

Air Quality Impacts of Congestion Relief Zone Tolling Appendix: Detailed Traffic Analysis Methodology

Air-quality monitoring for CRZ tolling includes additional NYC Department of Health pollutant data collection at six locations in EJ-designated communities near highways where modeling for the Final EA and later reevaluations predicted potential increases in traffic with the start of tolling, as well as at one control site. Since traffic is not the only source of the monitored pollutants, in addition, traffic counts are conducted along with air quality monitoring to analyze whether changes in air quality could be attributed to changes in vehicle traffic.

Like air quality, traffic is impacted by many factors beyond just CRZ tolling. Weather, road closures, construction, regular maintenance, crashes and disabled vehicles, emergency response, and other events can all impact vehicle volumes. Given all these factors, some levels of variability in vehicle volumes at a given location are to be expected.

Traffic counts conducted by NYSDOT and NYC DOT on highways near the New York City Community Air Survey (NYCCAS) sites allow for traffic reporting and analysis in parallel to pollutant reporting and analysis.¹ Figure A-1 describes the locations of these traffic count sites and the seven NYCCAS monitoring sites to which each traffic count site is paired.

¹ NYC DOT and Traffic Databank, Traffic Short Counts; see NYSDOT, Traffic Data Viewer Multi-Day Volume Reports, <https://nysdottrafficdata.drakewell.com/publicmultinodemap.asp>. Data for each site are available under these station ids: Trans-Manhattan Expwy = MTA Site E; Cross Bronx Expwy at Jerome Avenue = 0191; Major Deegan Expwy = MTA Site C; The FDR Dr at Houston St = MTA Site B; The FDR Dr at Jackson St = MTA Site F; The FDR Dr at Market Slip = MTA Site A; BQE at Lee Ave = MTA Site D; I-278 Staten Island Expwy = MTA Site I; NY440 - MLK Expwy = MTA Site J; Van Wyck Expwy = MTA Site H.

Air Quality Impacts of Congestion Relief Zone Tolling Appendix: Detailed Traffic Analysis Methodology

Figure A-1: NYCCAS Monitoring Sites in EJ-Designated Communities and Accompanying Traffic Count Sites



Sources: NYC Health Department, NYSDOT, TBTA.

Each NYCCAS site is paired with one traffic count site, though the NYCCAS site on the FDR Drive is paired with three count sites. TBTA, NYSDOT, and NYC DOT included two additional traffic count sites along the FDR Drive in response to community concerns.

NYSDOT and NYC DOT conducted traffic counts on highways near the NYCCAS sites. At most sites, these vehicle counts consist of periodic short counts on weekdays, when equipment is placed on the highways to count vehicles for approximately 50 hours. In some months and at some locations, additional hours of data were collected. Short counts were taken in Fall 2023, Spring 2024, Fall 2024, Spring 2025, Summer 2025, Fall 2025, and Winter 2025. A pre-existing NYSDOT traffic count site along the Cross Bronx Expressway collects data at all times. Only workweek data collected between 6 a.m. on Mondays and 12 p.m. on Fridays were included in the analysis, and counts taken on NYSDOT's count holidays (federal holidays and other days when traffic volumes are atypical, such as the Tuesday after Memorial Day) were excluded.

To minimize the influence of seasonal traffic volume changes on estimates of annual average daily traffic (AADT), TBTA seasonally adjusted traffic counts. The adjustment approach is based on the temporal adjustment factor methodology described in the 2022 FHWA Traffic Monitoring Guide and was developed in consultation with NYSDOT. Eleven continuous count sites, including ten TBTA bridges and tunnels and one NYSDOT continuous counter, were selected for the factor calculation. Site-specific weekly workweek factors were calculated by dividing each continuous count site's weekly average daily traffic (ADT) by its AADT. Regional weekly adjustment factors were developed by averaging the site-specific factors across all continuous count sites. These regional factors were then applied to short-count traffic data to calculate AADT. Because full years of data were available

Air Quality Impacts of Congestion Relief Zone Tolling Appendix: Detailed Traffic Analysis Methodology

at the continuous counter on the Cross Bronx Expressway, there was no need to seasonally adjust counts at that location.

