

To: John Corcoran, NHDOT

From: Suzanne Seegmuller and
Rick Gobeille

Date: January 20, 2021

Potential COVID-19 impacts on travel behavior impacting NHDOT 2020-2030 traffic and revenue forecasts

INTRODUCTION

Stantec was asked by NHDOT to update our previous (Fall 2019) revenue forecasts through 2030 to capture a range of potential effects on travel from the COVID-19 pandemic and its associated suggested/required public responses.

Stantec's revenue sensitivity scenarios consider three alternative potential outcomes based on specific assumptions that vary by the extent and duration ("less severe/shorter duration," "more severe/longer duration," and "mid-range") of the COVID-19 impacts on NHDOT toll revenue. These estimates have been prepared using data available through January 14, 2021 as well as the latest recommendations, policies, and projections by federal and state entities.

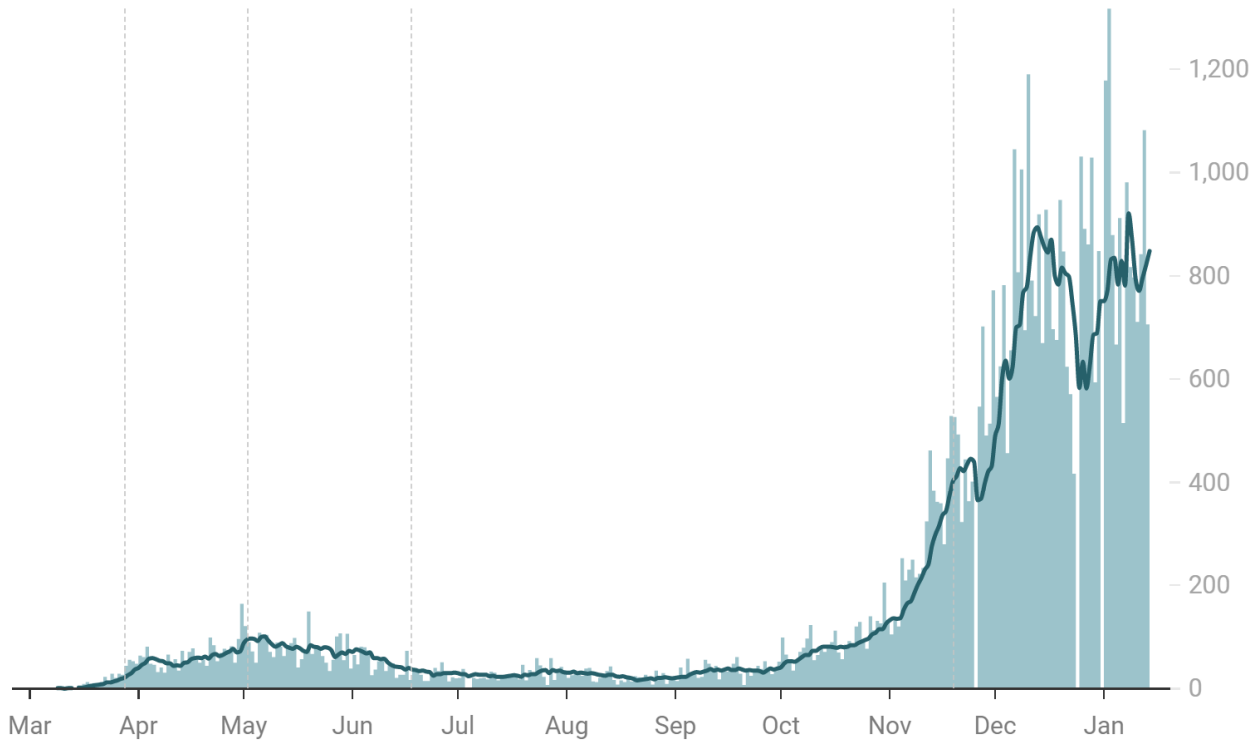
In addition to government mandates and suggested behaviors, schools and businesses have made their own policies throughout this pandemic as to whether people are required to, or have the choice to, be on site or work remotely. Also, because of pandemic fears, closures and restrictions, non-discretionary and holiday travel has declined. Stantec has investigated all of these factors that have led to reduced travel on the NHDOT toll facilities. Information on each of these factors, as summarized in the following sections below, was used in development of Stantec's range of traffic and revenue estimates.

GOVERNMENT-MANDATED CLOSURES AND RESTRICTONS

The World Health Organization declared COVID-19 a pandemic on **March 11, 2020**. A state of emergency was declared by the U.S. on **March 13**. New Hampshire took additional actions to slow the spread of the virus including issuing stay-at-home order directing individuals to stay at home with the exception of performing essential activities and restricting non-essential businesses (begun **March 26** and expired on **June 15**), closure of all public schools (**March 16** through the end of academic year), implementing "social distancing", and mass gathering restrictions (begun **March 23**). With rising cases, Governor Sununu issued a statewide mask mandate on **November 19** everywhere indoors and outdoors where people cannot maintain a physical distance of at least six feet from persons outside their own households.

The following chart shows the timeline of major statewide policy steps in response to the pandemic superimposed on a graph of new statewide reported cases (daily and seven-day average).

NH Statewide New COVID-19 Cases and Timeline of Major Policy Steps



The dotted lines above reflect major policy steps in New Hampshire's response to COVID-19:

'Stay At Home' (March 26) Non-essential businesses closed, residents ordered to remain home

'Stay At Home 2.0' (May 1) Guidelines loosened, non-essential businesses allowed to reopen in phases

'Safer At Home' (June 15) Stay At Home mandate lifted, statewide business guidelines imposed

Statewide Mask Mandate (Nov. 19) Applies to public spaces where distancing can't be achieved

Chart: NHPR • Source: [New Hampshire Department of Health and Human Services](https://www.nhpr.org/post/explore-data-tracking-covid-19-new-hampshire#stream/0) • Created with [Datawrapper](https://www.nhpr.org/post/explore-data-tracking-covid-19-new-hampshire#stream/0)
<https://www.nhpr.org/post/explore-data-tracking-covid-19-new-hampshire#stream/0>

BUSINESSES AND EVENTS

The pandemic reached its initial peak infection rate in New Hampshire at the end of April, followed by a drop in new cases in the summer months. On **May 1**, New Hampshire government released a reopening plan which allowed certain industry sectors to reopen by following certain guidelines and limitations consisting of campgrounds (with playgrounds and pools remaining closed), manufacturing, state parks (with playgrounds, boat rentals, and public beaches remaining closed), certain health care services, retail (with 50% capacity), drive-in movie theaters (by providing minimum 10-foot spacing between cars), public and private golf courses and hair salons with some limitations, and outdoor seating for restaurants. On **May 29**, additional reopenings were announced, including places of worship, hotels and lodging with restrictions, gyms and fitness centers and personal services with 50% occupancy, and some beaches (with walking and running activities only). On **June 15**, reopening of restaurant indoor dining was announced with 100% capacity for certain counties and 50% capacity for all other counties. On that same date, the stay-at-home order also expired which allowed reopening of various businesses such as amateur sports, bowling, arcades, laser tag and billiard halls, charitable gaming, gyms and fitness centers (50% capacity), libraries, motorcycle rides, museums and art galleries, outdoor attractions, outdoor racetracks, pools, road races,

tourist trains, indoor recreational facilities (50% capacity), funeral homes, and wedding venues. Amusement parks (25% capacity), movie theaters and performing arts venues (50% capacity), adult day services, arts and music education, and performing arts venues were permitted to reopen on **June 29**. On **August 21**, restaurants in the counties where previously permitted to provide services at 50% capacity were allowed dine-in service at 100% capacity. On **September 25**, more restrictions were removed from restaurants by allowing them to have tables closer than six feet apart if barriers are provided. On **October 15**, hockey and skating events were banned for two weeks after a rise in COVID cases related to those sports.

TRAVEL RESTRICTIONS

At the beginning of the pandemic, New Hampshire did not announce any restrictions of travel. However, on **March 28**, Governor Chris Sununu requested people traveling to New Hampshire for reasons other than same-day trips for work, care of a loved one, or for essential supplies to self-quarantine for two weeks. Starting **November 14**, as part of the Emergency Order #72, all travelers and visitors including residents of New Hampshire are required to self-quarantine for ten days following the last date of any travel internationally or domestically outside of the New England states of Maine, Vermont, Massachusetts, Connecticut, or Rhode Island for non-essential purposes. The quarantine may be shortened if the person is asymptomatic and has a negative PCR test on or after day 7 of quarantining.

SCHOOLS

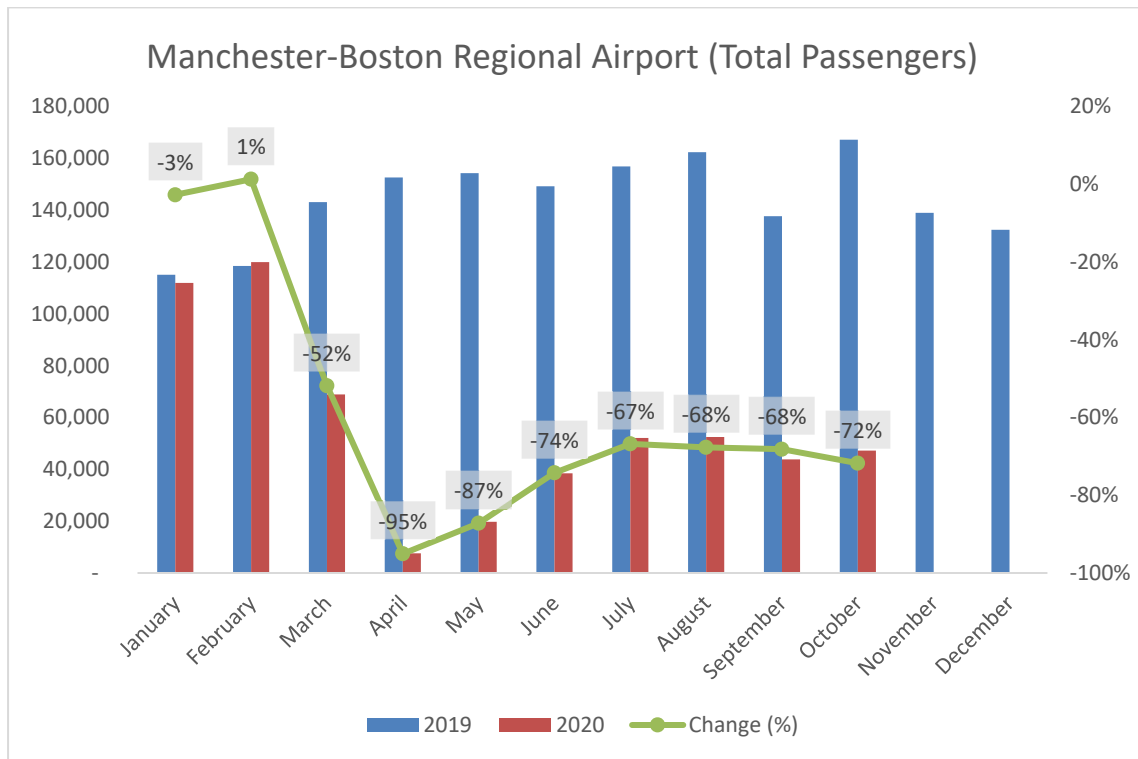
On **March 15, 2020**, Governor Sununu issued a school closure order for three weeks which was extended for the remainder of the academic year. For the 2020-2021 academic year, the New Hampshire Department of Education released a school reopening guidance on **July 14** allowing each district school to make their own decisions as to whether to conduct in-person or remote learning, or some hybrid of the two. Based on the initial re-opening plan released by each K-12 school district, of the 100 School Administrative Unit (SAUs) in New Hampshire, 43% followed an in-person approach, 35% a hybrid approach, and 7% adapted to a fully remote approach. 15% of SAUs conducted various approaches at each school within their units based on the school board decision.

Colleges and universities in New Hampshire returned to campus in the fall semester, with some opting for a mix of in-person and remote learning. Students are required to get tested before they arrive on campus, and they must test negative¹

MANCHESTER-BOSTON REGIONAL AIRPORT

Manchester-Boston Airport has seen large reductions in the number of air passengers since the pandemic began, with little improvement in recent months. The most significant decline in passenger trips occurred in April 2020 with 95 percent below 2019 levels. Some improvements occurred from April to July and the number of passenger trips decreased to 67 percent below 2019. However, from July through October 2020, passenger trips at Manchester-Boston Airport remained more than 67 percent below 2019 levels (72 percent below 2019 in October). The following graph compares 2020 to 2019 air passengers. It should be noted that airport trips have little impact on toll transactions and revenue on the adjacent Central Turnpike, as vehicles exiting the Turnpike near the airport avoid the Bedford Main toll plaza whether they are traveling from the north or south.

¹ <https://manchesterinklink.com/how-did-nh-re-open-its-schools-part-1-public-schools/>



Source: <https://www.flymanchester.com/about-the-airport/about-mht/>

WORKING FROM HOME

In addition to fewer school and airport-related trips, many employees began working from home during the early days of the pandemic in March and April, and continue to work from home for a variety of reasons, including the state guidance to employers to allow employees to work from home as much as possible, and having children with remote schooling. This has been a large contributor to the loss in Turnpike traffic.

While no specific information has been found on work from home behaviors in southern New Hampshire, in neighboring Massachusetts a survey of 106 companies (95% in Boston and its suburbs) conducted by the Massachusetts Competitive Partnership (MACP) indicated that while roughly 18% of employees worked from home before the pandemic, at the time of the survey in early August 2020 an estimated 82% of employees at these companies were working from home, and that some 60% of the employees would still be working from home at the start of 2021. Some 47% of these employees stated they planned to continue working from home after a treatment for COVID-19 was developed.² This indicates that there may be a significant shift in driver behavior related to work trips, and was used to inform Stantec's future estimates.

Stantec reviewed hourly data at each Turnpike toll location compared to similar weeks in 2019 and found that traffic losses occurred all day, and not just during peak hours, though peaks generally exhibited slightly greater traffic loss. This, plus the highly seasonal nature of Turnpike traffic, indicates that trips for purposes other than work have also taken a hit from the pandemic.

² <https://www.masscompetes.org/survey-results>

RECREATIONAL TRAFFIC

Since the beginning of the pandemic, outdoor activities have been encouraged by the Center for Disease Control and Prevention (CDC) as a safer option compared to indoor activities. However, staying at least 6 feet apart from people and wearing mask when that is not possible are recommended.

According to the New Hampshire Ski Association, there are 30 alpine and cross-country ski resorts throughout the state, which generate additional seasonal traffic during the ski season between late December and mid-April. As mentioned earlier, since the November 14th Emergency Order #72, all travelers and visitors, including residents of New Hampshire, are required to self-quarantine for 10 days following the last date of any travel internationally or domestically outside of the New England area. The order is expected to reduce the number of visitors to ski resorts from states outside of the New England area.

At first glance, the ski industry would seem to have only minor impacts by the pandemic since it is an outdoor activity where participants are generally not close together, however, indoor activities in the lodges and lifts are being impacted negatively. Most ski resorts state on their websites that they encourage visitors to follow the latest *Safer at Home* guidance provided by the governor. Furthermore, each resort provides its own specific health and safety guidance/requirement. In general, the majority of the resorts have reduced the indoor lodge and lifting capacity. Season passes are limited at some resorts, and some require reservation in advance. Daily tickets at most resorts are limited and required to be purchased online.

