
To:	North Carolina Turnpike Authority	From:	Fleur Hartmann, PE Adam Mangano Drenkard, PE Stantec
File:	R-2576	Date:	March 1, 2023

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

1.0 INTRODUCTION

NCTA requested that Stantec conduct a Peak season traffic data collection program in the Outer Banks in preparation for the refresh of the 2018 Mid-Currituck Bridge Investment Grade Traffic and Revenue (T&R) Study which is anticipated to be completed in late 2023/early 2024. In order to meet this likely schedule, Peak season traffic data needed to be collected in summer 2022. Shoulder and Off-Peak data collection programs will be completed at a later date¹.

In addition to the Peak season data collection, this memorandum also provides summaries and analyses of the traffic crossing the Wright Memorial Bridge (WMB). These data have been continuously analyzed since 2018 and provide an insight to how traffic reacted at the onset of the COVID-19 pandemic and illustrate the “new normal” travel patterns.

Stantec's review of the 2022 data shows that traffic remains high in the Peak season on the Outer Banks and congestion is prevalent on weekends and Fridays, especially along NC-12.

2.0 PEAK SEASON TRAFFIC DATA COLLECTION PROGRAMS, 2016-2022

As part of the previous Mid-Currituck Bridge studies, Stantec analyzed traffic crossing the Wright Memorial Bridge and noted three distinct travel seasons in the study area: the Peak season, the Off-Peak season and the Shoulder Peak season. To assess the conditions within these seasons, a detailed seven- to ten-day traffic data collection program was conducted in each season for each study completed.

The 2022 Peak season data collection program discussed herein was conducted from Friday, July 15, 2022 to Sunday, July 24, 2022. Previously, Stantec conducted a 2018 data collection program for one week in each season to provide an update to the traffic data previously collected in 2016 (one week in each season) and 2017 (ten days in the Peak season). The 2016 data were collected as part of the effort to complete previous studies for the Mid-Currituck Bridge. The data collected in 2017 were intended to supplement the 2016 data and verify the growth assumptions in the previous studies. In

¹ In Stantec's Mid-Currituck Bridge Traffic and Revenue Report (dated October 9, 2019), the definitions for the seasons were June 16-August 15 for the Peak, May 4-June 15 and August 16-September 27 for the Shoulder Peak, and September 28-May 3 for the Off-Peak.

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

2018, a full data collection effort, which included most of the same data collected in 2016 as well as some new data collected at select locations, was completed to assist in the preparation of the 2018 Investment Grade Study.

Table 2-1 summarizes the data collection dates for each program. The Peak season data were collected in July for all four years. The July 2017, 2018, and 2022 dates coincide on the third week of the month.

Table 2-1: Seasonal Data Collection Dates by Year, 2016 – 2022

Season	2016	2017	2018	2022
Peak	July 11 th – 17 th	July 14 th – 23 rd	July 16 th – 22 nd	July 15 th – 24 th
Shoulder	June 6 th – 12 th	N/A	June 3 rd – 9 th	N/A
Off-Peak	April 18 th – 24 th	N/A	Oct 19 th – 25 th	N/A

3.0 FACTORS AFFECTING TRAFFIC IN THE OUTER BANKS

The traffic data collected in July 2022 indicates that traffic volumes are still high, and congestion is still prevalent on the Outer Banks, particularly on Saturdays. However, some trends are different than those in prior data collection programs for reasons discussed below.

3.1 HIGHER WORK-FROM-HOME FREQUENCY

One of the lasting impacts of the COVID-19 pandemic has been the increased frequency of working from home. According to the US Census, the number of people primarily working from home tripled in the US between 2019 (prior to the pandemic) and 2021, increasing from 5.7 percent in 2019 to 17.9 percent in 2021². In North Carolina, the number of people primarily working from home increased from 6.7 percent in 2019 to 18.8 percent in 2021. The impact of this trend has been later starts to the weekday AM peak period and lower AM peak volumes than before the pandemic.

In addition, flexible work-from-home policies have allowed more “working” vacations, which allow to employees to work from vacation locations. People taking these types of vacations are typically working during the weekdays, thereby reducing discretionary recreational trips usually associated with a vacation. Additionally, “working” vacations may allow visitors to extend their stay; conversations with realtors indicate that multi-week rentals are becoming more frequent. This may reduce traffic volumes over the weekend.

3.2 GAS PRICES

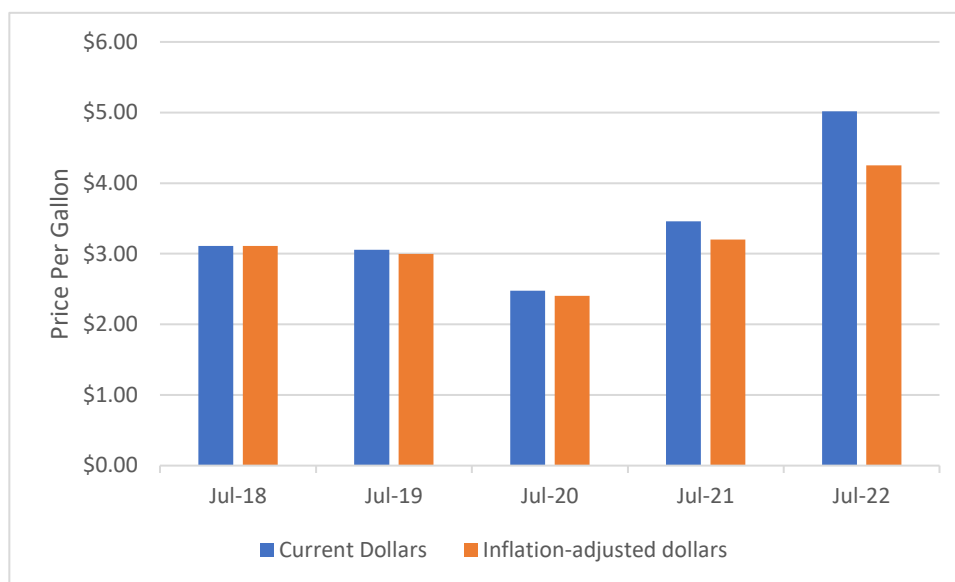
Another factor affecting travel on the Outer Banks in June and July of this year was the high gas prices that occurred in the early part of the summer. As shown in **Figure 3-1**, July 2022 gas prices were 61

² <https://www.census.gov/newsroom/press-releases/2022/people-working-from-home.html>

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

percent higher than in July 2018 in current (nominal) dollars, and 37 percent higher than in July 2018 in inflation-adjusted dollars³. While the high gas prices likely did not deter people from taking their vacations, they may have impacted the number of vehicles per vacation rental and the number and/or length of discretionary trips taken while on the Outer Banks. The effect of these high prices is most evident in the lower weekday traffic count data on the Outer Banks. It should be noted that gas prices dropped significantly by the end of 2022 from the summer prices.

Figure 3-1: Average US Gas Prices in July by Year



3.3 RENTAL CONTRACT OPENING DATES

In previous years, most rental contracts on the Outer Banks began and ended on Saturdays. Discussions with local realtors indicated that there has been an effort to encourage vacation homeowners to consider changing these start/end rental days to Fridays and Sundays. The effect of this change has been higher traffic volumes on Fridays and Sundays and lower Saturday volumes in some locations than prior years.