TBTA calculated AADT using methods from NYSDOT's Data Services. ADT was calculated by averaging traffic volumes for each hour of the day on all days when data were collected in that month, with three exceptions: 1) data collected in the last week of April 2024 and 2025 were all averaged together, even if data came from the first or second day of May; 2) data collected in the last week of October 2024 were averaged together, including data collected on Friday, November 1; and 3) data collected over the last week of November 2024 (Thanksgiving week) were not used to avoid any holiday effects on traffic. Hourly averages were added up to get a 24-hour ADT. AADT was calculated by averaging the seasonally adjusted monthly ADTs over the year. Data that did not meet NYSDOT Data Services' standard quality-control methods were also excluded and removed; counts from hours where the number of vehicles was atypical and incident reports from the regional TRANSCOM system indicated that they were influenced by construction, crashes, or other disruptions were also removed.

Air Quality Impacts of Congestion Relief Zone Tolling Appendix: Detailed Traffic Analysis Methodology

Table A-1: All-vehicle AADT, 2023 through 2025

Site	Cross-Bronx Expressway	Major Deegan Expressway	Trans-Manhattan Expressway	FDR at Houston St*	FDR at Montgomery St	FDR at Market Slip	BQE at Lee Ave	I-278 Staten Island Expressway	NY440 - MLK Expressway	Van Wyck Expressway**
2023	140,919	121,403	219,300	147,276	-	-	144,087	180,442	36,141	-
2024	143,517	129,955	227,195	134,068	132,110	117,903	145,058	177,795	35,650	130,524
2025	135,494	128,727	233,056	145,988	132,325	122,410	142,262	186,215	36,989	135,605
2024 Change Compared to 2023	+2%	+7%	+4%	-9%	-	-	+1%	-1%	-1%	-
2025 Change Compared to 2024	-6%	-1%	+3%	+9%	+0.2%	+4%	-2%	+5%	+4%	+4%

* At the FDR Drive at Houston Street, 2024 AADT is low because the fall 2024 pre-go-live counts were atypically low compared with the spring 2024 and fall 2023 counts.

** Due to partial lane closures and incomplete data over time at the Van Wyck Expressway, AADT was updated in April 2026. To ensure consistency across years, counts from the Eastbound Center, Eastbound Fast, Eastbound Slow, Westbound Fast, Westbound Left Center, and Westbound Right Center lanes are used.

Note: Traffic volumes are seasonally adjusted at all sites, except the Cross-Bronx Expressway, where continuous data are available.

Air Quality Impacts of Congestion Relief Zone Tolling Appendix: Detailed Traffic Analysis Methodology

Table A-2: Truck AADT, 2023 through 2025

Site	Cross-Bronx Expressway	Major Deegan Expressway	Trans-Manhattan Expressway	FDR at Houston St*	FDR at Montgomery St	FDR at Market Slip	BQE at Lee Ave	I-278 Staten Island Expressway	NY440 - MLK Expressway	Van Wyck Expressway**
2023	22,862	10,060	29,555	449	-	-	15,193	12,210	2,334	-
2024	22,907	10,326	30,238	326	357	272	14,524	12,594	2,147	7,108
2025	22,343	10,296	30,285	413	348	243	14,138	12,368	2,361	7,448
2024 Change Compared to 2023	+0.2%	+3%	+2%	-27%	-	-	-4%	+3%	-8%	-
2025 Change Compared to 2024	-2%	-0.3%	+0.2%	+27%	-3%	-11%	-3%	-2%	+10%	+5%

* At the FDR Drive at Houston Street, 2024 AADT is low because the fall 2024 pre-go-live counts were atypically low compared with the spring 2024 and fall 2023 counts.

** Due to partial lane closures and incomplete data over time at the Van Wyck Expressway, AADT was updated in April 2026. To ensure consistency across years, counts from the Eastbound Center, Eastbound Fast, Eastbound Slow, Westbound Fast, Westbound Left Center, and Westbound Right Center lanes are used.

Notes: Traffic volumes are seasonally adjusted at all sites, except the Cross-Bronx Expressway, where continuous data are available.

Though not permitted on the FDR Drive, a small number of trucks do travel on the highway illegally and appear in counts on the FDR at Houston St, the FDR at Montgomery Street, and the FDR at Market Slip.