

Figure 35: Site-Generated Peak Hour Traffic Volumes –Phase 1 (1)

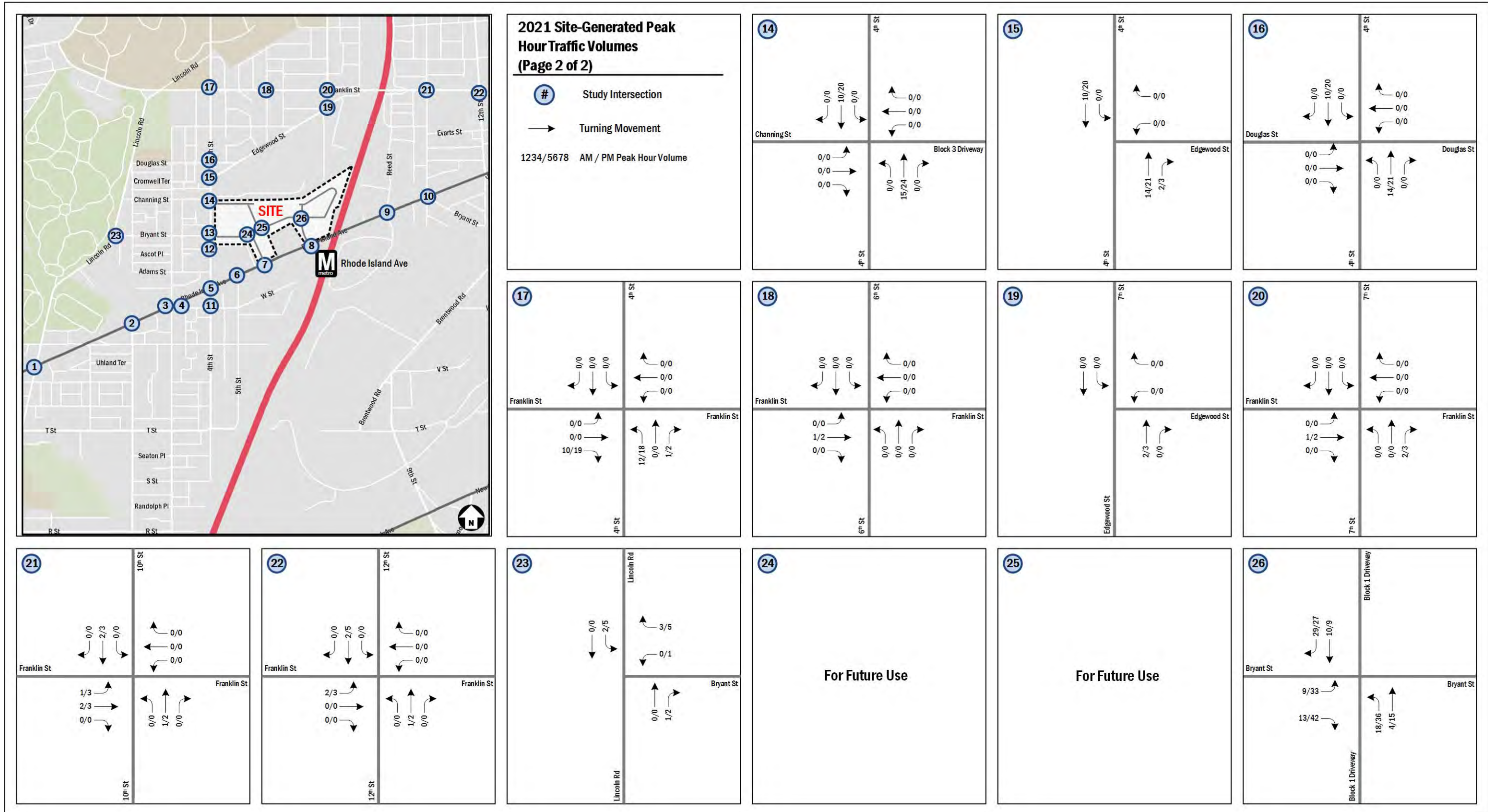


Figure 36: Site-Generated Peak Hour Traffic Volumes – Phase 1 (2)

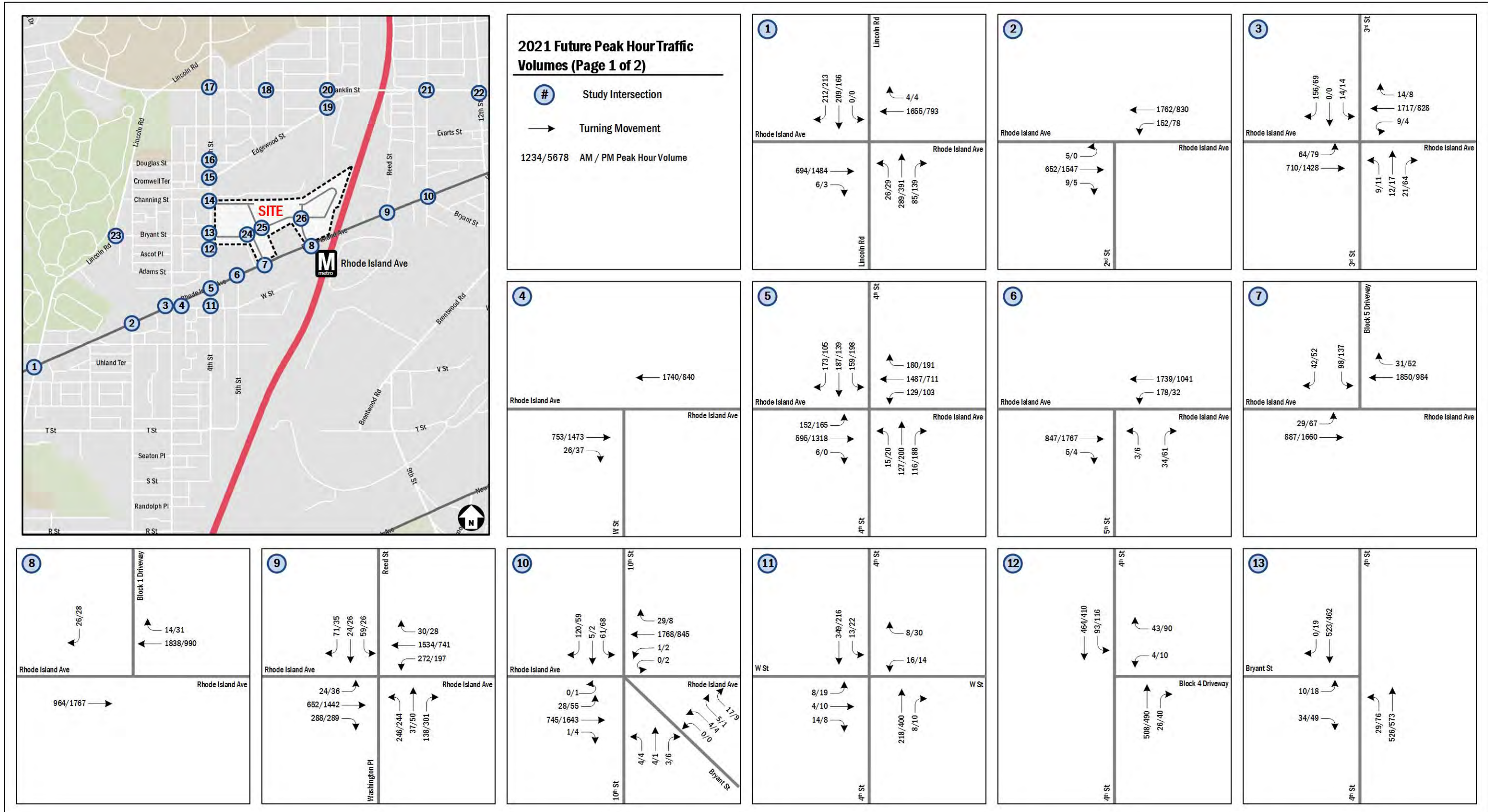


Figure 37: 2021 Future Peak Hour Traffic Volumes (1)

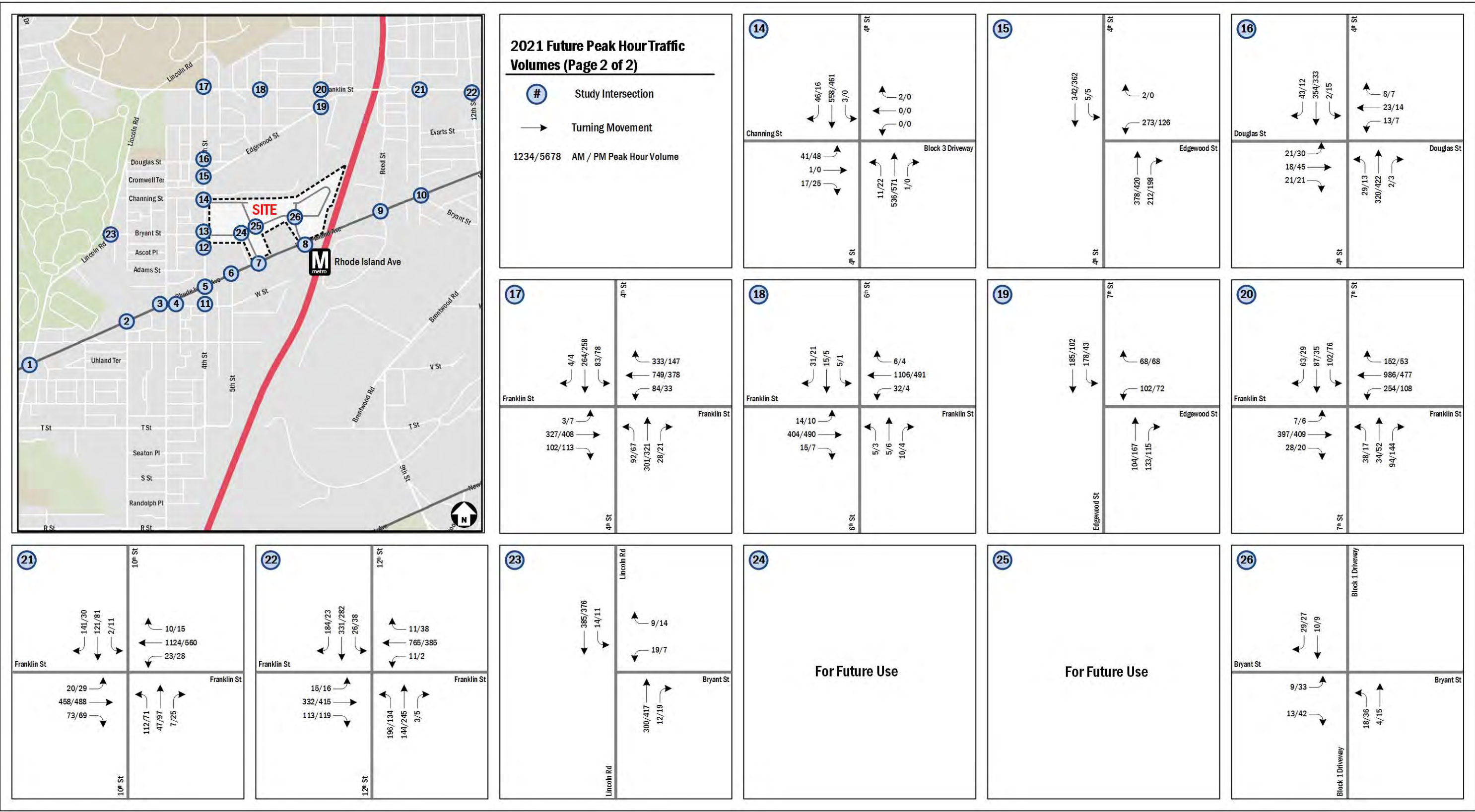


Figure 38: 2021 Future Peak Hour Traffic Volumes (2)

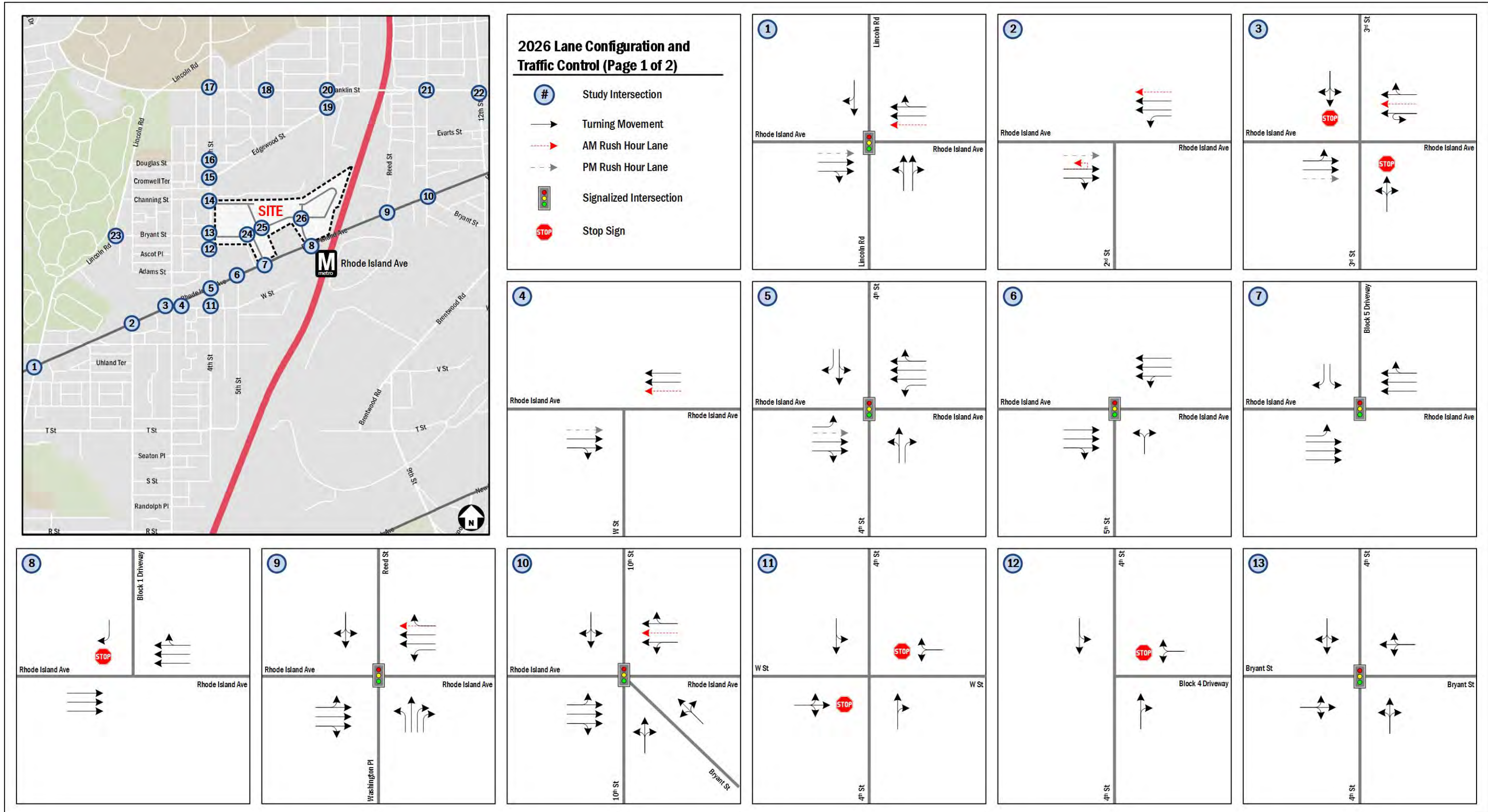


Figure 39: 2026 Lane Configuration and Traffic Control (1)

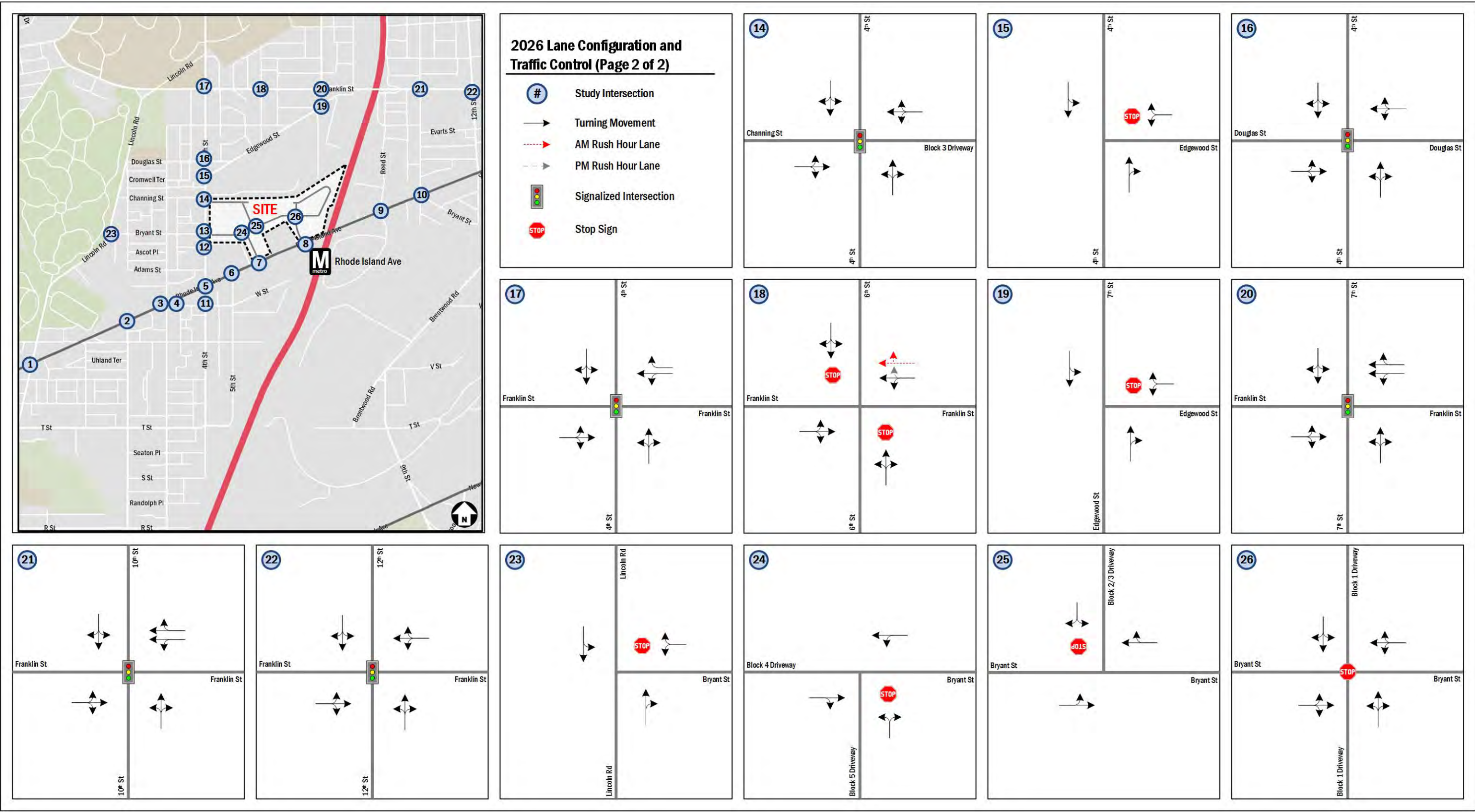
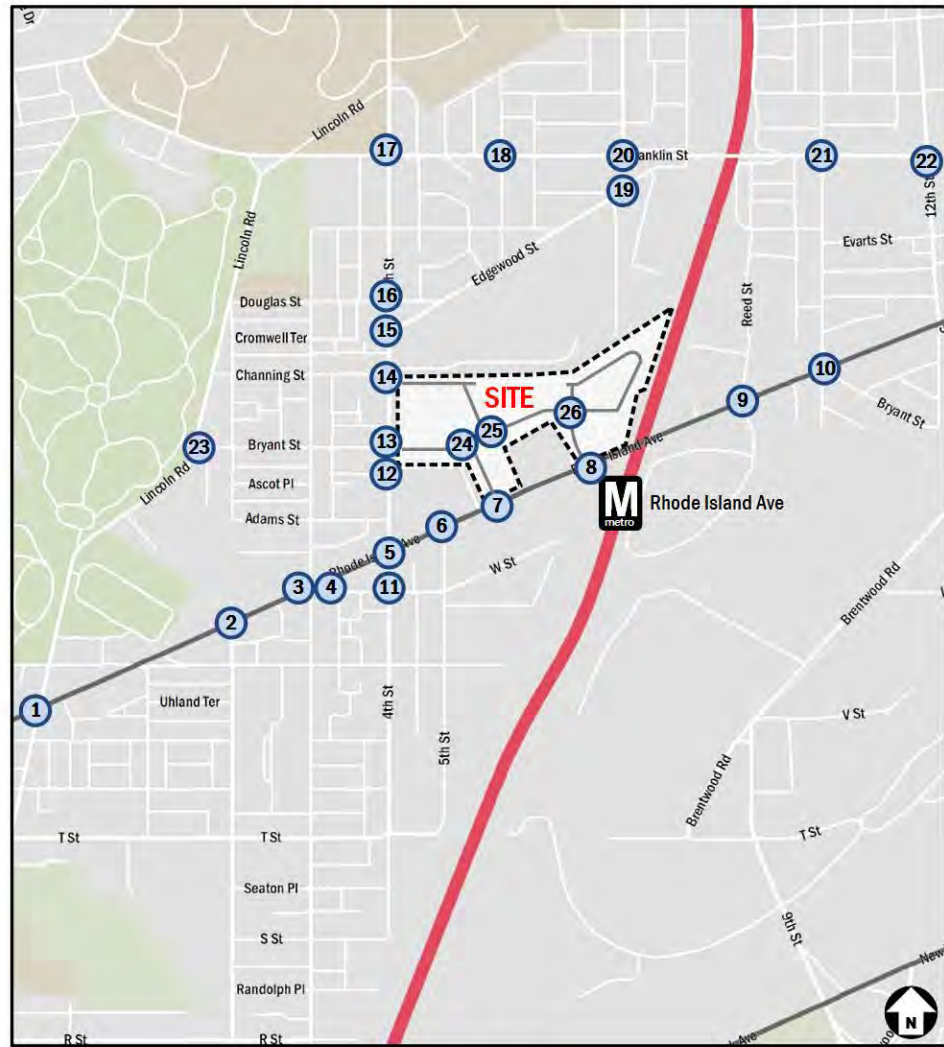


