

Appendix D

Background Future Levels of Service



WELLS + ASSOCIATES

ZONING COMMISSION

District of Columbia

CASE NO.02-51C

EXHIBIT NO.3A3

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	150	42	238	822	0	0	0	0	49	635	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0						4.0	
Lane Util. Factor		0.95			0.91						0.81	
Frpb, ped/bikes		0.93			1.00						0.95	
Flpb, ped/bikes		1.00			0.94						0.98	
Frt		0.97			1.00						0.98	
Flt Protected		1.00			0.99						1.00	
Satd. Flow (prot)		2850			4272						6130	
Flt Permitted		1.00			0.81						1.00	
Satd. Flow (perm)		2850			3494						6130	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	163	46	259	893	0	0	0	0	53	690	128
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	28	0
Lane Group Flow (vph)	0	209	0	0	1152	0	0	0	0	0	843	0
Confl. Peds. (#/hr)			251	251						327		311
Turn Type				Perm						Perm		
Protected Phases		4			8						6	
Permitted Phases				8						6		
Actuated Green, G (s)		40.6			40.6						51.4	
Effective Green, g (s)		40.6			40.6						51.4	
Actuated g/C Ratio		0.41			0.41						0.51	
Clearance Time (s)		4.0			4.0						4.0	
Vehicle Extension (s)		3.0			3.0						3.0	
Lane Grp Cap (vph)		1157			1419						3151	
v/s Ratio Prot		0.07										
v/s Ratio Perm					c0.33						0.14	
v/c Ratio		0.18			0.81						0.27	
Uniform Delay, d1		19.0			26.3						13.7	
Progression Factor		1.00			0.12						1.00	
Incremental Delay, d2		0.1			3.1						0.2	
Delay (s)		19.1			6.3						13.9	
Level of Service		B			A						B	
Approach Delay (s)		19.1			6.3			0.0			13.9	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM Average Control Delay			10.5		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			59.7%		ICU Level of Service					B		
Analysis Period (min)			15									

c Critical Lane Group

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	200	0	2	1055	1	0	0	0	4	0	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	217	0	2	1147	1	0	0	0	4	0	8
Pedestrians								192			63	
Lane Width (ft)								10.0			8.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								13			4	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		152			334							
pX, platoon unblocked	0.79			0.99			0.79	0.79	0.99	0.79	0.79	0.79
vC, conflicting volume	1211			409			804	1625	301	1323	1624	446
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	318			381			0	798	271	418	797	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	99	100	99
cM capacity (veh/h)	951			1006			607	210	623	350	213	828
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	109	109	289	573	288	0	12					
Volume Left	0	0	2	0	0	0	4					
Volume Right	0	0	0	0	1	0	8					
cSH	951	1700	1006	1700	1700	1700	553					
Volume to Capacity	0.00	0.06	0.00	0.34	0.17	0.00	0.02					
Queue Length 95th (ft)	0	0	0	0	0	0	2					
Control Delay (s)	0.0	0.0	0.1	0.0	0.0	0.0	11.7					
Lane LOS			A			A	B					
Approach Delay (s)	0.0		0.0			0.0	11.7					
Approach LOS						A	B					
Intersection Summary												
Average Delay			0.1									
Intersection Capacity Utilization			34.2%			ICU Level of Service				A		
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	195	5	14	1083	20	0	0	1	30	0	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	212	5	15	1177	22	0	0	1	33	0	10
Pedestrians		7			7			310			227	
Lane Width (ft)		12.0			12.0			8.0			10.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			17			16	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		253			233							
pX, platoon unblocked	0.77						0.77	0.77		0.77	0.77	0.77
vC, conflicting volume	1426			527			975	1992	426	1570	1984	637
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	505			527			0	1241	426	693	1230	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			100	100	100	80	100	99
cM capacity (veh/h)	684			869			483	92	480	159	94	699
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	111	111	310	589	316	1	42					
Volume Left	5	0	15	0	0	0	33					
Volume Right	0	5	0	0	22	1	10					
cSH	684	1700	869	1700	1700	480	194					
Volume to Capacity	0.01	0.07	0.02	0.35	0.19	0.00	0.22					
Queue Length 95th (ft)	1	0	1	0	0	0	20					
Control Delay (s)	0.6	0.0	0.6	0.0	0.0	12.5	28.7					
Lane LOS	A		A			B	D					
Approach Delay (s)	0.3		0.2			12.5	28.7					
Approach LOS						B	D					
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			51.6%			ICU Level of Service				A		
Analysis Period (min)			15									

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Volume (veh/h)	211	0	0	0	0	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	229	0	0	0	0	10
Pedestrians				307		
Lane Width (ft)				0.0		
Walking Speed (ft/s)				4.0		
Percent Blockage				0		
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)				132		
pX, platoon unblocked						
vC, conflicting volume			229		229	422
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			229		229	422
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	98
cM capacity (veh/h)			1336		738	581
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	115	115	10			
Volume Left	0	0	0			
Volume Right	0	0	10			
cSH	1700	1700	581			
Volume to Capacity	0.07	0.07	0.02			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	0.0	11.3			
Lane LOS			B			
Approach Delay (s)	0.0		11.3			
Approach LOS			B			
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			26.5%	ICU Level of Service		A
Analysis Period (min)			15			

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑↑									↑↑↑	
Volume (vph)	0	1191	1	0	0	0	0	0	0	291	1116	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.91									0.91	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		1.00									1.00	
Frt		1.00									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		5083									5033	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		5083									5033	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1295	1	0	0	0	0	0	0	316	1213	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	1296	0	0	0	0	0	0	0	0	1524	0
Confl. Peds. (#/hr)			204									
Turn Type										Perm		
Protected Phases											8	
Permitted Phases		6								8		
Actuated Green, G (s)		49.7									42.3	
Effective Green, g (s)		49.7									42.3	
Actuated g/C Ratio		0.50									0.42	
Clearance Time (s)		4.0									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		2526									2129	
v/s Ratio Prot												
v/s Ratio Perm		c0.25									0.30	
v/c Ratio		0.51									0.72	
Uniform Delay, d1		17.0									23.9	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.7									1.2	
Delay (s)		17.7									25.0	
Level of Service		B									C	
Approach Delay (s)		17.7			0.0			0.0			25.0	
Approach LOS		B			A			A			C	
Intersection Summary												
HCM Average Control Delay			21.7			HCM Level of Service				C		
HCM Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)				8.0		
Intersection Capacity Utilization			57.2%			ICU Level of Service				B		
Analysis Period (min)			15									
c Critical Lane Group												

										
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations										
Volume (vph)	0	208	26	0	0	0	0	0	1197	167
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0							4.0	4.0
Lane Util. Factor		0.95							0.97	1.00
Frpb, ped/bikes		0.97							1.00	1.00
Flpb, ped/bikes		1.00							1.00	1.00
Frt		0.98							1.00	0.85
Flt Protected		1.00							0.95	1.00
Satd. Flow (prot)		3375							3433	1583
Flt Permitted		1.00							0.95	1.00
Satd. Flow (perm)		3375							3433	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	226	28	0	0	0	0	0	1301	182
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	170	0
Lane Group Flow (vph)	0	242	0	0	0	0	0	0	1131	182
Confl. Peds. (#/hr)			144							
Turn Type										custom
Protected Phases		4								6
Permitted Phases									6	
Actuated Green, G (s)		12.5							79.5	79.5
Effective Green, g (s)		12.5							79.5	79.5
Actuated g/C Ratio		0.12							0.80	0.80
Clearance Time (s)		4.0							4.0	4.0
Vehicle Extension (s)		3.0							3.0	3.0
Lane Grp Cap (vph)		422							2729	1258
v/s Ratio Prot		c0.07								0.11
v/s Ratio Perm									c0.33	
v/c Ratio		0.57							0.41	0.14
Uniform Delay, d1		41.2							3.1	2.4
Progression Factor		0.81							3.11	0.43
Incremental Delay, d2		1.9							0.4	0.2
Delay (s)		35.2							10.1	1.2
Level of Service		D							B	A
Approach Delay (s)		35.2			0.0		0.0		9.1	
Approach LOS		D			A		A		A	
Intersection Summary										
HCM Average Control Delay		12.9			HCM Level of Service				B	
HCM Volume to Capacity ratio		0.44								
Actuated Cycle Length (s)		100.0			Sum of lost time (s)				8.0	
Intersection Capacity Utilization		54.1%			ICU Level of Service				A	
Analysis Period (min)		15								
c Critical Lane Group										

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	235	20	105	545	23	76	152	326	52	247	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.91			0.91			0.91	
Frpb, ped/bikes		0.97			0.99			0.79			0.87	
Flpb, ped/bikes		1.00			0.97			0.97			0.98	
Frt		0.99			0.99			0.91			0.95	
Flt Protected		1.00			0.99			0.99			0.99	
Satd. Flow (prot)		3055			4325			3189			3697	
Flt Permitted		0.93			0.80			0.81			0.82	
Satd. Flow (perm)		2853			3481			2592			3049	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	255	22	114	592	25	83	165	354	57	268	161
RTOR Reduction (vph)	0	0	0	0	0	0	0	47	0	0	19	0
Lane Group Flow (vph)	0	285	0	0	731	0	0	555	0	0	467	0
Confl. Peds. (#/hr)	221		241	241		221	395		295	295		395
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		27.3			27.3			64.7			64.7	
Effective Green, g (s)		27.3			27.3			64.7			64.7	
Actuated g/C Ratio		0.27			0.27			0.65			0.65	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		779			950			1677			1973	
v/s Ratio Prot												
v/s Ratio Perm		0.10			0.21			0.21			0.15	
v/c Ratio		0.37			0.77			0.33			0.24	
Uniform Delay, d1		29.4			33.5			7.9			7.4	
Progression Factor		1.00			0.31			1.00			1.00	
Incremental Delay, d2		0.3			3.7			0.5			0.3	
Delay (s)		29.7			13.9			8.5			7.6	
Level of Service		C			B			A			A	
Approach Delay (s)		29.7			13.9			8.5			7.6	
Approach LOS		C			B			A			A	
Intersection Summary												
HCM Average Control Delay			13.0			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.46									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			8.0			
Intersection Capacity Utilization			73.1%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

Center for Strategic and International Studies
2: Rhode Island Avenue NW & Hotel Driveway

