

CENTRAL BUSINESS DISTRICT (CBD) TOLLING PROGRAM

Appendix 4B.5, Transportation: Traffic LOS: CBD Tolling Alternative with Mitigation

2023

Downtown Brooklyn Study Area - No-Action vs NEPA 4 With-Action (With Mitigation) - Midday Peak Hour													
Intersection #	Intersection Name	Approach	Lane Group	Movement	Volume (vph)			V/C		Delay		LOS	
					No-Action	With-Action	Increment	No-Action	With-Action	No-Action	With-Action	No-Action	With-Action
1	Flatbush Avenue and Tillary Street	NB	L	L	585	585	0	1.20	0.98	155.2	82.9	F	F
			TR	T	820	593	-227	1.21dl	0.97dl	69.7	37.2	E	D
			R	R	345	343	-2	0.51	0.51	5.8	5.7	A	A
		SB	T	T	636	425	-211	0.59	0.39	39.5	35.9	D	D
			R	R	77	51	-26	0.31	0.21	37.4	35.1	D	D
		EB	L	L	123	91	-32	0.68	0.50	66.4	56.9	E	E
			T	T	683	697	14	0.82	0.84	47.2	48.3	D	D
			R	R	255	262	7	0.77	0.79	53.8	55.8	D	E
		WB	L	L	233	222	-11	0.73	0.69	61.6	59.7	E	E
			T	T	366	349	-17	0.85	0.66	51.5	41.0	D	D
			R	R	382	259	-123	0.96	0.75	83.4	54.4	F	D
		Intersection								59.6	44.1	E	D
2	Adam Street and Tillary Street	NB	L	L	0	0	0	-	-	-	-	-	-
			T	T	474	409	-65	0.66	0.59	41.2	39.8	D	D
			R	R	44	44	0	0.81	0.79	57.9	57.6	E	E
			R2	188	178	-10	-	-	-	-	-	-	-
		SB	L	L	634	667	33	0.88	0.90	54.8	56.1	D	E
			T	T	735	773	38	0.54	0.57	21.6	22.9	C	C
			R	R	19	20	1	0.04	0.05	8.6	8.7	A	A
		EB	L	L	0	0	0	-	-	-	-	-	-
			TR	T	279	264	-15	0.41	0.39	37.6	37.4	D	D
			R	85	85	0	-	-	-	-	-	-	-
		WB	L	L	169	158	-11	1.10	1.00	138.4	112.2	F	F
			T	T	214	200	-14	0.31	0.29	36.6	36.3	D	D
			R	R	0	0	0	-	-	-	-	-	-
			R2	33	15	-18	0.08	0.04	32.4	30.9	C	C	
		Intersection								45.3	43.9	D	D
3	Old Fulton Street and Vine Street	NB	L	L	1094	1128	34	1.03	1.03	63.0	62.4	E	E
			T	T	122	126	4	0.25	0.25	20.7	20.1	C	C
		SB	T	T	509	463	-46	0.41	0.38	23.5	17.0	C	B
			Intersection							47.2	45.8	D	D

Lower Manhattan Study Area - No-Action vs With-Action (No Mitigation) - PM Peak Hour														
Intersection #	Intersection Name	Approach	Lane Group	Movement	Volume (vph)			V/C		Delay (seconds)		LOS		
					No-Action	With-Action	Increment	No-Action	With-Action	No-Action	With-Action	No-Action	With-Action	No-Action
1	Trinity Place & Edgar Street	NEB	L	L2	0	0	0	-	-	-	-	-	-	-
				L	0	0	0	-	-	-	-	-	-	-
		NB	LT	L	1	0	-1	-	-	-	-	-	-	-
				T	9	0	-9	0.01	-	9.5	-	A	-	-
2	Trinity Place & Rector Street	EB	L	L	134	138	4	0.28	0.29	23.2	23.3	C	C	C
				Intersection						22.2	23.3	C	C	C
		NB	TR	T	125	120	-5	0.21	0.20	34.1	35.8	C	D	
				R	18	18	0	-	-	-	-	-	-	-
3a	HCT Entrance/Exit & West Street	EB	LT	L	81	59	-22	-	-	-	-	-	-	-
				T	40	39	-1	0.35	0.27	23.2	21.5	C	C	C
		NB	T	T	566	539	-27	0.32	0.31	23.4	23.2	C	C	C
				R2	1297	1520	223	0.65	0.77	1.5	2.6	A	A	
3b	HCT Exit & West Street & West Thames Street	SB	T	T	1297	1191	-106	0.61	0.56	1.0	0.8	A	A	
				WB	L	L	351	347	-4	0.29	0.29	35.8	35.7	D
		NB	T	T	566	539	-27	0.28	0.26	0.5	0.5	A	A	
				SB	TR	T	1297	1191	-106	0.69	0.63	31.2	29.6	C
4	Chambers Street & Centre Street	WB	R	R	510	510	0	0.48	0.48	39.5	39.5	D	D	