Figure 40: 2026 Lane Configuration and Traffic Control (2)



2026 Background Peak Hour Traffic Volumes (Page 1 of 2)

Study Intersection

→ Turning Movement

1234/5678 AM / PM Peak Hour Volume

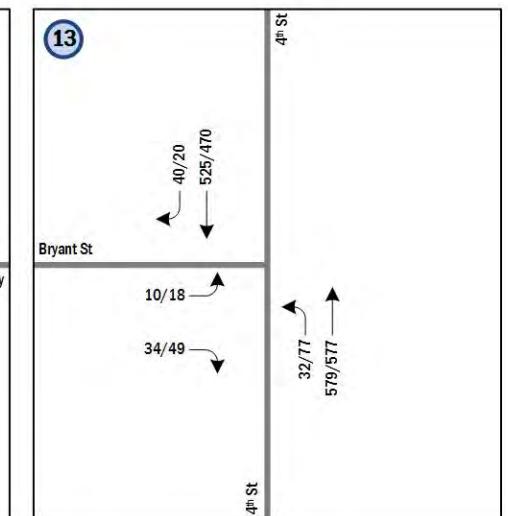
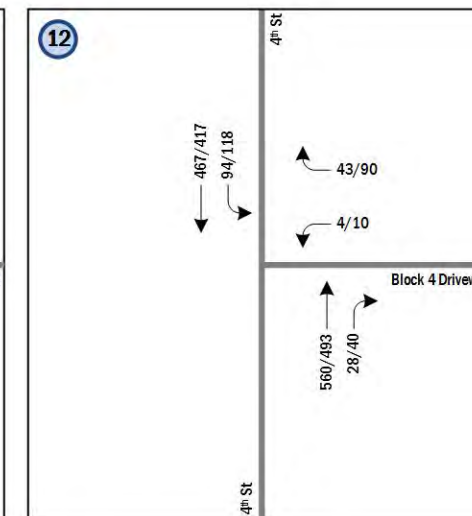
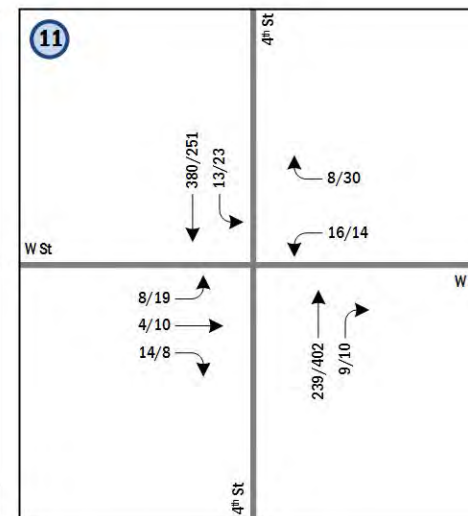
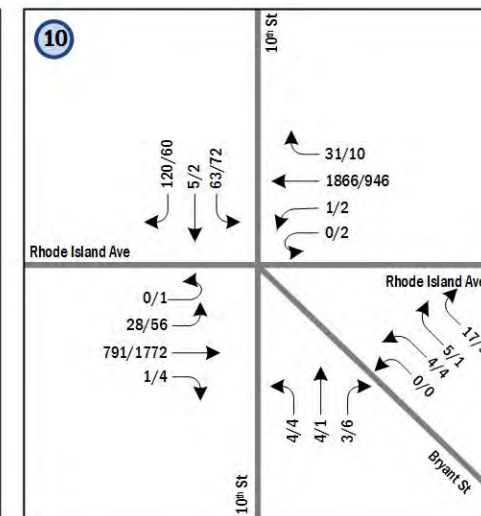
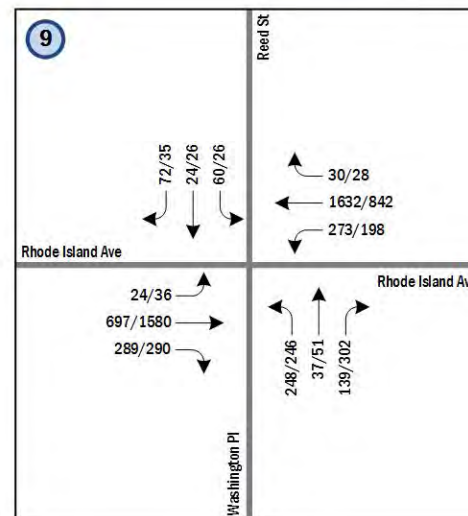
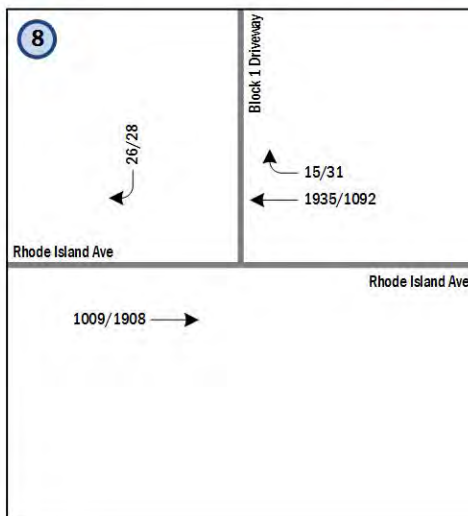
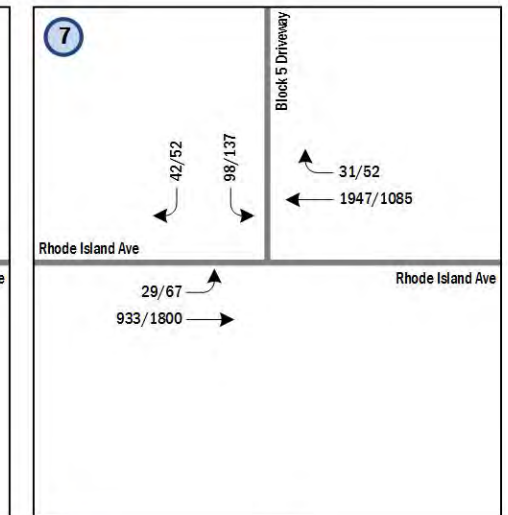
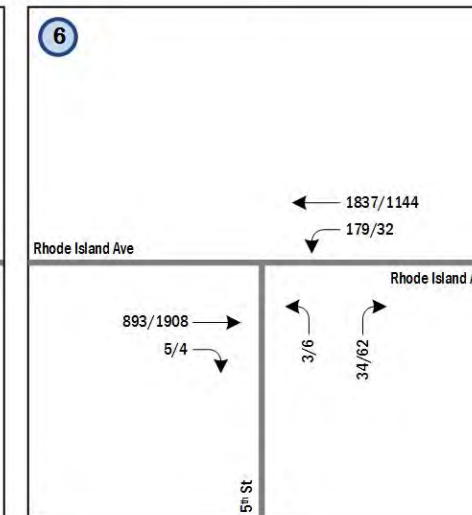
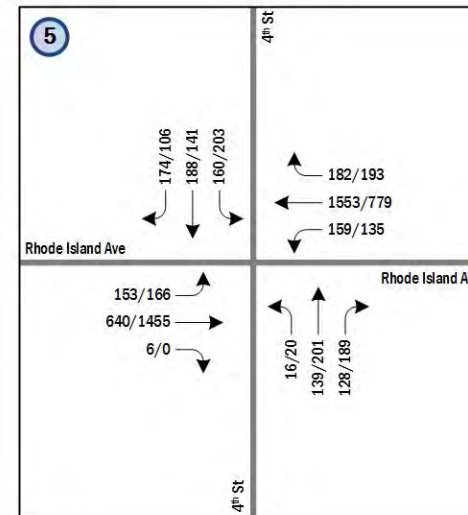
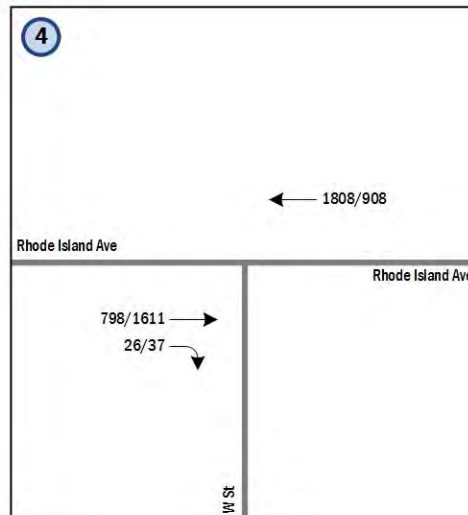
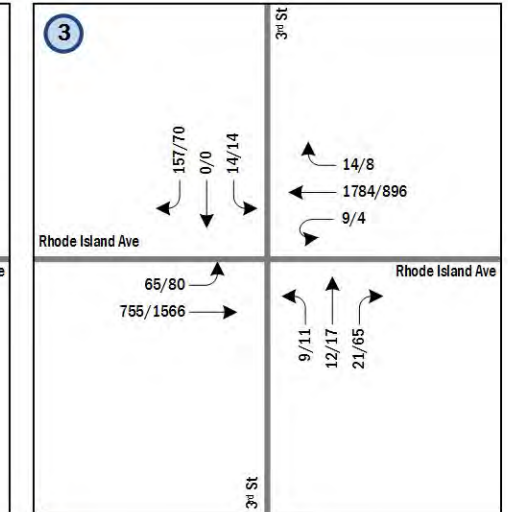
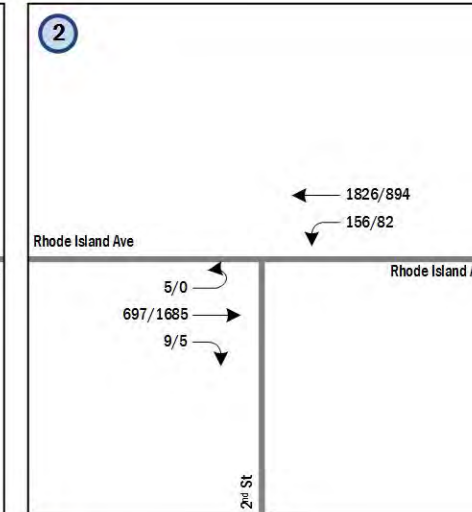
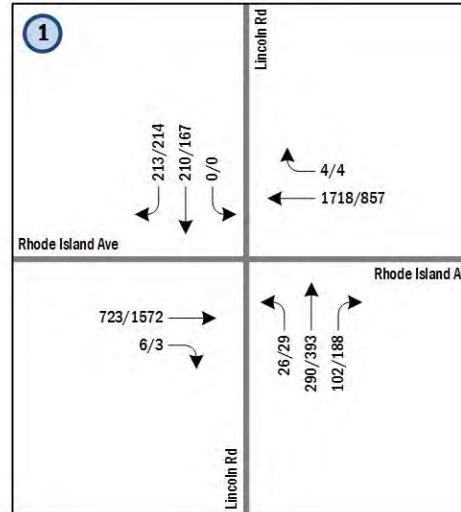


Figure 41: 2026 Background Peak Hour Traffic Volumes (1)

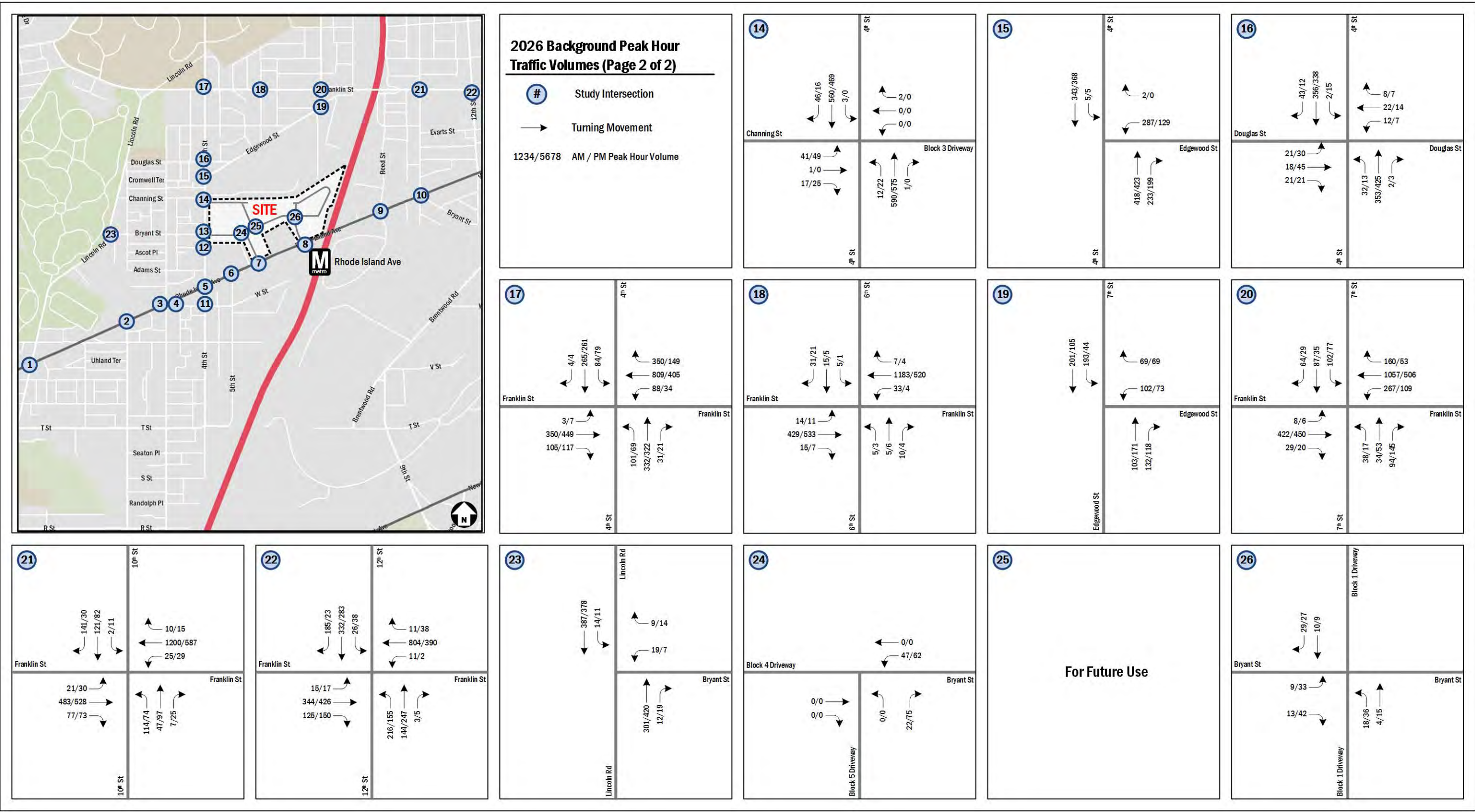


Figure 42: 2026 Background Peak Hour Traffic Volumes (2)