Background PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	612	0	1	693	1	0	0	0	4	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	665	0	1	753	1	0	0	0	4	0	5
Pedestrians		2						249			114	
Lane Width (ft)		12.0						8.0			8.0	
Walking Speed (ft/s)		4.0						4.0			4.0	
Percent Blockage		0						14			6	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		166			333							
pX, platoon unblocked	0.87			0.94			0.90	0.90	0.94	0.90	0.90	0.87
vC, conflicting volume	868			914			1175	1785	582	1203	1784	368
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	338			786			474	1151	433	505	1150	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	99	100	99
cM capacity (veh/h)	996			673			310	145	463	326	145	890
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	333	333	189	377	189	0	10					
Volume Left	0	0	1	0	0	0	4					
Volume Right	0	0	0	0	1	0	5					
cSH	996	1700	673	1700	1700	1700	504					
Volume to Capacity	0.00	0.20	0.00	0.22	0.11	0.00	0.02					
Queue Length 95th (ft)	0	0	0	0	0	0	1					
Control Delay (s)	0.0	0.0	0.1	0.0	0.0	0.0	12.3					
Lane LOS			A			A	B					
Approach Delay (s)	0.0		0.0			0.0	12.3					
Approach LOS						A	B					
Intersection Summary												
Average Delay			0.1									
Intersection Capacity Utilization			29.4%	ICU Level of Service					A			
Analysis Period (min)			15									

Center for Strategic and International Studies
3: Rhode Island Avenue NW & Bataan Street NW

Background PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	643	2	5	670	21	3	1	8	52	0	23
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	699	2	5	728	23	3	1	9	57	0	25
Pedestrians					25			199			188	
Lane Width (ft)					12.0			8.0			8.0	
Walking Speed (ft/s)					4.0			4.0			4.0	
Percent Blockage					2			11			10	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		266			233							
pX, platoon unblocked	0.86			0.95			0.88	0.88	0.95	0.88	0.88	0.86
vC, conflicting volume	939			900			1188	1860	575	1333	1850	442
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	346			792			452	1213	449	616	1201	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			99	99	98	76	100	97
cM capacity (veh/h)	929			709			315	127	466	236	129	832
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	355	352	188	364	205	13	82					
Volume Left	5	0	5	0	0	3	57					
Volume Right	0	2	0	0	23	9	25					
cSH	929	1700	709	1700	1700	347	302					
Volume to Capacity	0.01	0.21	0.01	0.21	0.12	0.04	0.27					
Queue Length 95th (ft)	0	0	1	0	0	3	27					
Control Delay (s)	0.2	0.0	0.4	0.0	0.0	15.8	21.2					
Lane LOS	A		A			C	C					
Approach Delay (s)	0.1		0.1			15.8	21.2					
Approach LOS						C	C					
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			41.7%			ICU Level of Service			A			
Analysis Period (min)			15									

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Volume (veh/h)	677	0	0	0	0	41
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	736	0	0	0	0	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				130		
pX, platoon unblocked						
vC, conflicting volume			736		736	368
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			736		736	368
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	93
cM capacity (veh/h)			865		354	629
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	368	368	45			
Volume Left	0	0	0			
Volume Right	0	0	45			
cSH	1700	1700	629			
Volume to Capacity	0.22	0.22	0.07			
Queue Length 95th (ft)	0	0	6			
Control Delay (s)	0.0	0.0	11.2			
Lane LOS			B			
Approach Delay (s)	0.0		11.2			
Approach LOS			B			
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization			28.7%	ICU Level of Service		A
Analysis Period (min)			15			

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	1141	4	0	0	0	0	0	0	201	675	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.91									0.91	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		1.00									1.00	
Frt		1.00									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		5078									5028	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		5078									5028	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1240	4	0	0	0	0	0	0	218	734	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	1244	0	0	0	0	0	0	0	0	948	0
Confl. Peds. (#/hr)			190									
Turn Type										Perm		
Protected Phases											8	
Permitted Phases		6								8		
Actuated Green, G (s)		64.5									27.5	
Effective Green, g (s)		64.5									27.5	
Actuated g/C Ratio		0.64									0.28	
Clearance Time (s)		4.0									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		3275									1383	
v/s Ratio Prot												
v/s Ratio Perm		c0.24									0.19	
v/c Ratio		0.38									0.69	
Uniform Delay, d1		8.3									32.4	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.3									1.4	
Delay (s)		8.7									33.8	
Level of Service		A									C	
Approach Delay (s)		8.7			0.0			0.0			33.8	
Approach LOS		A			A			A			C	
Intersection Summary												
HCM Average Control Delay			19.6			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)				8.0		
Intersection Capacity Utilization			46.0%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

										
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations		↑↑							↑↑	↑
Volume (vph)	0	634	41	0	0	0	0	0	1054	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0							4.0	4.0
Lane Util. Factor		0.95							0.97	1.00
Frpb, ped/bikes		0.98							1.00	1.00
Flpb, ped/bikes		1.00							1.00	1.00
Frt		0.99							1.00	0.85
Flt Protected		1.00							0.95	1.00
Satd. Flow (prot)		3439							3433	1583
Flt Permitted		1.00							0.95	1.00
Satd. Flow (perm)		3439							3433	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	689	45	0	0	0	0	0	1146	165
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	37	0
Lane Group Flow (vph)	0	729	0	0	0	0	0	0	1109	165
Confl. Peds. (#/hr)			188							
Turn Type										custom
Protected Phases		4								6
Permitted Phases									6	
Actuated Green, G (s)		26.6							65.4	65.4
Effective Green, g (s)		26.6							65.4	65.4
Actuated g/C Ratio		0.27							0.65	0.65
Clearance Time (s)		4.0							4.0	4.0
Vehicle Extension (s)		3.0							3.0	3.0
Lane Grp Cap (vph)		915							2245	1035
v/s Ratio Prot		c0.21								0.10
v/s Ratio Perm									c0.32	
v/c Ratio		0.80							0.49	0.16
Uniform Delay, d1		34.2							8.8	6.7
Progression Factor		0.84							1.74	1.47
Incremental Delay, d2		4.8							0.7	0.3
Delay (s)		33.4							16.1	10.1
Level of Service		C							B	B
Approach Delay (s)		33.4			0.0		0.0		15.4	
Approach LOS		C			A		A		B	
Intersection Summary										
HCM Average Control Delay			21.8			HCM Level of Service			C	
HCM Volume to Capacity ratio			0.58							
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			8.0	
Intersection Capacity Utilization			56.0%			ICU Level of Service			B	
Analysis Period (min)			15							
c Critical Lane Group										

Appendix E

Total Future Levels of Service

Center for Strategic and International Studies
1: Rhode Island Avenue NW & 17th Street NW

Total Future AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	151	42	238	822	0	0	0	0	69	635	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0						4.0	
Lane Util. Factor		0.95			0.91						0.81	
Frpb, ped/bikes		0.93			1.00						0.95	
Flpb, ped/bikes		1.00			0.94						0.97	
Frt		0.97			1.00						0.98	
Flt Protected		1.00			0.99						1.00	
Satd. Flow (prot)		2852			4272						6082	
Flt Permitted		1.00			0.81						1.00	
Satd. Flow (perm)		2852			3493						6082	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	164	46	259	893	0	0	0	0	75	690	128
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	27	0
Lane Group Flow (vph)	0	210	0	0	1152	0	0	0	0	0	866	0
Confl. Peds. (#/hr)			251	251							327	311
Turn Type				Perm							Perm	
Protected Phases		4			8							6
Permitted Phases				8							6	
Actuated Green, G (s)		40.6			40.6						51.4	
Effective Green, g (s)		40.6			40.6						51.4	
Actuated g/C Ratio		0.41			0.41						0.51	
Clearance Time (s)		4.0			4.0						4.0	
Vehicle Extension (s)		3.0			3.0						3.0	
Lane Grp Cap (vph)		1158			1418						3126	
v/s Ratio Prot		0.07										
v/s Ratio Perm					c0.33						0.14	
v/c Ratio		0.18			0.81						0.28	
Uniform Delay, d1		19.0			26.3						13.8	
Progression Factor		1.00			0.16						1.00	
Incremental Delay, d2		0.1			3.2						0.2	
Delay (s)		19.1			7.5						14.0	
Level of Service		B			A						B	
Approach Delay (s)		19.1			7.5			0.0			14.0	
Approach LOS		B			A			A			B	
Intersection Summary												
HCM Average Control Delay			11.1		HCM Level of Service					B		
HCM Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			100.0		Sum of lost time (s)					8.0		
Intersection Capacity Utilization			59.7%		ICU Level of Service					B		
Analysis Period (min)			15									
c Critical Lane Group												

Center for Strategic and International Studies
2: Rhode Island Avenue NW & Hotel Driveway

Total Future AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	190	30	59	1055	1	0	0	0	4	0	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	207	33	64	1147	1	0	0	0	4	0	8
Pedestrians								192			63	
Lane Width (ft)								10.0			8.0	
Walking Speed (ft/s)								4.0			4.0	
Percent Blockage								13			4	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		152			334							
pX, platoon unblocked	0.78			0.99			0.79	0.79	0.99	0.79	0.79	0.78
vC, conflicting volume	1211			431			933	1754	312	1442	1770	446
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	303			402			0	946	281	551	966	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			94			100	100	100	98	100	99
cM capacity (veh/h)	960			988			577	160	614	267	158	825
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	103	136	351	573	288	0	12					
Volume Left	0	0	64	0	0	0	4					
Volume Right	0	33	0	0	1	0	8					
cSH	960	1700	988	1700	1700	1700	469					
Volume to Capacity	0.00	0.08	0.06	0.34	0.17	0.00	0.03					
Queue Length 95th (ft)	0	0	5	0	0	0	2					
Control Delay (s)	0.0	0.0	2.2	0.0	0.0	0.0	12.9					
Lane LOS			A			A	B					
Approach Delay (s)	0.0		0.6			0.0	12.9					
Approach LOS						A	B					
Intersection Summary												
Average Delay			0.6									
Intersection Capacity Utilization			50.7%	ICU Level of Service		A						
Analysis Period (min)			15									

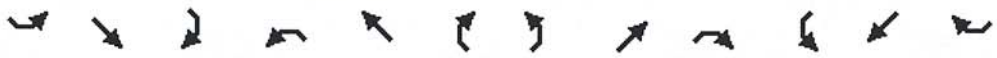
Center for Strategic and International Studies
3: Rhode Island Avenue NW & Bataan Street NW

Total Future AM



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑		↑	
Volume (veh/h)	5	190	1114	20	30	36
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	207	1211	22	33	39
Pedestrians		7	7		227	
Lane Width (ft)		12.0	12.0		10.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		1	1		16	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		253	233			
pX, platoon unblocked	0.77				0.77	0.77
vC, conflicting volume	1460				1570	648
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	543				686	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				87	94
cM capacity (veh/h)	662				243	698
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	74	138	484	484	264	72
Volume Left	5	0	0	0	0	33
Volume Right	0	0	0	0	22	39
cSH	662	1700	1700	1700	1700	377
Volume to Capacity	0.01	0.08	0.28	0.28	0.16	0.19
Queue Length 95th (ft)	1	0	0	0	0	17
Control Delay (s)	0.9	0.0	0.0	0.0	0.0	16.8
Lane LOS	A					C
Approach Delay (s)	0.3		0.0			16.8
Approach LOS						C
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utilization			37.7%		ICU Level of Service	A
Analysis Period (min)			15			

