

Figure 28: Removal of Existing Site Volumes

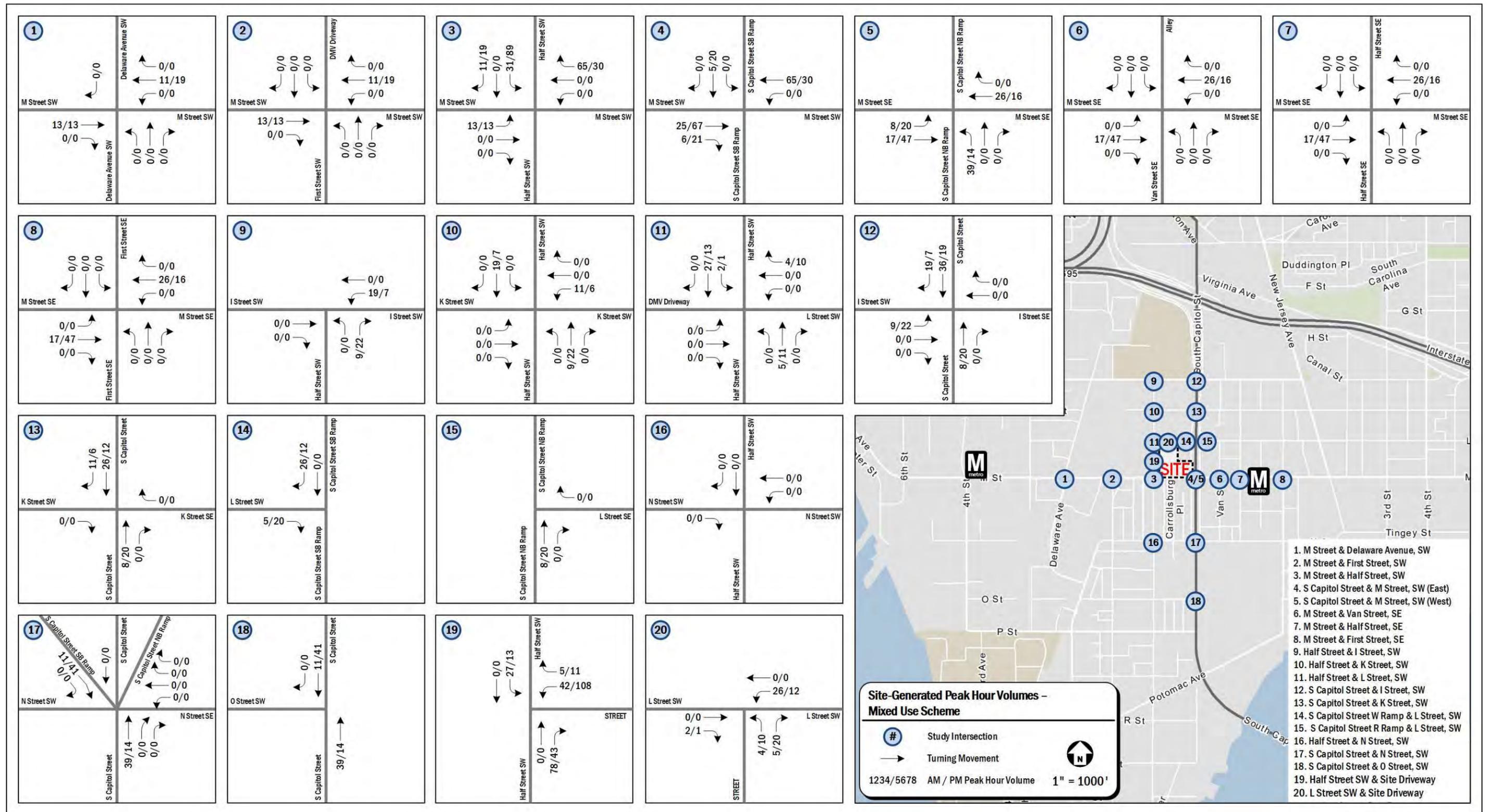


Figure 29: Site-Generated Peak Hour Volumes – Mixed-Use Scheme

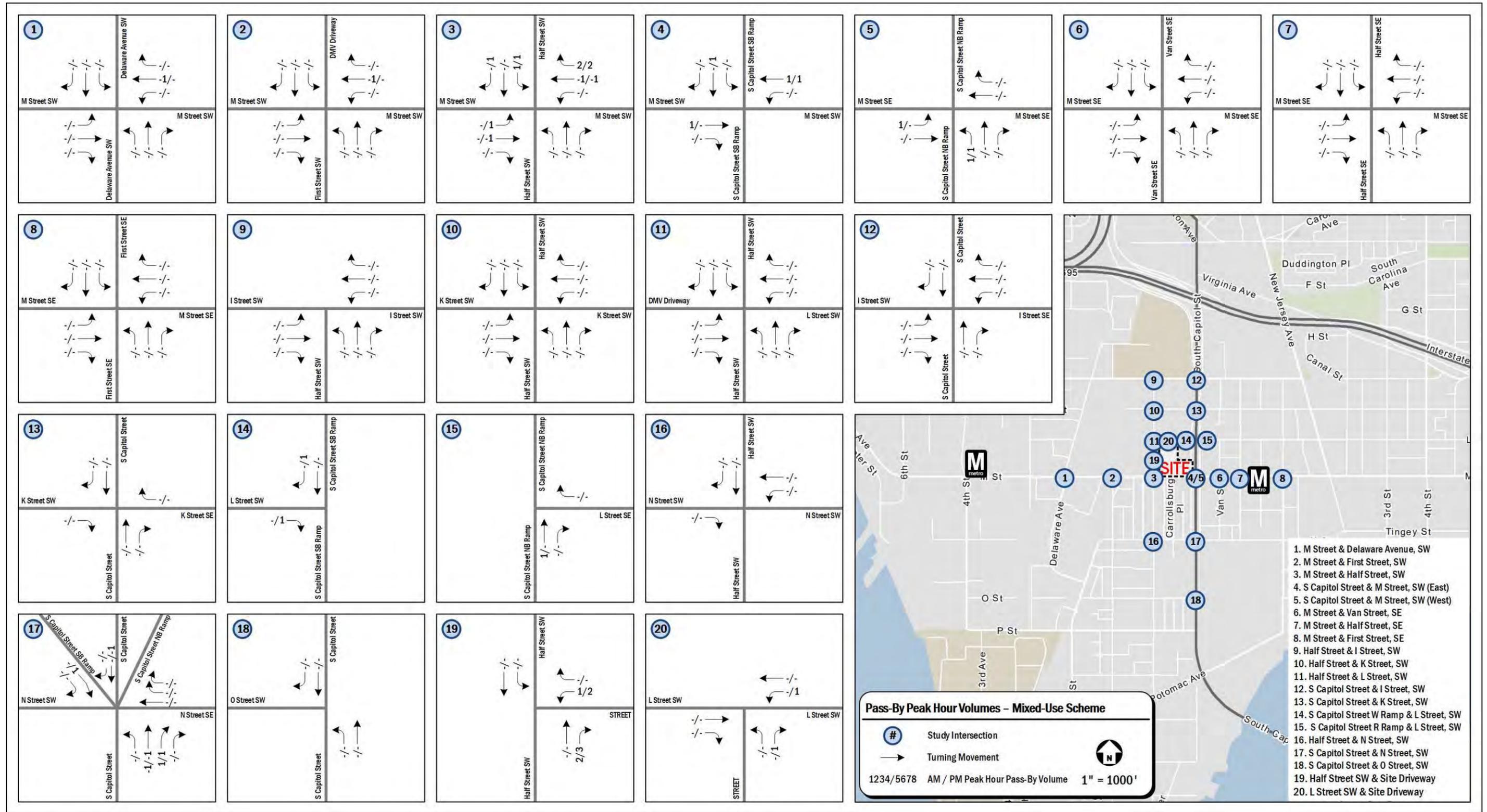


Figure 30: Pass-By Peak Hour Volumes – Mixed-Use Scheme

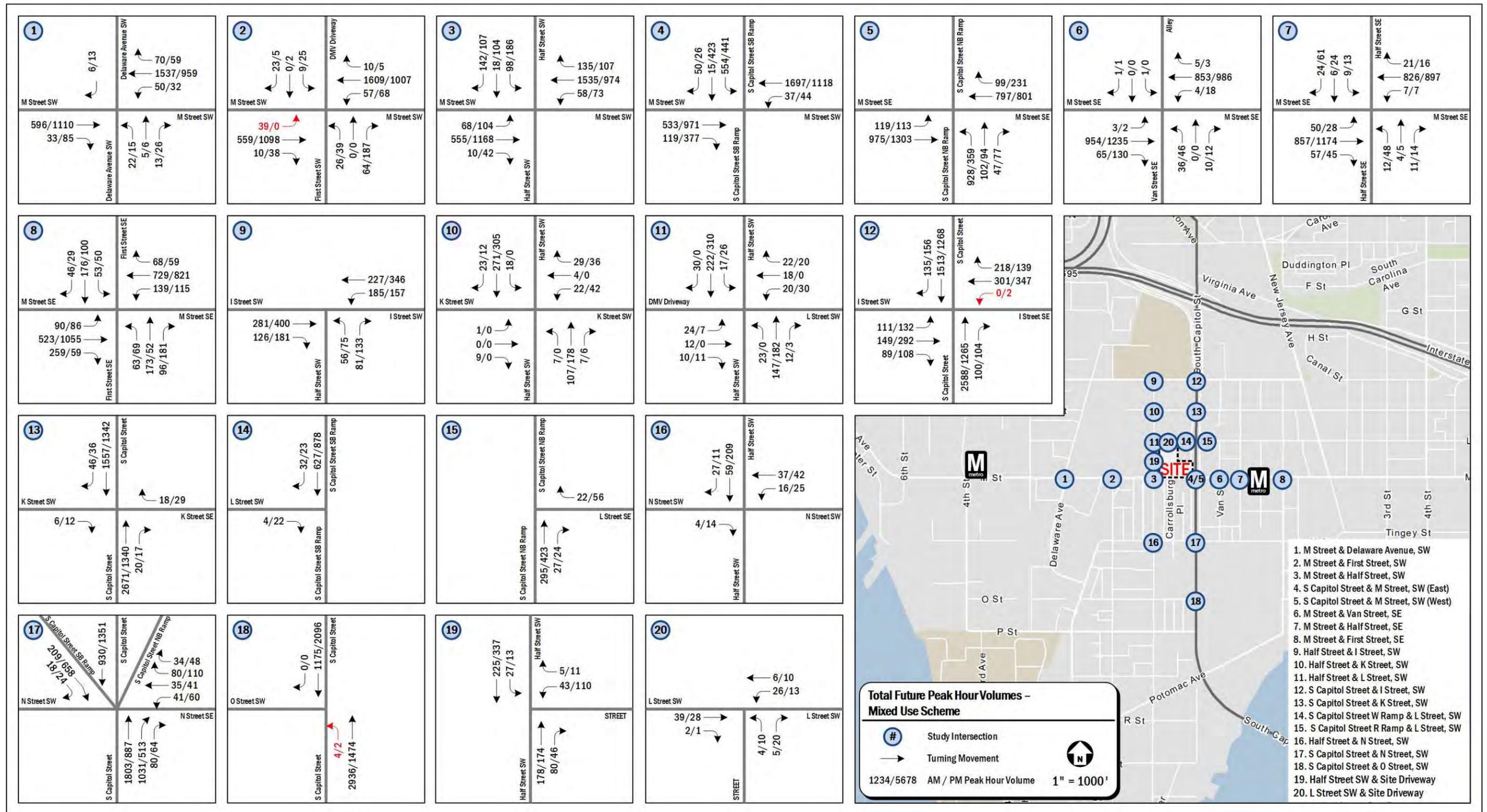


Figure 31: Total Future Peak Hour Traffic Volumes – Mixed-Use Scheme

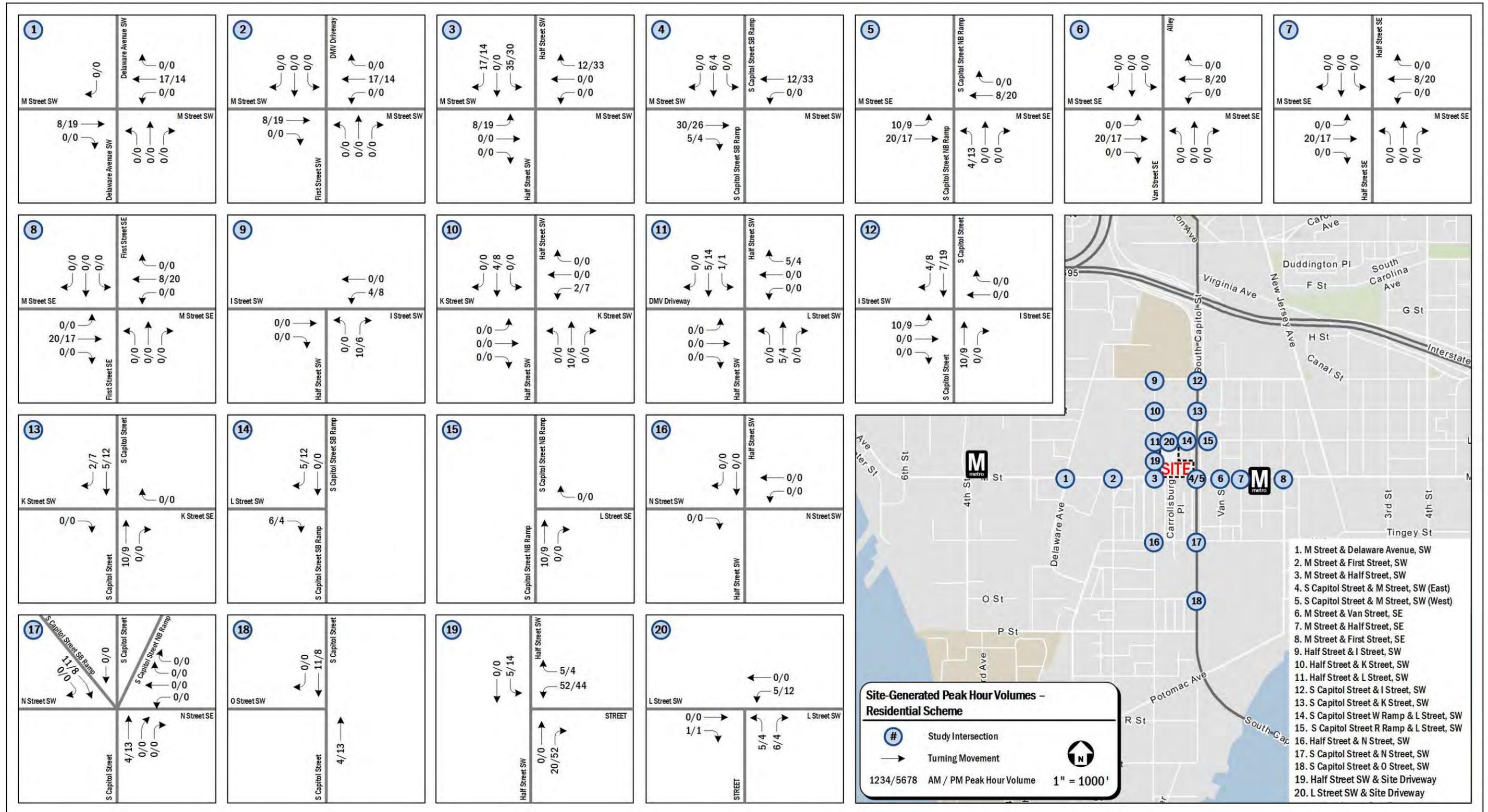


Figure 32: Site-Generated Peak Hour Volumes - Residential Scheme

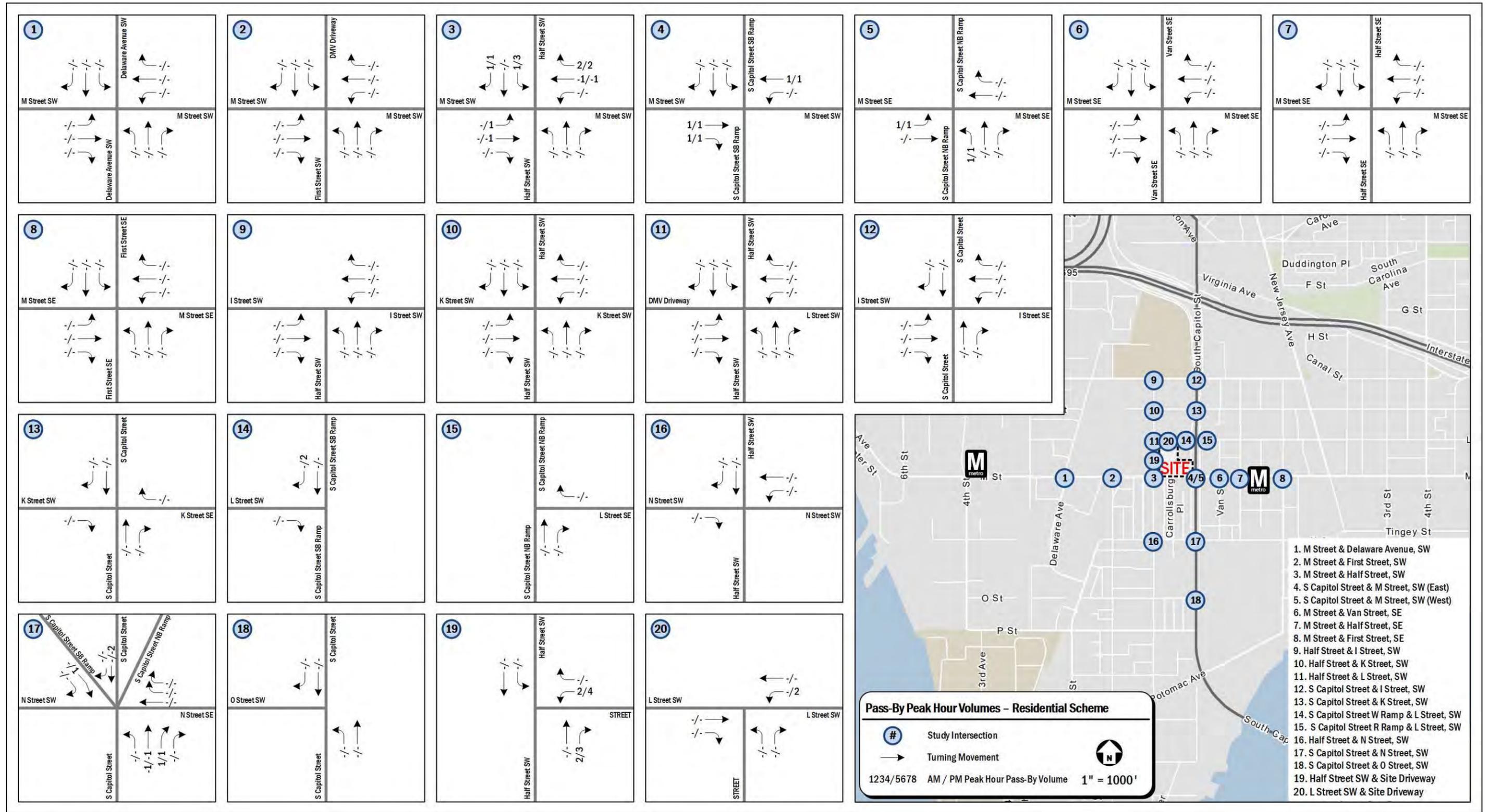


Figure 33: Pass-By Peak Hour Traffic Volumes – Residential Scheme

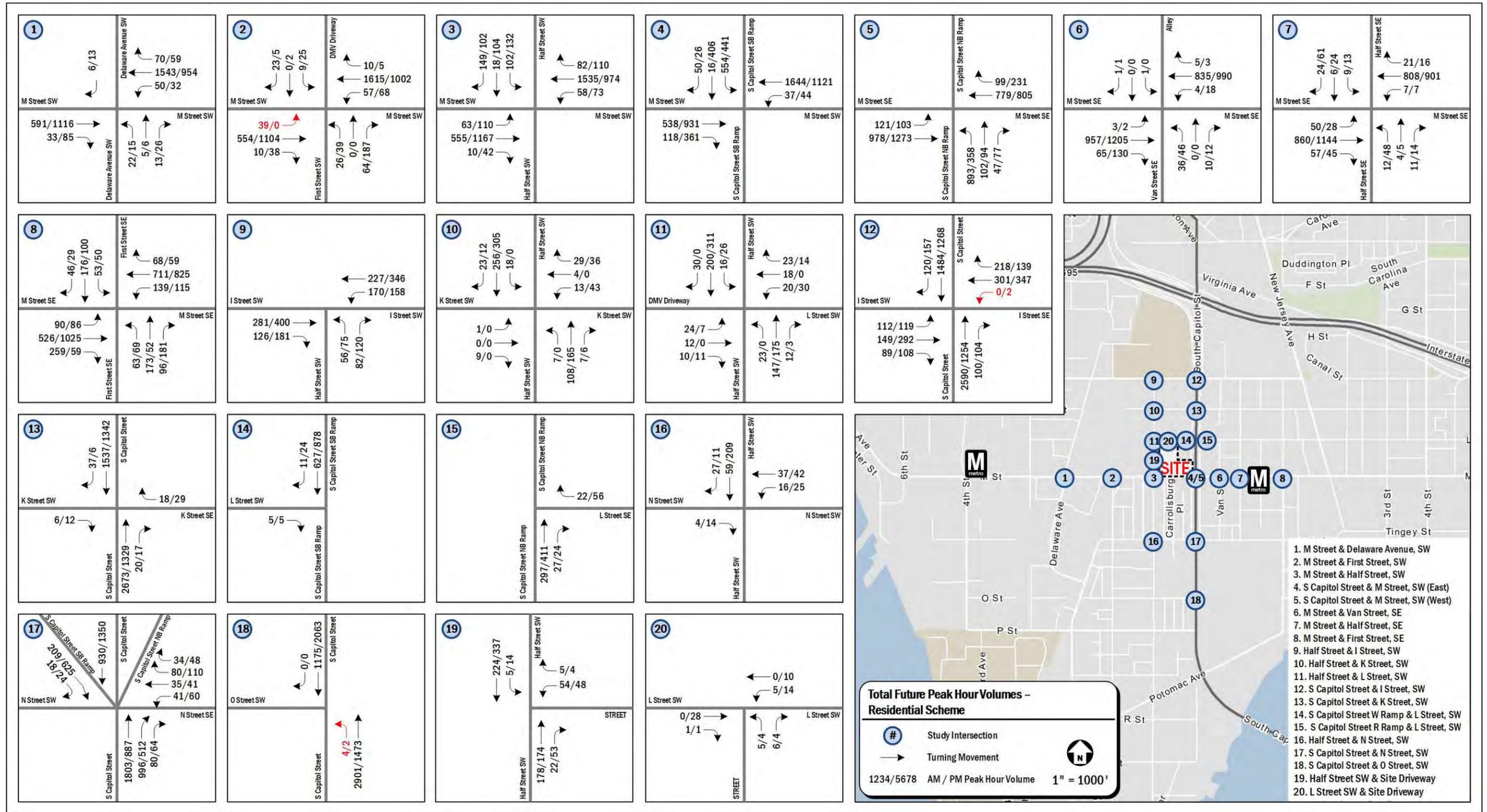


Figure 34: Total Future Peak Hour Traffic Volumes – Residential Scheme

Table 12: LOS Results

Intersection and Approach	Existing (2020)								Background (2024)								Mixed-Use Scheme								Residential Scheme							
	Future (2024)				Future (2024) with Mitigations				Future (2024)				Future (2024) with Mitigations																			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak									
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS								
<b>1. Delaware Ave SW &amp; M St SW</b>																																
<b>Overall</b>	5.6	A	9.1	A	6.4	A	10.8	B	6.3	A	10.8	B	--	--	--	--	6.4	A	10.8	B	--	--	--	--								
Eastbound	11.2	B	12.6	A	12.1	B	14.1	B	12.1	B	14.2	B	--	--	--	--	12.1	B	14.2	B	--	--	--	--								
Westbound	2.9	A	3.3	A	3.6	A	5.8	A	3.3	A	5.7	A	--	--	--	--	3.5	A	5.8	A	--	--	--	--								
Northbound	32.4	C	32.1	C	32.4	C	32.1	C	32.4	C	32.1	C	--	--	--	--	32.4	C	32.1	C	--	--	--	--								
Southbound	30.9	C	31.0	C	30.9	C	31.0	C	30.9	C	31.0	C	--	--	--	--	30.9	C	31.0	C	--	--	--	--								
<b>2. First St SW &amp; M St SW</b>																																
<b>Overall</b>	10.2	B	13.1	B	12.9	B	13.8	B	13.0	B	14.0	B	--	--	--	--	12.1	B	14.0	B	--	--	--	--								
Eastbound	13.7	B	11.7	B	14.3	B	12.9	B	14.3	B	13.0	B	--	--	--	--	14.3	B	13.0	B	--	--	--	--								
Westbound	6.5	A	4.8	A	10.4	B	7.8	A	10.5	B	8.2	A	--	--	--	--	9.2	A	8.2	A	--	--	--	--								
Northbound	34.5	C	41.9	D	34.5	C	41.9	D	34.5	C	41.9	D	--	--	--	--	34.5	C	41.9	D	--	--	--	--								
Southbound	58.6	E	51.3	D	58.6	E	51.3	D	58.6	E	51.3	D	--	--	--	--	58.6	E	51.3	D	--	--	--	--								
<b>3. Half St SW &amp; M St SW</b>																																