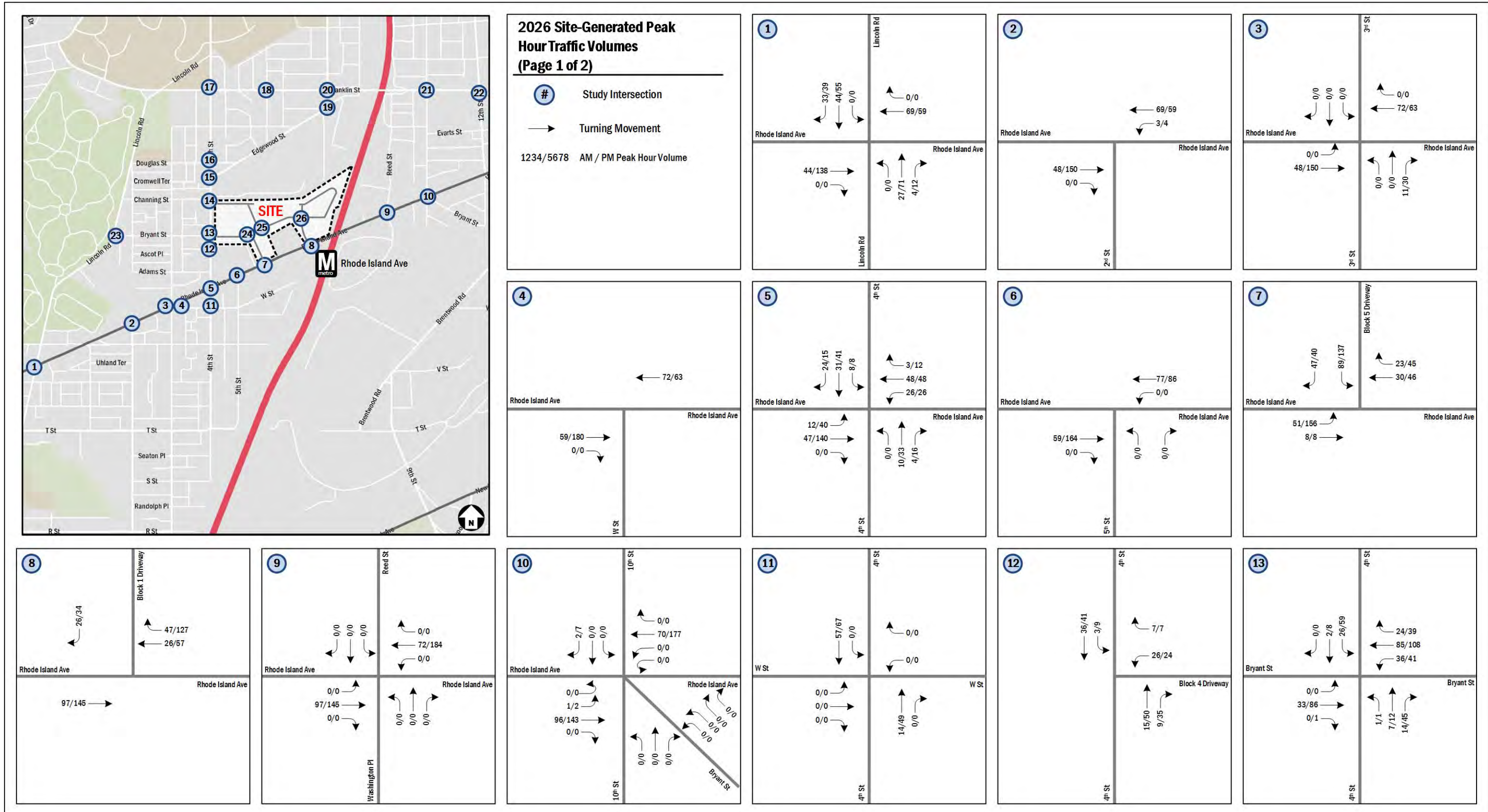


Figure 43: Site-Generated Peak Hour Traffic Volumes –Phase 2 (1)

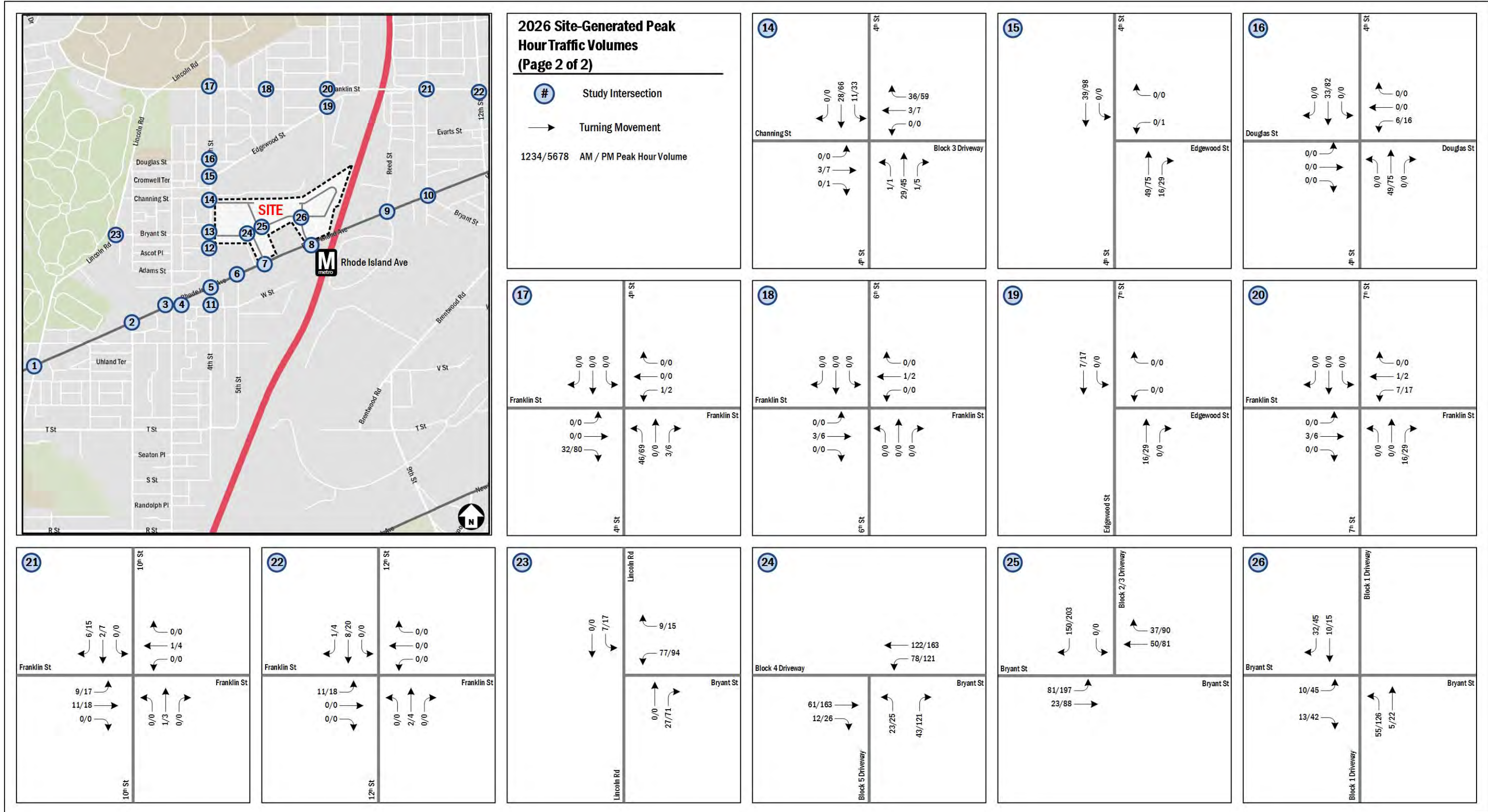


Figure 44: Site-Generated Peak Hour Traffic Volumes – Phase 2 (2)

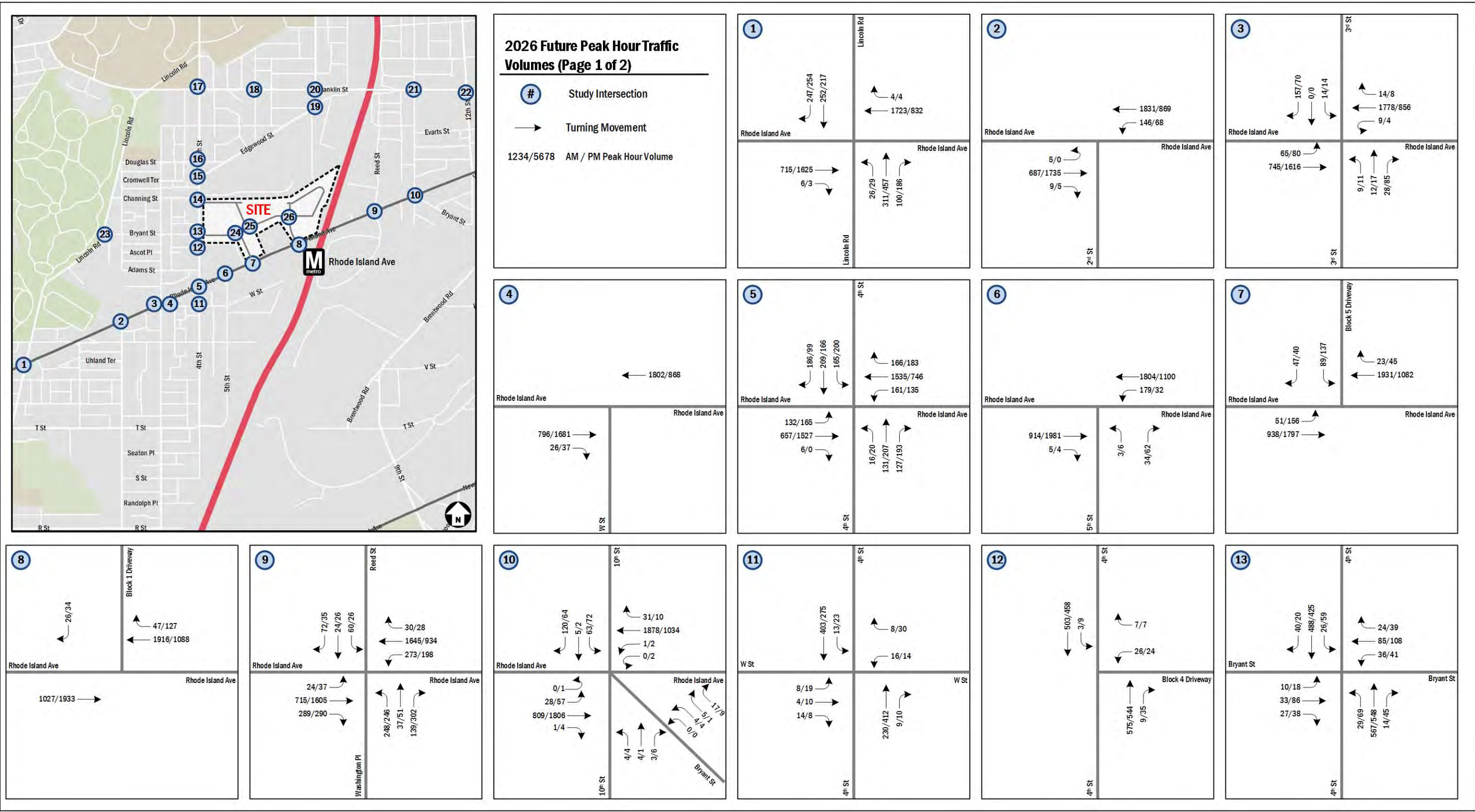


Figure 45: 2026 Future Peak Hour Traffic Volumes (1)

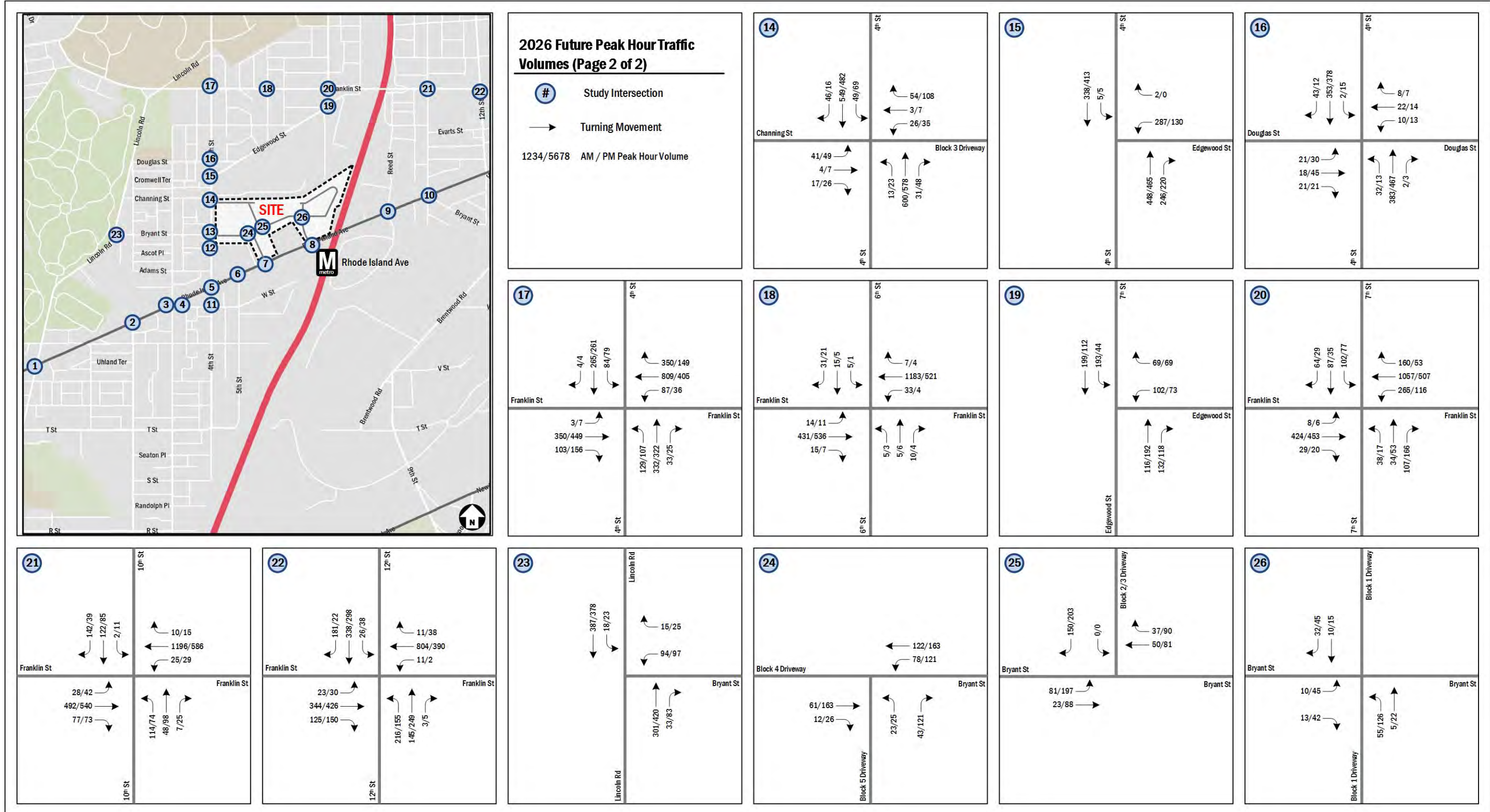


Figure 46: 2026 Future Peak Hour Traffic Volumes (2)



Table 11: LOS Results

Intersection	Approach	Existing Conditions (2015)				Future Background Conditions (2021)				Total Future Conditions (2021)				Future Background Conditions (2026)				Total Future Conditions (2026)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1. Rhode Island Avenue & Lincoln Road NE	Overall	25.6	C	34.3	C	25.9	C	36.5	D	25.8	C	38.0	D	26.2	C	44.9	D	36.8	D	90.7	F
	Eastbound	12.7	B	14.0	B	12.8	B	14.1	B	12.9	B	14.3	B	13.0	B	14.8	B	13.0	B	15.1	B
	Westbound	15.7	B	12.5	B	16.0	B	12.6	B	16.1	B	12.6	B	16.5	B	13.0	B	16.6	B	12.8	B
	Northbound	44.2	D	91.0	F	44.7	D	102.8	F	44.9	D	109.9	F	46.3	D	146.6	F	62.7	E	321.1	F
	Southbound	70.1	E	75.0	E	71.0	E	76.0	E	70.5	E	76.9	E	71.4	E	78.0	E	123.9	F	160.7	F
2. Rhode Island Avenue & 2nd Street NE	Westbound Left	0.8	A	1.1	A	0.8	A	1.1	A	0.8	A	1.1	A	0.8	A	1.2	A	0.7	A	1.0	A
3. Rhode Island Avenue & 3rd Street NE <i>* Calculated Southbound approach delay is greater than 1000 sec</i>	Eastbound	1.3	A	3.2	A	1.3	A	0.8	A	1.3	A	0.8	A	1.4	A	0.8	A	1.4	A	0.7	A
	Northbound	56.7	F	514.0	F	65.8	F	641.2	F	68.6	F	705.4	F	102.3	F	-	F	89.5	F	-	F
	Southbound	31.1	D	-	F	37.1	E	-	F	42.6	E	-	F	83.7	F	-	F	82.2	F	-	F
4. Rhode Island Avenue & W Street NE	Eastbound Right	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Rhode Island Avenue & 4th Street NE	Overall	58.6	E	42.5	D	63.5	E	46.1	D	65.1	E	48.4	D	73.2	E	52.6	D	70.0	E	57.4	E
	Eastbound	39.2	D	27.7	C	41.4	D	28.5	C	41.9	D	29.0	C	41.7	D	29.9	C	35.2	D	30.4	C
	Westbound	70.3	E	25.1	C	74.3	E	26.7	C	76.6	E	30.1	C	89.4	F	41.6	D	83.4	F	40.9	D
	Northbound	30.6	C	34.7	C	32.0	C	35.4	D	32.3	C	36.0	D	33.2	C	36.4	D	33.4	C	38.2	D
	Southbound	61.7	E	140.1	F	77.4	E	158.4	F	79.0	E	170.2	F	89.8	F	180.5	F	97.8	F	215.5	F
6. Rhode Island Avenue & 5th Street NE	Overall	6.0	A	8.6	A	6.2	A	8.7	A	6.4	A	8.8	A	7.0	A	9.5	A	6.8	A	9.9	A
	Eastbound	1.4	A	10.5	B	1.4	A	10.7	B	1.4	A	11.0	B	1.6	A	11.9	B	1.7	A	12.4	B
	Westbound	7.0	A	1.8	A	7.3	A	1.9	A	7.6	A	1.6	A	8.4	A	2.1	A	8.3	A	2.1	A
	Northbound	54.7	D	57.6	E	54.7	D	57.6	E	54.7	D	57.8	E	54.7	D	59.4	E	54.7	D	60.2	E
7. Rhode Island Avenue NE & Western Rhode Island Avenue Center Driveway	Overall	21.8	C	13.3	B	21.4	C	13.1	B	22.4	C	13.5	B	23.4	C	13.7	B	23.4	C	13.8	B
	Eastbound	13.1	B	5.4	A	13.1	B	5.5	A	13.8	B	5.3	A	14.4	B	5.3	A	15.5	B	5.9	A
	Westbound	24.9	C	20.8	C	24.4	C	20.4	C	24.9	C	20.7	C	26.1	C	21.7	C	25.7	C	22.0	C
	Southbound	39.4	D	44.4	D	39.3	D	44.5	D	45.6	D	46.7	D	45.6	D	46.7	D	46.3	D	45.8	D
8. Rhode Island Avenue NE & Eastern Rhode Island Avenue Center Driveway	Southbound	-	-	-	-	-	-	-	-	9.6	A	9.3	A	9.8	A	8.8	A	9.8	A	8.9	A
9. Rhode Island Avenue & Reed Street NE	Overall	30.1	C	22.6	C	36.8	D	23.7	C	38.2	D	23.7	C	38.4	D	24.0	C	38.2	D	24.1	C
	Eastbound	13.5	B	15.1	B	14.1	B	16.1	B	18.4	B	16.0	B	19.6	B	16.6	B	19.5	B	16.8	B
	Westbound	10.3	B	21.2	C	9.6	A	21.0	C	9.7	A	21.3	C	9.8	A	22.3	C	9.9	A	22.6	C
	Northbound	140.7	F	44.5	D	188.1	F	47.9	D	188.1	F	47.9	D	192.7	F	48.5	D	192.7	F	48.5	D
	Southbound	45.0	D	37.2	D	59.2	E	38.0	D	59.2	E	38.0	D	60.1	E	38.0	D	60.1	E	38.0	D
10. Rhode Island Avenue & 10th Street NE	Overall	17.4	B	12.2	B	18.3	B	13.7	B	18.2	B	13.8	B	18.8	B	14.6	B	18.8	B	15.6	B
	Eastbound	7.4	A	7.6	A	8.6	A	10.2	B	8.5	A	10.3	B	8.5	A	11.1	B	8.5	A	12.0	B
	Westbound	17.0	B	10.7	B	17.5	B	14.1	B	17.2	B	14.1	B	18.2	B	15.1	B	18.3	B	16.1	B
	Northbound	65.0	E	63.6	E	65.0	E	63.6	E	65.0	E	63.6	E	65.0	E	63.6	E	65.0	E	63.6	E
	Southbound	59.5	E	73.5	E	64.6	E	49.5	D	65.6	E	50.1	D	69.0	E	52.5	D	69.0	E	53.4	D
	Northwestbound	38.5	D	42.8	D	38.2	D	38.1	D	38.2	D	38.1	D	38.2	D	38.1	D	38.2	D	38.1	D
11. 4th Street & W Street NE	Eastbound	14.0	B	19.0	C	14.7	B	19.6	C	15.0	C	20.5	C	15.9	C	21.7	C	16.2	C	23.0	C
	Westbound	15.7	C	15.7	C	16.7	C	16.1	C	17.1	C	16.6	C	18.3	C	17.2	C	18.6	C	17.8	C
	Southbound Left	0.4	A	1.1	A	0.4	A	1.1	A	0.4	A	1.1	A	0.4	A	1.0	A	0.4	A	1.0	A
12. 4th Street NE & Block 4 Driveway (Future)	Westbound	12.6	B	16.8	C	13.4	B	17.2	C	15.0	B	16.8	C	16.0	C	17.0	C	19.9	C	17.0	C
	Southbound Left	2.2	A	2.9	A	2.4	A	2.9	A	2.8	A	3.6	A	2.9	A	3.6	A	0.1	A	0.3	A
13. 4th Street & Bryant Street NE	Overall	7.4	A	10.2	B	7.7	A	10.9	B	8.0	A	11.2	B	8.5	A	11.3	B	12.6	B	18.2	B
	Eastbound	33.0	C	34.2	C	33.0	C	34.2	C	32.7	C	34.3	C	33.0	C	34.3	C	35.4	D	42.0	D
	Westbound	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41.2	D	48.9	D
	Northbound	7.3	A	7.4	A	8.1	A	8.9	A	8.4	A	9.4	A	9.3	A	9.5	A	9.2	A	9.5	A
	Southbound	5.3	A	10.1	B	5.1	A	10.2	B	5.2	A	10.1	B	5.6	A	10.2	B	5.7	A	10.6	B
14. 4th Street & Channing Street NE <i>** signalized in Future (2026) condition</i>	Overall	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.2	A	13.6	B
	Eastbound	34.9	D	30.6	D	43.4	E	31.9	D	45.0	E	33.8	D	55.8	F	35.4	E	36.7	D	40.4	A
	Westbound	12.5	B	0.0	A	13.3	B	0.0	A	13.4	B	0.0	A	14.1	B	0.0	A	41.8	D	47.7	A
	Northbound	0.4	A	0.6	A	0.4	A	0.6	A	0.4	A	0.6	A	0.4	A	0.6	A	4.9	A	5.1	A
	Southbound	0.1	A	0.0	A	0.1	A	0.0	A	0.1	A	0.0	A	0.1	A	0.0	A	8.2	A	9.3	A



