ESTUDO DE IMPACTO SOBRE O TRÂNSITO DO EMPREENDIMENTO DE USO HABITACIONAL DENOMINADO DE BORBOREMA E LOCALIZADO NO LOTE ONDE EXISTE O IMÓVEL Nº 2549 DA AVENIDA DEZESSETE DE AGOSTO – NO BAIRRO DE CASA FORTE – RECIFE – PERNAMBUCO

PROJETO ARQUITETÔNICO

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ESTUDO DE IMPACTO

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Recife, maio de 2016

APRESENTAÇÃO

O presente Memorial Justificativo trata do Projeto de Arquitetura para construção de edificação de uso habitacional multifamiliar a ser construído em terreno onde existe o imóvel n° 2.549, localizado na Avenida Dezessete de Agosto no Bairro de Casa Forte na cidade do Recife, estado de Pernambuco.

Tem por objetivo consolidar as informações necessárias sobre o empreendimento proposto, apresentando a sua descrição e implantação dentro do contexto urbano do Município do Recife, em cumprimento a Lei 15.711-08 (Plano Diretor), para efeito de sua apreciação pela Comissão de Controle Urbanístico - CCU e pelo Conselho de Desenvolvimento Urbano – CDU.

A exigência desse memorial decorre do empreendimento ser considerado de "IMPACTO" de acordo com o disposto no art. 188, inciso II da referida Lei.

SUMÁRIO

11.0 IMPACTO SOBRE A CIRCULAÇÃO VIÁRIA

11.1 Resumo

O presente estudo tem como objetivo avaliar as características funcionais e operacionais do empreendimento e identificar possíveis impactos indesejáveis nos transportes, afetando a fluidez e a segurança do trânsito devido à construção do empreendimento.

11.2 Esquema de Funcionamento dos Fluxos no Entorno

Os aspectos dos fluxos no entorno da área de influência direta são adiante apresentados. Na verdade, os eixos de influência direta seriam compostos pelas Avenidas Dezessete de Agosto (Estrada de Apipucos) e Estrada do Arraial, secundadas pelas Ruas Piauí e Jornalista Guerra de Holanda. Contornando o empreendimento, com as Ruas Pinto Campos, Tapacurá e Jorge de Albuquerque.

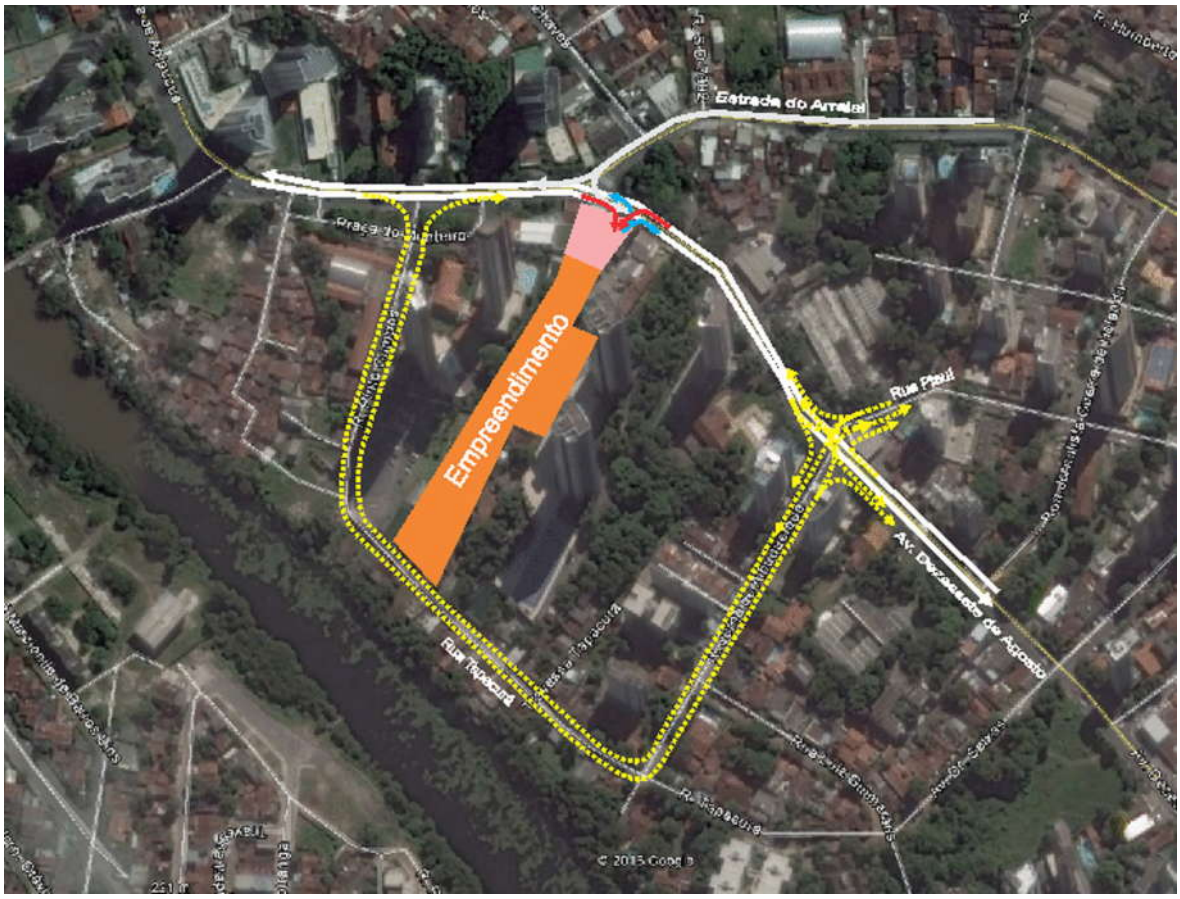


Figura 01 - Esquema Geral de Localização do Empreendimento

FONTE: Desenho sobre Google Earth

O empreendimento preservará o imóvel existente que possui acessos pela Avenida Dezessete de Agosto, porém, apenas com 15 vagas de garagem, e sem acessos de veículos para as edificações a serem construídas, e que terão acessos somente pela Rua Piauí. O esquema de fluxos atuais no entorno é apresentado a seguir.

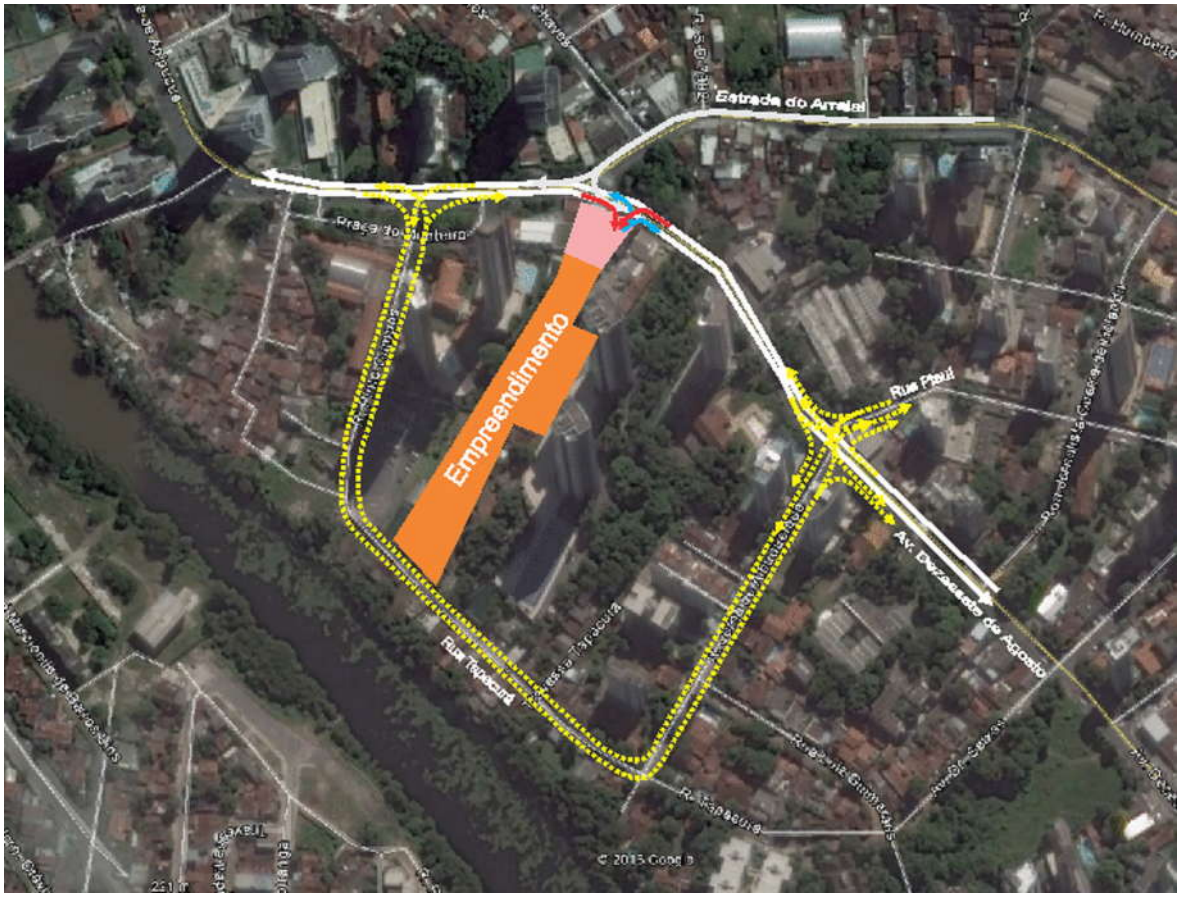
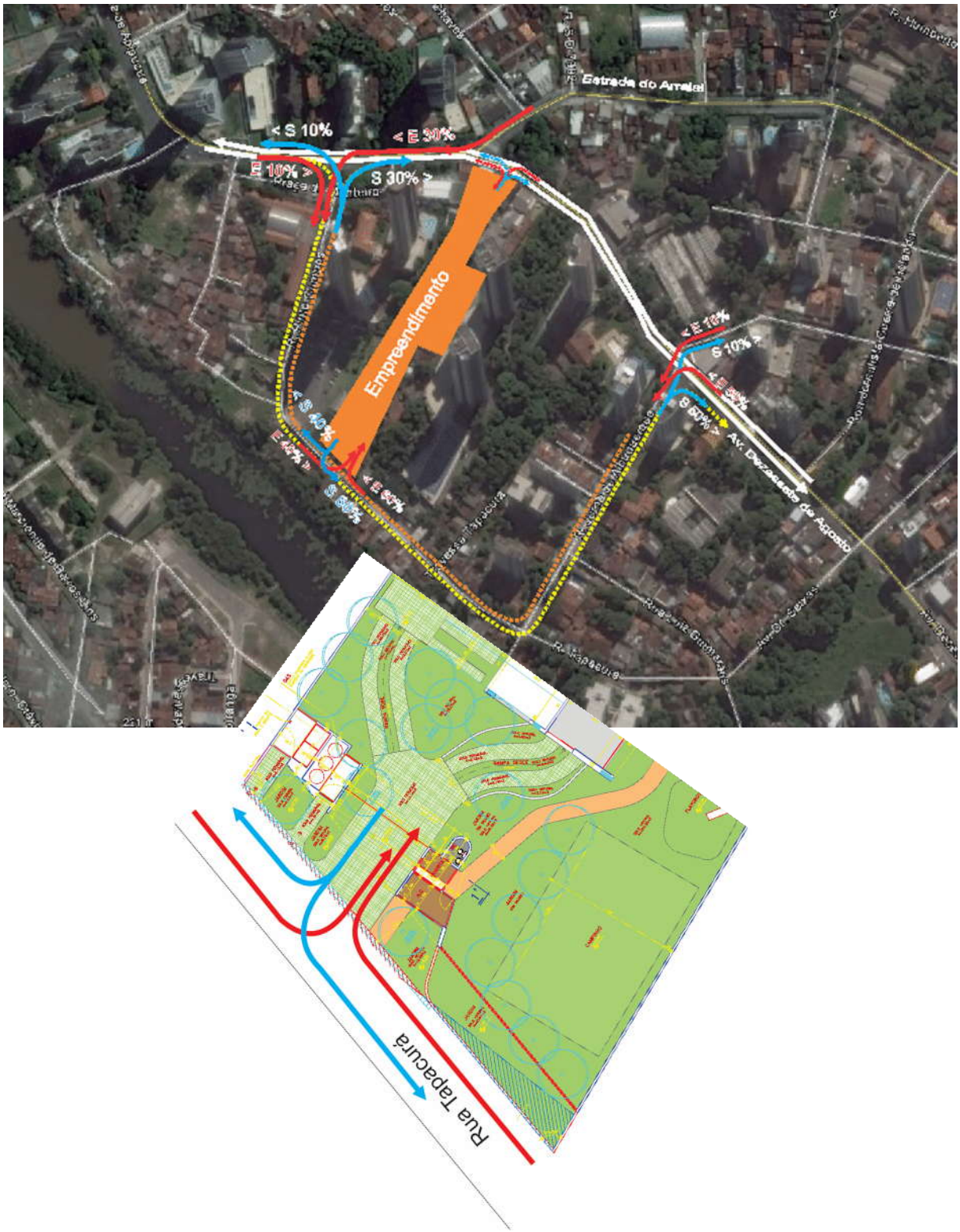


Figura 02 - Esquema Geral atual de Fluxos e Localização do Empreendimento

FONTE: Desenho sobre Google Earth

11.3 Caracterização do Tráfego Gerado pelo Empreendimento

Os acessos de veículos ao empreendimento serão efetuados através do fluxo da Avenida Dezessete de Agosto, pelas Ruas transversais: Pinto de Campos/Tapacurá, e Rua Jorge de Albuquerque/Tapacurá, conforme figura seguinte:



Figuras 03/04 - Esquema Geral de Fluxos com alocação do tráfego

Esquema FONTE: Desenho sobre Google Earth/Projeto Arquitetônico

Com a inserção do empreendimento haverá geração de fluxo nas chegadas das Avenida Dezessete de Agosto/Rua Piauí/Rua Jorge de Albuquerque; Avenida Dezessete de Agosto/Estrada do Arraial; Avenida Dezessete de Agosto/Rua Pinto Campos, e devidamente mensurados no item seguinte. Como no acesso fronteiriço à Avenida Dezessete de Agosto, haverá acesso à edificação histórica e preservada, porém, com apenas 15 vagas, não foram mensurados no estudo pela ínfima participação no fluxo horário da referida avenida.

Conforme pode ser observado na figura adiante, o empreendimento está localizado em uma área, contemplada por um dos principais corredores de transporte público de passageiros do município, com excelentes condições de ofertas dos serviços de transporte coletivo. Há presença de pedestres na área, sem restrições, o que exigiu da PCR a adoção das existentes faixas de travessias, e semáforos de botoeiras.

Figuras 05 - Esquema Geral de Paradas de Ônibus (PO)

Esquema FONTE: Desenho sobre Google Earth

11.4 Dados Coletados e Pesquisas Efetivadas

Para a caracterização do fluxo de veículos e pedestres na área de entorno do empreendimento, e de estrada e saída dos veículos ao empreendimento, foram efetivadas pesquisas de campo, visando detecção e caracterização dos fluxos na área adjacente, de maneira a se determinar as suas propriedades e características. Tais pesquisas constaram de:

- Pesquisa de Fluxo de entrada/saída de edificações semelhantes;
- Pesquisa de fluxo Direcional;
- Simulação de geração do tráfego na edificação projetada.

PESQUISA DE FLUXO DE ENTRADA/SAÍDA DE EDIFICAÇÕES

Esta pesquisa foi efetuada para estabelecer-se o mesmo padrão "randômico" de acessos a edificações deste tipo. A demanda de fluxo de veículos para o empreendimento foi indicada pela média obtida pelos dados coletados nas pesquisas em duas edificações residenciais similares: Edifício Villa Casa Forte e Edifício Príncipe de Astúrias, adiante explicitados, e com a utilização de fator de expansão para a particularização do atual empreendimento.

- **Edifício Villa Casa Forte (planilha PE-1.1)**: situado na Rua Jacó Velosino, 205 – Casa Forte; 17 pavimentos, 34 apartamentos de área de 176m² por apartamento e 68 garagens, com área útil total de 5.984m²; a pesquisa efetivada em 13/04/2016 apresentou a distribuição dos fluxos que consta na planilha PE-1.1, anexa, indicando o fluxo nas horas máximas da seguinte ordem:

  ⇒ 08h – 09h: Veículos, 5 entradas e 12 saídas; Pedestres, 11 entradas e 9 saídas;

  ⇒ 12h – 13h: Veículos, 8 entradas e 7 saídas; Pedestres, 7 entradas e 5 saídas;

⇒ 17h – 18h: Veículos, 10 entradas e 5 saídas; Pedestres, 11 entradas e 6 saídas;

⇒ Total das 06h às 20h: Veículos, 97 entradas e 100 saídas; Pedestres, 105 entradas e 94 saídas;

Figuras 06 – Vista Geral do Portão de Acesso

Esquema FONTE: Google Earth

- **Edifício Príncipe de Astúrias (planilha PE-1.2)**: situado na Rua Muniz Tavares, 81 - Tamarineira; 17 pavimentos, 38 apartamentos com 182m² de área; 72 vagas de garagens e ára útil de 6.916m².; a pesquisa feita em 15/04/2015 apresentou a distribuição dos fluxos que consta na planilha PE-1.2, anexa, indicando o fluxo nas horas máximas da seguinte ordem:

⇒ 07h – 08h: Veículos, 9 entradas e 12 saídas; Pedestres, 8 entradas e 10 saídas;

⇒ 12h – 13h: Veículos, 10 entradas e 7 saídas; Pedestres, 8 entradas e 7 saídas;

⇒ 17h – 18h: Veículos, 14 entradas e 7 saídas; Pedestres, 10 entradas e 8 saídas;

⇒ Total das 06h às 20h: Veículos, 95 entradas e 103 saídas; Pedestres, 99 entradas e 95 saídas;

Figuras 07 – Vista Geral do Portão de Acesso

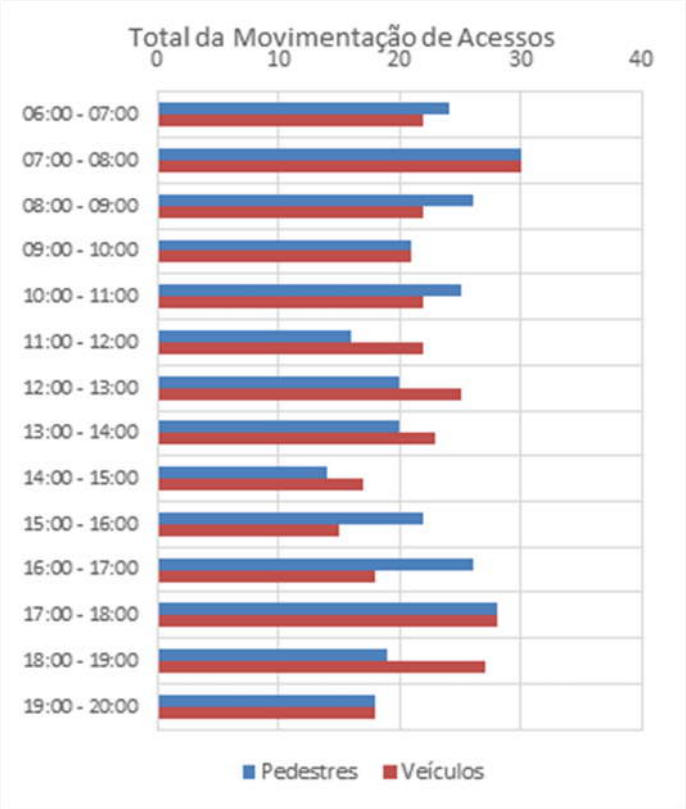
Esquema FONTE: Google Earth

Cada empreendimento pesquisado possui um número de vagas diferente do empreendimento hora estudado, que possuirá 168 vagas. No entanto, procurou-se pesquisar empreendimentos com mesmo padrão construtivo, notadamente pela área de cada unidade habitacional (176m² e 182m²), quando o caso em tela é de 181,53m². Considerando que a renda influencia no número de veículos adquiridos pela família, que a posse é um fator determinante do comportamento de viagens da família e, fundamentalmente, é interconectado com local da residência e a decisão relativa a viagens motorizadas, fatores que devem ser considerados em uma análise de pólo gerador de viagem.

Para correção dos valores, tomaram-se o fator dado pela relação: área útil do empreendimento estudado (10.168m²) / média das áreas úteis dos empreendimentos pesquisados (6.450m²), resultando em 1,58, ou seja: um multiplicador “k” de 1,58 x os fluxos horários médios pesquisados.

Depois de obtido os valores expandidos de cada empreendimento pesquisado, gerou-se uma planilha com a expansão projetada para o empreendimento atual. Estes dados constam da planilha PE-1.3 anexa, e, resumidamente, apresentado a seguir, **indicando a pequena potencialidade de geração de fluxos de veículos no**

trânsito, ou seja: 11 acessos e 19 saídas no período das 07h às 08h, em relação aos 1.775 veículos/hora no mesmo horário na Avenida Dezessete de Agosto, ou seja 1,6% (Planilha ET-3.2); 15 acessos de pedestres e 15 de saídas, no mesmo período.



Figuras 08 – Fluxo de Veículos Expandidos

Pesquisas Direcionais

Visando conhecer os fluxos horários direcionais nas interseções que poderiam ser mais impactadas com a implementação do empreendimento, e nos três períodos de picos diários, foram realizadas pesquisas de fluxos direcionais nas interseções apontadas no esquema a seguir, quais sejam:

Figuras 09 – Localização das Pesquisas de Fluxos

Esquema FONTE: Desenho sobre Google Earth

<u>Interseção 1:</u> Cruzamento da Avenida Dezessete de Agosto com a Rua Jorge de Albuquerque;

<u>Interseção 2:</u> Interseção da Avenida Dezessete de Agosto com a Estrada do Arraial;

<u>Interseção 3:</u> Interseção da Avenida Dezessete de Agosto com a Rua Pinto Campos;

1. Cruzamento da Avenida Dezessete de Agosto com a Rua Jorge de Albuquerque;

Foi efetivada, pesquisa de fluxo direcional no cruzamento citado, no intuito de estabelecer o fluxo existente hoje no local. Este é o principal cruzamento que concentrará parte da demanda de fluxo de saídas e entradas do empreendimento. Tal pesquisa foi realizada no dia 22/03/2016, nos períodos das 06h às 20horas, hora a hora. Os resultados constam das planilhas ET- 1.1 a ET-1.14 resumidamente apresentando os seguintes fluxos totais no cruzamento:

⇒ 07h – 08h: 2.278 veículos/hora; (ET-1.2);

⇒ 13h – 14h: 1.769 veículos /hora; (ET-1.8);

⇒ 17h – 18h: 2.314 veículos/hora; (ET-1.12).

Figuras 10 – Cruzamento da Avenida Dezessete de Agosto com a Rua Jorge de Albuquerque

FONTE: Google Earth

2. Interseção da Avenida Dezessete de Agosto com a Estrada do Arraial

Foi efetivada, pesquisa de fluxo direcional na interseção citada, que é onde se haverá demanda de fluxos de acessos ao empreendimento. Tal pesquisa foi realizada no dia 22/03/2016, nos períodos das 06h às 20horas, hora a hora. Os resultados constam das planilhas ET- 2.1 a ET-2.14 resumidamente apresentando os seguintes fluxos totais no cruzamento:

⇒ 07h – 08h: 2.738 veículos/hora; (ET-2.2);
⇒ 13h – 14h: 2.185 veículos /hora; (ET-2.8);
⇒ 17h – 18h: 2.723 veículos/hora; (ET-2.12).

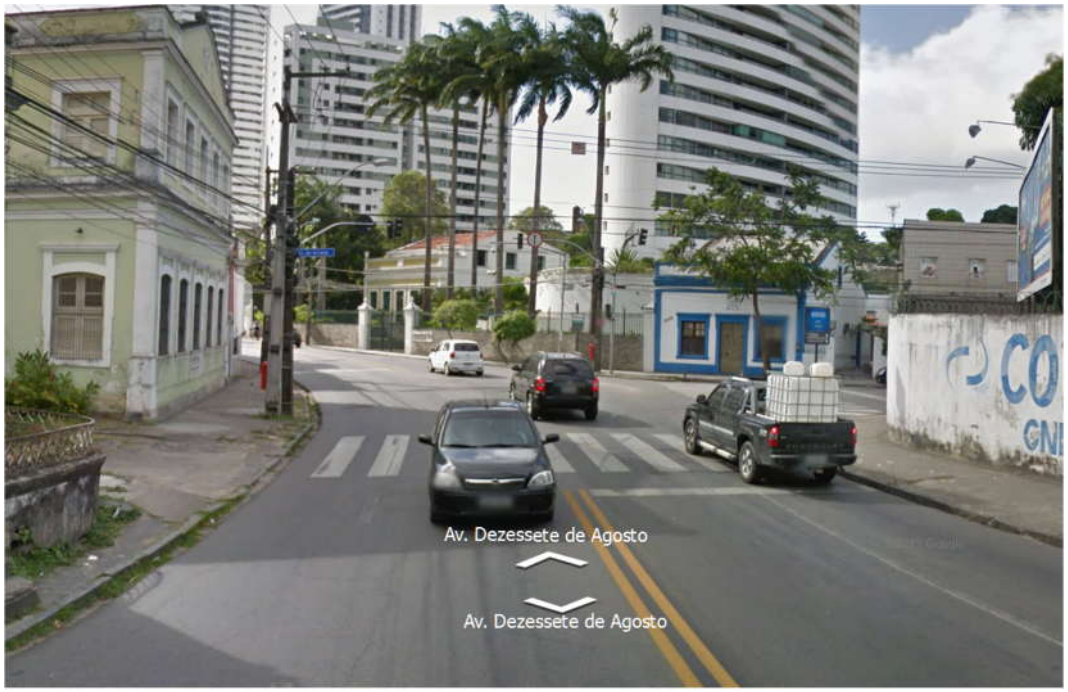


Figura 11 – Interseção da Avenida Dezessete de Agosto com a Estrada do Arraial

FONTE: Google Earth

3. Interseção da Avenida Dezessete de Agosto com a Rua Pinto Campos

Esta interseção, na Praça do Monteiro, deverá ser um local de acessos/saídas ao empreendimento um pouco menos carregada do que a interseção 01, porém, de muita importância para os acessos/saídas. A pesquisa foi realizada no dia 23/03/2016, hora a hora, das 06 às 20 horas. Os resultados constam das planilhas ET- 3.1 a ET-3.14, resumidamente apresentando os seguintes fluxos totais no cruzamento:

⇒ 07h – 08h: 1.775 veículos/hora; (ET- 3.2);
⇒ 13h – 14h: 1.761 veículos /hora; (ET- 3.8);
⇒ 17h – 18h: 2.406 veículos/hora; (ET- 3.12).

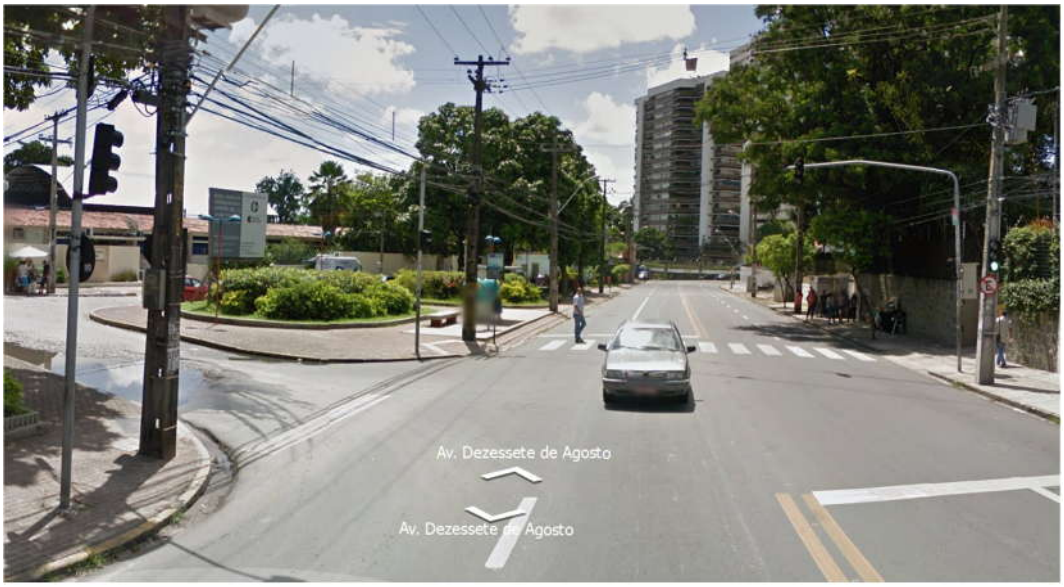


Figura 12 – Interseção da Avenida Dezessete de Agosto com a Rua Pinto Campos

FONTE: Google Earth

Conforme os dados de geração de viagens, os fluxos alocados no entorno seguiram os seguintes indicadores:

Figura 13 – Alocação de Fluxos no Entorno

Esquema FONTE: Desenho sobre Google Earth

Os dados resumidos dos fluxos gerados, em relação aos totais nos horários definidos pelos fluxos futuros da planilha PT-1.3, seriam:

Demanda de Fluxos Gerados													
INTERSEÇÃO	ACESSOS GERADOS	CHEGADA OESTE			CHEGADA LESTE			CHEGADA SUL			CHEGADA NORTE		
		ON	OL	OS	LS	LO	LN	SO	SN	SL	NL	NS	NO
1	ENTRADAS					10%		50%					
	SAÍDAS		10%	50%								30%	
2	ENTRADAS						30%					30%	
	SAÍDAS												
3	ENTRADAS								30%				10%
	SAÍDAS	10%		30%									

11.5 Níveis de Serviço no Entorno

Para definição dos **Níveis de Serviços**, e por solicitação do órgão gestor de trânsito (CTTU), foi adotado o método do HCM – Highway Capacity Manual, e utilizado o Software HCS + Transit 7F. Os resultados constam no anexo, nas planilhas arquivos de saídas do referido software e simulador.

As pesquisas volumétricas classificadas de cada movimento das interseções permitiram obter o volume de tráfego de cada aproximação.

Foi coletado também o período de ciclo da interseção semaforizada, ou seja, os períodos de verde, amarelo e vermelho em cada período pesquisado.

Da mesma forma obtivemos a distribuição destes fluxos nos volumes de tráfego que vão em frente, giram à esquerda ou à direita. Estas são informações necessárias para o cálculo dos tempos de espera (delay) em segundos, e nos quais se baseia o método do HCM para definição dos Níveis de Serviços. Os resultados resumidos contam no item 11.7, a seguir.