<b>Overall</b>	15.8	B	9.7	A	19.3	B	13.4	B	21.9	C	22.2	C	15.0	B	12.7	B	21.3	C	13.5	B	14.4	B	--	--								
Eastbound	4.7	A	4.7	A	9.4	A	5.6	A	11.0	B	5.9	A	17.2	B	9.2	A	7.5	A	6.1	A	12.1	B	--	--								
Westbound	17.2	B	1.5	A	17.9	B	1.6	A	18.1	B	1.6	A	8.0	A	3.4	A	17.0	B	1.7	A	8.6	A	--	--								
Southbound	41.7	D	55.5	E	58.9	E	83.5	F	73.2	E	136.0	F	55.8	E	51.0	D	79.7	E	82.7	F	55.4	E	--	--								
<b>4. W S Capitol St Service Rd &amp; M St SW</b>																																
<b>Overall</b>	24.3	C	38.5	D	34.9	C	46.2	D	30.4	C	46.8	D	--	--	--	--	31.0	C	44.0	D	--	--	--	--								
Eastbound	53.5	D	37.6	D	57.7	E	46.4	D	56.4	E	46.0	D	--	--	--	--	56.0	E	45.3	D	--	--	--	--								
Westbound	0.6	A	0.8	A	0.8	A	0.8	A	0.9	A	0.8	A	--	--	--	--	0.8	A	0.8	A	--	--	--	--								
Southbound	67.3	E	83.8	F	101.4	F	104.4	F	85.9	F	108.1	F	--	--	--	--	86.2	F	99.8	F	--	--	--	--								
<b>5. E S Capitol St Service Rd &amp; M St SE</b>																																
<b>Overall</b>	39.0	D	22.8	C	47.9	D	25.5	C	50.1	D	25.8	C	--	--	--	--	45.8	D	26.0	C	--	--	--	--								
Eastbound	5.5	A	2.1	A	7.6	A	3.9	A	7.5	A	4.1	A	--	--	--	--	7.4	A	3.8	A	--	--	--	--								
Westbound	50.1	D	34.6	C	81.1	F	40.9	D	84.5	F	41.2	D	--	--	--	--	78.5	E	41.4	D	--	--	--	--								
Northbound	57.2	E	48.5	D	61.5	E	52.9	D	64.8	E	53.8	D	--	--	--	--	58.6	E	53.6	D	--	--	--	--								
<b>6. Van St SE &amp; M St SE</b>																																
Eastbound	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	--	--	--	--	0.0	A	0.0	A	--	--	--	--								
Westbound	0.0	A	0.2	A	0.1	A	0.3	A	0.1	A	0.3	A	--	--	--	--	0.1	A	0.3	A	--	--	--	--								
Northbound	13.1	B	17.5	C	59.2	F	93.0	F	60.7	F	96.3	F	--	--	--	--	60.2	F	94.0	F	--	--	--	--								
Southbound	14.9	B	8.9	A	25.9	D	12.1	B	26.3	D	12.1	B	--	--	--	--	25.7	D	12.1	B	--	--	--	--								
<b>7. Half St SE &amp; M St SE</b>																																
<b>Overall</b>	8.6	A	10.4	B	11.1	B	17.9	B	11.2	B	18.8	B	--	--	--	--	11.2	B	17.7	B	--	--	--	--								
Eastbound	10.8	B	12.1	B	15.3	B	24.2	C	15.4	B	25.8	C	--	--	--	--	15.4	B	23.9	C	--	--	--	--								
Westbound	5.5	A	5.9	A	5.6	A	8.2	A	5.6	A	8.3	A	--	--	--	--	5.6	A	8.4	A	--	--	--	--								
Northbound	20.8	C	20.9	C	21.2	C	22.8	C	21.2	C	22.8	C	--	--	--	--	21.2	C	22.8	C	--	--	--	--								