Intersection	Approach	Existing Conditions (2015)				Future Background Conditions (2021)				Total Future Conditions (2021)				Future Background Conditions (2026)				Total Future Conditions (2026)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
15. 4th Street & Edgewood Street NE	Westbound	53.9	F	24.4	C	92.3	F	25.6	D	100.9	F	27.2	D	157.2	F	28.2	D	188.0	F	35.0	D
	Southbound Left	0.2	A	0.2	A	0.2	A	0.2	A	0.2	A	0.2	A	0.2	A	0.2	A	0.3	A	0.2	A
16. 4th Street & Douglas Street NE	Overall	10.1	B	8.5	A	9.7	A	8.2	A	9.5	A	8.0	A	9.0	A	8.0	A	8.8	A	8.4	A
	Eastbound	43.3	D	45.2	D	43.3	D	45.2	D	43.3	D	45.2	D	43.3	D	45.2	D	43.4	D	44.9	D
	Westbound	42.5	D	39.9	D	42.6	D	39.9	D	42.6	D	39.9	D	42.5	D	39.9	D	42.3	D	40.2	D
	Northbound	2.4	A	2.6	A	2.5	A	2.1	A	2.5	A	2.1	A	2.6	A	2.1	A	2.8	A	3.1	A
	Southbound	7.3	A	1.8	A	7.0	A	1.9	A	6.8	A	2.1	A	6.4	A	2.2	A	6.5	A	2.8	A
17. 4th Street & Franklin Street NE	Overall	26.9	C	20.7	C	32.8	C	21.5	C	35.2	D	22.6	C	50.7	D	23.1	C	61.3	E	31.6	C
	Eastbound	17.0	B	16.2	B	17.6	B	16.7	B	17.9	B	17.1	B	21.8	C	18.2	A	21.5	B	19.3	B
	Westbound	23.5	C	5.8	A	30.8	C	6.0	A	32.8	C	6.0	A	53.0	D	6.3	A	51.7	D	6.6	A
	Northbound	33.0	C	29.3	C	43.5	D	30.4	C	52.1	D	34.8	C	76.3	E	35.7	D	134.8	F	71.0	E
	Southbound	42.5	D	42.3	D	45.9	D	44.5	D	45.9	D	44.5	D	51.2	D	45.5	D	50.3	D	45.3	D
18. Franklin Street & 6th Street NE	Eastbound Left	0.6	A	0.3	A	0.6	A	0.3	A	0.6	A	0.3	A	0.6	A	0.4	A	0.6	A	0.4	A
	Westbound Left	0.4	A	0.1	A	0.4	A	0.1	A	0.4	A	0.1	A	0.5	A	0.1	A	0.5	A	0.1	A
	Northbound	15.2	C	16.7	C	15.4	C	17.2	C	15.3	C	17.3	C	15.3	C	18.6	C	15.3	C	18.6	C
	Southbound	17.4	C	13.4	B	18.1	C	13.6	B	18.0	C	13.6	B	18.4	C	14.3	B	18.5	C	14.3	B
19. Edgewood Street & 7th Street NE	Westbound	50.0	E	19.2	C	56.2	F	19.5	C	56.7	F	19.6	C	68.8	F	20.1	C	72.9	F	21.0	C
	Southbound Left	6.0	A	3.1	A	6.1	A	3.1	A	6.1	A	3.1	A	6.2	A	3.2	A	6.3	A	3.1	A
20. Franklin Street & 7th Street NE	Overall	36.6	D	24.3	C	45.1	D	24.3	C	45.2	D	24.4	C	60.2	E	24.8	C	60.4	E	26.1	C
	Eastbound	35.9	D	15.2	B	36.9	D	15.5	B	36.6	D	15.6	B	36.8	D	17.3	B	36.9	D	17.8	B
	Westbound	31.5	C	17.9	B	45.3	D	17.8	B	45.5	D	17.8	B	70.2	E	17.8	B	70.0	E	17.9	B
	Northbound	36.2	D	42.4	D	36.4	D	42.4	D	36.6	D	42.8	D	36.6	D	43.1	D	37.9	D	46.0	D
	Southbound	61.4	E	54.1	D	62.8	E	54.4	D	62.8	E	54.8	D	63.3	E	56.5	E	66.5	E	61.4	E
21. Franklin Street & 10th Street NE	Overall	21.7	C	17.8	B	22.1	C	18.0	C	22.2	C	18.2	B	22.6	C	18.1	B	22.7	C	18.8	B
	Eastbound	12.6	B	5.3	A	14.2	B	5.8	A	14.4	B	5.9	A	15.8	B	6.6	A	16.7	B	7.3	A
	Westbound	9.9	A	14.1	B	10.7	B	14.4	B	10.8	B	14.5	B	11.4	B	14.3	B	11.5	B	14.4	B
	Northbound	97.5	F	52.1	D	95.8	F	52.1	D	95.8	F	52.9	D	96.9	F	52.8	D	95.2	F	55.8	E
	Southbound	36.4	D	36.4	D	35.3	D	36.0	D	35.4	D	36.0	D	35.9	D	35.8	D	35.8	D	35.9	D
22. Franklin Street & 12th Street NE	Overall	57.7	E	30.6	C	63.8	E	31.3	C	64.4	E	31.5	C	77.7	E	35.2	D	78.0	E	36.8	D
	Eastbound	18.8	B	35.7	D	19.1	B	36.6	D	19.1	B	36.5	D	19.4	B	39.9	D	19.9	B	41.7	D
	Westbound	45.3	D	23.9	C	58.4	E	24.2	C	58.4	E	24.2	C	72.1	E	24.3	C	72.1	E	24.3	C
	Northbound	172.2	F	37.4	D	183.4	F	38.7	D	186.2	F	39.4	D	233.8	F	49.3	D	235.3	F	53.0	D
	Southbound	35.3	D	23.0	C	35.8	D	23.1	C	36.1	D	23.3	C	36.3	D	23.4	C	36.6	D	23.9	C
23. Lincoln Road & Bryant Street NE	Westbound	15.1	C	13.5	B	15.0	B	13.5	B	14.6	B	13.3	B	14.7	B	13.3	B	21.0	C	25.8	C
	Southbound Left	0.3	A	0.2	A	0.3	A	0.2	A	0.4	A	0.4	A	0.4	A	0.4	A	0.5	A	0.8	A
24. Bryant Street NE/Block 4 Driveway & Block 5 Driveway	Westbound Left	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	A	3.9	A
	Northbound	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.9	A	11.5	B
25. Bryant Street NE & Block 2/3	Eastbound	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.0	A	6.0	A
	Southbound	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.4	A	10.2	B
26. Bryant Street NE & Block 1 Driveway	Overall	-	-	-	-	-	-	-	-	6.9	A	7.3	A	6.9	A	7.3	A	7.2	A	8.0	A
	Eastbound	-	-	-	-	-	-	-	-	6.9	A	7.3	A	7.0	A	7.3	A	7.0	A	7.8	A
	Northbound	-	-	-	-	-	-	-	-	7.3	A	7.6	A	7.3	A	7.6	A	7.6	A	8.5	A
	Southbound	-	-	-	-	-	-	-	-	6.7	A	6.9	A	6.7	A	6.9	A	6.8	A	7.2	A



Table 12: Queuing Results

Intersection	Lane Group	Storage Length (ft)	Existing Conditions (2015)				Background Conditions (2021)				Future Conditions (2021)				Background Conditions (2026)				Future Conditions (2026)			
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
			50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %
1. Rhode Island Avenue & Lincoln Road NE	Eastbound Thru	450	135	174	222	261	137	177	230	270	140	180	236	276	148	189	257	300	146	187	270	315
	Eastbound TR	450	135	174	222	261	137	177	230	270	140	180	236	276	148	189	257	300	146	187	270	315
	Westbound Thru	640	267	312	149	190	277	324	154	196	281	328	154	196	298	347	171	215	299	349	164	208
	Westbound TR	630	267	312	149	190	277	324	154	196	281	328	154	196	298	347	171	215	299	349	164	208
	Northbound LT	65	128	186	~216	#331	131	188	~230	#345	132	190	~238	#355	137	198	~275	#394	154	#253	~364	#486
	Northbound TR	70	128	186	~216	#331	131	188	~230	#345	132	190	~238	#355	137	198	~275	#394	154	#253	~364	#486
	Southbound TR	135	267	#462	262	#452	269	#465	264	#455	269	#464	265	#457	270	#467	267	#460	~386	#596	~428	#629
2. Rhode Island Avenue & 2nd Street NE	Eastbound UT	315	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Eastbound Thru	305	-	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	Eastbound TR	290	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	Westbound Left	110	-	14	-	12	-	15	-	13	-	15	-	13	-	16	-	16	-	15	-	13
	Westbound Thru	380	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
3. Rhode Island Avenue & 3rd Street NE	Eastbound LT	370	-	8	-	8	-	8	-	9	-	9	-	9	-	10	-	9	-	9	-	9
	Eastbound Thru	375	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	Westbound UT	355	-	0	-	0	-	0	-	0	-	-	-	-	-	-	-	-	-	0	-	0
	Westbound Thru	355	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	Northbound LTR	315	-	42	-	232	-	48	-	248	-	53	-	273	-	70	-	-	-	72	-	-
	Southbound LTR	75	-	92	-	-	-	109	-	-	-	121	-	-	-	186	-	-	-	185	-	-
4. Rhode Island Avenue & W Street NE	Eastbound Thru	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	Eastbound TR	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	Westbound Thru	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
5. Rhode Island Avenue & 4th Street NE	Eastbound Left	120	125	#258	112	184	131	#271	125	#206	132	#274	130	#222	133	276	130	#223	114	#230	130	#222
	Eastbound TR	355	173	222	262	308	177	227	272	320	182	233	283	331	199	253	326	380	206	262	350	405
	Westbound Left	115	88	m#146	68	#147	99	m#177	76	#165	110	m#206	85	#182	~138	m#262	~126	#252	~143	m#270	~126	#252
	Westbound TR	290	515	#606	74	121	~526	#626	77	130	~534	#634	84	139	~579	#679	113	170	~556	#656	103	160
	Northbound LT	110	88	138	159	229	104	159	164	235	107	164	174	247	119	179	175	249	112	173	184	264
	Northbound Right	115	0	28	64	110	7	38	65	112	10	41	69	117	23	58	69	117	25	59	72	121
	Southbound LT	75	259	#443	~323	#510	~297	#487	~350	#540	~301	#491	~352	#540	~317	#507	~364	#553	~349	#544	~402	#595
	Southbound Right	80	0	13	16	60	0	21	21	67	0	23	18	64	0	23	19	64	0	32	15	58
6. Rhode Island Avenue & 5th Street NE	Eastbound Thru	215	26	m41	367	m421	26	m43	382	m434	26	m47	397	m452	27	m61	461	m504	28	m66	496	m526
	Eastbound TR	220	26	m41	367	m421	26	m43	382	m434	26	m47	397	m452	27	m61	461	m504	28	m66	496	m526
	Westbound LT	265	157	127	27	16	177	129	30	16	189	m130	32	m25	184	m128	41	m4	184	m127	38	m2
	Westbound Thru	265	157	127	27	16	177	129	30	16	189	m130	32	m25	183	m128	41	m4	184	m127	38	m2
	Northbound LR	230	3	36	37	78	3	36	38	80	3	36	40	81	3	36	46	88	3	36	48	90
7. Rhode Island Avenue NE & Western Rhode Island Avenue Center Driveway	Eastbound Left	106	5	13	3	m6	5	13	3	m6	11	24	7	11	11	23	6	11	20	39	25	71
	Eastbound Thru	110	138	179	60	67	141	181	62	69	142	182	60	67	154	194	63	68	157	196	60	65
	Westbound Thru	1440	490	m507	222	m261	496	m507	228	m265	504	m514	238	m275	550	m565	276	m312	540	m556	282	m317



	Westbound TR	1440	490	m507	222	m261	496	m507	228	m265	504	m514	238	m275	550	m565	276	m312	540	m556	282	m317	
	Southbound LR	185	72	m118	120	181	72	m119	120	181	-	-	-	-	-	-	-	-	-	-	-	-	
	Southbound Left	250	-	-	-	-	-	-	-	-	74	120	106	161	74	120	106	161	67	110	106	161	
	Southbound Right	250	-	-	-	-	-	-	-	-	0	#74	0	#81	0	#74	0	#81	0	#79	0	#74	
8.	Rhode Island Avenue NE & Eastern Rhode Island Avenue Center Driveway	Eastbound Thru	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
		Westbound Thru	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
		Westbound TR	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
		Southbound Right	0	-	-	-	-	-	-	-	-	-	3	-	3	-	3	-	2	-	3	-	3
9.	Rhode Island Avenue & Reed Street NE	Eastbound LT	1525	53	108	381	217	58	115	394	208	72	129	392	141	93	150	439	89	98	155	453	82
		Eastbound Thru	1530	53	108	381	217	58	115	394	208	72	129	392	141	93	150	439	89	98	155	453	82
		Eastbound TR	1535	53	108	381	217	58	115	394	208	72	129	392	141	93	150	439	89	98	155	453	82
		Westbound Left	240	39	m168	113	210	35	m157	122	m202	35	m159	126	m204	40	m168	138	m215	44	m172	138	m216
		Westbound Thru	350	97	103	111	132	81	m85	105	m118	80	m84	106	m120	85	m94	120	m134	86	m97	133	m172
		Westbound TR	355	97	103	-	-	81	m85	-	-	80	m84	-	-	85	m94	-	-	86	m97	-	-
		Westbound Right	130	-	-	0	m0	-	-	0	m0	-	-	0	m0	-	-	0	m0	-	-	0	m0
		Northbound Left	185	~286	#433	200	#355	~309	#455	204	#368	~309	455	204	#368	~313	#459	205	#371	~313	#459	205	#371
		Northbound Thru	185	28	58	33	69	28	58	33	69	28	58	33	69	28	58	34	70	28	58	34	70
		Northbound Right	190	0	17	75	109	0	17	76	111	2	19	76	111	7	25	78	113	8	26	78	113
Southbound LTR	190	52	103	39	78	109	#181	48	91	109	#181	48	91	112	#187	48	91	112	#187	48	91		
10.	Rhode Island Avenue & 10th Street NE	Eastbound LT	325	28	109	86	337	38	118	157	385	39	119	160	377	43	124	165	463	44	125	166	563
		Eastbound Thru	320	28	109	86	337	38	118	157	385	39	119	160	377	43	124	165	463	44	125	166	563
		Eastbound TR	310	28	109	86	337	38	118	157	385	39	119	160	377	43	124	165	463	44	125	166	563
		Westbound LT	555	247	423	148	268	258	434	157	280	251	423	158	281	276	464	188	331	280	469	215	377
		Westbound Thru	560	247	423	-	-	258	434	-	-	251	423	158	281	276	464	188	331	280	469	215	377
		Westbound TR	560	247	423	148	268	258	434	157	280	251	423	158	281	276	464	188	331	280	469	215	377
		Northbound LTR	360	11	31	10	29	11	31	10	29	11	31	10	29	11	31	10	29	11	31	10	29
		Southbound LTR	1035	95	#220	76	#163	~224	#374	~179	#310	~226	#377	~182	#314	~232	#384	~192	#326	~232	#384	~197	#332
Northwestbound LTR	530	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11.	4th Street & W Street NE	Eastbound LTR	280	-	6	-	12	-	6	-	13	-	6	-	14	-	7	-	15	-	7	-	16
		Westbound LR	210	-	6	-	11	-	7	-	12	-	7	-	12	-	8	-	13	-	8	-	13
		Northbound TR	325	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
		Southbound LT	105	-	1	-	2	-	1	-	2	-	1	-	2	-	1	-	2	-	1	-	2
12.	4th Street NE & Block 4 Driveway	Westbound LR	385	-	6	-	24	-	6	-	25	-	12	-	28	-	13	-	29	-	11	-	8
		Northbound TR	450	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
		Southbound LT	400	-	7	-	9	-	7	-	9	-	9	-	12	-	10	-	12	-	0	-	1
13.	4th Street & Bryant Street NE	Eastbound LR	335	6	35	11	45	6	34	12	45	6	34	11	46	6	35	11	46	-	-	-	-
		Eastbound LTR	1040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	67	87	144
		Westbound LTR	375	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	150	115	#206
		Northbound LT	325	124	180	141	205	149	216	174	259	160	232	187	280	187	273	190	284	-	-	-	-
		Northbound LTR	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	185	270	190	285
		Southbound TR	330	90	122	142	217	88	118	148	222	90	119	154	230	97	132	158	232	-	-	-	-
		Southbound LTR	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	95	130	164	244