RECENT DEVELOPMENTS ON VACCINES AND TREATMENTS FOR COVID-19

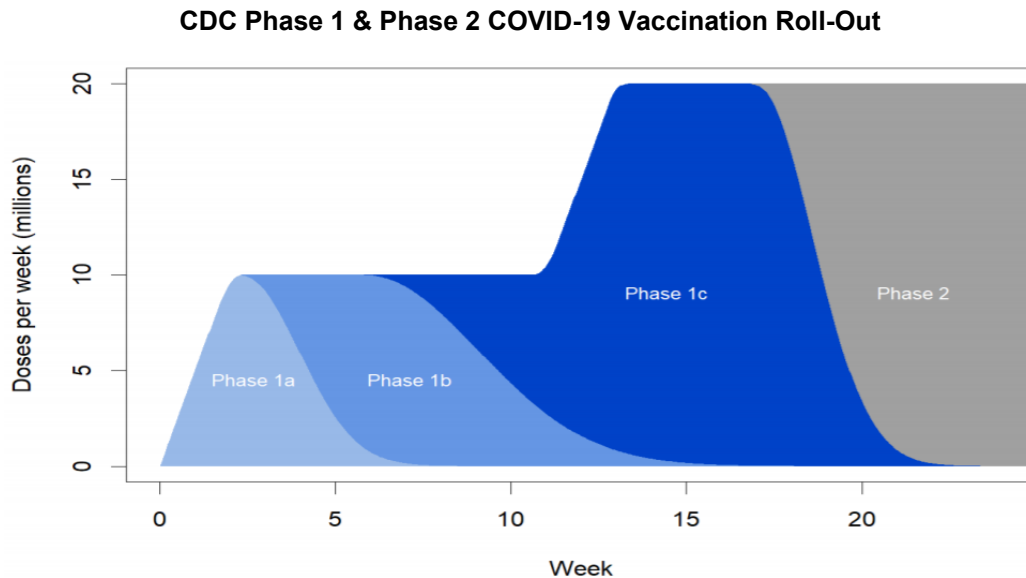
Following very promising news on the development of COVID-19 vaccines and treatments, in various states of testing and approval, Pfizer-BioNTech and Moderna gained emergency-use authorization from the Food and Drug Administration (FDA) for their coronavirus vaccines on December 11 and 18, respectively. On December 14, 2020, the first American received the COVID-19 vaccine outside the clinical trial. Other vaccines – AstraZeneca and Johnson & Johnson – are expected to be available by March or April.

As of December 23, Pfizer is under contract with the U.S. government to provide 200 million doses of vaccine by the end of July. Furthermore, the U.S. government has acquired 200 million doses of the Moderna vaccine. Recipients will need two doses, three weeks apart. On December 20, the CDC Advisory Committee on Immunization Practices released *Updated Interim Recommendation for Allocation of COVID-19 Vaccine*, which provides guidelines for Federal, state, and local jurisdictions for COVID-19 vaccination program planning and implementation while the vaccine supply is limited. The following phases and allocations are described in the recommended guidance:

- **Phase 1a-** Under this phase, the following groups are recommended to be offered the vaccination:
 - Health care personnel
 - Residents of long-term care facilities
- **Phase 1b-** Under this phase, the following groups are recommended to be offered the vaccination:
 - People of age 75 and over (*Note that on January 12, the federal government began encouraging states to include residents 65 and over in this phase*)
 - Frontline essential workers (non-health care workers)
- **Phase 1c-** Under this phase, the following groups are recommended to be offered the vaccination:
 - People of age 16–64 years with high-risk medical conditions

- Essential workers not recommended for vaccination in Phase 1b
- **Phase 2-** Under this phase, all people age 16 years and older not in Phase 1 will be offered the vaccine.

The CDC has provided an example of Phase 1 & Phase 2 COVID-19 vaccination roll-out as shown below.



Source: <https://www.cdc.gov/vaccines/acip/meetings/downloads/slides-2020-12/slides-12-20/02-COVID-Dooling.pdf>

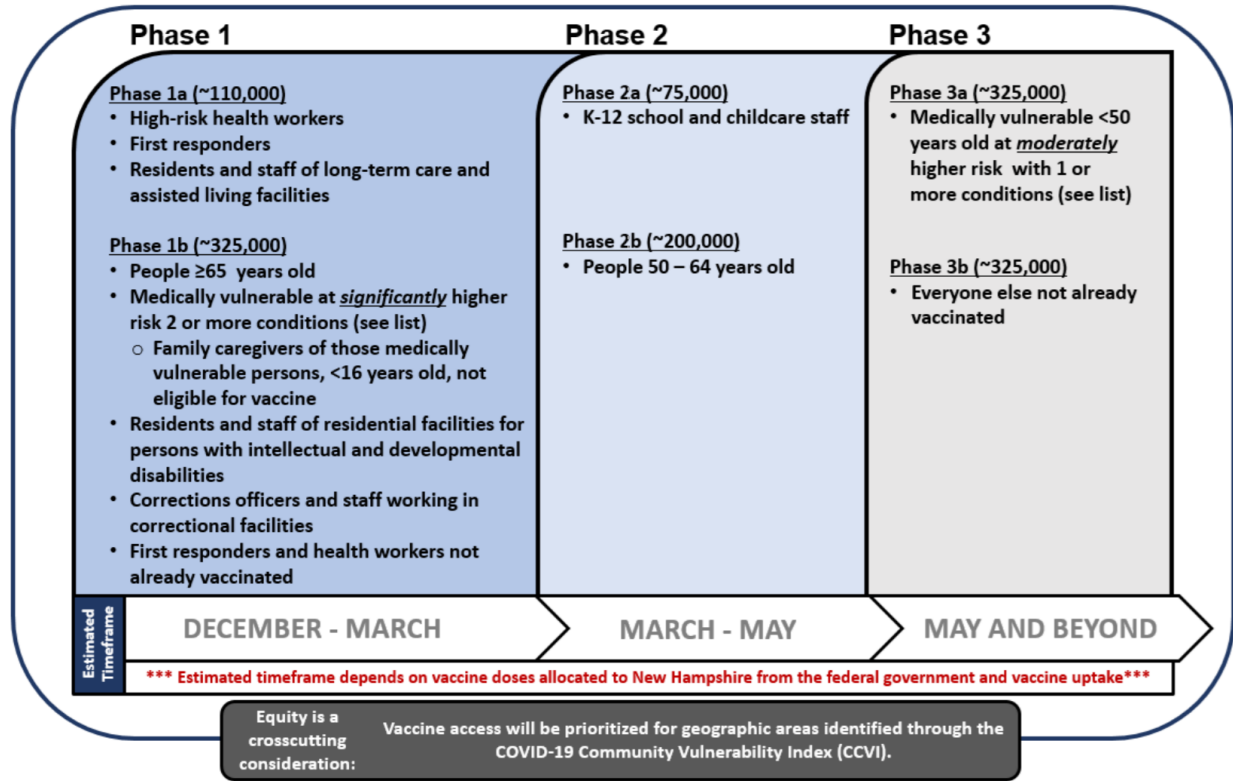
As of January 18th, 14.7 million doses of vaccine have been administered nationwide³ mainly to health-care workers and residents at long-term care facilities. Dr. Anthony Fauci, the nation’s leading infectious disease expert, projected that healthy Americans can expect first doses of a vaccine starting in April through July if all continues on track. Dr. Fauci has also mentioned if 75% to 80% of population get vaccinated by the beginning of fall, we can approach some level of normality by mid-fall 2021, even with some setbacks in vaccine rollout⁴.

Furthermore, New Hampshire Department of Health and Human Services (DHHS) released their most recent vaccine allocation plan on January 16th as shown in the following figure. Similar to the CDC guidelines, the DHHS plan includes a phased approach to COVID 19 vaccine allocation with the intention of being a live guidance to be adapted based on the supply of vaccines and CDC recommendations.

³ <https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/>

⁴ <https://www.reuters.com/article/us-health-coronavirus-usa/fauci-sees-u-s-gaining-control-over-pandemic-by-next-autumn-idUSKBN2942D3>

New Hampshire COVID-19 Vaccination Allocation Plan Summary January 16, 2021



Source: <https://www.dhhs.nh.gov/dphs/cdcs/covid19/documents/covid19-vaccine-allocation-plan-summary.pdf>

As of mid-January, some 61,000 doses of vaccine have been administered in New Hampshire⁵. Phase 1b is expected to begin on Jan. 26. It was originally supposed to include residents who are 75 and up, but that group has now been extended to people 65 and older.

For more context, a summary of recent data (as of January 18, 2021) comparing the number of COVID-19 positive tests and deaths in New Hampshire with national data is shown in the following table.

COVID-19 Positive Tests and Deaths, New Hampshire vs. U.S.

Country/State	2019 Population	COVID-19 positive tests		Death from COVID-19	
		Total Number of People	% of Population	Total Number of People	% of Population
New Hampshire	1,360,000	57,864	4.2%	933	0.07%
U.S.	328,200,000	23,778,275	7.2%	390,262	0.12%

Source: The COVID Tracking Project, www.covidtracking.com

⁵ <https://www.nhpr.org/post/explore-data-tracking-covid-19-new-hampshire#VACCINE%20SITES>

UPDATE OF NHDOT PRO FORMA REVENUE FORECASTS

Because of several changes to the timing of construction projects and other actual and anticipated changes to the Turnpike System since Stantec last produced forecasts for NHDOT in the fall of 2019, we have developed in December 2020 a new Pro Forma forecast that incorporates these changes and represents a “no COVID-19” condition.

Changes include:

- Removal of tolls at Exit 11 at the end of December 2019 (which also affects nearby Exit 10 traffic, as some of this traffic is expected to move to the now-free Exit 11 to avoid the toll)
- Instead of all-electronic tolling (AET) conversion on the Spaulding Turnpike only in July 2021, the new Pro Forma forecast assumes AET conversion will occur:
 - October 2022 at the Spaulding Turnpike plazas (Dover and Rochester)
 - July 2023 at the Bedford Main plaza
 - Overnight at all locations, from 9PM-5AM. This began during COVID, on March 30, 2020, and is assumed to continue indefinitely throughout the forecast period.
- The Newington-Dover widening project was completed on October 2, 2020, while previously this was expected to occur in FY 2020. As in our previous forecast, we expect some small additional growth to occur due to this improvement, however, we have shifted it to a later timeframe.

While other improvements to the network have recently been completed or are planned for the next few years (I-93, I-95), these are not anticipated to have a significant impact on Turnpike traffic and revenues.

The following table compares the new Pro Forma Forecast completed in December 2020 to the previous forecast from the fall of 2019. Every year has less revenue than previously forecasted, mainly due to additional AET (and its associated uncollectable toll revenues) and the impacts of removal of the Exit 11 toll.

Some small year-over-year losses can be seen in the early years of the Pro Forma Forecast. The Central Turnpike FY 2021 revenue is slightly lower than FY 2020 because it is the first full year with no tolls at Exit 11 (and related losses in Exit 10 traffic). Due to uncollectable revenues associated with video tolling, the Central Turnpike also is expected to have a drop in revenue in FY 2024 when the Bedford Main plaza goes all-electronic. Similarly, the Spaulding Turnpike’s revenue dips in FY 2023 when AET is introduced at both of its plazas.

New Pro Forma Toll Revenue Compared to Fall 2019 Forecast – Current Toll Rates

New Pro Forma Forecasts (December 2020)					Previous Forecast (Fall 2019)					Difference from Previous					
FY	Central	BlueStar	Spaulding	TOTAL	FY	Central	BlueStar	Spaulding	TOTAL	FY	Central	BlueStar	Spaulding	TOTAL	
2020	\$ 47.1	\$ 67.1	\$ 17.8	\$131.9	2020	\$ 48.2	\$ 67.3	\$ 17.8	\$133.4	2020	\$ (1.2)	\$ (0.3)	\$ (0.0)	\$(1.5)	
2021	\$ 46.2	\$ 67.4	\$ 17.9	\$131.5	2021	\$ 48.5	\$ 68.1	\$ 18.2	\$134.8	2021	\$ (2.4)	\$ (0.7)	\$ (0.2)	\$(3.3)	
2022	\$ 46.6	\$ 68.2	\$ 18.2	\$133.0	2022	\$ 48.9	\$ 68.9	\$ 16.4	\$134.2	2022	\$ (2.4)	\$ (0.7)	\$ 1.8	\$(1.2)	
2023	\$ 47.0	\$ 69.1	\$ 16.7	\$132.7	2023	\$ 49.4	\$ 69.8	\$ 17.2	\$136.4	2023	\$ (2.4)	\$ (0.7)	\$ (0.6)	\$(3.7)	
2024	\$ 45.7	\$ 70.0	\$ 17.5	\$133.2	2024	\$ 49.8	\$ 70.7	\$ 17.6	\$138.1	2024	\$ (4.2)	\$ (0.7)	\$ (0.1)	\$(4.9)	
2025	\$ 46.6	\$ 71.0	\$ 17.8	\$135.5	2025	\$ 50.3	\$ 71.7	\$ 17.9	\$139.9	2025	\$ (3.7)	\$ (0.7)	\$ (0.1)	\$(4.4)	
2026	\$ 47.1	\$ 72.0	\$ 18.2	\$137.3	2026	\$ 50.8	\$ 72.6	\$ 18.2	\$141.7	2026	\$ (3.7)	\$ (0.7)	\$ (0.1)	\$(4.4)	
2027	\$ 47.6	\$ 73.0	\$ 18.5	\$139.1	2027	\$ 51.3	\$ 73.7	\$ 18.6	\$143.5	2027	\$ (3.7)	\$ (0.7)	\$ (0.1)	\$(4.5)	
2028	\$ 48.1	\$ 74.0	\$ 18.8	\$140.9	2028	\$ 51.8	\$ 74.7	\$ 18.9	\$145.4	2028	\$ (3.7)	\$ (0.7)	\$ (0.1)	\$(4.5)	
2029	\$ 48.5	\$ 75.0	\$ 19.2	\$142.8	2029	\$ 52.3	\$ 75.7	\$ 19.3	\$147.3	2029	\$ (3.8)	\$ (0.7)	\$ (0.1)	\$(4.5)	
2030	\$ 49.0	\$ 76.1	\$ 19.5	\$144.6	2030	N/A					2030	N/A			

This Pro Forma forecast became the new base on which we then applied a range of potential COVID-19 impacts.