Intersection and Approach	Existing (2020)								Background (2024)								Mixed-Use Scheme								Residential Scheme							
	Existing (2020)				Background (2024)				Future (2024)				Future (2024) with Mitigations				Future (2024)				Future (2024) with Mitigations											
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak									
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS								
Southbound	21.8	C	25.8	C	22.3	C	26.2	C	22.3	C	26.2	C	--	--	--	--	22.3	C	26.2	C	--	--	--	--								
<b>8. First St SE &amp; M St SE</b>																																
<b>Overall</b>	<b>15.0</b>	<b>B</b>	<b>11.2</b>	<b>B</b>	<b>25.2</b>	<b>C</b>	<b>59.1</b>	<b>E</b>	<b>25.8</b>	<b>C</b>	<b>64.6</b>	<b>E</b>	--	--	<b>56.9</b>	<b>E</b>	<b>25.2</b>	<b>C</b>	<b>59.1</b>	<b>E</b>	--	--	--	--								
Eastbound	13.0	B	8.5	A	21.2	C	98.9	F	21.6	C	109.0	F	--	--	90.8	F	21.5	C	98.4	F	--	--	--	--								
Westbound	10.9	B	9.9	A	26.1	C	27.3	C	27.4	C	29.2	C	--	--	30.5	C	25.7	C	28.5	C	--	--	--	--								
Northbound	26.8	C	25.4	C	30.8	C	28.4	C	30.8	C	28.4	C	--	--	28.4	C	30.8	C	28.4	C	--	--	--	--								
Southbound	23.8	C	21.8	C	27.9	C	24.4	C	27.9	C	24.4	C	--	--	24.4	C	27.9	C	24.4	C	--	--	--	--								
<b>9. Half St SW &amp; Eye St SW</b>																																
Eastbound	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	--	--	0.0	A	0.0	A	0.0	A	--	--	0.0	A								
Westbound	2.9	A	3.2	A	4.8	A	4.5	A	5.1	A	4.6	A	--	--	4.6	A	4.8	A	4.7	A	--	--	4.7	A								
Northbound	12.6	B	14.6	B	19.8	C	44.9	E	21.2	C	50.0	E	--	--	47.1	E	19.9	C	49.3	E	--	--	46.5	E								
<b>10. Half St SW &amp; K St SW</b>																																
Eastbound	9.3	A	0.0	A	10.2	B	0.0	A	10.3	B	0.0	A	--	--	--	--	10.2	B	0.0	A	--	--	--	--								
Westbound	9.6	A	9.3	A	10.4	B	11.8	B	11.3	B	12.4	B	--	--	--	--	10.6	B	12.3	B	--	--	--	--								
Northbound	0.8	A	0.0	A	0.6	A	0.0	A	0.5	A	0.0	A	--	--	--	--	0.5	A	0.0	A	--	--	--	--								
Southbound	0.9	A	0.0	A	0.6	A	0.0	A	0.6	A	0.0	A	--	--	--	--	0.6	A	0.0	A	--	--	--	--								
<b>11. Half St SW &amp; L St SW</b>																																
Eastbound	11.2	B	10.5	B	13.2	B	11.8	B	13.8	B	12.2	B	--	--	--	--	13.4	B	12.1	B	--	--	--	--								
Westbound	11.0	B	11.2	B	12.6	B	13.6	B	12.8	B	13.2	B	--	--	--	--	12.5	B	13.4	B	--	--	--	--								
Northbound	1.3	A	0.0	A	1.1	A	0.0	A	1.2	A	0.0	A	--	--	--	--	1.2	A	0.0	A	--	--	--	--								
Southbound	1.1	A	0.9	A	0.6	A	0.8	A	0.6	A	0.8	A	--	--	--	--	0.6	A	0.8	A	--	--	--	--								
<b>12. S Capitol St &amp; Eye St SW/SE</b>																																
<b>Overall</b>	<b>14.5</b>	<b>B</b>	<b>44.4</b>	<b>D</b>	<b>44.4</b>	<b>D</b>	<b>104.2</b>	<b>F</b>	<b>46.2</b>	<b>D</b>	<b>119.0</b>	<b>F</b>	--	--	<b>34.7</b>	<b>C</b>	<b>47.6</b>	<b>D</b>	<b>110.2</b>	<b>F</b>	<b>46.1</b>	<b>D</b>	<b>32.9</b>	<b>C</b>								
Eastbound	59.3	E	197.6	F	427.0	F	616.3	F	455.4	F	702.5	F	--	--	65.9	E	463.9	F	652.8	F	410.8	F	58.6	E								
Westbound	50.2	D	49.3	D	61.6	E	54.0	D	61.6	E	56.3	E	--	--	25.4	C	61.6	E	54.3	D	59.6	E	26.1	C								
Northbound	12.2	B	20.4	C	16.9	B	23.6	C	16.5	B	23.6	C	--	--	40.3	D	17.1	B	23.6	C	21.7	C	38.7	D								
Southbound	3.3	A	13.0	B	4.0	A	14.2	B	3.3	A	14.6	B	--	--	20.9	C	3.3	A	14.3	B	3.4	A	20.4	C								
<b>13. S Capitol St &amp; K St SW/SE</b>																																
Eastbound	8.9	A	8.8	A	9.0	A	9.0	A	9.0	A	9.0	A	--	--	--	--	9.0	A	9.0	A	--	--	--	--								
Westbound	19.4	C	11.5	B	21.3	C	12.5	B	21.3	C	12.5	B	--	--	--	--	21.3	C	12.5	B	--	--	--	--								
Northbound	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	--	--	--	--	0.0	A	0.0	A	--	--	--	--								
Southbound	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	--	--	--	--	0.0	A	0.0	A	--	--	--	--								
<b>14. S Capitol St &amp; L St SW</b>																																
Eastbound	10.3	B	11.2	B	10.8	B	12.0	B	10.7	B	12.3	B	--	--	--	--	10.7	B	12.1	B	--	--	--	--								
Southbound	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	--	--	--	--	0.0	A	0.0	A	--	--	--	--								
<b>15. S Capitol St &amp; L St SE</b>																																
Westbound	9.3	A	10.0	A	9.5	A	10.2	B	9.5	A	10.2	B	--	--	--	--	9.5	A	10.2	B	--	--	--	--								
Northbound	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	--	--	--	--	0.0	A	0.0	A	--	--	--	--								

Intersection and Approach	Existing (2020)				Background (2024)				Future (2024)				Future (2024) with Mitigations				Future (2024)				Future (2024) with Mitigations			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
<b>16. N St SW &amp; Half St SW</b>																								
Eastbound	7.3	A	7.0	A	7.3	A	7.0	A	7.3	A	7.0	A	--	--	--	--	7.3	A	7.0	A	--	--	--	--
Westbound	7.6	A	8.0	A	7.6	A	8.0	A	7.6	A	8.0	A	--	--	--	--	7.6	A	8.0	A	--	--	--	--
Southbound	7.6	A	8.7	A	7.6	A	8.7	A	7.6	A	8.7	A	--	--	--	--	7.6	A	8.7	A	--	--	--	--
<b>17. S Capitol St &amp; N St SW</b>																								
<b>Overall</b>	<b>41.4</b>	<b>D</b>	<b>95.1</b>	<b>F</b>	<b>46.3</b>	<b>D</b>	<b>100.9</b>	<b>F</b>	<b>48.8</b>	<b>D</b>	<b>108.2</b>	<b>F</b>	--	--	<b>101.0</b>	<b>F</b>	<b>51.0</b>	<b>D</b>	<b>98.0</b>	<b>F</b>	--	--	--	--
Westbound	55.2	E	58.3	E	60.6	E	79.6	E	60.6	E	79.6	E	--	--	79.6	E	60.6	E	79.6	E	--	--	--	--
Northbound	38.6	D	7.6	A	43.4	D	8.2	A	46.9	D	8.3	A	--	--	8.1	A	50.0	D	8.3	A	--	--	--	--
Southbound	38.5	D	48.3	D	38.4	D	53.0	D	37.6	D	53.4	D	--	--	56.8	E	38.0	D	53.1	D	--	--	--	--
<b>18. S Capitol St &amp; O St SW</b>																								
<b>Overall</b>	<b>6.4</b>	<b>A</b>	<b>1.3</b>	<b>A</b>	<b>8.2</b>	<b>A</b>	<b>1.6</b>	<b>A</b>	<b>8.4</b>	<b>A</b>	<b>1.7</b>	<b>A</b>	--	--	--	--	<b>2.1</b>	<b>A</b>	<b>1.6</b>	<b>A</b>	--	--	--	--
Northbound	8.1	A	2.2	A	10.6	B	2.5	A	10.9	B	2.5	A	--	--	--	--	1.4	A	2.5	A	--	--	--	--
Southbound	2.1	A	0.6	A	2.2	A	1.0	A	2.2	A	1.1	A	--	--	--	--	2.2	A	0.9	A	--	--	--	--
<b>19. Half Street &amp; Driveway SW</b>																								
Westbound	--	--	--	--	--	--	--	--	13.0	B	15.8	C	--	--	--	--	12.2	B	14.0	B	--	--	--	--
Northbound	--	--	--	--	--	--	--	--	0.0	A	0.0	A	--	--	--	--	0.0	A	0.0	A	--	--	--	--
Southbound	--	--	--	--	--	--	--	--	1.0	A	0.4	A	--	--	--	--	0.2	A	0.4	A	--	--	--	--
<b>20. L Street &amp; Driveway SW</b>																								
Eastbound	--	--	--	--	--	--	--	--	0.0	A	0.0	A	--	--	--	--	0.0	A	0.0	A	--	--	--	--
Westbound	--	--	--	--	--	--	--	--	5.9	A	4.1	A	--	--	--	--	3.4	A	4.4	A	--	--	--	--
Northbound	--	--	--	--	--	--	--	--	8.8	A	8.7	A	--	--	--	--	8.7	A	8.7	A	--	--	--	--

Table 13: v/c Comparison

Intersection and Movement	Existing (2020)				Background (2024)				Future (2024)				Future (2024) with Mitigations				Future (2024)				Future (2024) with Mitigations			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	v/c		v/c		v/c		v/c		v/c		v/c		v/c		v/c		v/c		v/c		v/c		v/c	
<b>1. Delaware Ave SW &amp; M St SW</b>																								
Eastbound TR	0.21		0.36		0.31		0.48		0.31		0.48		--		--		0.30		0.49		--		--	
Westbound L	0.16		0.13		0.20		0.20		0.08		0.20		--		--		0.20		0.20		--		--	
Westbound TR	0.62		0.29		0.74		0.40		0.74		0.41		--		--		0.74		0.41		--		--	
Northbound LTR	0.13		0.14		0.13		0.14		0.13		0.14		--		--		0.13		0.14		--		--	
Southbound R	0.02		0.03		0.02		0.03		0.02		0.03		--		--		0.02		0.03		--		--	
<b>2. First St SW &amp; M St SW</b>																								
Eastbound LTR	0.30		0.43		0.44		0.59		0.44		0.60		--		--		0.44		0.60		--		--	
Westbound L	0.14		0.26		0.17		0.35		0.17		0.35		--		--		0.17		0.35		--		--	

Intersection and Movement	Existing (2020)				Background (2024)				Mixed-Use Scheme				Residential Scheme			
	Existing (2020)		Background (2024)		Future (2024)		Future (2024) with Mitigations		Future (2024)		Future (2024) with Mitigations					
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak				
	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c				
Westbound TR	0.60	0.32	0.71	0.45	0.71	0.45	--	--	0.72	0.45	--	--				
Northbound LT	0.08	0.13	0.08	0.13	0.08	0.13	--	--	0.08	0.13	--	--				
Northbound R	0.21	0.61	0.21	0.61	0.21	0.61	--	--	0.21	0.61	--	--				
Southbound LTR	0.30	0.20	0.30	0.20	0.30	0.20	--	--	0.30	0.20	--	--				
<b>3. Half St SW &amp; M St SW</b>																
Eastbound L	0.39	0.13	0.85	0.47	0.89	0.51	1.00	0.64	0.76	0.55	0.86	--				
Eastbound TR	0.18	0.37	0.25	0.47	0.25	0.47	0.26	0.55	0.25	0.47	0.27	--				
Westbound L	0.14	0.28	0.17	0.38	0.17	0.38	0.18	0.47	0.17	0.38	0.18	--				
Westbound TR	0.60	0.29	0.67	0.40	0.68	0.42	0.71	0.48	0.65	0.42	0.70	--				
Southbound LTR	0.35	0.74	0.76	0.96	0.89	1.13	0.77	0.81	0.92	0.95	0.78	--				
<b>4. W S Capitol St Service Rd &amp; M St SW</b>																
Eastbound T	0.36	0.47	0.55	0.64	0.57	0.67	--	--	0.58	0.64	--	--				
Eastbound R	0.34	0.64	0.39	0.66	0.40	0.67	--	--	0.40	0.65	--	--				
Westbound LT	0.62	0.37	0.71	0.50	0.72	0.51	--	--	0.70	0.51	--	--				
Southbound L	0.85	0.68	1.02	0.97	0.96	0.95	--	--	0.96	0.95	--	--				
Southbound LTR	0.86	1.07	1.03	1.12	0.97	1.15	--	--	0.97	1.11	--	--				
<b>5. E S Capitol St Service Rd &amp; M St SE</b>																
Eastbound L	0.55	0.38	0.71	0.51	0.73	0.53	--	--	0.71	0.48	--	--				
Eastbound T	0.48	0.46	0.69	0.66	0.69	0.67	--	--	0.69	0.66	--	--				
Westbound TR	0.80	0.60	1.02	0.80	1.03	0.81	--	--	1.01	0.81	--	--				
Northbound L	0.92	0.64	0.94	0.72	0.96	0.73	--	--	0.92	0.74	--	--				
Northbound LTR	0.94	0.65	0.96	0.73	0.97	0.75	--	--	0.95	0.74	--	--				
<b>6. Van St SE &amp; M St SE</b>																
Eastbound LT	0.00	0.00	0.00	0.00	0.00	0.00	--	--	0.00	0.00	--	--				
Eastbound T	0.21	0.30	0.29	0.39	0.29	0.40	--	--	0.29	0.39	--	--				
Eastbound TR	0.13	0.18	0.18	0.28	0.18	0.28	--	--	0.18	0.28	--	--				
Westbound LT	0.00	0.02	0.01	0.03	0.01	0.03	--	--	0.01	0.03	--	--				
Westbound T	0.21	0.25	0.26	0.32	0.26	0.32	--	--	0.25	0.32	--	--				
Westbound TR	0.11	0.12	0.13	0.16	0.13	0.16	--	--	0.13	0.16	--	--				
Northbound LTR	0.01	0.02	0.42	0.65	0.43	0.66	--	--	0.43	0.65	--	--				
Southbound LTR	0.01	0.00	0.01	0.00	0.01	0.00	--	--	0.01	0.00	--	--				
<b>7. Half St SE &amp; M St SE</b>																
Eastbound LT	0.38	0.51	0.68	0.89	0.68	0.91	--	--	0.68	0.89	--	--				
Eastbound R	--	--	0.14	0.09	0.14	0.09	--	--	0.14	0.09	--	--				
Westbound LT	0.36	0.39	0.59	0.66	0.59	0.66	--	--	0.58	0.67	--	--				
Westbound R	--	--	0.05	0.05	0.05	0.05	--	--	0.05	0.05	--	--				
Northbound LTR	0.04	0.06	0.08	0.20	0.08	0.20	--	--	0.08	0.20	--	--				
Southbound LTR	0.11	0.35	0.15	0.37	0.15	0.37	--	--	0.15	0.37	--	--				
<b>8. First St SE &amp; M St SE</b>																
Eastbound LT	0.53	0.55	0.80	1.19	0.81	1.22	--	1.18	0.81	1.19	--	--				