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Volume (veh/h)	210	0	0	0	0	20
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	228	0	0	0	0	22
Pedestrians				307		
Lane Width (ft)				0.0		
Walking Speed (ft/s)				4.0		
Percent Blockage				0		
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)				132		
pX, platoon unblocked						
vC, conflicting volume			228		228	421
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			228		228	421
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			1337		740	581
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	114	114	22			
Volume Left	0	0	0			
Volume Right	0	0	22			
cSH	1700	1700	581			
Volume to Capacity	0.07	0.07	0.04			
Queue Length 95th (ft)	0	0	3			
Control Delay (s)	0.0	0.0	11.4			
Lane LOS			B			
Approach Delay (s)	0.0		11.4			
Approach LOS			B			
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			26.4%	ICU Level of Service	A	
Analysis Period (min)			15			

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	1191	1	0	0	0	0	0	0	291	1133	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.91									0.91	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		1.00									1.00	
Frt		1.00									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		5083									5034	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		5083									5034	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1295	1	0	0	0	0	0	0	316	1232	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	1296	0	0	0	0	0	0	0	0	1543	0
Confl. Peds. (#/hr)			204									
Turn Type										Perm		
Protected Phases											8	
Permitted Phases		6								8		
Actuated Green, G (s)		49.2									42.8	
Effective Green, g (s)		49.2									42.8	
Actuated g/C Ratio		0.49									0.43	
Clearance Time (s)		4.0									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		2501									2155	
v/s Ratio Prot												
v/s Ratio Perm		0.25									0.31	
v/c Ratio		0.52									0.72	
Uniform Delay, d1		17.3									23.6	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.8									1.2	
Delay (s)		18.1									24.7	
Level of Service		B									C	
Approach Delay (s)		18.1			0.0			0.0			24.7	
Approach LOS		B			A			A			C	
Intersection Summary												
HCM Average Control Delay			21.7			HCM Level of Service				C		
HCM Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)				8.0		
Intersection Capacity Utilization			57.5%			ICU Level of Service				B		
Analysis Period (min)			15									
c Critical Lane Group												

Center for Strategic and International Studies
6: Rhode Island Avenue NW & 16th Street NW

Total Future AM

											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER	
Lane Configurations											
Volume (vph)	0	212	32	0	0	0	0	0	1197	167	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.0							4.0	4.0	
Lane Util. Factor		0.95							0.97	1.00	
Frpb, ped/bikes		0.96							1.00	1.00	
Flpb, ped/bikes		1.00							1.00	1.00	
Frt		0.98							1.00	0.85	
Flt Protected		1.00							0.95	1.00	
Satd. Flow (prot)		3342							3433	1583	
Flt Permitted		1.00							0.95	1.00	
Satd. Flow (perm)		3342							3433	1583	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	230	35	0	0	0	0	0	1301	182	
RTOR Reduction (vph)	0	16	0	0	0	0	0	0	169	0	
Lane Group Flow (vph)	0	249	0	0	0	0	0	0	1132	182	
Confl. Peds. (#/hr)			144								
Turn Type										custom	
Protected Phases		4								6	
Permitted Phases									6		
Actuated Green, G (s)		12.8							79.2	79.2	
Effective Green, g (s)		12.8							79.2	79.2	
Actuated g/C Ratio		0.13							0.79	0.79	
Clearance Time (s)		4.0							4.0	4.0	
Vehicle Extension (s)		3.0							3.0	3.0	
Lane Grp Cap (vph)		428							2719	1254	
v/s Ratio Prot		c0.07								0.11	
v/s Ratio Perm									c0.33		
v/c Ratio		0.58							0.42	0.15	
Uniform Delay, d1		41.1							3.2	2.4	
Progression Factor		0.86							2.90	0.40	
Incremental Delay, d2		2.0							0.4	0.2	
Delay (s)		37.3							9.8	1.2	
Level of Service		D							A	A	
Approach Delay (s)		37.3			0.0		0.0		8.7		
Approach LOS		D			A		A		A		
Intersection Summary											
HCM Average Control Delay			13.1		HCM Level of Service				B		
HCM Volume to Capacity ratio			0.44								
Actuated Cycle Length (s)			100.0		Sum of lost time (s)				8.0		
Intersection Capacity Utilization			54.1%		ICU Level of Service				A		
Analysis Period (min)			15								
c Critical Lane Group											

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	235	20	104	543	23	76	152	327	53	247	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		0.95			0.91			0.91			0.91	
Frpb, ped/bikes		0.97			0.99			0.79			0.87	
Flpb, ped/bikes		1.00			0.97			0.97			0.98	
Frt		0.99			0.99			0.91			0.95	
Flt Protected		1.00			0.99			0.99			0.99	
Satd. Flow (prot)		3055			4326			3187			3697	
Flt Permitted		0.93			0.80			0.81			0.82	
Satd. Flow (perm)		2853			3483			2591			3042	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	8	255	22	113	590	25	83	165	355	58	268	161
RTOR Reduction (vph)	0	0	0	0	0	0	0	46	0	0	19	0
Lane Group Flow (vph)	0	285	0	0	728	0	0	557	0	0	468	0
Confl. Peds. (#/hr)	221		241	241		221	395		295	295		395
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		27.2			27.2			64.8			64.8	
Effective Green, g (s)		27.2			27.2			64.8			64.8	
Actuated g/C Ratio		0.27			0.27			0.65			0.65	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		776			947			1679			1971	
v/s Ratio Prot												
v/s Ratio Perm		0.10			0.21			0.21			0.15	
v/c Ratio		0.37			0.77			0.33			0.24	
Uniform Delay, d1		29.4			33.5			7.9			7.3	
Progression Factor		1.00			0.31			1.00			1.00	
Incremental Delay, d2		0.3			3.7			0.5			0.3	
Delay (s)		29.7			14.1			8.4			7.6	
Level of Service		C			B			A			A	
Approach Delay (s)		29.7			14.1			8.4			7.6	
Approach LOS		C			B			A			A	
Intersection Summary												
HCM Average Control Delay			13.1			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.46									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			8.0			
Intersection Capacity Utilization			73.1%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

Center for Strategic and International Studies
2: Rhode Island Avenue NW & Hotel Driveway

Total Future PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	609	7	11	690	1	0	0	0	4	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	662	8	12	750	1	0	0	0	4	0	5
Pedestrians		2						249			114	
Lane Width (ft)		12.0						8.0			8.0	
Walking Speed (ft/s)		4.0						4.0			4.0	
Percent Blockage		0						14			6	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		166			333							
pX, platoon unblocked	0.87			0.94			0.90	0.90	0.94	0.90	0.90	0.87
vC, conflicting volume	865			919			1196	1804	584	1219	1807	367
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	330			790			493	1168	435	519	1172	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			100	100	100	99	100	99
cM capacity (veh/h)	1001			670			297	139	462	315	139	889
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1					
Volume Total	331	339	199	375	189	0	10					
Volume Left	0	0	12	0	0	0	4					
Volume Right	0	8	0	0	1	0	5					
cSH	1001	1700	670	1700	1700	1700	491					
Volume to Capacity	0.00	0.20	0.02	0.22	0.11	0.00	0.02					
Queue Length 95th (ft)	0	0	1	0	0	0	2					
Control Delay (s)	0.0	0.0	0.8	0.0	0.0	0.0	12.5					
Lane LOS			A			A	B					
Approach Delay (s)	0.0		0.2			0.0	12.5					
Approach LOS						A	B					
Intersection Summary												
Average Delay			0.2									
Intersection Capacity Utilization			34.1%			ICU Level of Service			A			
Analysis Period (min)			15									

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑		↑	
Volume (veh/h)	5	642	674	21	52	29
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	698	733	23	57	32
Pedestrians			25		188	
Lane Width (ft)			12.0		8.0	
Walking Speed (ft/s)			4.0		4.0	
Percent Blockage			2		10	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		266	233			
pX, platoon unblocked	0.86				0.88	0.86
vC, conflicting volume	943				1317	444
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	351				601	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				83	96
cM capacity (veh/h)	925				332	832
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	238	465	293	293	169	88
Volume Left	5	0	0	0	0	57
Volume Right	0	0	0	0	23	32
cSH	925	1700	1700	1700	1700	423
Volume to Capacity	0.01	0.27	0.17	0.17	0.10	0.21
Queue Length 95th (ft)	0	0	0	0	0	19
Control Delay (s)	0.3	0.0	0.0	0.0	0.0	15.7
Lane LOS	A					C
Approach Delay (s)	0.1		0.0			15.7
Approach LOS						C
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			35.4%		ICU Level of Service	A
Analysis Period (min)			15			

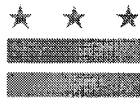
						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑					↑
Volume (veh/h)	669	0	0	0	0	118
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	727	0	0	0	0	128
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)				130		
pX, platoon unblocked						
vC, conflicting volume			727		727	364
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			727		727	364
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	80
cM capacity (veh/h)			872		359	633
Direction, Lane #	EB 1	EB 2	NB 1			
Volume Total	364	364	128			
Volume Left	0	0	0			
Volume Right	0	0	128			
cSH	1700	1700	633			
Volume to Capacity	0.21	0.21	0.20			
Queue Length 95th (ft)	0	0	19			
Control Delay (s)	0.0	0.0	12.1			
Lane LOS			B			
Approach Delay (s)	0.0		12.1			
Approach LOS			B			
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization			32.5%	ICU Level of Service		A
Analysis Period (min)			15			

