

ANEXO B | Relatório HCS – 5ª Avenida x Rua Dom Afonso



HCS Two-Way Stop-Control Report

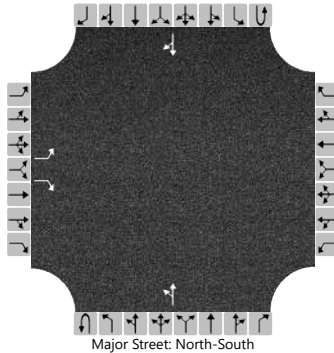
General Information

Analyst	m.urb
Agency/Co.	
Date Performed	5/22/2022
Analysis Year	2022
Time Analyzed	17h30 - 18h30
Intersection Orientation	North-South
Project Description	Cenário 0 - 2022 - Sem o Empreendimento

Site Information

Intersection	5ª Avenida x Rua Dom Afonso
Jurisdiction	
East/West Street	5ª Avenida
North/South Street	Rua Dom Afonso
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		L		R						LT						TR
Volume (veh/h)		59		129						58	370				616	338
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		64		140						63						
Capacity, c (veh/h)		141		362						678						
v/c Ratio		0.45		0.39						0.09						
95% Queue Length, Q ₉₅ (veh)		2.4		1.9						0.3						
Control Delay (s/veh)		51.3		21.2						10.9	1.3					
Level of Service (LOS)		F		C						B	A					
Approach Delay (s/veh)	30.7								2.6							
Approach LOS	D								A							

HCS Two-Way Stop-Control Report

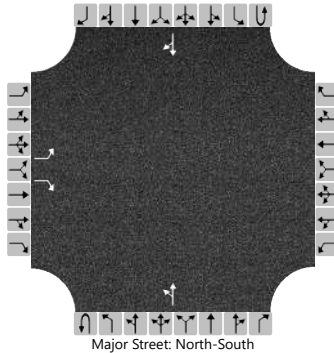
General Information

Analyst	m.urb
Agency/Co.	
Date Performed	5/22/2022
Analysis Year	2022
Time Analyzed	17h30 - 18h30
Intersection Orientation	North-South
Project Description	Cenário Atual - 2022 - Com o Empreendimento

Site Information

Intersection	5ª Avenida x Rua Dom Afonso
Jurisdiction	
East/West Street	5ª Avenida
North/South Street	Rua Dom Afonso
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		L		R						LT						TR
Volume (veh/h)		59		133						67	381				636	338
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		64		145						73						
Capacity, c (veh/h)		128		351						666						
v/c Ratio		0.50		0.41						0.11						
95% Queue Length, Q ₉₅ (veh)		2.8		2.1						0.4						
Control Delay (s/veh)		60.8		22.3						11.1	1.6					
Level of Service (LOS)		F		C						B	A					
Approach Delay (s/veh)	34.2								3.0							
Approach LOS	D								A							

HCS Two-Way Stop-Control Report

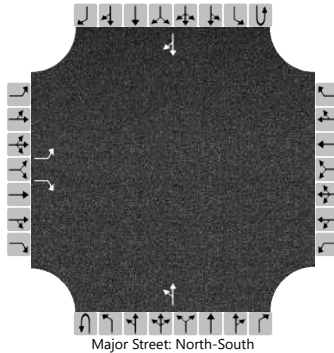
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Analysis Year	2022
Time Analyzed	17h30 - 18h30
Intersection Orientation	North-South
Project Description	Cenário Futuro - 2032 - Sem o Empreendimento

Site Information

Intersection	5ª Avenida x Rua Dom Afonso
Jurisdiction	
East/West Street	5ª Avenida
North/South Street	Rua Dom Afonso
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		L		R						LT						TR
Volume (veh/h)		79		173						78	496				825	453
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		86		188						85						
Capacity, c (veh/h)		62		246						499						
v/c Ratio		1.37		0.76						0.17						
95% Queue Length, Q ₉₅ (veh)		18.6		7.7						0.6						
Control Delay (s/veh)		905.4		62.8						13.7	3.3					
Level of Service (LOS)		F		F						B	A					
Approach Delay (s/veh)	327.0								4.7							
Approach LOS	F								A							

HCS Two-Way Stop-Control Report

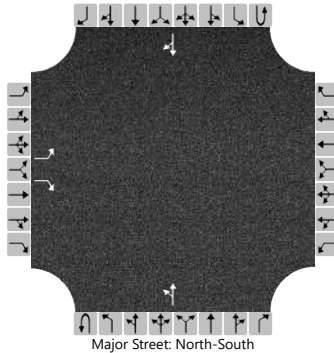
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Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0	0	0	1	0	0	0	1	0
Configuration		L		R						LT						TR
Volume (veh/h)		79		174						87	507				845	453
Percent Heavy Vehicles (%)		0		0						0						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No															
Median Type Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.40		6.20						4.10						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.50		3.30						2.20						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		86		189						95						
Capacity, c (veh/h)		55		239						490						
v/c Ratio		1.56		0.79						0.19						
95% Queue Length, Q ₉₅ (veh)		21.4		8.5						0.7						
Control Delay (s/veh)		1230.2		70.6						14.1	3.9					
Level of Service (LOS)		F		F						B	A					
Approach Delay (s/veh)	432.7								5.4							
Approach LOS	F								A							