Intersection and Movement	Existing (2020)				Background (2024)				Mixed-Use Scheme				Residential Scheme			
	AM Peak		PM Peak		AM Peak		PM Peak		Future (2024)		Future (2024) with Mitigations		Future (2024)		Future (2024) with Mitigations	
	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c
Eastbound R	--	--	0.55	0.11	0.55	0.11	--	0.11	0.55	0.11	--	--	0.55	0.11	--	--
Westbound LT	0.48	0.39	0.92	0.93	0.93	0.94	--	0.95	0.91	0.94	--	--	0.91	0.94	--	--
Westbound R	--	--	0.14	0.12	0.14	0.12	--	0.12	0.14	0.12	--	--	0.14	0.12	--	--
Northbound LTR	0.48	0.38	0.64	0.54	0.64	0.54	--	0.54	0.64	0.54	--	--	0.64	0.54	--	--
Southbound LTR	0.27	0.08	0.53	0.32	0.53	0.32	--	0.32	0.53	0.32	--	--	0.53	0.32	--	--
<b>9. Half St SW &amp; Eye St SW</b>																
Eastbound T	0.13	0.23	0.18	0.26	0.18	0.26	--	0.26	0.18	0.26	--	--	0.18	0.26	--	0.26
Eastbound R	0.06	0.10	0.08	0.12	0.08	0.12	--	0.12	0.08	0.12	--	--	0.08	0.12	--	0.12
Westbound LT	0.07	0.11	0.17	0.18	0.19	0.19	--	0.19	0.17	0.19	--	--	0.17	0.19	--	0.19
Northbound LR	0.17	0.20	0.37	0.73	0.41	0.78	--	0.76	0.39	0.76	--	--	0.39	0.76	--	0.75
<b>10. Half St SW &amp; K St SW</b>																
Eastbound LTR	0.01	0.00	0.02	0.00	0.02	0.00	--	--	0.02	0.00	--	--	0.02	0.00	--	--
Westbound LTR	0.06	0.06	0.07	0.13	0.09	0.15	--	--	0.07	0.15	--	--	0.07	0.15	--	--
Northbound LTR	0.01	0.00	0.01	0.00	0.01	0.00	--	--	0.01	0.00	--	--	0.01	0.00	--	--
Southbound LTR	0.01	0.15	0.01	0.20	0.01	0.21	--	--	0.01	0.21	--	--	0.01	0.21	--	--
<b>11. Half St SW &amp; L St SW</b>																
Eastbound LTR	0.08	0.03	0.10	0.04	0.11	0.04	--	--	0.11	0.04	--	--	0.11	0.04	--	--
Westbound LTR	0.09	0.07	0.12	0.09	0.13	0.11	--	--	0.12	0.10	--	--	0.12	0.10	--	--
Northbound LTR	0.02	0.00	0.02	0.00	0.02	0.00	--	--	0.02	0.00	--	--	0.02	0.00	--	--
Southbound LTR	0.01	0.02	0.01	0.02	0.01	0.02	--	--	0.01	0.02	--	--	0.01	0.02	--	--
<b>12. S Capitol St &amp; Eye St SW/SE</b>																
Eastbound LT	0.70	1.38	2.07	2.56	2.15	2.77	--	0.99	2.17	2.64	--	--	2.01	2.64	2.01	0.96
Eastbound R	0.19	0.23	0.25	0.26	0.25	0.26	--	0.17	0.25	0.26	--	--	0.24	0.26	0.24	0.18
Westbound LT	0.51	0.65	0.80	0.78	0.80	0.81	--	0.48	0.80	0.79	--	--	0.78	0.79	0.78	0.48
Westbound R	0.32	0.15	0.56	0.31	0.56	0.31	--	0.21	0.56	0.31	--	--	0.55	0.31	0.55	0.21
Northbound TR	0.86	0.43	0.93	0.53	0.93	0.53	--	0.76	0.93	0.53	--	--	0.94	0.53	0.94	0.74
Southbound T	0.47	0.42	0.52	0.48	0.52	0.49	--	0.70	0.51	0.49	--	--	0.52	0.49	0.52	0.69
Southbound R	0.10	0.11	0.13	0.18	0.15	0.18	--	0.25	0.13	0.19	--	--	0.13	0.19	0.13	0.25
<b>13. S Capitol St &amp; K St SW/SE</b>																
Eastbound R	0.01	0.01	0.01	0.01	0.01	0.01	--	--	0.01	0.01	--	--	0.01	0.01	--	--
Westbound R	0.07	0.05	0.08	0.06	0.08	0.06	--	--	0.08	0.06	--	--	0.08	0.06	--	--
Northbound T	0.65	0.29	0.70	0.35	0.70	0.35	--	--	0.70	0.35	--	--	0.70	0.35	--	--
Northbound T	0.65	0.29	0.70	0.35	0.70	0.35	--	--	0.70	0.35	--	--	0.70	0.35	--	--
Northbound TR	0.34	0.15	0.36	0.19	0.36	0.19	--	--	0.36	0.18	--	--	0.36	0.18	--	--
Southbound T	0.37	0.30	0.41	0.36	0.41	0.35	--	--	0.40	0.35	--	--	0.40	0.35	--	--
Southbound T	0.37	0.30	0.41	0.36	0.41	0.35	--	--	0.40	0.35	--	--	0.40	0.35	--	--
Southbound TR	0.21	0.17	0.23	0.20	0.23	0.20	--	--	0.23	0.20	--	--	0.23	0.20	--	--
<b>14. S Capitol St &amp; L St SW</b>																
Eastbound R	0.01	0.01	0.01	0.01	0.01	0.05	--	--	0.01	0.01	--	--	0.01	0.01	--	--
Southbound T	0.24	0.32	0.29	0.39	0.27	0.38	--	--	0.27	0.38	--	--	0.27	0.38	--	--

Intersection and Movement	Existing (2020)				Background (2024)				Mixed-Use Scheme				Residential Scheme			
	AM Peak		PM Peak		AM Peak		PM Peak		Future (2024)		Future (2024) with Mitigations		Future (2024)		Future (2024) with Mitigations	
	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c	v/c
Southbound TR	0.12	0.17	0.15	0.19	0.16	0.21	--	--	0.14	0.21	--	--				
<b>15. S Capitol St &amp; L St SE</b>																
Westbound R	0.03	0.08	0.03	0.08	0.03	0.08	--	--	0.03	0.08	--	--	0.03	0.08	--	--
Westbound T	0.11	0.16	0.13	0.18	0.13	0.18	--	--	0.13	0.18	--	--	0.13	0.18	--	--
Westbound TR	0.07	0.10	0.08	0.11	0.08	0.11	--	--	0.08	0.11	--	--	0.08	0.11	--	--
<b>16. N St SW &amp; Half St SW</b>																
Eastbound R	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Westbound LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Southbound TR	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>17. S Capitol St &amp; N St SW</b>																
Westbound LTR	0.45	0.59	0.64	0.87	0.64	0.87	--	0.87	0.64	0.87	--	--	0.64	0.87	--	--
Westbound R	0.14	0.21	0.14	0.21	0.14	0.21	--	0.21	0.14	0.21	--	--	0.14	0.21	--	--
Northbound T	0.79	0.36	0.83	0.42	0.83	0.42	--	0.42	0.83	0.42	--	--	0.83	0.42	--	--
Northbound R	1.15	0.50	1.18	0.58	1.20	0.58	--	0.58	1.16	0.58	--	--	1.16	0.58	--	--
Southbound T	0.56	0.96	0.59	0.98	0.59	0.98	--	1.01	0.59	0.98	--	--	0.59	0.98	--	--
Southeastbound T (SB Ramp)	0.79	1.71	0.93	1.80	0.95	1.86	--	1.76	0.95	1.77	--	--	0.95	1.77	--	--
Southeastbound R (SB Ramp)	0.07	0.07	0.07	0.07	0.07	0.07	--	0.06	0.07	0.07	--	--	0.07	0.07	--	--
<b>18. S Capitol St &amp; O St SW</b>																
Northbound LT	0.83	0.37	0.87	0.43	0.88	0.44	--	--	0.09	0.43	--	--	0.09	0.43	--	--
Southbound TR	0.37	0.71	0.40	0.75	0.40	0.76	--	--	0.40	0.75	--	--	0.40	0.75	--	--
<b>19. Half Street &amp; Driveway SW</b>																
Westbound LR	--	--	--	--	0.11	0.29	--	--	0.12	0.12	--	--	0.12	0.12	--	--
Northbound TR	--	--	--	--	0.17	0.14	--	--	0.13	0.15	--	--	0.13	0.15	--	--
Southbound LT	--	--	--	--	0.02	0.01	--	--	0.00	0.01	--	--	0.00	0.01	--	--
<b>20. L Street &amp; Driveway SW</b>																
Eastbound TR	--	--	--	--	0.03	0.02	--	--	0.03	0.02	--	--	0.03	0.02	--	--
Westbound LT	--	--	--	--	0.02	0.01	--	--	0.00	0.01	--	--	0.00	0.01	--	--
Northbound LR	--	--	--	--	0.01	0.03	--	--	0.01	0.01	--	--	0.01	0.01	--	--

Table 14: 50th and 95th Percentile Queuing Results (in feet)

Intersection and Lane Group	Storage Length (ft)	Existing (2020)				Background (2024)				Mixed-Use Scheme				Residential Scheme									
		AM Peak		PM Peak		AM Peak		PM Peak		Future (2024)		Future (2024) with Mitigations		Future (2024)		Future (2024) with Mitigations							
		50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th	50th	95th						
<b>1. Delaware Ave SW &amp; M St SW</b>																							
Eastbound TR	275	58	75	119	146	91	112	181	217	91	112	182	218	--	--	90	111	184	220	--	--	--	--
Westbound L	80	3	m5	2	9	3	m4	4	m10	1	m1	4	m9	--	--	3	m4	4	m9	--	--	--	--
Westbound TR	400	27	29	18	35	29	31	47	57	26	27	48	56	--	--	29	31	48	56	--	--	--	--

Intersection and Lane Group	Storage Length (ft)	Mixed-Use Scheme																Residential Scheme							
		Existing (2020)				Background (2024)				Future (2024)				Future (2024) with Mitigations				Future (2024)				Future (2024) with Mitigations			
		AM Peak		PM Peak		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	50th	95th		
Northbound LTR	200	18	47	12	43	18	47	12	43	18	47	12	43	--	--	--	--	18	47	12	43	--	--	--	--
Southbound R	310	0	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	0	0	0	0	--	--	--	--
<b>2. First St SW &amp; M St SW</b>																									
Eastbound LTR	400	38	49	50	60	53	65	66	76	53	65	67	76	--	--	--	--	53	65	67	77	--	--	--	--
Westbound L	140	3	m16	7	m14	7	m19	9	m22	8	m19	10	m23	--	--	--	--	6	m18	10	m24	--	--	--	--
Westbound TR	325	47	118	30	38	115	191	58	m10 6	116	197	65	m11 2	--	--	--	--	96	m18 2	62	m11 2	--	--	--	--
Northbound LT	550	17	44	26	59	17	44	26	59	17	44	26	59	--	--	--	--	17	44	26	59	--	--	--	--
Northbound R	125	40	79	132	217	40	79	132	217	40	79	132	217	--	--	--	--	40	79	132	217	--	--	--	--
Southbound LTR	155	24	59	24	57	24	59	24	57	24	59	24	57	--	--	--	--	24	59	24	57	--	--	--	--
<b>3. Half St SW &amp; M St SW</b>																									
Eastbound L	150	5	30	4	m9	21	#15 1	11	m40	45	#15 8	12	m56	~48	#16 4	21	m#8 0	17	#13 7	13	m68	19	#144	--	--
Eastbound TR	280	18	24	40	46	19	23	52	58	18	23	52	58	31	38	81	80	19	23	52	58	30	37	--	--
Westbound L	140	21	m35	3	m5	20	m31	2	m5	20	m31	2	m5	10	m17	6	m16	20	m31	2	m5	12	m19	--	--
Westbound TR	305	390	447	9	m11	439	m58 0	10	m13	462	m58 6	10	m15	221	m30 3	27	m32	376	m56 5	9	m15	243	m29 0	--	--
Southbound LTR	250	72	128	191	#308	177	#299	258	#44 9	212	#371	~36 0	#56 1	202	#33 4	280	#44 4	223	#392	256	#44 5	210	#34 6	--	--
<b>4. W S Capitol St Service Rd &amp; M St SW</b>																									
Eastbound T	300	71	94	108	146	115	163	179	m22 7	132	m16 8	190	m23 4	--	--	--	--	136	m16 8	179	m22 6	--	--	--	--
Eastbound R	100	8	47	30	99	21	m56	53	m11 4	21	m52	48	m10 2	--	--	--	--	20	m50	48	m11 0	--	--	--	--
Westbound LT	50	1	m1	5	5	2	m2	5	4	2	m2	5	4	--	--	--	--	2	m2	5	4	--	--	--	--
Southbound L	100	230	#391	209	317	~296	#502	332	#549	267	#463	320	#527	--	--	--	--	267	#463	320	#527	--	--	--	--
Southbound LTR	315	220	#383	~418	#640	~297	#500	~457	#684	261	#460	~477	#704	--	--	--	--	262	#461	~449	#673	--	--	--	--
<b>5. E S Capitol St Service Rd &amp; M St SE</b>																									
Eastbound L	50	4	m63	2	m7	50	m80	5	m7	9	m85	4	m7	--	--	--	--	9	m85	3	m7	--	--	--	--
Eastbound T	50	8	m40	16	m21	44	m47	27	m34	36	m47	23	m33	--	--	--	--	36	m47	23	m34	--	--	--	--
Westbound TR	350	196	248	168	214	~28 0	#37 3	254	313	~28 6	#37 9	258	318	--	--	--	--	~26 7	#36 7	259	319	--	--	--	--
Northbound L	345	417	#65 2	175	271	433	#67 6	203	#30 9	448	#69 5	206	#31 7	--	--	--	--	422	#65 7	208	#33 2	--	--	--	--
Northbound LTR	500	423	#66 7	158	255	440	#69 0	187	#31 2	450	#70 6	194	#32 4	--	--	--	--	430	#67 6	189	#31 4	--	--	--	--
<b>6. Van St SE &amp; M St SE</b>																									
Eastbound LTR	260	--	0	--	0	--	0	--	0	--	0	--	0	--	--	--	--	--	0	--	0	--	--	--	--
Westbound LTR	260	--	0	--	1	--	0	--	3	--	0	--	3	--	--	--	--	--	1	--	3	--	--	--	--
Northbound LTR	260	--	1	--	2	--	45	--	80	--	46	--	82	--	--	--	--	--	45	--	81	--	--	--	--
Southbound LTR	260	--	0	--	0	--	1	--	0	--	1	--	0	--	--	--	--	--	1	--	0	--	--	--	--
<b>7. Half St SE &amp; M St SE</b>																									
Eastbound LT	345	68	94	108	142	160	228	279	#444	162	231	290	#458	--	--	--	--	163	231	276	#44 0	--	--	--	--
Eastbound R	50	--	--	--	--	13	32	11	26	13	32	11	26	--	--	--	--	13	32	11	26	--	--	--	--