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	1141	4	0	0	0	0	0	0	201	674	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0									4.0	
Lane Util. Factor		0.91									0.91	
Frpb, ped/bikes		1.00									1.00	
Flpb, ped/bikes		1.00									1.00	
Frt		1.00									1.00	
Flt Protected		1.00									0.99	
Satd. Flow (prot)		5078									5028	
Flt Permitted		1.00									0.99	
Satd. Flow (perm)		5078									5028	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1240	4	0	0	0	0	0	0	218	733	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	1244	0	0	0	0	0	0	0	0	947	0
Confl. Peds. (#/hr)			190									
Turn Type										Perm		
Protected Phases											8	
Permitted Phases		6								8		
Actuated Green, G (s)		64.5									27.5	
Effective Green, g (s)		64.5									27.5	
Actuated g/C Ratio		0.64									0.28	
Clearance Time (s)		4.0									4.0	
Vehicle Extension (s)		3.0									3.0	
Lane Grp Cap (vph)		3275									1383	
v/s Ratio Prot												
v/s Ratio Perm		c0.24									0.19	
v/c Ratio		0.38									0.69	
Uniform Delay, d1		8.3									32.4	
Progression Factor		1.00									1.00	
Incremental Delay, d2		0.3									1.4	
Delay (s)		8.7									33.8	
Level of Service		A									C	
Approach Delay (s)		8.7			0.0			0.0			33.8	
Approach LOS		A			A			A			C	
Intersection Summary												
HCM Average Control Delay			19.6			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.47									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)				8.0		
Intersection Capacity Utilization			45.9%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

										
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations		↑↑							↑↑	↑
Volume (vph)	0	678	67	0	0	0	0	0	1054	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0							4.0	4.0
Lane Util. Factor		0.95							0.97	1.00
Frb, ped/bikes		0.97							1.00	1.00
Flpb, ped/bikes		1.00							1.00	1.00
Frt		0.99							1.00	0.85
Flt Protected		1.00							0.95	1.00
Satd. Flow (prot)		3392							3433	1583
Flt Permitted		1.00							0.95	1.00
Satd. Flow (perm)		3392							3433	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	737	73	0	0	0	0	0	1146	165
RTOR Reduction (vph)	0	8	0	0	0	0	0	0	31	0
Lane Group Flow (vph)	0	802	0	0	0	0	0	0	1115	165
Confl. Peds. (#/hr)			188							
Turn Type									custom	
Protected Phases		4								6
Permitted Phases									6	
Actuated Green, G (s)		28.1							63.9	63.9
Effective Green, g (s)		28.1							63.9	63.9
Actuated g/C Ratio		0.28							0.64	0.64
Clearance Time (s)		4.0							4.0	4.0
Vehicle Extension (s)		3.0							3.0	3.0
Lane Grp Cap (vph)		953							2194	1012
v/s Ratio Prot		c0.24								0.10
v/s Ratio Perm									c0.32	
v/c Ratio		0.84							0.51	0.16
Uniform Delay, d1		33.9							9.6	7.3
Progression Factor		0.85							1.70	1.47
Incremental Delay, d2		6.7							0.8	0.3
Delay (s)		35.6							17.2	11.0
Level of Service		D							B	B
Approach Delay (s)		35.6			0.0		0.0		16.5	
Approach LOS		D			A		A		B	
Intersection Summary										
HCM Average Control Delay			23.8			HCM Level of Service			C	
HCM Volume to Capacity ratio			0.61							
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			8.0	
Intersection Capacity Utilization			58.3%			ICU Level of Service			B	
Analysis Period (min)			15							
c Critical Lane Group										

E

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Zoning Commission



ZONING COMMISSION FOR THE DISTRICT OF COLUMBIA
ZONING COMMISSION ORDER NO. 02-51A

Z.C. Case No. 02-51A

**(First Stage Modification Application to an Approved Planned Unit Development of
Rhode Island Associates Limited Partnership)
February 12, 2007**

Pursuant to notice, the Zoning Commission for the District of Columbia (the "Commission") held a public hearing on December 14, 2006, to consider an application from Rhode Island Associates Limited Partnership ("Partnership") for first stage review and approval of a modification to an approved planned unit development for Square 182, Lots 82 and 83 pursuant to Chapters 24 and 30 of the District of Columbia Municipal Regulations (DCMR) Title 11 (Zoning). The public hearing was conducted in accordance with the provisions of 11 DCMR §3022. For the reasons discussed below, the Commission grants the application.

FINDINGS OF FACT

PUD Site

1. The planned unit development ("PUD") site consists of Square 182, Lots 82 and 83 ("PUD Site"). It is located on the south side of Rhode Island Avenue, N.W., between 16th Street to the east and 17th Street to the west at 1616 Rhode Island Avenue, N.W. in Ward 2. The PUD Site has a total land area of 32,726 square feet and approximately 230 feet of frontage along Rhode Island Avenue. It abuts alleys to the east, west, and south.
2. The site that is the subject of the modification application is the western one-half of the PUD Site and consists of Square 182, Lot 82 ("Project Site"). The Project Site is approximately 15,394 square feet in area and has been used as a surface parking lot for several years. It is bounded by a public alley and the Human Rights Campaign headquarters office building to the west. To the east is the other half of the PUD Site, which includes the University of California building.
3. The PUD Site is located in the C-4 Zone District. The properties in the vicinity of the site are located in the C-4, SP-2, and SP-1 Zone Districts. The areas surrounding the PUD Site include major office development to the south of the PUD and a mix of office, hotel, residential, and recreational facilities at moderate and high densities to the east, west, and north of the site. Immediately to the south of the PUD Site is the Sumner-Magruder School office complex.

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4. The PUD Site is designated as appropriate for high-density commercial use pursuant to the Comprehensive Plan and is located in the Central Employment Area. It is located within three blocks of both the Farragut North Metro Station and the Dupont Circle Metro Station. (Exhibit 40, Exhibit C – p. 7)
5. The PUD Site is located in the southeastern portion of the Dupont Circle Overlay District and is northwest of the Downtown Development Overlay District.

Procedural History

6. Zoning Commission Order No. 638, dated December 15, 1989, approved a consolidated PUD and map amendment from SP-2 to C-4 of the PUD Site (“Original PUD”). The Original PUD permitted the construction of a mixed-use building containing residential, office and retail space to a maximum height of 106 feet and a floor area ratio (“FAR”) of 8.5.
7. The Commission subsequently approved an interim use of the PUD Site, minor modifications to the PUD, and extensions of the PUD in Zoning Commission Order Nos. 638-A, 638-B, 638-C, 638-D, and 638-E.
8. In 1998, the Commission approved the subdivision of the PUD Site and authorized two discrete buildings. The eastern half of the site, now known as Lot 83, was approved to allow the University of California to construct a mixed-use building for office, academic, and residential uses. The western half of the site, now known as Lot 82, was approved for the construction of a suites hotel. The Commission approved a density of 8.2 FAR for the PUD Site, with 3.05 FAR to be reserved to residential uses and 5.15 FAR to be allocated to office, academic, and commercial hotel uses. A 8.5 FAR was approved for the University’s building and a 7.9 FAR was approved for the hotel (Zoning Commission Order No. 638-F).
9. The University of California subsequently purchased Lot 83 from Rhode Island Associates Limited Partnership and constructed its project. The eastern half of the PUD Site is occupied by the University of California’s “Washington Center.” Rhode Island Associates Limited Partnership remains the owner of Lot 82 and a hotel was never constructed on the PUD Site. (Zoning Commission Order No. 02-51; Exhibit 40, Exhibit F – p. 2)
10. In 2000, the Human Rights Campaign (“HRC”) and its affiliate, the Human Rights Campaign Foundation, entered into a contract to purchase Lot 82 from Rhode Island Associates Limited Partnership. In 2001, HRC filed an application to modify the approved PUD to change the permitted use for Lot 82 from commercial hotel to office building and substitute a new design and plans for the proposed headquarters building of HRC. A public hearing was conducted by the Commission on July 12, 2001. After the public hearing, HRC opted not to pursue the proposed development and informed the

Zoning Commission that it was finalizing an offer from a hotel developer to construct a hotel project satisfying the requirements of Zoning Commission Order No. 638-F and simultaneously requested a one-year extension of Order No. 638-F.

11. On September 17, 2001, the Commission voted to grant HRC's request to extend the PUD and tabled action on HRC's request to modify the approved PUD. (Zoning Commission Order No. 871-A)
12. HRC's hotel developer did not consummate the transaction and the property was retained by Rhode Island Associates Limited Partnership. (Zoning Commission Order No. 02-51)
13. On September 5, 2003, the Commission granted another extension of the PUD until April 14, 2005. (Zoning Commission Order No. 02-51)
14. On April 12, 2005, Rhode Island Associates Limited Partnership filed a motion to modify the PUD and to simultaneously extend the PUD. The Partnership proposed an office building that was 110 feet in height, consisted of 130,870 square feet (8.5 FAR) and included up to 120 parking spaces.
15. The Commission scheduled a hearing on the request for September 30, 2005. Before the hearing began, the Commission considered several preliminary matters. First, the Commission granted the University of California's request to participate as a party. Second, the Commission requested that the Partnership explicitly address 11 DCMR § 2408.10(b), which provides that the Commission may extend the time a final PUD is valid only if there is "no substantial change in any of the material facts upon which the Commission based its original approval of the PUD that would undermine the Commission's justification for approving the original PUD." Third, the Commission considered a request by ANC 2B to postpone the hearing. The Commission continued the hearing to December 1, 2005 to allow the Partnership time to provide a written response to its request regarding 11 DCMR § 2408.10(b). In light of the Commission's continuance of the hearing, it was not necessary to rule upon ANC 2B's request for a continuance.
16. By letter dated November 22, 2005, the University of California informed the Commission that it had reached an agreement with the Partnership concerning a revised design plan that alleviated its objections to the application. The next day, the Partnership submitted its revised plans and requested leave to file the revisions out of time.
17. At the continued hearing held on December 1, 2005, the Commission considered the Partnership's application for a time extension in light of considerable time that had passed since the approval of the first-stage PUD for the site. The Commission indicated that it wanted the Applicant take a "fresh look" at the appropriate, height, bulk, and massing of the building in light of the changes to the surrounding neighborhood. The Commission directed Rhode Island Associates Limited Partnership to revise its

application, and to apply for a modification, but only as a first-stage PUD within six months (Exhibit 2, p. 6; Transcript for December 1, 2005 Hearing, p. 36.), and would consider the time extension request at the same time it decided the revised application.

18. On May 31, 2006, Rhode Island Associates Limited Partnership filed a first-stage application to modify an approved PUD ("Application").
19. At a public meeting held on July 12, 2006, the Commission set down the Application for a public hearing.
20. The Commission held a public hearing on the Application on December 14, 2006, which was conducted in accordance with the provisions of 11 DCMR § 3022. The Commission recognized project architect Guy Martin, project traffic engineer Martin Wells, and economic analyst Patrick Phillips as experts.
21. At the conclusion of the hearing, the Commission took proposed action to approve, with conditions, the Application and plans that were submitted into the record.
22. The proposed action was referred to the National Capital Planning Commission ("NCPC") pursuant to § 492 of the District Charter. No response was received as of the date upon which the Commission took final action to approve this application, which occurred after the 30 day period for NCPC comment expired.
23. The Commission took final action to approve the Application on February 12, 2007, by a vote of 3-0-2.