				Intersection						25.4	24.6	C	C	
		NB	L	L	445	396	-49	0.51	0.45	27.1	26.1	C	C	
				T	533	474	-59	0.66	0.58	16.0	14.2	B	B	
5a	Canal Street & Hudson Street/Holland Tunnel On-Ramp	SB	TR	T	370	230	-140	1.24	0.77	160.8	49.0	F	D	
				R	15	11	-4	0.17	0.13	33.1	31.5	C	C	
		EB	R	R	510	434	-76	1.18	1.01	131.1	74.1	F	E	
				Intersection						80.0	39.8	E	D	
5b	Canal Street & Holland Tunnel On-Ramp	NB	LT	L	45	45	0	-	-	-	-	-	-	-
				T	585	585	0	0.88	0.88	44.6	44.6	D	D	
		R	R	R	189	184	-5	0.31	0.30	26.5	26.4	C	C	
				R2	10	5	-5	0.05	0.02	24.0	23.4	C	C	
7a	Canal Street S & West Street	EB	L	L2	5	5	0	-	-	-	-	-	-	-
				T	225	209	-16	0.41	0.38	31.3	30.9	C	C	
		WB	TR	T	462	419	-43	0.54	0.49	15.0	14.1	B	B	
				R	10	0	-10	0.03	-	3.8	-	A	-	
9	West Street & Albany Street	NB	TR	T	1884	1854	-30	0.65	0.64	5.4	5.4	A	A	
				Intersection						39.0	35.7	D	D	
		SB	TR	T	2698	2647	-51	0.98	0.97	45.7	42.2	D	D	
				R	5	5	0	0.01	0.01	14.8	14.8	B	B	
10	West Street & Vesey Street	EB	L	L	559	476	-83	0.62	0.53	114.2	111.6	F	F	
				T	1405	1405	0	1.23	1.23	131.8	131.8	F	F	
		NB	TR	T	1284	1227	-57	0.48	0.46	20.5	20.1	C	C	
				R	49	47	-2	-	-	-	-	-	-	-
11	West Street & Chambers Street	SB	TR	L	0	0	0	-	-	-	-	-	-	-
				T	2324	2402	78	0.70	0.72	25.1	25.7	C	C	
		EB	LTR	R	80	76	-4	-	-	-	-	-	-	-
				T	140	140	0	-	-	-	-	-	-	-
14	Canal Street/Manhattan Bridge & Bowery	NB	LT	L	90	90	0	0.71	0.73	50.7	51.7	D	D	
				R	82	88	6	-	-	-	-	-	-	-
		EB	LTR	T	1879	1781	-98	0.75	0.71	35.4	34.2	D	C	
				R	38	36	-2	-	-	-	-	-	-	-
15	Manhattan Bridge & Bowery	SB	LT	L	195	182	-13	0.82	0.77	89.8	84.7	F	F	
				T	1945	1938	-7	0.72	0.72	23.6	23.5	C	C	
		NB	TR	R	95	90	-5	0.47	0.44	67.4	66.6	E	E	
				T	50	50	0	-	-	-	-	-	-	-
18	6th Avenue & Watts Street	WB	TR	L	127	135	8	-	-	-	-	-	-	-
				T	90	90	0	0.74	0.77	58.8	61.7	E	E	
		NB	LT	R	396	394	-2	0.72	0.72	40.9	40.6	D	D	
				Intersection						35.5	34.7	D	C	
19	Canal Street & 6th Avenue/Laight Street	EB	TR	T	1051	763	-288	0.99	0.72	52.4	26.5	D	C	
				R	85	83	-2	0.30	0.29	21.3	21.1	C	C	
		NB	TR	T	542	328	-214	0.52	0.31	22.2	19.4	C	B	
				R	177	171	-6	0.30	0.29	29.2	29.1	C	C	

RFK Bridge Study Area - No-Action vs Action (Mitigation) - AM Peak Hour													
Intersection #	Intersection Name	Approach	Lane Group	Movement	Volume			V/C		Delay		LOS	
					No-Action	Action	Δ Increment	No-Action	Action	No-Action	Action	No-Action	Action
1	126th Street and 2nd Avenue	NW	L	L2	30	30	0	-	-	-	-	-	-
				L	190	190	0	0.97	0.97	85.0	85.0	F	F
			R	R	415	415	0	0.31	0.31	7.3	7.3	A	A
		SB	TR	T	1240	1161	-79	0.56	0.52	21.9	21.4	C	C
				R	45	41	-4	-	-	-	-	-	-
				L	40	39	-1	-	-	-	-	-	-
		WB	L	T	30	29	-1	0.80	0.77	57.6	54.7	E	D
				R	94	90	-4	-	-	-	-	-	-
		Intersection								28.9	28.5	C	C
2	125th Street and 2nd Avenue	SB	L	L	501	497	-4	0.54	0.64	7.4	12.7	A	B
				T	754	683	-71	0.58	0.62	6.9	11.1	A	B
			R	R	55	50	-5	-	-	-	-	-	-
		SW	L	L	394	460	66	1.06	1.04	90.2	79.3	F	E
				R	133	155	22	-	-	-	-	-	-
				T	627	678	51	0.86	0.89	44.2	45.4	D	D