Intersection and Lane Group	Storage Length (ft)	Mixed-Use Scheme																Residential Scheme							
		Existing (2020)				Background (2024)				Future (2024)				Future (2024) with Mitigations				Future (2024)				Future (2024) with Mitigations			
		AM Peak		PM Peak		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	50th	95th		
Westbound LT	345	19	24	35	45	46	m63	67	m92	46	m60	71	m92	--	--	--	--	45	m63	70	m93	--	--	--	--
Westbound R	50	--	--	--	--	2	m2	2	m3	2	m2	2	m3	--	--	--	--	2	m2	2	m3	--	--	--	--
Northbound LTR	575	6	21	9	27	10	29	27	60	10	29	27	60	--	--	--	--	10	29	27	60	--	--	--	--
Southbound LTR	260	11	31	40	84	14	38	42	88	14	38	42	88	--	--	--	--	14	38	42	88	--	--	--	--
<b>8. First St SE &amp; M St SE</b>																									
Eastbound LT	345	51	64	38	46	80	134	~362	m#4 43	81	#13 8	~37 6	m#4 44	--	--	~368	m#4 36	82	#13 8	~360	m#4 44	--	--	--	--
Eastbound R	50	--	--	--	--	64	124	9	m13	65	125	9	m13	--	--	4	m8	65	125	9	m13	--	--	--	--
Westbound LT	380	77	100	66	89	157	#254	150	#262	161	#26 3	152	#27 1	--	--	152	#27 5	155	#249	153	#270	--	--	--	--
Westbound R	50	--	--	--	--	16	35	13	30	16	35	13	30	--	--	13	30	16	35	13	30	--	--	--	--
Northbound LTR	550	64	100	46	77	87	131	70	111	87	131	70	111	--	--	70	111	87	131	70	111	--	--	--	--
Southbound LTR	260	35	60	8	21	69	106	38	66	69	106	38	66	--	--	38	66	69	106	38	66	--	--	--	--
<b>9. Half St SW &amp; Eye St SW</b>																									
Eastbound T	340	--	0	--	0	--	0	--	0	--	0	--	0	--	--	--	0	--	0	--	0	--	--	--	0
Eastbound R	230	--	0	--	0	--	0	--	0	--	0	--	0	--	--	--	0	--	0	--	0	--	--	--	0
Westbound LT	340	--	6	--	9	--	15	--	16	--	17	--	17	--	--	--	17	--	15	--	17	--	--	--	17
Northbound LR	230	--	16	--	18	--	42	--	130	--	48	--	153	--	--	--	147	--	45	--	143	--	--	--	143
<b>10. Half St SW &amp; K St SW</b>																									
Eastbound LTR	230	--	1	--	0	--	1	--	0	--	1	--	0	--	--	--	--	--	1	--	0	--	--	--	--
Westbound LTR	340	--	5	--	5	--	5	--	11	--	8	--	13	--	--	--	--	--	6	--	13	--	--	--	--
Northbound LTR	250	--	0	--	0	--	0	--	0	--	0	--	0	--	--	--	--	--	0	--	0	--	--	--	--
Southbound LTR	230	--	1	--	0	--	1	--	0	--	1	--	0	--	--	--	--	--	1	--	0	--	--	--	--
<b>11. Half St SW &amp; L St SW</b>																									
Eastbound LTR	100	--	7	--	2	--	9	--	3	--	9	--	3	--	--	--	--	--	9	--	3	--	--	--	--
Westbound LTR	315	--	8	--	6	--	10	--	8	--	11	--	9	--	--	--	--	--	11	--	9	--	--	--	--
Northbound LTR	300	--	1	--	0	--	2	--	0	--	2	--	0	--	--	--	--	--	2	--	0	--	--	--	--
Southbound LTR	250	--	1	--	1	--	1	--	2	--	1	--	2	--	--	--	--	--	1	--	2	--	--	--	--
<b>12. S Capitol St &amp; Eye St SW/SE</b>																									
Eastbound LT	340	168	263	~451	#645	~416	#605	~739	#948	~434	#625	~791	#849	--	--	454	#691	~436	#627	~760	#968	~427	#617	427	#968
Eastbound R	150	0	21	3	48	0	44	13	63	0	44	13	63	--	--	9	44	0	44	13	63	0	43	10	63
Westbound LT	315	177	264	277	383	300	#445	352	478	300	#445	357	#508	--	--	249	338	300	#445	353	480	297	#426	253	480
Westbound R	100	24	83	0	17	113	206	39	99	113	206	39	99	--	--	27	69	113	206	39	99	112	204	28	99
Northbound TR	260	684	511	280	322	831	711	383	432	830	695	384	433	--	--	391	517	831	763	380	430	445	613	385	430
Southbound T	245	51	56	143	158	71	77	173	189	56	60	177	193	--	--	193	208	54	59	174	190	55	60	190	190
Southbound R	135	0	m0	8	m20	0	m0	13	30	0	m0	15	33	--	--	7	m15	0	m0	14	32	0	m0	7	32
<b>13. S Capitol St &amp; K St SW/SE</b>																									
Eastbound R	340	--	1	--	1	--	1	--	1	--	1	--	1	--	--	--	--	--	1	--	1	--	--	--	--
Westbound R	355	--	6	--	4	--	7	--	5	--	7	--	5	--	--	--	--	--	7	--	5	--	--	--	--
Northbound TR	340	--	0	--	0	--	0	--	0	--	0	--	0	--	--	--	--	--	0	--	0	--	--	--	--
Southbound TR	355	--	0	--	0	--	0	--	0	--	0	--	0	--	--	--	--	--	0	--	0	--	--	--	--

Intersection and Lane Group	Storage Length (ft)	Mixed-Use Scheme																Residential Scheme							
		Existing (2020)				Background (2024)				Future (2024)				Future (2024) with Mitigations				Future (2024)				Future (2024) with Mitigations			
		AM Peak		PM Peak		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	50th	95th		
<b>14. S Capitol St &amp; L St SW</b>																									
Eastbound R	315	--	1	--	1	--	1	--	1	--	0	--	4	--	--	--	--	--	1	--	1	--	--	--	--
Southbound TR	275	--	0	--	0	--	0	--	0	--	0	--	0	--	--	--	--	--	0	--	0	--	--	--	--
<b>15. S Capitol St &amp; L St SE</b>																									
Westbound R	350	--	2	--	6	--	2	--	7	--	2	--	7	--	--	--	--	--	2	--	7	--	--	--	--
Northbound TR	300	--	0	--	0	--	0	--	0	--	0	--	0	--	--	--	--	--	0	--	0	--	--	--	--
<b>16. N St SW &amp; Half St SW</b>																									
Eastbound R	150	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Westbound LT	160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Southbound TR	560	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
<b>17. S Capitol St &amp; N St SW</b>																									
Westbound LTR	150	102	169	139	220	147	231	214	#366	147	231	214	#366	--	--	214	#366	147	231	214	#366	--	--	--	--
Westbound R	90	29	64	43	86	29	64	43	86	29	64	43	86	--	--	43	86	29	64	43	86	--	--	--	--
Northbound T	500	508	607	132	95	587	703	168	111	586	702	168	110	--	--	168	103	586	702	168	110	--	--	--	--
Northbound R	190	~1236	#1495	174	116	~1298	#1557	225	133	~1335	#1606	231	135	--	--	231	125	~1260	#1529	231	135	--	--	--	--
Southbound T	1250	435	498	690	#851	450	523	722	#891	461	526	720	#888	--	--	~694	#902	461	525	720	#888	--	--	--	--
Southeastbound T	550	173	#294	~914	#1156	210	#374	~977	#1221	215	#382	~1028	#1276	--	--	~1006	#1253	215	#382	~957	#1202	--	--	--	--
Southeastbound R	100	0	0	0	0	0	0	0	0	0	0	0	0	--	--	0	0	0	0	0	0	--	--	--	--
<b>18. S Capitol St &amp; O St SW</b>																									
Northbound LT	245	0	#1169	0	179	0	#1287	0	231	0	#1300	0	233	--	--	--	--	0	36	0	232	--	--	--	--
Southbound TR	500	0	145	0	m63	0	m163	0	m73	0	m165	0	m74	--	--	--	--	0	m166	0	m73	--	--	--	--
<b>19. Half Street &amp; Driveway SW</b>																									
Westbound LR	150	--	--	--	--	--	--	--	--	--	9	--	29	--	--	--	--	--	10	--	11	--	--	--	--
Northbound TR	100	--	--	--	--	--	--	--	--	--	0	--	0	--	--	--	--	--	0	--	0	--	--	--	--
Southbound LT	150	--	--	--	--	--	--	--	--	--	2	--	1	--	--	--	--	--	0	--	1	--	--	--	--
<b>20. L Street &amp; Driveway SW</b>																									
Eastbound TR	75	--	--	--	--	--	--	--	--	--	0	--	0	--	--	--	--	--	0	--	0	--	--	--	--
Westbound LT	180	--	--	--	--	--	--	--	--	--	1	--	1	--	--	--	--	--	0	--	1	--	--	--	--
Northbound LR	150	--	--	--	--	--	--	--	--	--	1	--	3	--	--	--	--	--	1	--	1	--	--	--	--

# 95<sup>th</sup> percentile volume exceeds capacity, queue may be longer  
M Volume for 95<sup>th</sup> percentile queue is metered by upstream signal  
~ Volumes exceeds capacity, queue is theoretically infinite

## Transit Facilities

This chapter discusses the existing and proposed transit facilities in the vicinity of the site, accessibility to transit, and evaluates the overall transit impacts of the site.

This chapter concludes that:

- The site is well-served by existing transit;
- The development site is approximately 0.3 miles from the Navy Yard-Ballpark Metro station, approximately 0.5 miles from the Waterfront Metro station, and is served by local and regional bus routes;
- The development site is surrounded by five (5) Metrobus routes and one (1) DC Circulator route that travel along multiple primary corridors;
- Several planned and proposed transit projects will improve transit access to the site; and
- The project is expected to generate a manageable amount of transit trips that the existing transit service is capable of handling.

### Existing Transit Service

The study area is well-served by Metrobus and has good access to Metrorail. Combined, these transit services provide local and regional transit connections and link the site with major cultural, residential, employment, and commercial destinations throughout the region. Figure 35 identifies the major transit routes, stations, and stops in the study area.

The Navy Yard-Ballpark and Waterfront Metro stations are located approximately 0.3 miles and 0.5 miles from the development site, respectively. Both stations are served by the Green Line, which travels through the District core and serves destinations in the District and Maryland, terminating to the south at Branch Avenue station in Maryland and to the north in Greenbelt, Maryland. Under normal operating conditions, Green Line trains run approximately every eight (8) minutes during the morning and afternoon peak periods. They run approximately every 12 minutes during weekday non-peak periods of 5am to 9:30am and 3pm to 7pm. They run every 15 to 20 minutes on weekday evenings after 9:30am, and every 12 to 20 minutes on the weekends. During the current COVID-19 emergency, Green Line trains run approximately every 20 minutes from 5:00am to 9:00pm on weekdays and approximately every 30 minutes from 8:00am to 9:00pm on weekends.

The site is also serviced by five (5) Metrobus routes and one (1) DC Circulator bus route along multiple primary corridors. These bus routes connect the site to many areas of the region, as well as several Metro stations serving all six (6) Metrorail lines which provide further connections to Virginia and Maryland. Table 15 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. Several peak-only commuter bus lines also stop near the site, but they are not included in this report.

Table 16 shows WMATA's recommended amenities for each type of bus stop. Table 17 shows a detailed inventory of the amenities appearing at each of the existing bus stop within the transit study area.

### Planned Transit Service

#### DDOT Car Free Lanes for Buses and Bikes

DDOT has included the segment of M Street SE between Half Street SE and 10<sup>th</sup> Street SE as one of its quick-build bus priority pilot projects that are part of the District's COVID-19 response and recovery. These projects are being implemented along corridors DDOT has already identified for permanent transit improvements.

As part of this project, eastbound/westbound car free lanes will be added along M Street SE between Half Street SE and 10<sup>th</sup> Street SE. These car free lanes will be accessible by buses and bikes during the morning (7:00am – 9:30am) and evening (4:00pm – 6:30pm) peak periods. This project is scheduled to be implemented in late summer 2020.

#### MoveDC Transit Element

The transit element of *MoveDC*, the District's multimodal long-range transportation plan, proposes the following transit service improvements near the proposed project:

- A segment of WMATA's Metrobus Priority Corridor Network (PCN), which would improve bus travel times, reliability, and capacity, along M Street SW/SE;
- High-capacity transit service along M Street SW/SE; and
- Streetcar service along M Street SW/SE and First Street SW.

These improvements are proposed as part of the long-range plan, but not yet funded or planned.

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## ***Site-Generated Transit Impacts***

### **Proposed Transit Infrastructure**

As part of the proposed project, the bus stop directly south of site will be relocated. This bus stop will be relocated from mid-block on M Street SW to the corner of M Street and Half Street SW, in the southwest corner of the site.

### **Transit Trip Generation**

The Mixed-use scheme of the proposed project is projected to generate 200 transit trips (125 inbound, 75 outbound) during the morning peak hour and 243 transit trips (92 inbound, 151 outbound) during the afternoon peak hour.

The Residential scheme of the proposed project is projected to generate 151 transit trips (46 inbound, 105 outbound) during the morning peak hour and 209 transit trips (123 inbound, 86 outbound) during the afternoon peak hour.

It is expected that existing transit service can accommodate these new site-generated trips.

**Table 15: Local Bus Route Information**

Route Number	Route Name	Service Hours at Stop Closest to Site <sup>1</sup>			Headway (minutes) <sup>1</sup>	Walking Distance to Nearest Stop
		Weekdays	Saturdays	Sundays		
<b>WMATA routes</b>						
A9 <sup>2</sup>	Martin Luther King Jr. Avenue Limited Line	6:17am-9:18am; 3:59pm-7:18pm	-	-	15	0.3 mi (7 min)
74	Convention Center-Southwest Waterfront Line	4:59am-12:00am	5:02am-12:08am	5:02am-12:04am	11-20	0.2 mi (4 min)
P6	Anacostia-Eckington Line	4:22am-3:25am	4:20am-3:02am	4:31am-2:28am	10-35	On site
V1 <sup>2</sup>	Benning Heights-M Street Line	5:33am-9:23am; 3:11pm-7:12pm	-	-	16-25	On site
V4	Capitol Heights-Minnesota Avenue Line	4:42am-2:30am	4:52am-2:30am	4:52am-1:00am	12-62	On site
<b>DDOT routes</b>						
EM-LP	Eastern Market-L'Enfant Plaza	6:00am-9:00pm	7:00am-9:00am	7:00am-9:00am	10	0.1 mi (2 min)

<sup>1</sup> Service hours and headways reflect regular pre-COVID-19 bus service. During the current COVID-19 emergency, all WMATA routes shown run a Sunday schedule on weekdays with headways of approximately 30 minutes and with the last buses departing starting points at or before 11:00pm. All routes shown operate only on weekdays during the emergency, except the 83 route which also runs on weekends. The A9 route is not operating at all during the COVID-19 emergency.

<sup>2</sup> Peak hour, peak direction only.