4.0 TRAFFIC ON THE WRIGHT MEMORIAL BRIDGE

Stantec summarized and analyzed traffic volumes crossing the WMB from 2012 to the present. A NCDOT permanent count station measured WMB traffic volumes in both directions with loop detectors on both spans of the bridge until October 2017 except when construction prevented counts from being collected between October 2013 and April 2014 as well as between October 2014 and May 2015. From October 2017 to May 2018, construction closed both lanes of the westbound bridge span and westbound traffic was re-routed to the eastbound span which then operated with one travel

³ https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=EMM_EPM0R_PTE_NUS_DPG&f=M

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

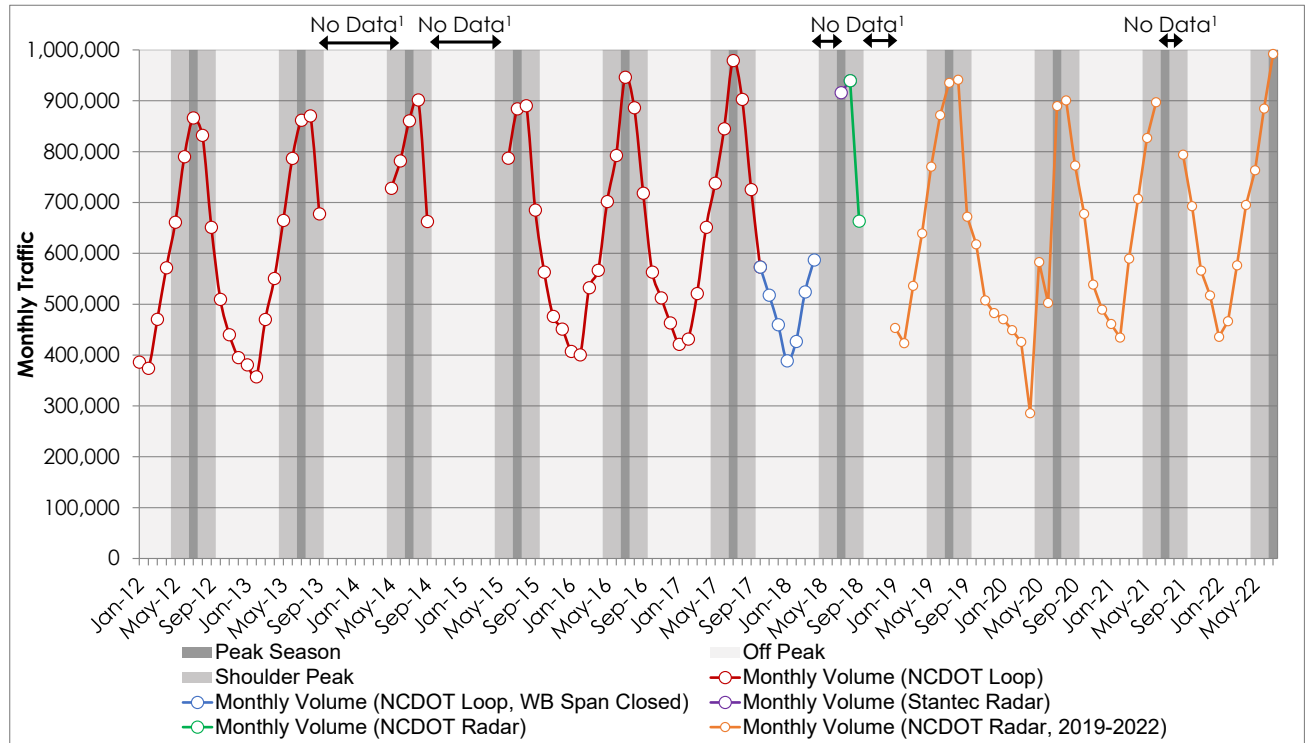
lane per direction. Permanent station counts after October 22, 2017 were collected from the eastbound span only and could not be broken out by travel direction. On April 30, 2018, the eastbound permanent count station was removed so no permanent count data were available in either direction after that date. In order to gather vehicle volume data, Stantec had a radar count system installed to measure eastbound traffic volumes from late June through early September 2018. The westbound data for that period were estimated based on the eastbound volumes and the historical Peak period directional split. Note that no traffic data in either direction were available for May and most of June in 2018. Radar traffic measurement devices were installed by NCDOT in September 2018 and have continuously been collecting traffic volumes in both directions, except for a short period in the summer of 2021 when the units were out of service.

When summarizing the data, atypically high or low traffic volumes were removed from the dataset to allow for an accurate year-over-year comparison that is not impacted by severe weather, non-recurring events, or traffic incidents.

Traffic crossing the Wright Memorial Bridge has been generally trending upward over the past decade as shown in **Figure 4-1**, from less than 900,000 in 2012 to nearly 1,000,000 in 2022. In 2022, July traffic was at its highest level. Peak season traffic was lower in 2018 than 2017. This is likely due to the Wright Memorial Bridge lane closures on weekdays throughout the summer of 2018 which discouraged discretionary trips across the bridge. In addition to the lane closures, extreme rainfall in late July 2018 impacted travel. The Outer Banks saw more rainfall in July 2018 than any other month in recorded history up to that point in time.

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

Figure 4-1: Total Historical Monthly Traffic Volumes on the Wright Memorial Bridge

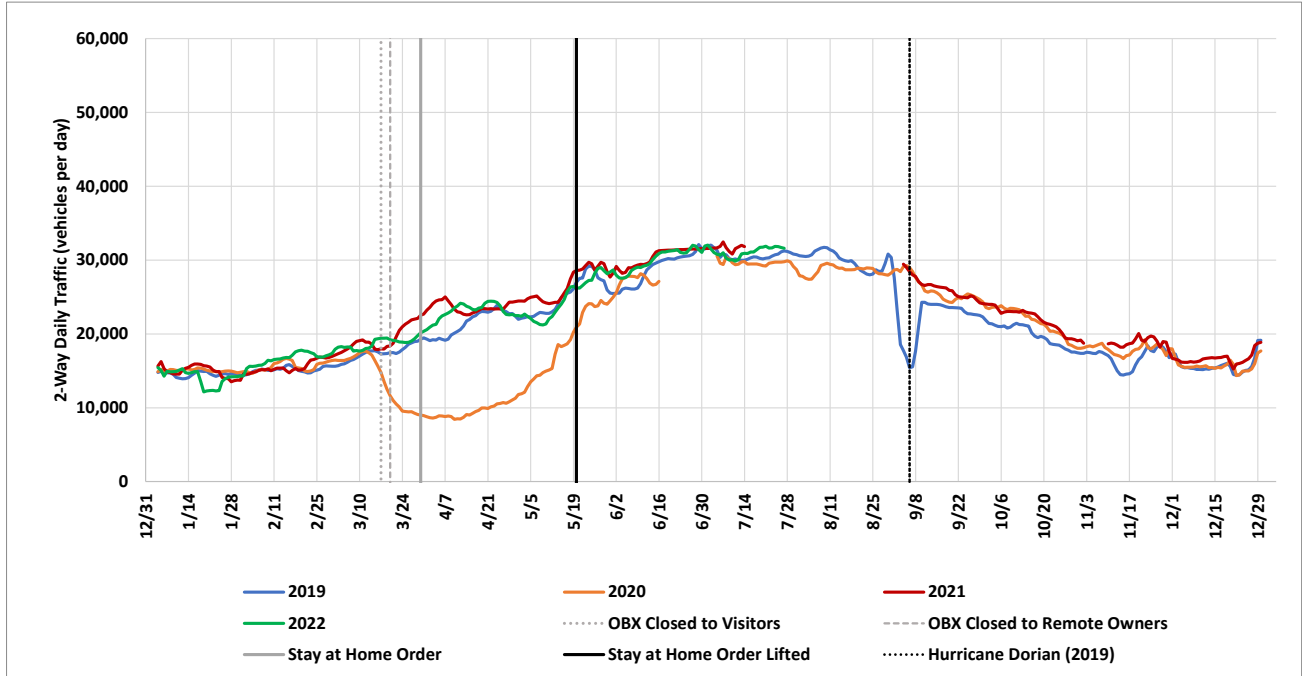


¹ No data due to construction.