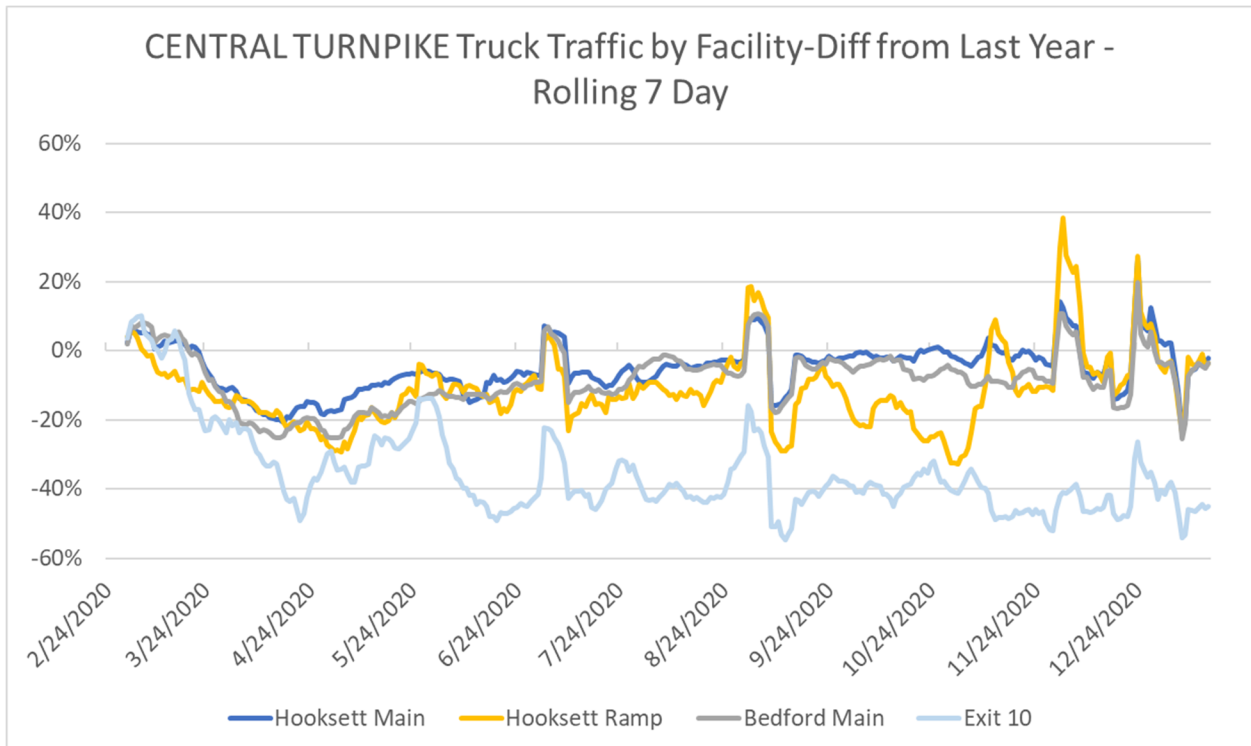
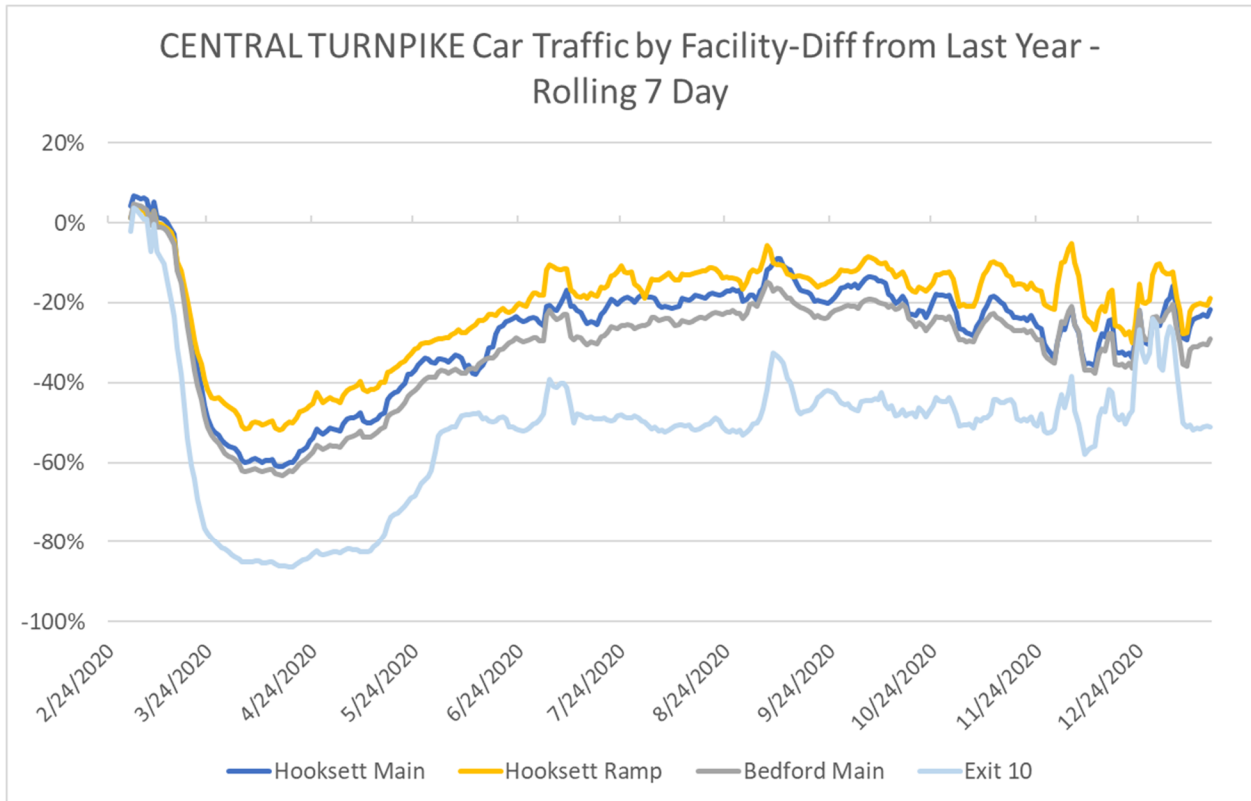
COVID-19 IMPACTS ON SYSTEM-WIDE REVENUE

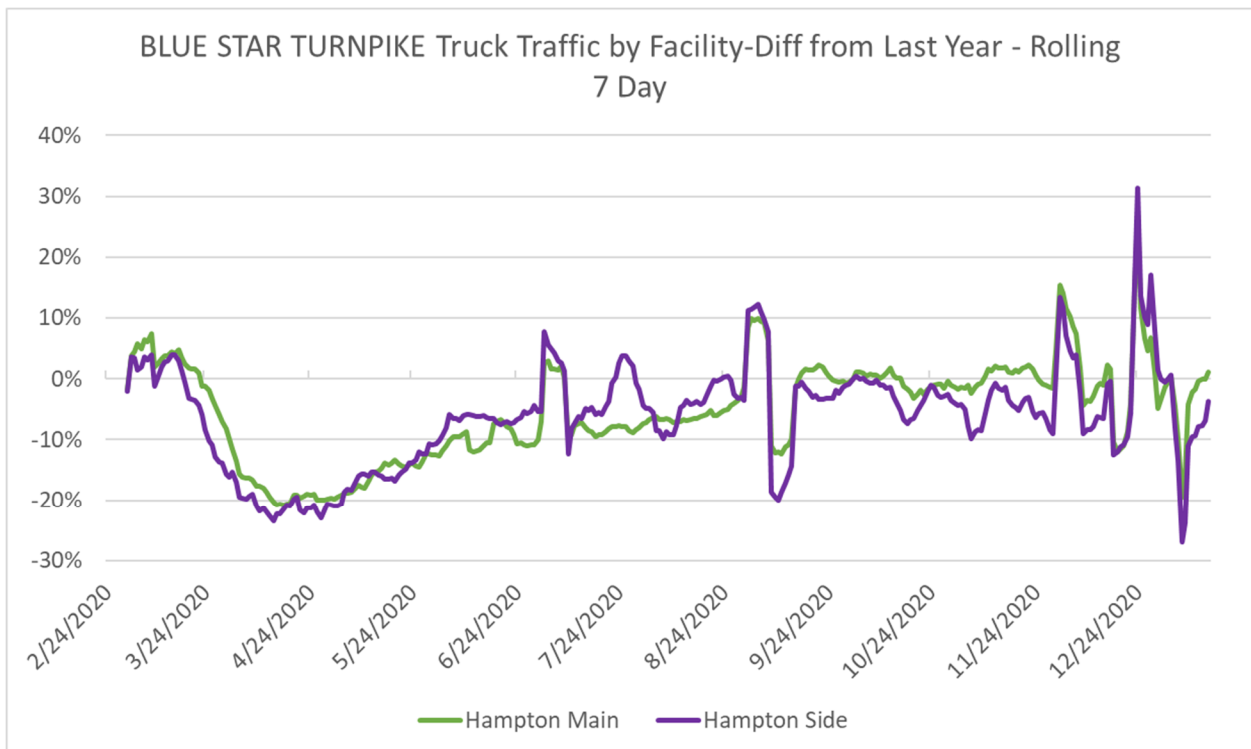
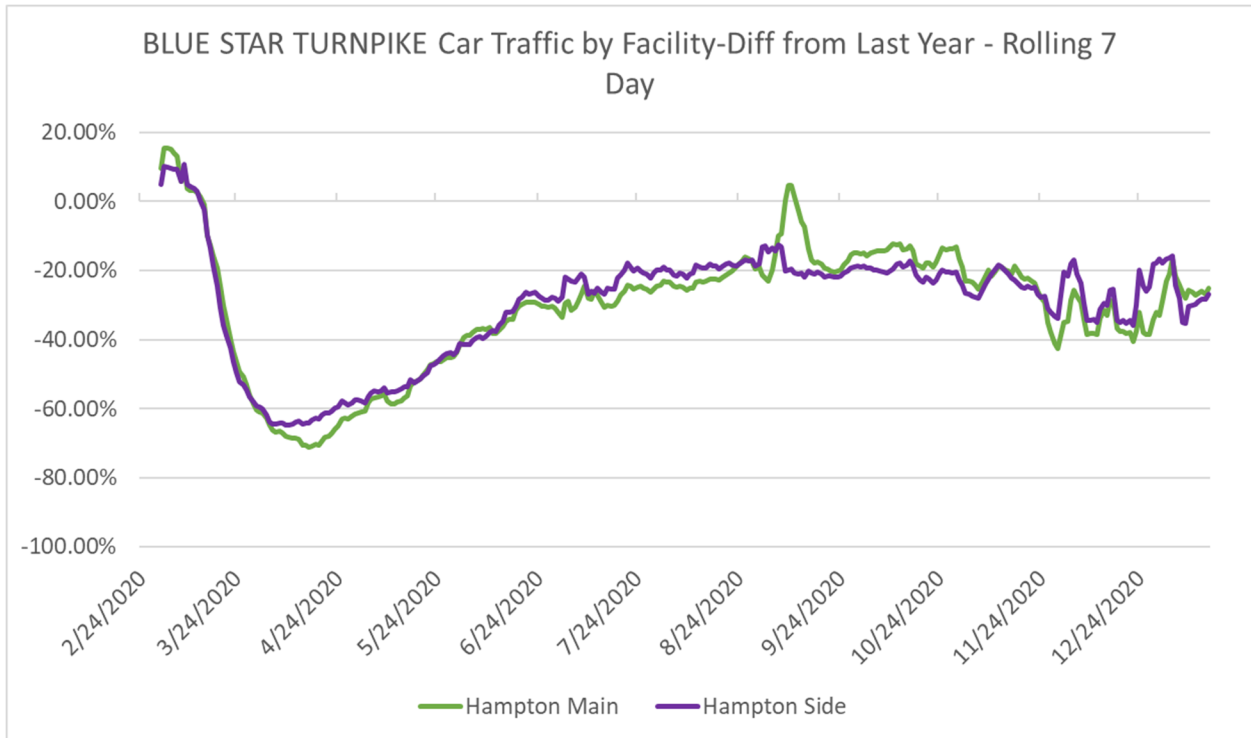
The following set of graphs looks at the recent COVID-19 effects on NHDOT toll traffic by location compared to corresponding days from the previous year for each of the three Turnpikes. To smooth out weekday/weekend differences, a rolling seven-day average is shown. Impacts are shown separately by passenger cars and commercial vehicles. Because truck traffic has been impacted less by the pandemic than cars, this also means that toll revenue has been less impacted than traffic.

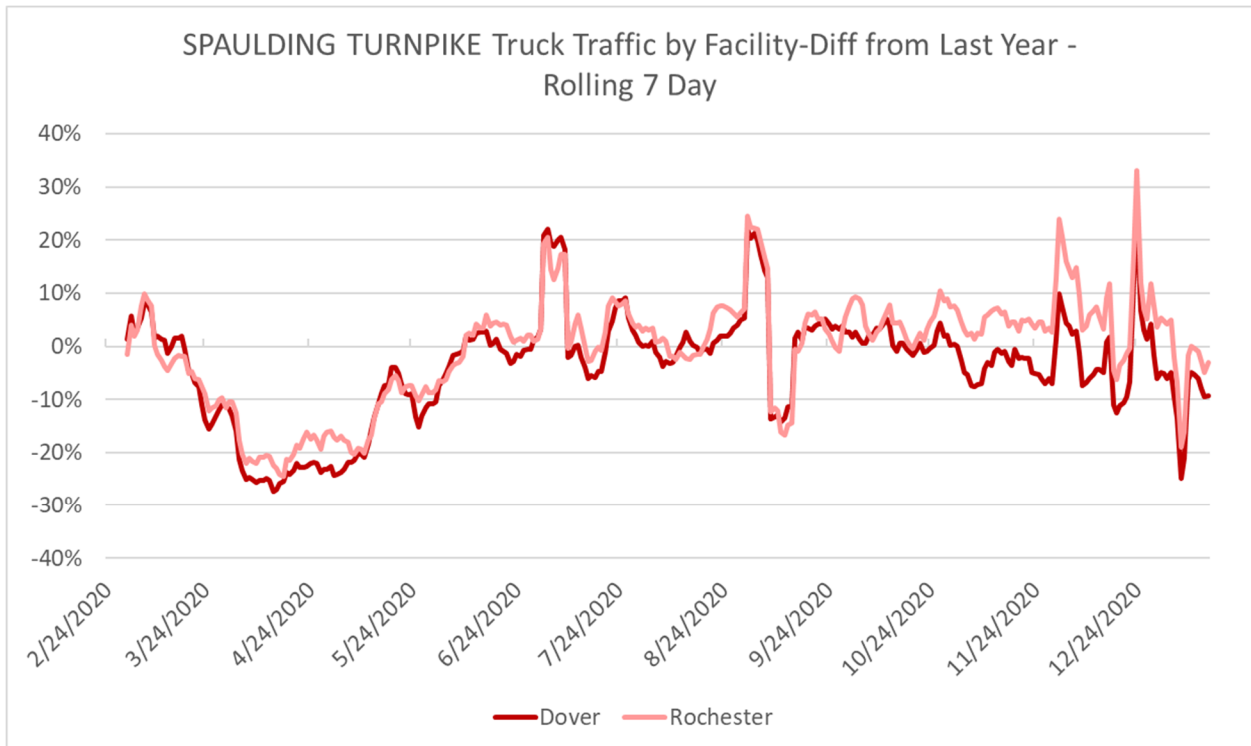
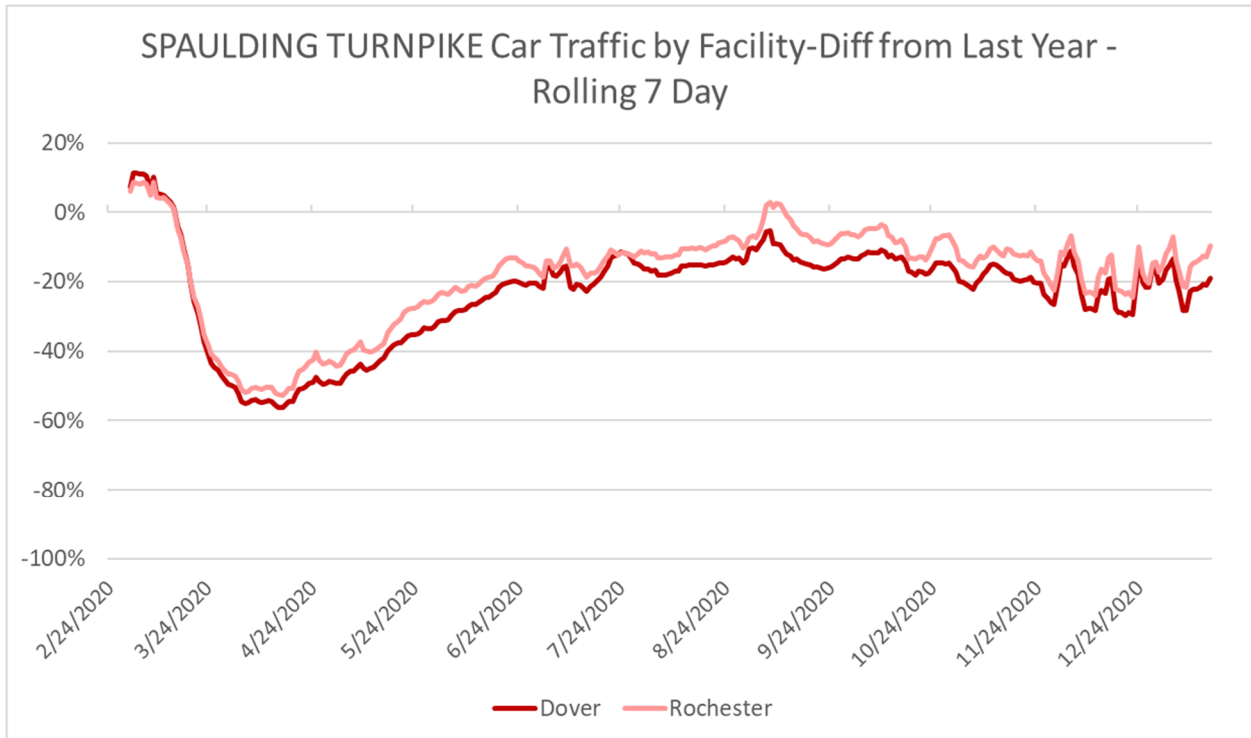
Exit 10 saw the biggest impact, losing more than 80 percent of its car traffic during the early months of the pandemic, followed by a 50 percent loss in more recent months. This is due to the adjacent Merrimack Outlets which were fully closed for about two months, then opened with restrictions in mid-May, plus other destinations off of this exit that remain closed (e.g., Budweiser Experience) or are operating under capacity (e.g., several corporate office parks).