**Table 16: WMATA Recommended Bus Stop Amenities**

Amenity	Basic Stop		Enhanced Stop	Transit Center Stop
	< 50 daily boardings	≥ 50 daily boardings		
Bus stop flag	●	●	●	●
Route map and schedule	●	●	●	●
5' x 8' landing pad	●	●	●	●
40'/60' x 8' landing pad			●	●
4' sidewalk	●	●	●	●
Bench		●	●	●
Shelter		●	●	●
Lighting (on shelter or within 30' if overhead)	Recommended for stops with early morning and evening service		●	●
Dynamic information signage	Contingent on presence of shelter			
Trash and recycling receptacles	Recommended where surrounding uses may generate trash			

Source: 2019 WMATA *Bus Stop Amenity Reference Guide*

**Table 17: Bus Stop Inventory**

Location	Stop ID	Routes Served	Amenities									
			Bus stop flag	Route map & schedule	Landing pad	Sidewalk	Bench	Shelter	Dynamic info sign	Lighting	Trash Recp.	
Half St + O St SW (SB)	1000472	74	●	●	●	●				●	●	
O St + 1st St SW (EB)	1000475	74	●	●	●	●					●	
Delaware Ave + Canal St SW (SB)	1000479	74	●	●	●	●				●	●	
Delaware Ave SW + #1301-1311 (SB)	1000484	74	●	●		●					●	
M St + Delaware Ave SW (EB)	1000495	P6, V1, EM-LP	●	●	●	●	●	●	●		●	●
M St + Howison Pl SW (EB)	1000497	P6, V1	●		●	●					●	●
M St + 4th St SW (EB)	1000498	A9, 74, EM-LP	●	●	●	●					●	●
M St + Half St SE (WB)	1000509	P6, V1, EM-LP	●		●	●					●	●
M St + 1st St SW (WB)	1000516	P6, V1	●	●	●	●					●	●
M St + Delaware Ave SW (WB)	1000517	P6, V1, EM-LP	●	●	●	●	●	●	●		●	●
3rd St + M St SW (NB)	1000520	P6, V1	●	●		●						●
3rd St + L St SW (SB)	1000525	P6, V1	●	●	●	●						
3rd St + K St SW (NB)	1000530	P6, V1	●	●	●	●	●	●	●		●	●
M St + Half St SW (WB)	1003001	P6, V1	●	●	●	●						●
M St + Half St SE (EB)	1003032	P6, V1, EM-LP	●	●	●	●					●	●
M St + New Jersey Ave SE (WB)	1003148	A9, P6, V1, V4, EM-LP	●	●	●	●	●	●	●		●	●
M St + 4th St SW (WB)	1003690	A9, 74, EM-LP	●	●	●	●						●
M St + Delaware Ave SW (EB)	1003704	74			●	●					●	●
1st St + K St SE (NB)	1003793	V4	●		●	●					●	

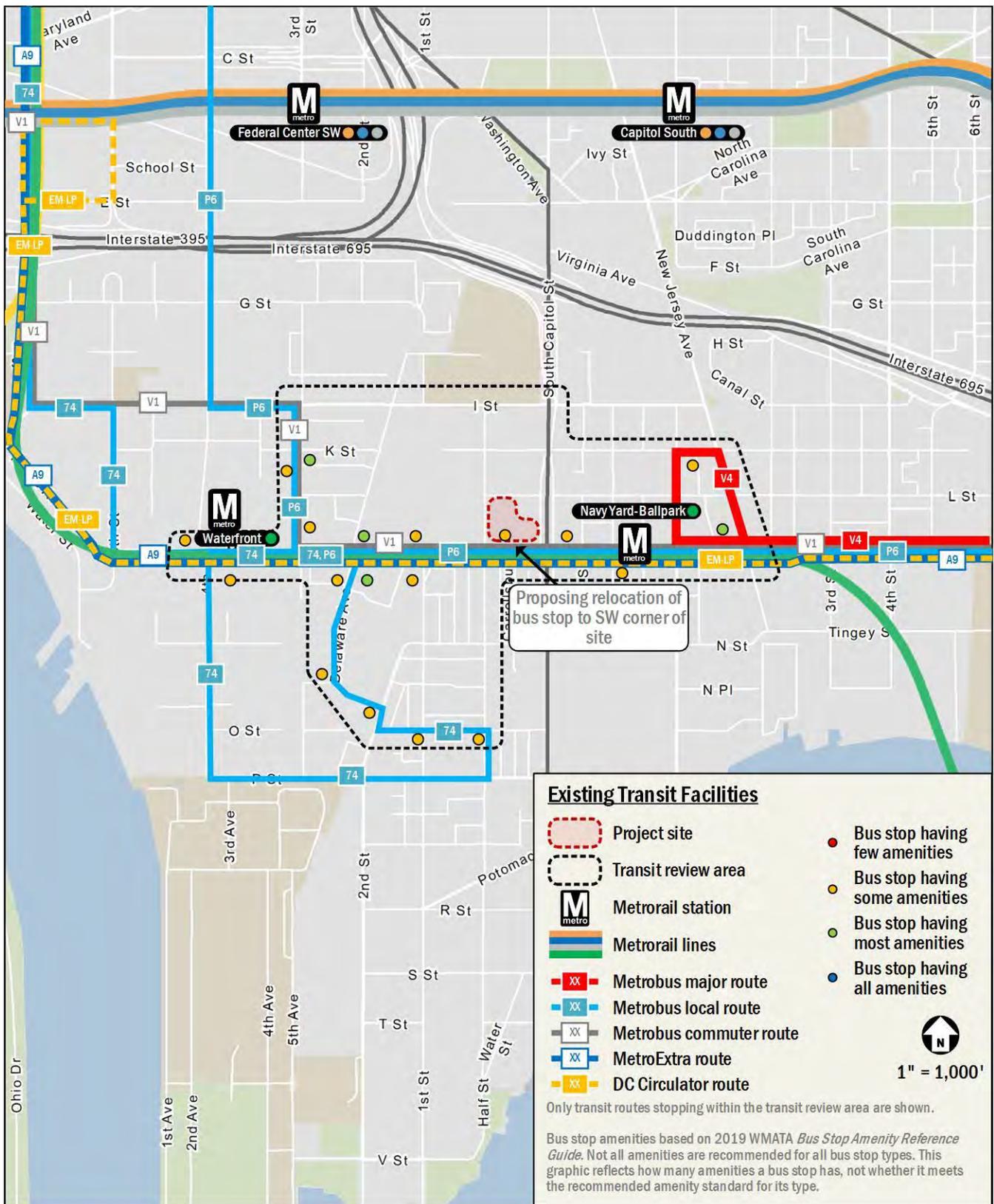


Figure 35: Existing Transit Facilities

## Pedestrian Facilities

This chapter 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:

- Despite some incidences of missing crosswalks or sidewalks that do not meet width standards, overall there is an excellent, well-connected pedestrian network surrounding the site;
- There are no barriers which block pedestrian pathways to nearby attractions;
- The site will improve the overall pedestrian environment on site by improving sidewalks along the perimeter of the site; and
- The project is expected to generate pedestrian trips to origins and destinations nearby, in addition to pedestrian trips generated by walking to and from transit stops. The pedestrian facilities surrounding the project can accommodate these new trips.

### **Pedestrian Study Area**

Pedestrian facilities within a quarter-mile of the site were evaluated, as well as walking routes to major destinations including the Navy Yard-Ballpark, Waterfront, Capitol South, and Federal Center SW Metro stations. There are a few sidewalks north of the site that do not meet minimum sidewalk width, as well as the sidewalks along the site frontages. These few shortcomings do not overall affect the quality or attractiveness of the walking environment within the study area. Figure 36 shows suggested pedestrian pathways, walking time and distances, and any barriers and areas of concern.

### **Pedestrian Infrastructure**

This section outlines 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, provide a quality walking environment, and provide excellent connectivity to major local destinations. A detailed inventory of the existing pedestrian facilities within the study area is shown on Figure 37. Sidewalks, crosswalks, and curb ramps are evaluated based on the guidelines set forth by DDOT's *Design*

*and Engineering Manual (2019)* in addition to Americans with Disabilities Act (ADA) standards. These facilities are shown within their respective land use types based on DC's Zoning Regulations of 2016, which determines which of DDOT's sidewalk width requirements apply to them. These sidewalk width requirements are shown in Table 18.

Within the study area, the majority of roadways are considered low to moderate density residential and high density residential or light commercial. Most of the sidewalks surrounding the site comply with DDOT standards; however, there are minor areas of concern within the study area that may impact the quality and attractiveness of walking, such sidewalks that do not meet DDOT's minimum width requirements and intersections that do not have crosswalks and curb ramps on every leg. The study area contains all three street types described in Table 18. For the most part, the sidewalks in the study area that do not meet DDOT standards for their street type at least meet the standards of low to moderate density residential streets. All primary pedestrian destinations are accessible via routes with sidewalks on both sides.

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 are not desired but where they are present, a 48" clear space is required outside active vehicle traffic lanes and within marked crossings. As shown in Figure 37, virtually all existing curb ramps near the site meet ADA standards, but some signalized intersections lack a crosswalk and curb ramp on one leg, and some unsignalized intersections lack crosswalks and curb ramps altogether.

#### **Pedestrian Infrastructure Improvements**

As part of the project, pedestrian facilities around the perimeter of the site will be improved to meet DDOT and ADA standards. New sidewalks will be installed along the perimeter of the site that will meet or exceed the width requirements, as well as curb ramps with detectable warnings, including:

- A 10'-2" sidewalk and 4'-0" tree/furnishing zone along the site's M Street frontage
- An 8'-0" sidewalk, 5'-2" tree/furnishing zone, and 11'-0" grated/landscaped vault area along the site's L Street frontage;

- An 8'-0" sidewalk and 6'-0" tree/furnishing zone along the north section of the site's Half Street frontage;
- A 6'-3" sidewalk, 5'-5" tree/furnishing zone, and 7'-4" covered vault area along the south section of the site's Half Street frontage; and
- A 13'-6" sidewalk and 6'-0" tree/furnishing zone along the site's South Capitol Street frontage.

**Site-Generated Pedestrian Impacts**

**Pedestrian Trip Generation**

The Mixed-use scheme of the proposed project is projected to generate 107 pedestrian trips (72 inbound, 35 outbound) during the morning peak hour and 217 pedestrian trips (95 inbound, 122 outbound) during the afternoon peak hour.

The Residential scheme of the proposed project is projected to generate 79 pedestrian trips (37 inbound, 42 outbound) during

the morning peak hour and 183 pedestrian trips (95 inbound, 88 outbound) during the afternoon peak hour.

The origins and destinations of these pedestrian trips are likely to be:

- Nearby residential areas that allow employees the opportunity to walk to work;
- Retail locations outside of the site; and
- Neighborhood destinations such as schools, libraries, and parking 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 bus stops and Metrorail. It is expected that existing pedestrian facilities can accommodate these new site-generated trips. The proposed pedestrian improvements along the site frontage will further improve and expand the pedestrian network in the vicinity of the site.

**Table 18: DDOT Sidewalk Width Requirements**

Street Type	Curb Walk	Tree/Furnishing Zone	Sidewalk Unobstructed Clear Width	Total Minimum Sidewalk Width
Low to Moderate Density Residential	None	4 - 6 feet	6 feet	10 feet
High Density Residential or Light Commercial	1 foot	4 - 8 feet	8 feet	13 feet
Central DC and Commercial Areas	1 - 2 feet	4 - 10 feet	10 feet	16 feet