11.6 Projeção dos Fluxos de Tráfego

Foram consideradas taxas de crescimento da ordem dos 3% ao ano para o tráfego, e aplicados o fator de projeção de (Fp = (1+3%)10 = 1,34) ao tráfego atual (2016), para obtenção dos fluxos futuros do ano 10 do projeto, 2026, e que somados ao tráfego gerado pela edificação (também projetado), apresentam a seguinte configuração, por exemplo:

CARACTERIZAÇÃO DA SITUAÇÃO ATUAL/FUTURA

1. Tráfego Normal nas interseções a ser impactadas.
2. Tráfego Normal nas interseções, projetado para 10 anos (2026), com base em taxa de crescimento da ordem dos 3% ao ano;
3. Tráfego da situação (1), mais as demandas de entradas e saídas para o empreendimento projetado, alocados em cada fluxo das interseções a serem impactadas;

4. Tráfego das situações (2 e 3), projetados para 10 anos (2026), com base em taxa de crescimento da ordem dos 3% ao ano e mais as demandas geradas.

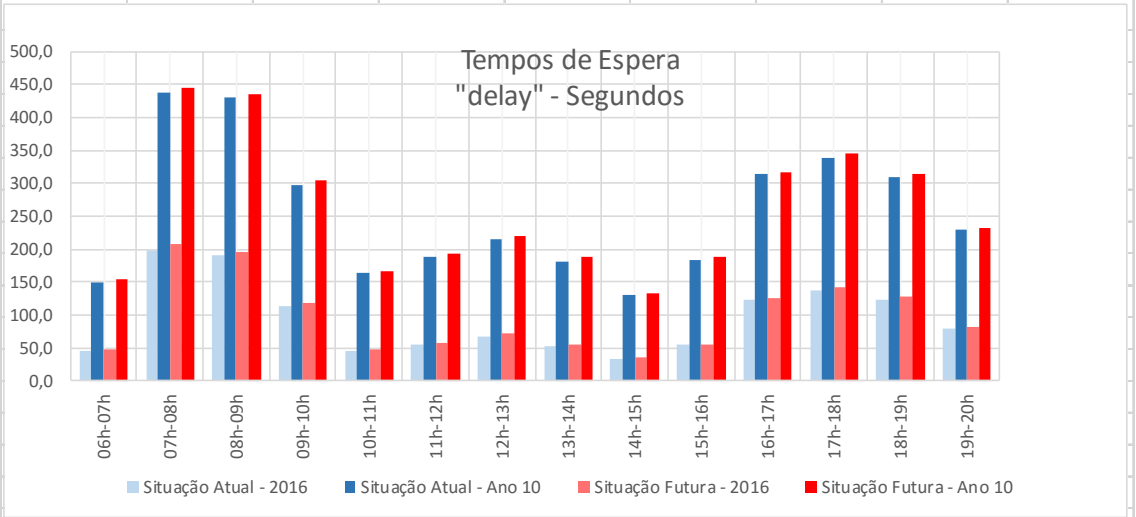
Tais valores, em cada interseção analisada, para as quatro hipóteses experimentadas, e nos horários de máximo do dia, constam das planilhas anexas de saídas do software HCS+Transit 7F.

11.7 Resumo dos Resultados da Análise de Serviço

Os resultados que constam do arquivo anexo, indicaram resumidamente:

Int. 01 - Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

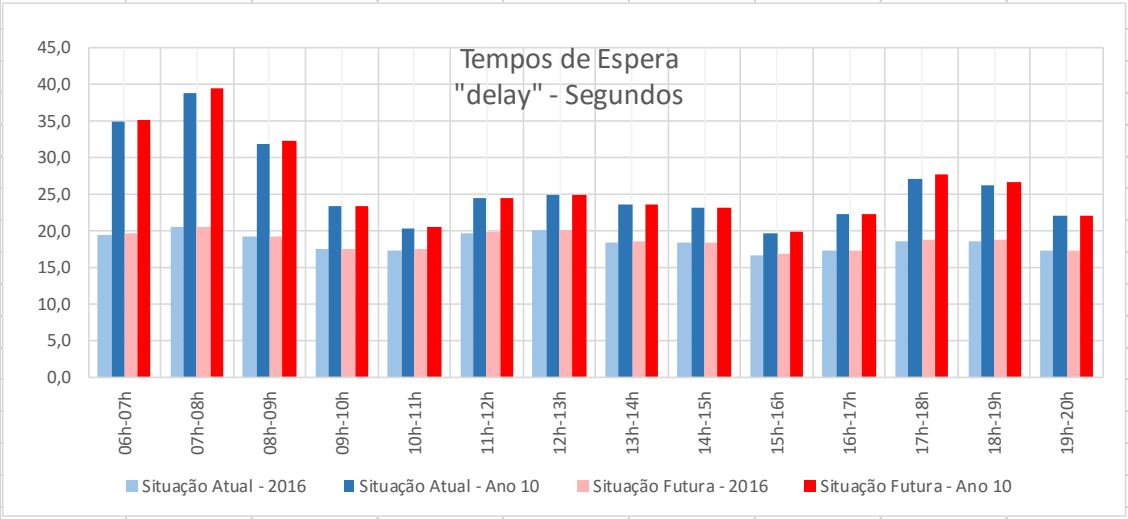
Período	Sitação Atual				Situação Futura			
	2016		2026		2016		2026	
	Nível de Serviço	delay (segundos)	Nível de Serviço	delay (segundos)	Nível de Serviço	delay (segundos)	Nível de Serviço	delay (segundos)
06h-07h	E	45,3	F	148,7	E	48,1	F	154,2
07h-08h	F	199,0	F	437,1	F	206,6	F	444,7
08h-09h	F	191,8	F	429,4	F	196,8	F	436,1
09h-10h	F	114,1	F	296,0	F	119,0	F	303,8
10h-11h	E	45,9	F	164,0	E	48,5	F	166,0
11h-12h	F	55,4	F	188,8	F	57,9	F	193,4
12h-13h	F	68,0	F	214,3	F	72,0	F	219,2
13h-14h	F	52,8	F	181,6	F	56,2	F	187,9
14h-15h	D	33,6	F	129,3	E	35,1	F	132,8
15h-16h	F	54,4	F	183,9	F	56,4	F	187,5
16h-17h	F	123,0	F	313,4	F	126,0	F	317,4
17h-18h	F	136,6	F	338,0	F	141,4	F	344,8
18h-19h	F	123,7	F	308,9	F	128,3	F	314,0
19h-20h	F	79,9	F	228,7	F	82,4	F	232,3



Incremento médio do "delay" entre a situação atual, versus, situação futura, no ano de 2026 = 5,1

Int. 02 - Interseção da Av. 17 de Agosto / Estrada do Arraial do Bom Jesus

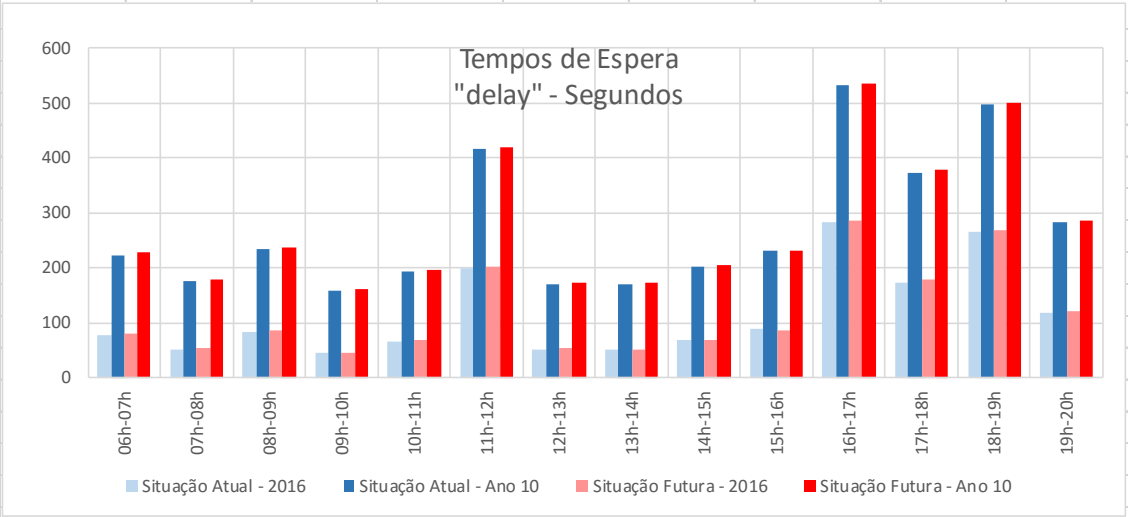
Período	Sitação Atual				Situação Futura			
	2016		2026		2016		2026	
	Nível de Serviço	delay (segundos)	Nível de Serviço	delay (segundos)	Nível de Serviço	delay (segundos)	Nível de Serviço	delay (segundos)
06h-07h	B	19,6	C	34,9	B	19,7	C	35,2
07h-08h	C	20,5	D	38,9	C	20,6	D	39,5
08h-09h	B	19,2	C	32,0	B	19,3	C	32,3
09h-10h	B	17,5	C	23,3	B	17,5	C	23,4
10h-11h	B	17,4	C	20,4	B	17,6	C	20,5
11h-12h	B	19,8	C	24,5	B	19,9	C	24,6
12h-13h	C	20,2	C	24,9	C	20,2	C	25,0
13h-14h	B	18,5	C	23,6	B	18,6	C	23,6
14h-15h	B	18,4	C	23,1	B	18,4	C	23,2
15h-16h	B	16,7	B	19,8	B	16,8	B	19,9
16h-17h	B	17,4	C	22,3	B	17,4	C	22,3
17h-18h	B	18,7	C	27,2	B	18,8	C	27,7
18h-19h	B	18,7	C	26,2	B	18,8	C	26,6
19h-20h	B	17,3	C	22,0	B	17,4	C	22,1



Incremento médio do "delay" entre a situação atual, versus, situação futura, no ano de 2026 =	**0,2**

Int. 03 - Interseção da Av. 17 de Agosto / Rua Pinto Campos

Período	Sitação Atual				Situação Futura			
	2016		2026		2016		2026	
	Nível de Serviço	delay (segundos)	Nível de Serviço	delay (segundos)	Nível de Serviço	delay (segundos)	Nível de Serviço	delay (segundos)
06h-07h	F	76,2	F	222,2	F	79,3	F	227,6
07h-08h	F	51,7	F	176,0	F	53,7	F	179,1
08h-09h	F	84,3	F	233,4	F	86,3	F	235,7
09h-10h	E	44,6	F	158,6	E	46,3	F	161,1
10h-11h	F	65,9	F	193,8	F	68,3	F	197,4
11h-12h	F	199,5	F	417,4	F	202,1	F	420,6
12h-13h	F	51,9	F	170,1	F	53,5	F	172,0
13h-14h	F	50,5	F	169,8	F	52,3	F	172,6
14h-15h	F	67,6	F	201,5	F	69,0	F	204,3
15h-16h	F	88,4	F	229,6	F	85,4	F	232,2
16h-17h	F	282,7	F	533,2	F	285,2	F	536,2
17h-18h	F	173,1	F	374,0	F	177,4	F	378,8
18h-19h	F	265,9	F	497,8	F	269,8	F	501,5
19h-20h	F	118,1	F	283,1	F	120,1	F	285,4



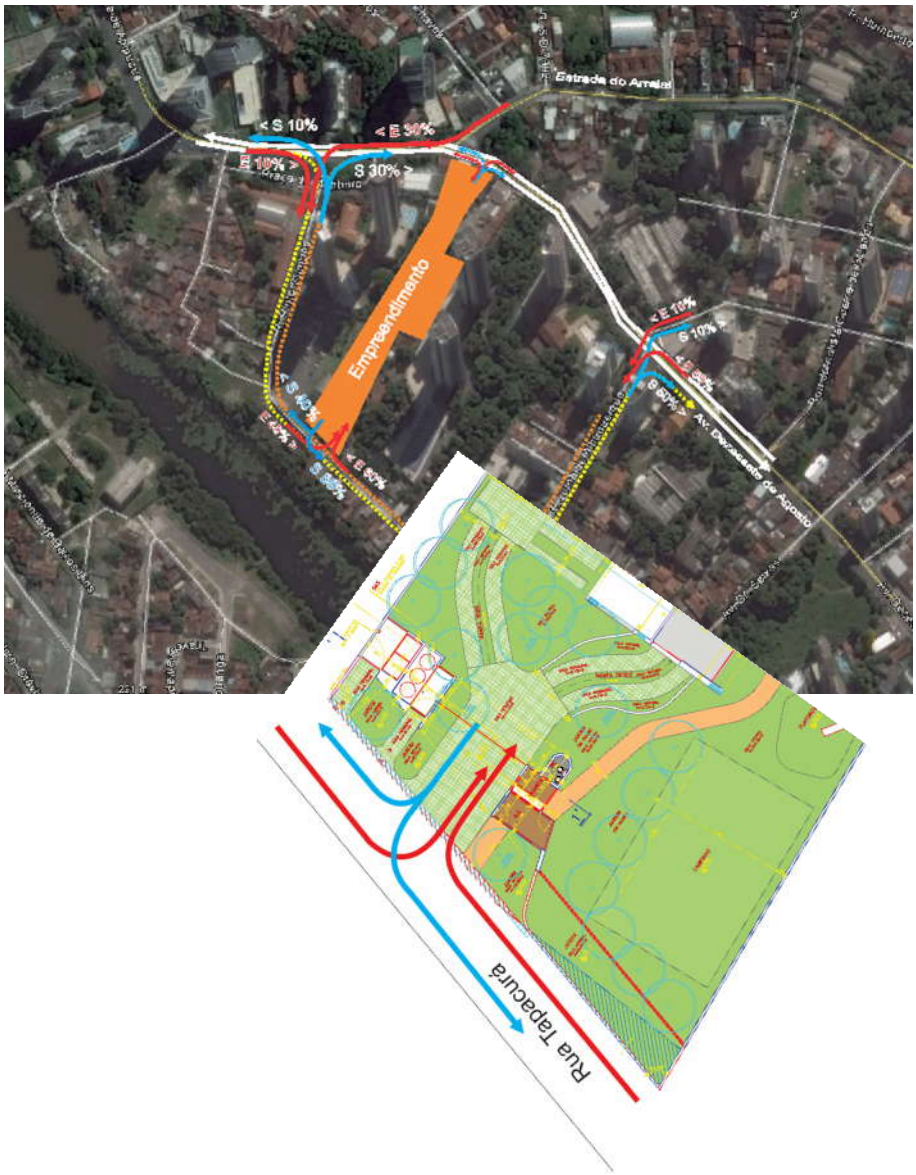
Incremento médio do "delay" entre a situação atual, versus, situação futura, no ano de 2026 = 3,1

Como observado, a potencialidade da geração de fluxos de tráfego é pequena e não implicaria em impactos deletérios aos fluxos existentes. Todos os níveis de serviços na situação futura, sem e com o empreendimento, foram iguais, incrementando pouquíssimos segundos de espera com o fluxo gerado.

11.8 Detalhamento das Condições de Acesso de Veículos e Pedestres

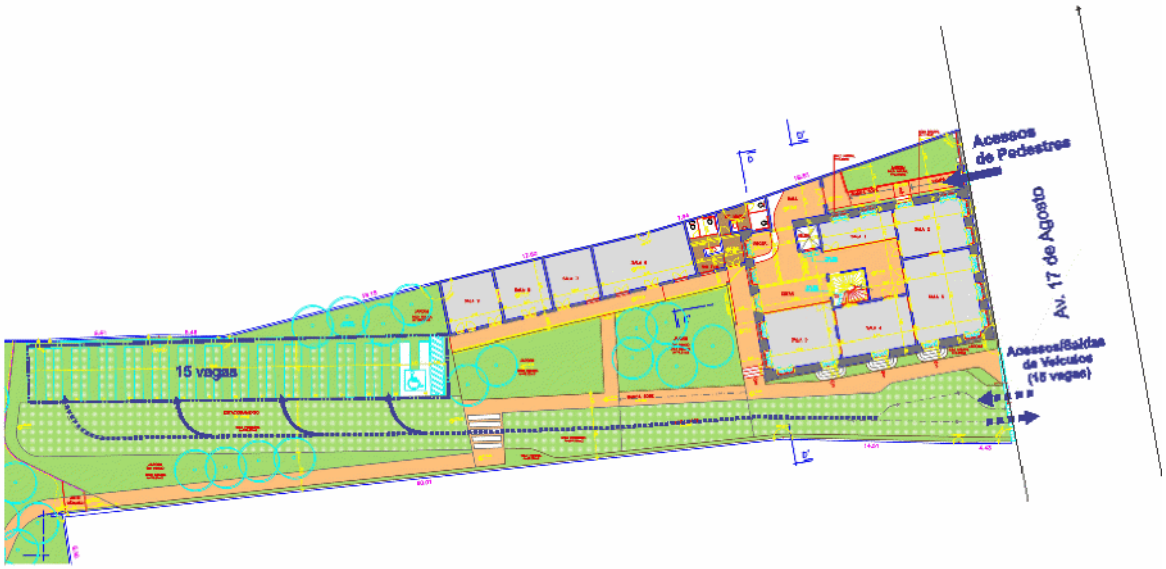
Não haverá mudanças funcionais ou operacionais devido ao empreendimento. Os fluxos continuarão seus funcionamentos normais.

Os acessos de veículos ao empreendimento serão efetuados através do fluxo da Avenida Dezessete de Agosto, pelas Ruas transversais: Pinto de Campos/Tapacurá, e Rua Jorge de Albuquerque/Tapacurá, conforme figura seguinte:



Figuras 14/15 - Esquema Geral de Acessos de Veículos ao Empreendimento

Esquema FONTE: Desenho sobre Google Earth/Projeto Arquitetônico



Figuras 16 - Esquema Geral de Acessos de Pedestres e Veículos para a Edificação Preservada do Empreendimento

Esquema FONTE: Desenho sobre Projeto Arquitetônico

11.9 Sobre Os Fluxos de Pedestres e Suas Demandas Atuais e Futuras25

Conforme apresentado nas planilhas de tabulação direcional, foram anotadas as quantidades de fluxos de pedestres nas calçadas e travessias das interseções. Não obstante, foram efetuadas expansões da geração de pedestres com as pesquisas de acessos/saídas das edificações similares.

Por exemplo, os valores mais significativos seriam de 30 pedestres/hora (15 em saídas e 15 em entradas na edificação), no período das 07 às 08horas.

Os dados das pesquisas direcionais apontam, neste horário, valores de 97 pedestres no cruzamento norte e 32 no cruzamento oeste da interseção 3 (Praça do Monteiro).

Tomando-se estes valores, ter-se-iam:

- Ano de 2016 (situação atual): 97 pedestres/hora na calçada de 2m (1,5m efetivos) de largura;
- Ano de 2016 (com geração): 97 + 30 = 127 pedestres/hora na calçada de 1,5m efetivos de largura;
- Ano de 2026 (com geração): 97 x 1,34 + 30 = 160 pedestres/hora na calçada.

Verificação da Capacidade do entorno – Fluxo de Pedestres

Os indicadores para determinação dos níveis de serviços específicos *(Capitulo 18 – Pedestrian Methodology – HCM2000),* nas calçadas e travessias, com larguras úteis em metros, dados os volumes de fluxos de pedestres apontariam para os seguintes resultados, dadas as situações atuais e futuras, atestando a capacidade do sistema, resumidamente a seguir:

Tabela 1 - Nível de Serviço nas calçadas de 1,5 metros
Situação Atual - 2016

Período (hora)	Ped./hora (Pedestres/hora)	Ped./15 min (Pedestres/15 minutos)	I = Qp15/15Ae (Ped./min/metro)	Ip = I+13,12 (Pelotões/min/metro)	Nível de Serviço
06-07	79	19,8	0,9	14,0	B
07-08	97	24,3	1,1	14,2	B
08-09	108	27,0	1,2	14,3	B
09-10	48	12,0	0,5	13,7	B
10-11	73	18,3	0,8	13,9	B
11-12	46	11,5	0,5	13,6	B
12-13	46	11,5	0,5	13,6	B
13-14	94	23,5	1,0	14,2	B
14-15	62	15,5	0,7	13,8	B
15-16	115	28,8	1,3	14,4	B
16-17	98	24,5	1,1	14,2	B
17-18	136	34,0	1,5	14,6	B
18-19	42	10,5	0,5	13,6	B
19-20	80	20,0	0,9	14,0	B

Nível de Serviço B: 3,6m²/pedestre; intensidade máxima de 23 pdedestres/minuto/metro; permite liberdade de movimentos sem conflitos

Tabela 2 - Nível de Serviço nas calçadas de 1,5 metros
Situação Futura - 2016

Período (hora)	Ped./hora (Pedestres/hora)	Ped./15 min (Pedestres/15 minutos)	I = Qp15/15Ae (Ped./min/metro)	Ip = I+13,12 (Pelotões/min/metro)	Nível de Serviço
06-07	103	25,8	1,1	14,3	B
07-08	127	31,8	1,4	14,5	B
08-09	134	33,5	1,5	14,6	B
09-10	69	17,3	0,8	13,9	B
10-11	98	24,5	1,1	14,2	B
11-12	62	15,5	0,7	13,8	B
12-13	66	16,5	0,7	13,9	B
13-14	114	28,5	1,3	14,4	B
14-15	76	19,0	0,8	14,0	B
15-16	137	34,3	1,5	14,6	B
16-17	124	31,0	1,4	14,5	B
17-18	164	41,0	1,8	14,9	B
18-19	61	15,3	0,7	13,8	B
19-20	98	24,5	1,1	14,2	B

Nível de Serviço B: 3,6m²/pedestre; intensidade máxima de 23 pdedestres/minuto/metro; permite liberdade de movimentos sem conflitos

Tabela 2 - Nível de Serviço nas calçadas de 1,5 metros
Situação Futura - Ano 10 (2026)

Período (hora)	Ped./hora (Pedestres/hora)	Ped./15 min (Pedestres/15 minutos)	I = Qp15/15Ae (Ped./min/metro)	Ip = I+13,12 (Pelotões/min/metro)	Nível de Serviço
06-07	130	32,5	1,4	14,6	B
07-08	160	40,0	1,8	14,9	B
08-09	171	42,8	1,9	15,0	B
09-10	85	21,3	0,9	14,1	B
10-11	123	30,8	1,4	14,5	B
11-12	78	19,5	0,9	14,0	B
12-13	82	20,5	0,9	14,0	B
13-14	146	36,5	1,6	14,7	B
14-15	97	24,3	1,1	14,2	B
15-16	176	44,0	2,0	15,1	B
16-17	157	39,3	1,7	14,9	B
17-18	210	52,5	2,3	15,5	B
18-19	75	18,8	0,8	14,0	B
19-20	125	31,3	1,4	14,5	B

Nível de Serviço B: 3,6m²/pedestre; intensidade máxima de 23 pdedestres/minuto/metro; permite liberdade de movimentos sem conflitos

11.10 Conclusões e Recomendações

Considerando as características positivas intrínsecas do bairro, sabem-se da possibilidade da implantação de novos empreendimentos que fomentem o crescimento da área, desde que de maneira sustentável, agregando qualidade de vida tanto para os habitantes quanto para àqueles que a frequentam;

O empreendimento proposto possibilitará a complementação de serviços essenciais do bairro como área com uso residencial e demandando pequenos, propiciando uma série de benefícios à mesma: a valorização imobiliária do entorno, a geração de emprego e renda, fomentação do crescimento da economia local e desenvolvimento urbano;

Os projetos arquitetônicos apresentados atendem a todas as exigências da lei municipal; e as soluções arquitetônicas e os acessos projetados apresentam-se como elementos que minimizarão as interferências ao trânsito local;

Conforme demonstrado anteriormente, em todas as situações examinadas, os fluxos funcionariam sem alterar os “Níveis de Serviços” vigentes e projetados com o crescimento vegetativo do tráfego, notadamente porque o empreendimento não possui capacidade de gerar altos fluxos. Ou seja: **não haveria impactos deletérios advindos da implementação do empreendimento. Não obstante, haverá impactos positivos socioeconômicos à municipalidade, portanto, atestando a viabilidade do projeto pretendido.** Recomendam-se, porém, as seguintes premissas:

a) Como medidas mitigadoras, elaborar um projeto de sinalização para a situação futura, notadamente que contemple adoção de taxas refletivas para divisão de fluxos (principalmente nas interseções do entorno imediato), associadas com sinalização horizontal (pictogramas) e de regulamentação devidamente conspícuas;

b) Verificação e recomposição das calçadas no entorno fronteiriço e imediato ao empreendimento;

c) Requalificação da faixa da Rua Pinto Campos, notadamente na curva de encontro com a Rua Tapacurá;

d) Manutenção das travessias de pedestres com botoeiras; complementação de faixas nas travessias dos cruzamentos com sinalização conveniente nos locais de travessias, interseções e cruzamentos do entorno;

e) Que durante a construção da obra seja utilizada, prioritariamente, mão-de-obra local, sugerindo-se que seja **firmado um compromisso** nesse sentido com o empreendedor.

11.12 Planilhas do Estudo

A seguir são apresentadas as planilhas utilizadas para o estudo, constando de pesquisas e análises de capacidades e níveis de serviços.

PLANILHAS DO ESTUDO

MOURA DUBEUX

EDIFICIO VILLA CASA FORTE

Data: 13/04/2016

Quantidade de Pavimentos: 17

Quantidade de Apartamentos: 34 (Área: 176m²)

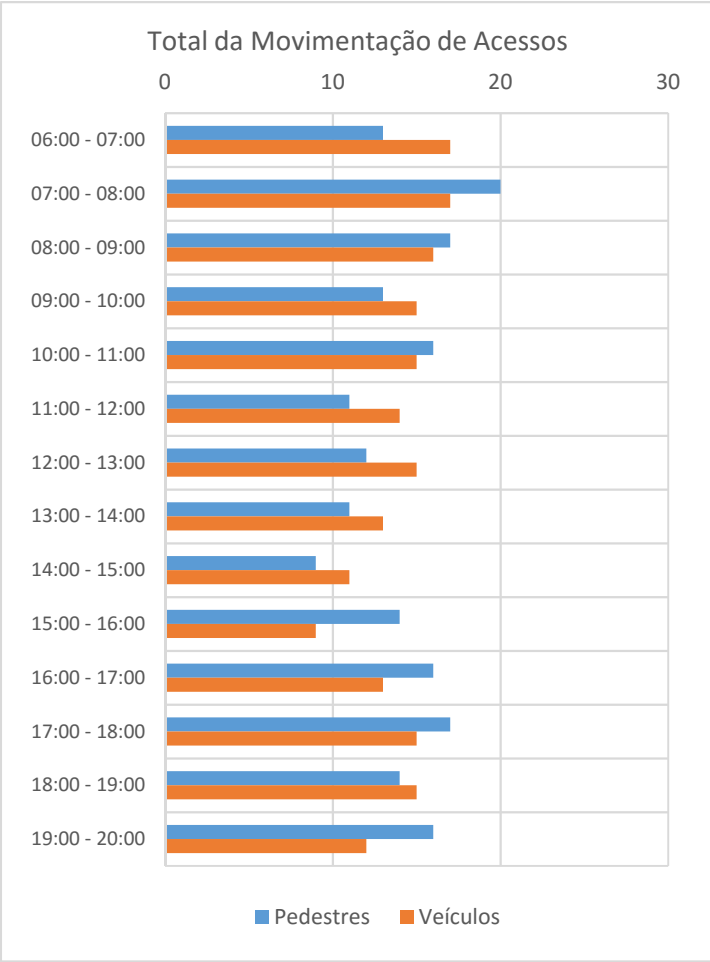
Área Útil Total: 5.984,0 m²

Endereço: Rua Jacó Velosino, 205 - Casa Forte

Quantas Vagas de Estacionamento: 68

PESQUISA DE ACESSSOS EM EDIFICAÇÃO

HORAS	ACESSOS DE PEDESTES			ACESSOS DE VEICULOS		
	ENTRADAS	SAÍDAS	Soma	ENTRADAS	SAÍDAS	Soma
06:00 - 07:00	2	11	13	7	10	17
07:00 - 08:00	11	9	20	5	12	17
08:00 - 09:00	10	7	17	7	9	16
09:00 - 10:00	8	5	13	4	11	15
10:00 - 11:00	8	8	16	7	8	15
11:00 - 12:00	6	5	11	9	5	14
12:00 - 13:00	7	5	12	8	7	15
13:00 - 14:00	6	5	11	4	9	13
14:00 - 15:00	5	4	9	5	6	11
15:00 - 16:00	8	6	14	6	3	9
16:00 - 17:00	7	9	16	8	5	13
17:00 - 18:00	11	6	17	10	5	15
18:00 - 19:00	9	5	14	8	7	15
19:00 - 20:00	7	9	16	9	3	12
Total	105	94	199	97	100	197



PE-1.1

MOURA DUBEUX

EDIFICIO PRÍNCIPE DE ASTÚRIAS

Data: 15/04/2015

Quantidade de Pavimentos: 17

Quantidade de Apartamentos: 38 (Área: 182m²)

Área Util Total = 6916,0 m²

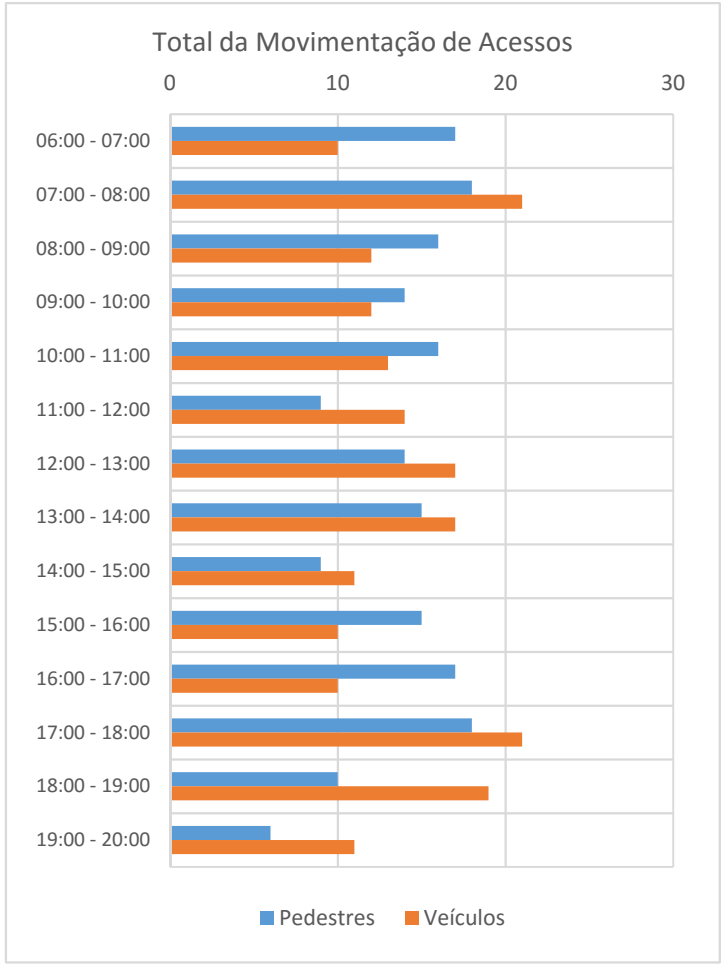
Endereço: Rua Muniz Tavares, 81 - Parnamirim/Jaqueira