14. 4th Street & Channing Street NE	Eastbound LTR	330	-	39	-	42	-	48	-	44	-	50	-	46	-	60	-	50	31	67	42	87
	Westbound LTR	280	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	21	63	38	93
	Northbound LTR	340	-	1	-	2	-	1	-	2	-	1	-	2	-	1	-	2	66	85	89	112
	Southbound LTR	330	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	262	133	162	223
15. 4th Street & Edgewood Street NE	Westbound LR	180	-	200	-	54	-	284	-	58	-	297	-	62	-	385	-	66	-	419	-	82
	Northbound TR	170	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	Southbound LT	125	-	0	-	0	-	1	-	0	-	1	-	0	-	1	-	0	-	1	-	0
16. 4th Street & Douglas Street NE	Eastbound LTR	350	28	61	61	104	28	61	61	104	28	61	61	104	28	61	61	104	28	61	61	104
	Westbound LTR	185	24	52	14	39	26	53	14	39	26	53	14	39	24	52	14	39	23	50	18	46
	Northbound LTR	335	38	57	10	163	45	64	10	111	46	65	10	110	51	71	10	109	53	85	41	164
	Southbound LTR	330	164	m221	21	m46	164	m211	25	m51	163	m211	30	m60	147	m200	34	m63	148	m201	48	m88
17. 4th Street & Franklin Street NE	Eastbound LTR	430	175	241	179	267	189	258	195	288	195	267	203	301	230	321	231	341	227	317	253	376
	Westbound LT	220	541	m#627	76	90	~604	m#638	79	92	~612	m#642	79	92	~709	m#664	83	96	~706	m#659	86	m100
	Westbound Right	220	21	m23	0	m1	22	m25	0	m1	22	m25	0	m1	29	m29	1	m1	29	m28	0	m2
	Northbound LTR	325	209	#327	148	218	256	#436	150	223	270	#467	156	#388	~337	#539	156	#396	~406	#611	~314	#507
	Southbound LTR	265	227	#363	206	#359	233	#380	214	#374	233	#380	214	#374	240	#397	218	#381	239	#395	217	#379
18. Franklin Street & 6th Street NE	Eastbound LTR	210	-	1	-	1	-	2	-	1	-	2	-	1	-	2	-	1	-	2	-	1
	Westbound LTR	580	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0
	Westbound LT	580	-	2	-	-	-	2	-	-	-	2	-	-	-	3	-	-	-	3	-	-
	Westbound TR	575	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-
	Northbound LTR	320	-	5	-	4	-	5	-	4	-	5	-	4	-	5	-	5	-	5	-	5
	Southbound LTR	380	-	15	-	6	-	16	-	6	-	16	-	6	-	16	-	6	-	17	-	6
19. Edgewood Street & 7th Street NE	Westbound LR	170	-	135	-	46	-	147	-	47	-	148	-	48	-	167	-	50	-	173	-	53
	Northbound TR	390	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	Southbound LT	100	-	18	-	4	-	19	-	4	-	19	-	4	-	21	-	5	-	22	-	5
20. Franklin Street & 7th Street NE	Eastbound LTR	580	249	m354	140	167	265	m370	146	176	265	m369	148	180	290	m392	160	219	291	m390	162	m234
	Westbound LT	980	240	#292	175	225	~253	#363	180	231	~254	#364	180	232	~314	#441	185	240	~314	#437	185	241
	Westbound TR	980	240	#292	175	225	~253	#363	180	231	~254	#364	180	232	~314	#441	185	240	~314	#437	185	241
	Northbound LTR	55	69	132	76	164	70	133	76	165	71	134	76	#167	71	134	79	#174	75	143	85	#207
	Southbound LTR	600	170	#296	90	#175	171	#300	90	#175	172	#300	90	#176	172	#301	92	#180	174	#305	93	#188
21. Franklin Street & 10th Street NE	Eastbound LTR	985	187	m325	129	289	219	m345	136	321	221	m347	137	326	247	m371	150	409	259	m384	181	420
	Westbound LT	485	178	m230	151	199	217	m233	155	m203	217	m233	155	m203	242	m240	158	m201	241	m237	158	m201
	Westbound TR	490	178	m230	151	199	217	m233	155	m203	217	m233	155	m203	242	m240	158	m201	241	m237	158	m201
	Northbound LTR	1050	116	#193	125	184	121	#204	128	188	121	#205	129	189	122	#208	131	192	122	#208	132	194
	Southbound LTR	260	131	193	68	106	131	195	68	106	132	197	71	109	138	204	71	109	139	206	77	117
22. Franklin Street & 12th Street NE	Eastbound LTR	485	247	111	355	469	265	123	370	487	266	122	371	488	285	120	403	#545	291	135	414	#582
	Westbound LTR	590	447	#703	208	308	500	#774	212	315	500	#774	212	315	~594	#831	216	319	~594	#831	216	319
	Northbound LTR	325	~297	#478	242	#364	~305	#487	246	#386	~307	#491	248	#392	~340	#523	278	#441	~341	#524	283	#448
	Southbound LTR	265	304	#495	168	252	308	#503	169	254	309	#504	173	259	311	#509	174	260	312	#512	184	274



23. Lincoln Road & Bryant Street NE	Westbound LR	135	-	6	-	3	-	6	-	4	-	7	-	4	-	7	-	4	-	41	-	57
	Northbound TR	1430	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
	Southbound LT	350	-	1	-	0	-	1	-	0	-	1	-	1	-	1	-	1	-	1	-	2
24. Bryant Street NE/Block 4 Driveway & Block 5 Driveway	Eastbound TR	385	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-	0	
	Westbound LT	550	-	-	-	-	-	-	-	-	-	-	-	-	2	-	3	-	4	-	8	
	Northbound LR	370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	21	
	Northbound Left	250	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-	-	
	Northbound Right	250	-	-	-	-	-	-	-	-	-	-	-	-	2	-	6	-	-	-	-	
25. Bryant Street NE & Block 2/3 Driveway	Eastbound LT	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	14	
	Westbound TR	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	
	Southbound LR	340	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	-	24	
26. Bryant Street NE & Block 1 Driveway	Eastbound LR	550	-	-	-	-	-	-	-	-	3	-	8	-	3	-	8	-	3	-	10	
	Northbound LT	300	-	-	-	-	-	-	-	-	3	-	5	-	3	-	5	-	5	-	18	
	Southbound TR	155	-	-	-	-	-	-	-	-	3	-	3	-	3	-	3	-	5	-	8	

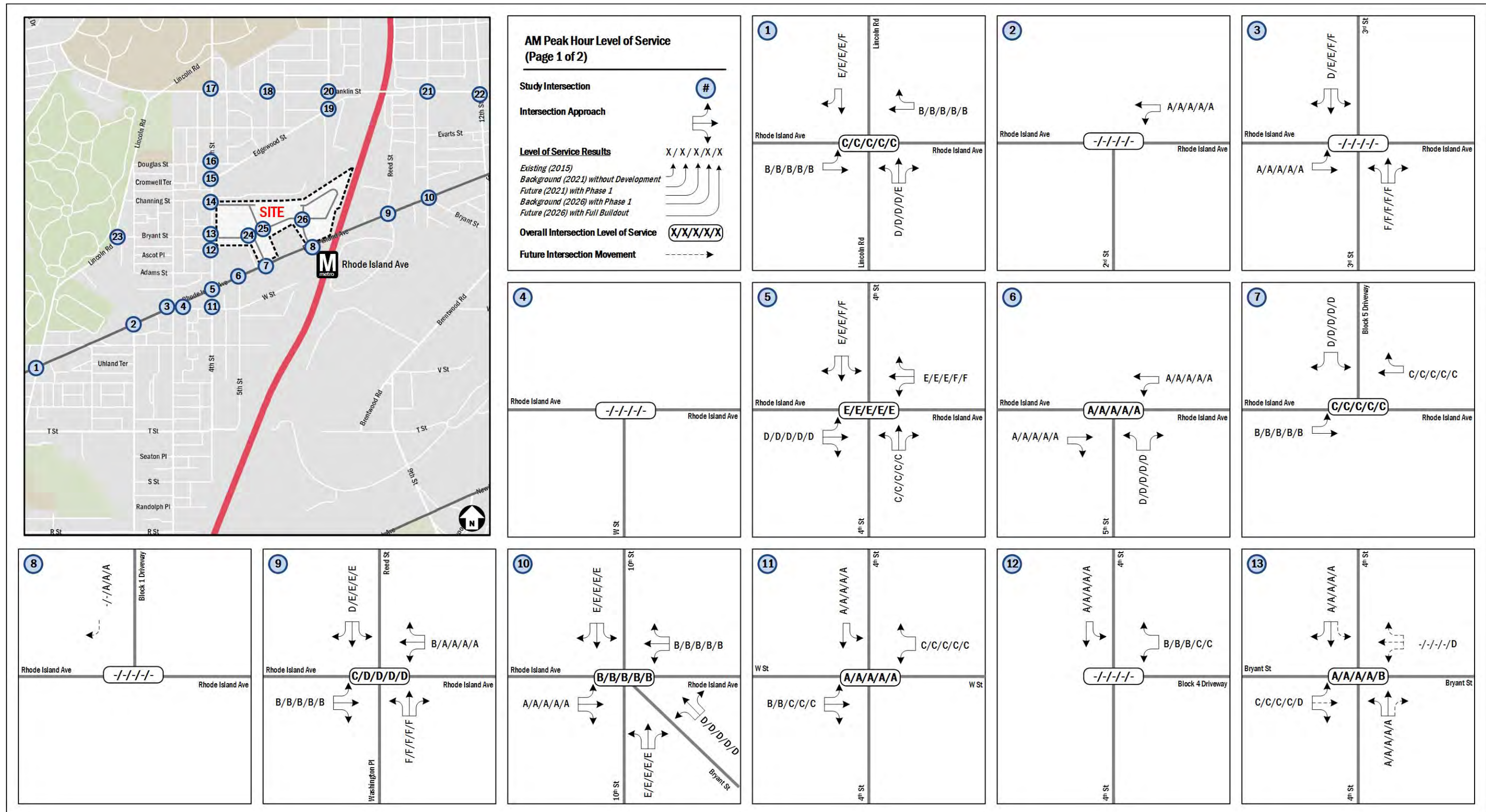


Figure 47: Morning Peak Hour Capacity Analysis Results (1)

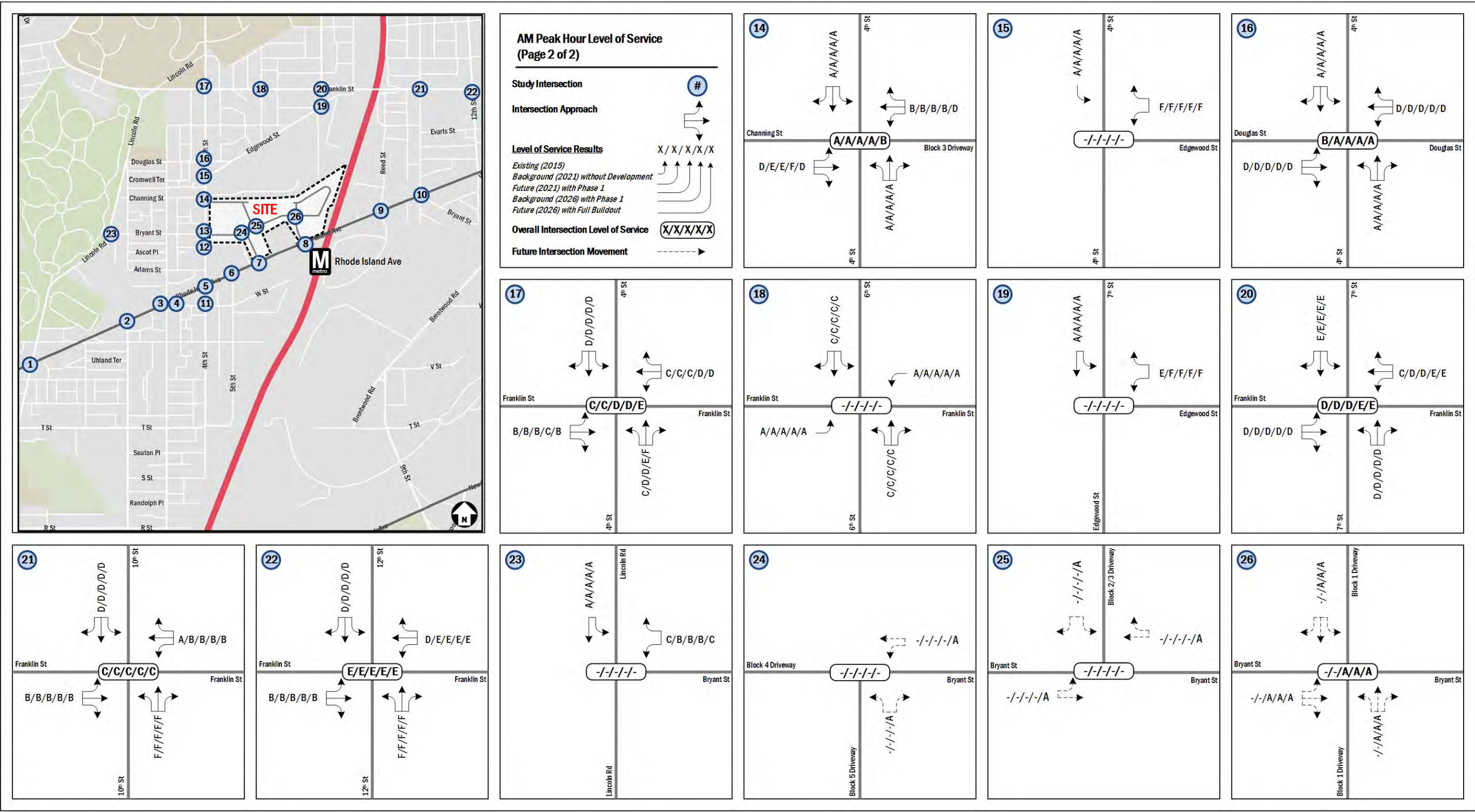


Figure 48: Morning Peak Hour Capacity Analysis Results (2)

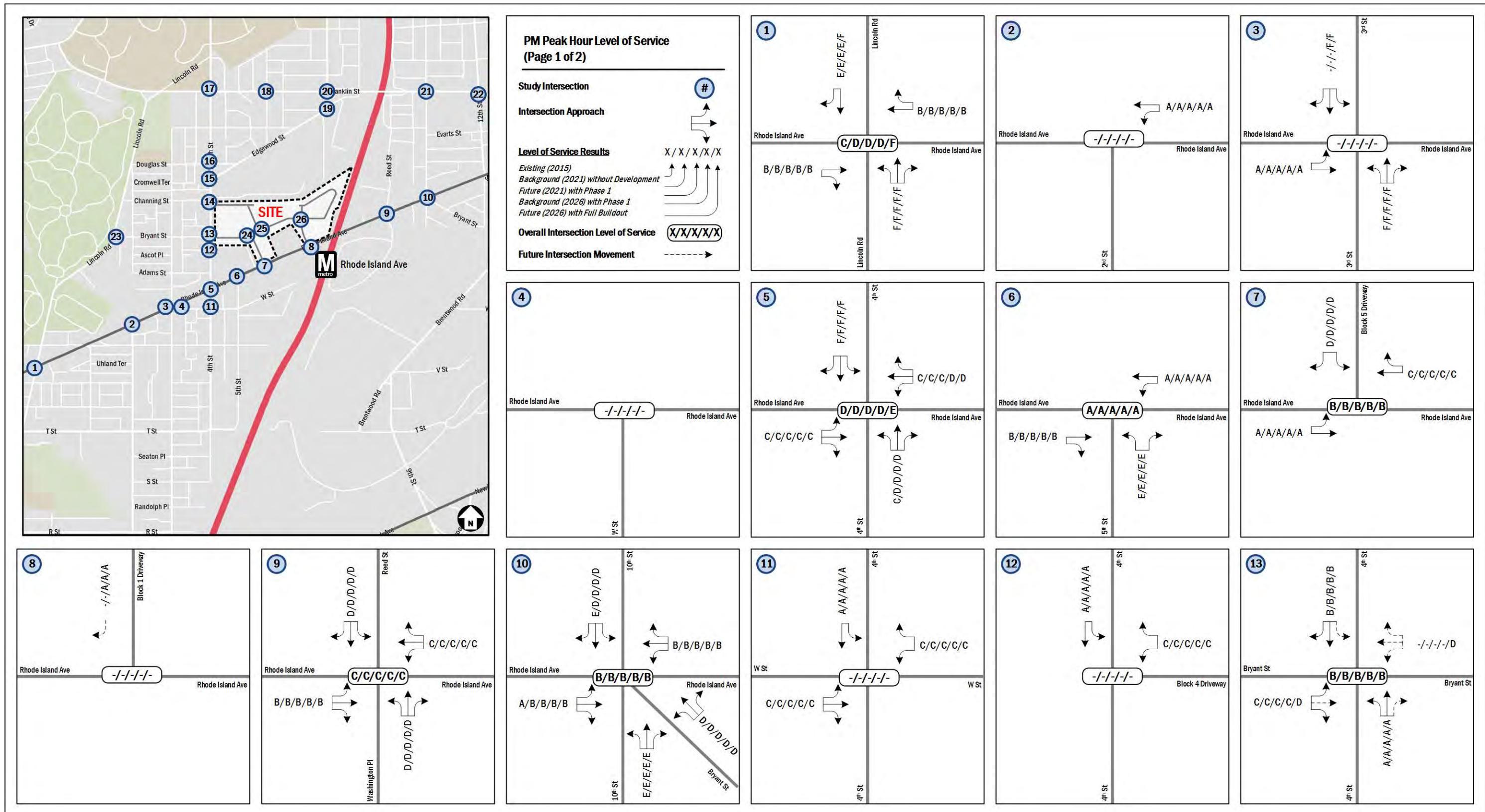


Figure 49: Afternoon Peak Hour Capacity Analysis Results (1)