Overall, the Spaulding Turnpike, which generally serves local trips, has been impacted the least of the three turnpikes. The Blue Star and Central Turnpikes, which generally serve more longer-distance as well as commuter trips including interstate travel, have been more heavily impacted.

As the daily traffic graphs show, the losses on all facilities reached a “floor” in April, with gradual, continuous improvement through late June, followed by slower improvement that peaked in late summer, with a slow decline into October and bigger losses into November and December, which is likely due to colder weather which could be reducing recreational, holiday-related or other non-discretionary travel, as indoor activities are limited.







The following summarizes Stantec’s high-level findings from this COVID-19 impact analysis on future revenues based on assumptions as stated below along with impact ranges determined using “less severe/shorter duration” and “more severe/longer duration” scenarios as bookends. Note that the reductions in revenue for COVID-19 impacts utilized monthly transactions and revenue provided through the end of December 2020 and daily transactions and weekly revenue estimates provided through January 14, 2021. We have analyzed passenger cars and commercial vehicles separately, as different impacts have been seen on cars versus trucks. Potential impacts shown herein are relative to pro forma (i.e., without COVID-19) forecasts prepared by Stantec unless otherwise noted.

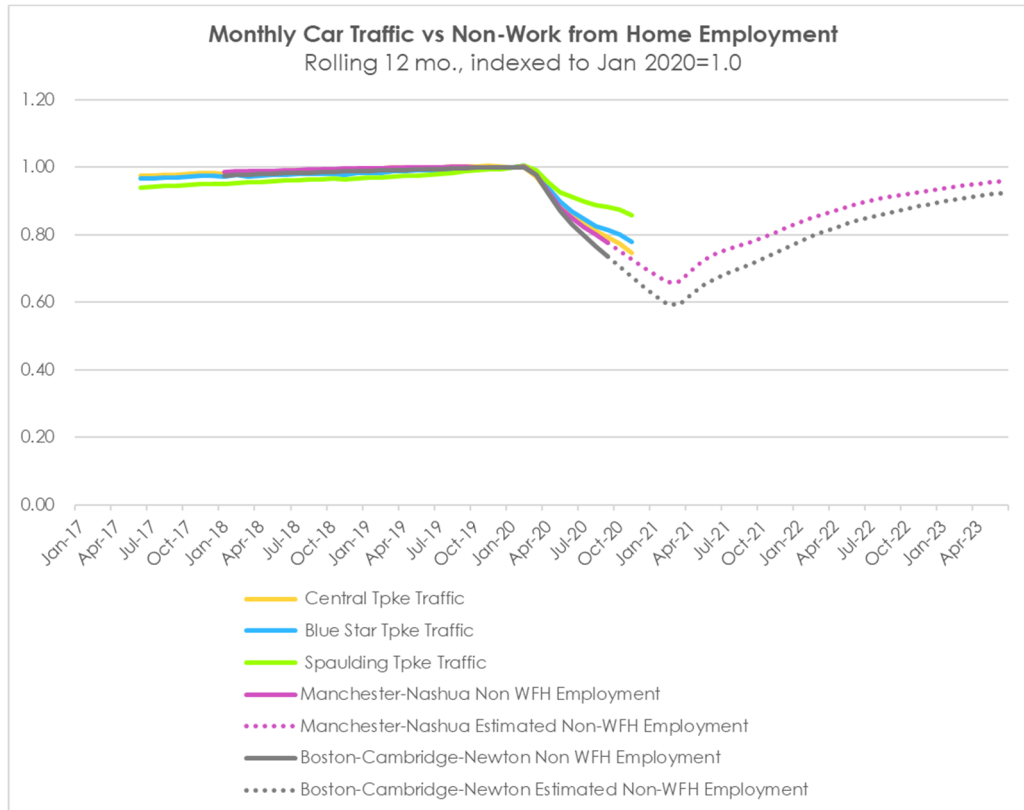
- System-wide monthly toll revenue has been down significantly compared to last year. The following table shows monthly toll revenue effects beginning in March 2020. The “floor” of traffic and revenue loss occurred during the month of April 2020, when toll revenue was 50 percent below April 2019, and 50 percent below the new Pro Forma forecasted revenue. After April, there was some recovery which slowed towards the end of the summer and into the fall, with October 2020 revenues 12 percent below 2019 numbers and 10 percent below forecasts.
- November 2020 revenues dropped to 20 percent below 2019 levels and 20 percent below forecasts. The greatest impacts occurred around Thanksgiving.
- December 2020 revenues were 20 percent below 2019 levels and 21 percent below forecasts. The greatest impacts occurred around Christmas.

Month	System-wide Revenue Change Compared to Previous Year	System-wide Revenue Change Compared to New Pro Forma Forecast
March 2020	-20%	-20%
April 2020	-50%	-50%
May 2020	-39%	-39%
June 2020	-21%	-24%
July 2020	-18%	-19%
August 2020	-16%	-16%
September 2020	-10%	-11%
October 2020	-12%	-10%
November 2020	-20%	-20%
December 2020	-20%	-21%

Note: Exit 11 revenue not included in above comparisons

- Daily traffic data shows that January 1-14 had traffic losses similar to December. Revenue, however, may be better or worse, depending on payment type distribution. We have estimated a range of revenue loss of 16 to 22 percent for January compared to the Pro Forma forecast.
- Stantec developed an employment model, calibrating it to the historical work from home (“WFH”) employment during the past several years including the months of the pandemic. The U.S Bureau of Labor Statistics (BLS) provides Current Employment Statistics (CES) and Local Area Unemployment Statistics (LAUS) by state and Metropolitan Statistical Areas (MSAs). Employment data by industry and subsectors by month and year is available from CES and labor force, employment, unemployment and, unemployment rate by month and year is available from LAUS. Since COVID-19 has disproportionately impacted certain employment sectors such as hospitality and leisure, understanding employment by sectors is important. Stantec’s employment models included two different MSAs – the Manchester-Nashua MSA and the Boston-Cambridge-Newton

MSA, as a number of people living in southern New Hampshire are employed in the Boston area. Non-WFH employment was found to correlate well with travel on the Turnpike, especially the Central Turnpike and the Manchester-Nashua MSA, as shown in the following chart. The estimates of future Non-WFH employment were factored into our development of the range of future COVID-related impacts on Turnpike traffic.



- For the “less severe/shorter duration” scenario we estimated that the COVID loss of 21 percent in December revenue would improve to a 16 percent loss in January compared to the Pro Forma forecast (as based on preliminary weekly revenue data). We have assumed with this scenario that vaccinations would go forth according to plan, with restrictions gradually lifted over time on travel, gatherings and indoor activities. For this scenario we estimate gradual improvement to each of the Turnpikes after January through the remainder of FY 2021, reaching 5 percent below forecasted systemwide toll revenue levels in June 2021.
- For the “more severe/longer duration” scenario we have assumed January revenue impacts from COVID will be slightly worse than December impacts – a loss of 21 percent of revenue compared to the Pro Forma forecast. This was estimated based on daily data through January 14th, which indicates minimally higher traffic losses than December. As mentioned previously, a number of ski resorts operate throughout the state of New Hampshire generating additional recreational trips during the ski season. Capacity limits have been implemented by most of the resorts due to the COVID-19 impacts. While it is not yet fully apparent what the impacts will be on the Turnpikes, we have considered that there would be no improvement during wintertime under the “more severe/longer duration” scenario. It was assumed that improvement would begin during the March/April timeframe, with vaccinations for the most at-risk population likely to have occurred, and the start of better weather. This scenario assumes gradual improvement in toll revenue after March

2021, reaching 16 percent below forecasts in June 2021. (For context, revenues were also 16 percent below forecasted levels in August 2020).

- The “mid-range” scenario assumes something between these two scenarios. We have made our “mid-range” scenario halfway between the “less severe/shorter duration” and “more severe/longer duration” estimates.
- The actual system-wide total toll revenue for FY 2020 was about 10 percent lower than our new Pro Forma forecast.
- System-wide total toll revenue for FY 2021 could range from about 13 to 18 percent lower than our new Pro Forma forecast, depending on the scenario.
- There will likely be longer-term impacts. For the “short” and “long” scenarios, we have based our future year estimates on a substantial revenue recovery in 3 or 6 years (similar to the “Great Recession”), respectively, to a “new normal” which assumes a small drop in overall travel as a higher share of people choose to drive less. The reasons for this reduction include increased working from home and fewer personal trips, as the use of technology during this time of COVID-19 may encourage some people to work, shop, and even socialize remotely from home more often than they did before the pandemic.

FUTURE ESTIMATES OF SYSTEMWIDE REVENUE

The tables on the following pages show the actual NHDOT total toll revenue performance through December 2020 and provide the new Pro Forma forecasts and the three COVID-19 sensitivity test scenario results.

Stantec has also prepared a range of estimates for AET fee revenues. We have assumed in these estimates that the current overnight AET at all plazas will continue throughout the forecast period, and that AET would begin October 2022 at the Spaulding Turnpike plazas and July 2023 at the Bedford Main plaza. No changes have been made to the share of \$1 and \$1.50 processing fees (on first and second invoices, respectively) and \$25 administrative fees (on violation notices) that will be collected from video toll transactions. The same percentage impact applied to the toll revenue estimates was applied to the fee revenue estimates. Note that since there is a period of time between when a video toll vehicle passes through a toll plaza and late fees are paid; this payment lag has been considered in the fee revenue estimates.

COVID-19 Sensitivity Test Comparisons for NHDOT Toll Revenues, Percent Change Compared to New Pro Forma Forecasts – Current Toll Rates

Percent Revenue Change (Prepared on January 19, 2020)

	Jul 19-Feb 20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Less Severe/Short - % Revenue Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)																													
Central Turnpike	0%	-22%	-49%	-38%	-25%	-18%	-17%	-14%	-14%	-23%	-22%	-17%	-13%	-10%	-8%	-6%	-4%	-11%	-14%	-3%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Blue Star Turnpike	1%	-19%	-52%	-41%	-25%	-21%	-17%	-10%	-9%	-20%	-22%	-16%	-14%	-11%	-9%	-7%	-6%	-11%	-14%	-4%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	
Spaulding Turnpike	3%	-17%	-45%	-32%	-17%	-9%	-10%	-4%	-6%	-15%	-15%	-11%	-9%	-7%	-6%	-5%	-4%	-7%	-8%	-3%	-2%	-1%	-1%	-1%	-1%	-1%	-1%		
Total	1%	-20%	-50%	-39%	-24%	-19%	-16%	-11%	-10%	-20%	-21%	-16%	-13%	-10%	-8%	-7%	-5%	-10%	-13%	-4%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	
Mid Range Scenario - % Revenue Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)																													
Central Turnpike	0%	-22%	-49%	-38%	-25%	-18%	-17%	-14%	-14%	-23%	-22%	-20%	-18%	-17%	-14%	-12%	-11%	-11%	-17%	-8%	-5%	-4%	-3%	-3%	-3%	-3%	-3%	-3%	
Blue Star Turnpike	1%	-19%	-52%	-41%	-25%	-21%	-17%	-10%	-9%	-20%	-22%	-19%	-18%	-16%	-14%	-12%	-11%	-11%	-16%	-9%	-6%	-5%	-4%	-3%	-3%	-2%	-2%	-2%	
Spaulding Turnpike	3%	-17%	-45%	-32%	-17%	-9%	-10%	-4%	-6%	-15%	-15%	-14%	-13%	-11%	-10%	-9%	-8%	-7%	-10%	-7%	-5%	-4%	-4%	-3%	-3%	-3%	-3%	-3%	
Total	1%	-20%	-50%	-39%	-24%	-19%	-16%	-11%	-10%	-20%	-21%	-19%	-17%	-16%	-13%	-12%	-11%	-10%	-15%	-8%	-5%	-4%	-3%	-3%	-3%	-2%	-2%	-2%	
More Severe/Long - % Revenue Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)																													
Central Turnpike	0%	-22%	-49%	-38%	-25%	-18%	-17%	-14%	-14%	-23%	-22%	-24%	-24%	-23%	-20%	-19%	-18%	-11%	-19%	-13%	-8%	-7%	-5%	-5%	-4%	-4%	-4%	-4%	
Blue Star Turnpike	1%	-19%	-52%	-41%	-25%	-21%	-17%	-10%	-9%	-20%	-22%	-21%	-22%	-21%	-19%	-17%	-17%	-11%	-18%	-13%	-9%	-8%	-7%	-6%	-5%	-4%	-4%	-4%	
Spaulding Turnpike	3%	-17%	-45%	-32%	-17%	-9%	-10%	-4%	-6%	-15%	-15%	-16%	-16%	-16%	-15%	-13%	-12%	-7%	-12%	-10%	-8%	-7%	-6%	-5%	-5%	-4%	-4%	-4%	
Total	1%	-20%	-50%	-39%	-24%	-19%	-16%	-11%	-10%	-20%	-21%	-21%	-22%	-21%	-19%	-17%	-16%	-10%	-18%	-12%	-9%	-7%	-6%	-5%	-5%	-4%	-4%	-4%	

Pro Forma Forecasts and COVID-19 Sensitivity Test Comparisons for NHDOT Toll Revenues – Current Toll Rates

Revenue Estimates in Millions of \$ (Prepared on January 19, 2020)