Quantas Vagas de Estacionamento: 72

PESQUISA DE ACESSOS EM EDIFICAÇÃO

HORAS	ACESSOS DE PEDESTES			ACESSOS DE VEICULOS		
	ENTRADAS	SAÍDAS	Soma	ENTRADAS	SAÍDAS	Soma
06:00 - 07:00	3	14	17	0	10	10
07:00 - 08:00	8	10	18	9	12	21
08:00 - 09:00	8	8	16	3	9	12
09:00 - 10:00	10	4	14	1	11	12
10:00 - 11:00	6	10	16	5	8	13
11:00 - 12:00	5	4	9	9	5	14
12:00 - 13:00	6	8	14	10	7	17
13:00 - 14:00	8	7	15	8	9	17
14:00 - 15:00	4	5	9	5	6	11
15:00 - 16:00	9	6	15	5	5	10
16:00 - 17:00	12	5	17	5	5	10
17:00 - 18:00	10	8	18	14	7	21
18:00 - 19:00	6	4	10	13	6	19
19:00 - 20:00	4	2	6	8	3	11
Total	99	95	194	95	103	198

PE-1.1



MOURA DUBEUX

Simulação de Acessos ao Empreendimento

Quantidade de Apartamentos: 56,00

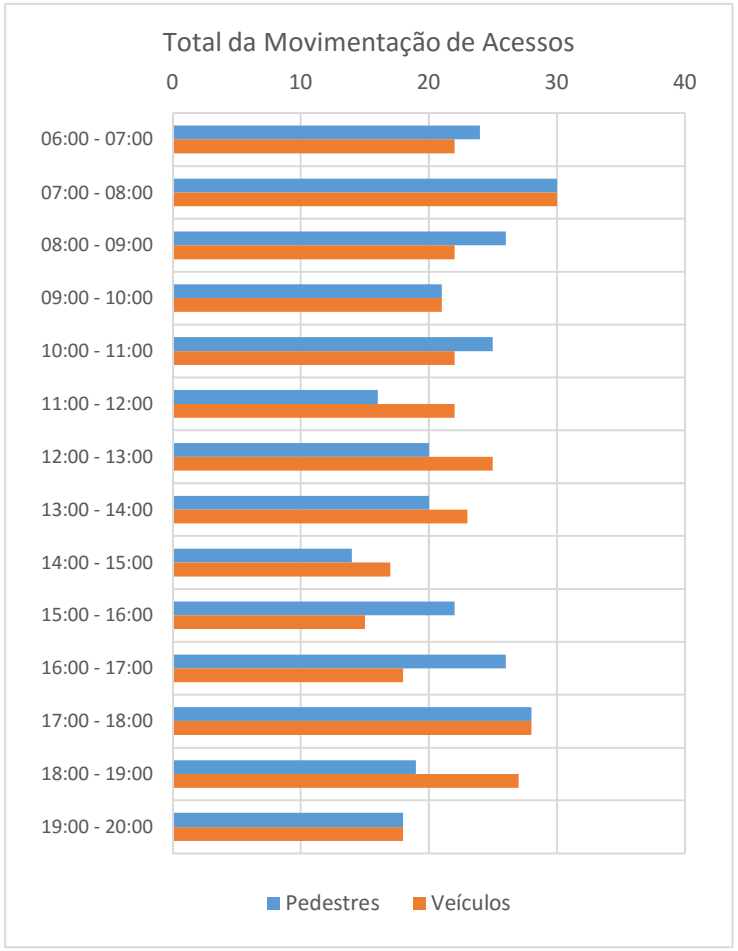
Área de Cada Apartamento: 181,53m² Área Util Total: 10165,68 m²

Fator de Expansão: 1,58 =Área Útil do Empreendimento (10.168,48m²) /Média das áreas dos edificios da pesquisa (5.984+6916/2)

SIMULAÇÃO DE ACESSOS AO EMPREENDIMENTO

HORAS	ACESSOS DE PEDESTES			ACESSOS DE VEICULOS		
	ENTRADAS	SAÍDAS	Soma	ENTRADAS	SAÍDAS	Soma
06:00 - 07:00	4	20	24	6	16	22
07:00 - 08:00	15	15	30	11	19	30
08:00 - 09:00	14	12	26	8	14	22
09:00 - 10:00	14	7	21	4	17	21
10:00 - 11:00	11	14	25	9	13	22
11:00 - 12:00	9	7	16	14	8	22
12:00 - 13:00	10	10	20	14	11	25
13:00 - 14:00	11	9	20	9	14	23
14:00 - 15:00	7	7	14	8	9	17
15:00 - 16:00	13	9	22	9	6	15
16:00 - 17:00	15	11	26	10	8	18
17:00 - 18:00	17	11	28	19	9	28
18:00 - 19:00	12	7	19	17	10	27
19:00 - 20:00	9	9	18	13	5	18
Total	161	148	309	151	159	310

PE-1.3



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 1.1

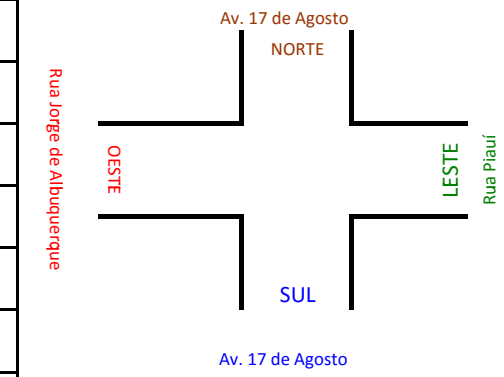
ORDEM: 1

LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016

PERÍODO: 6h - 7h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	184	0	0	**184**	75	23		0,89	77	NE
			100%	0%	0%	100%						
		> SUL	729	65	20	**814**	225	65		0,95		NS
			90%	8%	2%	100%						
		> OESTE	11	0	1	**12**	9	9		0,75		NO
			92%	0%	8%	100%						
Rua Piauí	LESTE	> SUL	16	0	0	**16**	0	2		0,80	11	ES
			100%	0%	0%	100%						
		> OESTE	3	0	0	**3**	1	0		0,33		EO
			100%	0%	0%	100%						
		> NORTE	16	0	0	**16**	3	0		0,68		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	24	0	0	**24**	17	16		0,73	0	SO
			100%	0%	0%	100%						
		> NORTE	277	48	18	**343**	66	24		0,77		SN
			81%	14%	5%	100%						
		> LESTE	27	0	0	**27**	18	14		0,87		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	51	0	0	**51**	3	0		0,64	0	ON
			100%	0%	0%	100%						
		> LESTE	5	0	0	**5**	6	10		0,42		OE
			100%	0%	0%	100%						
		> SUL	42	0	0	**42**	1	2		0,67		OS
			100%	0%	0%	100%						
						1537						



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

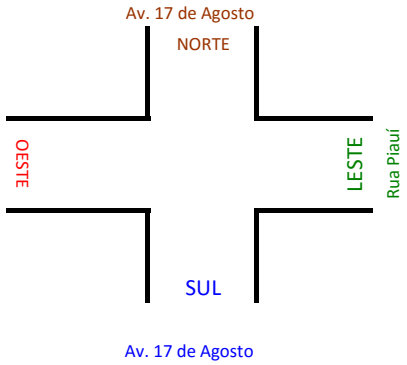
ET - 1.2

ORDEM: 1
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016
PERÍODO: 7h - 8h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	168	0	0	**168**	67	20		0,84	36	NE
			100%	0%	0%	100%						
		> SUL	1135	73	16	**1224**	270	37		0,85		NS
			93%	6%	1%	100%						
		> OESTE	30	0	1	**31**	23	22		0,86		NO
			97%	0%	3%	100%						
Rua Piauí	LESTE	> SUL	6	0	0	**6**	0	0		0,50	18	ES
			100%	0%	0%	100%						
		> OESTE	5	0	0	**5**	0	0		0,42		EO
			100%	0%	0%	100%						
		> NORTE	33	0	0	**33**	3	0		0,69		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	25	0	0	**25**	15	18		0,83	0	SO
			100%	0%	0%	100%						
		> NORTE	530	62	23	**615**	135	24		0,91		SN
			86%	10%	4%	100%						
		> LESTE	32	0	0	**32**	19	19		0,91		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	96	0	0	**96**	5	0		0,81	0	ON
			100%	0%	0%	100%						
		> LESTE	4	0	0	**4**	5	8		0,58		OE
			100%	0%	0%	100%						
		> SUL	39	0	0	**39**	0	4		0,65		OS
			100%	0%	0%	100%						
						2278						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 1.3

ORDEM: 1

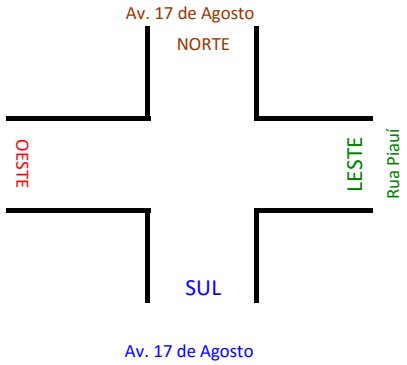
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016

PERÍODO: 8h - 9h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	**TOTAL**	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	153	0	0	**153**	74	14		0,77	27	NE
			100%	0%	0%	100%						
		> SUL	1367	49	24	**1440**	276	27		0,92		NS
			95%	3%	2%	100%						
		> OESTE	29	0	0	**29**	20	19		0,94		NO
			100%	0%	0%	100%						
Rua Piauí	LESTE	> SUL	11	0	0	**11**	0	2		0,69	10	ES
			100%	0%	0%	100%						
		> OESTE	2	0	0	**2**	1	1		0,75		EO
			100%	0%	0%	100%						
		> NORTE	16	0	0	**16**	4	0		0,71		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	16	0	0	**16**	11	16		0,84	0	SO
			100%	0%	0%	100%						
		> NORTE	483	46	19	**548**	88	16		0,98		SN
			88%	8%	3%	100%						
		> LESTE	29	0	0	**29**	12	12		0,93		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	69	0	0	**69**	2	0		0,77	0	ON
			100%	0%	0%	100%						
		> LESTE	3	0	0	**3**	4	6		0,63		OE
			100%	0%	0%	100%						
		> SUL	31	0	1	**32**	1	0		0,83		OS
			97%	0%	3%	100%						
						2348						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

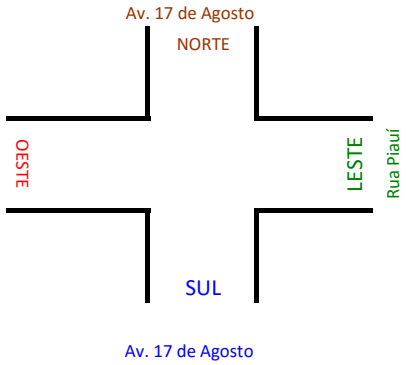
ET - 1.4

ORDEM: 1
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016
PERÍODO: 9h - 10h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	136	0	0	**136**	74	17		0,88	43	NE
			100%	0%	0%	100%						
		> SUL	1173	59	38	**1270**	294	25		0,95		NS
			92%	5%	3%	100%						
		> OESTE	10	0	0	**10**	17	16		0,77		NO
			100%	0%	0%	100%						
Rua Piauí	LESTE	> SUL	16	0	0	**16**	0	0		0,80	29	ES
			100%	0%	0%	100%						
		> OESTE	6	0	0	**6**	1	1		0,58		EO
			100%	0%	0%	100%						
		> NORTE	21	0	0	**21**	4	0		0,78		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	23	0	0	**23**	11	9		0,77	0	SO
			100%	0%	0%	100%						
		> NORTE	472	53	17	**542**	78	15		0,94		SN
			87%	10%	3%	100%						
		> LESTE	35	0	0	**35**	10	10		0,80		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	44	0	0	**44**	13	6		0,79	0	ON
			100%	0%	0%	100%						
		> LESTE	4	0	0	**4**	0	8		0,58		OE
			100%	0%	0%	100%						
		> SUL	20	0	0	**20**	0	3		0,63		OS
			100%	0%	0%	100%						
						2127						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

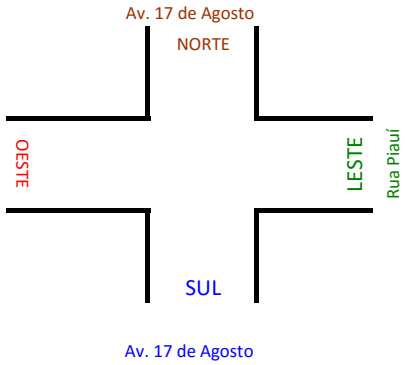
ET - 1.5

ORDEM: 1
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016
PERÍODO: 10h - 11h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	**TOTAL**	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	125	0	0	**125**	68	11		0,95	31	NE
			100%	0%	0%	100%						
		> SUL	870	54	29	**953**	284	25		0,92		NS
			91%	6%	3%	100%						
		> OESTE	10	0	0	**10**	22	23		0,86		NO
			100%	0%	0%	100%						
Rua Piauí	LESTE	> SUL	14	0	0	**14**	1	0		0,47	24	ES
			100%	0%	0%	100%						
		> OESTE	1	0	0	**1**	0	4		0,25		EO
			100%	0%	0%	100%						
		> NORTE	9	0	0	**9**	1	1		0,55		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	15	0	0	**15**	9	10		0,86	0	SO
			100%	0%	0%	100%						
		> NORTE	343	46	9	**398**	64	20		0,93		SN
			86%	12%	2%	100%						
		> LESTE	30	0	0	**30**	13	10		0,83		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	55	0	0	**55**	8	1		0,66	0	ON
			100%	0%	0%	100%						
		> LESTE	1	0	0	**1**	2	2		0,25		OE
			100%	0%	0%	100%						
		> SUL	9	0	2	**11**	2	1		0,65		OS
			82%	0%	18%	100%						
						1622						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

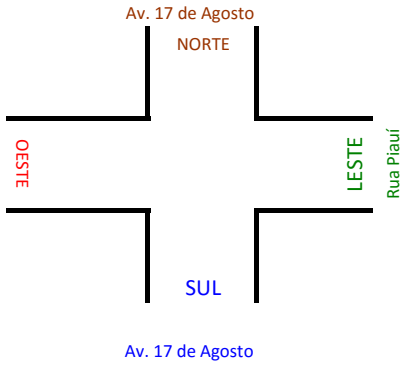
ET - 1.6

ORDEM: 1
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016
PERÍODO: 11h - 12h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	113	0	0	**113**	62	8		0,97	18	NE
			100%	0%	0%	100%						
		> SUL	989	47	29	**1065**	253	26		0,93		NS
			93%	4%	3%	100%						
		> OESTE	12	0	0	**12**	32	30		0,88		NO
			100%	0%	0%	100%						
Rua Piauí	LESTE	> SUL	15	0	0	**15**	0	0		0,47	7	ES
			100%	0%	0%	100%						
		> OESTE	3	0	0	**3**	0	0		0,75		EO
			100%	0%	0%	100%						
		> NORTE	18	0	0	**18**	3	0		0,75		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	10	0	0	**10**	10	9		0,83	0	SO
			100%	0%	0%	100%						
		> NORTE	266	34	10	**310**	66	12		0,93		SN
			86%	11%	3%	100%						
		> LESTE	22	0	0	**22**	14	9		0,90		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	45	0	2	**47**	4	4		0,52	0	ON
			96%	0%	4%	100%						
		> LESTE	5	0	0	**5**	4	10		0,55		OE
			100%	0%	0%	100%						
		> SUL	8	0	0	**8**	3	0		0,55		OS
			100%	0%	0%	100%						
						1628						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

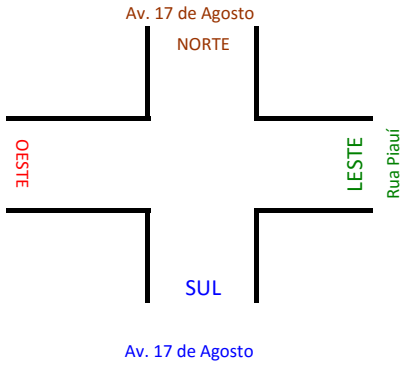
ET - 1.7

ORDEM: 1
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016
PERÍODO: 12h - 13h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	**TOTAL**	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	119	0	0	**119**	94	14		0,93	17	NE
			100%	0%	0%	100%						
		> SUL	1070	40	37	**1147**	231	40		0,98		NS
			93%	3%	3%	100%						
		> OESTE	12	0	3	**15**	21	24		0,88		NO
			80%	0%	20%	100%						
Rua Piauí	LESTE	> SUL	13	0	0	**13**	4	0		0,53	7	ES
			100%	0%	0%	100%						
		> OESTE	2	0	0	**2**	0	6		0,31		EO
			100%	0%	0%	100%						
		> NORTE	18	0	0	**18**	4	0		0,61		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	18	0	0	**18**	13	11		0,78	0	SO
			100%	0%	0%	100%						
		> NORTE	466	34	10	**510**	60	12		0,97		SN
			91%	7%	2%	100%						
		> LESTE	28	0	0	**28**	9	10		0,93		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	51	0	1	**52**	8	0		0,75	0	ON
			98%	0%	2%	100%						
		> LESTE	3	0	1	**4**	4	8		0,63		OE
			75%	0%	25%	100%						
		> SUL	17	0	1	**18**	5	2		0,72		OS
			94%	0%	6%	100%						
						1944						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 1.8

ORDEM: 1

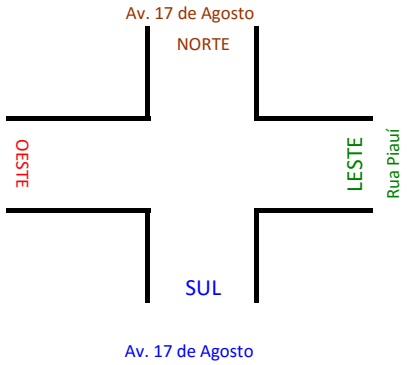
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016

PERÍODO: 13h - 14h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	**TOTAL**	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	103	0	0	**103**	67	6		0,87	22	NE
			100%	0%	0%	100%						
		> SUL	1023	41	34	**1098**	219	26		0,97		NS
			93%	4%	3%	100%						
		> OESTE	12	0	1	**13**	14	13		0,71		NO
			92%	0%	8%	100%						
Rua Piauí	LESTE	> SUL	11	0	0	**11**	0	0		0,55	5	ES
			100%	0%	0%	100%						
		> OESTE	2	0	0	**2**	0	3		0,50		EO
			100%	0%	0%	100%						
		> NORTE	16	0	0	**16**	0	0		0,80		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	16	0	0	**16**	13	8		0,81	0	SO
			100%	0%	0%	100%						
		> NORTE	380	32	10	**422**	54	11		0,98		SN
			90%	8%	2%	100%						
		> LESTE	24	0	0	**24**	11	9		0,97		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	38	0	0	**38**	2	1		0,59	0	ON
			100%	0%	0%	100%						
		> LESTE	4	0	0	**4**	4	8		0,31		OE
			100%	0%	0%	100%						
		> SUL	22	0	0	**22**	3	2		0,63		OS
			100%	0%	0%	100%						
						1769						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

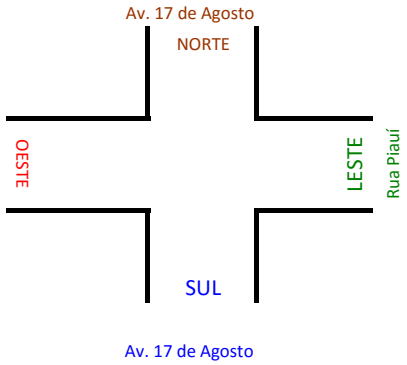
ET - 1.9

ORDEM: 1
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016
PERÍODO: 14h - 15h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	90	0	0	**90**	53	7		0,92	15	NE
			100%	0%	0%	100%						
		> SUL	983	36	20	**1039**	214	21		0,97		NS
			95%	3%	2%	100%						
		> OESTE	11	0	1	**12**	16	9		0,84		NO
			92%	0%	8%	100%						
Rua Piauí	LESTE	> SUL	18	0	0	**18**	0	0		0,75	19	ES
			100%	0%	0%	100%						
		> OESTE	1	0	0	**1**	0	2		0,25		EO
			100%	0%	0%	100%						
		> NORTE	25	0	0	**25**	0	0		0,78		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	19	0	0	**19**	12	10		0,86	0	SO
			100%	0%	0%	100%						
		> NORTE	383	29	11	**423**	59	11		0,96		SN
			91%	7%	3%	100%						
		> LESTE	20	0	0	**20**	10	9		0,75		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	16	0	0	**16**	3	1		0,79	0	ON
			100%	0%	0%	100%						
		> LESTE	5	0	0	**5**	5	10		0,42		OE
			100%	0%	0%	100%						
		> SUL	15	0	1	**16**	6	3		0,86		OS
			94%	0%	6%	100%						
						1684						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

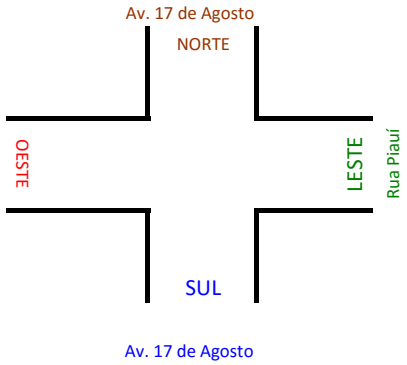
ET - 1.10

ORDEM: 1
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016
PERÍODO: 15h - 16h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	**TOTAL**	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	106	0	0	**106**	50	8		0,87	29	NE
			100%	0%	0%	100%						
		> SUL	1014	37	18	**1069**	146	10		0,94		NS
			95%	3%	2%	100%						
		> OESTE	15	0	2	**17**	20	10		0,90		NO
			88%	0%	12%	100%						
Rua Piauí	LESTE	> SUL	10	0	0	**10**	1	0		0,69	15	ES
			100%	0%	0%	100%						
		> OESTE	1	0	0	**1**	0	2		0,25		EO
			100%	0%	0%	100%						
		> NORTE	15	0	0	**15**	3	0		0,56		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	17	0	0	**17**	11	8		0,70	0	SO
			100%	0%	0%	100%						
		> NORTE	396	35	21	**452**	58	5		0,96		SN
			88%	8%	5%	100%						
		> LESTE	25	0	0	**25**	7	5		0,89		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	45	0	2	**47**	11	1		0,58	0	ON
			96%	0%	4%	100%						
		> LESTE	4	0	0	**4**	4	8		0,42		OE
			100%	0%	0%	100%						
		> SUL	6	0	0	**6**	14	2		0,63		OS
			100%	0%	0%	100%						
						1769						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 1.11

ORDEM: 1

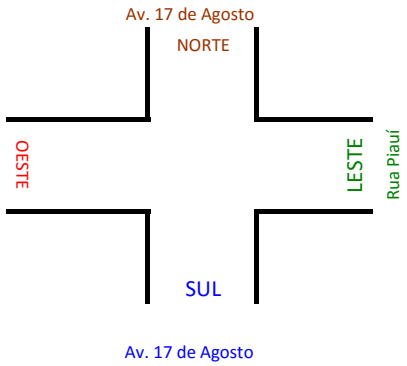
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016

PERÍODO: 16h - 17h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	**TOTAL**	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	153	0	0	**153**	62	10		0,90	33	NE
			100%	0%	0%	100%						
		> SUL	1198	46	25	**1269**	154	20		0,94		NS
			94%	4%	2%	100%						
		> OESTE	19	0	3	**22**	20	13		0,86		NO
			86%	0%	14%	100%						
Rua Piauí	LESTE	> SUL	16	0	0	**16**	0	1		0,67	44	ES
			100%	0%	0%	100%						
		> OESTE	1	0	0	**1**	0	0		0,25		EO
			100%	0%	0%	100%						
		> NORTE	11	0	0	**11**	2	5		0,64		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	22	0	0	**22**	13	8		0,80	0	SO
			100%	0%	0%	100%						
		> NORTE	442	43	21	**506**	86	6		0,93		SN
			87%	8%	4%	100%						
		> LESTE	33	0	0	**33**	16	6		0,88		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	66	0	0	**66**	9	2		0,82	0	ON
			100%	0%	0%	100%						
		> LESTE	2	0	0	**2**	0	4		0,63		OE
			100%	0%	0%	100%						
		> SUL	20	0	1	**21**	10	3		0,75		OS
			95%	0%	5%	100%						
						2122						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 1.12

ORDEM: 1

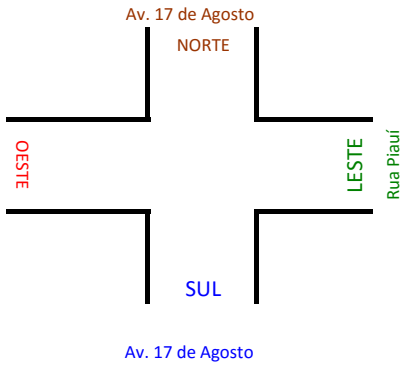
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016

PERÍODO: 17h - 18h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	**TOTAL**	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	160	0	0	**160**	77	10		0,93	41	NE
			100%	0%	0%	100%						
		> SUL	1245	54	33	**1332**	168	25		0,98		NS
			93%	4%	2%	100%						
		> OESTE	25	0	1	**26**	25	9		0,83		NO
			96%	0%	4%	100%						
Rua Piauí	LESTE	> SUL	8	0	0	**8**	1	0		0,45	32	ES
			100%	0%	0%	100%						
		> OESTE	1	0	0	**1**	1	0		0,50		EO
			100%	0%	0%	100%						
		> NORTE	16	0	1	**17**	2	2		0,66		EN
			94%	0%	6%	100%						
Av. 17 de Agosto	SUL	> OESTE	27	0	0	**27**	26	16		0,88	0	SO
			100%	0%	0%	100%						
		> NORTE	547	51	27	**625**	107	17		0,94		SN
			88%	8%	4%	100%						
		> LESTE	34	0	0	**34**	20	11		0,90		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	62	0	1	**63**	3	1		0,80	0	ON
			98%	0%	2%	100%						
		> LESTE	4	0	0	**4**	4	8		0,40		OE
			100%	0%	0%	100%						
		> SUL	17	0	0	**17**	12	4		0,56		OS
			100%	0%	0%	100%						
						2314						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 1.13

ORDEM: 1

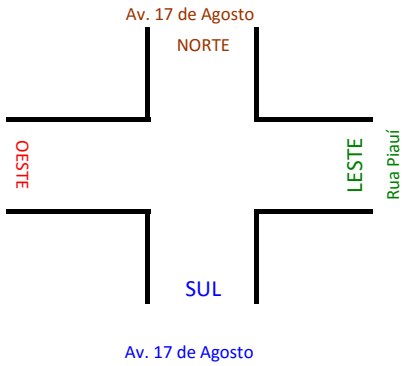
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016

PERÍODO: 18h - 19h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	**TOTAL**	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	151	0	0	**151**	82	10		0,99	30	NE
			100%	0%	0%	100%						
		> SUL	1191	54	26	**1271**	155	23		0,97		NS
			94%	4%	2%	100%						
		> OESTE	30	0	0	**30**	31	10		0,89		NO
			100%	0%	0%	100%						
Rua Piauí	LESTE	> SUL	8	0	0	**8**	0	4		0,67	14	ES
			100%	0%	0%	100%						
		> OESTE	1	0	0	**1**	1	0		0,50		EO
			1	0%	0%	100%						
		> NORTE	23	0	0	**23**	1	2		0,65		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	40	0	0	**40**	28	22		0,89	0	SO
			100%	0%	0%	100%						
		> NORTE	629	49	33	**711**	164	42		0,93		SN
			88%	7%	5%	100%						
		> LESTE	33	0	0	**33**	20	11		0,95		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	38	0	0	**38**	7	1		0,70	0	ON
			100%	0%	0%	100%						
		> LESTE	3	0	0	**3**	1	6		0,42		OE
			100%	0%	0%	100%						
		> SUL	22	0	0	**22**	7	0		0,66		OS
			100%	0%	0%	100%						
						2331						

Rua Jorge de Albuquerque



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 1.14

ORDEM: 1

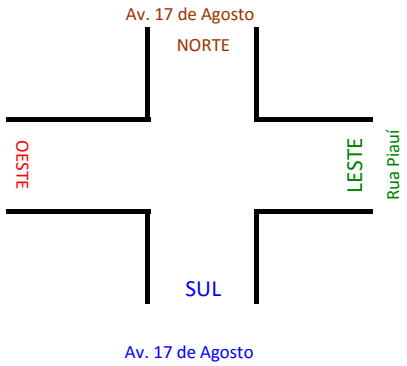
LOCAL: Cruzamento Av. 17 de Agosto / Rua Jorge de Albuquerque

DATA: 22 março, 2016

PERÍODO: 19h - 20h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	**TOTAL**	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE	123	0	0	**123**	74	7		0,93	28	NE
			100%	0%	0%	100%						
		> SUL	846	52	16	**914**	150	17		0,81		NS
			93%	6%	2%	100%						
		> OESTE	22	0	0	**22**	23	9		0,96		NO
			100%	0%	0%	100%						
Rua Piauí	LESTE	> SUL	8	0	0	**8**	0	0		0,67	9	ES
			100%	0%	0%	100%						
		> OESTE	1	0	0	**1**	0	0		0,25		EO
			100%	0%	0%	100%						
		> NORTE	11	0	0	**11**	1	1		0,54		EN
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	39	0	0	**39**	27	22		0,92	0	SO
			100%	0%	0%	100%						
		> NORTE	714	46	43	**803**	198	40		0,99		SN
			89%	6%	5%	100%						
		> LESTE	34	0	0	**34**	20	8		0,84		SE
			100%	0%	0%	100%						
Rua Jorge de Albuquerque	OESTE	> NORTE	28	0	0	**28**	1	0		0,91	0	ON
			100%	0%	0%	100%						
		> LESTE	8	0	0	**8**	1	16		0,63		OE
			100%	0%	0%	100%						
		> SUL	24	0	0	**24**	7	0		0,86		OS
			100%	0%	0%	100%						

Rua Jorge de Albuquerque



2015

MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.1

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

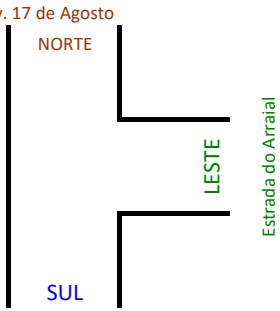
PERÍODO: 6h - 7h

Semáforo:

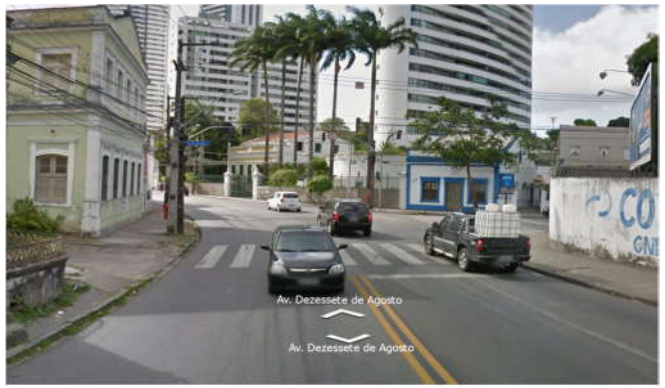
Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	764	52	17	833	235	75		0,96		NS
			92%	6%	2%	100%						
Estrada do Arraial	LESTE	> SUL	160	13	4	177	74	22		0,75	33	ES
			90%	7%	2%	100%						
		> NORTE	458	3	3	464	69	15		0,69		EN
			99%	1%	1%	100%						
Av. 17 de Agosto	SUL	> NORTE	344	48	18	410	72	24		0,81	12	SN
			84%	12%	4%	100%						
		> LESTE										SE
			1884					136			45	