In general, traffic crossing the WMB recovered to pre-COVID levels quickly. Once local travel restrictions were lifted, visitation to the Outer Banks resumed. In 2020 and early 2021, before vaccinations were widely available, international travel was still restricted and people were looking for a way to vacation with the ability to socially distance. In addition to people vacationing on the Outer Banks, work-from-home flexibility afforded people the opportunity to change their work location and renting a house gave people the ability to have “working” vacations more easily. **Figure 4-2** shows the 7-day moving average of traffic crossing the WMB in both directions from January 2020 to July 2022. As shown by the orange line in the figure, traffic returned to pre-COVID levels by the summer of 2020.

Reference: **Mid-Currituck Bridge 2022 Peak Season Traffic Analysis**

Figure 4-2: 7-Day Moving Average Daily Traffic, Wright Memorial Bridge

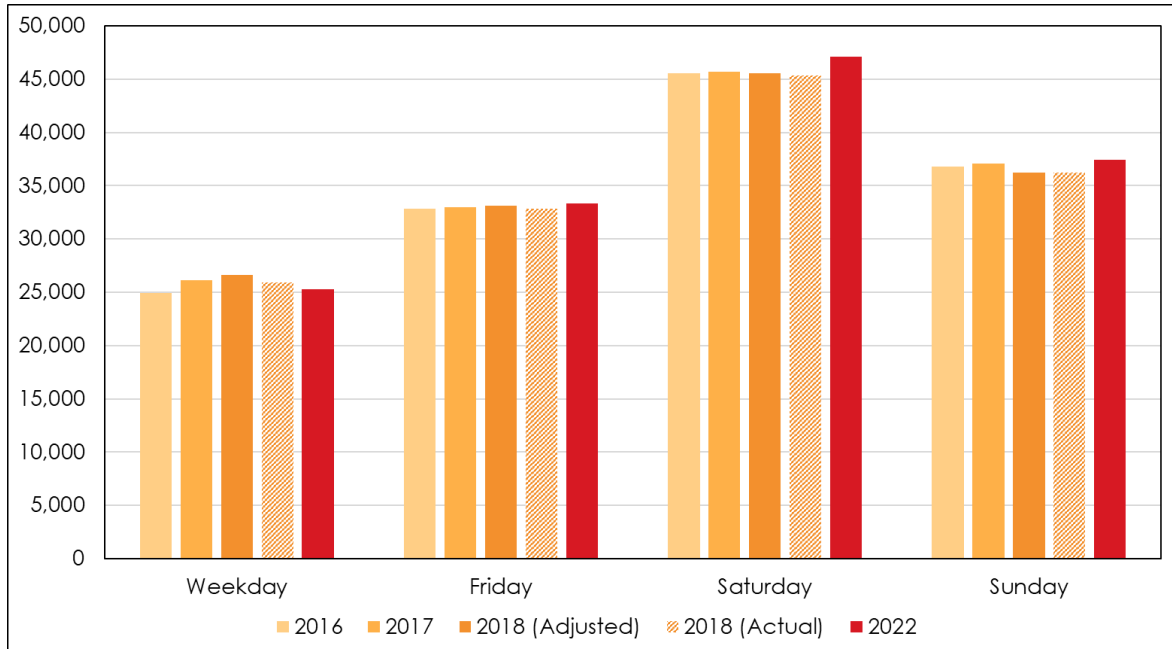


Note: Data were not available from July-August 2021

Figure 4-3 compares the average daily Wright Memorial Bridge crossing volumes collected from the permanent count stations in the Peak season 2016, 2017, 2018 and 2022 count programs by day type. As shown, weekday travel in 2022 was down slightly from 2018 levels. This is likely due to a reduction in work trips due to the higher frequency of working from home. Volumes crossing the WMB grew on Fridays, Saturdays, and Sundays (It should be noted that the 2022 volumes do not include August).

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

Figure 4-3: Average Daily Peak Season Traffic Across the WMB, 2016 – 2018 and 2022



Notes: 2018 volumes counted with radar detector. 2016 and 2017 volumes counted with induction loop detector. 2018 adjusted volumes removed July 19 – 27 from averages due to extreme rainfall impacting travel patterns. 2022 does not include August volumes.

5.0 TRAFFIC VOLUMES AT KEY LOCATIONS

5.4 2022 AUTOMATIC TRAFFIC RECORDER LOCATIONS

Twenty-five Automatic Traffic Recorder (ATR) counts were collected for 24 hours each day for a continuous 10-day period during the Peak season. Counts began on Friday, July 15 and ended on Sunday, July 24, 2022. Most of the 2022 ATR count locations, shown on a map of the area in **Figure 5-1** and listed in **Table 5-1**, correspond to the locations counted in 2018. Eight count locations were added to those from the 2018 program to further understand the routes vehicles use to cut through Southern Shores to avoid NC-12 congestion. The counts can be grouped into different areas within the region as follows:

- US-158 and NC-168, North of WMB (Mainland): These five locations (ATRs 10, 12, 13, 14, and 17)⁴ on the mainland provide the demand volume, route distribution and arrival profile of the vehicles destined for the Outer Banks.