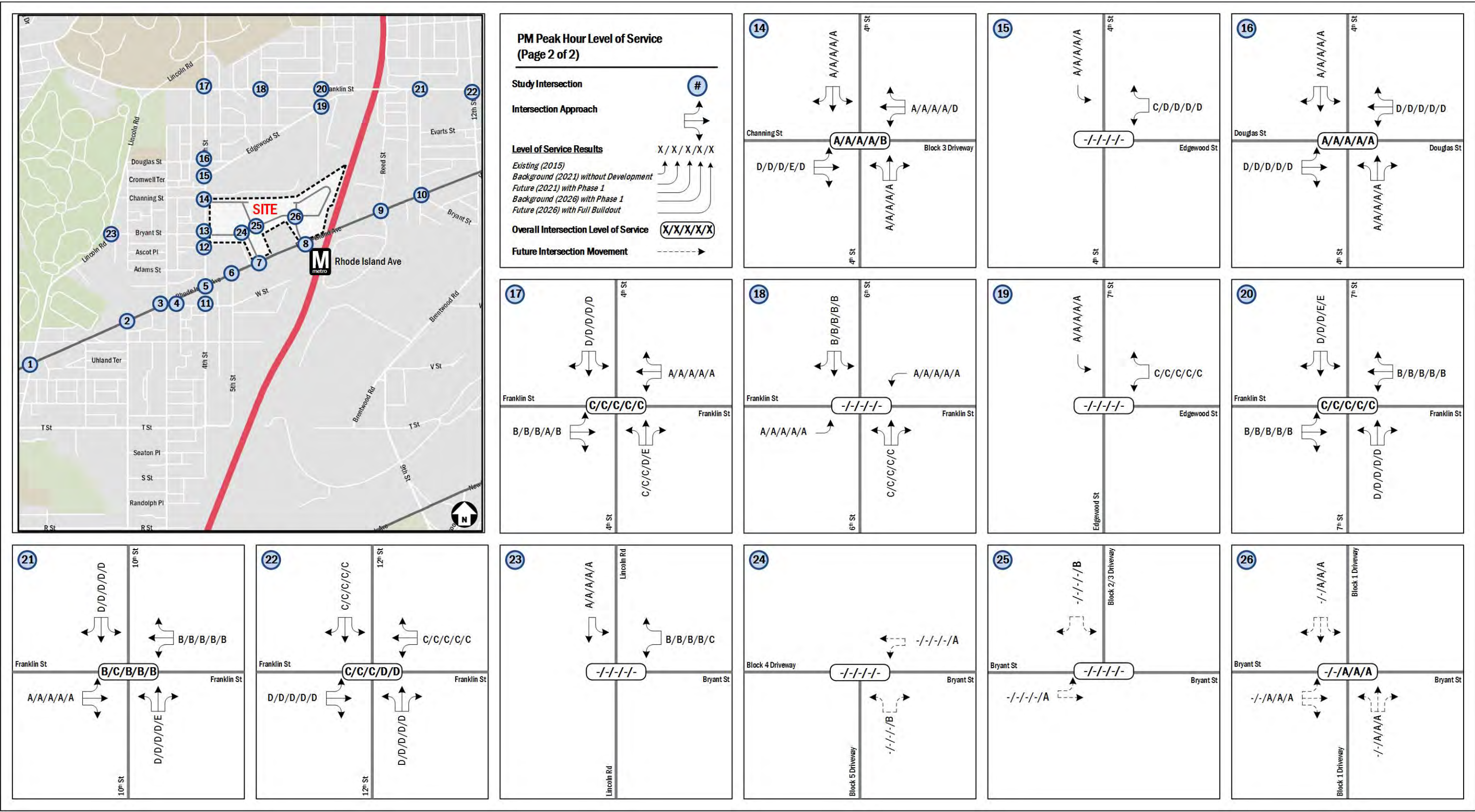


Figure 50: Afternoon Peak Hour Capacity Analysis Results (2)



TRANSIT

This section discusses the existing and proposed transit facilities in the vicinity of the site, accessibility to transit, and evaluates the overall transit impacts due to the 680 Rhode Island Avenue project.

The following conclusions are reached within this chapter:

- The development has excellent access to transit
- The development site is surrounded by several Metrobus routes that travel along multiple primary corridors
- The site is expected to generate a relatively large amount of transit trips, and the existing service is capable of handling these new trips

EXISTING TRANSIT SERVICE

The study area is well served by Metrobus and Metrorail. Combined, these transit services provide local, city wide, and regional transit connections and link the site with major cultural, residential, employment, and commercial destinations throughout the region. Figure 51 identifies the major transit routes, stations, and stops in the study area.

The Rhode Island Avenue Metrorail station is located 0.1 miles from the development site and is served by the Red Line, which provides direct connections to areas in the District and Maryland along with interchanges to Virginia. The Red Line connects Shady Grove with Glenmont while providing access to the District core in a “U” shape. Red Line trains run approximately every three to six minutes during the morning and afternoon peak hours. The Red Line runs about every 12 minutes during weekday non-peak hours, every 15-18 minutes on weekday evenings after 9:30 pm and 12 to 15 minutes on the weekends.

The site is also serviced by Metrobus along multiple primary corridors. These bus lines connect the site to many areas of the District, Maryland and Virginia, including several Metrorail stations. Table 13 shows a summary of the bus route information for the routes that serve the site, including service hours, headway, and distance to the nearest bus stop. Figure 52 shows the frequency of bus service servicing the site. As can be seen, 82 buses serve the site in the AM peak hour and 73 buses serve the site in the PM peak hour. A detailed list of Metrobus stops within a quarter-mile walkshed of the site,

detailing individual bus stop amenities and condition is included in the Technical Appendix.

PROPOSED TRANSIT SERVICE

Due to growth of population, jobs, and retail in several neighborhoods in the District and the potential for growth in other neighborhoods, the District’s infrastructure is challenged with the need for transportation investments to support the recent growth and to further strengthen neighborhoods. In order to meet these challenges and capitalize on future opportunities, DDOT has developed a plan to identify transit challenges and opportunities and to recommend investments. This is outlined in DC’s *Transit Future System Plan* report published by DDOT in April 2010, which includes the reestablishment of streetcar service in the District.

One streetcar route is expected to travel near the site. This route would run along Rhode Island Avenue and connect the site with Washington Circle and the Foggy Bottom-GWU Metrorail station, and to Eastern Avenue and the District/Maryland Border.

Rhode Island Avenue was identified as a corridor in need of a Metro Express by the *Transit Future System Plan* report. Additionally, the corridor from Eastern Avenue to 7th Street NW is designated to become a Great Streets corridor, which calls for streetscape and pedestrian improvements such as the removal of curb cuts to increase tree planting on sidewalks, and the addition of bollards along the curb for increased pedestrian safety.

Additionally, WMATA and local transportation agencies in the District, Maryland, and Virginia have begun reviewing Metrobus lines and system-wide facilities for service improvements since 2009. In direct relation to this development, routes H8, H9, G8, 81, 82, 83, 84 (now T14), 86, and T18 were studied.

WMATA and DDOT published the *Metrobus Service Evaluation Study: Routes H1; H2; 3, 4; H8, 9* in October 2013. The report cites the need to: (1) provide direct all day, two way connection to downtown Washington from the H Lines’ service area; (2) provide more trips that bypass the Washington Hospital Center throughout the day, not just during peak periods; (3) provide quicker connections between Rhode Island Avenue Metrorail Station and the Columbia Road/Irving Street one-way pair and Columbia Heights and Mount Pleasant; and (4) provide a



limited stop service between Rhode Island Avenue Metrorail Station and the western end of the H Lines. In direct relation to the proposed development, a proposal to extend the H3 route to the Rhode Island Metrorail Station would provide quicker connections between the Rhode Island Avenue corridor and the Columbia Road/Irving Street one-way pair and Columbia Heights and Mount Pleasant. Additionally, bus stops were identified as potential candidates for consolidation if they were closer together than the WMATA guideline that states that bus stops should be between 0.20 and 0.25 miles apart. The bus stop at 12th Street and Franklin Street was identified as a candidate for removal/consolidation.

WMATA, DDOT, Maryland DOT, and the Prince George's County Department of Public Works and Transportation published the *Metrobus Priority Corridor Study: Rhode Island Avenue & Baltimore Avenue Lines* in April 2014. Combined, these lines have one of the highest ridership in the Metrobus system. The report cites the need for improved service, improved passenger facilities, and changes to traffic patterns that will in turn improve service. Ten (10) recommendations were outline by the report. The recommendations were: (1) adding trips to the overcrowded T18 route; (2) changing the 84 route designation to T14; (3) Make the T14 and T18 lines limited stop service in the PM peak; (4) adjustments to ensure destination signs on buses arriving at Rhode Island Avenue Station do not display "Not in Service"; (5) adjust scheduled run times to reflect actual run times; (6) split the 83 and 86 routes in half, with a common terminal at the College Park Metrorail Station; (7) dedicated supervision at different terminal locations served by the Rhode Island Avenue Lines in order to better monitor on-time performance and ensure correct headway separation; (8) assign a floating/strategic bus at Brookland-CUA Metrorail Station to address reliability issues on the G8 line; (9) expand hours of service to meet WMATA Hours of Service Guidelines; and (10) implement service changes to provide service along the entire length of Rhode Island Avenue.

SITE-GENERATED TRANSIT IMPACTS

For Phase 1 of the development, the proposed development is projected to generate 185 transit trips (72 inbound, 113 outbound) during the morning peak hour and 382 trips (204 inbound, 178 outbound) during the afternoon peak hour.

The full buildout of the proposed development is projected to generate 604 transit trips (222 inbound, 382 outbound) during

the morning peak hour and 1234 trips (668 inbound, 566 outbound) during the afternoon peak hour.

US Census data was used to determine the distribution of those taking Metrorail and those taking Metrobus. The site lies in TAZ 10219 which shows that approximately 40 percent of transit riders use Metrorail and the remainder use Metrobus. That said, after Phase 1 approximately 74 people will use Metrorail and 111 will use Metrobus during the morning peak hour; approximately 153 people will use Metrorail and 229 will use Metrobus during the afternoon peak hour. The full buildout of the proposed development will see approximately 242 people use Metrorail and 362 use Metrobus during the morning peak hour and approximately 494 people use Metrorail and 740 use Metrobus during the afternoon peak hour.

WMATA studied capacity of Metrorail stations in its *Station Access & Capacity Study (2008)*. The study analyzed the capacity of Metrorail stations for their vertical transportation, such as the capacity of the station at elevators, stairs, and escalators to shuttle patrons between the street, mezzanine, and platforms. The study also analyzed a station's capacity to process riders at fare card gates. For both analyses (vertical transportation and fare card gates) volume-to-capacity ratios were calculated for existing data (from 2005) and projections for the year 2030. According to the study, the Rhode Island Avenue station can currently accommodate future growth at all access points.

WMATA studied capacity along Metrobus routes. DC's *Transit Future System Plan (2010)* lists the bus routes with the highest load factor (a ratio of passenger volume to bus capacity). A load factor is considered unacceptable if it is over 1.2 during peak periods or over 1.0 during off-peak or weekend periods. According to this study Metrobus routes that travel near the site operate at an acceptable load factor during all periods of the day, except for routes H8 and H9 which critically exceed capacity. Based on this information and the extensive Metrobus and Metrorail service surrounding the site, site-generated transit trips will not cause detrimental impacts to Metrobus or Metrorail service.



Table 13: Metrobus Route Information

Route Number	Route Name	Service Hours	Headway	Walking Distance to Nearest Bus Stop
D8	Hospital Center Line	Weekdays: 5:32AM – 2:23 AM Weekends: 6:21AM – 12:52 AM	8-30 min	<0.1 miles, 1 minute
P6	Anacostia-Eckington Line	Weekdays: 5:00AM – 1:13 AM Weekends: 5:20AM – 2:09 AM	8-40 min	<0.1 miles, 1 minute
B8, B9	Fort Lincoln Shuttle Line	Weekdays: 6:18AM – 7:05 PM	15-60 min	0.1 miles, 2 minutes
81, 82, 83, 86	College Park Line	Weekdays: 4:50AM – 12:20 AM Weekends: 5:43AM – 1:50 AM	3-40 min	0.1 miles, 2 minutes
T14	Rhode Island Avenue-New Carrollton Line	Weekdays: 5:05AM – 10:23 PM Weekends: 8:00AM – 6:35 PM	18-60 min	0.1 miles, 2 minutes
M31	McKinley High School Line	Weekdays: 7:53AM – 8:20 AM WB 3:33PM - 3:43 PM EB	9-10 min	0.1 miles, 2 minutes
S41	Phelps High School Line	Weekdays: 8:16 AM SB 3:56 PM NB	Not applicable	0.1 miles, 2 minutes
H8, H9	Park Road-Brookland Line	Weekdays: 5:00AM – 12:41 AM Weekends: 6:00AM – 1:59 AM	10-40 min	0.1 miles, 2 minutes
T18	Annapolis Road Line	Weekdays: 5:36AM – 11:20 PM Weekends: 7:10AM – 9:55 PM	10-49 min	0.1 miles, 2 minutes
G8	Rhode Island Avenue Line	Weekdays: 5:00AM – 12:26 AM Weekends: 5:37AM – 1:20 AM	8-44 min	<0.1 miles, 1 minute

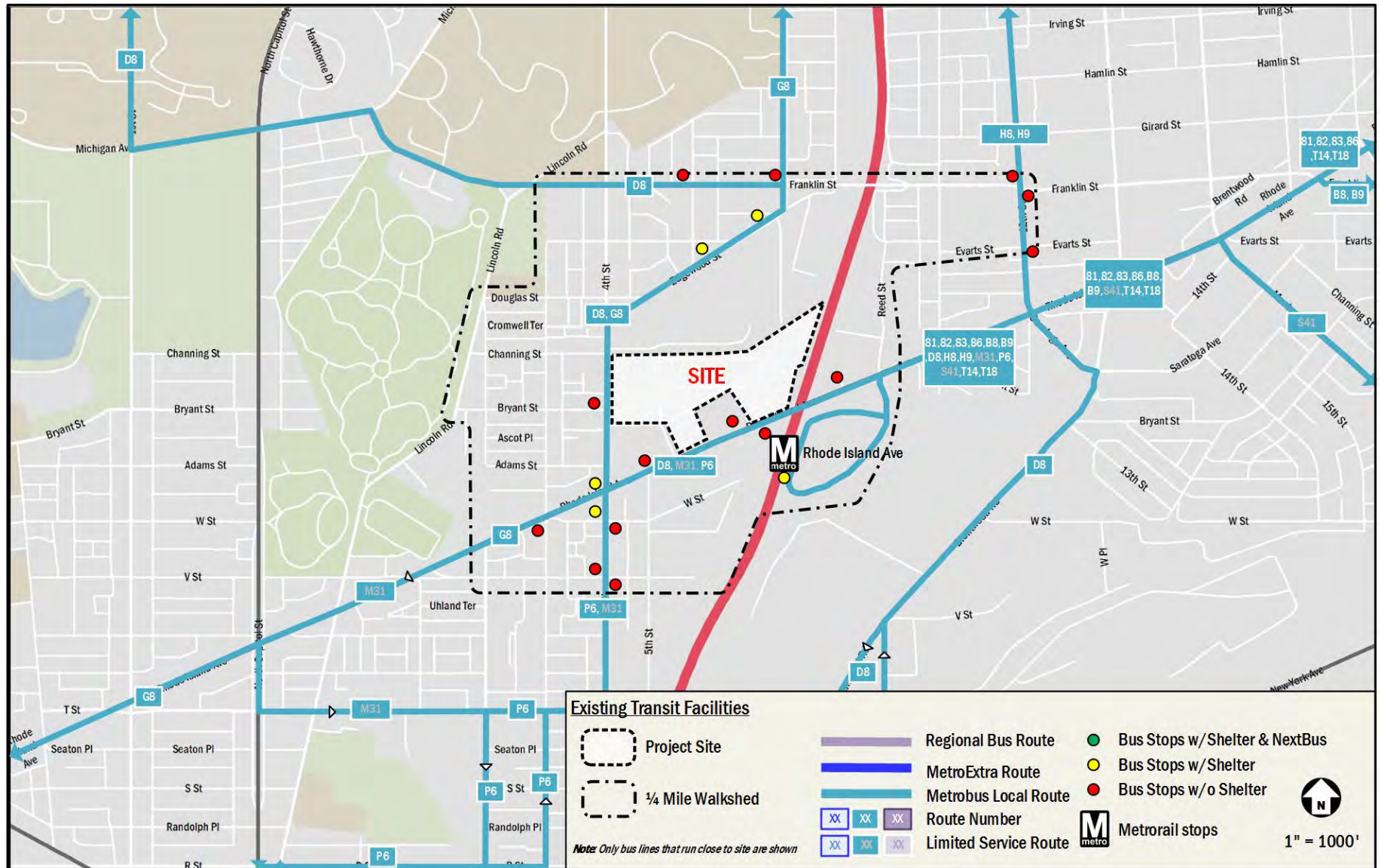


Figure 51: Existing Transit Service

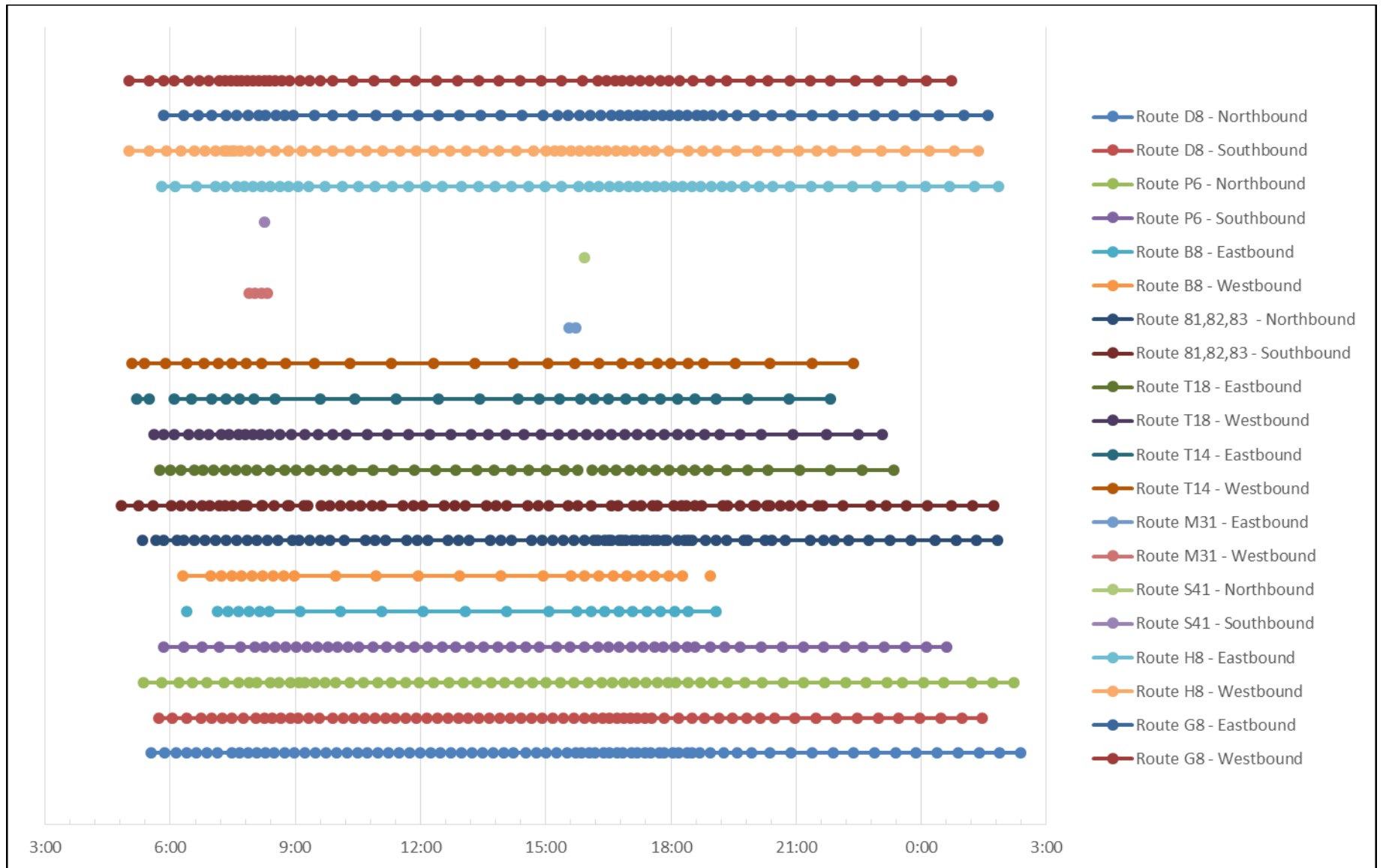


Figure 52: Bus Headways



PEDESTRIAN FACILITIES

This section summarizes the existing and future pedestrian access to the site and reviews walking routes to and from the site.