Av. 17 de Agosto



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.2

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

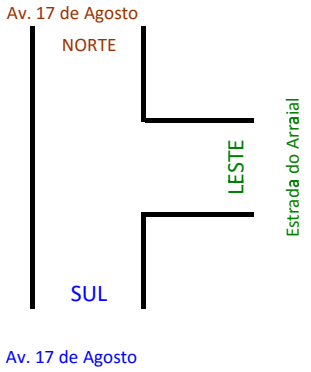
PERÍODO: 7h - 8h

Semáforo:

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	1149	63	9	1221	244	68		0,82		NS
			94%	5%	1%	100%						
Estrada do Arraial	LESTE	> SUL	184	10	8	202	116	11		0,96	32	ES
			91%	5%	4%	100%						
		> NORTE	564	4	3	571	85	19		0,88		EN
			99%	1%	1%	100%						
Av. 17 de Agosto	SUL	> NORTE	659	62	23	744	143	24		0,92	12	SN
			89%	8%	3%	100%						
		> LESTE										SE
						2738		122			44	



1243	63	9	1221	0,82	0
	5%				
224	10	8	202	0,96	32
	5%				
596	4	3	571	0,88	
	1%				
711	62	23	744	0,92	12
	8%				

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TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.3

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

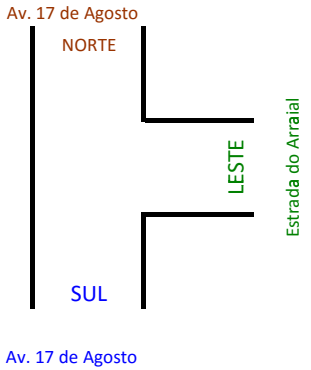
PERÍODO: 8h - 9h

Semáforo:

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	1380	41	19	1440	269	50		0,94		NS
			96%	3%	1%	100%						
Estrada do Arraial	LESTE	> SUL	169	8	5	182	101	10		0,88	27	ES
			93%	4%	3%	100%						
		> NORTE	485	4	9	498	84	7		0,90		EN
			97%	1%	2%	100%						
Av. 17 de Agosto	SUL	> NORTE	568	46	19	633	94	16		0,93	13	SN
			90%	7%	3%	100%						
		> LESTE										SE
						2753		83			40	



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TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.4

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

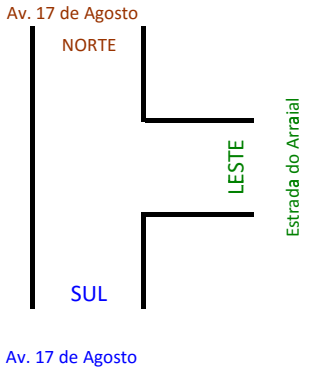
PERÍODO: 9h - 10h

Semáforo:

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	1193	52	31	1276	310	47		0,95		NS
			93%	4%	2%	100%						
Estrada do Arraial	LESTE	> SUL	126	7	7	140	75	11		0,88	28	ES
			90%	5%	5%	100%						
		> NORTE	441	3	7	451	84	13		0,95		EN
			98%	1%	2%	100%						
Av. 17 de Agosto	SUL	> NORTE	537	53	17	607	95	21		0,94	13	SN
			88%	9%	3%	100%						
		> LESTE										SE
						2474		92			41	



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TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.5

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

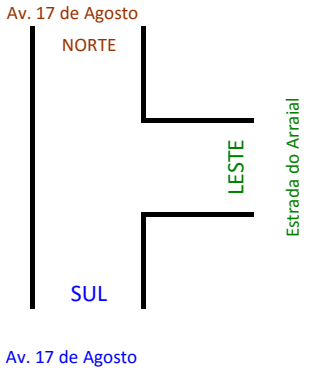
PERÍODO: 10h - 11h

Semáforo:

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	860	45	15	920	314	33		0,90		NS
			93%	5%	2%	100%						
Estrada do Arraial	LESTE	> SUL	145	9	14	168	60	26		0,81	50	ES
			86%	5%	8%	100%						
		> NORTE	430	2	9	441	81	15		0,95		EN
			98%	0%	2%	100%						
Av. 17 de Agosto	SUL	> NORTE	407	46	9	462	73	22		0,93	15	SN
			88%	10%	2%	100%						
		> LESTE										SE
						1991		96			65	



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TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.6

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

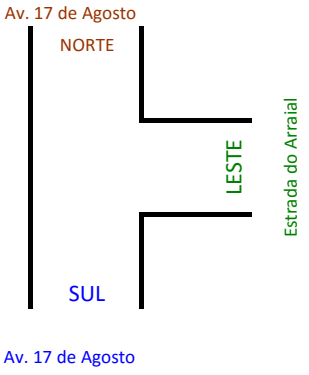
PERÍODO: 11h - 12h

Semáforo:

Chegada: Leste
Verde: 41 Seg.
Amarelo: 4 Seg.
Chegada:
Verde: 56 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	951	37	20	1008	283	36		0,91		NS
			94%	4%	2%	100%						
Estrada do Arraial	LESTE	> SUL	163	10	9	182	64	28		0,84	40	ES
			90%	5%	5%	100%						
		> NORTE	430	4	12	446	66	14		0,85		EN
			96%	1%	3%	100%						
Av. 17 de Agosto	SUL	> NORTE	329	34	12	375	73	16		0,90	14	SN
			88%	9%	3%	100%						
		> LESTE										SE
						2011		94			54	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.7

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

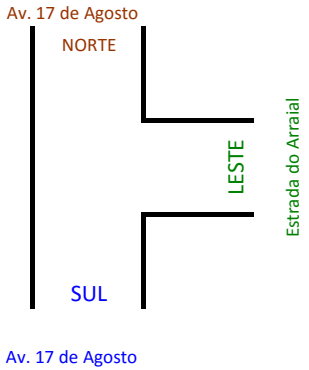
PERÍODO: 12h - 13h

Semáforo:

Chegada: Leste
Verde: 41 Seg.
Amarelo: 4 Seg.
Chegada:
Verde: 56 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	1008	32	24	1064	282	64		0,98		NS
			95%	3%	2%	100%						
Estrada do Arraial	LESTE	> SUL	193	8	16	217	64	14		0,86	42	ES
			89%	4%	7%	100%						
		> NORTE	525	6	19	550	80	21		0,90		EN
			95%	1%	3%	100%						
Av. 17 de Agosto	SUL	> NORTE	535	34	11	580	72	12		0,97	24	SN
			92%	6%	2%	100%						
		> LESTE										SE
						2411		111			66	



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TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.8

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

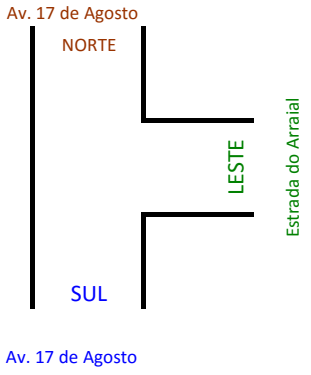
PERÍODO: 13h - 14h

Semáforo:

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	970	32	18	1020	227	35		0,96		NS
			95%	3%	2%	100%						
Estrada do Arraial	LESTE	> SUL	168	9	17	194	73	10		0,86	40	ES
			87%	5%	9%	100%						
		> NORTE	481	2	12	495	91	16		0,93		EN
			97%	0%	2%	100%						
Av. 17 de Agosto	SUL	> NORTE	434	32	10	476	56	12		0,98	17	SN
			91%	7%	2%	100%						
		> LESTE										SE
						2185		73			57	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.9

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

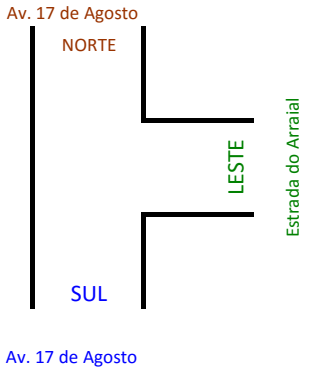
PERÍODO: 14h - 15h

Semáforo:

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	931	30	8	969	216	26		0,96		NS
			96%	3%	1%	100%						
Estrada do Arraial	LESTE	> SUL	153	6	13	172	67	11		0,84	30	ES
			89%	3%	8%	100%						
		> NORTE	446	7	10	463	80	11		0,88		EN
			96%	2%	2%	100%						
Av. 17 de Agosto	SUL	> NORTE	424	29	11	464	62	12		0,96	23	SN
			91%	6%	2%	100%						
		> LESTE										SE
						2068		60			53	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.10

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

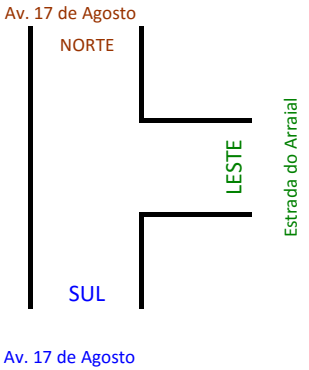
PERÍODO: 15h - 16h

Semáforo:

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	997	28	6	1031	166	19		0,93		NS
			97%	3%	1%	100%						
Estrada do Arraial	LESTE	> SUL	138	9	14	161	50	9		0,95	19	ES
			86%	6%	9%	100%						
		> NORTE	396	10	13	419	70	20		0,94		EN
			95%	2%	3%	100%						
Av. 17 de Agosto	SUL	> NORTE	456	35	23	514	72	6		0,92	26	SN
			89%	7%	4%	100%						
		> LESTE										SE
						2125		54			45	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.11

Semáforo:

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

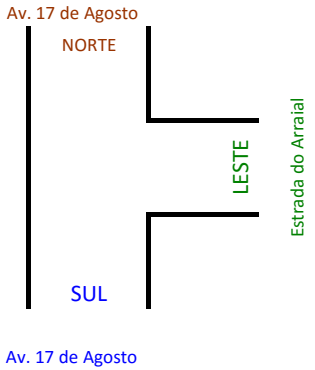
DATA: 22 março, 2016

PERÍODO: 16h - 17h

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	1204	39	17	1260	177	20		0,95		NS
			96%	3%	1%	100%						
Estrada do Arraial	LESTE	> SUL	166	7	11	184	59	23		0,89	39	ES
			90%	4%	6%	100%						
		> NORTE	376	10	22	408	89	35		0,91		EN
			92%	2%	5%	100%						
Av. 17 de Agosto	SUL	> NORTE	519	43	21	583	97	13		0,95	41	SN
			89%	7%	4%	100%						
		> LESTE										SE
						2435		91			80	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.12

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

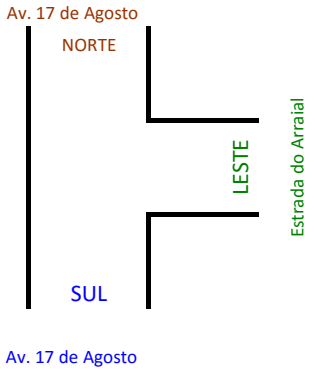
PERÍODO: 17h - 18h

Semáforo:

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	1259	43	20	1322	187	28		0,96		NS
			95%	3%	2%	100%						
Estrada do Arraial	LESTE	> SUL	171	11	14	196	83	16		0,94	48	ES
			87%	6%	7%	100%						
		> NORTE	463	6	31	500	127	38		0,92		EN
			93%	1%	6%	100%						
Av. 17 de Agosto	SUL	> NORTE	625	51	29	705	112	20		0,97	56	SN
			89%	7%	4%	100%						
		> LESTE										SE
						2723		102			104	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.13

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

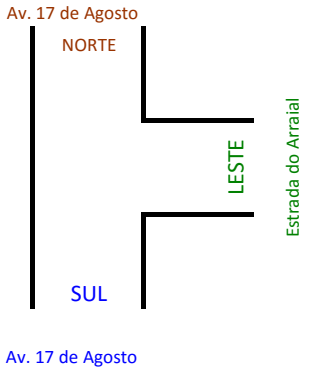
PERÍODO: 18h - 19h

Semáforo:

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	1200	46	11	1257	180	26		0,97		NS
			95%	4%	1%	100%						
Estrada do Arraial	LESTE	> SUL	172	8	15	195	88	17		0,85	44	ES
			88%	4%	8%	100%						
		> NORTE	549	4	9	562	110	11		0,98		EN
			98%	1%	2%	100%						
Av. 17 de Agosto	SUL	> NORTE	690	49	33	772	172	45		0,96	14	SN
			89%	6%	4%	100%						
		> LESTE										SE
			2786					99			58	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 2.14

ORDEM: 2

LOCAL: Interseção Av. 17 de Agosto / Estrada do Arraial

DATA: 22 março, 2016

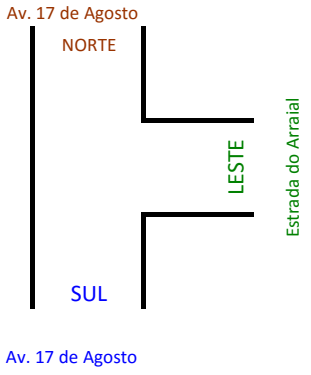
PERÍODO: 19h - 20h

Semáforo:

Chegada: Leste
Verde: 31 Seg.
Amarelo: 4 Seg.
Chegada: Sul
Verde: 66 Seg.
Amarelo: 4 Seg.

Ciclo 105 Seg.

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> LESTE									0	NE
		> SUL	873	39	64	976	211	18		0,81		NS
			89%	4%	7%	100%						
Estrada do Arraial	LESTE	> SUL	118	13	16	147	36	15		0,72	15	ES
			80%	9%	11%	100%						
		> NORTE	412	6	9	427	80	11		0,90		EN
			96%	1%	2%	100%						
Av. 17 de Agosto	SUL	> NORTE	753	46	43	842	200	41		0,96	11	SN
			89%	5%	5%	100%						
		> LESTE										SE
						2392		85			26	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.1

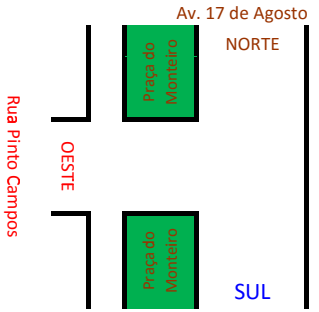
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 6h - 7h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	1043	50	13	1106	174	46		0,95	79	NS
			94%	5%	1%	100%						
		> OESTE	9	0	0	9	1	2		0,75		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	8	0	0	8	3	0		0,55	0	SO
			100%	0%	0%	100%						
		> NORTE	455	18	15	488	123	9		0,94		SN
			93%	4%	3%	100%						
Rua Pinto Campos	OESTE	> NORTE	35	0	0	35	1	5		0,56	43	ON
			100%	0%	0%	100%						
		> SUL	42	0	0	42	4	3		0,64		OS
			100%	0%	0%	100%						
						1688		65			122	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.2

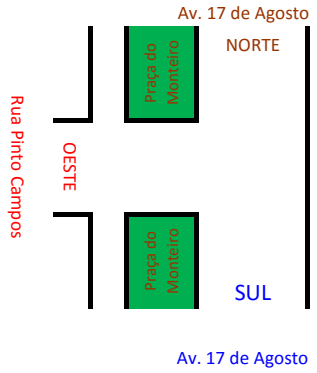
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 7h - 8h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	1037	39	19	1095	224	46		1,00	97	NS
			95%	4%	2%	100%						
		> OESTE	10	0	0	10	3	0		0,81		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	16	0	0	16	6	0		0,79	0	SO
			100%	0%	0%	100%						
		> NORTE	520	23	9	552	126	3		0,95		SN
			94%	4%	2%	100%						
Rua Pinto Campos	OESTE	> NORTE	50	0	0	50	2	0		0,76	32	ON
			100%	0%	0%	100%						
		> SUL	52	0	0	52	5	4		0,59		OS
			100%	0%	0%	100%						
						1775		53			129	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.3

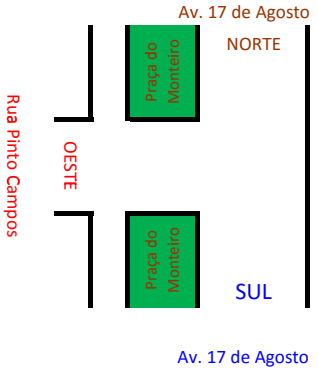
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 8h - 9h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	1003	28	13	1044	213	36		0,97	108	NS
			96%	3%	1%	100%						
		> OESTE	11	0	0	11	1	1		0,65		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	21	0	0	21	4	0		0,78	0	SO
			100%	0%	0%	100%						
		> NORTE	605	20	20	645	133	12		0,94		SN
			94%	3%	3%	100%						
Rua Pinto Campos	OESTE	> NORTE	39	0	2	41	5	4		0,88	29	ON
			95%	0%	5%	100%						
		> SUL	36	0	0	36	6	2		0,69		OS
			100%	0%	0%	100%						
						1798		55			137	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.4

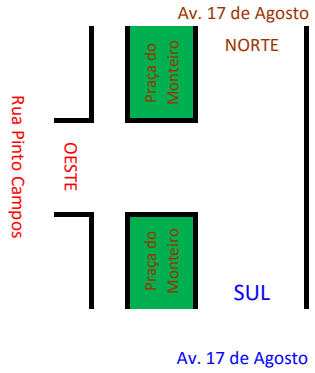
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 9h - 10h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	845	21	22	888	156	27		0,86	48	NS
			95%	2%	2%	100%						
		> OESTE	7	0	0	7	2	0		0,75		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	16	0	0	16	2	1		0,64	0	SO
			100%	0%	0%	100%						
		> NORTE	636	17	18	671	123	8		0,94		SN
			95%	3%	3%	100%						
Rua Pinto Campos	OESTE	> NORTE	26	0	2	28	3	1		0,78	16	ON
			93%	0%	7%	100%						
		> SUL	21	0	0	21	1	2		0,60		OS
			100%	0%	0%	100%						
						1631		39			64	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.5

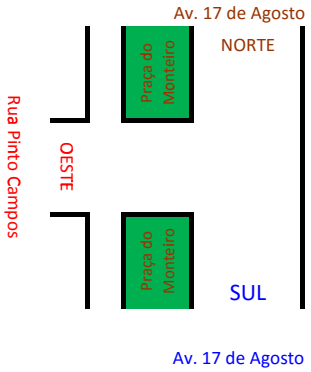
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 10h - 11h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	755	12	16	783	96	17		0,86	73	NS
			96%	2%	2%	100%						
		> OESTE	6	0	1	7	0	0		0,58		NO
			86%	0%	14%	100%						
Av. 17 de Agosto	SUL	> OESTE	14	0	0	14	2	1		0,57	0	SO
			100%	0%	0%	100%						
		> NORTE	587	18	18	623	104	4		0,97		SN
			94%	3%	3%	100%						
Rua Pinto Campos	OESTE	> NORTE	23	0	0	23	3	1		0,59	29	ON
			100%	0%	0%	100%						
		> SUL	25	0	0	25	1	3		0,66		OS
			100%	0%	0%	100%						
						1475		26			102	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.6

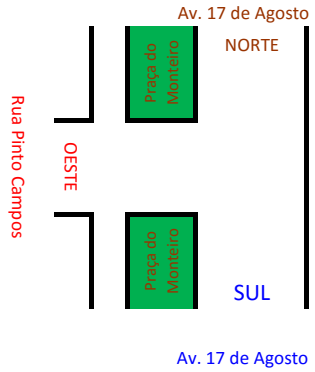
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 11h - 12h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	944	14	13	971	105	22		0,89	46	NS
			97%	1%	1%	100%						
		> OESTE	5	0	0	5	0	0		0,42		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	16	0	0	16	2	1		0,75	0	SO
			100%	0%	0%	100%						
		> NORTE	538	12	12	562	96	6		0,95		SN
			96%	2%	2%	100%						
Rua Pinto Campos	OESTE	> NORTE	21	0	0	21	1	3		0,69	20	ON
			100%	0%	0%	100%						
		> SUL	26	0	0	26	2	3		0,75		OS
			100%	0%	0%	100%						
						1601		35			66	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.7

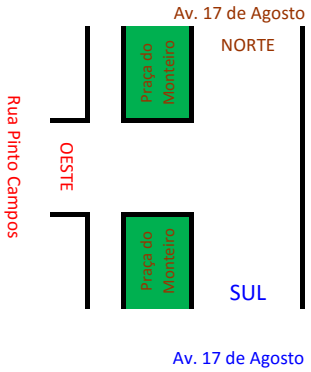
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 12h - 13h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	907	22	13	942	114	21		0,95	46	NS
			96%	2%	1%	100%						
		> OESTE	14	0	0	14	2	0		0,67		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	22	0	0	22	3	2		0,78	0	SO
			100%	0%	0%	100%						
		> NORTE	603	18	12	633	99	14		0,92		SN
			95%	3%	2%	100%						
Rua Pinto Campos	OESTE	> NORTE	22	0	1	23	1	2		0,67	19	ON
			96%	0%	4%	100%						
		> SUL	20	0	0	20	2	2		0,96		OS
			100%	0%	0%	100%						
						1654		41			65	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.8

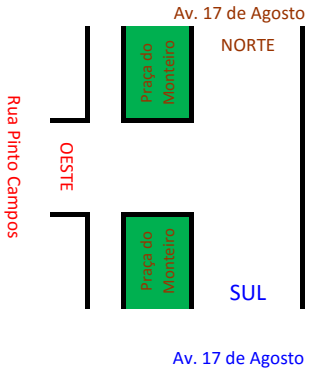
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 13h - 14h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	880	31	14	925	204	17		0,97	94	NS
			95%	3%	2%	100%						
		> OESTE	8	0	0	8	1	0		0,75		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	14	0	0	14	3	1		0,71	0	SO
			100%	0%	0%	100%						
		> NORTE	709	16	18	743	88	13		0,98		SN
			95%	2%	2%	100%						
Rua Pinto Campos	OESTE	> NORTE	47	0	0	47	1	0		0,67	45	ON
			100%	0%	0%	100%						
		> SUL	24	0	0	24	2	1		0,72		OS
			100%	0%	0%	100%						
						1761		32			139	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.9

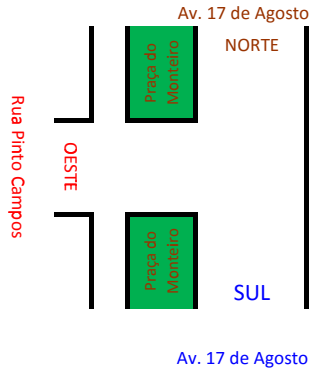
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 14h - 15h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	791	37	22	850	235	20		0,92	62	NS
			93%	4%	3%	100%						
		> OESTE	13	0	0	13	2	0		0,63		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	16	0	0	16	2	2		0,64	0	SO
			100%	0%	0%	100%						
		> NORTE	706	13	8	727	74	8		0,99		SN
			97%	2%	1%	100%						
Rua Pinto Campos	OESTE	> NORTE	36	0	0	36	3	0		0,70	20	ON
			100%	0%	0%	100%						
		> SUL	24	0	0	24	4	2		0,75		OS
			100%	0%	0%	100%						
						1666		32			82	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.10

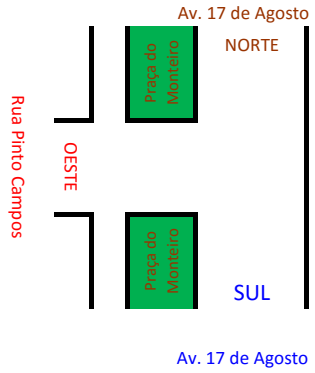
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 15h - 16h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	938	26	15	979	233	19		0,98	115	NS
			96%	3%	2%	100%						
		> OESTE	10	0	0	10	0	0		0,63		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	16	0	0	16	3	0		0,79	0	SO
			100%	0%	0%	100%						
		> NORTE	734	15	15	764	109	18		0,96		SN
			96%	2%	2%	100%						
Rua Pinto Campos	OESTE	> NORTE	7	0	1	8	6	3		0,50	58	ON
			88%	0%	13%	100%						
		> SUL	37	0	0	37	1	0		0,68		OS
			100%	0%	0%	100%						
						1814		40			173	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.11

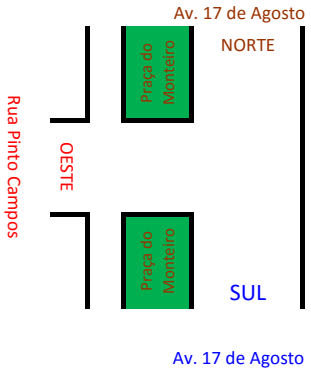
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 16h - 17h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	1105	18	12	1135	128	36		0,93	98	NS
			97%	2%	1%	100%						
		> OESTE	8	0	0	8	0	1		0,45		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	30	0	0	30	5	0		0,63	0	SO
			100%	0%	0%	100%						
		> NORTE	774	20	19	813	149	23		0,96		SN
			95%	2%	2%	100%						
Rua Pinto Campos	OESTE	> NORTE	14	0	1	15	6	1		0,75	40	ON
			93%	0%	7%	100%						
		> SUL	33	0	0	33	3	0		0,82		OS
			100%	0%	0%	100%						
						2034		61			138	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.12

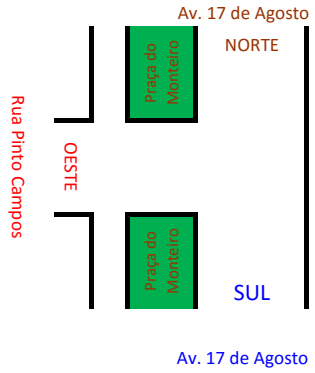
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 17h - 18h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	1311	33	6	1350	129	32		0,88	136	NS
			97%	2%	0%	100%						
		> OESTE	8	0	0	8	0	2		0,83		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	37	0	0	37	2	0		0,81	0	SO
			100%	0%	0%	100%						
		> NORTE	921	24	21	966	217	21		0,96		SN
			95%	2%	2%	100%						
Rua Pinto Campos	OESTE	> NORTE	7	0	0	7	2	5		0,32	53	ON
			100%	0%	0%	100%						
		> SUL	38	0	0	38	3	0		0,79		OS
			100%	0%	0%	100%						
						2406		60			189	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.13

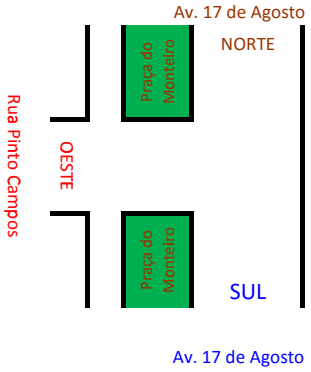
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 18h - 19h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	1139	38	11	1188	122	19		0,95	42	NS
			96%	3%	1%	100%						
		> OESTE	3	0	0	3	1	0		0,50		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	43	0	0	43	3	0		0,77	0	SO
			100%	0%	0%	100%						
		> NORTE	984	19	25	1028	238	26		0,98		SN
			96%	2%	2%	100%						
Rua Pinto Campos	OESTE	> NORTE	11	0	0	11	3	10		0,70	17	ON
			100%	0%	0%	100%						
		> SUL	36	0	0	36	0	0		0,90		OS
			100%	0%	0%	100%						
						2309		55			59	



MOURA DUBEUX

TABULAÇÃO DE PESQUISA DIRECIONAL

ET - 3.14

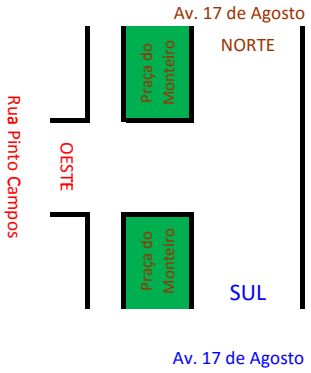
ORDEM: 3

LOCAL: Interseção Av. 17 de Agosto / Rua Pinto Campos

DATA: 23 março, 2016

PERÍODO: 19h - 20h

CHEGADA	MOVIMENTO		AUTO	ÔNIBUS	CAM	TOTAL	Motos	Bike		FHP	Ped	DIR
Av. 17 de Agosto	NORTE	> SUL	967	24	7	998	94	11		0,90	80	NS
			97%	2%	1%	100%						
		> OESTE	7	0	0	7	3	0		0,63		NO
			100%	0%	0%	100%						
Av. 17 de Agosto	SUL	> OESTE	27	0	0	27	3	0		0,83	0	SO
			100%	0%	0%	100%						
		> NORTE	943	12	15	970	224	13		0,97		SN
			97%	1%	2%	100%						
Rua Pinto Campos	OESTE	> NORTE	17	0	0	17	2	4		0,68	34	ON
			100%	0%	0%	100%						
		> SUL	41	0	0	41	0	0		0,73		OS
			100%	0%	0%	100%						
						2060		28			114	



HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 06-07
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT010607 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	51	5	42	16	3	17	24	343	27	184	814	12
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.64		0.70		0.77	0.78	0.94	0.95
Flow Rate	151		50		253	254	627	440
% Heavy Veh	0		0		19	19	10	8
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	151		50		253	254	627	440
Left-Turn	79		22		31	0	195	0
Right-Turn	65		24		0	34	0	12
Prop. Left-Turns	0.5		0.4		0.1	0.0	0.3	0.0
Prop. Right-Turns	0.4		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.2	0.2	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.2		-0.2		0.4	0.2	0.3	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	151		50		253	254	627	440
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13		0.04		0.22	0.23	0.56	0.39
hd, final value	6.72		7.09		7.04	6.89	6.35	6.14
x, final value	0.28		0.10		0.50	0.49	1.11	0.75
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.7		5.1		4.7	4.6	4.0	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	151		50		253	254	627	440
Service Time	4.7		5.1		4.7	4.6	4.0	3.8
Utilization, x	0.28		0.10		0.50	0.49	1.11	0.75
Dep. headway, hd	6.72		7.09		7.04	6.89	6.35	6.14
Capacity	401		300		503	504	627	584
Delay	12.33		10.86		16.45	15.92	93.91	24.96
LOS	B		B		C	C	F	C
Approach:								
Delay	12.33		10.86		16.19		65.48	
LOS	B		B		C		F	

Intersection Delay 45.34 Intersection LOS E

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 06-07
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT010607 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	69	7	56	22	4	23	32	461	36	247	1094	16
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.64		0.70		0.77	0.78	0.94	0.95
Flow Rate	204		68		339	342	843	591
% Heavy Veh	0		0		19	19	10	8
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	204		68		339	342	843	591
Left-Turn	107		31		41	0	262	0
Right-Turn	87		32		0	46	0	16
Prop. Left-Turns	0.5		0.5		0.1	0.0	0.3	0.0
Prop. Right-Turns	0.4		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.2	0.2	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.2		-0.2		0.4	0.2	0.3	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	204		68		339	342	843	591
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.18		0.06		0.30	0.30	0.75	0.53
hd, final value	7.08		7.69		7.56	7.40	7.07	6.86
x, final value	0.40		0.15		0.71	0.70	1.66	1.13
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		5.7		5.3	5.1	4.8	4.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	204		68		339	342	843	591
Service Time	5.1		5.7		5.3	5.1	4.8	4.6
Utilization, x	0.40		0.15		0.71	0.70	1.66	1.13
Dep. headway, hd	7.08		7.69		7.56	7.40	7.07	6.86
Capacity	454		318		476	486	843	591
Delay	14.75		11.99		26.80	25.78	321.48	103.14
LOS	B		B		D	D	F	F
Approach:								
Delay	14.75		11.99		26.29		231.49	
LOS	B		B		D		F	