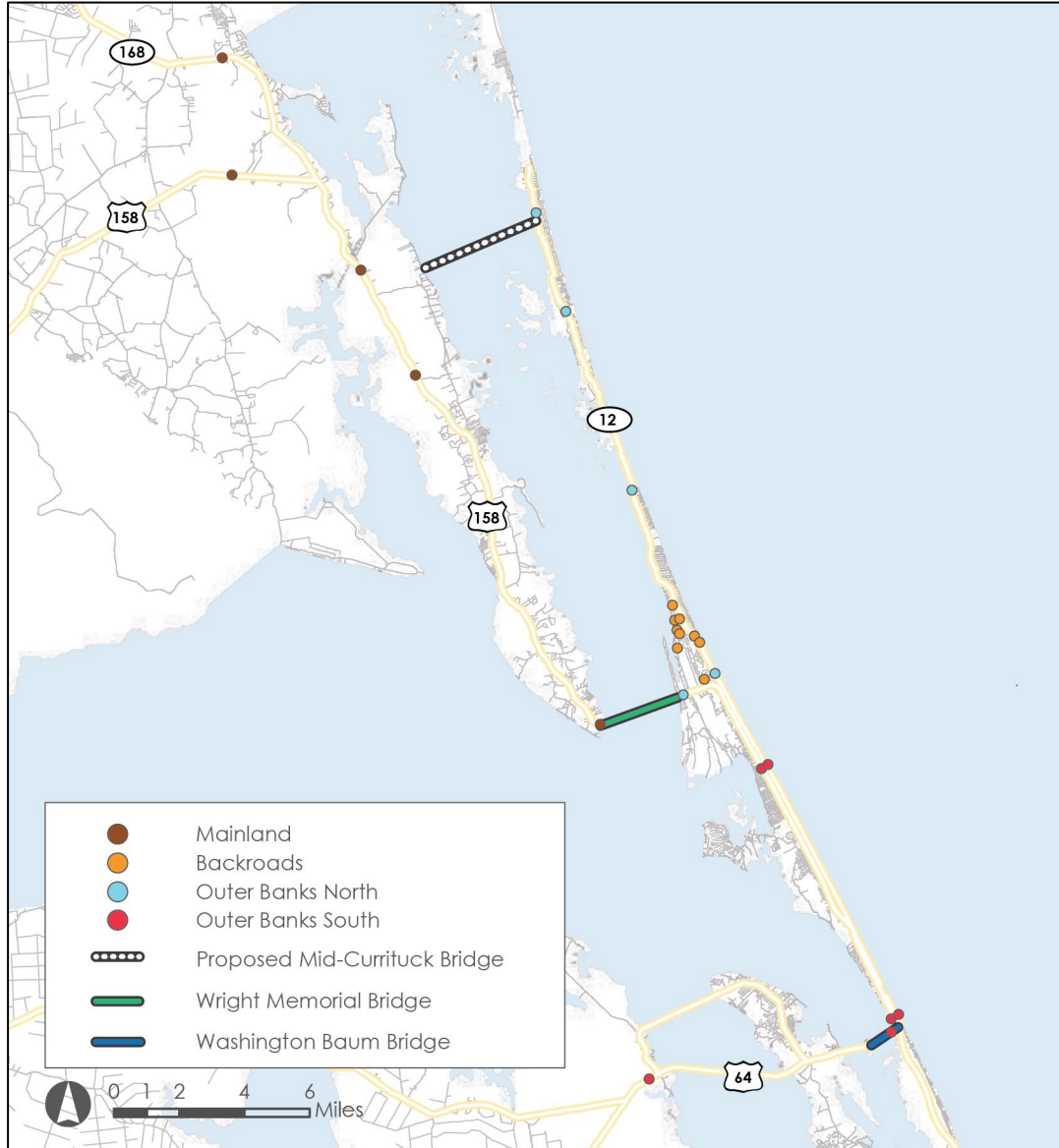
⁴ Please note that there is no data from any year for ATR 11; Stantec is using the same naming convention for its ATR locations as was used in 2016 when ATR 11 was removed from the data collection program prior to its execution.

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

- NC-12, North of WMB (OBX North): Five count locations (ATRs 1, 2, 3, 15, and 16) along the main highway to the northern portion of the Outer Banks provide the distribution of volumes destined for Southern Shores, Duck, Corolla, and areas further north.
- NC-12, US-158 and US-64 South of WMB (OBX South): These six locations (ATRs 4 through 9) provide the volumes and general distribution of traffic in areas south of the bridge such as Kitty Hawk, Kill Devil Hills, and Nags Head. Counts on US-64 provide volumes for the Washington Baum Bridge which connects the Outer Banks to Roanoke Island and the mainland south of Albemarle Sound.
- South Dogwood Trail and Southern Shores (Backroads): These locations (ATR 18 through 26) identify how many vehicles attempt to circumvent the NC-12 congestion by cutting through the local neighborhood and also the paths these vehicles take through the neighborhood. One of these locations, South Dogwood Trail north of Tall Pines Road (ATR 18) was counted in previous year's count programs; the other locations were added in 2022 and provide additional insight on the travel patterns in the area.

Reference: **Mid-Currituck Bridge 2022 Peak Season Traffic Analysis**

Figure 5-1: 2022 Peak ATR Count Locations



Reference: **Mid-Currituck Bridge 2022 Peak Season Traffic Analysis**

Table 5-1: 2022 Peak ATR Count Locations

ATR Number	Count Description	Count Location			
		Mainland	OBX North	OBX South	Backroads
1	NC 12 N of Sandfiddler Trl		x		
2	NC 12 N of Oyster Catcher Ln		x		
3	NC 12 S of E. Dogwood Trl (between Dogwood Trl and Dolphin Run)		x		
4	NC 12 N of Arch St			x	
5	NC 12 S of Gray Eagle St			x	
6	US 158 S of Gray Eagle St			x	
7	US 64 W of Shipyard Rd			x	
8	US 64 W of Whalebone Junction (W of Oceans East Bait and Tackle)			x	
9	US 158 N of Arch St			x	
10	US 158 E of Albtuck Rd	x			
12	US 158 N of Marshall Grandy Lane	x			
13	US 158 W of Currituck County Airport	x			
14	NC 168 E of Dozier Rd	x			
15	US 158 E of Barlow Ln (US 158 E of Martins Point Rd)		x		
16	NC 12 N of Virginia Dare Trl		x		
17	US 158 N of Waterlily Rd	x			
18	S Dogwood Trl N of Tall Pine Ln				x
19 *	Juniper Trl N of Palmetto Ln				x
20 *	Dogwood Trl Between Hickory Trl and Woodland Dr				x
21 *	Sea Oats Trl N of Hillcrest Dr				x
22 *	Hickory Trl N of Dogwood Trl				x
23 *	Hillcrest Dr N of Hickory Trl				x
24 *	Sea Oats Trl N of Hickory Trl				x
25 *	NC 12 N of Harbor View				x
26 *	Ocean Blvd N of NC 12				x

*New location added to the 2022 count program

5.5 HOURLY TRAFFIC VOLUMES

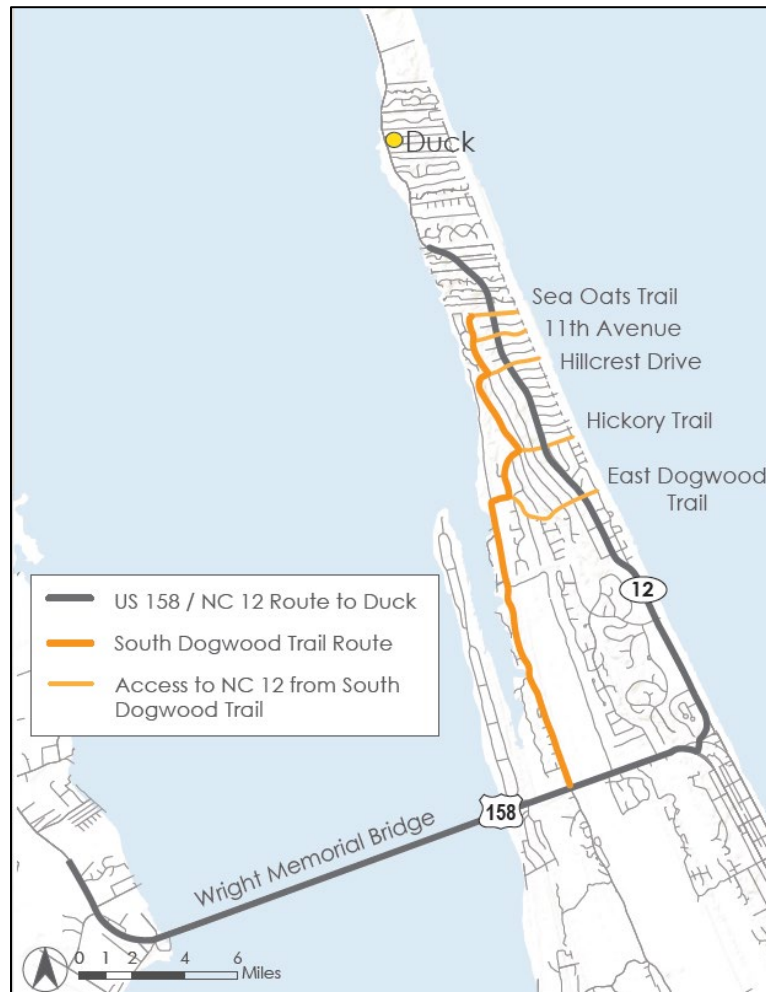
5.5.1 2022 Peak Season Hourly Traffic Volumes to the Outer Banks