The following conclusions are reached within this chapter:

- The existing pedestrian infrastructure surrounding the site provides a relatively good walking environment. There are some gaps in the system, but there are sidewalks along all primary routes to pedestrian destinations.
- The site is expected to generate a large amount of pedestrian trips; however, facilities within and surrounding the site have the ability to absorb these additional trips.
- The development will improve the overall pedestrian environment by providing improved or new sidewalks along the interior and perimeter of the site, most notably on-site, where few to no pedestrian facilities and amenities exist.

PEDESTRIAN STUDY AREA

Facilities within a quarter-mile of the site were evaluated as well as routes to nearby transit facilities and prominent retail and neighborhood destinations. The site is easily accessible to transit options, such as bus stops along 4th Street, Rhode Island Avenue, and the Rhode Island Avenue Metrorail Station. The Metropolitan Branch Trail also intersects the study area, providing pedestrians with off-street connections to NoMa and Union Station to the south, and Brookland to the north. There are some barriers and areas of concern within the study area that negatively impact the quality of and attractiveness of the walking environment. This includes roadway conditions that reduce the quality of walking conditions, narrow or nonexistent sidewalks, incomplete or insufficient crossings at busy intersections, and rail tracks that limit connectivity to the east. Figure 53 shows suggested pedestrian pathways, walking time and distances, and barriers and areas of concern.

Table 14: Sidewalk Requirements

Street Type	Minimum Sidewalk Width	Minimum Buffer Width
Residential (Low to Moderate Density)	6 ft	4 ft (6 ft preferred for tree space)
Residential (High Density)	8 ft	4 ft (6 ft preferred for tree space)
Commercial (Non-downtown)	10 ft	4 ft
Downtown	16 ft	6 ft

Pedestrian facilities connecting the site and the Noyes Education Campus were also examined as part of this report. The Metropolitan Branch Trail provides excellent pedestrian connectivity for about half the distance between the site and the Noyes Education Campus. Between the Noyes Education Campus and the Metropolitan Branch Trail, pedestrian facilities do not meet DDOT standards. This includes a ramped asphalt area that connects Edgewood Street and Franklin Street, as well as the bridge on Franklin Street spanning the rail tracks that lacks adequate sidewalk widths.

PEDESTRIAN INFRASTRUCTURE

This section outlines the existing and proposed pedestrian infrastructure within the pedestrian study area.

Existing Conditions

A review of pedestrian facilities surrounding the proposed development shows that most facilities meet DDOT standards and provide a quality walking environment. Figure 54 shows a detailed inventory of the existing pedestrian infrastructure surrounding the site. Sidewalks, crosswalks, and curb ramps are evaluated based on the guidelines set forth by DDOT's *Public Realm Design Manual*, in addition to ADA standards. Sidewalk widths and requirements for the District are shown below in Table 14.

Within the area shown, most roadways are considered residential with a low to moderate density. Meanwhile, some areas along Rhode Island Avenue, Washington Place, and 12th Street are considered retail or commercial and thus require wider sidewalks. Most of the sidewalks surrounding the site comply with DDOT standards; however there are some areas which have inadequate sidewalks or no sidewalks at all that are located along Rhode Island Avenue, V Street, and Reed Street. All primary pedestrian destinations are accessible via routes with sidewalks, most of which meet DDOT standards.

ADA standards require that all curb ramps be provided wherever an accessible route crosses a curb and must have a detectable warning. Additionally, curb ramps shared between



two crosswalks is not desired. As shown in Figure 54, under existing conditions there are some issues with crosswalks and curb ramps near the site, primarily along V Street and 3rd Street.

SITE IMPACTS

This section summarizes the impacts of the development on the overall pedestrian operations in the vicinity of the site.

Pedestrian Trip Generation

The 680 Rhode Island Avenue development is expected to generate 54 walking trips (24 inbound, 30 outbound) during the morning peak hour and 126 walking trips (66 inbound, 60 outbound) during the afternoon peak hour after Phase 1. After the full buildout, the proposed development is expected to generate 216 walking trips (96 inbound, 120 outbound) during the morning peak hour and 493 walking trips (259 inbound, 235 outbound) during the afternoon peak hour. The origins and destinations of these trips are likely to be:

- Employment opportunities where residents can walk to work;
- Employees and patrons of the 680 Rhode Island Avenue development;
- Retail locations outside of the site; and
- Neighborhood destinations such as schools, libraries, and parks in the vicinity of the site.

In addition to these trips, the transit trips generated by the site will also generate pedestrian demand between the site and nearby transit stops.

Pedestrian Infrastructure Improvements

The reconfiguration of internal roadways within the site will improve pedestrian connectivity within and through the site, creating a more welcoming and safer feeling environment.

Within the site, the development will result in new or improved sidewalks along the interior and perimeter of the site. This will be particularly impactful along Rhode Island Avenue, where sidewalks do not meet DDOT standards and along the internal roadways of the site, where no pedestrian facilities currently exist. Pedestrian facilities along Bryant Street and all other internal roadways are expected to meet or exceed DDOT requirements with an emphasis on pedestrian safety and comfort. This includes sidewalks that meet or exceed the width requirements, crosswalks at all necessary locations, curb ramps

with detectable warnings, and additional design elements such as curb extensions and room for outdoor seating. In addition, the construction of an urban plaza at the eastern edge of the site will coincide with proposed improvements to the Metropolitan Branch Trail. The urban plaza will engage directly with the Metropolitan Branch Trail and the Rhode Island Avenue Metrorail Station pedestrian access bridge. Pedestrians will be seen as the primary users of the plaza such that automobiles will travel at lower speeds and yield to pedestrians. The combination of low speeds and aesthetically-pleasing design elements creates a pedestrian environment that is safe, functional, and visually appealing. The design elements of the urban plaza are shown on Figure 14. The proposed improvements to the Metropolitan Branch Trail are shown on Figure 55.

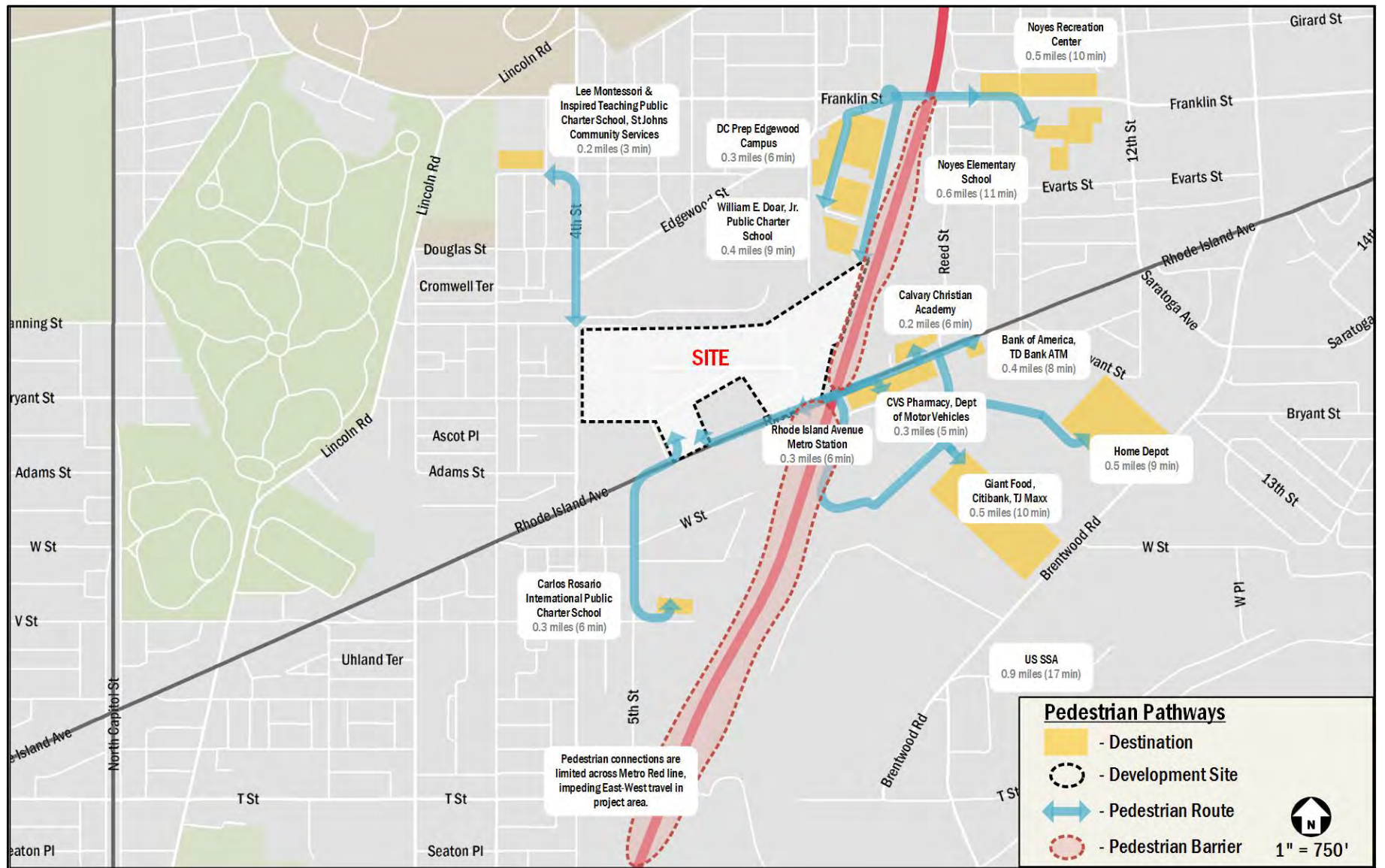


Figure 53: Pedestrian Pathways

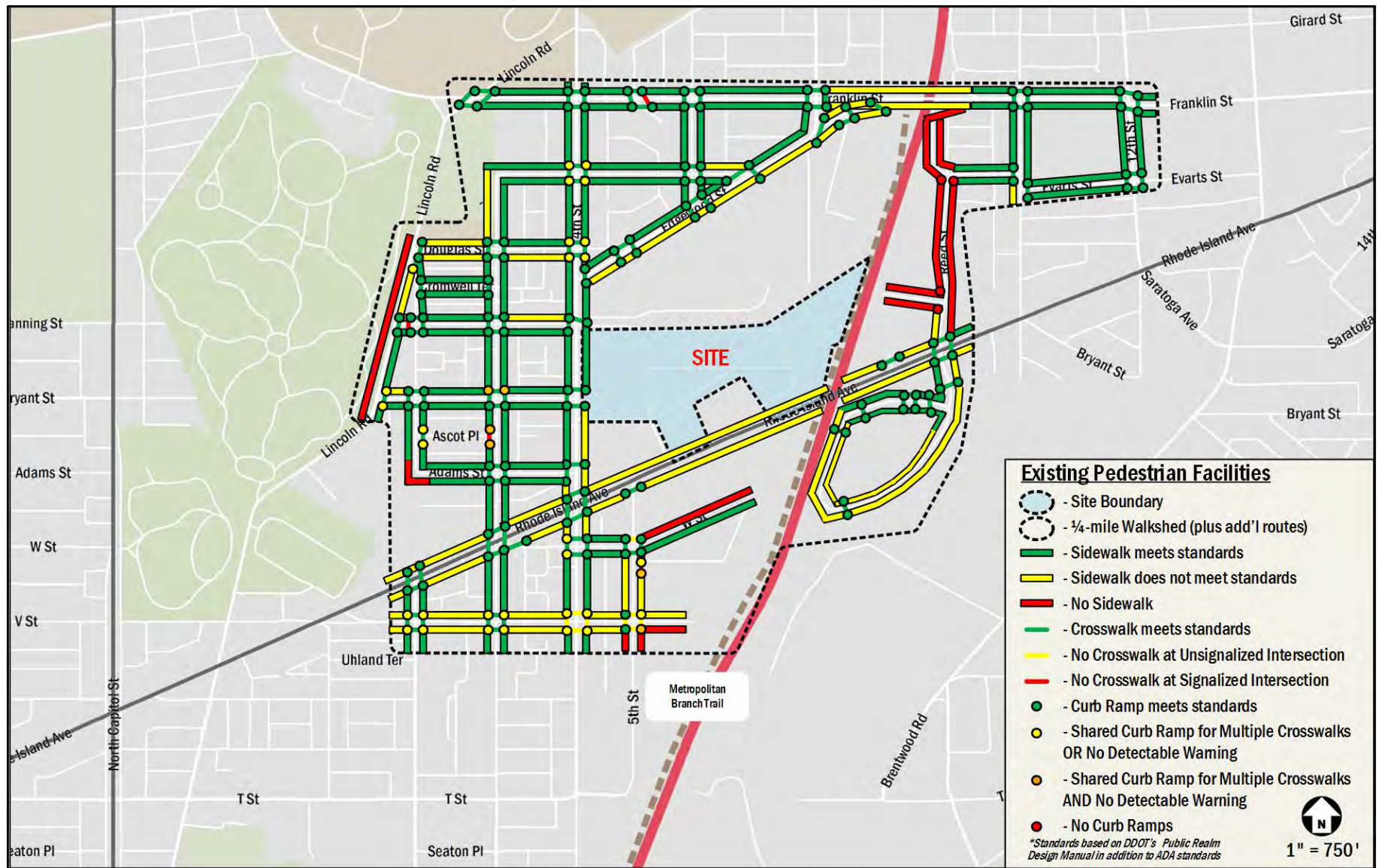


Figure 54: Existing Pedestrian Infrastructure



Figure 55: Proposed Metropolitan Branch Trail Improvements



BICYCLE FACILITIES

This section summarizes existing and future bicycle access, reviews the quality of cycling routes to and from the site, and presents recommendations.

The following conclusions are reached within this chapter:

- The site has access to several on- and off-street bicycle facilities including the Metropolitan Branch Trail.
- A new east-west bicycle track will be constructed on-site as part of the proposed development, linking the Metropolitan Branch Trail and bicycle lanes on 4th Street.
- The site is not expected to generate a significant amount of bicycle trips, therefore all site-generated bike trips can be accommodated on existing infrastructure.
- The development will include secure bicycle parking on site, and short-term bicycle racks along the perimeter of the site. The Applicant has also agreed to install a Capital Bikeshare station within the perimeter of the site

EXISTING BICYCLE FACILITIES

The site has access to existing on- and off-street bicycle facilities. The 680 Rhode Island Avenue development is located alongside the Metropolitan Branch Trail and alongside bicycle lanes on 4th Street. Figure 56 illustrates the existing bicycle facilities in the area.

No bicycle parking is provided along the perimeter of the site under existing conditions.

In addition to personal bicycles, the Capital Bikeshare program provides additional cycling options for residents, employees, and patrons of the planned development. The Bikeshare program has placed over 350 Bikeshare stations across Washington DC, Arlington, and Alexandria, VA, and most recently Montgomery County, MD, with over 3000 bicycles provided. Within a quarter-mile of the site, there are three Bikeshare stations that house a total of 48 bikes. Figure 56 illustrates the existing Capital Bikeshare facilities in the area.

PROPOSED BICYCLE FACILITIES

The MoveDC plan outlines several bicycle improvements in the vicinity of the site. These improvements are broken up into four tiers that rank the priority for implementation. The four tiers are broken down as follows:

- Tier 1
Investments should be considered as part of DDOT’s 6-year Transportation Improvement Program (TIP) and annual work program development, if they are not already included. Some projects may be able to move directly into construction, while others become high priorities for advancement through the Project Development Process.

There are no Tier 1 improvements planned in the vicinity of the site.

- Tier 2
Investments within this tier are not high priorities in the early years of MoveDC implementation. These investments could begin moving through the Project Development Process if there are compelling reasons for their advancement.

There are a couple Tier 2 additions that will positively affect bicycle connectivity to and from the site. A bicycle lane is planned along Rhode Island Avenue from Reed Street NE to the District/Maryland border, and a bicycle track is planned along Rhode Island Avenue from Reed Street NE to Connecticut Avenue/M Street NW. These facilities will greatly improve the bicycle connectivity near the site.

- Tier 3
Investments within this tier are not priorities for DDOT-led advancement in the early years of MoveDC’s implementation. They could move forward earlier under circumstances, such as real estate development initiatives and non-DDOT partnerships providing the opportunity for non-District-led completion of specific funding.

- Tier 4
Generally, investments within this tier are not priorities for DDOT-led advancement and are lower priority for project development in the early years of implementation.

Due to the timeline of the proposed development, this report will focus on the Tier 1 and Tier 2 recommendations within the vicinity of the site.

Although these projects are discussed in the MoveDC plan, they are not currently funded nor included in DDOT’s Transportation Improvement Plan thus they will not be assumed as complete for this analysis.

In addition to the MoveDC plan, the Metropolitan (Met) Branch Trail and Safety and Access Study was launched in 2015. The



NoMa Business Improvement District, Metropolitan Police Department, DDOT, and local stakeholders, leaders and advocates are leading an effort to enhance safety, accessibility, and user experience on the Metropolitan Branch Trail. As of this report, the Metropolitan Branch Trail Safety and Access Study was in its infancy.

SITE IMPACTS

This section summarizes the impacts of the development on the overall bicycle operations surrounding the site and develops recommendations for connectivity improvements.