Intersection Delay 148.17 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 06-07
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT010607 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	51	7	50	16	4	17	27	343	27	184	819	12
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.64		0.70		0.77	0.78	0.94	0.95
Flow Rate	167		51		257	254	630	443
% Heavy Veh	0		0		19	19	10	8
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	167		51		257	254	630	443
Left-Turn	79		22		35	0	195	0
Right-Turn	78		24		0	34	0	12
Prop. Left-Turns	0.5		0.4		0.1	0.0	0.3	0.0
Prop. Right-Turns	0.5		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.2	0.2	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.2		-0.2		0.4	0.2	0.3	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	167		51		257	254	630	443
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.15		0.05		0.23	0.23	0.56	0.39
hd, final value	6.71		7.18		7.13	6.97	6.44	6.23
x, final value	0.31		0.10		0.51	0.49	1.13	0.77
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.7		5.2		4.8	4.7	4.1	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	167		51		257	254	630	443
Service Time	4.7		5.2		4.8	4.7	4.1	3.9
Utilization, x	0.31		0.10		0.51	0.49	1.13	0.77
Dep. headway, hd	6.71		7.18		7.13	6.97	6.44	6.23
Capacity	417		301		499	504	630	576
Delay	12.71		10.99		16.99	16.21	101.52	26.44
LOS	B		B		C	C	F	D
Approach:								
Delay	12.71		10.99		16.60		70.52	
LOS	B		B		C		F	

Intersection Delay 48.19 Intersection LOS E

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 06-07
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT010607 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	69	9	64	22	5	23	35	461	36	247	1099	16
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.64		0.70		0.77	0.78	0.94	0.95
Flow Rate	221		70		343	342	846	594
% Heavy Veh	0		0		19	19	10	8
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	221		70		343	342	846	594
Left-Turn	107		31		45	0	262	0
Right-Turn	100		32		0	46	0	16
Prop. Left-Turns	0.5		0.4		0.1	0.0	0.3	0.0
Prop. Right-Turns	0.5		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.2	0.2	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.2		-0.2		0.4	0.2	0.3	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	221		70		343	342	846	594
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.20		0.06		0.30	0.30	0.75	0.53
hd, final value	7.08		7.79		7.64	7.47	7.17	6.96
x, final value	0.43		0.15		0.73	0.71	1.69	1.15
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		5.8		5.3	5.2	4.9	4.7

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	221		70		343	342	846	594
Service Time	5.1		5.8		5.3	5.2	4.9	4.7
Utilization, x	0.43		0.15		0.73	0.71	1.69	1.15
Dep. headway, hd	7.08		7.79		7.64	7.47	7.17	6.96
Capacity	471		320		471	481	846	594
Delay	15.42		12.18		28.13	26.43	334.95	111.64
LOS	C		B		D	D	F	F
Approach:								
Delay	15.42		12.18		27.28		242.83	
LOS	C		B		D		F	

Intersection Delay 154.23 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 07-08
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT010708 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	96	4	39	6	5	34	25	615	32	168	1224	31
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.76		0.64		0.91	0.91	0.85	0.85
Flow Rate	182		69		364	373	916	755
% Heavy Veh	0		0		13	13	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	182		69		364	373	916	755
Left-Turn	126		9		27	0	197	0
Right-Turn	51		53		0	35	0	36
Prop. Left-Turns	0.7		0.1		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.8		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.0		-0.4		0.3	0.2	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	182		69		364	373	916	755
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.16		0.06		0.32	0.33	0.81	0.67
hd, final value	7.23		7.39		7.36	7.25	6.93	6.80
x, final value	0.37		0.14		0.74	0.75	1.76	1.43
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.2		5.4		5.1	5.0	4.6	4.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	182		69		364	373	916	755
Service Time	5.2		5.4		5.1	5.0	4.6	4.5
Utilization, x	0.37		0.14		0.74	0.75	1.76	1.43
Dep. headway, hd	7.23		7.39		7.36	7.25	6.93	6.80
Capacity	432		319		489	496	916	755
Delay	14.33		11.60		28.49	28.74	368.18	221.95
LOS	B		B		D	D	F	F
Approach:								
Delay	14.33		11.60		28.62		302.11	
LOS	B		B		D		F	

Intersection Delay 199.07 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 07-08
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT010708 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	129	5	52	8	7	46	34	827	43	226	1645	42
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.76		0.64		0.91	0.91	0.85	0.85
Flow Rate	243		93		490	501	1232	1017
% Heavy Veh	0		0		13	13	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	243		93		490	501	1232	1017
Left-Turn	169		12		37	0	265	0
Right-Turn	68		71		0	47	0	49
Prop. Left-Turns	0.7		0.1		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.8		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.0		-0.4		0.3	0.2	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	243		93		490	501	1232	1017
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.22		0.08		0.44	0.45	1.10	0.90
hd, final value	7.49		7.88		7.73	7.62	7.68	7.55
x, final value	0.51		0.20		1.05	1.06	2.63	2.13
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.5		5.9		5.4	5.3	5.4	5.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	243		93		490	501	1232	1017
Service Time	5.5		5.9		5.4	5.3	5.4	5.3
Utilization, x	0.51		0.20		1.05	1.06	2.63	2.13
Dep. headway, hd	7.49		7.88		7.73	7.62	7.68	7.55
Capacity	476		343		490	501	1232	1017
Delay	17.89		12.88		83.79	85.93	755.23	534.15
LOS	C		B		F	F	F	F
Approach:								
Delay	17.89		12.88		84.87		655.26	
LOS	C		B		F		F	

Intersection Delay 437.17 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 07-08
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT010708 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	96	6	49	6	6	34	31	615	32	168	1230	31
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.76		0.64		0.91	0.91	0.85	0.85
Flow Rate	197		71		371	373	920	759
% Heavy Veh	0		0		13	13	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	197		71		371	373	920	759
Left-Turn	126		9		34	0	197	0
Right-Turn	64		53		0	35	0	36
Prop. Left-Turns	0.6		0.1		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.7		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.4		0.3	0.2	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	197		71		371	373	920	759
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.18		0.06		0.33	0.33	0.82	0.67
hd, final value	7.22		7.49		7.43	7.32	7.02	6.90
x, final value	0.39		0.15		0.77	0.76	1.80	1.45
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.2		5.5		5.1	5.0	4.7	4.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	197		71		371	373	920	759
Service Time	5.2		5.5		5.1	5.0	4.7	4.6
Utilization, x	0.39		0.15		0.77	0.76	1.80	1.45
Dep. headway, hd	7.22		7.49		7.43	7.32	7.02	6.90
Capacity	447		321		484	492	920	759
Delay	14.84		11.78		30.51	29.49	382.79	234.26
LOS	B		B		D	D	F	F
Approach:								
Delay	14.84		11.78		29.99		315.65	
LOS	B		B		D		F	

Intersection Delay 206.63 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 07-08
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT010708 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	129	7	62	8	8	46	40	827	43	226	1651	42
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.76		0.64		0.91	0.91	0.85	0.85
Flow Rate	259		95		496	501	1235	1020
% Heavy Veh	0		0		13	13	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	259		95		496	501	1235	1020
Left-Turn	169		12		43	0	265	0
Right-Turn	81		71		0	47	0	49
Prop. Left-Turns	0.7		0.1		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.7		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.4		0.3	0.2	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	259		95		496	501	1235	1020
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.23		0.08		0.44	0.45	1.10	0.91
hd, final value	7.48		7.97		7.81	7.70	7.75	7.62
x, final value	0.54		0.21		1.08	1.07	2.66	2.16
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.5		6.0		5.5	5.4	5.5	5.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	259		95		496	501	1235	1020
Service Time	5.5		6.0		5.5	5.4	5.5	5.3
Utilization, x	0.54		0.21		1.08	1.07	2.66	2.16
Dep. headway, hd	7.48		7.97		7.81	7.70	7.75	7.62
Capacity	477		345		496	501	1235	1020
Delay	18.84		13.08		91.37	89.36	769.36	546.28
LOS	C		B		F	F	F	F
Approach:								
Delay	18.84		13.08		90.36		668.45	
LOS	C		B		F		F	

Intersection Delay 444.70 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 08-09
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT010809 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	69	3	32	11	3	17	16	548	29	153	1440	29
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.78		0.71		0.97	0.97	0.91	0.92
Flow Rate	132		42		298	311	959	813
% Heavy Veh	1		0		12	11	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	132		42		298	311	959	813
Left-Turn	88		15		16	0	168	0
Right-Turn	41		23		0	29	0	31
Prop. Left-Turns	0.7		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.0		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	132		42		298	311	959	813
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12		0.04		0.26	0.28	0.85	0.72
hd, final value	6.93		7.12		7.02	6.91	6.26	6.15
x, final value	0.25		0.08		0.58	0.60	1.67	1.39
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.9		5.1		4.7	4.6	4.0	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	132		42		298	311	959	813
Service Time	4.9		5.1		4.7	4.6	4.0	3.8
Utilization, x	0.25		0.08		0.58	0.60	1.67	1.39
Dep. headway, hd	6.93		7.12		7.02	6.91	6.26	6.15
Capacity	382		292		512	520	959	813
Delay	12.27		10.76		19.01	19.33	324.35	203.09
LOS	B		B		C	C	F	F
Approach:								
Delay	12.27		10.76		19.18		268.72	
LOS	B		B		C		F	
Intersection Delay 191.75			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 08-09
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT010809 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	93	4	43	15	4	23	22	736	39	206	1935	39
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.78		0.71		0.97	0.97	0.91	0.92
Flow Rate	179		58		401	419	1288	1094
% Heavy Veh	1		0		12	11	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	179		58		401	419	1288	1094
Left-Turn	119		21		22	0	226	0
Right-Turn	55		32		0	40	0	42
Prop. Left-Turns	0.7		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.0		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	179		58		401	419	1288	1094
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.16		0.05		0.36	0.37	1.14	0.97
hd, final value	7.22		7.61		7.28	7.17	6.95	6.84
x, final value	0.36		0.12		0.81	0.83	2.49	2.08
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.2		5.6		5.0	4.9	4.7	4.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	179		58		401	419	1288	1094
Service Time	5.2		5.6		5.0	4.9	4.7	4.5
Utilization, x	0.36		0.12		0.81	0.83	2.49	2.08
Dep. headway, hd	7.22		7.61		7.28	7.17	6.95	6.84
Capacity	429		308		494	502	1288	1094
Delay	14.21		11.67		34.34	36.52	690.65	507.37
LOS	B		B		D	E	F	F
Approach:								
Delay	14.21		11.67		35.45		606.48	
LOS	B		B		E		F	

Intersection Delay 429.46 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 08-09
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT010809 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	69	4	39	11	4	17	20	548	29	153	1444	29
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.78		0.71		0.97	0.97	0.91	0.92
Flow Rate	143		43		302	311	961	815
% Heavy Veh	1		0		12	11	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	143		43		302	311	961	815
Left-Turn	88		15		20	0	168	0
Right-Turn	50		23		0	29	0	31
Prop. Left-Turns	0.6		0.3		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	143		43		302	311	961	815
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13		0.04		0.27	0.28	0.85	0.72
hd, final value	6.91		7.18		7.07	6.95	6.33	6.21
x, final value	0.27		0.09		0.59	0.60	1.69	1.41
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.9		5.2		4.8	4.7	4.0	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	143		43		302	311	961	815
Service Time	4.9		5.2		4.8	4.7	4.0	3.9
Utilization, x	0.27		0.09		0.59	0.60	1.69	1.41
Dep. headway, hd	6.91		7.18		7.07	6.95	6.33	6.21
Capacity	393		293		508	517	961	815
Delay	12.50		10.85		19.55	19.56	333.66	210.99
LOS	B		B		C	C	F	F
Approach:								
Delay	12.50		10.85		19.56		277.37	
LOS	B		B		C		F	

Intersection Delay 196.83 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 08-09
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT010809 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	93	5	50	15	5	23	26	736	39	206	1939	39
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.78		0.71		0.97	0.97	0.91	0.92
Flow Rate	189		60		405	419	1290	1096
% Heavy Veh	1		0		12	11	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	189		60		405	419	1290	1096
Left-Turn	119		21		26	0	226	0
Right-Turn	64		32		0	40	0	42
Prop. Left-Turns	0.6		0.3		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	189		60		405	419	1290	1096
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.17		0.05		0.36	0.37	1.15	0.97
hd, final value	7.21		7.68		7.33	7.22	7.02	6.90
x, final value	0.38		0.13		0.83	0.84	2.52	2.10
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.2		5.7		5.0	4.9	4.7	4.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	189		60		405	419	1290	1096
Service Time	5.2		5.7		5.0	4.9	4.7	4.6
Utilization, x	0.38		0.13		0.83	0.84	2.52	2.10
Dep. headway, hd	7.21		7.68		7.33	7.22	7.02	6.90
Capacity	439		310		491	499	1290	1096
Delay	14.54		11.80		36.04	37.34	703.10	518.17
LOS	B		B		E	E	F	F
Approach:								
Delay	14.54		11.80		36.70		618.15	
LOS	B		B		E		F	

Intersection Delay 436.14 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 09-10
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT010809 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	44	4	20	16	7	22	23	542	35	136	1270	10
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.73		0.76		0.94	0.94	0.95	0.95
Flow Rate	92		58		312	325	811	678
% Heavy Veh	0		0		12	12	7	8
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	92		58		312	325	811	678
Left-Turn	60		21		24	0	143	0
Right-Turn	27		28		0	37	0	10
Prop. Left-Turns	0.7		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.0		-0.2		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	92		58		312	325	811	678
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08		0.05		0.28	0.29	0.72	0.60
hd, final value	7.01		7.00		6.95	6.83	6.23	6.15
x, final value	0.18		0.11		0.60	0.62	1.40	1.16
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		5.0		4.7	4.5	3.9	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	92		58		312	325	811	678
Service Time	5.0		5.0		4.7	4.5	3.9	3.8
Utilization, x	0.18		0.11		0.60	0.62	1.40	1.16
Dep. headway, hd	7.01		7.00		6.95	6.83	6.23	6.15
Capacity	342		308		517	526	811	678
Delay	11.54		10.89		19.65	19.92	209.85	111.02
LOS	B		B		C	C	F	F
Approach:								
Delay	11.54		10.89		19.79		164.85	
LOS	B		B		C		F	

Intersection Delay 114.13 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 09-10
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT010809 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	59	5	27	22	9	30	31	728	47	183	1707	13
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.73		0.76		0.94	0.94	0.95	0.95
Flow Rate	122		78		419	437	1089	911
% Heavy Veh	0		0		12	12	7	8
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	122		78		419	437	1089	911
Left-Turn	80		28		32	0	192	0
Right-Turn	36		39		0	50	0	13
Prop. Left-Turns	0.7		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.0		-0.2		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	122		78		419	437	1089	911
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11		0.07		0.37	0.39	0.97	0.81
hd, final value	7.32		7.36		7.16	7.04	6.87	6.79
x, final value	0.25		0.16		0.83	0.85	2.08	1.72
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.3		5.4		4.9	4.7	4.6	4.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	122		78		419	437	1089	911
Service Time	5.3		5.4		4.9	4.7	4.6	4.5
Utilization, x	0.25		0.16		0.83	0.85	2.08	1.72
Dep. headway, hd	7.32		7.36		7.16	7.04	6.87	6.79
Capacity	372		328		503	511	1089	911
Delay	12.71		11.75		36.38	38.55	507.79	348.05
LOS	B		B		E	E	F	F
Approach:								
Delay	12.71		11.75		37.49		435.03	
LOS	B		B		E		F	

Intersection Delay 296.01 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 09-10
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT010809 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	44	6	29	16	7	22	25	542	35	136	1275	10
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.73		0.76		0.94	0.94	0.95	0.95
Flow Rate	107		58		314	325	813	681
% Heavy Veh	0		0		12	12	7	8
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	107		58		314	325	813	681
Left-Turn	60		21		26	0	143	0
Right-Turn	39		28		0	37	0	10
Prop. Left-Turns	0.6		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.2		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	107		58		314	325	813	681
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10		0.05		0.28	0.29	0.72	0.61
hd, final value	6.96		7.08		7.01	6.89	6.30	6.22
x, final value	0.21		0.11		0.61	0.62	1.42	1.18
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		5.1		4.7	4.6	4.0	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	107		58		314	325	813	681
Service Time	5.0		5.1		4.7	4.6	4.0	3.9
Utilization, x	0.21		0.11		0.61	0.62	1.42	1.18
Dep. headway, hd	6.96		7.08		7.01	6.89	6.30	6.22
Capacity	357		308		513	522	813	681
Delay	11.77		10.98		20.12	20.24	218.86	118.58
LOS	B		B		C	C	F	F
Approach:								
Delay	11.77		10.98		20.18		173.15	
LOS	B		B		C		F	

Intersection Delay 119.01 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 09-10
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT010809 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	59	7	36	22	9	30	33	728	47	183	1712	13
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.73		0.76		0.94	0.94	0.95	0.95
Flow Rate	138		78		422	437	1093	914
% Heavy Veh	0		0		12	12	7	8
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	138		78		422	437	1093	914
Left-Turn	80		28		35	0	192	0
Right-Turn	49		39		0	50	0	13
Prop. Left-Turns	0.6		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.2		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	138		78		422	437	1093	914
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12		0.07		0.38	0.39	0.97	0.81
hd, final value	7.27		7.45		7.23	7.10	6.95	6.87
x, final value	0.28		0.16		0.85	0.86	2.11	1.74
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.3		5.4		4.9	4.8	4.7	4.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	138		78		422	437	1093	914
Service Time	5.3		5.4		4.9	4.8	4.7	4.6
Utilization, x	0.28		0.16		0.85	0.86	2.11	1.74
Dep. headway, hd	7.27		7.45		7.23	7.10	6.95	6.87
Capacity	388		328		498	507	1093	914
Delay	13.06		11.88		38.27	39.76	522.61	360.07
LOS	B		B		E	E	F	F
Approach:								
Delay	13.06		11.88		39.02		448.59	
LOS	B		B		E		F	

Intersection Delay 303.88 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 10-11
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT011011 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	55	0	11	14	2	10	15	398	30	125	953	10
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.66		0.48		0.92	0.92	0.92	0.92
Flow Rate	99		53		232	248	652	528
% Heavy Veh	3		0		13	13	8	9
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	99		53		232	248	652	528
Left-Turn	83		29		16	0	135	0
Right-Turn	16		20		0	32	0	10
Prop. Left-Turns	0.8		0.5		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.4		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.1		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	99		53		232	248	652	528
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.09		0.05		0.21	0.22	0.58	0.47
hd, final value	6.95		6.91		6.84	6.72	6.00	5.90
x, final value	0.19		0.10		0.44	0.46	1.09	0.87
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.9		4.9		4.5	4.4	3.7	3.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	99		53		232	248	652	528
Service Time	4.9		4.9		4.5	4.4	3.7	3.6
Utilization, x	0.19		0.10		0.44	0.46	1.09	0.87
Dep. headway, hd	6.95		6.91		6.84	6.72	6.00	5.90
Capacity	349		303		482	498	652	609
Delay	11.58		10.69		14.83	15.07	85.74	34.98
LOS	B		B		B	C	F	D
Approach:								
Delay	11.58		10.69		14.95		63.02	
LOS	B		B		B		F	

Intersection Delay 45.95 Intersection LOS E

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 10-11
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT011011 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	74	0	15	19	3	13	20	535	40	168	1291	13
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.66		0.48		0.92	0.92	0.92	0.92
Flow Rate	134		72		311	334	883	716
% Heavy Veh	3		0		13	13	8	9
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	134		72		311	334	883	716
Left-Turn	112		39		21	0	182	0
Right-Turn	22		27		0	43	0	14
Prop. Left-Turns	0.8		0.5		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.4		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.1		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	134		72		311	334	883	716
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12		0.06		0.28	0.30	0.78	0.64
hd, final value	7.30		7.36		7.20	7.07	6.59	6.49
x, final value	0.27		0.15		0.62	0.66	1.62	1.29
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.3		5.4		4.9	4.8	4.3	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	134		72		311	334	883	716
Service Time	5.3		5.4		4.9	4.8	4.3	4.2
Utilization, x	0.27		0.15		0.62	0.66	1.62	1.29
Dep. headway, hd	7.30		7.36		7.20	7.07	6.59	6.49
Capacity	384		322		499	508	883	716
Delay	12.99		11.63		21.00	22.25	303.08	164.31
LOS	B		B		C	C	F	F
Approach:								
Delay	12.99		11.63		21.64		240.94	
LOS	B		B		C		F	

Intersection Delay 164.00 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 10-11
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT011011 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	55	1	18	14	3	10	20	398	30	125	957	10
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.66		0.48		0.92	0.92	0.92	0.92
Flow Rate	111		55		237	248	654	530
% Heavy Veh	3		0		13	13	8	9
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	111		55		237	248	654	530
Left-Turn	83		29		21	0	135	0
Right-Turn	27		20		0	32	0	10
Prop. Left-Turns	0.7		0.5		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.4		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.1		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	111		55		237	248	654	530
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10		0.05		0.21	0.22	0.58	0.47
hd, final value	6.90		6.97		6.92	6.78	6.08	5.97
x, final value	0.21		0.11		0.46	0.47	1.10	0.88
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.9		5.0		4.6	4.5	3.8	3.7

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	111		55		237	248	654	530
Service Time	4.9		5.0		4.6	4.5	3.8	3.7
Utilization, x	0.21		0.11		0.46	0.47	1.10	0.88
Dep. headway, hd	6.90		6.97		6.92	6.78	6.08	5.97
Capacity	361		305		487	498	654	602
Delay	11.76		10.80		15.27	15.28	91.78	37.25
LOS	B		B		C	C	F	E
Approach:								
Delay	11.76		10.80		15.28		67.37	
LOS	B		B		C		F	

Intersection Delay 48.54 Intersection LOS E

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 10-11
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT011011 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	74	1	22	19	4	13	25	535	40	168	1285	13
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.66		0.48		0.92	0.92	0.92	0.92
Flow Rate	146		74		317	334	879	712
% Heavy Veh	3		0		13	13	8	9
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	146		74		317	334	879	712
Left-Turn	112		39		27	0	182	0
Right-Turn	33		27		0	43	0	14
Prop. Left-Turns	0.8		0.5		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.4		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.1		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	146		74		317	334	879	712
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13		0.07		0.28	0.30	0.78	0.63
hd, final value	7.27		7.44		7.26	7.12	6.67	6.57
x, final value	0.29		0.15		0.64	0.66	1.63	1.30
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.3		5.4		5.0	4.8	4.4	4.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	146		74		317	334	879	712
Service Time	5.3		5.4		5.0	4.8	4.4	4.3
Utilization, x	0.29		0.15		0.64	0.66	1.63	1.30
Dep. headway, hd	7.27		7.44		7.26	7.12	6.67	6.57
Capacity	396		324		495	504	879	712
Delay	13.28		11.78		21.93	22.63	308.93	168.29
LOS	B		B		C	C	F	F
Approach:								
Delay	13.28		11.78		22.28		245.99	
LOS	B		B		C		F	

Intersection Delay 166.00 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT011112 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	47	5	8	15	3	19	10	310	22	113	1065	12
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.53		0.64		0.93	0.93	0.93	0.93
Flow Rate	112		56		176	189	693	585
% Heavy Veh	3		0		14	13	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	112		56		176	189	693	585
Left-Turn	88		23		10	0	121	0
Right-Turn	15		29		0	23	0	12
Prop. Left-Turns	0.8		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.1		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.2		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	112		56		176	189	693	585
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10		0.05		0.16	0.17	0.62	0.52
hd, final value	6.78		6.65		6.96	6.83	5.83	5.75
x, final value	0.21		0.10		0.34	0.36	1.12	0.93
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.8		4.6		4.7	4.5	3.5	3.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	112		56		176	189	693	585
Service Time	4.8		4.6		4.7	4.5	3.5	3.4
Utilization, x	0.21		0.10		0.34	0.36	1.12	0.93
Dep. headway, hd	6.78		6.65		6.96	6.83	5.83	5.75
Capacity	362		306		426	439	693	626
Delay	11.59		10.41		13.20	13.29	97.14	44.96
LOS	B		B		B	B	F	E
Approach:								
Delay	11.59		10.41		13.25		73.25	
LOS	B		B		B		F	

Intersection Delay 55.40 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT011112 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	63	7	11	20	4	26	13	417	30	152	1431	16
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.53		0.64		0.93	0.93	0.93	0.93
Flow Rate	151		77		236	256	931	786
% Heavy Veh	3		0		14	13	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	151		77		236	256	931	786
Left-Turn	118		31		13	0	163	0
Right-Turn	20		40		0	32	0	17
Prop. Left-Turns	0.8		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.1		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.2		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	151		77		236	256	931	786
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13		0.07		0.21	0.23	0.83	0.70
hd, final value	7.13		7.10		7.27	7.13	6.37	6.29
x, final value	0.30		0.15		0.48	0.51	1.65	1.37
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		5.1		5.0	4.8	4.1	4.0

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	151		77		236	256	931	786
Service Time	5.1		5.1		5.0	4.8	4.1	4.0
Utilization, x	0.30		0.15		0.48	0.51	1.65	1.37
Dep. headway, hd	7.13		7.10		7.27	7.13	6.37	6.29
Capacity	401		327		486	502	931	786
Delay	13.14		11.37		16.40	16.94	316.01	197.12
LOS	B		B		C	C	F	F
Approach:								
Delay	13.14		11.37		16.68		261.59	
LOS	B		B		C		F	

Intersection Delay 188.84 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT011112 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	47	6	12	15	4	19	17	310	22	113	1067	12
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.53		0.64		0.93	0.93	0.93	0.93
Flow Rate	121		58		184	189	694	586
% Heavy Veh	3		0		14	13	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	121		58		184	189	694	586
Left-Turn	88		23		18	0	121	0
Right-Turn	22		29		0	23	0	12
Prop. Left-Turns	0.7		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.2		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	121		58		184	189	694	586
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11		0.05		0.16	0.17	0.62	0.52
hd, final value	6.77		6.71		7.03	6.88	5.90	5.81
x, final value	0.23		0.11		0.36	0.36	1.14	0.95
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.8		4.7		4.7	4.6	3.6	3.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	121		58		184	189	694	586
Service Time	4.8		4.7		4.7	4.6	3.6	3.5
Utilization, x	0.23		0.11		0.36	0.36	1.14	0.95
Dep. headway, hd	6.77		6.71		7.03	6.88	5.90	5.81
Capacity	371		308		434	439	694	619
Delay	11.76		10.52		13.62	13.41	102.46	47.62
LOS	B		B		B	B	F	E
Approach:								
Delay	11.76		10.52		13.51		77.36	
LOS	B		B		B		F	

Intersection Delay 57.91 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT011112 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	63	8	15	20	5	26	20	417	30	152	1433	16
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.53		0.64		0.93	0.93	0.93	0.93
Flow Rate	161		78		244	256	932	787
% Heavy Veh	3		0		14	13	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	161		78		244	256	932	787
Left-Turn	118		31		21	0	163	0
Right-Turn	28		40		0	32	0	17
Prop. Left-Turns	0.7		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.2		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	161		78		244	256	932	787
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.14		0.07		0.22	0.23	0.83	0.70
hd, final value	7.12		7.17		7.32	7.17	6.44	6.35
x, final value	0.32		0.16		0.50	0.51	1.67	1.39
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		5.2		5.0	4.9	4.1	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	161		78		244	256	932	787
Service Time	5.1		5.2		5.0	4.9	4.1	4.1
Utilization, x	0.32		0.16		0.50	0.51	1.67	1.39
Dep. headway, hd	7.12		7.17		7.32	7.17	6.44	6.35
Capacity	411		328		489	499	932	787
Delay	13.41		11.48		17.02	17.10	324.93	204.55
LOS	B		B		C	C	F	F
Approach:								
Delay	13.41		11.48		17.06		269.81	
LOS	B		B		C		F	
Intersection Delay 193.41			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01213 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	52	4	18	13	3	19	18	510	28	116	1147	15
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.74		0.56		0.96	0.97	0.98	0.98
Flow Rate	99		61		283	290	702	600
% Heavy Veh	4		0		8	8	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	99		61		283	290	702	600
Left-Turn	70		23		18	0	118	0
Right-Turn	24		33		0	28	0	15
Prop. Left-Turns	0.7		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.2		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	99		61		283	290	702	600
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.09		0.05		0.25	0.26	0.62	0.53
hd, final value	7.06		6.92		6.91	6.81	6.14	6.06
x, final value	0.19		0.12		0.54	0.55	1.20	1.01
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		4.9		4.6	4.5	3.8	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	99		61		283	290	702	600
Service Time	5.1		4.9		4.6	4.5	3.8	3.8
Utilization, x	0.19		0.12		0.54	0.55	1.20	1.01
Dep. headway, hd	7.06		6.92		6.91	6.81	6.14	6.06
Capacity	349		311		519	527	702	600
Delay	11.75		10.84		17.54	17.49	126.13	63.42
LOS	B		B		C	C	F	F
Approach:								
Delay	11.75		10.84		17.51		97.23	
LOS	B		B		C		F	

Intersection Delay 68.04 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01213 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	70	5	24	17	4	26	24	685	38	160	1541	20
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.74		0.56		0.96	0.97	0.98	0.98
Flow Rate	132		83		381	392	948	806
% Heavy Veh	4		0		8	8	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	132		83		381	392	948	806
Left-Turn	94		30		25	0	163	0
Right-Turn	32		46		0	39	0	20
Prop. Left-Turns	0.7		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	132		83		381	392	948	806
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12		0.07		0.34	0.35	0.84	0.72
hd, final value	7.41		7.34		7.15	7.04	6.79	6.70
x, final value	0.27		0.17		0.76	0.77	1.79	1.50
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.4		5.3		4.8	4.7	4.5	4.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	132		83		381	392	948	806
Service Time	5.4		5.3		4.8	4.7	4.5	4.4
Utilization, x	0.27		0.17		0.76	0.77	1.79	1.50
Dep. headway, hd	7.41		7.34		7.15	7.04	6.79	6.70
Capacity	382		333		503	511	948	806
Delay	13.14		11.83		28.80	29.30	378.46	252.86
LOS	B		B		D	D	F	F
Approach:								
Delay	13.14		11.83		29.05		320.74	
LOS	B		B		D		F	