		EB	TR	R	40	40	0	-	-	-	-	-	-
				L	22	11	-11	-	-	-	-	-	-
				T	61	30	-31	0.22	0.10	28.9	26.4	C	C
		Intersection								34.9	37.8	C	D
11	E 134th Street & St. Ann's Avenue	NB	TR	T	140	140	0	0.46	0.46	18.5	18.5	B	B
				R	80	80	0	-	-	-	-	-	-
				L	145	145	0	-	-	-	-	-	-
		SB	LT	T	105	105	0	0.62	0.62	20.2	20.2	C	C
				L	140	140	0	-	-	-	-	-	-
				T	120	120	0	0.80	0.80	33.1	33.1	C	C
		EB	LTR	R	45	45	0	-	-	-	-	-	-
				Intersection						24.8	24.8	C	C
										-	-	-	-
22	St Ann's Ave and Bruckner Blvd	NB	LTR	L	25	25	0	-	-	-	-	-	-
				T	105	105	0	0.56	0.56	46.0	46.0	D	D
				R	30	30	0	-	-	-	-	-	-
		SB	LTR	L	55	55	0	-	-	-	-	-	-
				T	70	70	0	0.57	0.57	48.6	48.6	D	D
				R	25	25	0	-	-	-	-	-	-
		EB	LTR	L	50	50	0	-	-	-	-	-	-
				T	1440	1440	0	0.90	0.90	25.6	25.6	C	C
				R	30	30	0	-	-	-	-	-	-
		WB	LTR	L	40	40	0	-	-	-	-	-	-
				T	480	480	0	0.50	0.50	11.6	11.6	B	B
				R	65	65	0	-	-	-	-	-	-
		Intersection								24.9	24.9	C	C
17	31st St & Astoria Blvd	NB	T	T	96	70	-26	0.26	0.19	37.3	36.1	D	D
				R	17	12	-5	0.02	0.02	7.3	7.2	A	A
				T	558	567	9	0.62	0.63	26.5	27.2	C	C
		SB	R	R	174	175	1	0.41	0.41	23.9	24.3	C	C
				L	10	11	1	-	-	-	-	-	-
				T	362	384	22	0.51	0.54	32.6	33.3	C	C
		EB	L	R	26	28	2	-	-	-	-	-	-
				Intersection						28.8	29.3	C	C
										-	-	-	-
24	Hoyt N & 31st St	NB	L	L	18	15	-3	-	-	-	-	-	-
				T	94	75	-19	0.21	0.16	21.0	19.2	C	B
				R	262	265	3	0.81	0.81	109.4	109.5	F	F
		SB	T	R	131	130	-1	-	-	-	-	-	-
				L	401	402	1	0.26	0.26	9.3	9.3	A	A
				T	2135	2127	-8	0.66	0.66	14.1	14.0	B	B
		WB	R	R	35	35	0	0.10	0.10	8.5	8.5	A	A
				Intersection						27.3	27.3	C	C
										-	-	-	-
3	Hoyt S & 31st St	NB	T	T	97	74	-23	0.16	0.12	21.9	22.6	C	C
				R	9	7	-2	-	-	-	-	-	-
				L	20	20	0	-	-	-	-	-	-
		SB	L	T	643	647	4	0.38	0.38	15.7	15.9	B	B
				L	15	16	1	-	-	-	-	-	-
				T	893	946	53	0.79	0.84	46.5	48.7	D	D
		EB	R	R	89	95	6	0.38	0.40	41.7	42.9	D	D
				Intersection						33.6	35.5	C	D
										-	-	-	-

RFK Bridge Study Area - No-Action vs Action (Mitigation) - MD Peak Hour														
Intersection #	Intersection Name	Approach	Lane Group	Movement	Volume			V/C	Delay		LOS			
					No-Action	Action	Δ Increment		Action	No-Action	Action	No-Action	Action	
1	126th Street and 2nd Avenue	NW	L	L2	0	0	0	-	-	-	-	-	-	
				L	120	120	0	0.55	0.55	41.3	41.3	D	D	
			R	1050	1050	0	0.70	0.70	13.0	13.0	B	B		
		SB	TR	T	1042	929	-113	0.47	0.42	20.7	20.1	C	C	
				R	49	42	-7	-	-	-	-	-	-	
			L	45	42	-3	-	-	-	-	-	-	-	
		WB	L	T	20	18	-2	0.68	0.62	46.0	42.6	D	D	
				R	90	82	-8	-	-	-	-	-	-	
		Intersection							20.3	19.6	C	B		
2	125th Street and 2nd Avenue	SB	L	L	318	305	-13	0.38	0.37	6.2	7.0	A	A	
				T	724	627	-97	0.54	0.48	6.8	7.2	A	A	
			R	45	39	-6	-	-	-	-	-	-	-	
		SW	L	L	314	322	8	1.02	0.99	80.0	72.3	F	E	
				R	129	132	3	-	-	-	-	-	-	
		EB	TR	T	555	604	49	0.72	0.78	36.8	39.1	D	D	
				R	50	50	0	-	-	-	-	-	-	
		WB	LT	L	18	6	-12	-	-	-	-	-	-	
				T	64	22	-42	0.19	0.06	28.3	26.6	C	C	
		Intersection							30.6	31.5	C	C		