	Jul 19-Feb 20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
New Pro Forma Forecasts/No COVID (from December 2020)																												
Without Toll Increase																												
Central Turnpike	\$ 31.7	\$ 3.6	\$ 3.6	\$ 4.0	\$ 4.2	\$ 4.4	\$ 4.5	\$ 4.0	\$ 4.1	\$ 3.6	\$ 3.5	\$ 3.4	\$ 3.2	\$ 3.6	\$ 3.6	\$ 4.0	\$ 4.1	\$ 47.1	\$ 46.2	\$ 46.6	\$ 47.0	\$ 45.7	\$ 46.6	\$ 47.1	\$ 47.6	\$ 48.1	\$ 48.5	\$ 49.0
Blue Star Turnpike	\$ 45.0	\$ 4.8	\$ 5.1	\$ 5.9	\$ 6.2	\$ 7.3	\$ 7.4	\$ 6.0	\$ 5.8	\$ 5.1	\$ 4.9	\$ 4.5	\$ 4.2	\$ 4.9	\$ 5.1	\$ 5.9	\$ 6.3	\$ 67.1	\$ 67.4	\$ 68.2	\$ 69.1	\$ 70.0	\$ 71.0	\$ 72.0	\$ 73.0	\$ 74.0	\$ 75.0	\$ 76.1
Spaulding Turnpike	\$ 11.9	\$ 1.4	\$ 1.4	\$ 1.5	\$ 1.6	\$ 1.7	\$ 1.8	\$ 1.5	\$ 1.6	\$ 1.4	\$ 1.4	\$ 1.4	\$ 1.3	\$ 1.4	\$ 1.4	\$ 1.5	\$ 1.6	\$ 17.8	\$ 17.9	\$ 18.2	\$ 16.7	\$ 17.5	\$ 17.8	\$ 18.2	\$ 18.5	\$ 18.8	\$ 19.2	\$ 19.5
Total	\$ 88.7	\$ 9.8	\$ 10.0	\$ 11.4	\$ 12.0	\$ 13.5	\$ 13.7	\$ 11.6	\$ 11.4	\$ 10.1	\$ 9.8	\$ 9.3	\$ 8.7	\$ 9.8	\$ 10.0	\$ 11.4	\$ 12.0	\$ 131.9	\$ 131.5	\$ 133.0	\$ 132.7	\$ 133.2	\$ 135.5	\$ 137.3	\$ 139.1	\$ 140.9	\$ 142.8	\$ 144.6
Estimates with Less Severe/Shorter Duration Effects																												
Central Turnpike	\$ 31.9	\$ 2.8	\$ 1.8	\$ 2.5	\$ 3.1	\$ 3.6	\$ 3.7	\$ 3.5	\$ 3.5	\$ 2.8	\$ 2.7	\$ 2.9	\$ 2.8	\$ 3.2	\$ 3.3	\$ 3.7	\$ 4.0	\$ 42.1	\$ 39.7	\$ 45.2	\$ 46.2	\$ 45.3	\$ 46.3	\$ 46.7	\$ 47.2	\$ 47.7	\$ 48.1	\$ 48.6
Blue Star Turnpike	\$ 45.5	\$ 3.9	\$ 2.4	\$ 3.5	\$ 4.7	\$ 5.8	\$ 6.2	\$ 5.4	\$ 5.3	\$ 4.1	\$ 3.8	\$ 3.8	\$ 3.6	\$ 4.3	\$ 4.6	\$ 5.5	\$ 5.9	\$ 60.0	\$ 58.2	\$ 65.1	\$ 67.5	\$ 69.1	\$ 70.5	\$ 71.4	\$ 72.4	\$ 73.4	\$ 74.4	\$ 75.5
Spaulding Turnpike	\$ 12.2	\$ 1.1	\$ 0.8	\$ 1.0	\$ 1.3	\$ 1.6	\$ 1.6	\$ 1.5	\$ 1.5	\$ 1.2	\$ 1.2	\$ 1.2	\$ 1.1	\$ 1.3	\$ 1.3	\$ 1.5	\$ 1.6	\$ 16.5	\$ 16.4	\$ 17.7	\$ 16.4	\$ 17.3	\$ 17.7	\$ 18.0	\$ 18.4	\$ 18.7	\$ 19.0	\$ 19.4
Total	\$ 89.6	\$ 7.9	\$ 5.0	\$ 7.0	\$ 9.1	\$ 11.0	\$ 11.5	\$ 10.4	\$ 10.3	\$ 8.1	\$ 7.7	\$ 7.8	\$ 7.6	\$ 8.8	\$ 9.2	\$ 10.7	\$ 11.4	\$ 118.5	\$ 114.4	\$ 128.0	\$ 130.1	\$ 131.7	\$ 134.4	\$ 136.2	\$ 138.0	\$ 139.8	\$ 141.6	\$ 143.5
Estimates with Mid Range Effects																												
Central Turnpike	\$ 31.9	\$ 2.8	\$ 1.8	\$ 2.5	\$ 3.1	\$ 3.6	\$ 3.7	\$ 3.5	\$ 3.5	\$ 2.8	\$ 2.7	\$ 2.7	\$ 2.6	\$ 3.0	\$ 3.0	\$ 3.5	\$ 3.7	\$ 42.1	\$ 38.5	\$ 42.8	\$ 44.6	\$ 44.0	\$ 45.2	\$ 45.8	\$ 46.4	\$ 46.8	\$ 47.3	\$ 47.8
Blue Star Turnpike	\$ 45.5	\$ 3.9	\$ 2.4	\$ 3.5	\$ 4.7	\$ 5.8	\$ 6.2	\$ 5.4	\$ 5.3	\$ 4.1	\$ 3.8	\$ 3.6	\$ 3.5	\$ 4.1	\$ 4.4	\$ 5.2	\$ 5.6	\$ 60.0	\$ 56.8	\$ 62.4	\$ 65.3	\$ 66.9	\$ 68.4	\$ 69.7	\$ 70.9	\$ 72.2	\$ 73.2	\$ 74.3
Spaulding Turnpike	\$ 12.2	\$ 1.1	\$ 0.8	\$ 1.0	\$ 1.3	\$ 1.6	\$ 1.6	\$ 1.5	\$ 1.5	\$ 1.2	\$ 1.2	\$ 1.2	\$ 1.1	\$ 1.2	\$ 1.2	\$ 1.4	\$ 1.5	\$ 16.5	\$ 16.1	\$ 17.0	\$ 15.8	\$ 16.8	\$ 17.2	\$ 17.6	\$ 18.0	\$ 18.4	\$ 18.7	\$ 19.0
Total	\$ 89.6	\$ 7.9	\$ 5.0	\$ 7.0	\$ 9.1	\$ 11.0	\$ 11.5	\$ 10.4	\$ 10.3	\$ 8.1	\$ 7.7	\$ 7.6	\$ 7.2	\$ 8.3	\$ 8.7	\$ 10.1	\$ 10.7	\$ 118.5	\$ 111.4	\$ 122.2	\$ 125.7	\$ 127.6	\$ 130.8	\$ 133.1	\$ 135.3	\$ 137.4	\$ 139.2	\$ 141.1
Estimates with More Severe/Longer Duration Effects																												
Central Turnpike	\$ 31.9	\$ 2.8	\$ 1.8	\$ 2.5	\$ 3.1	\$ 3.6	\$ 3.7	\$ 3.5	\$ 3.5	\$ 2.8	\$ 2.7	\$ 2.6	\$ 2.5	\$ 2.8	\$ 2.8	\$ 3.2	\$ 3.4	\$ 42.1	\$ 37.2	\$ 40.5	\$ 43.0	\$ 42.6	\$ 44.2	\$ 44.9	\$ 45.5	\$ 46.0	\$ 46.5	\$ 46.9
Blue Star Turnpike	\$ 45.5	\$ 3.9	\$ 2.4	\$ 3.5	\$ 4.7	\$ 5.8	\$ 6.2	\$ 5.4	\$ 5.3	\$ 4.1	\$ 3.8	\$ 3.5	\$ 3.3	\$ 3.8	\$ 4.1	\$ 4.9	\$ 5.2	\$ 60.0	\$ 55.4	\$ 59.6	\$ 63.0	\$ 64.6	\$ 66.3	\$ 67.9	\$ 69.5	\$ 71.0	\$ 72.0	\$ 73.0
Spaulding Turnpike	\$ 12.2	\$ 1.1	\$ 0.8	\$ 1.0	\$ 1.3	\$ 1.6	\$ 1.6	\$ 1.5	\$ 1.5	\$ 1.2	\$ 1.2	\$ 1.1	\$ 1.1	\$ 1.2	\$ 1.2	\$ 1.3	\$ 1.4	\$ 16.5	\$ 15.8	\$ 16.4	\$ 15.3	\$ 16.3	\$ 16.7	\$ 17.2	\$ 17.7	\$ 18.0	\$ 18.3	\$ 18.7
Total	\$ 89.6	\$ 7.9	\$ 5.0	\$ 7.0	\$ 9.1	\$ 11.0	\$ 11.5	\$ 10.4	\$ 10.3	\$ 8.1	\$ 7.7	\$ 7.3	\$ 6.8	\$ 7.8	\$ 8.1	\$ 9.5	\$ 10.1	\$ 118.5	\$ 108.4	\$ 116.4	\$ 121.3	\$ 123.5	\$ 127.2	\$ 130.1	\$ 132.7	\$ 135.0	\$ 136.8	\$ 138.6

= Actual

Estimated Range of COVID-19 Impacts on NHDOT Annual Toll Revenues (in millions) – Current Toll Rates

New Pro Forma Forecasts/No COVID (from December 2020)

FY	Central	BlueStar	Spaulding	TOTAL
2019(A)	\$ 47.5	\$ 66.2	\$ 17.6	\$ 131.3
2020	\$ 47.1	\$ 67.1	\$ 17.8	\$ 131.9
2021	\$ 46.2	\$ 67.4	\$ 17.9	\$ 131.5
2022	\$ 46.6	\$ 68.2	\$ 18.2	\$ 133.0
2023	\$ 47.0	\$ 69.1	\$ 16.7	\$ 132.7
2024	\$ 45.7	\$ 70.0	\$ 17.5	\$ 133.2
2025	\$ 46.6	\$ 71.0	\$ 17.8	\$ 135.5
2026	\$ 47.1	\$ 72.0	\$ 18.2	\$ 137.3
2027	\$ 47.6	\$ 73.0	\$ 18.5	\$ 139.1
2028	\$ 48.1	\$ 74.0	\$ 18.8	\$ 140.9
2029	\$ 48.5	\$ 75.0	\$ 19.2	\$ 142.8
2030	\$ 49.0	\$ 76.1	\$ 19.5	\$ 144.6

Estimates with Less Severe/Shorter Duration Effects

FY	Central	BlueStar	Spaulding	TOTAL	Est % Loss Due to COVID-19
2019(A)	\$ 47.5	\$ 66.2	\$ 17.6	\$ 131.3	
2020(A)	\$ 42.1	\$ 60.0	\$ 16.5	\$ 118.5	-10%
2021	\$ 39.7	\$ 58.2	\$ 16.4	\$ 114.4	-13%
2022	\$ 45.2	\$ 65.1	\$ 17.7	\$ 128.0	-4%
2023	\$ 46.2	\$ 67.5	\$ 16.4	\$ 130.1	-2%
2024	\$ 45.3	\$ 69.1	\$ 17.3	\$ 131.7	-1%
2025	\$ 46.3	\$ 70.5	\$ 17.7	\$ 134.4	-1%
2026	\$ 46.7	\$ 71.4	\$ 18.0	\$ 136.2	-1%
2027	\$ 47.2	\$ 72.4	\$ 18.4	\$ 138.0	-1%
2028	\$ 47.7	\$ 73.4	\$ 18.7	\$ 139.8	-1%
2029	\$ 48.1	\$ 74.4	\$ 19.0	\$ 141.6	-1%
2030	\$ 48.6	\$ 75.5	\$ 19.4	\$ 143.5	-1%

Estimates with Mid Range Effects

FY	Central	BlueStar	Spaulding	TOTAL	Est % Loss Due to COVID-19
2019(A)	\$ 47.5	\$ 66.2	\$ 17.6	\$ 131.3	
2020(A)	\$ 42.1	\$ 60.0	\$ 16.5	\$ 118.5	-10%
2021	\$ 38.5	\$ 56.8	\$ 16.1	\$ 111.4	-15%
2022	\$ 42.8	\$ 62.4	\$ 17.0	\$ 122.2	-8%
2023	\$ 44.6	\$ 65.3	\$ 15.8	\$ 125.7	-5%
2024	\$ 44.0	\$ 66.9	\$ 16.8	\$ 127.6	-4%
2025	\$ 45.2	\$ 68.4	\$ 17.2	\$ 130.8	-3%
2026	\$ 45.8	\$ 69.7	\$ 17.6	\$ 133.1	-3%
2027	\$ 46.4	\$ 70.9	\$ 18.0	\$ 135.3	-3%
2028	\$ 46.8	\$ 72.2	\$ 18.4	\$ 137.4	-2%
2029	\$ 47.3	\$ 73.2	\$ 18.7	\$ 139.2	-2%
2030	\$ 47.8	\$ 74.3	\$ 19.0	\$ 141.1	-2%

Estimates with More Severe/Longer Duration Effects

FY	Central	BlueStar	Spaulding	TOTAL	Est % Loss Due to COVID-19
2019(A)	\$ 47.5	\$ 66.2	\$ 17.6	\$ 131.3	
2020(A)	\$ 42.1	\$ 60.0	\$ 16.5	\$ 118.5	-10%
2021	\$ 37.2	\$ 55.4	\$ 15.8	\$ 108.4	-18%
2022	\$ 40.5	\$ 59.6	\$ 16.4	\$ 116.4	-12%
2023	\$ 43.0	\$ 63.0	\$ 15.3	\$ 121.3	-9%
2024	\$ 42.6	\$ 64.6	\$ 16.3	\$ 123.5	-7%
2025	\$ 44.2	\$ 66.3	\$ 16.7	\$ 127.2	-6%
2026	\$ 44.9	\$ 67.9	\$ 17.2	\$ 130.1	-5%
2027	\$ 45.5	\$ 69.5	\$ 17.7	\$ 132.7	-5%
2028	\$ 46.0	\$ 71.0	\$ 18.0	\$ 135.0	-4%
2029	\$ 46.5	\$ 72.0	\$ 18.3	\$ 136.8	-4%
2030	\$ 46.9	\$ 73.0	\$ 18.7	\$ 138.6	-4%

(A) = Actual

Estimated Range of NHDOT Annual Toll Revenues, Video Tolling Fee Revenues and Total Revenues (in millions) with COVID-19 Impacts – Current Toll Rates

New Pro Forma Forecasts/No COVID (from December 2020)

FY	Toll Rev	AET Fee Rev	TOTAL
2019(A)	\$ 131.3	\$ -	\$ 131.3
2020	\$ 131.9	\$ -	\$ 131.9
2021	\$ 131.5	\$ 1.1	\$ 132.6
2022	\$ 133.0	\$ 1.3	\$ 134.3
2023	\$ 132.7	\$ 3.2	\$ 136.0
2024	\$ 133.2	\$ 7.8	\$ 141.0
2025	\$ 135.5	\$ 8.8	\$ 144.3
2026	\$ 137.3	\$ 8.8	\$ 146.1
2027	\$ 139.1	\$ 8.9	\$ 148.0
2028	\$ 140.9	\$ 9.0	\$ 149.9
2029	\$ 142.8	\$ 9.2	\$ 151.9
2030	\$ 144.6	\$ 9.3	\$ 153.9

Estimates with Less Severe/Shorter Duration Effects

FY	Toll Rev	Violation Rev	TOTAL
2019(A)	\$ 131.3	\$ -	\$ 131.3
2020(A)	\$ 118.5	\$ -	\$ 118.5
2021	\$ 114.4	\$ 1.0	\$ 115.4
2022	\$ 128.0	\$ 1.3	\$ 129.3
2023	\$ 130.1	\$ 3.2	\$ 133.2
2024	\$ 131.7	\$ 7.7	\$ 139.4
2025	\$ 134.4	\$ 8.7	\$ 143.1
2026	\$ 136.2	\$ 8.7	\$ 144.9
2027	\$ 138.0	\$ 8.9	\$ 146.8
2028	\$ 139.8	\$ 9.0	\$ 148.8
2029	\$ 141.6	\$ 9.1	\$ 150.7
2030	\$ 143.5	\$ 9.2	\$ 152.7

Estimates with Mid Range Effects

FY	Toll Rev	Violation Rev	TOTAL
2019(A)	\$ 131.3	\$ -	\$ 131.3
2020(A)	\$ 118.5	\$ -	\$ 118.5
2021	\$ 111.4	\$ 0.9	\$ 112.3
2022	\$ 122.2	\$ 1.2	\$ 123.4
2023	\$ 125.7	\$ 3.1	\$ 128.7
2024	\$ 127.6	\$ 7.4	\$ 135.0
2025	\$ 130.8	\$ 8.5	\$ 139.3
2026	\$ 133.1	\$ 8.5	\$ 141.7
2027	\$ 135.3	\$ 8.7	\$ 144.0
2028	\$ 137.4	\$ 8.8	\$ 146.2
2029	\$ 139.2	\$ 8.9	\$ 148.2
2030	\$ 141.1	\$ 9.1	\$ 150.1

Estimates with More Severe/Longer Duration Effects

FY	Toll Rev	Violation Rev	TOTAL
2019(A)	\$ 131.3	\$ -	\$ 131.3
2020(A)	\$ 118.5	\$ -	\$ 118.5
2021	\$ 108.4	\$ 0.9	\$ 109.3
2022	\$ 116.4	\$ 1.1	\$ 117.6
2023	\$ 121.3	\$ 2.9	\$ 124.3
2024	\$ 123.5	\$ 7.2	\$ 130.7
2025	\$ 127.2	\$ 8.3	\$ 135.5
2026	\$ 130.1	\$ 8.3	\$ 138.4
2027	\$ 132.7	\$ 8.5	\$ 141.2
2028	\$ 135.0	\$ 8.7	\$ 143.7
2029	\$ 136.8	\$ 8.8	\$ 145.6
2030	\$ 138.6	\$ 8.9	\$ 147.5