PUD Modification Details

24. The Partnership re-designed the building to reflect the character of the Dupont Circle neighborhood.
25. The building on Lot 82 will be occupied by office use. It will consist of a nine (9) story building with a height of 104 feet and contain approximately 129,680 square feet of gross floor area and have a density of 8.4 FAR (the "Project").
26. The Partnership submitted evidence indicating that a commercial hotel is not economically feasible at this location or at a site this size. (Exhibit 56)
27. The density for the PUD Site will be 8.5 FAR with 3.05 FAR dedicated to residential use and 5.45 FAR dedicated to commercial use. The lot occupancy for the PUD Site will be 96%.
28. Approximately 90 parking spaces will be included in a below-grade parking garage on the Project Site and accessed via a driveway from Rhode Island Avenue. The loading

area for the building will be accessed from the 20-foot-wide alley on the PUD Site's southern boundary.

Benefits and Amenities

29. Rhode Island Associates Limited Partnership provided the following benefits and amenities with the approval of the Original PUD:

- \$150,000 to Ross Elementary School;
- \$10,000 to Dupont Circle Resource Center;
- Local Small and Disadvantaged Business Enterprises Agreement; and
- First Source Employment Agreement.

Each of the benefits and amenities included in this paragraph have been paid in full or executed.

30. In addition to those benefits and amenities that it has already provided, the Partnership has agreed to provide the following benefits and amenities package with the proposed project:

- \$220,000 to constructing planned improvements in Stead Park;
- \$25,000 to improvements of Scott Circle Park;
- \$25,000 to the Dupont Circle Citizens Association;
- \$20,000 to Ross Elementary School;
- \$10,000 to Francis Junior High;
- \$100,000 to Affordable Housing; and a
- "Green" Building Package.
- Providing a secured area for bicycles within the basement.

Consistency with Comprehensive Plan

31. This application is consistent with major themes of the Comprehensive Plan:

- Stabilizing the District's Neighborhoods: The building will replace a surface parking lot with an office building. This promotes infill development, unity of the block, bringing jobs to the neighborhood and activating the streetscape;
- Increasing the quantity and quality of employment opportunities in the District: The Project Site is located near public transportation and is proximately located to both downtown and Dupont Circle. An office building presents numerous employment opportunities for area residents. Rhode Island Associates Limited Partnership has entered into a First Source Employment Agreement and a Local Small and

Disadvantaged Business Enterprises Agreement to ensure that local residents and businesses will benefit from the PUD;

- Respecting and improving the physical character of the District: The office building better utilizes the Project Site than the surface parking lot it will replace. The construction of the office building will improve the pedestrian experience in the neighborhood and the landscaping will connect the buildings to unify the block. The building's design respects the quality of existing structures and enhances the character of Rhode Island Avenue between 16th and 17th Streets;
 - Preserving and ensuring community input: Rhode Island Associates Limited Partnership worked extensively with the Advisory Neighborhood Commission and the Dupont Circle Citizens Association to ensure that they supported the introduction of the building to the community;
 - Reaffirming and strengthening the District's role as the economic hub of the national capital region: The office building makes efficient use of the District's infrastructure, including its bus lines, Metrorail, and roadways; and
 - Promoting enhanced public safety: Incorporating an office building into the streetscape in place of the surface parking lot increases the activity at the site and eliminates the potential for loitering.
 - The building will also provide green design features that contribute to the District of Columbia's goal to mitigate the environmental, economic, and social impacts of built structures in the District.
32. The office building furthers the objectives and policies of several major elements of the Comprehensive Plan including land use; economic development; housing; transportation; urban design; and the Central Employment Area. The Project is consistent with the high density commercial designation for the Property on the Generalized Land Use Map.

Government Reports

33. The Office of Planning submitted its final report on December 4, 2006. It recommended approval of the first stage application upon several conditions, including:
- The non-profit organization selected as recipient of the \$100,000 affordable housing contribution be a housing trust fund defined under Section 2499 of the Zoning Regulations;
 - Documentation be added to the public record of payment of the affordable housing contribution prior to the issuance of building permits;

- Identification of the proposed bicycle parking areas on the garage floor plan;
 - Determination of whether the District Department of Transportation's proposal to set aside approximately 5% of vehicle spaces in the proposed garage parking for car sharing vehicles is acceptable; and
 - Documentation of other amenity contributions. (Exhibit 47, pp. 1-2)
34. The Office of Planning concluded that the office building is consistent with numerous goals and standards of the Dupont Circle Overlay District and that the benefits and amenities exceeded the degree of flexibility requested under the approved C-4 Zone District, especially in light of the fact that there were no potential adverse impacts. (Exhibit 47, p.10)
35. The Office of Planning's review of the benefits and amenities found that the project is consistent with the Comprehensive Plan, and supports specific economic development, urban design and employment goals identified in the Plan.
36. The District Department of Transportation submitted a letter on September 26, 2005, stating that the office building will have a negligible impact on existing traffic volumes and should not create dangerous or objectionable traffic conditions in the area. Thus, the District Department of Transportation had no objections to the project. (Exhibit 23)

Advisory Neighborhood Commission Report

37. The Advisory Neighborhood Commission ("ANC") 2B initially submitted a letter on December 6, 2006, in opposition to the modification to the PUD citing its benefits and amenities package as inadequate. (Exhibit 48, p. 2)
38. On December 14, 2006, the ANC withdrew its objections to the application and submitted its unqualified support into the record due to the enhanced benefits proposed by the Partnership and recommended that the Zoning Commission approve the application. (Exhibit 52)
39. At the hearing on December 14, 2006, Mark Bjorge testified on behalf of the ANC and reiterated the ANC supports the PUD modification.

Other Parties

40. At the first scheduled hearing for this matter on September 29, 2005, the Commission granted party status to the University of California. (September 29, 2005, Hearing Transcript, p. 32)

41. The Commission also afforded Mark Bjorge the opportunity to file a request for party status; however, Bjorge did not subsequently do so. (Id.)
42. The University of California submitted a letter indicating no opposition to the application on November 22, 2005. (Exhibit 33) The University of California did not participate as a party at the hearing on December 14, 2006.

Persons in Support

43. Adam K. Bernstein, next door “neighbor” with the Marriott Courtyard, submitted a letter in support of the PUD modification application on November 29, 2005. (Exhibit 36)
44. William Lipnick, President of 1615 – LLL, LP, the owner of the Beacon Hotel and Corporate Quarters located on the north side of Rhode Island Avenue, submitted a letter in support of the PUD modification application on November 29, 2005. (Exhibit 37)
45. Christopher Braman, Director of Facilities of the Human Rights Campaign Foundation, which is located immediately adjacent to the Project Site, submitted a letter in support of the application on July 26, 2006.
46. No person appeared in opposition to the PUD modification at the public hearing.

CONCLUSIONS OF LAW

1. Pursuant to the Zoning Regulations, the PUD process is designed to encourage high-quality developments that provide public benefits, 11 DCMR § 2400.1. The overall goal of the PUD process is to permit flexibility of development and other incentives, provided that the PUD project “offers a commendable number or quality of public benefits, and that it protects and advances the public health, safety, welfare, and convenience.” 11 DCMR § 2400.2. The application is subject to compliance with D.C. Law 2-38, the Human Rights Act of 1977.
2. Under the PUD process, the Commission has the authority to consider this application as a two-stage PUD. The Commission may impose development conditions, guidelines, and standards which may exceed or be less than the matter-of-right standards.
3. The development of this PUD project carries out the purposes of Chapter 24 of the Zoning Regulations to encourage well planned developments which will offer a variety of building types with more attractive and efficient overall planning and design not achievable under matter-of-right development.
4. The PUD Site meets the minimum area requirements of § 2401.1 of the Zoning Regulations.

5. The Commission notes that the zoning for the property will not change from the C-4 zoning approved through the Original PUD.
6. The Commission agrees with the testimony of the project architect and the representatives of the Applicant and believes that this project does in fact provide superior features that benefit the surrounding neighborhood to a significantly greater extent than a commercial hotel development on the Property would provide. The Commission believes that the design and site planning of the project encourages use of public transportation and promotes green design.
7. The Commission finds that the bulk and height of the office building is appropriate for the PUD Site as it complements the heights of both the Human Rights Campaign building to the west and the University of California building to the east.
8. Approval of the application will promote the orderly development of the Property in conformity with the entirety of the District of Columbia zone plan as embodied in the Zoning Regulations and Zoning Map of the District of Columbia.
9. Approval of the first-stage PUD modification is not inconsistent with the Comprehensive Plan. The Commission agrees with the determination of the Office of Planning in this case and finds that the proposed project is consistent with and fosters numerous themes and elements of the Comprehensive Plan. Specifically, the Commission believes that the proposed project furthers the following themes: stabilizing the District's neighborhoods, increasing the quantity and quality of employment opportunities in the District, respecting and improving the physical character, preserving and ensuring community input, reaffirming and strengthening the District's role as the economic hub of the national capital region, and promoting enhanced public safety.
10. The Commission agrees with the conclusions of the Applicant's traffic and parking expert, as well as the conclusions of DDOT that the proposed project will not create any adverse traffic or parking impacts on the surrounding community.
11. The Commission acknowledges that the PUD Site is a second-tier hotel location and is not an ideal location for commercial hotel use. It is satisfied with the economic analysis that the Applicant submitted in support of the conclusion that a commercial hotel is not feasible at this site.
12. The Commission is also satisfied with the economic analysis submitted by the Applicant demonstrating that this is a sub-par site of ground-floor retail use.
13. In accordance with D.C. Official Code §1-309.10(d)(2001 ed.), the Commission must afford great weight to the issues and concerns of the affected ANC. The Commission takes note of ANC 2B's letter and its testimony in support of the project, and has

accorded to the ANC's decision to support the project the "great weight" consideration to which it is entitled.

14. The Commission is required under § 5 of the Office of Zoning Independence Act of 1990, effective September 20, 1990 (D.C. Law 8-163, D.C. Official Code §6-623.04 (2001 ed.)) to give great weight to OP recommendations (as reflected in ¶¶ 33 through 35).
15. Notice of the public hearing was provided in accordance with the Zoning Regulations.
16. The Applicant is subject to compliance with D.C. Law 2-38, the Human Rights Act of 1977.