11	E 134th Street & St. Ann's Avenue	NB	TR	T	170	170	0	0.51	0.51	14.1	14.1	B	B	
				R	80	80	0	-	-	-	-	-	-	
			LT	L	110	110	0	-	-	-	-	-	-	
		SB		T	95	95	0	0.53	0.53	18.0	18.0	B	B	
		EB	LTR	L	155	155	0	-	-	-	-	-	-	
				T	140	140	0	0.94	0.94	51.5	51.5	D	D	
			Intersection	R	85	85	0	-	-	-	-	-	-	
									31.7	31.7	C	C		
22	St Ann's Ave and Bruckner Blvd	NB	LTR	L	20	20	0	-	-	-	-	-	-	
				T	140	140	0	0.80	0.80	55.7	55.7	E	E	
			R	75	75	0	-	-	-	-	-	-	-	
		SB	LTR	L	85	85	0	-	-	-	-	-	-	
				T	60	60	0	0.73	0.73	59.3	59.3	E	E	
		EB	LTR	R	35	35	0	-	-	-	-	-	-	
				L	55	55	0	-	-	-	-	-	-	
		WB	LTR	T	1260	1260	0	0.98	0.98	41.0	41.0	D	D	
				R	35	35	0	-	-	-	-	-	-	
			Intersection	L	40	40	0	-	-	-	-	-	-	
				T	760	760	0	0.70	0.70	19.9	19.9	B	B	
				R	55	55	0	-	-	-	-	-	-	
									37.1	37.1	D	D		
17	31st St & Astoria Blvd	NB	T	T	117	30	-87	0.32	0.08	30.4	27.0	C	C	
				R	3	3	0	-	-	4.3	4.3	A	A	
			SB	T	242	240	-2	0.29	0.29	11.6	11.6	B	B	
		EB	L	R	115	114	-1	0.38	0.38	14.8	14.9	B	B	
				L	20	21	1	-	-	-	-	-	-	
		Intersection	T	R	364	382	18	0.46	0.48	22.3	22.6	C	C	
				R	40	42	2	-	-	-	-	-	-	
									19.5	18.5	B	B		
24	Hoyt N & 31st St	NB	L	L	102	48	-54	-	-	-	-	-	-	
				T	41	9	-32	0.29	0.11	9.5	11.5	A	B	
			SB	T	206	203	-3	0.37	0.37	23.1	23.0	C	C	
		WB	L	R	70	70	0	-	-	-	-	-	-	
				L	215	215	0	0.17	0.17	11.2	11.2	B	B	
		Intersection	T	T	1684	1685	1	0.67	0.67	16.7	16.8	B	B	
				R	65	65	0	0.17	0.17	12.0	12.0	B	B	
									16.4	16.8	B	B		
3	Hoyt S & 31st St	NB	T	T	133	46	-87	0.16	0.06	11.4	22.4	B	C	
				R	4	5	1	-	-	-	-	-	-	
			SB	L	140	139	-1	-	-	-	-	-	-	
		EB	L	T	281	279	-2	0.41	0.39	13.2	13.1	B	B	
				L	10	11	1	-	-	-	-	-	-	
			Intersection	T	861	918	57	0.55	0.59	26.0	26.6	C	C	
				R	76	75	-1	0.23	0.23	23.9	23.8	C	C	
									20.9	22.4	C	C		

RFK Bridge Study Area - No-Action vs Action (Mitigation) - PM Peak Hour													
Intersection #	Intersection Name	Approach	Lane Group	Movement	Volume			V/C		Delay		LOS	
					No-Action	Action	Δ Increment	No-Action	Action	No-Action	Action	No-Action	Action
1	126th Street and 2nd Avenue	NW	L	L2	25	25	0	-	-	-	-	-	-
				L	180	180	0	0.93	0.93	76.4	76.4	E	E
			R	R	765	765	0	0.55	0.55	10.0	10.0	B	B
		SB	TR	T	1472	1250	-222	0.58	0.49	22.2	21.0	C	C
				R	35	29	-6	-	-	-	-	-	-
			L	L	47	40	-7	-	-	-	-	-	-
		WB	L	T	25	21	-4	0.57	0.47	40.0	36.6	D	D
				R	51	42	-9	-	-	-	-	-	-
		Intersection								24.1	23.3	C	C
2	125th Street and 2nd Avenue	SB	L	L	663	595	-68	0.69	0.91	9.9	34.1	A	C
				T	822	672	-150	0.55	0.65	6.4	15.2	A	B
			R	R	59	48	-11	-	-	-	-	-	-
		SW	L	L	369	594	225	0.88	0.96	51.0	52.1	D	D
				R	138	222	84	-	-	-	-	-	-
		EB	TR	T	686	724	38	0.81	0.85	39.9	42.5	D	D
				R	20	20	0	-	-	-	-	-	-
		WB	LT	L	55	21	-34	-	-	-	-	-	-
				T	176	66	-110	0.63	0.19	38.3	28.2	D	C
		Intersection								25.0	36.2	C	D
11	E 134th Street & St. Ann's Avenue	NB	TR	T	110	110	0	0.41	0.41	10.9	10.9	B	B
				R	100	100	0	-	-	-	-	-	-
			LT	L	110	110	0	-	-	-	-	-	-
		SB		T	50	50	0	0.38	0.38	13.8	13.8	B	B
		EB	L	155	155	0	-	-	-	-	-	-	