Source: DDOT *Design and Engineering Manual*

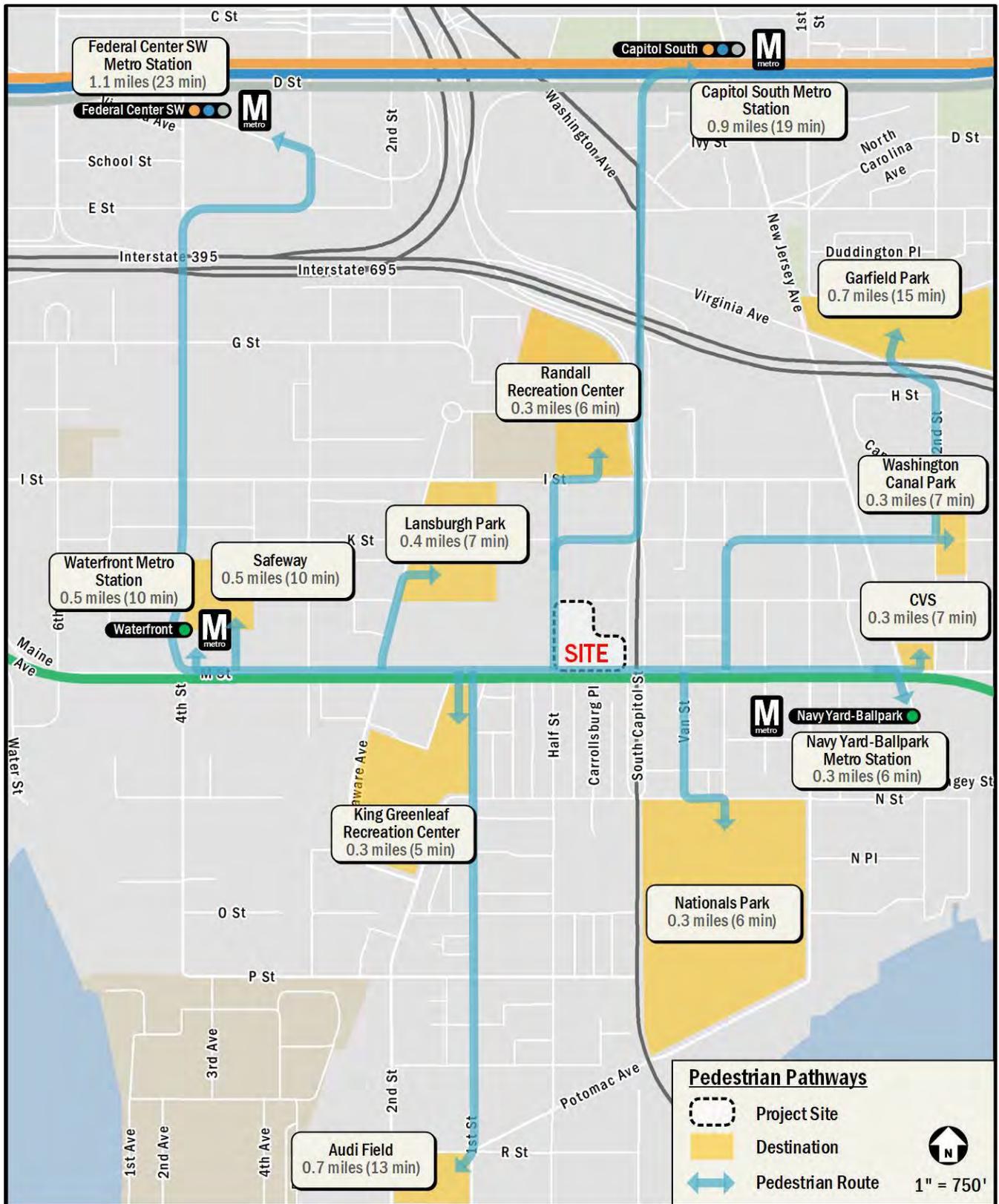


Figure 36: Pedestrian Pathways

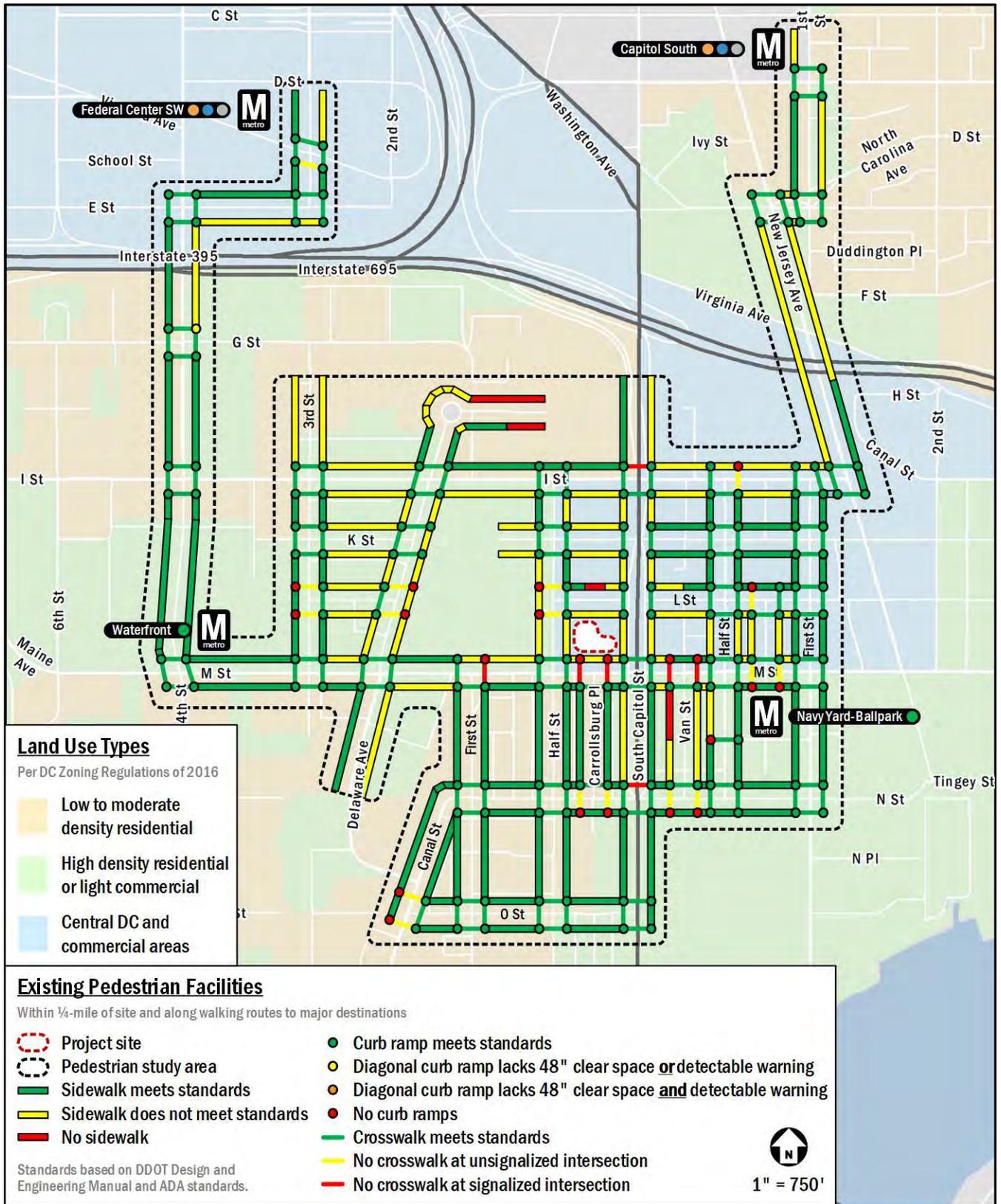


Figure 37: Existing Pedestrian Facilities

## Bicycle Facilities

This chapter 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 within the study area;
- Several planned and proposed bicycle projects will improve bicycle access to the site;
- The project is expected to generate a manageable number of bicycle trips; therefore, site-generated bicycle trips can be accommodated on existing infrastructure;
- The development site will include long-term bicycle parking on the ground floor in the Mixed-Use scheme and within the parking garage in the Residential scheme that meet zoning requirements; and
- The development will include short-term bicycle parking along the perimeter of the site that meet zoning requirements.

### Existing Bicycle Facilities

The site has access to existing on- and off-street bicycle facilities. The development is located adjacent to the signed bicycle route on Half Street SW, which can be used to access the bicycle lanes and cycle tracks on Eye Street SW/SE and Potomac Avenue SW. These facilities connect with major off-street bicycle facilities like the Anacostia Riverwalk Trail. Figure 39 illustrates existing bicycle facilities in the area.

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

### Capital Bikeshare

In addition to personal bicycles, the Capital Bikeshare program provides additional cycle options for residents, employees, and patrons of the 5 M Street SW development. The program has placed over 500 bikeshare stations across the Washington, DC metropolitan area with over 4,500 bicycles in the fleet. The following Capital Bikeshare stations are within a quarter-mile of the site:

- A 19-dock station at King Greenleaf Rec Center, 0.1 miles from the site; and
- A 19-dock station at First and M Street SE, 0.2 miles from the site.

Figure 39 illustrates these and other Capital Bikeshare locations in the area.

### Dockless E-Scooters and E-Bicycles

Personal Mobility Device (PMD) service in the District is provided by five (5) electric-assist scooter (e-scooter) and electric-assist bicycle (e-bike) companies including Jump, Lyft, Skip, Spin, and Helbiz. These PMDs are provided by private companies that give registered users access to a variety of e-scooter and e-bike options. These devices are used through each company-specific mobile phone application. Many PMDs do not have designated stations where pick-up/drop-off activities occur like with Capital Bikeshare; instead, they are parked in public space, most commonly in the “furniture zone” (the portion of sidewalk between where people walk and the curb, often where other street signs, street furniture, trees, parking meters, etc. are found). At this time, PMD pilot/demonstration programs are underway in Arlington County, the District, Fairfax County, the City of Fairfax, the City of Alexandria, and Montgomery County.

### Planned Bicycle Improvements

Several bicycle improvements are planned near the site. These are shown on Figure 39.

### DDOT Car Free Lanes for Buses and Bikes

DDOT has included the segment of M Street SE between Half Street SE and 10<sup>th</sup> Street SE as one of its quick-build bus priority pilot projects that are part of the District’s COVID-19 response and recovery. These projects are being implemented along corridors DDOT has already identified for permanent transit improvements.

As part of this project, eastbound/westbound car free lanes will be added along M Street SE between Half Street SE and 10<sup>th</sup> Street SE. These car free lanes will be accessible by buses and bikes during the morning (7:00am – 9:30am) and evening (4:00pm – 6:30pm) peak periods. This project is scheduled to be implemented in late summer 2020.

### DDOT Bikeways Expansion

DDOT has embarked on a plan to build over 20 miles of new protected bike lanes, or cycle tracks, between 2020 and 2022. This plan includes cycle tracks on M Street SW/SE, Eye Street SW/SE, 4<sup>th</sup> Street NW/SW, First Street SE, and New Jersey Avenue SE near the site.

### **Anacostia Riverwalk Trail**

As part of the District's multi-agency Anacostia Riverfront Initiative, the existing Anacostia Riverwalk Trail will be extended from its current terminus near South Capitol Street around Buzzard Point, connecting to the existing cycle track on 2<sup>nd</sup> Street SW.

### **South Capitol Street Corridor Project**

This project replaces the Frederick Douglass Memorial Bridge carrying South Capitol Street across the Anacostia River with a new span featuring an improved bicycle trail, providing a better link to bicycle facilities east of the Anacostia River. The bridge is scheduled to open in late 2021.

### **Capital Bikeshare Expansion**

Capital Bikeshare's 2019 development plan calls for two (2) new Capital Bikeshare stations near the site: one at 4<sup>th</sup> and G Street SW and one at 4<sup>th</sup> and P Street SW.

### **Proposed Bicycle Improvements**

There are several bicycle improvements that are proposed near the site, but not yet funded or planned. These are shown on Figure 39.

### **MoveDC Bicycle Element**

The bicycle element of *MoveDC*, the District's multimodal long-range transportation plan, includes the following bicycle improvements near the development that are proposed but not yet funded or planned:

- Cycle tracks along P Street SW, South Capitol Street, 4<sup>th</sup> Street NE, and 6<sup>th</sup> Street NE; and
- A bicycle trail connecting the Capitol with the Anacostia Riverwalk Trail.

### **Site-Generated Bicycle Impacts**

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

### **On-site Bicycle Infrastructure**

The development will provide short- and long-term bicycle parking spaces, the quantities of which meet zoning requirements.

The Mixed-use scheme will provide 174 long-term bicycle spaces, 32 short-term bicycle spaces, at least six (6) showers, and at least 44 lockers. Long-term bicycle spaces will be provided in a bicycle room on the ground floor, accessible from the private driveway, and on Lower Level 1 of the parking garage. Bicycle spaces on Lower Level 1 will be accessible from the garage ramps from the private driveway, via Half Street SW and L Street SW. Short-term bicycle spaces will be provided on exterior bike racks along the site's L Street, South Capitol Street, M Street, and Half Street frontages.

The Residential scheme will provide 156 long-term bicycle spaces, 42 short-term bicycle spaces. No showers or lockers are required under this development scheme. Long-term bicycle spaces will be provided on Lower Level 1 of the parking garage. Bicycle spaces on Lower Level 1 will be accessible from the garage ramps from the private driveway, via Half Street SW and L Street SW. Short-term bicycle spaces will be provided on exterior bike racks along the site's L Street, South Capitol Street, M Street, and Half Street frontages.

### **Bicycle Trip Generation**

The Mixed-use scheme of the proposed project is projected to generate 41 bicycle trips (23 inbound, 18 outbound) during the morning peak hour and 62 bicycle trips (28 inbound, 34 outbound) during the afternoon peak hour.

The Residential scheme of the proposed project is projected to generate 40 bicycle trips (15 inbound, 25 outbound) during the morning peak hour and 66 bicycle trips (37 inbound, 29 outbound) during the afternoon peak hour.

It is expected that existing bicycle facilities can accommodate these new site-generated trips.