The Peak season weekday hourly traffic profile from US-158 at Aydlett on the mainland to NC-12 in Duck follows a steady trend throughout the day at all locations, as shown in **Figure 5-3**. Counts from key locations are shown in the figure to illustrate the general traffic patterns through each area. The 2018 volumes are also included for comparison. Note that the backroad parallel to NC-12, South Dogwood Trail, experiences no greater than 100 vehicles per hour during a typical Peak season weekday.

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

Figure 5-4 shows that the Peak Saturday volumes are much greater than those on a Peak season weekday. The US-158 peak hour volumes on Saturday are more than three times higher as those during the weekday. South Dogwood Trail experiences a much higher volume during a Peak Saturday than a Peak weekday; on a Peak season Saturday in 2022, an hourly volume of 350-450 vehicles on South Dogwood Trail is sustained from about 10 AM to 4 PM. Field observations revealed the vehicles using this route are a major contributor to the extreme congestion experienced on northbound NC-12 south of Sea Oats Trail during a Peak season Saturday. The friction added by the left turn volumes from eastbound traffic on Sea Oats Trail, 11th Avenue, Hillcrest Drive, Hickory Trail, and East Dogwood Trail onto northbound NC-12 worsens the delays on NC-12. **Figure 5-2** shows the typical route taken from the Mainland to Duck along US-158 and NC-12 compared to the alternative route along South Dogwood Trail and subsequent local roads most utilized during the Peak season weekends.

Figure 5-2: US 158/NC 12 Route to Duck compared to South Dogwood Trail Route

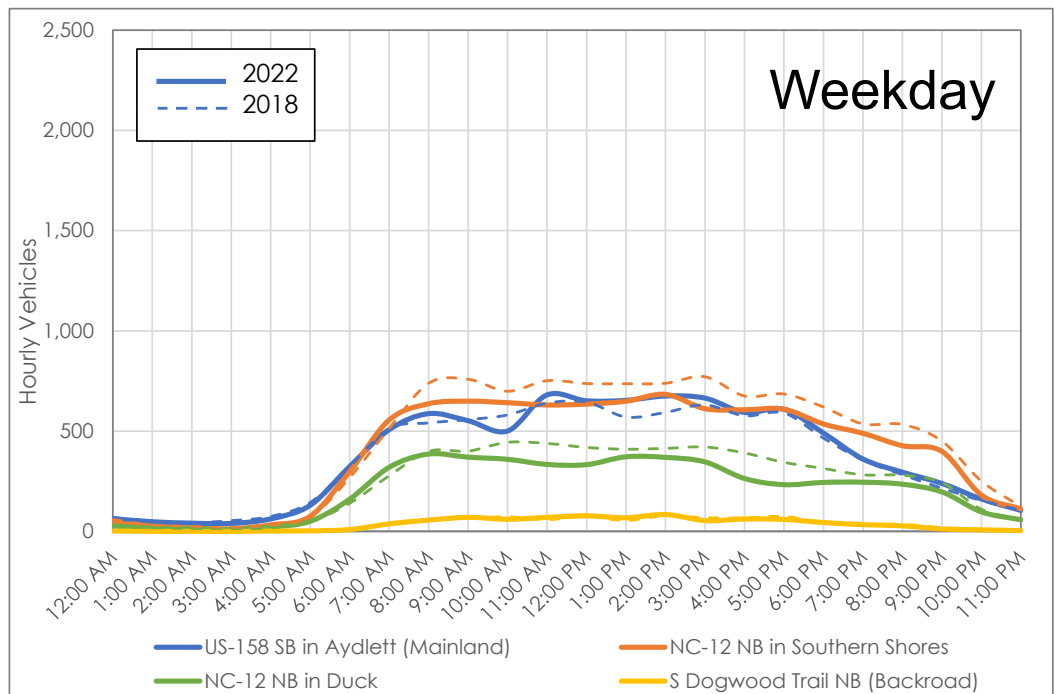


Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

Hourly volumes over 400 vehicles begin at 7 AM on Saturdays on northbound NC-12 in Southern Shores in 2022. Throughput decreases from about 680 vehicles per hour at 7 AM to about 470 vehicles per hour at 11 AM, which is approximately the timespan in which the Dogwood Trail volumes increase. The decrease in hourly volumes on NC-12 northbound during this period is due in part to substantial congestion; the travel time runs conducted show average speeds along NC-12 from Virginia Dare Trail to Blue Heron Lane decreased from 33 mph (close to free-flow speed for this roadway) at 6:47 AM to 25 mph at 8:14 AM and 7 mph at 10:05 AM. Stantec's monitoring of traffic conditions on Google Maps corroborates the growing congestion on Saturday mornings. Volumes remain above 400 vehicles per hour on northbound NC-12 in Southern Shores until about 10 PM.

Figure 5-5 shows that the 2022 Sunday hourly volumes and congestion are not as high as on Saturday, but a peak is clearly visible in the afternoon at about 3 PM that did not occur as prominently in previous count programs. In prior years, almost all rental contracts began on and ended on Saturdays. There has been an increased effort to spread arrivals over the entire weekend with more contracts beginning on Fridays and Sundays. The Sunday afternoon peak corresponds to the afternoon check-in times. Sunday traffic shows that travelers also use South Dogwood Trail to get to their destinations in Duck and north of Duck. Volumes on South Dogwood Trail peak in the afternoon, reaching about 400 vehicles per hour at 3 PM; this is more than four times the peak volume experienced on an average weekday.