Intersection Delay 214.35 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01213 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	52	5	24	13	4	19	25	510	28	119	1150	15
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.74		0.56		0.96	0.97	0.98	0.98
Flow Rate	108		63		291	290	707	601
% Heavy Veh	4		0		8	8	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	108		63		291	290	707	601
Left-Turn	70		23		26	0	121	0
Right-Turn	32		33		0	28	0	15
Prop. Left-Turns	0.6		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.0		-0.2		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	108		63		291	290	707	601
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10		0.06		0.26	0.26	0.63	0.53
hd, final value	7.04		6.99		6.97	6.85	6.21	6.13
x, final value	0.21		0.12		0.56	0.55	1.22	1.02
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		5.0		4.7	4.6	3.9	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	108		63		291	290	707	601
Service Time	5.0		5.0		4.7	4.6	3.9	3.8
Utilization, x	0.21		0.12		0.56	0.55	1.22	1.02
Dep. headway, hd	7.04		6.99		6.97	6.85	6.21	6.13
Capacity	358		313		515	524	707	601
Delay	11.91		10.96		18.27	17.67	135.07	67.29
LOS	B		B		C	C	F	F
Approach:								
Delay	11.91		10.96		17.97		103.93	
LOS	B		B		C		F	

Intersection Delay 72.02 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01213 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	70	6	30	17	5	26	31	685	38	160	1544	20
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.74		0.56		0.96	0.97	0.98	0.98
Flow Rate	142		84		388	392	950	807
% Heavy Veh	4		0		8	8	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	142		84		388	392	950	807
Left-Turn	94		30		32	0	163	0
Right-Turn	40		46		0	39	0	20
Prop. Left-Turns	0.7		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.0		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	142		84		388	392	950	807
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13		0.07		0.34	0.35	0.84	0.72
hd, final value	7.39		7.40		7.20	7.09	6.86	6.77
x, final value	0.29		0.17		0.78	0.77	1.81	1.52
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.4		5.4		4.9	4.8	4.6	4.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	142		84		388	392	950	807
Service Time	5.4		5.4		4.9	4.8	4.6	4.5
Utilization, x	0.29		0.17		0.78	0.77	1.81	1.52
Dep. headway, hd	7.39		7.40		7.20	7.09	6.86	6.77
Capacity	392		334		500	508	950	807
Delay	13.40		11.94		30.60	29.84	388.33	260.54
LOS	B		B		D	D	F	F
Approach:								
Delay	13.40		11.94		30.21		329.63	
LOS	B		B		D		F	
Intersection Delay 219.20			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01314 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	38	4	22	11	3	16	16	422	24	103	1098	13
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.58		0.68		0.98	0.98	0.96	0.96
Flow Rate	108		43		231	239	678	584
% Heavy Veh	0		0		10	9	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	108		43		231	239	678	584
Left-Turn	65		16		16	0	107	0
Right-Turn	37		23		0	24	0	13
Prop. Left-Turns	0.6		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.2		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	108		43		231	239	678	584
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10		0.04		0.21	0.21	0.60	0.52
hd, final value	6.68		6.78		6.84	6.72	5.90	5.82
x, final value	0.20		0.08		0.44	0.45	1.11	0.94
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.7		4.8		4.5	4.4	3.6	3.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	108		43		231	239	678	584
Service Time	4.7		4.8		4.5	4.4	3.6	3.5
Utilization, x	0.20		0.08		0.44	0.45	1.11	0.94
Dep. headway, hd	6.68		6.78		6.84	6.72	5.90	5.82
Capacity	358		293		481	489	678	618
Delay	11.34		10.38		14.79	14.72	93.43	47.32
LOS	B		B		B	B	F	E
Approach:								
Delay	11.34		10.38		14.76		72.09	
LOS	B		B		B		F	

Intersection Delay 52.89 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01314 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	51	5	30	15	4	22	22	567	32	138	1476	17
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.58		0.68		0.98	0.98	0.96	0.96
Flow Rate	146		59		310	321	911	785
% Heavy Veh	0		0		10	9	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	146		59		310	321	911	785
Left-Turn	87		22		22	0	143	0
Right-Turn	51		32		0	32	0	17
Prop. Left-Turns	0.6		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	146		59		310	321	911	785
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13		0.05		0.28	0.29	0.81	0.70
hd, final value	6.99		7.23		7.11	6.99	6.46	6.38
x, final value	0.28		0.12		0.61	0.62	1.63	1.39
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		5.2		4.8	4.7	4.2	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	146		59		310	321	911	785
Service Time	5.0		5.2		4.8	4.7	4.2	4.1
Utilization, x	0.28		0.12		0.61	0.62	1.63	1.39
Dep. headway, hd	6.99		7.23		7.11	6.99	6.46	6.38
Capacity	396		309		505	514	911	785
Delay	12.73		11.20		20.42	20.56	310.63	205.74
LOS	B		B		C	C	F	F
Approach:								
Delay	12.73		11.20		20.49		262.08	
LOS	B		B		C		F	

Intersection Delay 181.65 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01314 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	38	5	29	11	4	16	21	422	24	103	1102	13
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.58		0.68		0.98	0.98	0.96	0.96
Flow Rate	123		44		236	239	680	586
% Heavy Veh	0		0		10	9	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	123		44		236	239	680	586
Left-Turn	65		16		21	0	107	0
Right-Turn	50		23		0	24	0	13
Prop. Left-Turns	0.5		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.2		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	123		44		236	239	680	586
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11		0.04		0.21	0.21	0.60	0.52
hd, final value	6.64		6.86		6.92	6.79	5.98	5.91
x, final value	0.23		0.08		0.45	0.45	1.13	0.96
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.6		4.9		4.6	4.5	3.7	3.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	123		44		236	239	680	586
Service Time	4.6		4.9		4.6	4.5	3.7	3.6
Utilization, x	0.23		0.08		0.45	0.45	1.13	0.96
Dep. headway, hd	6.64		6.86		6.92	6.79	5.98	5.91
Capacity	373		294		486	489	680	610
Delay	11.59		10.49		15.25	14.94	100.43	51.17
LOS	B		B		C	B	F	F
Approach:								
Delay	11.59		10.49		15.09		77.63	
LOS	B		B		C		F	

Intersection Delay 56.25 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01314 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	51	6	37	15	5	22	27	567	32	138	1480	17
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.58		0.68		0.98	0.98	0.96	0.96
Flow Rate	160		61		315	321	913	787
% Heavy Veh	0		0		10	9	6	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	160		61		315	321	913	787
Left-Turn	87		22		27	0	143	0
Right-Turn	63		32		0	32	0	17
Prop. Left-Turns	0.5		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.5		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.2		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	160		61		315	321	913	787
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.14		0.05		0.28	0.29	0.81	0.70
hd, final value	6.98		7.32		7.18	7.05	6.55	6.47
x, final value	0.31		0.12		0.63	0.63	1.66	1.41
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		5.3		4.9	4.7	4.2	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	160		61		315	321	913	787
Service Time	5.0		5.3		4.9	4.7	4.2	4.2
Utilization, x	0.31		0.12		0.63	0.63	1.66	1.41
Dep. headway, hd	6.98		7.32		7.18	7.05	6.55	6.47
Capacity	410		311		500	509	913	787
Delay	13.08		11.35		21.24	20.92	322.27	215.72
LOS	B		B		C	C	F	F
Approach:								
Delay	13.08		11.35		21.08		272.94	
LOS	B		B		C		F	

Intersection Delay 187.80 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01415 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	16	5	16	18	1	25	19	423	20	90	1039	12
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.77		0.76		0.96	0.95	0.97	0.97
Flow Rate	46		56		238	244	627	548
% Heavy Veh	3		0		9	9	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	46		56		238	244	627	548
Left-Turn	20		23		19	0	92	0
Right-Turn	20		32		0	21	0	12
Prop. Left-Turns	0.4		0.4		0.1	0.0	0.1	0.0
Prop. Right-Turns	0.4		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	46		56		238	244	627	548
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.04		0.05		0.21	0.22	0.56	0.49
hd, final value	6.67		6.49		6.54	6.44	5.65	5.56
x, final value	0.09		0.10		0.43	0.44	0.98	0.85
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.7		4.5		4.2	4.1	3.3	3.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	46		56		238	244	627	548
Service Time	4.7		4.5		4.2	4.1	3.3	3.3
Utilization, x	0.09		0.10		0.43	0.44	0.98	0.85
Dep. headway, hd	6.67		6.49		6.54	6.44	5.65	5.56
Capacity	296		306		488	494	638	646
Delay	10.29		10.22		14.12	14.03	54.72	31.17
LOS	B		B		B	B	F	D
Approach:								
Delay	10.29		10.22		14.07		43.74	
LOS	B		B		B		E	

Intersection Delay 33.67 Intersection LOS D

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period:
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01415 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	22	7	22	24	1	34	26	568	27	121	1396	16
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.77		0.76		0.96	0.95	0.97	0.97
Flow Rate	65		76		322	326	843	735
% Heavy Veh	3		0		9	9	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	65		76		322	326	843	735
Left-Turn	28		31		27	0	124	0
Right-Turn	28		44		0	28	0	16
Prop. Left-Turns	0.4		0.4		0.1	0.0	0.1	0.0
Prop. Right-Turns	0.4		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	65		76		322	326	843	735
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06		0.07		0.29	0.29	0.75	0.65
hd, final value	7.02		6.83		6.87	6.77	6.14	6.05
x, final value	0.13		0.14		0.61	0.61	1.44	1.23
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		4.8		4.6	4.5	3.8	3.7

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	65		76		322	326	843	735
Service Time	5.0		4.8		4.6	4.5	3.8	3.7
Utilization, x	0.13		0.14		0.61	0.61	1.44	1.23
Dep. headway, hd	7.02		6.83		6.87	6.77	6.14	6.05
Capacity	315		326		523	531	843	735
Delay	11.03		10.97		19.89	19.58	224.02	140.00
LOS	B		B		C	C	F	F
Approach:								
Delay	11.03		10.97		19.74		184.88	
LOS	B		B		C		F	
Intersection Delay 129.31			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 14-15
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01415 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	16	6	21	18	2	25	23	423	20	90	1042	12
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.77		0.76		0.96	0.95	0.97	0.97
Flow Rate	54		57		242	244	629	549
% Heavy Veh	3		0		9	9	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	54		57		242	244	629	549
Left-Turn	20		23		23	0	92	0
Right-Turn	27		32		0	21	0	12
Prop. Left-Turns	0.4		0.4		0.1	0.0	0.1	0.0
Prop. Right-Turns	0.5		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.2		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	54		57		242	244	629	549
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.05		0.05		0.22	0.22	0.56	0.49
hd, final value	6.64		6.54		6.60	6.49	5.70	5.61
x, final value	0.10		0.10		0.44	0.44	1.00	0.86
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	4.6		4.5		4.3	4.2	3.4	3.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	54		57		242	244	629	549
Service Time	4.6		4.5		4.3	4.2	3.4	3.3
Utilization, x	0.10		0.10		0.44	0.44	1.00	0.86
Dep. headway, hd	6.64		6.54		6.60	6.49	5.70	5.61
Capacity	304		307		492	494	632	640
Delay	10.37		10.30		14.46	14.20	57.93	32.49
LOS	B		B		B	B	F	D
Approach:								
Delay	10.37		10.30		14.33		46.07	
LOS	B		B		B		E	

Intersection Delay 35.15 Intersection LOS E

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 14-15
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01415 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	22	8	27	24	2	34	30	568	27	121	1399	16
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.77		0.76		0.96	0.95	0.97	0.97
Flow Rate	73		77		326	326	844	737
% Heavy Veh	3		0		9	9	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	73		77		326	326	844	737
Left-Turn	28		31		31	0	124	0
Right-Turn	35		44		0	28	0	16
Prop. Left-Turns	0.4		0.4		0.1	0.0	0.1	0.0
Prop. Right-Turns	0.5		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.2		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	73		77		326	326	844	737
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06		0.07		0.29	0.29	0.75	0.66
hd, final value	6.99		6.88		6.91	6.80	6.19	6.10
x, final value	0.14		0.15		0.63	0.62	1.45	1.25
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		4.9		4.6	4.5	3.9	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	73		77		326	326	844	737
Service Time	5.0		4.9		4.6	4.5	3.9	3.8
Utilization, x	0.14		0.15		0.63	0.62	1.45	1.25
Dep. headway, hd	6.99		6.88		6.91	6.80	6.19	6.10
Capacity	323		327		520	529	844	737
Delay	11.14		11.06		20.44	19.77	230.15	145.78
LOS	B		B		C	C	F	F
Approach:								
Delay	11.14		11.06		20.11		190.82	
LOS	B		B		C		F	

Intersection Delay 132.80 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 15-16
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01516 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	47	4	6	10	1	16	17	452	25	106	1069	17
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.57		0.60		0.95	0.96	0.94	0.94
Flow Rate	99		43		254	261	680	587
% Heavy Veh	4		0		12	12	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	99		43		254	261	680	587
Left-Turn	82		16		17	0	112	0
Right-Turn	10		26		0	26	0	18
Prop. Left-Turns	0.8		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.1		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.2		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	99		43		254	261	680	587
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.09		0.04		0.23	0.23	0.60	0.52
hd, final value	7.00		6.79		6.87	6.77	5.94	5.84
x, final value	0.19		0.08		0.48	0.49	1.12	0.95
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		4.8		4.6	4.5	3.6	3.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	99		43		254	261	680	587
Service Time	5.0		4.8		4.6	4.5	3.6	3.5
Utilization, x	0.19		0.08		0.48	0.49	1.12	0.95
Dep. headway, hd	7.00		6.79		6.87	6.77	5.94	5.84
Capacity	349		293		504	511	680	616
Delay	11.67		10.39		15.86	15.80	97.53	48.88
LOS	B		B		C	C	F	E
Approach:								
Delay	11.67		10.39		15.83		74.99	
LOS	B		B		C		F	

Intersection Delay 54.45 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 15-16
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01516 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	63	5	8	13	1	22	23	607	34	142	1437	23
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.57		0.60		0.95	0.96	0.94	0.94
Flow Rate	132		58		342	351	914	788
% Heavy Veh	4		0		12	12	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	132		58		342	351	914	788
Left-Turn	110		21		24	0	151	0
Right-Turn	14		36		0	35	0	24
Prop. Left-Turns	0.8		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.1		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.2		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	132		58		342	351	914	788
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12		0.05		0.30	0.31	0.81	0.70
hd, final value	7.31		7.21		7.12	7.01	6.51	6.40
x, final value	0.27		0.12		0.68	0.68	1.65	1.40
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.3		5.2		4.8	4.7	4.2	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	132		58		342	351	914	788
Service Time	5.3		5.2		4.8	4.7	4.2	4.1
Utilization, x	0.27		0.12		0.68	0.68	1.65	1.40
Dep. headway, hd	7.31		7.21		7.12	7.01	6.51	6.40
Capacity	382		308		505	513	914	788
Delay	12.97		11.16		23.40	23.51	318.65	210.09
LOS	B		B		C	C	F	F
Approach:								
Delay	12.97		11.16		23.46		268.38	
LOS	B		B		C		F	

Intersection Delay 183.91 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 15-16
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01516 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	47	5	9	10	2	16	22	452	25	106	1071	17
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.57		0.60		0.95	0.96	0.94	0.94
Flow Rate	105		45		260	261	681	588
% Heavy Veh	4		0		12	12	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	105		45		260	261	681	588
Left-Turn	82		16		23	0	112	0
Right-Turn	15		26		0	26	0	18
Prop. Left-Turns	0.8		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.1		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	105		45		260	261	681	588
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.09		0.04		0.23	0.23	0.61	0.52
hd, final value	6.99		6.85		6.92	6.80	5.99	5.89
x, final value	0.20		0.09		0.50	0.49	1.13	0.96
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		4.8		4.6	4.5	3.7	3.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	105		45		260	261	681	588
Service Time	5.0		4.8		4.6	4.5	3.7	3.6
Utilization, x	0.20		0.09		0.50	0.49	1.13	0.96
Dep. headway, hd	6.99		6.85		6.92	6.80	5.99	5.89
Capacity	355		295		510	511	681	611
Delay	11.77		10.48		16.33	15.94	101.69	51.18
LOS	B		B		C	C	F	F
Approach:								
Delay	11.77		10.48		16.13		78.29	
LOS	B		B		C		F	

Intersection Delay 56.42 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 15-16
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01516 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	63	6	11	13	2	22	28	607	34	142	1439	23
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.57		0.60		0.95	0.96	0.94	0.94
Flow Rate	139		60		347	351	915	789
% Heavy Veh	4		0		12	12	5	5
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	139		60		347	351	915	789
Left-Turn	110		21		29	0	151	0
Right-Turn	19		36		0	35	0	24
Prop. Left-Turns	0.8		0.3		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.1		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.0
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.1		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	139		60		347	351	915	789
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12		0.05		0.31	0.31	0.81	0.70
hd, final value	7.30		7.27		7.16	7.04	6.57	6.46
x, final value	0.28		0.12		0.69	0.69	1.67	1.42
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.3		5.3		4.9	4.7	4.3	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	139		60		347	351	915	789
Service Time	5.3		5.3		4.9	4.7	4.3	4.2
Utilization, x	0.28		0.12		0.69	0.69	1.67	1.42
Dep. headway, hd	7.30		7.27		7.16	7.04	6.57	6.46
Capacity	389		310		502	510	915	789
Delay	13.15		11.27		24.29	23.79	325.77	216.18
LOS	B		B		C	C	F	F
Approach:								
Delay	13.15		11.27		24.04		275.02	
LOS	B		B		C		F	

Intersection Delay 187.59 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 16-17
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01617 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	66	2	21	16	1	13	22	506	33	153	1269	22
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.80		0.64		0.93	0.93	0.94	0.94
Flow Rate	110		46		295	307	836	698
% Heavy Veh	1		0		12	12	5	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	110		46		295	307	836	698
Left-Turn	82		25		23	0	162	0
Right-Turn	26		20		0	35	0	23
Prop. Left-Turns	0.7		0.5		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.4		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.0		-0.2		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	110		46		295	307	836	698
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10		0.04		0.26	0.27	0.74	0.62
hd, final value	6.99		7.11		6.98	6.86	6.18	6.07
x, final value	0.21		0.09		0.57	0.58	1.43	1.18
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		5.1		4.7	4.6	3.9	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	110		46		295	307	836	698
Service Time	5.0		5.1		4.7	4.6	3.9	3.8
Utilization, x	0.21		0.09		0.57	0.58	1.43	1.18
Dep. headway, hd	6.99		7.11		6.98	6.86	6.18	6.07
Capacity	360		296		515	524	836	698
Delay	11.88		10.82		18.58	18.76	223.11	118.16
LOS	B		B		C	C	F	F
Approach:								
Delay	11.88		10.82		18.67		175.36	
LOS	B		B		C		F	

Intersection Delay 123.05 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 16-17
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01617 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	89	3	28	22	1	17	30	680	44	206	1705	30
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.80		0.64		0.93	0.93	0.94	0.94
Flow Rate	148		61		397	412	1125	938
% Heavy Veh	1		0		12	12	5	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	148		61		397	412	1125	938
Left-Turn	111		34		32	0	219	0
Right-Turn	34		26		0	47	0	31
Prop. Left-Turns	0.8		0.6		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.4		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.0		-0.1		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	148		61		397	412	1125	938
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13		0.05		0.35	0.37	1.00	0.83
hd, final value	7.29		7.56		7.20	7.08	6.82	6.71
x, final value	0.30		0.13		0.79	0.81	2.13	1.75
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.3		5.6		4.9	4.8	4.5	4.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	148		61		397	412	1125	938
Service Time	5.3		5.6		4.9	4.8	4.5	4.4
Utilization, x	0.30		0.13		0.79	0.81	2.13	1.75
Dep. headway, hd	7.29		7.56		7.20	7.08	6.82	6.71
Capacity	398		311		500	509	1125	938
Delay	13.37		11.67		32.27	33.43	530.92	361.57
LOS	B		B		D	D	F	F
Approach:								
Delay	13.37		11.67		32.86		453.92	
LOS	B		B		D		F	

Intersection Delay 313.44 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 16-17
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01617 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	66	3	25	16	2	13	27	506	33	153	1271	22
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.80		0.64		0.93	0.93	0.94	0.94
Flow Rate	116		48		301	307	837	699
% Heavy Veh	1		0		12	12	5	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	116		48		301	307	837	699
Left-Turn	82		25		29	0	162	0
Right-Turn	31		20		0	35	0	23
Prop. Left-Turns	0.7		0.5		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.4		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.0		-0.1		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	116		48		301	307	837	699
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10		0.04		0.27	0.27	0.74	0.62
hd, final value	6.99		7.16		7.01	6.89	6.23	6.12
x, final value	0.23		0.10		0.59	0.59	1.45	1.19
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		5.2		4.7	4.6	3.9	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	116		48		301	307	837	699
Service Time	5.0		5.2		4.7	4.6	3.9	3.8
Utilization, x	0.23		0.10		0.59	0.59	1.45	1.19
Dep. headway, hd	6.99		7.16		7.01	6.89	6.23	6.12
Capacity	366		298		512	522	837	699
Delay	12.01		10.91		19.18	18.91	229.02	122.73
LOS	B		B		C	C	F	F
Approach:								
Delay	12.01		10.91		19.05		180.65	
LOS	B		B		C		F	

Intersection Delay 126.07 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 16-17
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01617 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	89	4	32	22	2	17	35	680	44	206	1707	30
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.80		0.64		0.93	0.93	0.94	0.94
Flow Rate	154		63		402	412	1126	939
% Heavy Veh	1		0		12	12	5	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	154		63		402	412	1126	939
Left-Turn	111		34		37	0	219	0
Right-Turn	39		26		0	47	0	31
Prop. Left-Turns	0.7		0.5		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.4		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.0	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.0		-0.1		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	154		63		402	412	1126	939
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.14		0.06		0.36	0.37	1.00	0.83
hd, final value	7.29		7.60		7.24	7.11	6.87	6.76
x, final value	0.31		0.13		0.81	0.81	2.15	1.76
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.3		5.6		4.9	4.8	4.6	4.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	154		63		402	412	1126	939
Service Time	5.3		5.6		4.9	4.8	4.6	4.5
Utilization, x	0.31		0.13		0.81	0.81	2.15	1.76
Dep. headway, hd	7.29		7.60		7.24	7.11	6.87	6.76
Capacity	404		313		497	506	1126	939
Delay	13.55		11.76		33.82	33.92	538.77	368.22
LOS	B		B		D	D	F	F
Approach:								
Delay	13.55		11.76		33.87		461.22	
LOS	B		B		D		F	

Intersection Delay 317.45 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 17-18
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01718 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	63	4	17	8	1	19	27	625	34	160	1332	26
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.73		0.58		0.94	0.94	0.98	0.98
Flow Rate	114		46		359	368	842	705
% Heavy Veh	1		0		12	12	6	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	114		46		359	368	842	705
Left-Turn	86		13		28	0	163	0
Right-Turn	23		32		0	36	0	26
Prop. Left-Turns	0.8		0.3		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.7		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.0		-0.4		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	114		46		359	368	842	705
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10		0.04		0.32	0.33	0.75	0.63
hd, final value	7.14		7.07		7.00	6.89	6.43	6.30
x, final value	0.23		0.09		0.70	0.70	1.50	1.23
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		5.1		4.7	4.6	4.1	4.0

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	114		46		359	368	842	705
Service Time	5.1		5.1		4.7	4.6	4.1	4.0
Utilization, x	0.23		0.09		0.70	0.70	1.50	1.23
Dep. headway, hd	7.14		7.07		7.00	6.89	6.43	6.30
Capacity	364		296		514	522	842	705
Delay	12.21		10.77		24.29	24.35	253.56	141.13
LOS	B		B		C	C	F	F
Approach:								
Delay	12.21		10.77		24.32		202.33	
LOS	B		B		C		F	

Intersection Delay 136.63 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 17-18
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01718 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	85	5	23	11	1	26	36	840	46	215	1790	35
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.73		0.58		0.94	0.94	0.98	0.98
Flow Rate	153		63		484	494	1132	948
% Heavy Veh	1		0		12	12	6	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	153		63		484	494	1132	948
Left-Turn	116		18		38	0	219	0
Right-Turn	31		44		0	48	0	35
Prop. Left-Turns	0.8		0.3		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.7		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.0		-0.4		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	153		63		484	494	1132	948
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.14		0.06		0.43	0.44	1.01	0.84
hd, final value	7.37		7.44		7.23	7.12	7.14	7.02
x, final value	0.31		0.13		0.97	0.98	2.25	1.85
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.4		5.4		4.9	4.8	4.8	4.7

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	153		63		484	494	1132	948
Service Time	5.4		5.4		4.9	4.8	4.8	4.7
Utilization, x	0.31		0.13		0.97	0.98	2.25	1.85
Dep. headway, hd	7.37		7.44		7.23	7.12	7.14	7.02
Capacity	403		313		499	506	1132	948
Delay	13.69		11.55		60.15	60.79	583.00	405.98
LOS	B		B		F	F	F	F
Approach:								
Delay	13.69		11.55		60.47		502.32	
LOS	B		B		F		F	

Intersection Delay 338.06 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 17-18
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01718 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	63	5	22	8	3	19	37	625	34	160	1335	26
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.73		0.58		0.94	0.94	0.98	0.98
Flow Rate	122		50		370	368	843	707
% Heavy Veh	1		0		12	12	6	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	122		50		370	368	843	707
Left-Turn	86		13		39	0	163	0
Right-Turn	30		32		0	36	0	26
Prop. Left-Turns	0.7		0.3		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.0		-0.3		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	122		50		370	368	843	707
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11		0.04		0.33	0.33	0.75	0.63
hd, final value	7.14		7.15		7.06	6.93	6.51	6.39
x, final value	0.24		0.10		0.73	0.71	1.52	1.25
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		5.2		4.8	4.6	4.2	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	122		50		370	368	843	707
Service Time	5.1		5.2		4.8	4.6	4.2	4.1
Utilization, x	0.24		0.10		0.73	0.71	1.52	1.25
Dep. headway, hd	7.14		7.15		7.06	6.93	6.51	6.39
Capacity	372		300		510	519	843	707
Delay	12.40		10.94		26.20	24.76	262.80	149.17
LOS	B		B		D	C	F	F
Approach:								
Delay	12.40		10.94		25.48		210.97	
LOS	B		B		D		F	

Intersection Delay 141.41 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 17-18
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01718 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	85	6	28	11	3	26	46	840	46	215	1793	35
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.73		0.58		0.94	0.94	0.98	0.98
Flow Rate	162		67		494	494	1133	950
% Heavy Veh	1		0		12	12	6	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	162		67		494	494	1133	950
Left-Turn	116		18		48	0	219	0
Right-Turn	38		44		0	48	0	35
Prop. Left-Turns	0.7		0.3		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.2		0.7		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	0.0		-0.3		0.3	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	162		67		494	494	1133	950
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.14		0.06		0.44	0.44	1.01	0.84
hd, final value	7.37		7.51		7.29	7.17	7.22	7.10
x, final value	0.33		0.14		1.00	0.98	2.27	1.87
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.4		5.5		5.0	4.9	4.9	4.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	162		67		494	494	1133	950
Service Time	5.4		5.5		5.0	4.9	4.9	4.8
Utilization, x	0.33		0.14		1.00	0.98	2.27	1.87
Dep. headway, hd	7.37		7.51		7.29	7.17	7.22	7.10
Capacity	412		317		494	503	1133	950
Delay	13.97		11.72		67.28	62.69	595.20	417.17
LOS	B		B		F	F	F	F
Approach:								
Delay	13.97		11.72		64.99		514.00	
LOS	B		B		F		F	

Intersection Delay 344.83 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 18-19
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01819 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	38	3	22	8	1	24	40	711	33	151	1271	30
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.67		0.65		0.93	0.93	0.98	0.97
Flow Rate	92		49		424	417	801	685
% Heavy Veh	0		0		11	11	6	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	92		49		424	417	801	685
Left-Turn	56		12		43	0	154	0
Right-Turn	32		36		0	35	0	30
Prop. Left-Turns	0.6		0.2		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.3		0.7		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.4		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	92		49		424	417	801	685
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08		0.04		0.38	0.37	0.71	0.61
hd, final value	7.08		7.00		6.92	6.81	6.52	6.39
x, final value	0.18		0.10		0.82	0.79	1.45	1.22
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		5.0		4.6	4.5	4.2	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	92		49		424	417	801	685
Service Time	5.1		5.0		4.6	4.5	4.2	4.1
Utilization, x	0.18		0.10		0.82	0.79	1.45	1.22
Dep. headway, hd	7.08		7.00		6.92	6.81	6.52	6.39
Capacity	342		299		520	529	801	685
Delay	11.64		10.73		33.36	30.37	231.05	134.21
LOS	B		B		D	D	F	F
Approach:								
Delay	11.64		10.73		31.88		186.41	
LOS	B		B		D		F	

Intersection Delay 123.75 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 18-19
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01819 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	51	4	30	11	1	32	54	956	44	203	1708	40
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.67		0.65		0.93	0.93	0.98	0.97
Flow Rate	125		66		571	560	1078	921
% Heavy Veh	0		0		11	11	6	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	125		66		571	560	1078	921
Left-Turn	76		16		58	0	207	0
Right-Turn	44		49		0	47	0	41
Prop. Left-Turns	0.6		0.2		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.7		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.4		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	125		66		571	560	1078	921
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11		0.06		0.51	0.50	0.96	0.82
hd, final value	7.24		7.24		7.12	7.00	7.07	6.95
x, final value	0.25		0.13		1.13	1.09	2.12	1.78
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.2		5.2		4.8	4.7	4.8	4.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	125		66		571	560	1078	921
Service Time	5.2		5.2		4.8	4.7	4.8	4.6
Utilization, x	0.25		0.13		1.13	1.09	2.12	1.78
Dep. headway, hd	7.24		7.24		7.12	7.00	7.07	6.95
Capacity	375		316		571	560	1078	921
Delay	12.65		11.34		105.45	91.82	526.19	374.52
LOS	B		B		F	F	F	F
Approach:								
Delay	12.65		11.34		98.70		456.31	
LOS	B		B		F		F	

Intersection Delay 308.98 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 18-19
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01819 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	38	4	27	8	3	24	49	711	33	151	1274	30
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.67		0.65		0.93	0.93	0.98	0.97
Flow Rate	101		52		433	417	803	686
% Heavy Veh	0		0		11	11	6	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	101		52		433	417	803	686
Left-Turn	56		12		52	0	154	0
Right-Turn	40		36		0	35	0	30
Prop. Left-Turns	0.6		0.2		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.7		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.4		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	101		52		433	417	803	686
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.09		0.05		0.38	0.37	0.71	0.61
hd, final value	7.07		7.07		6.97	6.85	6.59	6.47
x, final value	0.20		0.10		0.84	0.79	1.47	1.23
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		5.1		4.7	4.6	4.3	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	101		52		433	417	803	686
Service Time	5.1		5.1		4.7	4.6	4.3	4.2
Utilization, x	0.20		0.10		0.84	0.79	1.47	1.23
Dep. headway, hd	7.07		7.07		6.97	6.85	6.59	6.47
Capacity	351		302		516	525	803	686
Delay	11.81		10.88		36.24	31.00	240.08	140.86
LOS	B		B		E	D	F	F
Approach:								
Delay	11.81		10.88		33.67		194.37	
LOS	B		B		D		F	