			T	140	140	0	0.78	0.78	30.3	30.3	C	C	
		R	R	30	30	0	-	-	-	-	-	-	
			Intersection								20.5	20.5	C
		SB	LTR	L	20	20	0	-	-	-	-	-	-
				T	95	95	0	0.50	0.50	43.0	43.0	D	D
			R	R	30	30	0	-	-	-	-	-	-
22	St Ann's Ave and Bruckner Blvd	SB	LTR	L	35	35	0	-	-	-	-	-	-
				T	20	20	0	0.29	0.29	39.6	39.6	D	D
			EB	R	25	25	0	-	-	-	-	-	-
		EB	LTR	L	50	50	0	-	-	-	-	-	-
				T	1300	1300	0	0.85	0.85	22.5	22.5	C	C
		WB	LTR	R	45	45	0	-	-	-	-	-	-
				L	25	25	0	-	-	-	-	-	-
			R	T	610	610	0	0.46	0.46	11.4	11.4	B	B
				R	65	65	0	-	-	-	-	-	-
		Intersection								21.1	21.1	C	C
17	31st St & Astoria Blvd	NB	T	T	42	11	-31	0.11	0.03	27.5	26.3	C	C
				R	5	3	-2	0.01	-	4.4	4.3	A	A
			SB	T	478	446	-32	0.58	0.54	76.7	76.5	E	E
		SB	R	R	222	204	-18	0.75	0.69	94.5	92.0	F	F
			EB	L	16	16	0	-	-	-	-	-	-
				T	388	399	11	0.50	0.52	23.0	23.2	C	C
			R	R	48	49	1	-	-	-	-	-	-
		Intersection								57.3	56.2	E	E
24	Hoyt N & 31st St	NB	L	L	17	4	-13	-	-	-	-	-	-
				T	47	31	-16	0.12	0.06	27.8	23.0	C	C
			SB	T	121	73	-48	0.36	0.29	38.4	37.4	D	D
		SB	R	R	70	67	-3	-	-	-	-	-	-
			WB	L	513	514	1	0.34	0.34	9.7	9.7	A	A
		WB	T	T	1523	1463	-60	0.47	0.45	10.7	10.5	B	B
				R	35	35	0	0.07	0.07	7.8	7.8	A	A
		Intersection								13.3	12.2	B	B
3	Hoyt S & 31st St	NB	T	T	53	24	-29	0.08	0.04	37.4	34.9	D	C
				R	5	3	-2	-	-	-	-	-	-
			SB	L	20	20	0	-	-	-	-	-	-
		SB	T	T	614	567	-47	0.39	0.36	13.2	10.1	B	B
				L	11	11	0	-	-	-	-	-	-
		EB	L	T	1071	1104	33	0.61	0.62	33.2	33.6	C	C
				R	86	83	-3	0.25	0.25	29.3	29.1	C	C
		Intersection								26.4	25.9	C	C

RFK Bridge Study Area - No-Action vs Action (No Mitigation) - LN Peak Hour													
Intersection #	Intersection Name	Approach	Lane Group	Movement	Volume			V/C		Delay		LOS	
					No-Action	Action	Δ Increment	No-Action	Action	No-Action	Action	No-Action	Action
1	126th Street and 2nd Avenue	NW	L	L2	5	5	0	-	-	-	-	-	-
				L	75	75	0	0.36	0.36	35.3	35.3	D	D
			R	535	535	0	0.40	0.40	8.1	8.1	A	A	
		SB	TR	T	560	342	-218	0.24	0.14	18.2	17.4	B	B
				R	20	11	-9	-	-	-	-	-	-
			L	20	20	0	-	-	-	-	-	-	-
		WB	L	T	35	33	-2	0.46	0.44	35.7	35.1	D	D
				R	60	56	-4	-	-	-	-	-	-
		Intersection								16.6	15.9	B	B
2	125th Street and 2nd Avenue	SB	L	L	109	91	-18	0.13	0.11	5.7	6.3	A	A
				T	456	266	-190	0.31	0.18	6.3	6.4	A	A
			R	20	10	-10	-	-	-	-	-	-	-
		SW	L	L	174	198	24	0.61	0.70	37.6	40.4	D	D
				R	153	174	21	-	-	-	-	-	-
		EB	TR	T	535	704	169	0.68	0.87	34.9	43.9	C	D
				R	50	50	0	-	-	-	-	-	-
		WB	LT	L	9	4	-5	-	-	-	-	-	-
				T	70	10	-60	0.15	0.03	27.5	26.2	C	C
		Intersection								23.8	33.1	C	C
11	E 134th Street & St. Ann's Avenue	NB	TR	T	100	100	0	0.21	0.21	17.0	17.0	B	B
				R	20	20	0	-	-	-	-	-	-
			L	40	40	0	-	-	-	-	-	-	-
		SB	LT	T	50	50	0	0.18	0.18	10.9	10.9	B	B
				L	190	190	0	-	-	-	-	-	-
		EB	LTR	T	90	90	0	0.70	0.70	25.0	25.0	C	C
				R	35	35	0	-	-	-	-	-	-
		Intersection								20.6	20.6	C	C
		SB	LTR	L	10	10	0	-	-	-	-	-	-
				T	55	55	0	0.24	0.24	33.0	33.0	C	C
				R	15	15	0	-	-	-	-	-	-