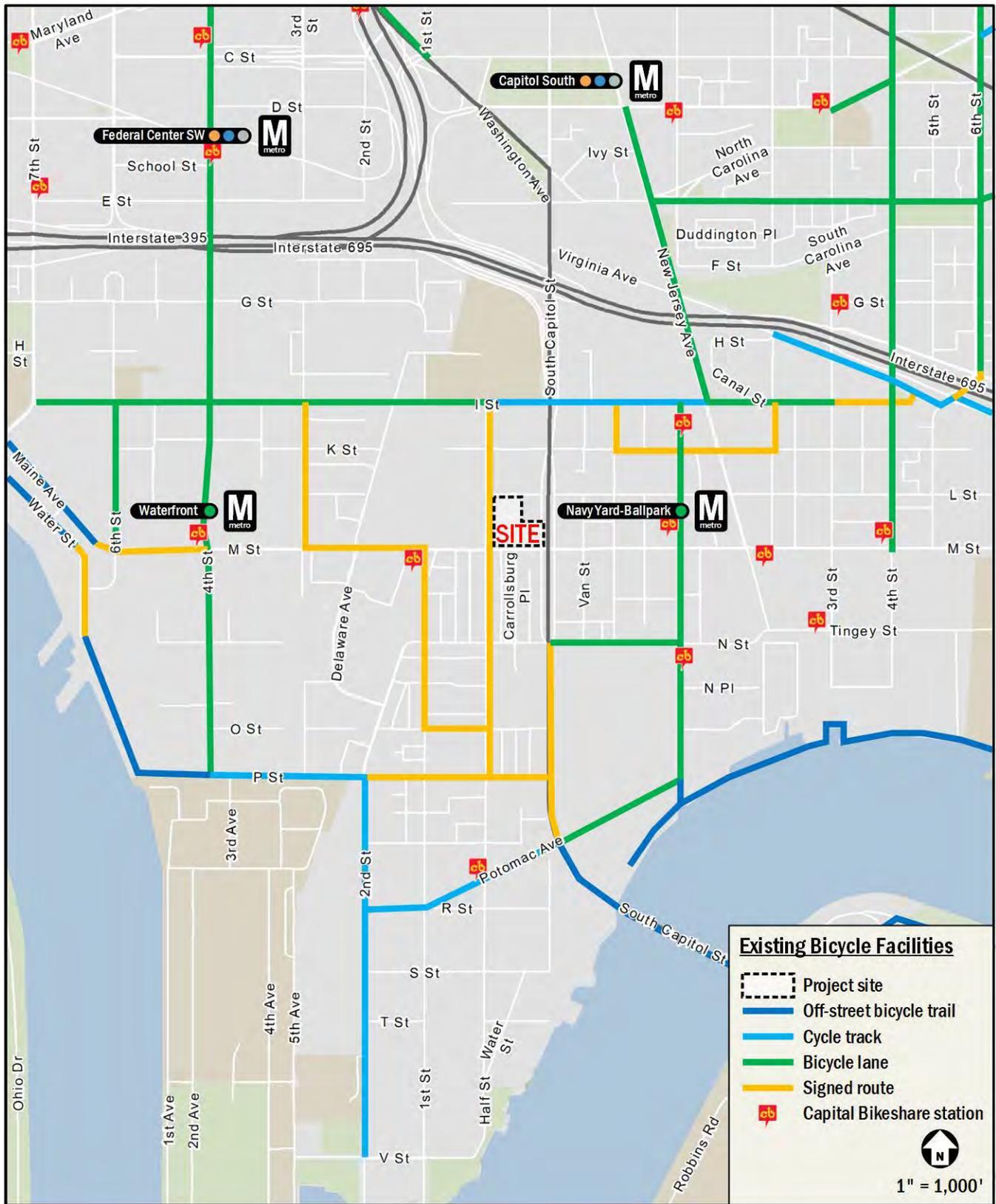


Figure 38: Existing Bicycle Facilities

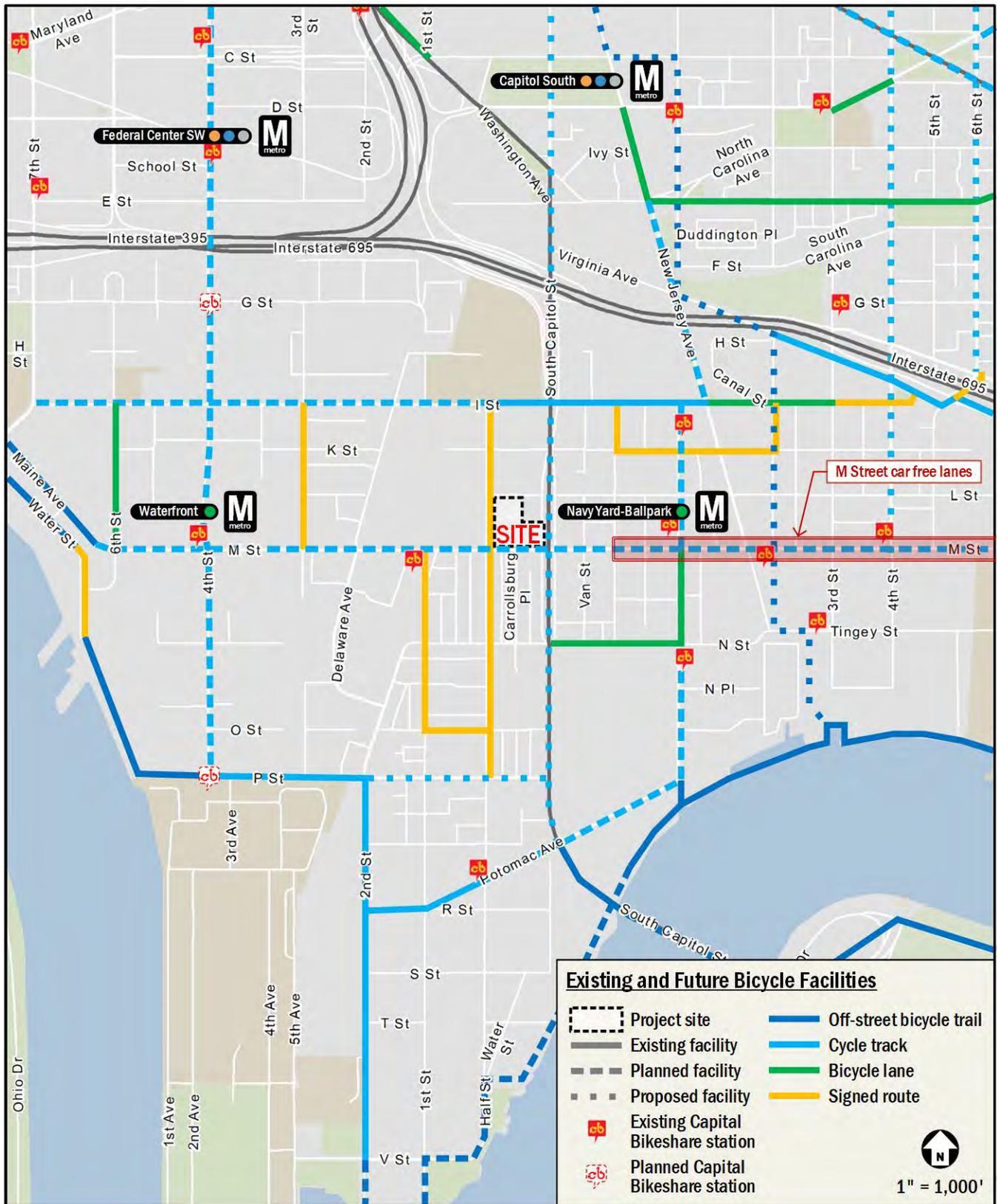


Figure 39: Existing and Future Bicycle Facilities

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## Safety Analysis

This chapter qualitatively reviews any vehicle, pedestrian, or bicycle conflicts at the study area intersections or street links within the study area. This review includes identifying any intersections within the study area that have been identified by DDOT as high crash locations.

### **Summary of Safety Analysis**

A safety analysis was performed to determine if there are any intersections that pose obvious conflicts with vehicles, pedestrians, or bicyclists. This was determined based on data included in DDOT's most recent *Traffic Safety Statistics Report (2015-2017)*, *Vision Zero Action Plan*, and Open Data DC Vision Zero Safety data. Based on available data, no study intersections have been identified by DDOT as hazardous/high crash intersections, however, a qualitative review of the crash data available through the DDOT-maintained and publicly-available "Crashes in DC" database was performed to identify study intersections in which conditions for vehicles, pedestrians, and bicyclists can be improved.

Based on a review of facilities the area, in addition to crash data, one (1) intersection was identified for further evaluation. The following section details the potential conflicts at the identified study area intersections.

### **Potential Impacts**

This section reviews the one (1) intersection that was identified to pose potential conflicts to vehicles, pedestrians, or bicyclists.

- **M Street & South Capitol Street SE/SW**

While this intersection was not identified in DDOT's *Traffic Safety Statistics Report (2015-2017)*, this location carries a high level of vehicle traffic and pedestrian activity.

Additionally, public-submitted comments express concerns related to pedestrian and bicycle safety at this intersection.

As it currently operates, pedestrian signalized intervals provide ample crossing time to pedestrians and bicycles with refuge islands in between the South Capitol Street service roads and "Yield to Pedestrians" signs on every approach.

No intersection reconfiguration or operational changes have been identified as this intersection will be improved as part Phase 2 of DDOT's South Capitol Street Corridor Project. Phase 2 of this project is not yet funded and is still under design.

## Summary and Conclusions

This report is a Comprehensive Transportation Review (CTR) on behalf of JBG Smith (the “Applicant”) for a Matter of Right/Design Review by the Zoning Commission (Zoning Commission Case Number 20-14) for the property located at Square 649 and Lots 43, 44, 45, and 48 in Southwest, Washington, DC.

The purpose of this CTR is to evaluate whether the 5 M Street SW development will generate a detrimental impact to the transportation network surrounding the site. This evaluation is based on a technical comparison of the existing conditions, background conditions, and total future conditions. This report concludes that **the project will not have a detrimental impact** to the surrounding transportation network assuming the proposed site design elements and TDM measures are implemented.

### Proposed Project

The site is located at 5 M Street SW, bounded by L Street SW to the north, M Street SW to the south, Half Street SW to the west, and S Capitol Street SW to the east. The proposed 5 M Street SW development. Two (2) development schemes are under consideration to improve the site:

- The “Mixed-Use” development scheme includes 371 residential units, 226,132 square feet of office, 25,427 square feet of retail, and 403 garage parking spaces. The 25,427 square feet of retail will be able to accommodate a small format grocer. To be conservative, this report assumes 10,628 square feet of the retail space will be potentially allocated to a small format grocer.
- The “Residential” development scheme includes 688 residential units, 23,850 square feet of retail, and 311 garage parking spaces. The 23,580 square feet of retail will be able to accommodate a small format grocer. To be conservative, this report assumes 13,065 square feet of the retail space will be potentially allocated to a small format grocer.

In both schemes, vehicular access will be reduced from seven (7) curb cuts to two (2) relocated curb cuts on Half Street SW and L Street SW, which will provide access to an internal site driveway with garage entry points and loading access.

The loading areas within the Site consist of four (4) 30-foot loading berths and two (2) service/delivery spaces. All truck turning maneuvers will occur within the Site, allowing for head-in/head-out access to and from the public roadway network. The

number of loading berths meet all zoning and DDOT dimensional requirements.

The 5 M Street SW development will satisfy the 2016 zoning requirements for bicycle parking by including 174 long-term bicycle parking spaces and 32 short-term bicycle parking spaces in the Mixed-Use scheme and 156 long-term bicycle parking spaces and 42 short-term bicycle parking spaces in the Residential scheme. In both schemes, the project will supply long-term bicycle parking in secure locations within the building and short-term bicycle parking within and along the perimeter of the Site. The vehicular and bicycle parking will also meet the practical needs of the project’s employees, residents, and patrons.

### Multi-Modal Overview

#### Trip Generation

The 5 M Street SW development is transit-, pedestrian-, and bicycle-oriented. Each development scheme of the project is expected to generate new trips on the surrounding transportation network across all modes during the morning, afternoon, and Saturday peak hours. The multi-modal trip generation for each scheme of the project is as follows:

#### Mixed-Use Scheme

The AM peak hour trip generation is projected to include 192 vehicles/hour, 172 transit riders/hour, 41 bicycle trips/hour, and 93 walking trips/hour. The PM peak hour trip generation is projected to include 225 vehicles/hour, 214 transit riders/hour, 62 bicycle trips/hour, and 202 walking trips/hour. The Saturday peak hour trip generation is projected to include 99 vehicles/hour, 107 transit riders/hour, 29 bicycle trips/hour, and 78 walking trips/hour.

#### Residential Scheme

The AM peak hour trip generation is projected to include 103 vehicles/hour, 151 transit riders/hour, 40 bicycle trips/hour, and 79 walking trips/hour. The PM peak hour trip generation is projected to include 144 vehicles/hour, 209 transit riders/hour, 66 bicycle trips/hour, and 183 walking trips/hour. The Saturday peak hour trip generation is projected to include 89 vehicles/hour, 132 transit riders/hour, 36 bicycle trips/hour, and 77 walking trips/hour.

## Transit

The development site is well-served by transit. It is located approximately 0.3 miles from the Navy Yard-Ballpark Metro station, approximately 0.5 miles from the Waterfront Metro station, and is served by local and regional bus routes.

Several planned or proposed transit projects will improve transit access to the site, including a peak-hour bus and bike lane on M Street as well as other improvements proposed in *MoveDC*, the District's long-range transportation plan.

The site is expected to generate a manageable amount of transit trips, and the existing service can accommodate these new trips.

As part of the proposed project, the bus stop directly on the southern (M Street SW) edge of the site is proposed to be relocated to the southwest corner of the site.

## Pedestrian

The site is surrounded by a well-connected pedestrian network. Despite some incidences of missing crosswalks or sidewalks that do not meet width standards, overall there is an excellent, well-connected pedestrian network surrounding the site.

The site will improve the overall pedestrian environment on site by improving sidewalks along the perimeter of the site.

The site is expected to generate a manageable amount of pedestrian trips, and the existing pedestrian facilities can accommodate these new trips.

## Bicycle

The site has access to several on- and off-street bicycle facilities.

Several planned and proposed bicycle projects will improve bicycle access to the site, including a car-free lane for buses and bikes on M Street, as well as an expanded network of cycle tracks and bicycle trails in the area.

The site is expected to generate a manageable amount of bicycle trips, and the existing bicycle facilities can accommodate these new trips.

The development will include long-term bicycle parking within the parking garages and short-term bicycle parking along the perimeter of the site that meet zoning requirements.

## Vehicular

The site is accessible from principal arterials such as S Capitol Street to the east. The site is also directly served by M Street

SW/SE and Eye Street SW, both minor arterials providing a robust network of local and regional connectivity. These roadways connect the site to I-395/I-695 and to DC-295, both of which provide access to the Capital Beltway (I-495), which surrounds Washington, DC and its inner suburbs, as well as providing connectivity to the District core.

In order to determine the project's impact on the transportation network, future conditions were analyzed with and without the development based on the number of trips the site is expected to generate under each development scheme. Intersection analyses are performed to obtain the average delay and queue a vehicle will experience. These average delays and queues are compared to the acceptable levels of delay set by DDOT standards as well as existing queues to determine if the project will negatively impact the study area.

The analysis concluded that five (5) and three (3) intersections require mitigation as a result of the minor impacts to delay created by the Mixed-Use and Residential development programs, respectively. Mitigation measures are recommended as follows:

### **Mixed-Use Scheme**

#### **Half Street & M Street SW**

Signal timing and phasing adjustments will be coordinated with DDOT in the morning and afternoon peak hours to ensure the most efficient future operation, following construction of the proposed project by 2024.

#### **Half Street & Eye Street SW**

Delays at this intersection are primarily due to queueing issues at the adjacent S Capitol Street and Eye Street SW/SE intersection. As such, these delays can be reduced with signal timing and phasing adjustments at the signalized intersection at S Capitol Street and Eye Street SW/SE. Adjustments will be coordinated with DDOT in the afternoon peak hour to ensure the most efficient future operation, following construction of the proposed project by 2024.

#### **First Street & M Street SE**

Signal timing and phasing adjustments will be coordinated with DDOT in the afternoon peak hour to ensure the most efficient future operation, following construction of the proposed project by 2024.

S Capitol Street & Eye Street SW/SE

Signal timing and phasing adjustments will be coordinated with DDOT in the afternoon peak hour to ensure the most efficient future operation, following construction of the proposed project by 2024.

S Capitol Street & N Street SW/SE

Signal timing and phasing adjustments will be coordinated with DDOT in the afternoon peak hour to ensure the most efficient future operation, following construction of the proposed project by 2024.

**Residential Scheme**

Half Street & M Street SW

Signal timing and phasing adjustments will be coordinated with DDOT in the morning peak hour to ensure the most efficient future operation, following construction of the proposed project by 2024.

Half Street & Eye Street SW

Delays at this intersection are primarily due to queueing issues at the adjacent S Capitol Street and Eye Street SW/SE intersection. As such, these delays can be reduced with signal timing and phasing adjustments at the signalized intersection at S Capitol Street and Eye Street SW/SE. Adjustments will be coordinated with DDOT in the afternoon peak hour to ensure the most efficient future operation, following construction of the proposed project by 2024.

S Capitol Street & Eye Street SW/SE

Signal timing and phasing adjustments will be coordinated with DDOT in the morning and afternoon peak hour to ensure the most efficient future operation, following construction of the proposed project by 2024.

**Safety**

A qualitative review of study area intersections was performed to identify areas of concern due to vehicular, pedestrian, and bicycle interactions.

The analysis concluded that no study intersections are considered hazardous/high crash intersections. However, based on a review of facilities in the area, one (1) intersection was identified for further evaluation to enhance the multi-modal network surrounding the site. The evaluation of this intersection is as follows:

- M Street and S Capitol Street  
While this intersection is not considered a hazardous/high crash intersection, this location carries a high level of vehicle traffic and pedestrian activity. This intersection has received public comments regarding pedestrian and bicycle safety. Intersection geometry or operational changes are not recommended at this time as this intersection will be improved and redesigned as part of Phase 2 of DDOT'S South Capitol Street Corridor Project.

**Transportation Demand Management (TDM) Plan**

Per the DDOT CTR guidelines, the goal of TDM measures is to reduce the number of single occupancy vehicles and vehicle ownership within the District. The promotion of various programs and existing infrastructure includes maximizing the use of transit, bicycle, and pedestrian facilities. DDOT has outlined expectations for TDM measures in their CTR guidelines, and this project has proposed a TDM plan based on these guidelines.

**Summary and Recommendations**

**This report concludes that the project will not have a detrimental impact on the surrounding transportation network assuming the proposed site design elements and TDM measures are implemented.**

The 5 M Street SW project has several positive design elements that minimize potential transportation impacts, including:

- The site's close proximity to transit and existing bicycle infrastructure;
- The site being located in a well-connected pedestrian network;
- The inclusion of secure long-term bicycle parking that meets zoning requirements;
- The installation of short-term bicycle parking spaces along the frontage of the site that meet zoning requirements;
- The relocation of a bus stop so as to accommodate its continued operations once the project opens;
- The inclusion of an internal private driveway that will accommodate all parking and loading access;
- The inclusion of a designated pick-up and drop-off area that is internal to the project;
- The creation of new pedestrian sidewalks that meet or exceed DDOT and ADA requirements, improving the existing pedestrian environment; and

- 
- A TDM plan that reduces the demand of single-occupancy, private vehicles during peak period travel times or shifts single-occupancy vehicular demand to off-peak periods.