Intersection Delay 128.33 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 18-19
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01819 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	51	5	35	11	3	32	63	956	44	203	1711	40
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.67		0.65		0.93	0.93	0.98	0.97
Flow Rate	135		69		580	560	1079	923
% Heavy Veh	0		0		11	11	6	6
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	135		69		580	560	1079	923
Left-Turn	76		16		67	0	207	0
Right-Turn	52		49		0	47	0	41
Prop. Left-Turns	0.6		0.2		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.7		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.4		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	135		69		580	560	1079	923
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12		0.06		0.52	0.50	0.96	0.82
hd, final value	7.23		7.31		7.17	7.05	7.12	6.99
x, final value	0.27		0.14		1.16	1.10	2.14	1.79
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.2		5.3		4.9	4.8	4.8	4.7

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	135		69		580	560	1079	923
Service Time	5.2		5.3		4.9	4.8	4.8	4.7
Utilization, x	0.27		0.14		1.16	1.10	2.14	1.79
Dep. headway, hd	7.23		7.31		7.17	7.05	7.12	6.99
Capacity	385		319		580	560	1079	923
Delay	12.89		11.49		115.20	94.55	533.73	381.91
LOS	B		B		F	F	F	F
Approach:								
Delay	12.89		11.49		105.06		463.73	
LOS	B		B		F		F	

Intersection Delay 314.01 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 19-20
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01920 SA01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	28	8	24	8	1	12	39	803	34	123	914	22
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.85		0.58		0.98	0.98	0.82	0.81
Flow Rate	69		34		448	444	707	591
% Heavy Veh	0		0		11	11	7	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	69		34		448	444	707	591
Left-Turn	32		13		39	0	150	0
Right-Turn	28		20		0	34	0	27
Prop. Left-Turns	0.5		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.2		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	69		34		448	444	707	591
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06		0.03		0.40	0.39	0.63	0.53
hd, final value	6.96		7.01		6.78	6.68	6.44	6.31
x, final value	0.13		0.07		0.84	0.82	1.27	1.04
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		5.0		4.5	4.4	4.1	4.0

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	69		34		448	444	707	591
Service Time	5.0		5.0		4.5	4.4	4.1	4.0
Utilization, x	0.13		0.07		0.84	0.82	1.27	1.04
Dep. headway, hd	6.96		7.01		6.78	6.68	6.44	6.31
Capacity	319		284		532	539	707	591
Delay	11.03		10.50		35.97	33.33	154.01	71.68
LOS	B		B		E	D	F	F
Approach:								
Delay	11.03		10.50		34.66		116.53	
LOS	B		B		D		F	

Intersection Delay 79.93 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 19-20
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01920 SA10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	38	11	32	11	1	16	52	1079	46	165	1228	30
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.85		0.58		0.98	0.98	0.82	0.81
Flow Rate	93		46		602	597	949	795
% Heavy Veh	0		0		11	11	7	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	93		46		602	597	949	795
Left-Turn	44		18		53	0	201	0
Right-Turn	37		27		0	46	0	37
Prop. Left-Turns	0.5		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.1		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	93		46		602	597	949	795
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08		0.04		0.54	0.53	0.84	0.71
hd, final value	7.07		7.18		6.91	6.81	6.90	6.76
x, final value	0.18		0.09		1.16	1.13	1.82	1.49
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		5.2		4.6	4.5	4.6	4.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	93		46		602	597	949	795
Service Time	5.1		5.2		4.6	4.5	4.6	4.5
Utilization, x	0.18		0.09		1.16	1.13	1.82	1.49
Dep. headway, hd	7.07		7.18		6.91	6.81	6.90	6.76
Capacity	343		296		602	597	949	795
Delay	11.64		10.90		114.05	104.35	393.39	250.56
LOS	B		B		F	F	F	F
Approach:								
Delay	11.64		10.90		109.22		328.28	
LOS	B		B		F		F	

Intersection Delay 228.77 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 19-20
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT01920 SF01
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	28	9	27	8	2	12	46	806	34	123	916	22
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.85		0.58		0.98	0.98	0.82	0.81
Flow Rate	73		36		457	445	708	592
% Heavy Veh	0		0		11	11	7	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	73		36		457	445	708	592
Left-Turn	32		13		46	0	150	0
Right-Turn	31		20		0	34	0	27
Prop. Left-Turns	0.4		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.2		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	73		36		457	445	708	592
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06		0.03		0.41	0.40	0.63	0.53
hd, final value	6.96		7.05		6.80	6.70	6.49	6.35
x, final value	0.14		0.07		0.86	0.83	1.28	1.04
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.0		5.0		4.5	4.4	4.2	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	73		36		457	445	708	592
Service Time	5.0		5.0		4.5	4.4	4.2	4.1
Utilization, x	0.14		0.07		0.86	0.83	1.28	1.04
Dep. headway, hd	6.96		7.05		6.80	6.70	6.49	6.35
Capacity	323		286		529	538	708	592
Delay	11.10		10.58		38.72	33.92	158.74	74.72
LOS	B		B		E	D	F	F
Approach:								
Delay	11.10		10.58		36.35		120.48	
LOS	B		B		E		F	

Intersection Delay 82.48 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 19-20
Intersection: 01. JORGE DE ALBUQUERQUE
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT01920 SF10
East/West Street: RUA JORGE DE ALBUQUERQUE
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	38	12	35	11	2	16	59	1079	46	165	1230	30
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LT	TR	LT	TR
PHF	0.85		0.58		0.98	0.98	0.82	0.81
Flow Rate	99		48		609	597	951	796
% Heavy Veh	0		0		11	11	7	7
No. Lanes	1		1		2		2	
Opposing-Lanes	1		1		2		2	
Conflicting-lanes	2		2		1		1	
Geometry group	2		2		5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	99		48		609	597	951	796
Left-Turn	44		18		60	0	201	0
Right-Turn	41		27		0	46	0	37
Prop. Left-Turns	0.4		0.4		0.1	0.0	0.2	0.0
Prop. Right-Turns	0.4		0.6		0.0	0.1	0.0	0.0
Prop. Heavy Vehicle	0.0		0.0		0.1	0.1	0.1	0.1
Geometry Group	2		2		5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2		0.2		0.5		0.5	
hRT-adj	-0.6		-0.6		-0.7		-0.7	
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed	-0.2		-0.3		0.2	0.1	0.2	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	99		48		609	597	951	796
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.09		0.04		0.54	0.53	0.85	0.71
hd, final value	7.07		7.22		6.95	6.84	6.93	6.79
x, final value	0.19		0.10		1.17	1.13	1.83	1.50
Move-up time, m	2.0		2.0		2.3		2.3	
Service Time	5.1		5.2		4.6	4.5	4.6	4.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	99		48		609	597	951	796
Service Time	5.1		5.2		4.6	4.5	4.6	4.5
Utilization, x	0.19		0.10		1.17	1.13	1.83	1.50
Dep. headway, hd	7.07		7.22		6.95	6.84	6.93	6.79
Capacity	349		298		609	597	951	796
Delay	11.76		10.99		121.25	106.18	398.54	254.24
LOS	B		B		F	F	F	F
Approach:								
Delay	11.76		10.99		113.79		332.79	
LOS	B		B		F		F	

Intersection Delay 232.36 Intersection LOS F

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 06-07
Project ID: 020607 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				177		464		410			833	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	0.0					4.0			
All Red	0.0					0.0			

Cycle Length: 101.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	945	3080	0.25	0.31	26.9	C		
							36.6	D
R	840	2736	0.80	0.31	40.0	D		
Northbound								
T	1970	3015	0.26	0.65	7.6	A	7.6	A
Southbound								
T	2116	3238	0.41	0.65	8.9	A	8.9	A

Intersection Delay = 19.6 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 06-07
Project ID: 020607 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				238		624		551			1119	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	0.0					4.0			
All Red	0.0					0.0			

Cycle Length: 101.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	946	3081	0.34	0.31	28.0	C		
							72.9	E
R	840	2736	1.08	0.31	88.6	F		
Northbound								
T	1970	3015	0.35	0.65	8.3	A	8.3	A
Southbound								
T	2116	3238	0.55	0.65	10.5	B	10.5	B

Intersection Delay = 34.9 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 06-07
Project ID: 020607 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				177		466		410			838	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	0.0					4.0			
All Red	0.0					0.0			

Cycle Length: 101.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	946	3081	0.25	0.31	26.9	C		
							36.8	D
R	840	2736	0.80	0.31	40.2	D		
Northbound								
T	1970	3015	0.26	0.65	7.6	A	7.6	A
Southbound								
T	2116	3238	0.41	0.65	8.9	A	8.9	A

Intersection Delay = 19.7 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 06-07
Project ID: 020607 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				238		626		551			1124	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	0.0					4.0			
All Red	0.0					0.0			

Cycle Length: 101.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	946	3081	0.34	0.31	28.0	C		
							73.8	E
R	840	2736	1.08	0.31	89.9	F		
Northbound								
T	1970	3015	0.35	0.65	8.3	A	8.3	A
Southbound								
T	2116	3238	0.55	0.65	10.5	B	10.5	B

Intersection Delay = 35.2 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 07-08
Project ID: 020708 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				202		571		744			1221	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	918	3109	0.23	0.30	28.5	C		
							39.1	D
R	808	2736	0.80	0.30	42.5	D		
Northbound								
T	1980	3150	0.41	0.63	10.4	B	10.4	B
Southbound								
T	2074	3299	0.72	0.63	15.4	B	15.4	B

Intersection Delay = 20.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 07-08
Project ID: 020708 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				271		767		1000			1641	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	918	3109	0.31	0.30	29.5	C		
							76.9	E
R	808	2736	1.08	0.30	92.2	F		
Northbound								
T	1980	3150	0.55	0.63	12.2	B	12.2	B
Southbound								
T	2074	3299	0.96	0.63	31.4	C	31.4	C

Intersection Delay = 38.9 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 07-08
Project ID: 020708 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				202		574		744			1227	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	918	3110	0.23	0.30	28.5	C		
							39.3	D
R	808	2736	0.81	0.30	42.7	D		
Northbound								
T	1980	3150	0.41	0.63	10.4	B	10.4	B
Southbound								
T	2074	3299	0.72	0.63	15.5	B	15.5	B

Intersection Delay = 20.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 07-08
Project ID: 020708 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				271		770		1000			1647	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	918	3110	0.31	0.30	29.5	C		
							77.9	E
R	808	2736	1.08	0.30	93.5	F		
Northbound								
T	1980	3150	0.55	0.63	12.2	B	12.2	B
Southbound								
T	2074	3299	0.97	0.63	32.2	C	32.2	C

Intersection Delay = 39.5 (sec/veh) Intersection LOS = D

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 08-09
Project ID: 020809 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				182		498		633			1440	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	935	3168	0.22	0.30	28.4	C		
							35.3	D
R	792	2683	0.70	0.30	37.9	D		
Northbound								
T	1998	3179	0.34	0.63	9.7	A	9.7	A
Southbound								
T	2114	3363	0.72	0.63	15.5	B	15.5	B

Intersection Delay = 19.2 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 08-09
Project ID: 020809 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				245		669		851			1935	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	935	3168	0.30	0.30	29.4	C		
							48.8	D
R	792	2683	0.94	0.30	56.1	E		
Northbound								
T	1998	3179	0.46	0.63	10.9	B	10.9	B
Southbound								
T	2114	3363	0.97	0.63	33.0	C	33.0	C

Intersection Delay = 32.0 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 08-09
Project ID: 020809 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				182		500		633			1444	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	935	3168	0.22	0.30	28.4	C		
							35.4	D
R	792	2683	0.70	0.30	38.1	D		
Northbound								
T	1998	3179	0.34	0.63	9.7	A	9.7	A
Southbound								
T	2114	3363	0.73	0.63	15.6	B	15.6	B

Intersection Delay = 19.3 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 08-09
Project ID: 020809 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				245		671		851			1939	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	935	3168	0.30	0.30	29.4	C		
							49.3	D
R	792	2683	0.94	0.30	56.7	E		
Northbound								
T	1998	3179	0.46	0.63	10.9	B	10.9	B
Southbound								
T	2114	3363	0.98	0.63	33.4	C	33.4	C

Intersection Delay = 32.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 09-10
Project ID: 020910 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				140		451		607			1276	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	910	3081	0.17	0.30	27.9	C		
							33.1	C
R	800	2709	0.59	0.30	34.9	C		
Northbound								
T	1962	3122	0.33	0.63	9.6	A	9.6	A
Southbound								
T	2054	3268	0.65	0.63	13.9	B	13.9	B

Intersection Delay = 17.5 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 09-10
Project ID: 020910 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				188		606		816			1715	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	P		
Right					Right			
Peds					Peds			
WB Left	P				SB Left			
Thru					Thru	P		
Right	P				Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	31.0	0.0			66.0			
Yellow	4.0				4.0			
All Red	0.0				0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	910	3081	0.24	0.30	28.6	C		
							38.8	D
R	800	2709	0.80	0.30	42.2	D		
Northbound								
T	1962	3122	0.44	0.63	10.8	B	10.8	B
Southbound								
T	2054	3268	0.88	0.63	21.9	C	21.9	C

Intersection Delay = 23.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 09-10
Project ID: 020910 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				140		452		607			1281	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	910	3081	0.17	0.30	27.9	C		
							33.1	C
R	800	2709	0.60	0.30	34.9	C		
Northbound								
T	1962	3122	0.33	0.63	9.6	A	9.6	A
Southbound								
T	2054	3268	0.66	0.63	14.0	B	14.0	B

Intersection Delay = 17.5 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 09-10
Project ID: 020910 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				188		607		816			1720	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	910	3081	0.24	0.30	28.6	C		
							38.9	D
R	800	2709	0.80	0.30	42.3	D		
Northbound								
T	1962	3122	0.44	0.63	10.8	B	10.8	B
Southbound								
T	2054	3268	0.88	0.63	22.1	C	22.1	C

Intersection Delay = 23.4 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 10-11
Project ID: 021011 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				168		441		462			920	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	878	2973	0.24	0.30	28.7	C		
							32.7	C
R	800	2709	0.58	0.30	34.5	C		
Northbound								
T	1962	3122	0.25	0.63	8.9	A	8.9	A
Southbound								
T	2054	3268	0.50	0.63	11.4	B	11.4	B

Intersection Delay = 17.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 10-11
Project ID: 021011 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				226		593		621			1236	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	878	2973	0.32	0.30	29.7	C		
							37.7	D
R	800	2709	0.78	0.30	41.3	D		
Northbound								
T	1962	3122	0.34	0.63	9.7	A	9.7	A
Southbound								
T	2054	3268	0.67	0.63	14.2	B	14.2	B

Intersection Delay = 20.4 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 10-11
Project ID: 021011 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				168		444		462			924	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	P		
Right					Right			
Peds					Peds			
WB Left	P				SB Left			
Thru					Thru	P		
Right	P				Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	31.0	0.0			66.0			
Yellow	4.0				4.0			
All Red	0.0				0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	878	2973	0.21	0.30	28.4	C		
							33.5	C
R	800	2709	0.62	0.30	35.4	D		
Northbound								
T	1962	3122	0.26	0.63	9.0	A	9.0	A
Southbound								
T	2054	3268	0.50	0.63	11.4	B	11.4	B

Intersection Delay = 17.6 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 10-11
Project ID: 021011 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				226		596		621			1240	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	878	2973	0.32	0.30	29.7	C		
							37.9	D
R	800	2709	0.78	0.30	41.5	D		
Northbound								
T	1962	3122	0.34	0.63	9.7	A	9.7	A
Southbound								
T	2054	3268	0.67	0.63	14.3	B	14.3	B

Intersection Delay = 20.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 11-12
Project ID: 0211112 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				182		446		375			1008	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	41.0	0.0				56.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	1203	3081	0.18	0.39	21.3	C		
							24.7	C
R	1037	2657	0.51	0.39	26.1	C		
Northbound								
T	1665	3122	0.25	0.53	13.6	B	13.6	B
Southbound								
T	1759	3299	0.63	0.53	18.9	B	18.9	B

Intersection Delay = 19.8 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 11-12
Project ID: 0211112 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				245		599		504			1355	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	P		
Right					Right			
Peds					Peds			
WB Left	P				SB Left			
Thru					Thru	P		
Right	P				Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	41.0	0.0			56.0			
Yellow	4.0				4.0			
All Red	0.0				0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	1203	3081	0.24	0.39	22.0	C		
							27.8	C
R	1037	2657	0.68	0.39	30.1	C		
Northbound								
T	1665	3122	0.34	0.53	14.5	B	14.5	B
Southbound								
T	1759	3299	0.85	0.53	26.1	C	26.1	C

Intersection Delay = 24.5 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 11-12
Project ID: 0211112 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				182		450		375			1010	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	41.0	0.0				56.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	1203	3081	0.18	0.39	21.3	C		
							24.7	C
R	1037	2657	0.51	0.39	26.1	C		
Northbound								
T	1665	3122	0.25	0.53	13.6	B	13.6	B
Southbound								
T	1759	3299	0.63	0.53	19.0	B	19.0	B

Intersection Delay = 19.9 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 11-12
Project ID: 0211112 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				245		603		504			1357	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	41.0	0.0				56.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	1203	3081	0.24	0.39	22.0	C		
							27.9	C
R	1037	2657	0.68	0.39	30.3	C		
Northbound								
T	1665	3122	0.34	0.53	14.5	B	14.5	B
Southbound								
T	1759	3299	0.85	0.53	26.2	C	26.2	C

Intersection Delay = 24.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 12-13
Project ID: 0211213 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				217		550		580			1064	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	41.0	0.0				56.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	1193	3054	0.21	0.39	21.7	C		
							26.1	C
R	1028	2632	0.59	0.39	27.9	C		
Northbound								
T	1727	3238	0.35	0.53	14.6	B	14.6	B
Southbound								
T	1776	3330	0.61	0.53	18.5	B	18.5	B

Intersection Delay = 20.2 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 12-13
Project ID: 0211213 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				292		739		779			1430	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	41.0	0.0				56.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	1193	3054	0.28	0.39	22.5	C		
							31.2	C
R	1028	2632	0.80	0.39	34.8	C		
Northbound								
T	1727	3238	0.46	0.53	16.1	B	16.1	B
Southbound								
T	1776	3330	0.82	0.53	24.8	C	24.8	C

Intersection Delay = 24.9 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 12-13
Project ID: 0211213 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				217		554		580			1067	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	41.0	0.0				56.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	1193	3054	0.21	0.39	21.7	C		
							26.2	C
R	1028	2632	0.60	0.39	28.0	C		
Northbound								
T	1727	3238	0.35	0.53	14.6	B	14.6	B
Southbound								
T	1776	3330	0.61	0.53	18.6	B	18.6	B

Intersection Delay = 20.2 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 12-13
Project ID: 0211213 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				292		743		779			1433	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	41.0	0.0				56.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	1193	3054	0.28	0.39	22.5	C		
							31.4	C
R	1028	2632	0.80	0.39	35.1	D		
Northbound								
T	1727	3238	0.46	0.53	16.1	B	16.1	B
Southbound								
T	1776	3330	0.82	0.53	24.8	C	24.8	C

Intersection Delay = 25.0 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 13-14
Project ID: 0211314 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				194		495		476			1020	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	886	3000	0.26	0.30	28.9	C		
							34.6	C
R	792	2683	0.67	0.30	37.0	D		
Northbound								
T	2016	3208	0.24	0.63	8.8	A	8.8	A
Southbound								
T	2093	3330	0.51	0.63	11.5	B	11.5	B

Intersection Delay = 18.5 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 13-14
Project ID: 0211314 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				261		665		640			1371	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	886	3000	0.34	0.30	30.1	C		
							44.8	D
R	792	2683	0.90	0.30	51.1	D		
Northbound								
T	2016	3208	0.32	0.63	9.5	A	9.5	A
Southbound								
T	2093	3330	0.68	0.63	14.5	B	14.5	B

Intersection Delay = 23.4 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 13-14
Project ID: 0211314 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				194		498		476			1024	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	886	3000	0.26	0.30	28.9	C		
							34.7	C
R	792	2683	0.68	0.30	37.2	D		
Northbound								
T	2016	3208	0.24	0.63	8.8	A	8.8	A
Southbound								
T	2093	3330	0.51	0.63	11.5	B	11.5	B

Intersection Delay = 18.6 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 13-14
Project ID: 0211314 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				261		668		640			1375	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	886	3000	0.34	0.30	30.1	C		
							45.2	D
R	792	2683	0.91	0.30	51.6	D		
Northbound								
T	2016	3208	0.32	0.63	9.5	A	9.5	A
Southbound								
T	2093	3330	0.68	0.63	14.5	B	14.5	B

Intersection Delay = 23.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 14-15
Project ID: 0211415 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				172		463		464			969	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	902	3054	0.23	0.30	28.5	C		
							34.7	C
R	784	2657	0.67	0.30	37.1	D		
Northbound								
T	2016	3208	0.24	0.63	8.8	A	8.8	A
Southbound								
T	2114	3363	0.48	0.63	11.1	B	11.1	B

Intersection Delay = 18.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 14-15
Project ID: 0211415 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				231		622		624			1302	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	902	3054	0.30	0.30	29.5	C		
							45.1	D
R	784	2657	0.90	0.30	51.1	D		
Northbound								
T	2016	3208	0.32	0.63	9.5	A	9.5	A
Southbound								
T	2114	3363	0.64	0.63	13.6	B	13.6	B

Intersection Delay = 23.1 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 15-16
Project ID: 02111516 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				161		419		514			1031	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	878	2973	0.19	0.30	28.1	C		
							32.7	C
R	777	2632	0.57	0.30	34.5	C		
Northbound								
T	1980	3150	0.28	0.63	9.2	A	9.2	A
Southbound								
T	2134	3395	0.52	0.63	11.7	B	11.7	B

Intersection Delay = 16.7 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 14-15
Project ID: 0211415 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				231		624		624			1305	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	902	3054	0.30	0.30	29.5	C		
							45.3	D
R	784	2657	0.90	0.30	51.4	D		
Northbound								
T	2016	3208	0.32	0.63	9.5	A	9.5	A
Southbound								
T	2114	3363	0.64	0.63	13.7	B	13.7	B

Intersection Delay = 23.2 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 15-16
Project ID: 0211516 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				161		419		514			1031	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	878	2973	0.19	0.30	28.1	C		
							32.7	C
R	777	2632	0.57	0.30	34.5	C		
Northbound								
T	1980	3150	0.28	0.63	9.2	A	9.2	A
Southbound								
T	2134	3395	0.52	0.63	11.7	B	11.7	B

Intersection Delay = 16.7 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 15-16
Project ID: 0211516 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				216		563		691			1386	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	878	2973	0.26	0.30	28.9	C		
							37.7	D
R	777	2632	0.77	0.30	41.0	D		
Northbound								
T	1980	3150	0.38	0.63	10.1	B	10.1	B
Southbound								
T	2134	3395	0.70	0.63	14.8	B	14.8	B

Intersection Delay = 19.8 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 15-16
Project ID: 0211516 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				161		422		514			1033	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	878	2973	0.19	0.30	28.1	C		
							32.8	C
R	777	2632	0.58	0.30	34.6	C		
Northbound								
T	1980	3150	0.28	0.63	9.2	A	9.2	A
Southbound								
T	2134	3395	0.52	0.63	11.7	B	11.7	B

Intersection Delay = 16.8 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 15-16
Project ID: 0211516 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				216		566		691			1388	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	878	2973	0.26	0.30	28.9	C		
							37.9	D
R	777	2632	0.77	0.30	41.2	D		
Northbound								
T	1980	3150	0.38	0.63	10.1	B	10.1	B
Southbound								
T	2134	3395	0.70	0.63	14.9	B	14.9	B

Intersection Delay = 19.9 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 16-17
Project ID: 0211617 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				184		408		583			1260	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	910	3081	0.23	0.30	28.5	C		
							33.0	C
R	756	2559	0.59	0.30	35.0+	D		
Northbound								
T	1980	3150	0.31	0.63	9.4	A	9.4	A
Southbound								
T	2114	3363	0.63	0.63	13.4	B	13.4	B

Intersection Delay = 17.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 16-17
Project ID: 0211617 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				247		548		784			1693	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	910	3081	0.31	0.30	29.5	C		
							38.5	D
R	756	2559	0.80	0.30	42.6	D		
Northbound								
T	1980	3150	0.42	0.63	10.5	B	10.5	B
Southbound								
T	2114	3363	0.84	0.63	19.7	B	19.7	B

Intersection Delay = 22.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 16-17
Project ID: 0211617 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				184		411		583			1262	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	910	3081	0.23	0.30	28.5	C		
							33.1	C
R	756	2559	0.60	0.30	35.1	D		
Northbound								
T	1980	3150	0.31	0.63	9.4	A	9.4	A
Southbound								
T	2114	3363	0.63	0.63	13.4	B	13.4	B

Intersection Delay = 17.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 16-17
Project ID: 0211617 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				247		551		784			1695	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	910	3081	0.31	0.30	29.5	C		
							38.6	D
R	756	2559	0.80	0.30	42.8	D		
Northbound								
T	1980	3150	0.42	0.63	10.5	B	10.5	B
Southbound								
T	2114	3363	0.84	0.63	19.8	B	19.8	B

Intersection Delay = 22.3 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 17-18
Project ID: 0211718 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				196		500		705			1322	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	886	3000	0.24	0.30	28.7	C		
							35.9	D
R	762	2582	0.71	0.30	38.6	D		
Northbound								
T	1980	3150	0.37	0.63	9.9	A	9.9	A
Southbound								
T	2093	3330	0.66	0.63	14.0	B	14.0	B

Intersection Delay = 18.7 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 17-18
Project ID: 0211718 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				263		672		947			1777	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	886	3000	0.32	0.30	29.7	C		
							51.7	D
R	762	2582	0.96	0.30	60.2	E		
Northbound								
T	1980	3150	0.49	0.63	11.4	B	11.4	B
Southbound								
T	2093	3330	0.88	0.63	22.2	C	22.2	C

Intersection Delay = 27.2 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 17-18
Project ID: 0211718 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				196		506		705			1325	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	886	3000	0.24	0.30	28.7	C		
							36.1	D
R	762	2582	0.72	0.30	39.0	D		
Northbound								
T	1980	3150	0.37	0.63	9.9	A	9.9	A
Southbound								
T	2093	3330	0.66	0.63	14.0	B	14.0	B

Intersection Delay = 18.8 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 17-18
Project ID: 0211718 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				263		678		947			1780	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru					Thru	P		
Right					Right			
Peds					Peds			
WB Left	P				SB Left			
Thru					Thru	P		
Right	P				Right			
Peds					Peds			
NB Right					EB Right			
SB Right					WB Right			
Green	31.0	0.0			66.0			
Yellow	4.0				4.0			
All Red	0.0				0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	886	3000	0.32	0.30	29.7	C		
							53.1	D
R	762	2582	0.97	0.30	62.0	E		
Northbound								
T	1980	3150	0.49	0.63	11.4	B	11.4	B
Southbound								
T	2093	3330	0.89	0.63	22.3	C	22.3	C

Intersection Delay = 27.7 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 18-19
Project ID: 0211819 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				195		562		772			1257	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	893	3026	0.26	0.30	28.9	C		
							35.8	D
R	800	2709	0.72	0.30	38.5	D		
Northbound								
T	1980	3150	0.41	0.63	10.3	B	10.3	B
Southbound								
T	2093	3330	0.62	0.63	13.2	B	13.2	B

Intersection Delay = 18.7 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 18-19
Project ID: 0211819 SA10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				262		755		1038			1689	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	893	3026	0.34	0.30	30.1	C		
							51.7	D
R	800	2709	0.96	0.30	60.3	E		
Northbound								
T	1980	3150	0.55	0.63	12.1	B	12.1	B
Southbound								
T	2093	3330	0.83	0.63	19.2	B	19.2	B

Intersection Delay = 26.2 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 18-19
Project ID: 0211819 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016
N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				195		567		772			1260	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	893	3026	0.26	0.30	28.9	C		
							36.0	D
R	800	2709	0.72	0.30	38.8	D		
Northbound								
T	1980	3150	0.41	0.63	10.3	B	10.3	B
Southbound								
T	2093	3330	0.62	0.63	13.3	B	13.3	B

Intersection Delay = 18.8 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 18-19
Project ID: 0211819 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				262		760		1038			1692	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	893	3026	0.34	0.30	30.1	C		
							52.8	D
R	800	2709	0.97	0.30	61.8	E		
Northbound								
T	1980	3150	0.55	0.63	12.1	B	12.1	B
Southbound								
T	2093	3330	0.83	0.63	19.3	B	19.3	B

Intersection Delay = 26.6 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 19-20
Project ID: 0211920 SA01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				147		427		842			976	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	834	2825	0.24	0.30	28.8	C		
							33.3	C
R	784	2657	0.60	0.30	35.2	D		
Northbound								
T	1980	3150	0.44	0.63	10.8	B	10.8	B
Southbound								
T	1980	3150	0.61	0.63	13.1	B	13.1	B

Intersection Delay = 17.3 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 19-20
Project ID: 0211920 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				198		578		1132			1314	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	834	2825	0.33	0.30	29.9	C		
							39.6	D
R	784	2657	0.82	0.30	43.7	D		
Northbound								
T	1980	3150	0.60	0.63	12.9	B	12.9	B
Southbound								
T	1980	3150	0.82	0.63	18.9	B	18.9	B

Intersection Delay = 22.1 (sec/veh) Intersection LOS = C

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 19-20
Project ID: 0211920 SF01
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2016

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				147		431		842			978	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	834	2825	0.24	0.30	28.8	C		
							33.4	C
R	784	2657	0.61	0.30	35.3	D		
Northbound								
T	1980	3150	0.44	0.63	10.8	B	10.8	B
Southbound								
T	1980	3150	0.61	0.63	13.2	B	13.2	B

Intersection Delay = 17.4 (sec/veh) Intersection LOS = B

HCS+: Signalized Intersections Release 5.3

Analyst: ANTONIO FLAVIO
Agency: MOURA DUBEUX
Date: 28/04/2016
Period: 19-20
Project ID: 0211920 SF10
E/W St: ESTRADA DO ARRAIAL

Inter.: 02. 17 DE AGOSTO/ARRAIAL
Area Type: All other areas
Jurisd: PCR
Year: 2026

N/S St: AV 17 DE AGOSTO

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	0	0	2	0	2	0	2	0	0	2	0
LGConfig				L		R		T			T	
Volume				198		578		1132			1314	
Lane Width				3.3		3.3		3.3			3.3	
RTOR Vol						0						

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left					NB Left				
Thru					Thru	P			
Right					Right				
Peds					Peds				
WB Left	P				SB Left				
Thru					Thru	P			
Right	P				Right				
Peds					Peds				
NB Right					EB Right				
SB Right					WB Right				
Green	31.0	0.0				66.0			
Yellow	4.0					4.0			
All Red	0.0					0.0			

Cycle Length: 105.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
Westbound								
L	834	2825	0.33	0.30	29.9	C		
							39.6	D
R	784	2657	0.82	0.30	43.7	D		
Northbound								
T	1980	3150	0.60	0.63	12.9	B	12.9	B
Southbound								
T	1980	3150	0.82	0.63	18.9	B	18.9	B

