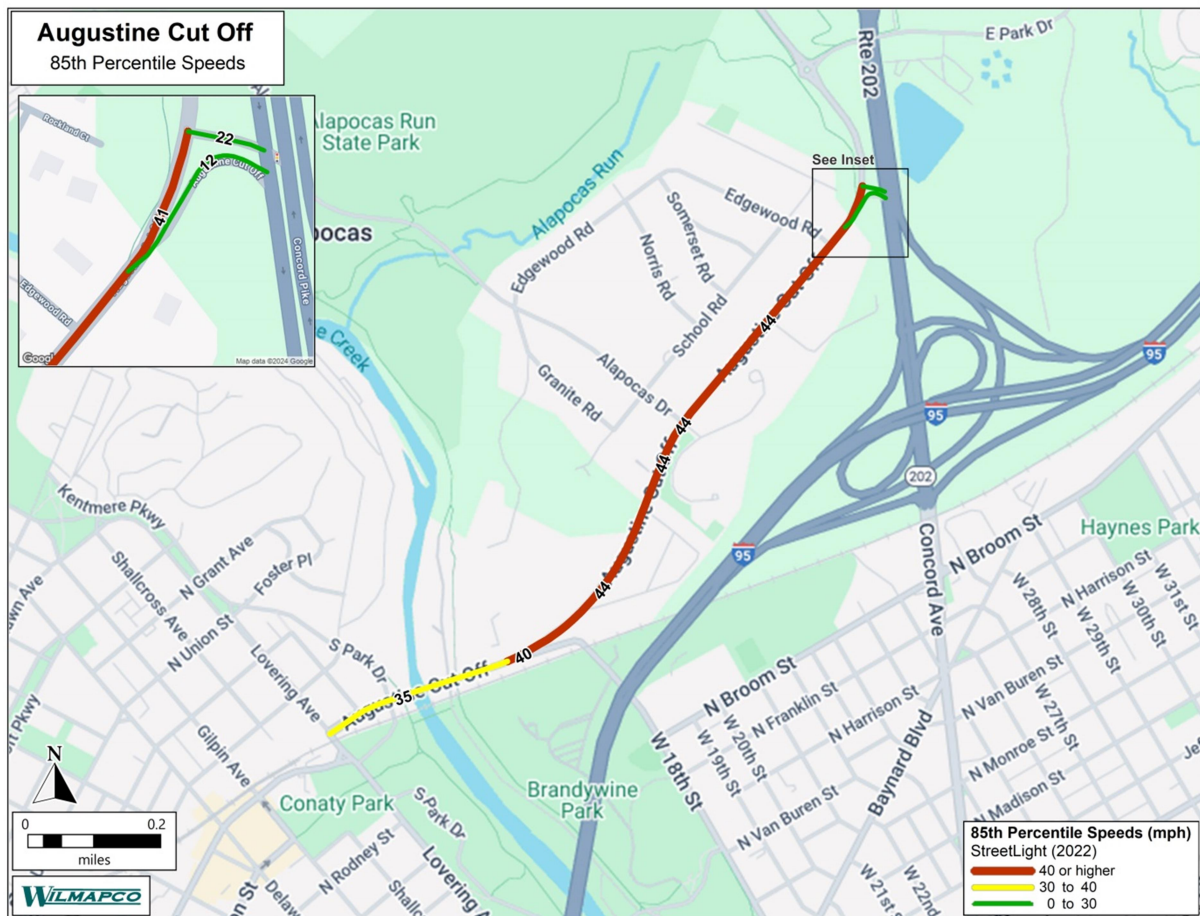
On the average day in 2023, the majority of Augustine Cut Off carried 8,000 to 9,000 vehicles. Traffic volumes were a bit higher, between 9,000 and 10,000 vehicles, between Lovering Avenue and 18th Street. About 1,000 daily vehicles used Augustine Cut Off to access US-202, and 600 daily vehicles exited US-202 to the corridor.



85th Percentile Speeds

85th percentile speed is the speed at or below which 85% of vehicles travel on a given segment.