22	St Ann's Ave and Bruckner Blvd	SB	LTR	L	30	30	0	-	-	-	-	-	-
				T	10	10	0	0.25	0.25	35.0	35.0	C	C
				R	45	45	0	-	-	-	-	-	-
		EB	LTR	L	40	40	0	-	-	-	-	-	-
				T	1515	1515	0	0.88	0.88	26.6	26.6	C	C
				R	10	10	0	-	-	-	-	-	-
		WB	LTR	L	10	10	0	-	-	-	-	-	-
				T	500	500	0	0.33	0.33	12.2	12.2	B	B
				R	25	25	0	-	-	-	-	-	-
		Intersection								23.7	23.7	C	C
17	31st St & Astoria Blvd	NB	T	T	120	26	-94	0.34	0.07	30.7	26.8	C	C
				R	13	6	-7	0.02	0.01	4.5	4.5	A	A
			T	345	308	-37	0.47	0.41	9.2	7.4	A	A	
		SB	R	R	165	147	-18	0.39	0.34	10.0	8.4	A	A
				L	10	10	0	-	-	-	-	-	-
		EB	L	T	286	328	42	0.32	0.36	20.2	20.8	C	C
				R	15	17	2	-	-	-	-	-	-
		Intersection								15.5	13.6	B	B
		SB	L	L	80	12	-68	-	-	-	-	-	-
				T	51	25	-26	0.23	0.05	7.7	10.1	A	B
				R	220	167	-53	0.28	0.23	21.7	21.1	C	C
24	Hoyt N & 31st St	WB	T	R	40	38	-2	-	-	-	-	-	-
				L	440	444	4	0.33	0.33	45.6	40.3	D	D
				T	1105	1063	-42	0.42	0.41	13.2	13.1	B	B
		EB	R	R	20	20	0	0.04	0.04	10.4	10.4	B	B
				L	5	6	1	-	-	-	-	-	-
				T	744	882	138	0.44	0.52	24.3	25.4	C	C
		Intersection								24.1	27.6	C	C
		NB	T	R	4	5	1	-	-	-	-	-	-
				L	205	203	-2	-	-	-	-	-	-
				T	455	408	-47	0.65	0.58	26.9	31.6	C	C
3	Hoyt S & 31st St	EB	L	L	5	6	1	-	-	-	-	-	-
				T	744	882	138	0.44	0.52	24.3	25.4	C	C
				R	55	47	-8	0.17	0.15	22.7	22.3	C	C
		Intersection								24.1	27.6	C	C

Queens Midtown Tunnel (Manhattan) Study Area - No-Action vs With-Action (No Mitigation) - AM Peak Hour													
Intersection #	Intersection Name	Approach	Lane Group	Movement	Volume (vph)			V/C		Delay (seconds)		LOS	
					No-Action	With-Action	Increment	No-Action	With-Action	No-Action	With-Action	No-Action	With-Action
1	E 37th Street & 3rd Avenue	NB	L	L	20	19	-1	0.09	0.09	4.1	4.1	A	A
			T	T	826	773	-53	0.60	0.56	6.8	6.4	A	A
		WB	T	T	728	745	17	0.58	0.59	18.6	18.9	B	B
			R	R	263	271	8	0.75	0.78	47.9	49.6	D	D
		Intersection								17.4	18.1	B	B
2	E 36th Street & 2nd Avenue	SB	L	L	438	415	-23	0.65	0.62	33.2	32.2	C	C
			T	T	1006	970	-36	0.52	0.50	12.1	11.8	B	B
		EB	T	T	431	408	-23	0.48	0.45	27.5	27.2	C	C
			TR	R	47	45	-2	-	-	-	-	-	-
		WB	L	L	515	515	0	1.67	1.61	340.7	311.9	F	F
		Intersection								93.6	88.9	F	F
3	E 34th Street & 3rd Avenue	NB	LT	L	94	88	-6	-	-	-	-	-	-
			T	T	1005	949	-56	0.54	0.51	19.4	18.9	B	B
		EB	R	R	104	99	-5	1.02	0.98	116.9	104.1	F	F
			T	T	416	379	-37	1.01	0.92	73.5	53.9	E	D
		WB	T	T	402	380	-22	1.04	0.98	84.1	69.6	F	E
		R	R	50	48	-2	0.18	0.18	21.3	21.2	C	C	
		Intersection								47.5	39.9	D	D
4	E 35th Street & 3rd Avenue	NB	LT	L	109	103	-6	-	-	-	-	-	-
			T	T	946	894	-52	0.48	0.46	2.5	2.4	A	A
		WB	TR	T	574	535	-39	0.61	0.57	26.4	25.5	C	C
			R	R	55	52	-3	0.16	0.15	20.7	20.5	C	C
		Intersection								11.0	10.6	B	B
5	E 34th Street & 2nd Ave	SB	L	L	370	363	-7	0.66	0.65	34.1	34.1	C	C
			TR	T	1453	1422	-31	0.83	0.81	24.7	23.7	C	C
		EB	R	R	120	117	-3	1.18	1.15	162.2	150.8	F	F
			T	T	572	561	-11	0.76	0.74	34.8	34.2	C	C
		WB	R	R	116	114	-2	0.63	0.62	42.3	41.7	D	D
		Intersection	T	T	195	191	-4	0.51	0.50	30.5	30.3	C	C