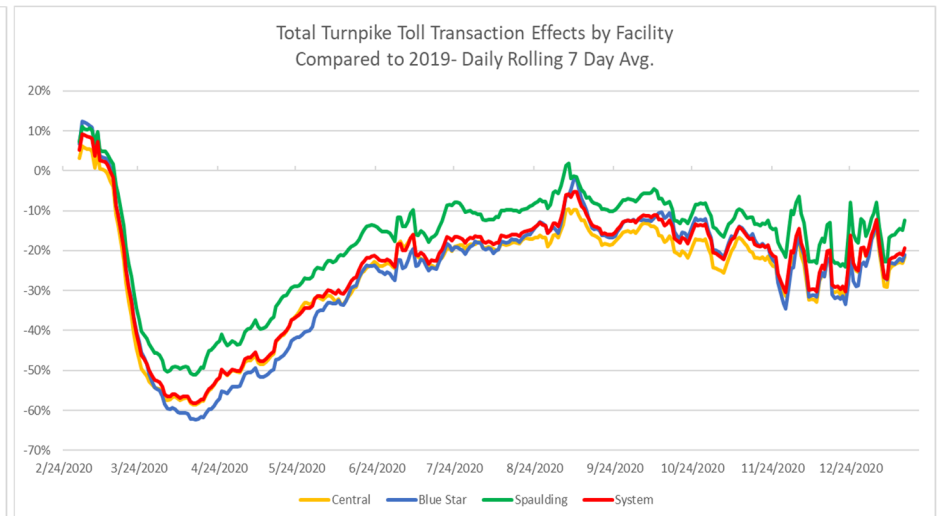
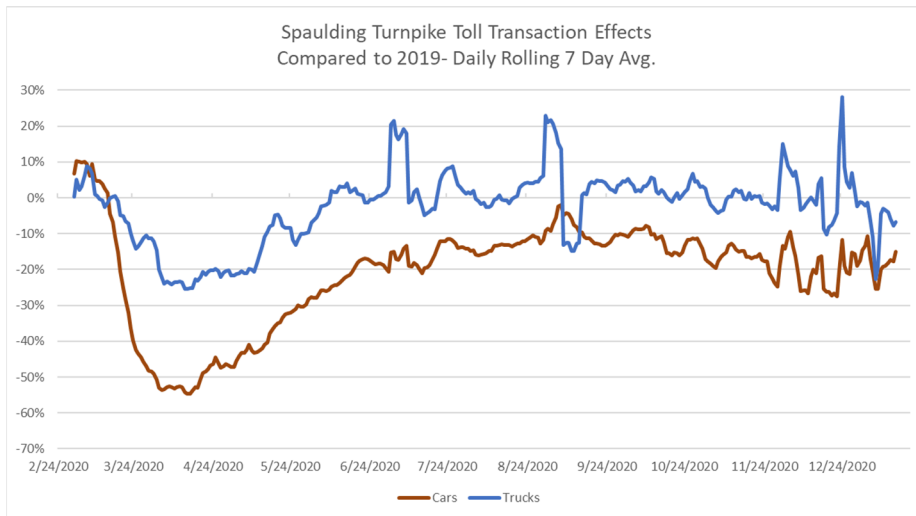
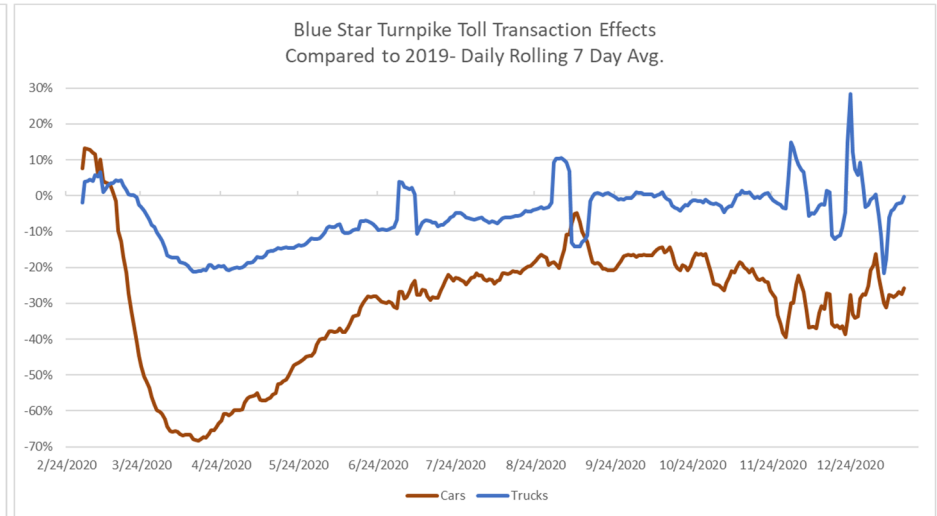
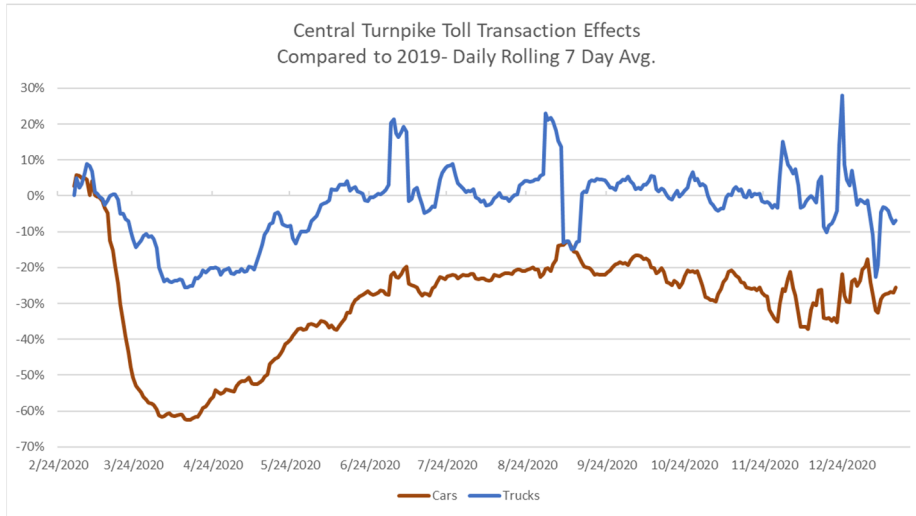
COVID-19 IMPACTS ON TURNPIKE TRAFFIC

In addition to revenue impacts, Stantec has estimated COVID-19 impacts on Turnpike system toll traffic. The traffic graphs shown previously on pages 10 through 12 displayed the recent effects of COVID-19 on daily toll transactions at each toll plaza for cars and trucks separately, compared to corresponding days from the previous year. The graphs on the following page similarly compare car versus truck traffic on each turnpike and total traffic among the turnpikes. Because truck traffic on all facilities has been less impacted than car traffic, and trucks pay higher tolls than cars, revenue losses due to COVID-19 have been smaller than traffic losses. For example, the overall traffic loss for FY 2020 was 11 percent, while the toll revenue loss was 10 percent.

The following table looks at 2020 monthly passenger car and commercial truck traffic impacts compared to the same month in 2019, and compared to the monthly new Pro Forma forecast. April 2020, the most impacted month, saw total traffic loss of 54 percent compared to April 2019 and the forecast, though truck loss was much smaller at 16 percent. Great improvement was seen into the summer months; by July 2020, total traffic reached 18 percent below 2019 levels and 18 percent below the forecast. Improvements peaked in September 2020, with traffic 12 percent below September 2019 and 13 percent below the forecast. Towards the end of the year, however, traffic losses increased, likely due to colder weather, less holiday travel, and the imposition of travel restrictions. In December 2020, total traffic was 22 percent below December 2019 and 24 percent below the forecast. While trucks appear to be close to recovery in recent months, there is the potential for further economic downturn from the pandemic that could have an impact over the next few years.

Month	System-wide Traffic Change Compared to Previous Year			System-wide Traffic Change Compared to New Pro Forma Forecast		
	Passenger	Commercial	Total	Passenger	Commercial	Total
March 2020	-25%	1%	-24%	-25%	-2%	-23%
April 2020	-56%	-16%	-54%	-57%	-16%	-54%
May 2020	-42%	-16%	-41%	-42%	-18%	-41%
June 2020	-26%	0%	-24%	-27%	-6%	-26%
July 2020	-19%	-2%	-18%	-19%	2%	-18%
August 2020	-18%	-5%	-17%	-17%	-8%	-17%
September 2020	-13%	4%	-12%	-14%	1%	-13%
October 2020	-15%	-3%	-15%	-15%	-3%	-14%
November 2020	-23%	-1%	-22%	-24%	-6%	-23%
December 2020	-23%	5%	-22%	-26%	0%	-24%

Note: Exit 11 traffic not included in above comparisons



FUTURE ESTIMATES OF TURNPIKE TRAFFIC

The same methodology and assumptions were used for estimation of future traffic as were used for future revenue for the three scenarios representing a range of potential outcomes from “Less severe/shorter duration” to “More severe/longer duration”.

The tables on the following three pages show the actual NHDOT monthly and annual toll transaction performance - passenger cars, trucks, and total traffic separately - through December 2020 and the results of the three COVID-19 sensitivity test scenarios. Comparisons have been made to the new December 2020 Pro Forma (i.e., no COVID) forecasts which included some modifications to the original 2019 model as described previously in this memorandum. These are followed by total annual revenue estimates by facility and COVID-19 impacts for the three scenarios on page 26.

It is estimated that FY 2021 total annual toll transactions will range from 14 to 20 percent below Pro Forma levels, FY 2022 transactions will range from 4 to 14 percent below Pro Forma levels and FY 2023 transactions will range from 2 to 10 percent below Pro Forma levels. Towards the latter years of the 10-year forecast period, we estimate that transactions will be 1 to 5 percent below Pro Forma, signifying a long-term shift in behavior for some drivers and trip types.

COVID-19 Sensitivity Test Comparisons for NHDOT Passenger Car Toll Transactions, Percent Change Compared to Pro Forma Forecasts – Current Toll Rates

(Prepared on January 19, 2020)

Passenger Cars

	Jul 19-Feb 20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Less Severe/Short - % Traffic Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)																													
Central Turnpike	1%	-27%	-57%	-43%	-29%	-20%	-19%	-17%	-18%	-26%	-26%	-20%	-16%	-12%	-10%	-7%	-5%	-12%	-16%	-4%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Blue Star Turnpike	1%	-27%	-63%	-48%	-31%	-24%	-19%	-15%	-15%	-26%	-30%	-22%	-18%	-14%	-12%	-10%	-8%	-13%	-18%	-6%	-3%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	
Spaulding Turnpike	3%	-19%	-48%	-34%	-19%	-11%	-11%	-6%	-8%	-16%	-18%	-14%	-12%	-9%	-7%	-6%	-5%	-8%	-10%	-4%	-2%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	
Total	1%	-25%	-57%	-42%	-27%	-19%	-17%	-14%	-15%	-24%	-26%	-19%	-16%	-12%	-10%	-8%	-6%	-11%	-15%	-4%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	

Mid Range Scenario - % Traffic Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)

Central Turnpike	1%	-27%	-57%	-43%	-29%	-20%	-19%	-17%	-18%	-26%	-26%	-24%	-21%	-19%	-17%	-15%	-13%	-12%	-19%	-9%	-6%	-4%	-4%	-3%	-3%	-3%	-3%	-3%	-3%
Blue Star Turnpike	1%	-27%	-63%	-48%	-31%	-24%	-19%	-15%	-15%	-26%	-30%	-25%	-23%	-21%	-18%	-15%	-14%	-13%	-20%	-11%	-7%	-6%	-5%	-4%	-3%	-3%	-3%	-3%	
Spaulding Turnpike	3%	-19%	-48%	-34%	-19%	-11%	-11%	-6%	-8%	-16%	-18%	-16%	-15%	-14%	-12%	-11%	-9%	-8%	-12%	-8%	-6%	-5%	-4%	-3%	-3%	-3%	-3%	-3%	
Total	1%	-25%	-57%	-42%	-27%	-19%	-17%	-14%	-15%	-24%	-26%	-22%	-20%	-18%	-16%	-14%	-12%	-11%	-18%	-9%	-6%	-5%	-4%	-4%	-3%	-3%	-3%	-3%	

More Severe/Long - % Traffic Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)

Central Turnpike	1%	-27%	-57%	-43%	-29%	-20%	-19%	-17%	-18%	-26%	-26%	-27%	-27%	-26%	-23%	-22%	-21%	-12%	-22%	-15%	-10%	-8%	-6%	-5%	-5%	-5%	-5%	-5%
Blue Star Turnpike	1%	-27%	-63%	-48%	-31%	-24%	-19%	-15%	-15%	-26%	-30%	-27%	-27%	-27%	-23%	-21%	-20%	-13%	-22%	-16%	-11%	-10%	-8%	-7%	-6%	-5%	-5%	-5%
Spaulding Turnpike	3%	-19%	-48%	-34%	-19%	-11%	-11%	-6%	-8%	-16%	-18%	-19%	-19%	-18%	-17%	-16%	-14%	-8%	-14%	-12%	-10%	-8%	-7%	-6%	-5%	-5%	-5%	-5%
Total	1%	-25%	-57%	-42%	-27%	-19%	-17%	-14%	-15%	-24%	-26%	-25%	-25%	-24%	-22%	-20%	-19%	-11%	-21%	-15%	-10%	-9%	-7%	-6%	-5%	-5%	-5%	-5%

	Jul 19-Feb 20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
New Pro Forma Forecasts/No COVID (from December 2020) Without Toll Increase																													
Central Turnpike	34.90	3.91	3.85	4.29	4.45	4.70	4.81	4.31	4.41	3.89	3.85	3.74	3.54	3.92	3.85	4.29	4.46	51.40	49.76	50.21	50.66	51.12	51.58	52.04	52.51	52.98	53.46	53.94	
Blue Star Turnpike	25.85	2.79	2.91	3.37	3.64	4.23	4.27	3.48	3.37	2.94	2.83	2.56	2.43	2.82	2.94	3.40	3.68	38.56	38.95	39.34	39.77	40.21	40.65	41.10	41.55	42.01	42.47	42.93	
Spaulding Turnpike	17.01	1.98	1.96	2.20	2.29	2.48	2.53	2.19	2.24	2.01	2.05	1.97	1.85	2.02	2.00	2.24	2.33	25.45	25.90	26.35	26.77	27.23	27.69	28.16	28.64	29.13	29.63	30.14	
Total	77.76	8.69	8.72	9.85	10.39	11.41	11.61	9.98	10.02	8.84	8.74	8.27	7.81	8.75	8.79	9.93	10.47	115.42	114.61	115.90	117.21	118.55	119.92	121.30	122.70	124.12	125.56	127.01	

Estimates with Less Severe/Shorter Duration Effects

Central Turnpike	35.20	2.87	1.67	2.46	3.17	3.75	3.90	3.59	3.61	2.88	2.83	2.98	2.98	3.43	3.47	3.97	4.24	45.37	41.66	48.42	49.64	50.61	51.06	51.52	51.99	52.45	52.93	53.40
Blue Star Turnpike	26.06	2.04	1.09	1.76	2.53	3.23	3.45	2.95	2.87	2.18	1.99	1.99	1.99	2.41	2.59	3.07	3.40	33.48	32.11	37.06	38.60	39.52	40.24	40.68	41.13	41.58	42.04	42.50
Spaulding Turnpike	17.54	1.62	1.02	1.44	1.87	2.21	2.25	2.05	2.05	1.68	1.68	1.70	1.63	1.84	1.85	2.11	2.23	23.48	23.27	25.38	26.18	26.82	27.41	27.88	28.36	28.84	29.33	29.83
Total	78.81	6.52	3.77	5.67	7.57	9.19	9.61	8.60	8.54	6.74	6.50	6.67	6.60	7.67	7.92	9.15	9.87	102.34	97.04	110.87	114.42	116.94	118.72	120.09	121.48	122.88	124.30	125.74

Estimates with Mid Range Effects

Central Turnpike	35.20	2.87	1.67	2.46	3.17	3.75	3.90	3.59	3.61	2.88	2.83	2.85	2.78	3.16	3.21	3.66	3.89	45.37	40.13	45.48	47.66	48.87	49.76	50.37	50.94	51.40	51.86	52.32
Blue Star Turnpike	26.06	2.04	1.09	1.76	2.53	3.23	3.45	2.95	2.87	2.18	1.99	1.92	1.87	2.24	2.42	2.88	3.17	33.48	31.17	35.15	36.99	37.92	38.75	39.44	40.10	40.74	41.19	41.65
Spaulding Turnpike	17.54	1.62	1.02	1.44	1.87	2.21	2.25	2.05	2.05	1.68	1.68	1.65	1.57	1.74	1.76	2.00	2.12	23.48	22.75	24.34	25.19	25.89	26.57	27.20	27.75	28.26	28.74	29.23
Total	78.81	6.52	3.77	5.67	7.57	9.19	9.61	8.60	8.54	6.74	6.50	6.42	6.22	7.14	7.39	8.53	9.18	102.34	94.05	104.96	109.84	112.68	115.07	117.00	118.78	120.40	121.79	123.20