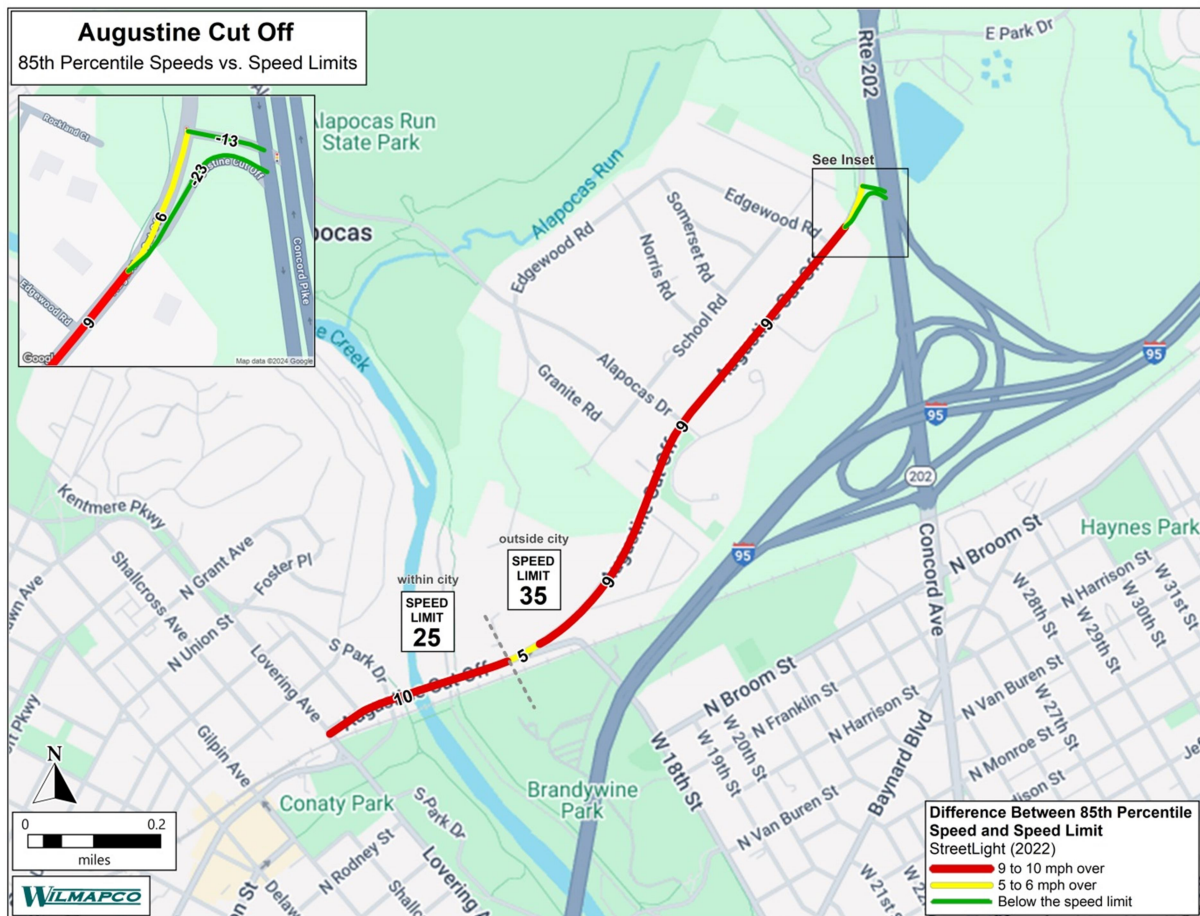
In 2022, 85th percentile speeds on Augustine Cut Off between 18th Street and Edgewood Road ranged from 40 to 44 mph. Speeds were 35 mph between Lovering Avenue and 18th Street. Speeds entering and exiting US-202 were between 12 and 22 mph.



85th Percentile Speeds Compared to Speed Limits

Within city limits, the speed limit on Augustine Cut Off is 25 mph. Outside the city, the speed limit is 35 mph.

In 2022, 85th percentile speeds were 9 to 10 mph over the speed limit on the majority of the corridor. Speeds were 5 mph over at the intersection with 18th Street. Traffic entering or exiting US-202 moved well below the speed limit.



Crashes

Between 2019 and 2021, a total of 16 vehicle crashes occurred along Augustine Cut Off. An additional 11 crashes occurred at the intersection of Augustine Cut Off and US-202.

None of these crashes involved people walking or biking, nor did any result in a fatality.



Planned Transportation

WILMAPCO's 2050 Regional Transportation Plan – 2023 Update (RTP) includes two constrained (funding identified) projects in the study area: the Augustine Cut Off Pathway and the East Coast Greenway through New Castle County.

The FY2025-2028 Transportation Improvement Program (TIP) includes the nearby rehabilitation of I-95, from I-495 to north of the Brandywine River Bridge.