										35.3	34.1	D	C
6	E 35th Street & 2nd Ave	SB	T	T	1393	1358	-35	0.56	0.55	16.1	16.2	B	B
			TR	R	175	172	-3	0.55	0.54	19.5	19.7	B	B
		EB	R	R	473	468	-5	0.64	0.64	26.8	26.6	C	C
			T	T	87	86	-1	0.14	0.14	18.3	18.3	B	B
		WB	L	L	77	76	-1	0.14	0.14	18.9	18.9	B	B
		Intersection								19.0	19.0	B	B

Queens Midtown Tunnel (Manhattan) Study Area - No-Action vs With-Action (Mitigation) - Midday Peak Hour													
Intersection #	Intersection NMDe	Approach	Lane Group	Movement	Volume (vph)			V/C		Delay (seconds)		LOS	
					No-Action	With-Action	Increment	No-Action	With-Action	No-Action	With-Action	No-Action	With-Action
1	E 37th Street & 3rd Avenue	NB	L	L	44	37	-7	0.16	0.15	6.5	7.7	A	A
			T	T	635	553	-82	0.49	0.47	5.9	7.3	A	A
		WB	T	T	577	638	61	0.95	0.98	49.3	52.9	D	D
			R	R	265	303	38	0.73	0.79	44.8	47.8	D	D
		Intersection								29.2	34.3	C	C
2	E 36th Street & 2nd Avenue	SB	L	L	242	248	6	0.43	0.46	28.6	29.9	C	C
			T	T	1035	990	-45	0.50	0.49	11.7	12.1	B	B
		EB	T	T	1278	1335	57	1.34	1.35	189.4	189.8	F	F
			TR	R	85	83	-2	-	-	-	-	-	-
		Intersection								106.1	109.7	F	F
3	E 34th Street & 3rd Avenue	NB	LT	L	24	21	-3	-	-	-	-	-	-
			T	T	1075	949	-126	0.48	0.42	18.5	17.8	B	B
		EB	R	R	173	162	-11	0.78	0.73	47.2	41.9	D	D
			T	T	445	367	-78	0.96	0.80	62.0	39.1	E	D
		WB	T	T	450	446	-4	0.98	0.97	65.0	63.1	E	E
		R	R	80	83	3	0.30	0.31	23.4	23.6	C	C	
		Intersection								38.9	33.8	D	C
4	E 35th Street & 3rd Avenue	NB	LT	L	83	76	-7	-	-	-	-	-	-
			T	T	1072	956	-116	0.82	0.73	14.3	11.6	B	B
		WB	TR	T	519	490	-29	0.57	0.54	25.4	24.8	C	C
			R	R	60	58	-2	0.19	0.19	21.4	21.3	C	C
		Intersection								18.0	16.3	B	B
5	E 34th Street & 2nd Ave	SB	L	L	229	226	-3	0.37	0.37	29.5	30.0	C	C
			TR	T	1325	1271	-54	0.73	0.70	21.9	21.2	C	C
		EB	R	45	43	-2	0.34	0.33	18.9	18.5	B	B	
			T	R	591	577	-14	0.75	0.73	34.3	33.6	C	C
		WB	T	R	130	126	-4	0.59	0.57	37.9	36.9	D	D
		Intersection								27.4	26.7	C	C
6	E 35th Street & 2nd Ave	SB	T	T	1040	992	-48	0.58	0.55	12.1	11.4	B	B
			TR	R	80	81	1	-	-	-	-	-	-
		EB	R	R	476	467	-9	0.62	0.61	26.1	25.9	C	C
			T	T	88	86	-2	0.15	0.14	18.4	18.3	B	B
		WB	L	L	83	81	-2	0.15	0.15	19.0	19.0	B	B
		Intersection								16.6	16.1	B	B

Queens Midtown Tunnel (Manhattan) Study Area - No-Action vs With-Action (No Mitigation) - PM Peak Hour																
Intersection #	Intersection NPM	Approach	Lane Group	Movement	Volume (vph)			V/C		Delay (seconds)		LOS				
					No-Action	With-Action	Increment	No-Action	With-Action	No-Action	With-Action	No-Action	With-Action			
1	E 37th Street & 3rd Avenue	NB	L	L	25	22	-3	-	-	-	-	-	-			
			T	T	873	780	-93	0.52	0.46	2.9	2.6	A	A			
		WB	T	T	618	628	10	0.51	0.51	17.2	17.3	B	B			
			R	R	274	293	19	0.69	0.73	42.1	44.7	D	D			
Intersection										14.0	15.3	B	B			
2	E 36th Street & 2nd Avenue	SB	L	L	364	421	57	0.55	0.64	30.2	32.3	C	C			
			T	T	1567	1488	-79	0.67	0.64	14.4	13.7	B	B			
		EB	T	T	1044	1209	165	0.79	0.90	33.4	39.6	C	D			
			TR	R	61	59	-2	-	-	-	-	-	-			