DECISION

In consideration of the Findings of Fact and Conclusions of Law contained in this order, the Zoning Commission for the District of Columbia **ORDERS APPROVAL** for first-stage of a Modification to a Planned Unit Development for the Property as defined previously herein. The first-stage approval is subject to the following guidelines, conditions and standards:

1. The first stage PUD modification is approved in accordance with the plans and materials submitted by the Applicant and marked as Exhibits 40, 42, and 56 in the record, as modified by the guidelines, conditions and standards of this order.
2. The second-stage design of the PUD modification shall be based on further development and refinement of the plans marked as Exhibit Nos. 40, 42, and 56 of the record, as modified by the guidelines, conditions and standards of this order.
3. In accordance with the plans and materials noted above, the office building shall consist of approximately 129,680 square feet of gross floor area with a FAR of 8.4. The building shall contain nine stories and be no greater than 104 feet tall. Approximately 90 parking spaces must be provided in the below-grade garage.
4. The PUD shall have a maximum FAR of 8.5 and a maximum height of 106 feet. The lot occupancy of the PUD Site shall be no greater than 96%.
5. Rhode Island Associates Limited Partnership shall provide a "green" design package that is substantially similar to that which is included as Exhibit 3 of the Office of Planning's final report submitted on December 4, 2006, Exhibit 47.
6. The Project shall be set back 2 ½ feet from the west alley to a height of 15 feet.
7. In addition to the benefits and amenities that the Partnership has previously provided, the Partnership must submit proof of payment of the following contributions prior to issuance of a building permit issued pursuant to any second stage approval: \$220,000 to planned improvements in Stead Park; \$25,000 to improvements of Scott Circle Park; \$25,000 to

the Dupont Circle Citizens Association; \$20,000 to Ross Elementary School; \$10,000 to Francis Junior High; and \$100,000 to Affordable Housing. In its second stage application, the applicant shall provide greater specificity concerning the affordable housing donation, such as the identity of the recipient of the donation and the nature of the recipient's affordable housing program.

8. Rhode Island Associates Limited Partnership shall provide at least 5% of the below grade parking spaces for car-sharing vehicles or fuel efficient vehicles and depict such spaces in its second-stage application.
9. The Applicant shall provide a secured area for bicycles within its garage, and depict the area in its second-stage application.
10. The Applicant shall submit, as part of the second-stage application, landscape plans, detailed architectural plans and elevations indicating the design treatment of each building.
11. The first-stage approval is valid for a period of one year, within which time a second stage application shall be filed
12. The Applicant is required to comply fully with the provisions of the Human Rights Act of 1977, D.C. Law 2-38, as amended, and this order is conditioned upon full compliance with those provisions. In accordance with the D.C. Human Rights Act of 1977, as amended, D.C. Official Code § 2-1401.01 (2001 ed.) et seq., (Act) the District of Columbia does not discriminate on the basis of actual or perceived: race, color, religion, national origin, sex, age, marital status, personal appearance, sexual orientation, familial status, family responsibilities, matriculation, political affiliation, disability, source of income, or place of residence or business. Sexual harassment is a form of sex discrimination, which is also prohibited by the act. In addition, harassment based on any of the above protected categories is also prohibited by the Act. Discrimination in violation of the Act will not be tolerated. Violators will be subject to disciplinary action. The failure or refusal of the applicant to comply shall furnish grounds for denial or, if issued, revocation of any building permits or certificates of occupancy issued pursuant to this order.

At its public hearing of December 14, 2006, the Commission **APPROVED WITH CONDITIONS** the Application by a vote of 3-0-2 (Anthony J. Hood, Gregory N. Jeffries, and Michael G. Turnbull to approve; Carol J. Mitten and John G. Parsons, not having participated, not voting).

At its public meeting of February 12, 2007, the Commission **ADOPTED** this Order by a vote of 3-0-2 (Anthony J. Hood, Gregory N. Jeffries, and Michael G. Turnbull to approve; Carol J. Mitten and John G. Parsons, not having participated, not voting).

Z.C. ORDER NO. 02-51A
Z.C. CASE NO. 02-51A
PAGE 12

In accordance with the provisions of 11 DCMR § 3028, this Order shall become final and effective upon publication in the *D.C. Register* on JUN 29 2007.



ANTHONY J. HOOD
Vice Chairman
Zoning Commission



JERRILY R. KRESS, FAIA
Director
Office of Zoning

F

BEFORE THE ZONING COMMISSION
OF THE DISTRICT OF COLUMBIA

APPLICATION FOR SECOND-STAGE APPROVAL OF A TWO-STAGE
PLANNED UNIT DEVELOPMENT (PUD)

Before completing this form, please review the instructions on the reverse side.
Print or type all information unless otherwise indicated.

In accordance with the provisions of Chapter 24 of Title 11 DCMR – Zoning Regulations, request is hereby made for Final Approval of a PUD, details of which are as follows:			Total Area of the Site:	15,349 s.f.	Square Feet
				N/A	Acres
Square No.	Lot No.	Square Feet	Baist Atlas No.:		Page
182	82	15,349	Date of Preliminary Approval:	6/29/07	
			ZC Case/Order No.:	02-51A	
			Concurrent change of zoning (circle one): (if yes, please complete a Map Amendment Application)	☐ Yes ☒ No	
			Advisory Neighborhood Commission(s)/ Single-Member District(s):	ANC 2B	
			If applicable, Historic District(s) in which site is located:	N/A	

Address or boundary description of the premises:	1616 Rhode Island Avenue, NW
Previous zoning (ZC and/or BZA) actions, including Order No.(s), affecting the above properties:	Zoning Commission Order Nos. 638 A-F, 02-51A-B
Brief description of proposal:	The Applicant seeks Second Stage approval for an office building serving as the headquarters for the Center for Strategic and International Studies. The proposal is consistent with First Stage approval.

I/We certify that the above information is true and correct to the best of my/our knowledge, information and belief. Any person(s) using a fictitious name or address and/or knowingly making any false statement on this application is in violation of D.C. Law and subject to a fine of not more than \$1,000 or 180 days imprisonment or both.
(D.C. Official Code § 22-2405)

Signature:	<i>Gregory D. Broadus</i>	Date:	Nov 12, 2008
Owner's Name:	Gregory D. Broadus, CFO, CSIS		

Name of Architect:	Hickok Cole Architects		
Address:	1023 31st Street, NW		
Zip Code:	20007	Phone No.:	202.667.9776

Person to be notified of all actions:

Name:	Phil Feola		
Address:	2300 N Street, NW		
Zip Code:	20037	Phone No.:	202.663.8000

DO NOT WRITE BELOW THIS LINE

Date Received:		Date Accepted:	
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ANY APPLICATION THAT IS NOT COMPLETED IN ACCORDANCE WITH THE INSTRUCTIONS ON THE BACK OF THIS FORM WILL NOT BE ACCEPTED.

INSTRUCTIONS

Any request for a second-stage (final) approval of a two-stage Planned Unit Development (PUD) that is not completed in accordance with the following instructions shall not be accepted.

1. All applications shall be made on Form 103-B. All applications must be completely filled out and be typewritten or printed. If additional space is necessary, use separate sheets of 8½" x 11" paper to complete the form.
2. Present this form and supporting documents, in person, to the Office of Zoning at 441 4th Street, N.W., Suite 200-S, Washington, D.C. 20001.
3. At the time of filing an application before the Zoning Commission, the Applicant shall pay a non-refundable filing fee of \$500.00, in accordance with the Zoning Commission Schedule of Fees - 11 DCMR §3040. (Check or money is payable to the "D.C. Treasurer"; cash will not be accepted.)
4. Applications to the Zoning Commission will not be accepted until they have been reviewed by the Secretary to the Zoning Commission, to ensure they are thoroughly completed. Applicants will be notified by mail when their applications are accepted.
5. ***REQUIRED information to be submitted when making an application submission includes one (1) original and twenty (20) copies of the following:***
 - A. A Form 103-B, properly completed and signed by the owners of all property involved in the application. (When more than one owner is involved, use a separate copy of Form 103-B for each ownership.)
 - B. A statement, using 8½" x 11" paper, clearly setting forth the reasons for the requested final PUD. Additional information, exhibits, or photographs may be attached, if desired, provided they are also no larger than 11" x 17".
 - C. A key map (photocopy of the Zoning Map on 8½" x 11" paper) showing the subject property outlined in red and the zoning of the surrounding area. The Zoning Map is available in the Office of Zoning. The Office of Zoning reserves the right to require the submission of other maps or other exhibits as it deems necessary to accurately depict the location of the subject property, in the context of its surroundings.
 - D. A certified plat of survey of the subject property, prepared by the D.C. Office of the Surveyor.
 - E. Compliance with the requirements of Chapter 24 of Title 11 DCMR – Zoning Regulations. Architectural drawings should include one full-size set and twenty (20) reduced sets, not-to-exceed 11" x 17".

Please note: All applications are referred to the D.C. Office of Planning (OP). OP, pursuant to 11 DCMR §3011, reviews applications and submits written recommendations to the Zoning Commission, advising whether the matter should be processed further. For this reason, you are encouraged to contact OP within two weeks of filing this form to discuss your application. OP can be reached at (202) 442-7602.

All applications that are accepted for filing, will be processed in accordance with Chapter 30 of Title 11 DCMR – Zoning (Rules of Practice and Procedure before the Zoning Commission for the District of Columbia).



If you need a reasonable accommodation for a disability under the Americans with Disabilities Act (ADA) or Fair Housing Act, please complete a Request for Reasonable Accommodation form.

District of Columbia Office of Zoning
441 4th Street, N.W. Ste. 200-S, Washington, D.C. 20001
(202) 727-6311 * (202) 727-6072 fax * www.dcoz.dc.gov * dcoz@dc.gov

November 14, 2008

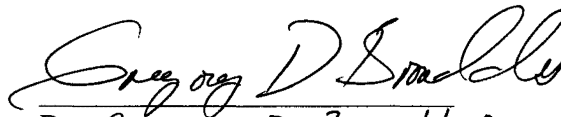
Anthony Hood, Chairperson
District of Columbia Zoning Commission
441 4th Street, NW
Suite 210 South
Washington, DC 20001

**Re: Application of the Center for Strategic and International Studies for Final
Approval of a Planned Unit Development at 1616 Rhode Island Avenue, NW;
Z.C. Case No. 02-51 C (Square 182, Lot 82)**

Dear Chairperson Hood and Commissioners:

I hereby authorize the law firm of Pillsbury Winthrop Shaw Pittman, LLP to represent the Center for Strategic and International Studies in all proceedings before the D.C. Zoning Commission concerning the above-referenced application.