Estimates with More Severe/Longer Duration Effects

Central Turnpike	35.20	2.87	1.67	2.46	3.17	3.75	3.90	3.59	3.61	2.88	2.83	2.72	2.58	2.90	2.95	3.34	3.54	45.37	38.60	42.53	45.68	47.14	48.45	49.22	49.89	50.34	50.79	51.25
Blue Star Turnpike	26.06	2.04	1.09	1.76	2.53	3.23	3.45	2.95	2.87	2.18	1.99	1.86	1.76	2.07	2.25	2.68	2.94	33.48	30.23	33.23	35.38	36.31	37.26	38.19	39.06	39.90	40.34	40.79
Spaulding Turnpike	17.54	1.62	1.02	1.44	1.87	2.21	2.25	2.05	2.05	1.68	1.68	1.60	1.50	1.65	1.66	1.89	2.01	23.48	22.22	23.29	24.19	24.96	25.72	26.51	27.13	27.68	28.15	28.63
Total	78.81	6.52	3.77	5.67	7.57	9.19	9.61	8.60	8.54	6.74	6.50	6.18	5.84	6.61	6.86	7.91	8.49	102.34	91.05	99.05	105.25	108.41	111.43	113.92	116.08	117.92	119.28	120.66

= Actual

COVID-19 Sensitivity Test Comparisons for NHDOT Truck Toll Transactions, Percent Change Compared to Pro Forma Forecasts – Current Toll Rates

(Prepared on January 19, 2020)

Commercial Trucks

	Jul 19-Feb 20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Less Severe/Short - % Traffic Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)																													
Central Turnpike	-1%	-3%	-16%	-18%	-8%	-1%	-10%	-2%	-6%	-8%	-2%	-1%	-1%	-1%	-1%	0%	0%	-4%	-3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Blue Star Turnpike	0%	0%	-15%	-19%	-6%	2%	-7%	2%	0%	-4%	0%	0%	0%	0%	0%	0%	0%	-4%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Spaulding Turnpike	0%	-5%	-19%	-18%	0%	11%	-2%	5%	0%	-6%	2%	2%	1%	1%	1%	1%	0%	-3%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Total	0%	-2%	-16%	-18%	-6%	2%	-8%	1%	-3%	-6%	0%	0%	0%	0%	0%	0%	0%	-4%	-1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

Mid Range Scenario - % Traffic Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)

Central Turnpike	-1%	-3%	-16%	-18%	-8%	-1%	-10%	-2%	-6%	-8%	-2%	-8%	-7%	-6%	-6%	-5%	-4%	-4%	-5%	-3%	-2%	-2%	-1%	-1%	-1%	-1%	-1%	-1%
Blue Star Turnpike	0%	0%	-15%	-19%	-6%	2%	-7%	2%	0%	-4%	0%	-1%	-1%	-1%	-1%	-1%	-1%	-4%	-1%	-1%	-1%	-1%	-1%	0%	-1%	-1%	0%	
Spaulding Turnpike	0%	-5%	-19%	-18%	0%	11%	-2%	5%	0%	-6%	2%	-2%	-2%	-2%	-2%	-2%	-2%	-3%	0%	-1%	0%	0%	-1%	-1%	-1%	0%	0%	
Total	0%	-2%	-16%	-18%	-6%	2%	-8%	1%	-3%	-6%	0%	-4%	-3%	-3%	-3%	-3%	-2%	-4%	-3%	-2%	-1%	-1%	-1%	0%	0%	0%	-1%	-1%

More Severe/Long - % Traffic Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)

Central Turnpike	-1%	-3%	-16%	-18%	-8%	-1%	-10%	-2%	-6%	-8%	-2%	-15%	-13%	-12%	-11%	-9%	-8%	-4%	-8%	-6%	-5%	-3%	-2%	-1%	-1%	-1%	-1%	-1%
Blue Star Turnpike	0%	0%	-15%	-19%	-6%	2%	-7%	2%	0%	-4%	0%	-2%	-2%	-2%	-2%	-2%	-2%	-4%	-2%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	
Spaulding Turnpike	0%	-5%	-19%	-18%	0%	11%	-2%	5%	0%	-6%	2%	-5%	-5%	-5%	-4%	-4%	-4%	-3%	-1%	-3%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	
Total	0%	-2%	-16%	-18%	-6%	2%	-8%	1%	-3%	-6%	0%	-7%	-7%	-6%	-6%	-5%	-5%	-4%	-4%	-4%	-3%	-2%	-1%	-1%	-1%	-1%	-1%	-1%

	Jul 19-Feb 20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
New Pro Forma Forecasts/No COVID (from December 2020)																													
Central Turnpike	1.99	0.22	0.24	0.27	0.27	0.26	0.28	0.26	0.27	0.24	0.22	0.22	0.20	0.22	0.24	0.28	0.27	2.99	2.97	3.00	3.04	3.09	3.13	3.18	3.23	3.28	3.33	3.38	
Blue Star Turnpike	2.33	0.28	0.29	0.33	0.32	0.31	0.33	0.30	0.31	0.29	0.28	0.28	0.25	0.29	0.30	0.33	0.32	3.55	3.61	3.68	3.76	3.85	3.94	4.03	4.12	4.22	4.31	4.41	
Spaulding Turnpike	0.71	0.08	0.09	0.10	0.10	0.09	0.10	0.09	0.10	0.09	0.09	0.09	0.08	0.09	0.09	0.10	0.10	1.08	1.11	1.13	1.16	1.19	1.22	1.25	1.28	1.31	1.34	1.38	
Total	5.03	0.59	0.62	0.70	0.68	0.66	0.71	0.66	0.69	0.63	0.59	0.59	0.53	0.60	0.63	0.71	0.69	7.63	7.68	7.82	7.97	8.12	8.29	8.46	8.63	8.80	8.98	9.17	

Estimates with Less Severe/Shorter Duration Effects

Central Turnpike	1.98	0.21	0.20	0.22	0.25	0.25	0.25	0.25	0.26	0.22	0.22	0.22	0.20	0.22	0.24	0.27	0.27	2.86	2.88	3.00	3.04	3.09	3.13	3.18	3.23	3.28	3.33	3.38
Blue Star Turnpike	2.32	0.28	0.25	0.27	0.30	0.31	0.31	0.31	0.31	0.28	0.28	0.28	0.25	0.29	0.30	0.33	0.33	3.42	3.59	3.68	3.76	3.85	3.94	4.03	4.12	4.22	4.31	4.41
Spaulding Turnpike	0.72	0.08	0.07	0.08	0.10	0.10	0.10	0.10	0.10	0.08	0.09	0.09	0.08	0.09	0.09	0.10	0.10	1.05	1.12	1.14	1.16	1.19	1.22	1.25	1.28	1.31	1.34	1.38
Total	5.02	0.58	0.52	0.57	0.65	0.67	0.66	0.66	0.67	0.59	0.59	0.59	0.53	0.60	0.63	0.71	0.69	7.33	7.59	7.82	7.97	8.13	8.29	8.46	8.63	8.80	8.98	9.17

Estimates with Mid Range Effects

Central Turnpike	1.98	0.21	0.20	0.22	0.25	0.25	0.25	0.25	0.26	0.22	0.22	0.20	0.18	0.21	0.23	0.26	0.26	2.86	2.80	2.91	2.97	3.04	3.11	3.16	3.21	3.26	3.31	3.36
Blue Star Turnpike	2.32	0.28	0.25	0.27	0.30	0.31	0.31	0.31	0.31	0.28	0.28	0.28	0.25	0.28	0.30	0.33	0.32	3.42	3.57	3.65	3.74	3.83	3.92	4.01	4.10	4.20	4.29	4.39
Spaulding Turnpike	0.72	0.08	0.07	0.08	0.10	0.10	0.10	0.10	0.10	0.08	0.09	0.09	0.08	0.08	0.09	0.10	0.10	1.05	1.11	1.12	1.15	1.18	1.21	1.24	1.27	1.30	1.34	1.37
Total	5.02	0.58	0.52	0.57	0.65	0.67	0.66	0.66	0.67	0.59	0.59	0.57	0.51	0.58	0.61	0.69	0.68	7.33	7.48	7.68	7.86	8.05	8.24	8.41	8.59	8.76	8.94	9.12

Estimates with More Severe/Longer Duration Effects

Central Turnpike	1.98	0.21	0.20	0.22	0.25	0.25	0.25	0.25	0.26	0.22	0.22	0.19	0.17	0.20	0.21	0.25	0.25	2.86	2.73	2.82	2.90	2.99	3.08	3.15	3.20	3.24	3.29	3.34
Blue Star Turnpike	2.32	0.28	0.25	0.27	0.30	0.31	0.31	0.31	0.31	0.28	0.28	0.28	0.25	0.28	0.29	0.33	0.32	3.42	3.54	3.62	3.72	3.81	3.90	3.99	4.08	4.17	4.27	4.37
Spaulding Turnpike	0.72	0.08	0.07	0.08	0.10	0.10	0.10	0.10	0.10	0.08	0.09	0.09	0.08	0.08	0.09	0.10	0.09	1.05	1.09	1.10	1.15	1.17	1.20	1.24	1.27	1.30	1.33	1.36
Total	5.02	0.58	0.52	0.57	0.65	0.67	0.66	0.66	0.67	0.59	0.59	0.55	0.50	0.56	0.59	0.67	0.66	7.33	7.36	7.54	7.76	7.97	8.18	8.37	8.54	8.72	8.89	9.08

= Actual

COVID-19 Sensitivity Test Comparisons for NHDOT Total Toll Transactions, Percent Change Compared to Pro Forma Forecasts – Current Toll Rates

(Prepared on January 19, 2020)

Total Transactions

	Jul 19-Feb 20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
Less Severe/Short - % Traffic Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)																													
Central Turnpike	1%	-25%	-54%	-41%	-28%	-19%	-18%	-16%	-17%	-25%	-25%	-19%	-15%	-12%	-9%	-7%	-5%	-11%	-16%	-3%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Blue Star Turnpike	1%	-25%	-58%	-45%	-29%	-22%	-18%	-14%	-14%	-24%	-27%	-20%	-16%	-13%	-11%	-9%	-7%	-12%	-16%	-5%	-3%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%
Spaulding Turnpike	3%	-18%	-47%	-34%	-18%	-10%	-11%	-6%	-8%	-16%	-17%	-13%	-11%	-9%	-7%	-6%	-4%	-8%	-10%	-4%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	
Total	1%	-23%	-54%	-41%	-26%	-18%	-17%	-13%	-14%	-23%	-24%	-18%	-15%	-12%	-9%	-7%	-5%	-11%	-14%	-4%	-2%	-1%	-1%	-1%	-1%	-1%	-1%	-1%	

Mid Range Scenario - % Traffic Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)

Central Turnpike	1%	-25%	-54%	-41%	-28%	-19%	-18%	-16%	-17%	-25%	-25%	-23%	-21%	-19%	-16%	-14%	-12%	-11%	-19%	-9%	-6%	-4%	-3%	-3%	-3%	-3%	-3%	-3%	-3%
Blue Star Turnpike	1%	-25%	-58%	-45%	-29%	-22%	-18%	-14%	-14%	-24%	-27%	-23%	-21%	-19%	-16%	-14%	-13%	-12%	-18%	-10%	-6%	-5%	-4%	-4%	-3%	-3%	-3%	-3%	-3%
Spaulding Turnpike	3%	-18%	-47%	-34%	-18%	-10%	-11%	-6%	-8%	-16%	-17%	-16%	-15%	-13%	-12%	-10%	-9%	-8%	-12%	-7%	-6%	-5%	-4%	-3%	-3%	-3%	-3%	-3%	
Total	1%	-23%	-54%	-41%	-26%	-18%	-17%	-13%	-14%	-23%	-24%	-21%	-19%	-17%	-15%	-13%	-12%	-11%	-17%	-9%	-6%	-5%	-4%	-3%	-3%	-3%	-3%	-3%	

More Severe/Long - % Traffic Change Compared to New Pro Forma Forecasts/No COVID (from December 2020)

Central Turnpike	1%	-25%	-54%	-41%	-28%	-19%	-18%	-16%	-17%	-25%	-25%	-26%	-26%	-25%	-23%	-21%	-20%	-11%	-22%	-15%	-10%	-8%	-6%	-5%	-5%	-5%	-5%	-5%
Blue Star Turnpike	1%	-25%	-58%	-45%	-29%	-22%	-18%	-14%	-14%	-24%	-27%	-25%	-25%	-24%	-21%	-20%	-19%	-12%	-21%	-14%	-10%	-9%	-8%	-7%	-6%	-5%	-5%	-5%
Spaulding Turnpike	3%	-18%	-47%	-34%	-18%	-10%	-11%	-6%	-8%	-16%	-17%	-18%	-18%	-18%	-16%	-15%	-14%	-8%	-14%	-11%	-9%	-8%	-7%	-6%	-5%	-5%	-5%	-5%
Total	1%	-23%	-54%	-41%	-26%	-18%	-17%	-13%	-14%	-23%	-24%	-24%	-24%	-23%	-21%	-19%	-18%	-11%	-20%	-14%	-10%	-8%	-7%	-6%	-5%	-5%	-5%	-5%

	Jul 19-Feb 20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	
New Pro Forma Forecasts/No COVID (from December 2020)																													
Central Turnpike	36.89	4.14	4.09	4.56	4.72	4.96	5.09	4.57	4.68	4.14	4.08	3.96	3.74	4.14	4.09	4.56	4.73	54.40	52.73	53.21	53.71	54.21	54.71	55.22	55.74	56.26	56.79	57.32	
Blue Star Turnpike	28.18	3.07	3.20	3.70	3.96	4.53	4.60	3.79	3.69	3.23	3.11	2.84	2.68	3.10	3.24	3.73	4.01	42.11	42.56	43.02	43.53	44.06	44.59	45.12	45.67	46.22	46.78	47.35	
Spaulding Turnpike	17.72	2.07	2.05	2.30	2.39	2.57	2.63	2.28	2.34	2.10	2.14	2.06	1.93	2.11	2.09	2.34	2.43	26.53	27.01	27.49	27.93	28.42	28.91	29.41	29.92	30.44	30.97	31.51	
Total	82.80	9.27	9.34	10.55	11.08	12.06	12.32	10.64	10.71	9.46	9.33	8.86	8.34	9.35	9.42	10.64	11.17	123.04	122.30	123.72	125.17	126.68	128.21	129.76	131.33	132.93	134.54	136.18	

Estimates with Less Severe/Shorter Duration Effects

Central Turnpike	37.18	3.09	1.87	2.68	3.42	4.01	4.15	3.84	3.87	3.10	3.05	3.20	3.18	3.65	3.71	4.25	4.51	48.24	44.53	51.42	52.68	53.70	54.20	54.70	55.22	55.73	56.25	56.78
Blue Star Turnpike	28.39	2.32	1.33	2.03	2.83	3.54	3.76	3.26	3.18	2.45	2.27	2.27	2.24	2.70	2.89	3.41	3.73	36.90	35.70	40.75	42.36	43.37	44.18	44.71	45.25	45.80	46.36	46.92
Spaulding Turnpike	18.26	1.70	1.09	1.52	1.96	2.31	2.35	2.15	2.15	1.76	1.76	1.79	1.71	1.92	1.94	2.21	2.32	24.53	24.39	26.51	27.34	28.00	28.63	29.13	29.64	30.15	30.68	31.21
Total	83.83	7.10	4.29	6.24	8.22	9.86	10.26	9.26	9.21	7.32	7.09	7.26	7.13	8.27	8.54	9.86	10.56	109.67	104.63	118.69	122.39	125.06	127.01	128.55	130.10	131.68	133.29	134.91