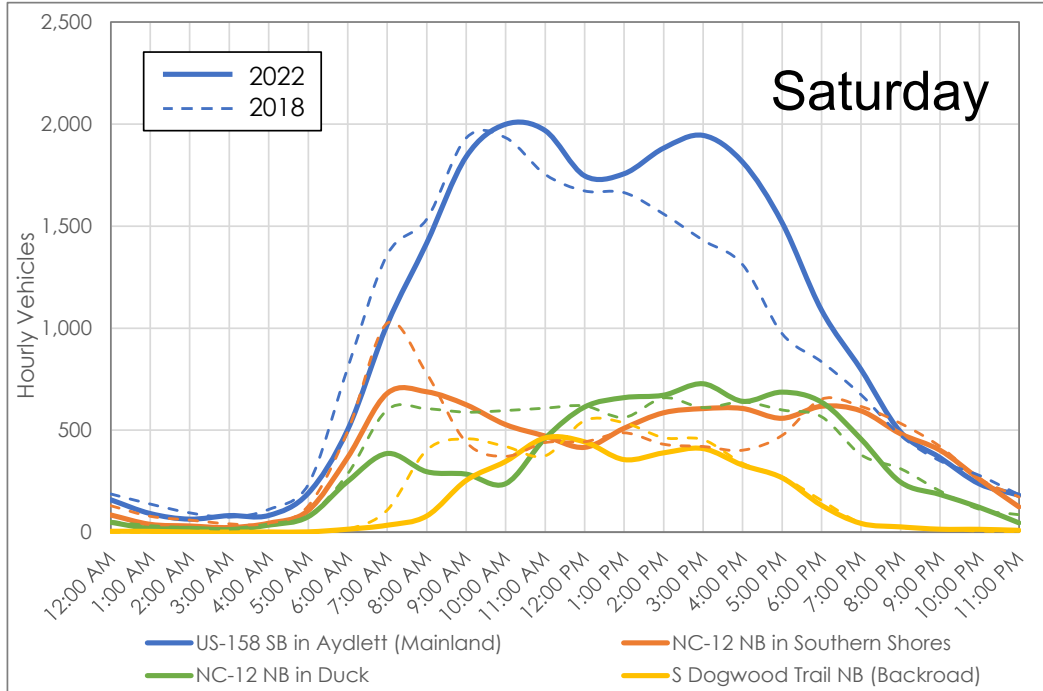
Figure 5-3: Stantec ATR Weekday Peak Season Hourly Volumes from Aydlett to Duck



Note: 2018 counts adjusted to account for weather effects. Source: Stantec ATR Counts, 2018 and 2022.

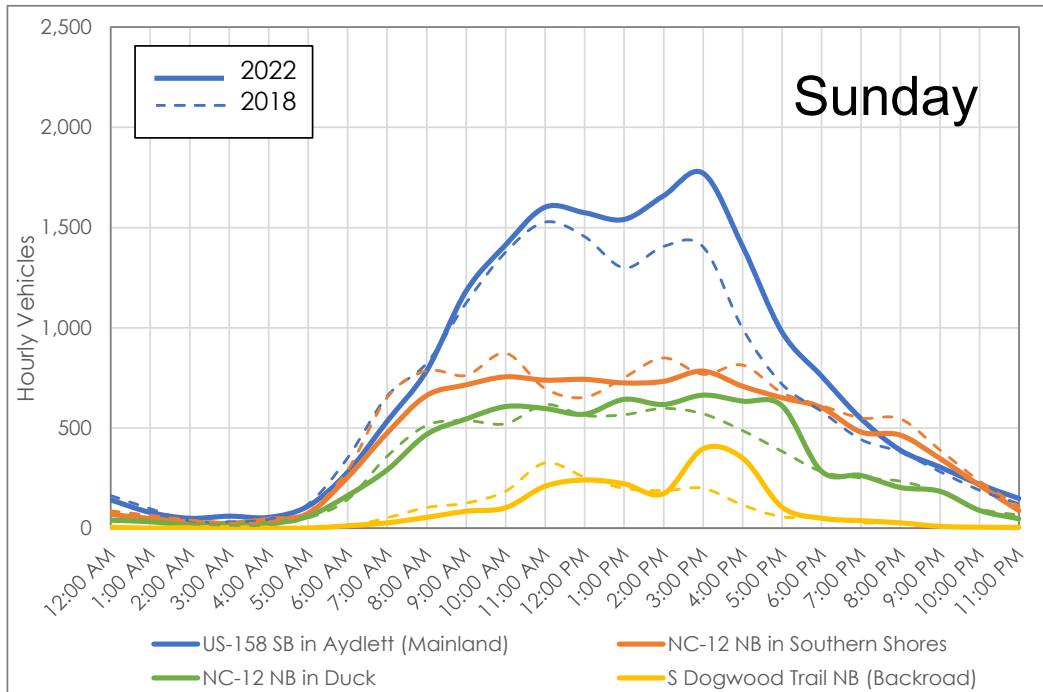
Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

Figure 5-4: Stantec ATR Saturday Peak Season Hourly Volumes from Aydlett to Duck



Note: 2018 counts adjusted to account for weather effects. Source: Stantec ATR Counts, 2018 and 2022.

Figure 5-5: Stantec ATR Sunday Peak Season Hourly Volumes from Aydlett to Duck



Note: 2018 counts adjusted to account for weather effects. Source: Stantec ATR Counts, 2018 and 2022.

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

5.6 2018 AND 2022 DAILY VOLUME COMPARISON

5.6.1 Peak Season Daily Volumes

Table 5-2, Table 5-3, Table 5-4, and **Table 5-5** show the changes in Peak season daily traffic volumes between 2018 and 2022 for representative count locations in the study area for weekdays (Monday-Thursday), Fridays, Saturdays, and Sundays, respectively. On NC-12, the 2022 weekday daily volumes were lower than in 2018. This was due likely to a variety of factors including more work-from-home activity and fewer discretionary trips due to higher gas prices. On Fridays, the collected volumes on NC-12 were also lower, however speeds on NC-12 were lower in the PM peak period (discussed in Section 6.0), indicating congestion, and volumes on the “shortcut” along South Dogwood Trail in the midday and PM peak period were higher (see Section 5.6.2), also indicating congestion. Saturday volume decreased, particularly north of Duck, likely due to the effort to change rental start dates to Fridays and Sundays. This also impacted Sunday traffic, which had volumes north of Duck increase in 2022 compared to 2018 while speeds decreased, particularly for northbound NC-12 traffic in the PM (see Section 6.0).

Table 5-2: 2018 and 2022 Peak Season Weekday (Monday-Thursday) Daily Volumes

Location	Weekday - Towards Outer Banks			Weekday - Towards Aydlett		
	2018	2022	Change 18-22	2018	2022	Change 18-22
US-158 in Aydlett	8,767	9,039	3.1%	8,454	8,639	2.2%
WMB Count	12,107	12,542	3.6%	11,711	11,411	-2.6%
NC-12 in Southern Shores	10,819	9,569	-11.6%	10,813	9,792	-9.4%
NC-12 North of Duck	5,918	5,053	-14.6%	5,875	5,088	-13.4%

Note: 2018 counts adjusted to account for weather effects. WMB Count data based on NCDOT Radar permanent counts, except 2018 towards Aydlett. All other data from Stantec ATR Counts, 2018 and 2022.

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

Table 5-3: 2018 and 2022 Peak Season Friday Daily Volumes

Location	Friday - Towards Outer Banks			Friday - Towards Aydlett		
	2018	2022	Change 18-22	2018	2022	Change 18-22
US-158 in Aydlett	13,077	12,868	-1.6%	12,838	13,730	6.9%
WMB Count	16,023	15,761	-1.6%	15,673	16,792	7.1%
NC-12 in Southern Shores	12,142	10,031	-17.4%	13,025	11,533	-11.5%
NC-12 North of Duck	6,184	5,335	-13.7%	6,861	6,256	-8.8%

Note: 2018 counts adjusted to account for weather effects. WMB Count data based on NCDOT Radar permanent counts, except 2018 towards Aydlett. All other data from Stantec ATR Counts, 2018 and 2022.