Sincerely,


By: Gregory D Broadus, CFO
Date: November 12, 2008

G

NOTICE OF INTENT TO FILE ZONING APPLICATION

Application to the District of Columbia Zoning Commission
For Second Stage Approval of a Planned Unit Development

October 14, 2008

The Center for Strategic and International Studies, Inc. hereby gives notice of its intent to file an application for second stage approval of a Planned Unit Development ("PUD") pursuant to Chapter 24 of the District of Columbia Zoning Regulations, 11 DCMR (February 2003). The entire PUD site includes Lots 82 and 83 of Square 182, which consists of approximately 32,725 square feet of land area. One half of the PUD site (Lot 83) has been built and is currently the home of the University of California Washington Program. The site that is the subject of the application for second stage PUD approval is Lot 82, also known as 1616 Rhode Island Avenue, NW (hereinafter referred to as the "Project Site"), and is currently a surface parking lot.

The Zoning Commission approved the first stage of the PUD for the Project Site on June 29, 2007. The Zoning Commission approved for the Project Site an office building with a gross floor area of approximately 129,680 square feet, a height no greater than 104 feet, and approximately 90 parking spaces to be provided below-grade. The Applicant is proposing to construct an office building to serve as the headquarters for the Center for Strategic and International Studies. It will consist of approximately 129,680 square feet of gross floor area, a building height of 104 feet and include approximately 76 parking spaces in a below-grade garage.

This notice is given pursuant to Sections 2404.7 – 2404.9 of the Zoning Regulations.

The Developer of the Project is the Center for Strategic and International Studies, Inc.; the architects are Hickok Cole Architects; and land use counsel is Pillsbury Winthrop Shaw Pittman LLP. If you desire further information about this application, please contact Christine Roddy at (202) 663-9142.

Certificate of Notice

I HEREBY CERTIFY that a copy of the Notice of Intent to File an Application for Second Stage Approval of a Planned Unit Development for Lot 82 in Square 182 was mailed to Advisory Neighborhood Commission 2B and to the owners of all property within 200 feet of the perimeter of the subject property on October 14, 2008, as required by the Zoning Regulations of the District of Columbia, 11 DCMR (Zoning) §§ 2406.7 – 2406.10.


Christine Roddy

H

COMPLIANCE WITH CHAPTER 24 OF THE DISTRICT OF COLUMBIA ZONING REGULATIONS

The Project complies with the process and requirements set forth in Chapter 24 of the Zoning Regulations for the review of a Planned Unit Development ("PUD") in the District of Columbia.

1. Area Requirement: The Project Site encompasses approximately 15,349 square feet of land although the entire PUD encompasses approximately 32,725 square feet of land. This area is more than the minimum area requirement for a PUD. (11 DCMR § 2401.1(c)).

2. Notice: The Certificate of Notice herein states that a Notice of Intent to File a PUD Application was mailed to Advisory Neighborhood Commission 2B and to the owners of all property within 200 feet of the perimeter of the Property, as required by the Zoning Regulations (11 DCMR §§ 2406.7 - 2406.10).

3. Sections 2406.11(a) and 2406.12(a): The completed application form for the Final PUD and the Zoning Map Amendment are attached as Exhibit F.

4. Section 2406.11(b): A map showing the location of the proposed project, the existing zoning for the Property and zoning of adjacent properties is included in Exhibit C.

5. Sections 2406.11(c) and 2406.12(b): The preceding Statement outlines the purposes and objectives of the project, and how this application meets the evaluation standards for PUDs enumerated in the Zoning Regulations.

6. Sections 2406.11(d) and 2406.12(c): A general site plan, showing the location and external dimensions of all buildings and structures, utilities and other easements, walkways, driveways, plaza, arcades and any other open spaces is included in Exhibit B.

7. Section 2406.12(d): A landscaping and grading plan is provided in Exhibit B.

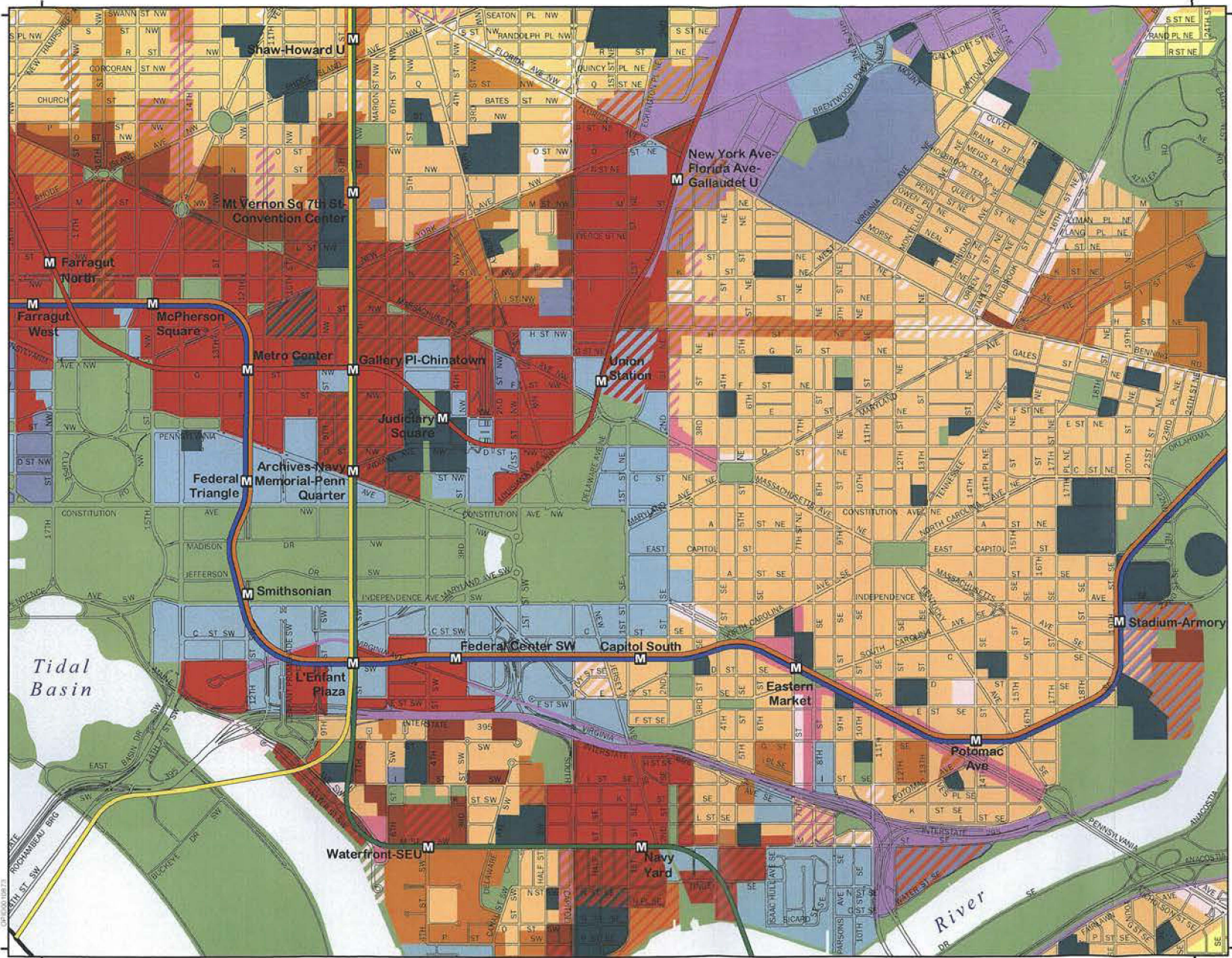
8. Section 2406.12(e): Typical floor plans and architectural elevations for each building, sections for each building and the project as a whole are included in Exhibit B.

9. Section 2406.12(f): A general circulation plan showing all driveways and walkways, including width, grades and curb cuts, as well as parking and loading plans is included in Exhibits B and E.

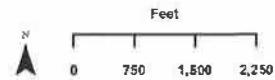
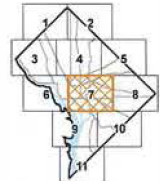
10. Sections 2403.11 and 2406.11(e): A tabulation of development data providing relevant information regarding the proposed project is included in the Statement and on the Project Plans in Exhibit B.

I

Comprehensive Plan Future Land Use Map 7



- Low Density Residential
- Moderate Density Residential
- Medium Density Residential
- High Density Residential
- Low Density Commercial
- Moderate Density Commercial
- Medium Density Commercial
- High Density Commercial
- Production, Distribution, and Repair
- Federal
- Local Public Facilities
- Institutional
- Parks, Recreation, and Open Space
- Mixed Land Use
- WATER



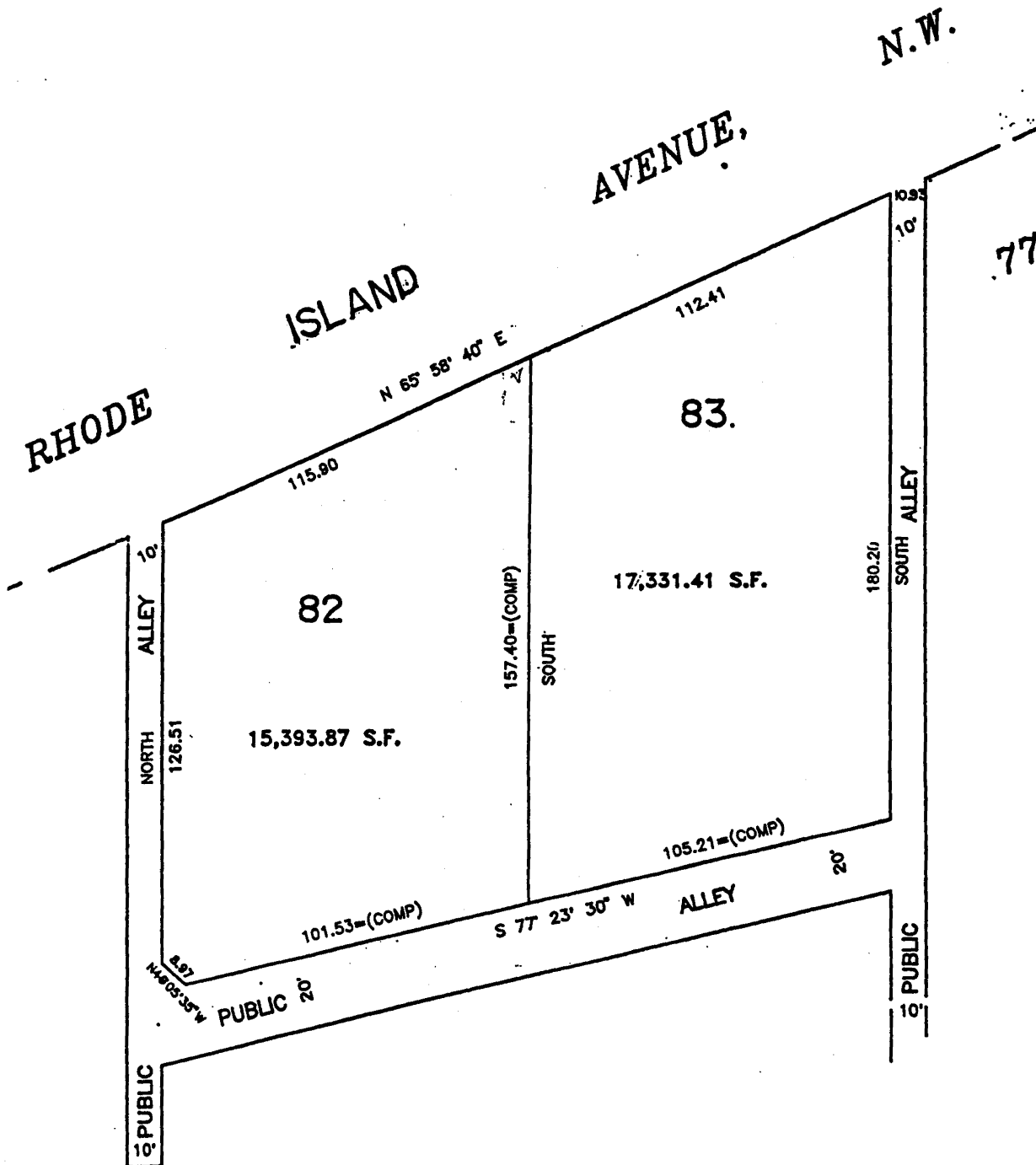
*** Government of the
District of Columbia
Adrian M. Fenty, Mayor