Estimates with Mid Range Effects

Central Turnpike	37.18	3.09	1.87	2.68	3.42	4.01	4.15	3.84	3.87	3.10	3.05	3.06	2.96	3.37	3.44	3.92	4.15	48.24	42.93	48.38	50.63	51.91	52.86	53.54	54.15	54.66	55.17	55.68
Blue Star Turnpike	28.39	2.32	1.33	2.03	2.83	3.54	3.76	3.26	3.18	2.45	2.27	2.20	2.13	2.52	2.72	3.21	3.49	36.90	34.74	38.80	40.73	41.74	42.67	43.45	44.20	44.94	45.48	46.04
Spaulding Turnpike	18.26	1.70	1.09	1.52	1.96	2.31	2.35	2.15	2.15	1.76	1.76	1.74	1.64	1.83	1.84	2.10	2.21	24.53	23.85	25.45	26.34	27.07	27.78	28.44	29.02	29.56	30.08	30.60
Total	83.83	7.10	4.29	6.24	8.22	9.86	10.26	9.26	9.21	7.32	7.09	6.99	6.73	7.72	8.00	9.22	9.85	109.67	101.52	112.64	117.70	120.72	123.31	125.42	127.36	129.16	130.73	132.32

Estimates with More Severe/Longer Duration Effects

Central Turnpike	37.18	3.09	1.87	2.68	3.42	4.01	4.15	3.84	3.87	3.10	3.05	2.91	2.75	3.09	3.16	3.59	3.78	48.24	41.33	45.34	48.58	50.12	51.53	52.37	53.08	53.58	54.08	54.59
Blue Star Turnpike	28.39	2.32	1.33	2.03	2.83	3.54	3.76	3.26	3.18	2.45	2.27	2.13	2.01	2.35	2.54	3.00	3.26	36.90	33.77	36.85	39.10	40.12	41.16	42.18	43.14	44.08	44.61	45.16
Spaulding Turnpike	18.26	1.70	1.09	1.52	1.96	2.31	2.35	2.15	2.15	1.76	1.76	1.68	1.57	1.73	1.74	1.99	2.10	24.53	23.31	24.39	25.34	26.14	26.92	27.75	28.40	28.97	29.48	29.99
Total	83.83	7.10	4.29	6.24	8.22	9.86	10.26	9.26	9.21	7.32	7.09	6.73	6.33	7.17	7.45	8.58	9.15	109.67	98.41	106.59	113.02	116.38	119.61	122.29	124.62	126.63	128.17	129.74

= Actual

Annual NHDOT Transaction Impacts Summary – Current Toll Rates

Total Toll Transaction Estimates and Percent Change (Prepared on January 19, 2020)

New Pro Forma Forecasts/No COVID (from December 2020)

FY	Central	BlueStar	Spaulding	TOTAL
2019(A)	55.87	41.59	26.24	123.70
2020	54.40	42.11	26.53	123.04
2021	52.73	42.56	27.01	122.30
2022	53.21	43.02	27.49	123.72
2023	53.71	43.53	27.93	125.17
2024	54.21	44.06	28.42	126.68
2025	54.71	44.59	28.91	128.21
2026	55.22	45.12	29.41	129.76
2027	55.74	45.67	29.92	131.33
2028	56.26	46.22	30.44	132.93
2029	56.79	46.78	30.97	134.54
2030	57.32	47.35	31.51	136.18

Estimates with Less Severe/Shorter Duration Effects

FY	Central	BlueStar	Spaulding	TOTAL	Est % Loss Due to COVID-19
2019(A)	55.87	41.59	26.24	123.70	
2020(A)	48.24	36.90	24.53	109.67	-11%
2021	44.53	35.70	24.39	104.63	-14%
2022	51.42	40.75	26.51	118.69	-4%
2023	52.68	42.36	27.34	122.39	-2%
2024	53.70	43.37	28.00	125.06	-1%
2025	54.20	44.18	28.63	127.01	-1%
2026	54.70	44.71	29.13	128.55	-1%
2027	55.22	45.25	29.64	130.10	-1%
2028	55.73	45.80	30.15	131.68	-1%
2029	56.25	46.36	30.68	133.29	-1%
2030	56.78	46.92	31.21	134.91	-1%

Estimates with Mid Range Effects

FY	Central	BlueStar	Spaulding	TOTAL	Est % Loss Due to COVID-19
2019(A)	55.87	41.59	26.24	123.70	
2020(A)	48.24	36.90	24.53	109.67	-11%
2021	42.93	34.74	23.85	101.52	-17%
2022	48.38	38.80	25.45	112.64	-9%
2023	50.63	40.73	26.34	117.70	-6%
2024	51.91	41.74	27.07	120.72	-5%
2025	52.86	42.67	27.78	123.31	-4%
2026	53.54	43.45	28.44	125.42	-3%
2027	54.15	44.20	29.02	127.36	-3%
2028	54.66	44.94	29.56	129.16	-3%
2029	55.17	45.48	30.08	130.73	-3%
2030	55.68	46.04	30.60	132.32	-3%

Estimates with More Severe/Longer Duration Effects

FY	Central	BlueStar	Spaulding	TOTAL	Est % Loss Due to COVID-19
2019(A)	55.87	41.59	26.24	123.70	
2020(A)	48.24	36.90	24.53	109.67	-11%
2021	41.33	33.77	23.31	98.41	-20%
2022	45.34	36.85	24.39	106.59	-14%
2023	48.58	39.10	25.34	113.02	-10%
2024	50.12	40.12	26.14	116.38	-8%
2025	51.53	41.16	26.92	119.61	-7%
2026	52.37	42.18	27.75	122.29	-6%
2027	53.08	43.14	28.40	124.62	-5%
2028	53.58	44.08	28.97	126.63	-5%
2029	54.08	44.61	29.48	128.17	-5%
2030	54.59	45.16	29.99	129.74	-5%

(A) = Actual

REVENUE WITH TOLL INCREASE

Stantec also estimated revenue for the three COVID-19 scenarios assuming a toll increase at the start of FY 2022. The following table summarizes the toll increases for cash and non-NH E-ZPass cars and trucks. NH E-ZPass vehicles would keep the same discounts as today: a 30% discount for cars and a 10% discount for trucks.

Toll Location	Assumed Toll Rate Changes Starting FY 2022	
	Passenger Car Cash and non-NH E-ZPass Toll Change	Commercial Truck Cash and non-NH E-ZPass Toll Change
Hooksett Mainline Plaza	+\$0.50	+\$1.00
Hooksett Ramp	+\$0.25	+\$0.50
Bedford Mainline Plaza	+\$0.50	+\$1.00
Merrimack Industrial	--	--
Hampton Mainline Plaza	+\$0.50	+\$1.00
Hampton Side	+\$0.25	+\$0.50
Dover Mainline Plaza	+\$0.25	+\$0.50
Rochester Mainline Plaza	+\$0.25	+\$0.50

Toll, fee, and total revenues with and without the toll increase are shown on the following page. Total revenues are estimated to increase by a range of \$32.2 to \$35.8 million in FY 2022 with the toll increase, depending on the impact and duration of the COVID-19 pandemic. This range goes up to a \$37.8 to \$39.3 million increase in revenue in FY 2030 with the toll increase. Note that amounts collected from video toll fees are expected to decrease, as a toll increase will cause some trips to divert off of the facility.

**Estimated Range of COVID-19 Impacts on NHDOT Annual Total Revenues (in millions) –
2022 Toll Increase vs. Current Toll Rates**

New Pro Forma Forecasts/No COVID (from December 2020)

FY	Without Toll Increase			With FY 2022 Toll Increase			Additional Revenue with Toll Inc.		
	Toll Rev	AET Fee Rev	TOTAL	Toll Rev	AET Fee Rev	TOTAL	Toll Rev	AET Fee Rev	TOTAL
2022	\$ 133.0	\$ 1.3	\$ 134.3	\$ 170.2	\$ 1.3	\$ 171.5	\$ 37.3	\$ (0.1)	\$ 37.2
2023	\$ 132.7	\$ 3.2	\$ 136.0	\$ 169.9	\$ 3.1	\$ 173.0	\$ 37.2	\$ (0.1)	\$ 37.0
2024	\$ 133.2	\$ 7.8	\$ 141.0	\$ 170.2	\$ 7.5	\$ 177.7	\$ 37.0	\$ (0.3)	\$ 36.7
2025	\$ 135.5	\$ 8.8	\$ 144.3	\$ 173.2	\$ 8.4	\$ 181.6	\$ 37.7	\$ (0.4)	\$ 37.3
2026	\$ 137.3	\$ 8.8	\$ 146.1	\$ 175.4	\$ 8.5	\$ 183.8	\$ 38.1	\$ (0.4)	\$ 37.8
2027	\$ 139.1	\$ 8.9	\$ 148.0	\$ 177.6	\$ 8.6	\$ 186.2	\$ 38.6	\$ (0.4)	\$ 38.2
2028	\$ 140.9	\$ 9.0	\$ 149.9	\$ 179.9	\$ 8.7	\$ 188.6	\$ 39.0	\$ (0.4)	\$ 38.7
2029	\$ 142.8	\$ 9.2	\$ 151.9	\$ 182.3	\$ 8.8	\$ 191.1	\$ 39.5	\$ (0.4)	\$ 39.1
2030	\$ 144.6	\$ 9.3	\$ 153.9	\$ 184.6	\$ 8.9	\$ 193.6	\$ 40.0	\$ (0.4)	\$ 39.6

Estimates with Less Severe/Shorter Duration Effects

FY	Without Toll Increase			With FY 2022 Toll Increase			Additional Revenue with Toll Inc.		
	Toll Rev	AET Fee Rev	TOTAL	Toll Rev	AET Fee Rev	TOTAL	Toll Rev	AET Fee Rev	TOTAL
2022	\$ 128.0	\$ 1.3	\$ 129.3	\$ 163.8	\$ 1.2	\$ 165.0	\$ 35.8	\$ (0.1)	\$ 35.8
2023	\$ 130.1	\$ 3.2	\$ 133.2	\$ 166.5	\$ 3.0	\$ 169.5	\$ 36.4	\$ (0.1)	\$ 36.3
2024	\$ 131.7	\$ 7.7	\$ 139.4	\$ 168.3	\$ 7.4	\$ 175.7	\$ 36.6	\$ (0.3)	\$ 36.3
2025	\$ 134.4	\$ 8.7	\$ 143.1	\$ 171.8	\$ 8.4	\$ 180.1	\$ 37.3	\$ (0.4)	\$ 37.0
2026	\$ 136.2	\$ 8.7	\$ 144.9	\$ 174.0	\$ 8.4	\$ 182.4	\$ 37.8	\$ (0.4)	\$ 37.4
2027	\$ 138.0	\$ 8.9	\$ 146.8	\$ 176.2	\$ 8.5	\$ 184.7	\$ 38.2	\$ (0.4)	\$ 37.9
2028	\$ 139.8	\$ 9.0	\$ 148.8	\$ 178.5	\$ 8.6	\$ 187.1	\$ 38.7	\$ (0.4)	\$ 38.3
2029	\$ 141.6	\$ 9.1	\$ 150.7	\$ 180.8	\$ 8.7	\$ 189.5	\$ 39.2	\$ (0.4)	\$ 38.8
2030	\$ 143.5	\$ 9.2	\$ 152.7	\$ 183.1	\$ 8.8	\$ 192.0	\$ 39.6	\$ (0.4)	\$ 39.3

Estimates with Mid Range Effects

FY	Without Toll Increase			With FY 2022 Toll Increase			Additional Revenue with Toll Inc.		
	Toll Rev	AET Fee Rev	TOTAL	Toll Rev	AET Fee Rev	TOTAL	Toll Rev	AET Fee Rev	TOTAL
2022	\$ 122.2	\$ 1.2	\$ 123.4	\$ 156.3	\$ 1.1	\$ 157.4	\$ 34.1	\$ (0.1)	\$ 34.0
2023	\$ 125.7	\$ 3.1	\$ 128.7	\$ 160.8	\$ 2.9	\$ 163.7	\$ 35.1	\$ (0.1)	\$ 35.0
2024	\$ 127.6	\$ 7.4	\$ 135.0	\$ 163.0	\$ 7.1	\$ 170.1	\$ 35.4	\$ (0.3)	\$ 35.1
2025	\$ 130.8	\$ 8.5	\$ 139.3	\$ 167.1	\$ 8.1	\$ 175.3	\$ 36.3	\$ (0.3)	\$ 36.0
2026	\$ 133.1	\$ 8.5	\$ 141.7	\$ 170.0	\$ 8.2	\$ 178.2	\$ 36.9	\$ (0.3)	\$ 36.6
2027	\$ 135.3	\$ 8.7	\$ 144.0	\$ 172.8	\$ 8.3	\$ 181.1	\$ 37.5	\$ (0.4)	\$ 37.1
2028	\$ 137.4	\$ 8.8	\$ 146.2	\$ 175.4	\$ 8.5	\$ 183.9	\$ 38.0	\$ (0.4)	\$ 37.6
2029	\$ 139.2	\$ 8.9	\$ 148.2	\$ 177.7	\$ 8.6	\$ 186.3	\$ 38.5	\$ (0.4)	\$ 38.1
2030	\$ 141.1	\$ 9.1	\$ 150.1	\$ 180.0	\$ 8.7	\$ 188.7	\$ 38.9	\$ (0.4)	\$ 38.6

Estimates with More Severe/Longer Duration Effects

FY	Without Toll Increase			With FY 2022 Toll Increase			Additional Revenue with Toll Inc.		
	Toll Rev	AET Fee Rev	TOTAL	Toll Rev	AET Fee Rev	TOTAL	Toll Rev	AET Fee Rev	TOTAL
2022	\$ 116.4	\$ 1.1	\$ 117.6	\$ 148.7	\$ 1.1	\$ 149.8	\$ 32.3	\$ (0.1)	\$ 32.2
2023	\$ 121.3	\$ 2.9	\$ 124.3	\$ 155.1	\$ 2.8	\$ 157.9	\$ 33.8	\$ (0.1)	\$ 33.6
2024	\$ 123.5	\$ 7.2	\$ 130.7	\$ 157.7	\$ 6.9	\$ 164.6	\$ 34.2	\$ (0.3)	\$ 33.9
2025	\$ 127.2	\$ 8.3	\$ 135.5	\$ 162.5	\$ 7.9	\$ 170.4	\$ 35.3	\$ (0.3)	\$ 35.0
2026	\$ 130.1	\$ 8.3	\$ 138.4	\$ 166.1	\$ 8.0	\$ 174.1	\$ 36.0	\$ (0.3)	\$ 35.7
2027	\$ 132.7	\$ 8.5	\$ 141.2	\$ 169.4	\$ 8.2	\$ 177.5	\$ 36.7	\$ (0.3)	\$ 36.4
2028	\$ 135.0	\$ 8.7	\$ 143.7	\$ 172.3	\$ 8.3	\$ 180.6	\$ 37.3	\$ (0.4)	\$ 36.9
2029	\$ 136.8	\$ 8.8	\$ 145.6	\$ 174.6	\$ 8.4	\$ 183.0	\$ 37.8	\$ (0.4)	\$ 37.4
2030	\$ 138.6	\$ 8.9	\$ 147.5	\$ 176.8	\$ 8.5	\$ 185.4	\$ 38.2	\$ (0.4)	\$ 37.8

DISCLAIMER

It is Stantec's opinion that the traffic and revenue estimates provided herein have been prepared in accordance with accepted industry-wide practice. This limited synopsis presents the highlighted results of Stantec's consideration of the information available as of the date hereof and the application of our experience and professional judgment to that information. It is not a guarantee of any future events or trends.

The estimates contained in this document, while presented with numeric specificity, are based on a number of estimates and assumptions which, though considered reasonable to us, are inherently subject to uncertainties and contingencies, most of which are beyond the control of the DOT and cannot be predicted with certainty. In many instances, a broad range of alternative assumptions could be considered reasonable, and any changes in the assumptions used could result in material differences in estimated outcomes.

There are likely to be differences between the estimates and actual results, and those differences may be material. Because of these uncertainties, Stantec makes no guaranty or warranty with respect to the estimates in this study.

We are performing this analysis based on your request. Due to the dynamic and fluid situation we are able to prepare this analysis using the specific assumptions that are noted in the document and the resulting sensitivity scenarios; however, we are unable to make any forecasts at the present time of the actual outcomes of the current COVID-19 pandemic.