Intersection										23.4	26.8	C	C			
3	E 34th Street & 3rd Avenue	NB	LT	L	69	64	-5	-	-	-	-	-	-			
			T	T	1418	1297	-121	0.65	0.59	21.2	20.2	C	C			
		EB	R	R	124	118	-6	0.68	0.65	38.6	36.2	D	D			
			T	T	386	320	-66	0.81	0.67	40.3	31.9	D	C			
Intersection					WB	T	431	403	-28	1.04	0.97	80.6	63.5			
		R	R	79	75	-4	0.30	0.28	23.4	23.1	C	C				
Intersection										35.9	30.9	D	C			
4	E 35th Street & 3rd Avenue	NB	LT	L	173	163	-10	-	-	-	-	-	-			
			T	T	1324	1209	-115	0.81	0.75	9.0	7.9	A	A			
		WB	TR	T	429	375	-54	0.48	0.42	23.9	22.9	C	C			
			R	R	35	31	-4	0.13	0.11	20.4	20.1	C	C			
Intersection										12.6	11.5	B	B			
5	E 34th Street & 2nd Ave	SB	L	L	259	251	-8	0.42	0.41	24.3	24.8	C	C			
			TR	T	1657	1581	-76	0.84	0.80	28.5	21.7	C	C			
		EB	R	R	55	52	-3	1.28	1.21	231.7	207.1	F	F			
			T	T	428	431	3	0.58	0.58	29.4	29.4	C	C			
Intersection					WB	R	111	108	-3	0.60	0.58	39.0	38.0	D	D	
		T	T	202	182	-20	0.50	0.45	30.0	28.8	C	C				
Intersection										33.5	28.9	C	C			
6	E 35th Street & 2nd Ave	SB	T	T	1533	1454	-79	0.61	0.58	10.8	10.5	B	B			
			TR	R	95	93	-2	0.29	0.29	10.2	10.2	B	B			
		EB	R	R	437	430	-7	0.56	0.55	24.8	24.5	C	C			
			T	T	1	0	-1	-	-	17.0	-	B	-			
Intersection					WB	L	1	0	-1	-	-	17.0	-	B	-	
									13.8	13.6	B	B				

Queens Midtown Tunnel (Manhattan) Study Area - No-Action vs With-Action (Mitigation) - Late Night Peak Hour													
Intersection #	Intersection NLNe	Approach	Lane Group	Movement	Volume (vph)			V/C		Delay (seconds)		LOS	
					No-Action	With-Action	Increment	No-Action	With-Action	No-Action	With-Action	No-Action	With-Action
1	E 37th Street & 3rd Avenue	NB	L	L	25	20	-5	0.08	0.08	3.7	7.2	A	A
			T	T	1063	893	-170	0.55	0.56	4.9	9.0	A	A
		WB	T	T	372	477	105	0.29	0.33	14.4	11.6	B	B
			R	R	339	471	132	0.98	0.99	78.4	71.2	E	E
Intersection										21.8	26.5	C	C
2	E 36th Street & 2nd Avenue	SB	L	L	421	628	207	0.53	0.78	29.6	37.4	C	D
			T	T	1530	1493	-37	0.67	0.66	14.3	14.0	B	B
		EB	T	T	580	816	236	0.56	0.76	28.7	33.3	C	C
			TR	R	50	43	-7	-	-	-	-	-	-
Intersection										20.3	24.4	C	C
3	E 34th Street & 3rd Avenue	NB	LT	L	39	32	-7	-	-	-	-	-	-
			T	T	1257	1069	-188	0.52	0.44	18.9	17.9	B	B
		EB	R	R	193	175	-18	0.57	0.52	25.8	24.1	C	C
			T	T	500	417	-83	0.52	0.43	24.5	23.1	C	C
Intersection										23.6	24.5	C	C
4	E 35th Street & 3rd Avenue	WB	T	T	321	350	29	0.36	0.39	22.1	22.5	C	C
			R	R	100	113	13	0.33	0.37	-	-	-	-
		NB	LT	L	54	47	-7	-	-	-	-	-	-
			T	T	1303	1135	-168	0.52	0.45	4.3	5.1	A	A
Intersection										10.1	10.7	B	B
5	E 34th Street & 2nd Ave	SB	L	L	350	330	-20	0.57	0.53	26.7	25.5	C	C
			TR	T	1406	1357	-49	0.72	0.70	14.3	12.9	B	B
		EB	R	T	105	82	-23	0.28	0.22	8.0	7.0	A	A
			R	R	623	631	8	0.66	0.66	29.9	29.9	C	C
Intersection										20.6	19.7	C	B
6	E 35th Street & 2nd Ave	WB	T	T	75	72	-3	-	-	-	-	-	-
			T	T	210	119	-91	0.28	0.16	24.5	23.1	C	C
		SB	T	T	1485	1438	-47	0.68	0.66	11.5	11.2	B	B
			R	R	95	98	3	-	-	-	-	-	-
Intersection										13.5	13.0	B	B