Office of Planning ~ June, 2007

This map was created for planning purposes from a variety of sources. It is neither a survey nor a legal document. Information provided by other agencies should be verified with them where appropriate.

5

SUBDIVISION SQUARE 182



SURVEYOR'S OFFICE, D.C.	
Made for:	YKA INC.
Drawn by:	BILL WASH.
Record and computations by:	Checked by: F.S.
Recorded at:	1:00 P.M. April 9, 1999
Recorded in Book:	192 Page 162 S.O. 4329
Scale:	1 inch = 30 feet. File No. 99-23

OFFICE OF THE SURVEYOR

April 9, 1999

I certify that this plat is correct and is hereby recorded.

Robert H. Driest Jr.
Surveyor, D.C.

DISTRICT OF COLUMBIA GOVERNMENT
OFFICE OF THE SURVEYOR

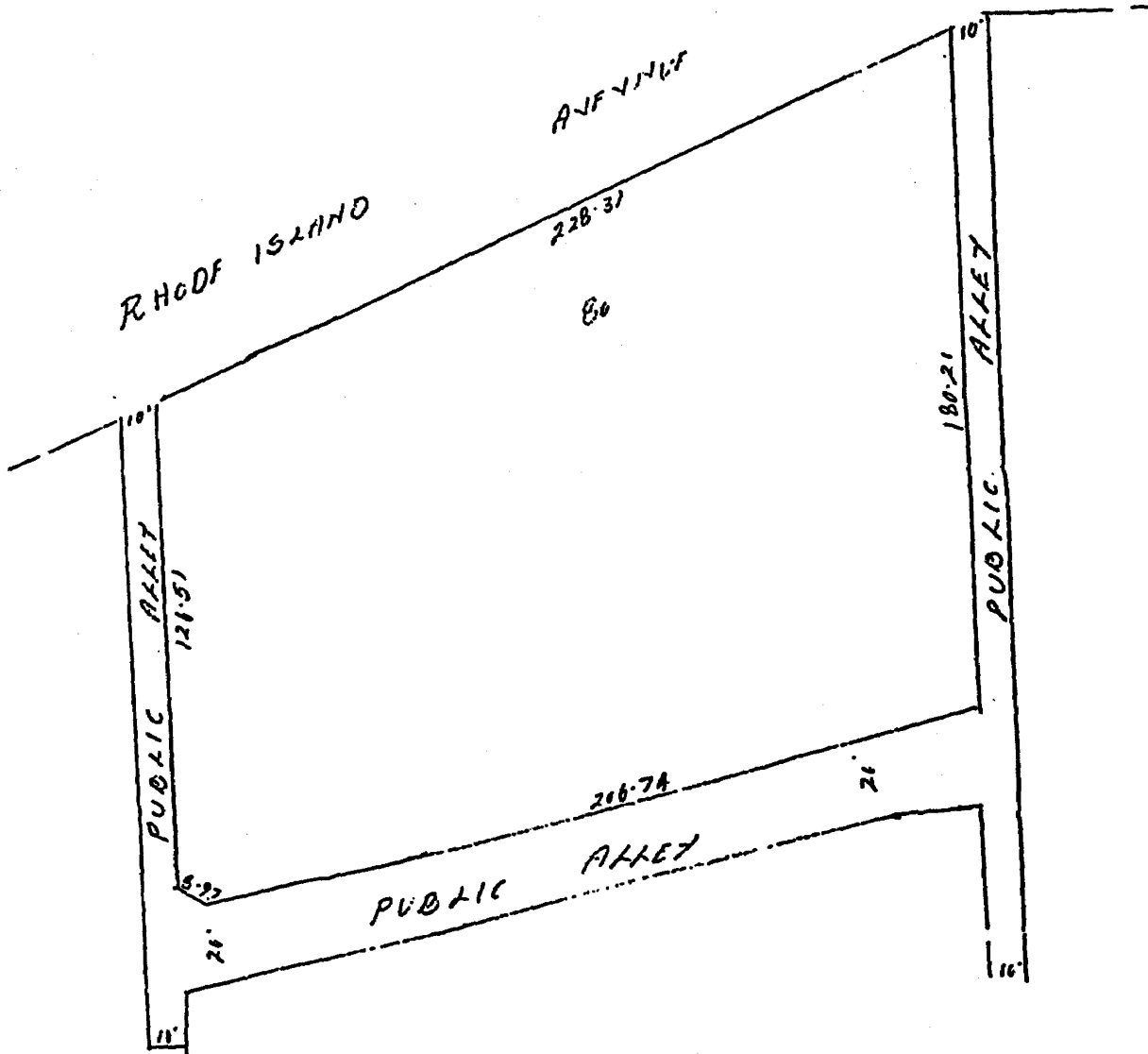
Washington, D. C. ... 03-17-1978
 Plat for Building Permit of S.B.V.P.R. 192 ... 1st 90.
 Scale: 1 inch = 30 feet Recorded in Book ... 183 page 6A.
 Receipt No. 968
 Furnished to H.H.K.S., P.B.T.G., H.F.D.R.S., K.F.L.S.
 by D.P.C. D

I hereby certify that all existing improvements shown hereon, are completely dimensioned, and are correctly placed; that all proposed buildings or construction, or parts thereof, including covered porches, are correctly dimensioned and placed, and agree with plans accompanying the application; that the foundation plan as shown hereon is drawn, and dimensioned accurately to the same scale as the property lines shown on this plat; and that by reason of the proposed improvements to be erected as shown hereon the area of any adjoining lot or premises is not decreased to an area less than is required by the Zoning Regulations for light and ventilation; and it is further certified and agreed that accessible parking area where required by the Zoning Regulations will be provided in accordance with the Zoning Regulations, and that this area has been correctly drawn and dimensioned hereon. It is further agreed that the elevation of the accessible parking area with respect to the Highway Department approved curb or alley grade will not result in a rate of grade along crossing of driveway at any point on private property in excess of 20% for single-family dwellings or flats, or in excess of 12% at any point for other buildings. (The policy of the Highway Department permits a maximum driveway grade of 12% across the public parking and the private restricted property).

Date

(Signature of owner or his authorized agent)

NOTE: Data shown for Assessment and Taxation Lots or Parcels are in accordance with the records of the Department of Finance and Revenue, Assessment Administration, and do not necessarily agree with deed descriptions.



K

LIST OF PUBLICLY AVAILABLE MAPS, PLANS, AND OTHER DOCUMENTS

1. Exhibits herein.
2. Zoning Regulations and Zoning Map of the District of Columbia.
3. Generalized Land Use Map of the District of Columbia.
4. District of Columbia Comprehensive Plan
5. Metrobus and Metrorail Maps.
6. Orders of the District of Columbia Zoning Commission.

L

**NAME AND MAILING ADDRESS OF THE OWNERS OF ALL PROPERTY WITHIN 200
FEET IN ALL DIRECTIONS FROM ALL BOUNDARIES OF THE PROPERTY
INVOLVED IN THE APPLICATION**

<u>SQUARE</u>	<u>LOT</u>	<u>PREMISES ADDRESS</u>	<u>OWNER AND MAILING ADDRESS</u>
Res. 62	---	Rhode Island Ave, NW	US Government Property
Res. 62	A & B		National Park Service
Res. 63	---		Mr. Peter May 1100 Ohio Drive, SW Washington, D.C. 20242-0001
160	809	1200 17 th Street, NW	National Restaurant Association c/o George Margula 1200 17 th Street, NW Washington, D.C. 20036-3006
182	55	1220 16 th Street, NW	American Hellenic Institute Foundation 1220 16 th Street, NW Washington, DC 20036-3202
182	56	1218 16 th Street, NW	National Council of Negro Women 633 Pennsylvania Avenue, NW Washington, DC 20004-2605
182	57 84	1216 16 th Street, NW 1200 16 th Street, NW	DC Cap Hotelier LLC 390 Park Avenue; Suite 600 New York, NY 10022-4608
182	78	1640 Rhode Island Ave, NW	Human Rights Campaign Foundation 1640 Rhode Island Avenue, NW Washington, DC 20036-3206
182	83	1608 Rhode Island Ave, NW	The Regents of the University of California c/o Real Estate Services GP 1111 Franklin Street, Fl 6 Oakland, CA 94607-5201
182	827 828	1675 M Street, NW M Street, NW	District of Columbia Government 1133 North Capitol Street, NE Washington, DC 20002- 7549
182	828	1615 M Street, NW	17M Associates c/o Boston Properties 505 9 th Street, NW; # 800 Washington, DC 20004-2167

<u>SQUARE</u>	<u>LOT</u>	<u>PREMISES ADDRESS</u>	<u>OWNER AND MAILING ADDRESS</u>
182	829	1222 16 th Street, NW	American Academy of Achievement Corp. 1222 16 th Street, NW Washington, DC 20036-3202
182	830	1600 Rhode Island Ave, NW	Millbank Massachusetts Avenue, LP 3299 K Street, NW, Suite 700 Washington, DC 20007-4438
182N	11	1615 Rhode Island Ave, NW	1615 LLL LP 1615 Rhode Island Avenue, NW Washington, DC 20036-3205
			ANC 2B 9 Dupont Circle Washington, DC 20036