Table 5-4: 2018 and 2022 Peak Season Saturday Daily Volumes

Location	Saturday - Towards Outer Banks			Saturday - Towards Aydlett		
	2018	2022	Change 18-22	2018	2022	Change 18-22
US-158 in Aydlett	21,551	23,228	7.8%	21,460	22,294	3.9%
WMB Count	22,325	24,367	9.1%	22,319	23,554	5.5%
NC-12 in Southern Shores	9,343	9,449	1.1%	12,161	11,970	-1.6%
NC-12 North of Duck	8,863	7,822	-11.7%	8,464	7,845	-7.3%

Note: 2018 counts adjusted to account for weather effects. WMB Count data based on NCDOT Radar permanent counts, except 2018 towards Aydlett. All other data from Stantec ATR Counts, 2018 and 2022.

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis
Table 5-5: 2018 and 2022 Peak Season Sunday Daily Volumes

Location	Sunday - Towards Outer Banks			Sunday - Towards Aydlett		
	2018	2022	Change 18-22	2018	2022	Change 18-22
US-158 in Aydlett	15,652	17,591	12.4%	16,525	18,109	9.6%
WMB Count	18,148	19,371	6.7%	17,805	19,892	11.7%
NC-12 in Southern Shores	11,353	10,449	-8.0%	11,505	11,060	-3.9%
NC-12 North of Duck	7,148	7,690	7.6%	6,561	7,001	6.7%

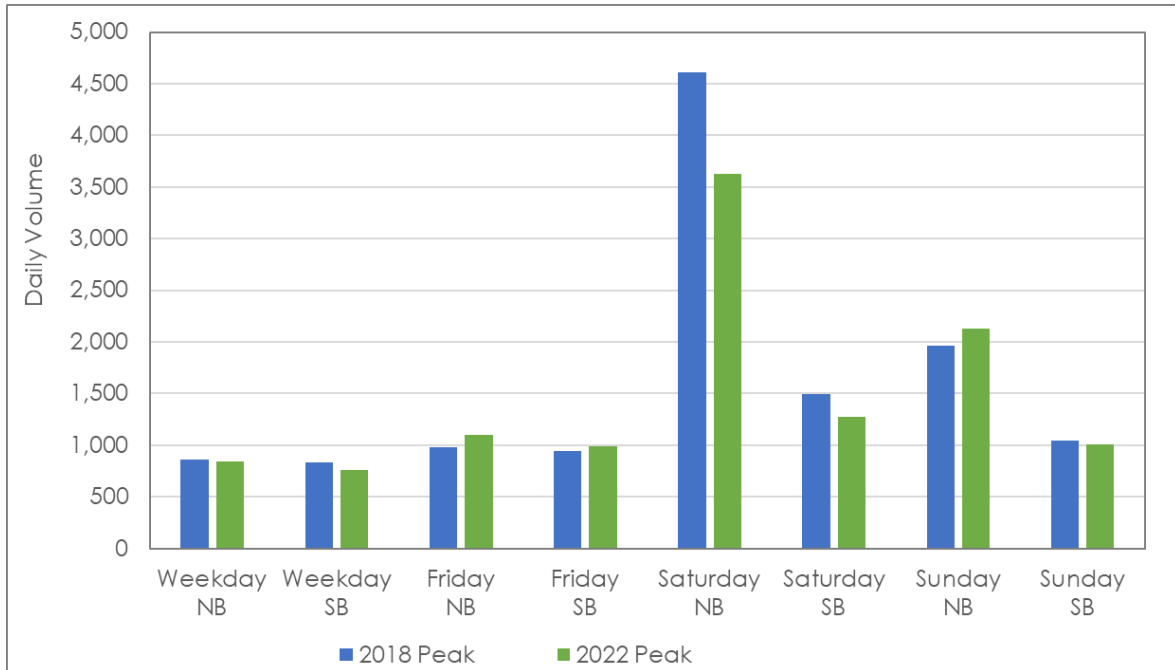
Note: 2018 counts adjusted to account for weather effects. WMB Count data based on NCDOT Radar permanent counts, except 2018 towards Aydlett. All other data from Stantec ATR Counts, 2018 and 2022.

5.6.2 South Dogwood Trail Volumes

Traffic was recorded on South Dogwood Trail, the alternative route through Southern Shores from the eastern side of the Wright Memorial Bridge, during the 2018 and 2022 Peak seasons. Use of this alternative route occurs when congestion on NC-12 is the greatest, making travel times on South Dogwood Trail comparable to, or lower than, NC-12. Smartphone guidance apps such as Google Maps and WAZE direct vehicles to this alternative route when there is even a one-minute time differential. **Figure 5-6** shows the variation in traffic volumes on South Dogwood Trail across days of the week and for each season in 2018 and in 2022. Northbound traffic reaches a high of over 3,500 daily vehicles on Saturdays in the Peak season in 2022, less than that in 2018, but more than four times as many vehicles as an average weekday. Total daily volumes increased between 2018 and 2022 on Fridays in both directions and on Sundays in the northbound direction. These changes may be due to more rental contracts starting on Fridays and Sundays which increases the traffic congestion on NC-12.

Reference: **Mid-Currituck Bridge 2022 Peak Season Traffic Analysis**

Figure 5-6: South Dogwood Trail Daily Volumes, 2018 vs. 2022



Source: Stantec ATR Counts, 2018 and 2022.

6.0 TRAVEL TIMES

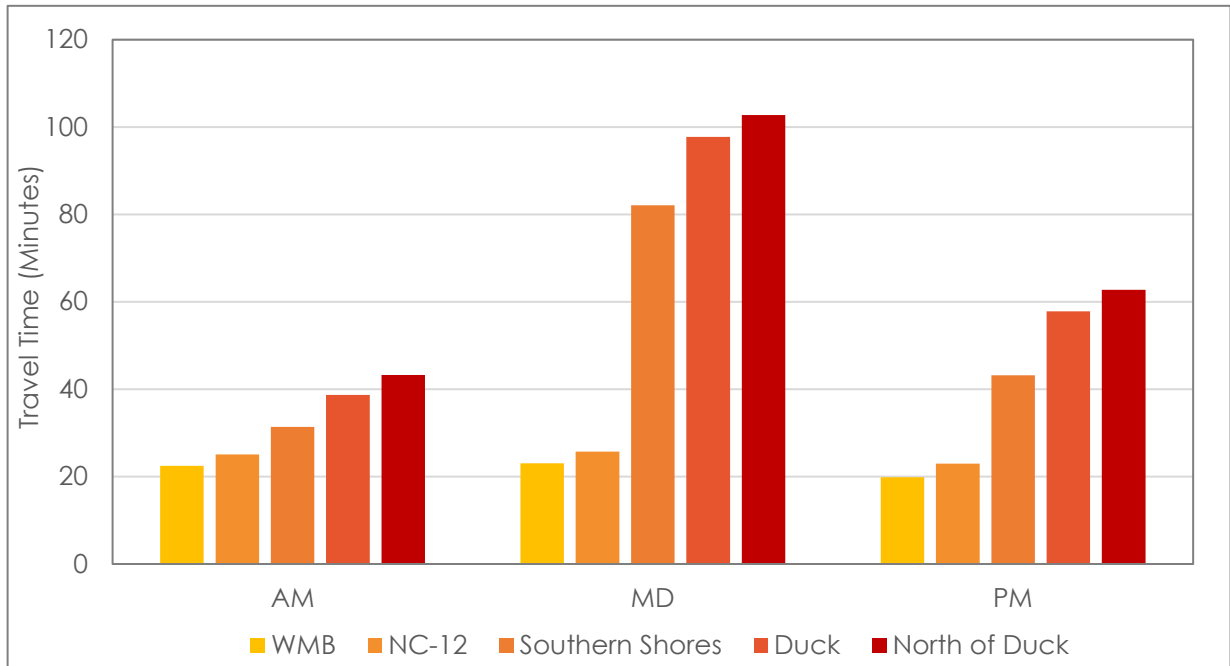
Travel times were collected between US-158 in Aydlett and NC-12 north of Duck during the 2022 Peak season count program. Data were collected between 6 AM and 7 PM on a Friday (7/15), Saturday (7/16), Sunday (7/17), and Monday (7/18).