Bicycle Trip Generation

The 680 Rhode Island Avenue development is expected to generate 31 bicycle trips (14 inbound, 17 outbound) during the morning peak hour and 76 bicycle trips (39 inbound, 37 outbound) during the afternoon peak hour following Phase 1. Following the full buildout, the proposed development is expected to generate 128 bicycle trips (60 inbound, 68 outbound) during the morning peak hour and 301 bicycle trips (156 inbound, 145 outbound) during the afternoon peak hour. Although bicycling will be an important mode for getting to and from the site, with significant facilities located on site and existing and planned routes to and from the site, the impacts from bicycling will be relatively less than impacts to other modes.

At the request of DDOT, an analysis of daily bicycle volumes was conducted using DDOT's bicycle counter that is present on the Metropolitan Branch Trail near the northern tip of the site. The results of the analysis show that the Metropolitan Branch Trail in the vicinity of the site is woefully underutilized and can absorb the additional trips that will be generated by this development. For the period of 2015, the average AM peak hour was between 8:00AM-9:00AM with an average of 61 southbound and 14 northbound trips. The average PM peak hour was between 5:00PM-6:00PM with an average of 16 southbound trips and 50 northbound trips. In both the morning and afternoon peak hours, there is barely more than one (1) bicycle trip per minute on the Metropolitan Branch Trail. Detailed information gathered from the bicycle counter on the Metropolitan Branch Trail can be found in the Technical Appendix.

On-Site Bicycle Elements

The project will provide amenities that cater to cyclists, including short-term bicycle racks around the perimeter of the

site and on-site secure long-term bicycle parking as well as bike service areas. The proposed development will meet or exceed the amount of bicycle parking that is required by Zoning Regulations and the *DC Zoning Regulation and Bicycle Commuter and Parking Expansion Act of 2007*;

Exact numbers and locations of short-term bicycle racks have not yet been determined; however it is expected that bicycle racks will be located in the interior and along the perimeter of the site. Each inverted "U" shaped bicycle rack will comply with DDOT's *Bicycle Rack Design and Placement Guidelines*. The Applicant is working in conjunction with DDOT to determine the exact locations of bicycle racks within public space.

In conjunction with the construction of Phase 1, an 8' cycle track with 3' buffer will be constructed along the east-west roadway that is in place under existing conditions that will link 4th Street and the Metropolitan Branch Trail. Proposed improvements to the Metropolitan Branch Trail on behalf of the development are planned for Phase 1, and will further improve bicycle access and connectivity to and from the site.

Under full buildout conditions, a 10' wide cycle track with 3' buffer will be constructed along Bryant Street that will link 4th Street and the Metropolitan Branch Trail. A total of 12,300 square feet of private land is being dedicated to provide a public-accessible amenity which will greatly improve bicycle connectivity in the area.

Additionally, the Applicant has agreed to fund the installation of a Capital Bikeshare station within the perimeter of the site and fund the station's operation and maintenance for its first year. The exact location of the station has not yet been determined; however, it will be located in an area that is convenient to both residents and patrons of the development and the surrounding neighborhood.



Figure 56: Existing Bicycle Facilities



CRASH DATA ANALYSIS

This section of the report reviews available crash data within the study area, reviews potential impacts of proposed development on crash rates, and makes recommendations for mitigation measures where needed.

SUMMARY OF AVAILABLE CRASH DATA

A crash analysis was performed to determine if there was an abnormally high crash rate at any study area intersection. DDOT provided the last three years of intersection crash data, from 2012 to 2014 for the study area. This data was reviewed and analyzed to determine the crash rate at each location. For intersections, the crash rate is measured in crash per million-entering vehicles (MEV). The crash rates per intersections are shown in Table 15.

According to the Institute of Transportation Engineers' *Transportation Impact Analysis for Site Development*, a crash rate of 1.0 or higher is an indication that further study is required. Five intersections in this study area meet this criterion (as shown in red in Table 15 and detailed in Table 16). The 680 Rhode Island Avenue development should be

developed in a manner to help alleviate, or at minimum not add to, the conflicts at these intersections.

A rate over 1.0 does not necessarily mean there is a significant problem at an intersection, but rather it is a threshold used to identify which intersections may have higher crash rates due to operational, geometric, or other deficiencies. Additionally, the crash data does not provide detailed location information. In some cases, the crashes were located near the intersections and not necessarily within the intersection.

For these five intersections, the crash type information from the DDOT crash data was reviewed to see if there is a high percentage of certain crash types. Generally, the reasons for why an intersection has a high crash rate cannot be derived from crash data, as the exact details of each crash are not represented. However, some summaries of crash data can be used to develop general trends or eliminate possible causes. Table 16 contains a breakdown of crash types reported for the five intersections with a crash rate over 1.0 per MEV.

POTENTIAL IMPACTS

This section reviews the five locations with existing crash rates over 1.0 MEV and reviews potential impacts of the proposed development.

Table 15: Intersection Crash Rates

Intersection	Total Crashes	Ped Crashes	Bike Crashes	Rate per MEV*
Rhode Island Avenue & Lincoln Road NE	20	1	0	0.45
Rhode Island Avenue & 2nd Street NE	12	0	0	0.35
Rhode Island Avenue & 3rd Street NE	26	2	0	0.72
Rhode Island Avenue & W Street NE	26	2	0	0.78
Rhode Island Avenue & 4th Street NE	50	7	0	1.11
Rhode Island Avenue & 5th Street NE	48	4	0	1.23
Rhode Island Avenue & Reed Street/Washington Place NE	90	9	0	1.92
Rhode Island Avenue & 10th Street/Bryant Street NE	33	1	0	0.87
4th Street & W Street NE	5	0	0	0.57
4th Street & Bryant Street NE	8	0	0	0.51
4th Street & Channing St/Block 3 Driveway NE	2	0	0	0.13
4th Street & Edgewood Street NE	6	2	0	0.39
4th Street & Douglas Street NE	2	0	0	0.17
4th Street & Franklin Street NE	23	3	0	0.82
6th Street & Franklin Street NE	15	0	0	0.82
7th Street & Edgewood Street NE	6	2	0	0.65
7th Street & Franklin Street NE	12	2	0	0.48
10th Street & Franklin Street NE	13	0	0	0.52
12th Street & Franklin Street NE	27	1	0	1.02
Lincoln Road & Bryant Street NE	12	0	0	1.08

* - Million Entering Vehicles; Volumes estimated based on turning movement count data



- Rhode Island Avenue & 4th Street NE

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of approximately 1.11 crashes per MEV over the course of the 3-year study period. The majority of crashes at this intersection were either rear-end crashes or side swipes. High rear-end crashes are more typical at signalized intersections and may be elevated due to the atypical geometry of the intersection. Based on the crash report, side swiped vehicles are more prevalent along the roadways entering the intersection, but within 100 feet of the intersection. This may be due to parked vehicles entering the roadway, traveling vehicles avoiding parked cars, or vehicles trying to move around turning vehicles.

This report does not recommend mitigation measures at this intersection as the proposed development is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.

- Rhode Island Avenue & 5th Street NE

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of approximately 1.23 crashes per MEV. The majority of crashes at this intersection were rear-end crashes and side swiped vehicles. Higher number of rear-end crashes are more typical at signalized intersections and may be elevated due to the atypical geometry of the intersection. Based on the crash reports, the majority of side swipes happened away from the intersection and on private property. This may be due to the abundance of surface parking lots that surround the intersection.

The safety concerns at this intersection are primarily due to operations on adjacent surface parking lots; thus no improvements are recommended as part of the PUD.

- Rhode Island Avenue & Reed Street/Washington Place NE

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of 1.92 crashes per MEV. The majority of crashes at this intersection are rear end crashes and side swipes. Higher number of rear-end crashes are more typical at signalized intersections and may be elevated due to the atypical geometry of the intersection. Based on the crash report, incidents of side swiped vehicles are occurring at the intersection and within 100 feet of the intersection on Rhode Island Avenue. This may be due to double right-hand turns present for northbound traffic as

well as the abundance of private driveways along Rhode Island Avenue near the intersection.

This report does not recommend mitigation measures at this intersection as the proposed development is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.

- 12th Street & Franklin Street NE

This intersection is barely over the threshold of 1.0 crashes per MEV, with a rate of approximately 1.02 crashes per MEV over the course of the 3-year study period. The majority of crashes at this intersection were rear end crashes. High number of rear-end crashes are more typical at signalized intersections.

This report does not recommend mitigation measures at this intersection as the proposed development is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.

- Lincoln Road & Bryant Street NE

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of approximately 1.08 crashes per MEV. The majority of crashes involved parked cars, with the elevated crash rate more likely affected by the low volumes at the intersection than any other contributing factor.

This report does not recommend mitigation measures at this intersection as the proposed development is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.



Table 16: Crash Type Breakdown

Intersection	Rate per MEV	Right Angle	Left Turn	Right Turn	Rear End	Side Swiped	Head On	Parked	Fixed Object	Ran Off Road	Ped. Involved	Backing	Under/Over Ride	Unspecified	Other	Total
Rhode Island Avenue & 4th Street NE	1.11	1 2%	3 6%	2 4%	15 30%	10 20%	3 6%	0 0%	1 2%	0 0%	7 14%	1 2%	0 0%	5 10%	2 4%	50
Rhode Island Avenue & 5th Street NE	1.23	5 10%	5 10%	1 2%	18 38%	9 19%	1 2%	2 4%	0 0%	1 2%	3 6%	1 2%	0 0%	1 2%	1 2%	48
Rhode Island Avenue & Reed Street/Washington	1.92	5 6%	9 10%	1 1%	27 30%	19 21%	1 1%	4 4%	4 4%	0 0%	9 10%	2 2%	0 0%	5 6%	4 4%	90
12th Street & Franklin Street NE	1.02	4 15%	3 11%	0 0%	7 26%	5 19%	1 4%	1 4%	2 7%	0 0%	1 4%	0 0%	0 0%	0 0%	3 11%	27
Lincoln Road & Bryant Street NE	1.08	0 0%	0 0%	0 0%	1 8%	3 25%	2 17%	5 42%	0 0%	0 0%	0 0%	1 8%	0 0%	0 0%	0 0%	12



SUMMARY AND CONCLUSIONS

This report presents the findings of a Transportation Impact Study (TIS) for the 680 Rhode Island Avenue development. The purpose of this study is to evaluate whether the project will generate a detrimental impact to the surrounding transportation network. This evaluation is based on a technical comparison of the existing conditions, two background conditions, and two future conditions. This report concludes that **the project will not have a detrimental impact** to the surrounding transportation network assuming that all planned site design elements are implemented.

Proposed Project

The planned development will replace the underutilized strip shopping center and associated surface parking lot with a mixed-use project with a thriving pedestrian-friendly environment. The site is located in the Edgewood neighborhood, in the Northeast quadrant of Washington, DC. The site is generally bound by the Metropolitan Branch Trail and Metrorail Red Line tracks to the east, Rhode Island Avenue to the south, 4th Street to the west, and a residential development to the north.

The project consists of six blocks, nine buildings, and seven phases as follows:

- Phase 1 of the development will be a consolidated PUD and will include Blocks 1A, 1B and 5B. Over the three buildings, representing all of Block 1 and half of Block 5, Phase 1 will include up to 484 residential units, 85,190 square feet of retail, and 23,250 square feet of office space.
- Phase 2 of the development will include Block 2B. Phase 2 of the development will include a 950 seat movie theatre and 7,160 square feet of retail.
- Phase 3 of the development will include Block 3. Phase 3 will include 368 dwelling units and 82,558 square feet of grocery space.
- Phase 4 will include Block 2A, the second half of Block 2, and is a single structure with up to 336 dwelling units and 30,106 square feet of retail.
- Phase 5 will include Block 4, a single structure with up to 163 dwelling units and 19,595 square feet of retail.
- Phase 6 will include Block 5A, the second half of Block 5, and is a single structure with up to 164 dwelling units and 17,685 square feet of retail.

- Phase 7 will include Block 6, a single structure with up to 116 dwelling units and 8,828 square feet of retail.

As part of the development, the internal roadway network will be reconfigured. The main internal east-west spine will be shifted northward and aligned as an extension of Bryant Street at the intersection of Bryant Street and 4th Street. The PUD takes advantage of the size of the development to reconfigure and enhance the internal roadway network. The existing internal roadway system and surface parking lot is auto-centric, set back from the street, with little neighborhood connectivity. The proposed internal roadway configuration integrates the site with the surrounding neighborhood, harnessing the benefits of being proximately located to the Metropolitan Branch Trail as well as the Metrorail.

Vehicular and loading access will be through two internal roadways that intersect Rhode Island Avenue, and through two internal roadways that intersect with 4th Street. The internal roadways intersecting public streets will connect to the extension of Bryant Street, an internal roadway which will act as the east-west spine running through the site providing access to all the blocks.

The reconfiguration of internal roadways within the site will improve pedestrian connectivity within and through the site, and create a more welcoming and safer feeling environment.

Within the site, the development will result in new or improved sidewalks along the interior and perimeter of the site. This will be particularly impactful along Rhode Island Avenue, where sidewalks do not meet DDOT standards and along the internal roadways of the site, where no pedestrian facilities currently exist. Pedestrian facilities along Bryant Street and all other internal roadways are expected to meet or exceed DDOT requirements with an emphasis on pedestrian safety and comfort. This includes sidewalks that meet or exceed the width requirements, crosswalks at all necessary locations, curb ramps with detectable warnings, and additional design elements such as curb extensions and room for outdoor seating. In addition, the construction of an urban plaza at the eastern edge of the site will coincide with proposed improvements to the Metropolitan Branch Trail. The urban plaza will engage directly with the Metropolitan Branch Trail and the Rhode Island Avenue Metrorail station pedestrian access bridge. Pedestrians will be seen as the primary users of the plaza such that automobiles will travel at lower speeds and yield to



pedestrians. The combination of low speeds and aesthetically-pleasing design elements creates a pedestrian environment that is safe, functional, and visually appealing.

The development will supply long-term bicycle parking within all blocks of the development, and short-term bicycle parking in and around the perimeter of the site. The applicant will also fund the installation of a Capital Bikeshare station on-site, as well as the operations and maintenance of the station for one year.

Multi-Modal Impacts and Recommendations

Transit

The site is well served by regional and local transit services such as Metrorail and Metrobus. The site is less than 0.1 miles from the Rhode Island Avenue Metrorail station serving the Red Line. Metrobus stops are located near the site along 4th Street, Rhode Island Avenue, Edgewood Street, and at the Rhode Island Avenue Metrorail station.

Although the development will be generating new transit trips, existing facilities have sufficient capacity to handle the new trips.

Pedestrian

The site is surrounded by a well-connected pedestrian network. Most roadways within a quarter-mile radius provide sidewalks and acceptable crosswalks and curb ramps, particularly along the primary walking routes. There are some pedestrian barriers surrounding the site, such as limited connectivity due to the rail tracks to the east and grade between the site and the residential development to the north.

As a result of the development, pedestrian facilities along the perimeter of the site will be improved, particularly along Rhode Island Avenue. The development will ensure that sidewalks along the interior of the site meet or exceed DDOT width requirements and provide an adequate pedestrian environment. The construction of an urban plaza as well as improvements to the Metropolitan Branch Trail will further enhance pedestrian facilities within and without the site. In addition, stair connections to the residential development to the north will add connectivity for residents that live north of the site to and through the PUD.

Bicycle

The site has access to existing on- and off-street bicycle facilities. The Metropolitan Branch Trail travels along the

Metrorail Red Line tracks and the 4th Street bicycle lanes provide an additional north-south connection. On-site and in conjunction with the construction of Phase 1, an 8-foot cycle track with a 3-foot buffer will be constructed along the east-west roadway that is in place under existing conditions that will link 4th Street and the Metropolitan Branch Trail. Proposed improvements to the Metropolitan Branch Trail on behalf of the development are planned for Phase 1, and will further improve bicycle access and connectivity to and from the site.

Under full buildout conditions, a 10-foot-wide cycle track with a 3-foot buffer will be constructed along Bryant Street that will link 4th Street and the Metropolitan Branch Trail. A total of 12,300 square feet of private land is being dedicated to provide a public accessible amenity which will greatly improve bicycle connectivity in the area.

The development will supply long-term bicycle parking within all garages of the development, and short-term bicycle parking in and around the perimeter of the site. The applicant will also fund the installation of a Capital Bikeshare station on-site, as well as the operations and maintenance of the Station for one year.

Vehicular

The proposed development is well-connected to regional roadways such as I-395, primary and minor arterials such as Rhode Island Avenue and North Capitol Street, and an existing network of collector and local roadways.

In order to determine if the proposed development will have a negative impact on this transportation network, this report projects future conditions with and without the development of the site and performs analyses of intersection delays. Due to the phased nature of this development, this analysis included two background conditions, and two future conditions with Phase 1 and full build-out of the site. The delays associated with each analysis scenario are compared to the acceptable levels of delay set by DDOT standards to determine if the site will negatively impact the study area. The analyses concluded that the planned development will not have adverse impacts on the surrounding transportation network.

The analysis concluded that four (4) intersections required mitigation as a result of either Phase 1 or the full buildout of the development. Mitigation measures were proposed as follows:



- *Rhode Island Avenue & Lincoln Road NE*
This report recommends this intersection be improved with signal timing adjustments to allow greater volumes to move across Lincoln Road NE.
- *Rhode Island Avenue & 4th Street NE*
This report recommends this intersection be improved with signal timing adjustments to allow greater volumes to move across 4th Street NE.
- *Channing Street & 4th Street NE*
This report recommends this intersection be improved with a new traffic signal as well as the reconfiguration of the westbound approach to consolidate the Edgewood Commons and 680 Rhode Island Avenue PUD driveways into one approach at full buildout of the development.
- *Franklin Street & 4th Street NE*
This report defers to DDOT's Signal Optimization Project, which plans to improve the levels of service at this intersection.

Summary and Recommendations

This report concludes that the proposed development will not have a detrimental impact to the surrounding transportation network assuming that all planned site design elements are implemented.

The PUD has several positive elements contained within its design that minimize potential transportation impacts, including:

- The site's close proximity to Metrorail.
- The removal of existing internal roadways and subsequent replacing with new internal roadways provides an upgrade in the urban fabric of the network, fits future planning efforts, and significantly increases the site's porosity for all modes of travel.
- The inclusion of secure long-term bicycle parking spaces within all garages of the development that meet or exceed zoning requirements and the installation of a new Capital Bikeshare Station.
- The creation of approximately 44,000 square feet of green space, 12,500 square feet of public plaza space, 88,500 square feet of internal roadways that are open to the public, and 12,300 square feet of bike trails running through the site.

This report analyzed the potential impacts of the PUD, and concluded that the PUD will not have a detrimental impact to the surrounding transportation network, as long as the project implements the recommendations as follows:

- Signal timing improvements to the intersection of Rhode Island Avenue and Lincoln Road NE.
- Signal timing improvements to the intersection of Rhode Island Avenue and 4th Street NE.
- Signal timing improvements to the intersection of Franklin Street and 4th Street NE.
- A new traffic signal and consolidation of the westbound driveways at the intersection of Channing Street and 4th Street NE.
- Installing/upgrading curb ramps and crosswalks as necessary around the site.
- Implementing the Transportation Demand Management (TDM) plan detailed within the body of this report.
- Installing a Capital Bikeshare station within the development in conjunction with DDOT.