6.1 2022 TRAVEL TIMES

The average Peak season Saturday travel time from US-158 in Aydlett on the mainland through the town of Duck during the AM, midday, and PM time periods in 2022 is shown in **Figure 6-1**. During the midday peak congestion period, the average traveler drives for over 100 minutes to get from Aydlett through the town of Duck. Under free-flow conditions, this trip takes 36 minutes. For visitors staying in Sanderling, Corolla, and Carova, this equates to more than an hour of congestion. During the AM period, travel time from Aydlett through Duck is generally free flow with a travel time of just over 40 minutes. During the evening period, travel time is just above 60 minutes with about 20 minutes of added congestion.

Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

Figure 6-1: 2022 Peak Season Saturday Travel Time from Aydlett to locations north of Duck



Source: Stantec 2022 travel time surveys over the WMB.

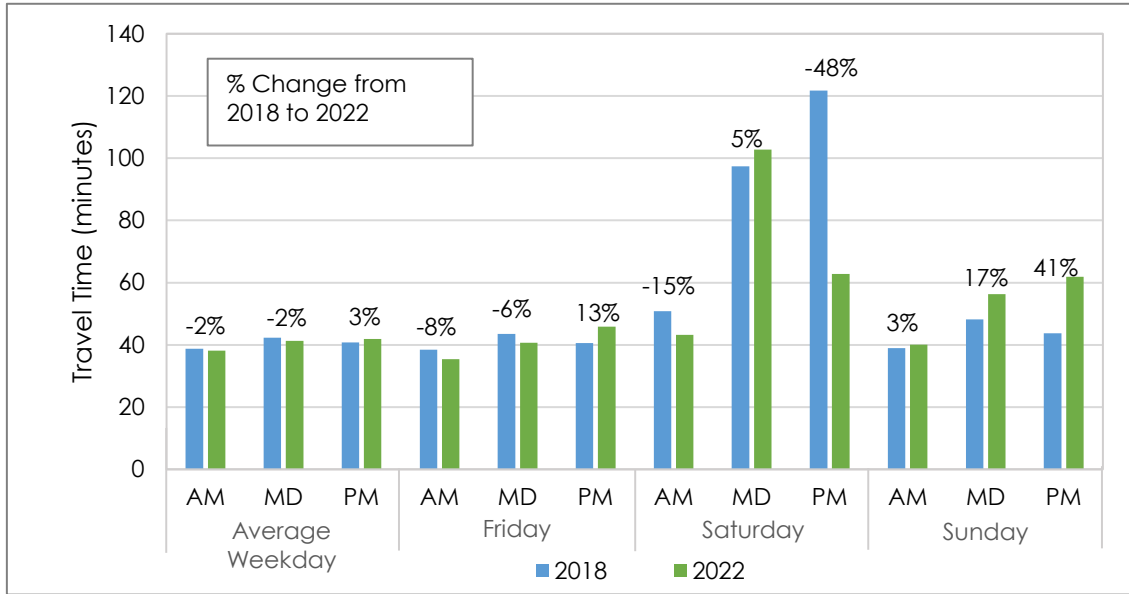
6.2 2018 TO 2022 PEAK SEASON COMPARISON

From US-158 at NC-136 on the mainland to NC-12 north of Duck, average weekday travel time was generally faster in 2022 compared to 2018, as shown in **Figure 6-2**. Travel times increased in six periods: Average weekday PM, Friday PM, Saturday midday, Sunday AM, Sunday midday, and Sunday PM. The Friday PM and Sunday midday and PM increases are likely a result of more rentals starting on Fridays and Sundays than in past years. This change also affected Saturday PM travel times, which improved by about 50 percent over the 2018 travel times.

Westbound travel times during 2022 were within six percent of 2018 travel times on weekdays. Saturdays in 2022 showed improvements in westbound travel times in the AM and midday as compared to 2018. Friday and Sunday westbound travel times in 2022 showed increases compared to 2018 except for Friday AM. The slowest travel times were recorded just north of Duck and through Duck. The increased congestion on Fridays and Sundays is likely related to the changes in rental day arrivals and departures. Westbound travel times are shown in **Figure 6-3**.

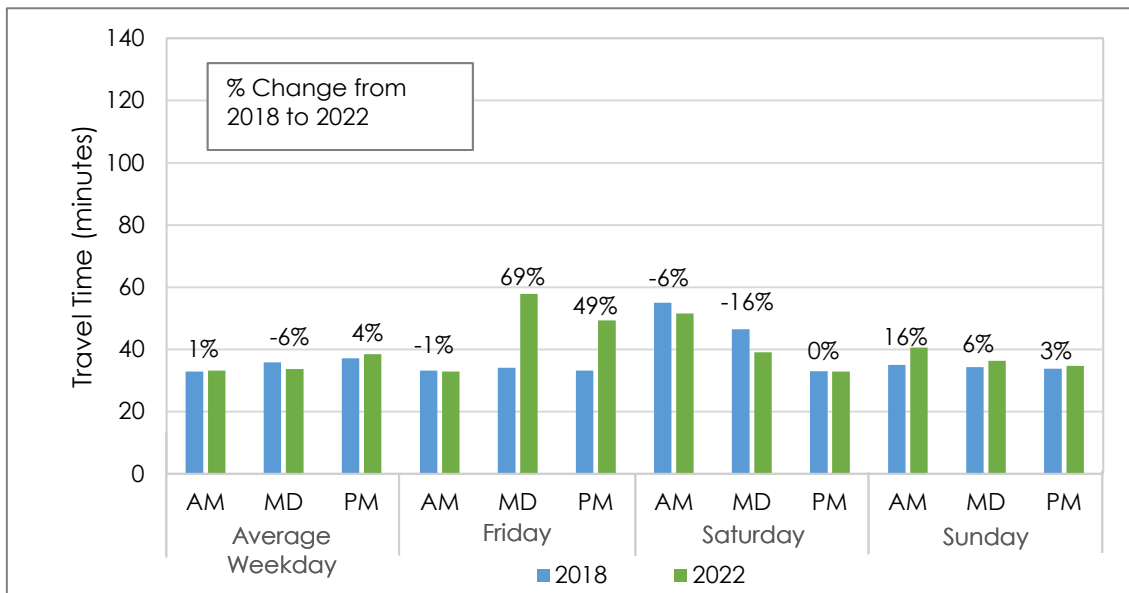
Reference: Mid-Currituck Bridge 2022 Peak Season Traffic Analysis

Figure 6-2: Eastbound Peak Season Travel Time from Aydlett to North of Duck via WMB, 2018 and 2022



Source: Stantec 2018 and 2022 travel time surveys.

Figure 6-3: Westbound Peak Season Travel Time from North of Duck to Aydlett via WMB, 2018 and 2022



Source: Stantec 2018 and 2022 travel time surveys.