Intersection Delay = 22.1 (sec/veh) Intersection LOS = C

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 06-07
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT030607 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	35	5	42	16	3	17	8	488	27	184	1106	9
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.56				0.55	0.95	0.95	0.75
Flow Rate	136				457	256	582	749
% Heavy Veh	0				0	7	6	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	136				457	256	582	749
Left-Turn	62				14	0	0	0
Right-Turn	74				0	0	0	12
Prop. Left-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.1	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	136				457	256	582	749
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12				0.41	0.23	0.52	0.67
hd, final value	6.69				6.65	6.76	6.13	6.02
x, final value	0.25				0.84	0.48	0.99	1.25
Move-up time, m	2.0				2.3		2.3	
Service Time	4.7				4.4	4.5	3.8	3.7

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	136				457	256	582	749
Service Time	4.7				4.4	4.5	3.8	3.7
Utilization, x	0.25				0.84	0.48	0.99	1.25
Dep. headway, hd	6.69				6.65	6.76	6.13	6.02
Capacity	386				540	506	587	749
Delay	11.93				35.66	15.56	59.22	146.67
LOS	B				E	C	F	F
Approach:								
Delay	11.93				28.44		108.43	
LOS	B				D		F	

Intersection Delay 76.25 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 06-07
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT030607 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	47	5	56	16	3	17	11	656	27	184	1486	
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.56				0.55	0.95	0.95	0.75
Flow Rate	182				615	345	782	1002
% Heavy Veh	0				0	7	6	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	182				615	345	782	1002
Left-Turn	83				19	0	0	0
Right-Turn	99				0	0	0	12
Prop. Left-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.1	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	182				615	345	782	1002
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.16				0.55	0.31	0.70	0.89
hd, final value	6.80				6.83	6.93	6.63	6.52
x, final value	0.34				1.17	0.66	1.44	1.81
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.5	4.6	4.3	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	182				615	345	782	1002
Service Time	4.8				4.5	4.6	4.3	4.2
Utilization, x	0.34				1.17	0.66	1.44	1.81
Dep. headway, hd	6.80				6.83	6.93	6.63	6.52
Capacity	432				615	520	782	1002
Delay	13.31				117.66	22.31	227.10	389.52
LOS	B				F	C	F	F
Approach:								
Delay	13.31				83.39		318.33	
LOS	B				F		F	

Intersection Delay 222.27 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 06-07
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT030607 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	37	5	47	16	3	17	8	490	27	184	1106	10
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.56				0.55	0.95	0.95	0.75
Flow Rate	149				459	257	582	750
% Heavy Veh	0				0	7	6	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	149				459	257	582	750
Left-Turn	66				14	0	0	0
Right-Turn	83				0	0	0	13
Prop. Left-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.1	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	149				459	257	582	750
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13				0.41	0.23	0.52	0.67
hd, final value	6.69				6.71	6.81	6.20	6.09
x, final value	0.28				0.86	0.49	1.00	1.27
Move-up time, m	2.0				2.3		2.3	
Service Time	4.7				4.4	4.5	3.9	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	149				459	257	582	750
Service Time	4.7				4.4	4.5	3.9	3.8
Utilization, x	0.28				0.86	0.49	1.00	1.27
Dep. headway, hd	6.69				6.71	6.81	6.20	6.09
Capacity	399				537	507	582	750
Delay	12.22				37.18	15.79	62.40	153.41
LOS	B				E	C	F	F
Approach:								
Delay	12.22				29.50		113.64	
LOS	B				D		F	

Intersection Delay 79.35 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 06-07
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT030607 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	49	5	61	16	3	17	11	658	27	184	1486	13
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.56				0.55	0.95	0.95	0.75
Flow Rate	195				617	346	782	1007
% Heavy Veh	0				0	7	6	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	195				617	346	782	1007
Left-Turn	87				19	0	0	0
Right-Turn	108				0	0	0	17
Prop. Left-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.1	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	195				617	346	782	1007
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.17				0.55	0.31	0.70	0.90
hd, final value	6.79				6.87	6.98	6.69	6.57
x, final value	0.37				1.18	0.67	1.45	1.84
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.6	4.7	4.4	4.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	195				617	346	782	1007
Service Time	4.8				4.6	4.7	4.4	4.3
Utilization, x	0.37				1.18	0.67	1.45	1.84
Dep. headway, hd	6.79				6.87	6.98	6.69	6.57
Capacity	445				617	516	782	1007
Delay	13.68				122.02	22.74	232.58	400.28
LOS	B				F	C	F	F
Approach:								
Delay	13.68				86.35		326.97	
LOS	B				F		F	
Intersection Delay 227.61			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 07-08
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT030708 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	50	5	52	16	3	17	16	552	27	184	1095	10
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.76				0.79	1.00	1.00	0.81
Flow Rate	133				369	276	547	688
% Heavy Veh	0				0	6	5	
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	133				369	276	547	688
Left-Turn	65				20	0	0	0
Right-Turn	68				0	0	0	12
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	133				369	276	547	688
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12				0.33	0.25	0.49	0.61
hd, final value	6.61				6.57	6.65	5.98	5.88
x, final value	0.24				0.67	0.51	0.91	1.12
Move-up time, m	2.0				2.3		2.3	
Service Time	4.6				4.3	4.3	3.7	3.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	133				369	276	547	688
Service Time	4.6				4.3	4.3	3.7	3.6
Utilization, x	0.24				0.67	0.51	0.91	1.12
Dep. headway, hd	6.61				6.57	6.65	5.98	5.88
Capacity	383				543	526	601	688
Delay	11.73				21.78	16.05	41.69	97.82
LOS	B				C	C	E	F
Approach:								
Delay	11.73				19.33		72.96	
LOS	B				C		F	

Intersection Delay 51.73 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 07-08
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT030708 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	67	5	70	16	3	17	22	742	27	184	1472	13
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.76				0.79	1.00	1.00	0.81
Flow Rate	180				496	371	736	924
% Heavy Veh	0				0	6	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	180				496	371	736	924
Left-Turn	88				27	0	0	0
Right-Turn	92				0	0	0	16
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	180				496	371	736	924
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.16				0.44	0.33	0.65	0.82
hd, final value	6.80				6.83	6.91	6.60	6.50
x, final value	0.34				0.94	0.71	1.35	1.67
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.5	4.6	4.3	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	180				496	371	736	924
Service Time	4.8				4.5	4.6	4.3	4.2
Utilization, x	0.34				0.94	0.71	1.35	1.67
Dep. headway, hd	6.80				6.83	6.91	6.60	6.50
Capacity	430				527	521	736	924
Delay	13.26				51.80	24.90	188.56	325.20
LOS	B				F	C	F	F
Approach:								
Delay	13.26				40.29		264.62	
LOS	B				E		F	

Intersection Delay 176.05 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 07-08
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT030708 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	52	5	58	16	3	17	16	555	27	184	1095	11
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.76				0.79	1.00	1.00	0.81
Flow Rate	144				370	278	547	689
% Heavy Veh	0				0	6	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	144				370	278	547	689
Left-Turn	68				20	0	0	0
Right-Turn	76				0	0	0	13
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	144				370	278	547	689
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13				0.33	0.25	0.49	0.61
hd, final value	6.60				6.62	6.69	6.04	5.94
x, final value	0.26				0.68	0.52	0.92	1.14
Move-up time, m	2.0				2.3		2.3	
Service Time	4.6				4.3	4.4	3.7	3.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	144				370	278	547	689
Service Time	4.6				4.3	4.4	3.7	3.6
Utilization, x	0.26				0.68	0.52	0.92	1.14
Dep. headway, hd	6.60				6.62	6.69	6.04	5.94
Capacity	394				540	528	595	689
Delay	11.96				22.24	16.34	43.46	102.55
LOS	B				C	C	E	F
Approach:								
Delay	11.96				19.71		76.40	
LOS	B				C		F	

Intersection Delay 53.71 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 07-08
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT030708 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	69	5	76	16	3	17	22	745	27	184	1472	14
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.76				0.79	1.00	1.00	0.81
Flow Rate	190				497	373	736	925
% Heavy Veh	0				0	6	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	190				497	373	736	925
Left-Turn	90				27	0	0	0
Right-Turn	100				0	0	0	17
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	190				497	373	736	925
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.17				0.44	0.33	0.65	0.82
hd, final value	6.79				6.87	6.94	6.65	6.55
x, final value	0.36				0.95	0.72	1.36	1.68
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.6	4.6	4.3	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	190				497	373	736	925
Service Time	4.8				4.6	4.6	4.3	4.2
Utilization, x	0.36				0.95	0.72	1.36	1.68
Dep. headway, hd	6.79				6.87	6.94	6.65	6.55
Capacity	440				525	519	736	925
Delay	13.53				53.27	25.47	193.06	331.76
LOS	B				F	D	F	F
Approach:								
Delay	13.53				41.35		270.30	
LOS	B				E		F	
Intersection Delay 179.17			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 08-09
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT030809 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	41	5	36	16	3	17	21	645	27	184	1044	11
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.88				0.78	0.97	0.97	0.65
Flow Rate	86				438	332	538	819
% Heavy Veh	5				0	6	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	86				438	332	538	819
Left-Turn	46				26	0	0	0
Right-Turn	40				0	0	0	16
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	86				438	332	538	819
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.39	0.30	0.48	0.73
hd, final value	6.83				6.40	6.47	5.94	5.86
x, final value	0.16				0.78	0.60	0.89	1.33
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.1	4.2	3.6	3.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	86				438	332	538	819
Service Time	4.8				4.1	4.2	3.6	3.6
Utilization, x	0.16				0.78	0.60	0.89	1.33
Dep. headway, hd	6.83				6.40	6.47	5.94	5.86
Capacity	336				560	551	604	819
Delay	11.15				28.01	18.30	38.34	179.20
LOS	B				D	C	E	F
Approach:								
Delay	11.15				23.82		123.36	
LOS	B				C		F	

Intersection Delay 84.36 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 08-09
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT030809 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	42	5	40	16	3	17	21	647	27	184	1044	12
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.88				0.78	0.97	0.97	0.65
Flow Rate	92				440	334	538	821
% Heavy Veh	5				0	6	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	92				440	334	538	821
Left-Turn	47				26	0	0	0
Right-Turn	45				0	0	0	18
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	92				440	334	538	821
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.39	0.30	0.48	0.73
hd, final value	6.81				6.43	6.50	5.98	5.90
x, final value	0.17				0.79	0.60	0.89	1.34
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.1	4.2	3.7	3.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	92				440	334	538	821
Service Time	4.8				4.1	4.2	3.7	3.6
Utilization, x	0.17				0.79	0.60	0.89	1.34
Dep. headway, hd	6.81				6.43	6.50	5.98	5.90
Capacity	342				558	549	600	821
Delay	11.24				28.68	18.58	39.32	184.02
LOS	B				D	C	E	F
Approach:								
Delay	11.24				24.32		126.74	
LOS	B				C		F	

Intersection Delay 86.34 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 08-09
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT030809 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	42	5	40	16	3	17	21	647	27	184	1044	12
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.88				0.78	0.97	0.97	0.65
Flow Rate	92				440	334	538	821
% Heavy Veh	5				0	6	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	92				440	334	538	821
Left-Turn	47				26	0	0	0
Right-Turn	45				0	0	0	18
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	92				440	334	538	821
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.39	0.30	0.48	0.73
hd, final value	6.81				6.43	6.50	5.98	5.90
x, final value	0.17				0.79	0.60	0.89	1.34
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.1	4.2	3.7	3.6

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	92				440	334	538	821
Service Time	4.8				4.1	4.2	3.7	3.6
Utilization, x	0.17				0.79	0.60	0.89	1.34
Dep. headway, hd	6.81				6.43	6.50	5.98	5.90
Capacity	342				558	549	600	821
Delay	11.24				28.68	18.58	39.32	184.02
LOS	B				D	C	E	F
Approach:								
Delay	11.24				24.32		126.74	
LOS	B				C		F	

Intersection Delay 86.34 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 08-09
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT030809 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	56	5	52	16	3	17	28	869	27	184	1403	16
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.88				0.78	0.97	0.97	0.65
Flow Rate	122				591	448	722	1104
% Heavy Veh	5				0	6	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	122				591	448	722	1104
Left-Turn	63				35	0	0	0
Right-Turn	59				0	0	0	24
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	122				591	448	722	1104
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11				0.53	0.40	0.64	0.98
hd, final value	6.93				6.65	6.72	6.53	6.44
x, final value	0.23				1.09	0.84	1.31	1.98
Move-up time, m	2.0				2.3		2.3	
Service Time	4.9				4.3	4.4	4.2	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	122				591	448	722	1104
Service Time	4.9				4.3	4.4	4.2	4.1
Utilization, x	0.23				1.09	0.84	1.31	1.98
Dep. headway, hd	6.93				6.65	6.72	6.53	6.44
Capacity	372				591	536	722	1104
Delay	12.05				90.54	34.91	171.93	460.96
LOS	B				F	D	F	F
Approach:								
Delay	12.05				66.56		346.68	
LOS	B				F		F	

Intersection Delay 235.57 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 09-10
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT030910 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	28	5	21	16	3	17	16	671	27	184	888	7
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.78				0.64	0.86	0.86	0.75
Flow Rate	61				548	390	516	601
% Heavy Veh	7				0	5	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	61				548	390	516	601
Left-Turn	35				25	0	0	0
Right-Turn	26				0	0	0	9
Prop. Left-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.0				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	61				548	390	516	601
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.05				0.49	0.35	0.46	0.53
hd, final value	7.00				6.29	6.36	6.11	6.02
x, final value	0.12				0.96	0.69	0.88	1.00
Move-up time, m	2.0				2.3		2.3	
Service Time	5.0				4.0	4.1	3.8	3.7

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	61				548	390	516	601
Service Time	5.0				4.0	4.1	3.8	3.7
Utilization, x	0.12				0.96	0.69	0.88	1.00
Dep. headway, hd	7.00				6.29	6.36	6.11	6.02
Capacity	311				572	562	586	601
Delay	10.93				52.51	21.93	37.45	61.98
LOS	B				F	C	E	F
Approach:								
Delay	10.93				39.80		50.65	
LOS	B				E		F	

Intersection Delay 44.69 Intersection LOS E

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 09-10
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT030910 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	38	5	28	16	3	17	22	902	27	184	1193	9
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.78				0.64	0.86	0.86	0.75
Flow Rate	83				738	524	693	808
% Heavy Veh	7				0	5	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	83				738	524	693	808
Left-Turn	48				34	0	0	0
Right-Turn	35				0	0	0	12
Prop. Left-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.0				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	83				738	524	693	808
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.07				0.66	0.47	0.62	0.72
hd, final value	7.02				6.51	6.57	6.52	6.43
x, final value	0.16				1.33	0.96	1.26	1.44
Move-up time, m	2.0				2.3		2.3	
Service Time	5.0				4.2	4.3	4.2	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	83				738	524	693	808
Service Time	5.0				4.2	4.3	4.2	4.1
Utilization, x	0.16				1.33	0.96	1.26	1.44
Dep. headway, hd	7.02				6.51	6.57	6.52	6.43
Capacity	333				738	548	693	808
Delay	11.37				182.10	53.50	150.49	227.48
LOS	B				F	F	F	F
Approach:								
Delay	11.37				128.70		191.94	
LOS	B				F		F	
Intersection Delay 158.63			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 09-10
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT030910 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	30	5	26	16	3	17	16	672	27	184	888	7
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.78				0.64	0.86	0.86	0.75
Flow Rate	71				550	390	516	601
% Heavy Veh	7				0	5	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	71				550	390	516	601
Left-Turn	38				25	0	0	0
Right-Turn	33				0	0	0	9
Prop. Left-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	71				550	390	516	601
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06				0.49	0.35	0.46	0.53
hd, final value	6.97				6.34	6.40	6.17	6.07
x, final value	0.14				0.97	0.69	0.88	1.01
Move-up time, m	2.0				2.3		2.3	
Service Time	5.0				4.0	4.1	3.9	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	71				550	390	516	601
Service Time	5.0				4.0	4.1	3.9	3.8
Utilization, x	0.14				0.97	0.69	0.88	1.01
Dep. headway, hd	6.97				6.34	6.40	6.17	6.07
Capacity	321				568	558	581	601
Delay	11.08				55.00	22.32	38.82	64.67
LOS	B				F	C	E	F
Approach:								
Delay	11.08				41.44		52.73	
LOS	B				E		F	

Intersection Delay 46.35 Intersection LOS E

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 09-10
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT030910 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	40	5	33	16	3	17	22	903	27	184	1193	9
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.78				0.64	0.86	0.86	0.75
Flow Rate	93				738	525	693	808
% Heavy Veh	7				0	5	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	93				738	525	693	808
Left-Turn	51				34	0	0	0
Right-Turn	42				0	0	0	12
Prop. Left-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.0				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	93				738	525	693	808
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.66	0.47	0.62	0.72
hd, final value	6.99				6.54	6.60	6.57	6.47
x, final value	0.18				1.34	0.96	1.26	1.45
Move-up time, m	2.0				2.3		2.3	
Service Time	5.0				4.2	4.3	4.3	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	93				738	525	693	808
Service Time	5.0				4.2	4.3	4.3	4.2
Utilization, x	0.18				1.34	0.96	1.26	1.45
Dep. headway, hd	6.99				6.54	6.60	6.57	6.47
Capacity	343				738	546	693	808
Delay	11.53				185.13	55.13	153.89	231.65
LOS	B				F	F	F	F
Approach:								
Delay	11.53				131.09		195.75	
LOS	B				F		F	
Intersection Delay 161.17			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 10-11
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031011 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	23	5	25	16	3	17	14	623	27	184	783	7
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.59				0.57	0.86	0.86	0.58
Flow Rate	80				569	362	454	687
% Heavy Veh	0				0	6	4	14
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	80				569	362	454	687
Left-Turn	38				24	0	0	0
Right-Turn	42				0	0	0	12
Prop. Left-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.1
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	0.2

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	80				569	362	454	687
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.07				0.51	0.32	0.40	0.61
hd, final value	6.80				6.25	6.33	6.14	6.30
x, final value	0.15				0.99	0.64	0.77	1.20
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				3.9	4.0	3.8	4.0

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	80				569	362	454	687
Service Time	4.8				3.9	4.0	3.8	4.0
Utilization, x	0.15				0.99	0.64	0.77	1.20
Dep. headway, hd	6.80				6.25	6.33	6.14	6.30
Capacity	330				576	565	583	687
Delay	11.01				58.92	19.45	26.75	128.42
LOS	B				F	C	D	F
Approach:								
Delay	11.01				43.57		87.97	
LOS	B				E		F	
Intersection Delay 65.90			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 10-11
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031011 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	31	5	34	16	3	17	19	837	27	184	1052	9
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.59				0.57	0.86	0.86	0.58
Flow Rate	109				766	487	611	921
% Heavy Veh	0				0	6	4	14
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	109				766	487	611	921
Left-Turn	52				33	0	0	0
Right-Turn	57				0	0	0	15
Prop. Left-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.1
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	0.2

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	109				766	487	611	921
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10				0.68	0.43	0.54	0.82
hd, final value	6.81				6.59	6.67	6.54	6.70
x, final value	0.21				1.40	0.90	1.11	1.71
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.3	4.4	4.2	4.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	109				766	487	611	921
Service Time	4.8				4.3	4.4	4.2	4.4
Utilization, x	0.21				1.40	0.90	1.11	1.71
Dep. headway, hd	6.81				6.59	6.67	6.54	6.70
Capacity	359				766	540	611	921
Delay	11.57				210.57	43.82	96.01	345.62
LOS	B				F	E	F	F
Approach:								
Delay	11.57				145.76		246.07	
LOS	B				F		F	
Intersection Delay 193.81			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 10-11
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031011 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	24	5	29	16	3	17	14	626	27	184	783	8
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.59				0.57	0.86	0.86	0.58
Flow Rate	89				573	363	454	688
% Heavy Veh	0				0	6	4	14
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	89				573	363	454	688
Left-Turn	40				24	0	0	0
Right-Turn	49				0	0	0	13
Prop. Left-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.1
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	0.2

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	89				573	363	454	688
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.51	0.32	0.40	0.61
hd, final value	6.79				6.29	6.37	6.19	6.35
x, final value	0.17				1.00	0.64	0.78	1.21
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.0	4.1	3.9	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	89				573	363	454	688
Service Time	4.8				4.0	4.1	3.9	4.1
Utilization, x	0.17				1.00	0.64	0.78	1.21
Dep. headway, hd	6.79				6.29	6.37	6.19	6.35
Capacity	339				573	561	579	688
Delay	11.15				62.44	19.80	27.49	133.25
LOS	B				F	C	D	F
Approach:								
Delay	11.15				45.90		91.20	
LOS	B				E		F	

Intersection Delay 68.35 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 10-11
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031011 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	32	5	38	16	3	17	19	840	27	184	1052	10
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.59				0.57	0.86	0.86	0.58
Flow Rate	118				769	488	611	923
% Heavy Veh	0				0	6	4	14
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	118				769	488	611	923
Left-Turn	54				33	0	0	0
Right-Turn	64				0	0	0	17
Prop. Left-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.1	0.0	0.1
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	0.2

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	118				769	488	611	923
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10				0.68	0.43	0.54	0.82
hd, final value	6.80				6.62	6.70	6.57	6.73
x, final value	0.22				1.41	0.91	1.12	1.73
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.3	4.4	4.3	4.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	118				769	488	611	923
Service Time	4.8				4.3	4.4	4.3	4.4
Utilization, x	0.22				1.41	0.91	1.12	1.73
Dep. headway, hd	6.80				6.62	6.70	6.57	6.73
Capacity	368				769	538	611	923
Delay	11.73				215.69	44.94	98.35	351.42
LOS	B				F	E	F	F
Approach:								
Delay	11.73				149.40		250.62	
LOS	B				F		F	
Intersection Delay 197.19			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 11-12
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031112 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	21	5	26	16	3	17	16	562	27	184	971	5
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.69				0.75	0.89	0.89	0.42
Flow Rate	67				395	315	544	1168
% Heavy Veh	0				0	4	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	67				395	315	544	1168
Left-Turn	30				21	0	0	0
Right-Turn	37				0	0	0	11
Prop. Left-Turns	0.4				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	67				395	315	544	1168
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06				0.35	0.28	0.48	1.04
hd, final value	6.61				6.29	6.34	5.72	5.66
x, final value	0.12				0.69	0.55	0.86	1.84
Move-up time, m	2.0				2.3		2.3	
Service Time	4.6				4.0	4.0	3.4	3.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	67				395	315	544	1168
Service Time	4.6				4.0	4.0	3.4	3.4
Utilization, x	0.12				0.69	0.55	0.86	1.84
Dep. headway, hd	6.61				6.29	6.34	5.72	5.66
Capacity	317				568	562	627	1168
Delay	10.53				21.85	16.63	34.04	396.81
LOS	B				C	C	D	F
Approach:								
Delay	10.53				19.53		281.54	
LOS	B				C		F	
Intersection Delay 199.50			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 11-12
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031112 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	28	5	35	16	3	17	22	755	27	184	1305	7
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.69				0.75	0.89	0.89	0.42
Flow Rate	90				531	424	732	1570
% Heavy Veh	0				0	4	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	90				531	424	732	1570
Left-Turn	40				29	0	0	0
Right-Turn	50				0	0	0	16
Prop. Left-Turns	0.4				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	90				531	424	732	1570
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.47	0.38	0.65	1.40
hd, final value	6.77				6.53	6.57	6.28	6.22
x, final value	0.17				0.96	0.77	1.28	2.71
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.2	4.3	4.0	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	90				531	424	732	1570
Service Time	4.8				4.2	4.3	4.0	3.9
Utilization, x	0.17				0.96	0.77	1.28	2.71
Dep. headway, hd	6.77				6.53	6.57	6.28	6.22
Capacity	340				552	549	732	1570
Delay	11.15				54.61	28.17	157.86	789.65
LOS	B				F	D	F	F
Approach:								
Delay	11.15				42.87		588.75	
LOS	B				E		F	

Intersection Delay 417.47 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 11-12
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031112 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	22	5	28	16	3	17	16	566	27	184	971	6
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.69				0.75	0.89	0.89	0.42
Flow Rate	71				398	317	544	1171
% Heavy Veh	0				0	4	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	71				398	317	544	1171
Left-Turn	31				21	0	0	0
Right-Turn	40				0	0	0	14
Prop. Left-Turns	0.4				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.3				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	71				398	317	544	1171
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06				0.35	0.28	0.48	1.04
hd, final value	6.60				6.31	6.35	5.75	5.69
x, final value	0.13				0.70	0.56	0.87	1.85
Move-up time, m	2.0				2.3		2.3	
Service Time	4.6				4.0	4.1	3.4	3.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	71				398	317	544	1171
Service Time	4.6				4.0	4.1	3.4	3.4
Utilization, x	0.13				0.70	0.56	0.87	1.85
Dep. headway, hd	6.60				6.31	6.35	5.75	5.69
Capacity	321				566	560	624	1171
Delay	10.59				22.29	16.82	34.70	402.74
LOS	B				C	C	D	F
Approach:								
Delay	10.59				19.87		286.00	
LOS	B				C		F	

Intersection Delay 202.10 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 11-12
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031112 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	28	5	37	16	3	17	22	759	27	184	1305	8
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.69				0.75	0.89	0.89	0.42
Flow Rate	93				534	426	732	1573
% Heavy Veh	0				0	4	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	93				534	426	732	1573
Left-Turn	40				29	0	0	0
Right-Turn	53				0	0	0	19
Prop. Left-Turns	0.4				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.3				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	93				534	426	732	1573
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.47	0.38	0.65	1.40
hd, final value	6.76				6.53	6.58	6.30	6.24
x, final value	0.17				0.97	0.78	1.28	2.73
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.2	4.3	4.0	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	93				534	426	732	1573
Service Time	4.8				4.2	4.3	4.0	3.9
Utilization, x	0.17				0.97	0.78	1.28	2.73
Dep. headway, hd	6.76				6.53	6.58	6.30	6.24
Capacity	343				551	548	732	1573
Delay	11.19				56.17	28.60	159.80	796.16
LOS	B				F	D	F	F
Approach:								
Delay	11.19				43.94		594.07	
LOS	B				E		F	

Intersection Delay 420.65 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 12-13
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031213 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	23	5	20	16	3	17	22	633	27	184	942	14
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.67				0.78	0.95	0.95	0.67
Flow Rate	63				433	333	495	722
% Heavy Veh	4				0	5	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	63				433	333	495	722
Left-Turn	34				28	0	0	0
Right-Turn	29				0	0	0	20
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	63				433	333	495	722
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06				0.38	0.30	0.44	0.64
hd, final value	6.79				6.22	6.27	5.80	5.71
x, final value	0.12				0.75	0.58	0.80	1.15
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				3.9	4.0	3.5	3.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	63				433	333	495	722
Service Time	4.8				3.9	4.0	3.5	3.4
Utilization, x	0.12				0.75	0.58	0.80	1.15
Dep. headway, hd	6.79				6.22	6.27	5.80	5.71
Capacity	313				576	568	617	722
Delay	10.71				25.08	17.27	27.41	104.55
LOS	B				D	C	D	F
Approach:								
Delay	10.71				21.68		73.18	
LOS	B				C		F	

Intersection Delay 51.98 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 12-13
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031213 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	31	5	27	16	3	17	30	851	27	184	1266	19
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.67				0.78	0.95	0.95	0.67
Flow Rate	86				582	448	666	972
% Heavy Veh	4				0	5	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	86				582	448	666	972
Left-Turn	46				38	0	0	0
Right-Turn	40				0	0	0	28
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	86				582	448	666	972
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.52	0.40	0.59	0.86
hd, final value	6.93				6.52	6.58	6.37	6.28
x, final value	0.17				1.05	0.82	1.18	1.70
Move-up time, m	2.0				2.3		2.3	
Service Time	4.9				4.2	4.3	4.1	4.0

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	86				582	448	666	972
Service Time	4.9				4.2	4.3	4.1	4.0
Utilization, x	0.17				1.05	0.82	1.18	1.70
Dep. headway, hd	6.93				6.52	6.58	6.37	6.28
Capacity	336				582	548	666	972
Delay	11.30				78.51	32.38	119.96	336.94
LOS	B				F	D	F	F
Approach:								
Delay	11.30				58.45		248.72	
LOS	B				F		F	

Intersection Delay 170.14 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 12-13
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031213 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	24	5	23	16	3	17	22	637	27	184	942	15
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.67				0.78	0.95	0.95	0.67
Flow Rate	69				435	335	495	724
% Heavy Veh	4				0	5	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	69				435	335	495	724
Left-Turn	35				28	0	0	0
Right-Turn	34				0	0	0	22
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	69				435	335	495	724
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06				0.39	0.30	0.44	0.64
hd, final value	6.77				6.25	6.30	5.84	5.75
x, final value	0.13				0.75	0.59	0.80	1.16
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				3.9	4.0	3.5	3.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	69				435	335	495	724
Service Time	4.8				3.9	4.0	3.5	3.4
Utilization, x	0.13				0.75	0.59	0.80	1.16
Dep. headway, hd	6.77				6.25	6.30	5.84	5.75
Capacity	319				573	566	613	724
Delay	10.78				25.64	17.53	27.99	108.42
LOS	B				D	C	D	F
Approach:								
Delay	10.78				22.11		75.76	
LOS	B				C		F	

Intersection Delay 53.51 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 12-13
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031213 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	32	5	30	16	3	17	30	855	27	184	1266	20
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.67				0.78	0.95	0.95	0.67
Flow Rate	91				585	450	666	973
% Heavy Veh	4				0	5	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	91				585	450	666	973
Left-Turn	47				38	0	0	0
Right-Turn	44				0	0	0	29
Prop. Left-Turns	0.5				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.5				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	91				585	450	666	973
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.52	0.40	0.59	0.86
hd, final value	6.91				6.54	6.59	6.40	6.31
x, final value	0.17				1.06	0.82	1.18	1.70
Move-up time, m	2.0				2.3		2.3	
Service Time	4.9				4.2	4.3	4.1	4.0

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	91				585	450	666	973
Service Time	4.9				4.2	4.3	4.1	4.0
Utilization, x	0.17				1.06	0.82	1.18	1.70
Dep. headway, hd	6.91				6.54	6.59	6.40	6.31
Capacity	341				585	547	666	973
Delay	11.37				81.06	33.06	121.76	340.58
LOS	B				F	D	F	F
Approach:								
Delay	11.37				60.19		251.67	
LOS	B				F		F	
Intersection Delay 172.08			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 13-14
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031314 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	47	5	24	16	3	17	14	743	27	184	925	8
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.67				0.71	0.97	0.97	0.75
Flow Rate	105				541	383	476	627
% Heavy Veh	0				0	5	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	105				541	383	476	627
Left-Turn	70				19	0	0	0
Right-Turn	35				0	0	0	10
Prop. Left-Turns	0.7				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.3				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	105				541	383	476	627
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.09				0.48	0.34	0.42	0.56
hd, final value	6.95				6.41	6.48	6.30	6.20
x, final value	0.20				0.96	0.69	0.83	1.08
Move-up time, m	2.0				2.3		2.3	
Service Time	5.0				4.1	4.2	4.0	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	105				541	383	476	627
Service Time	5.0				4.1	4.2	4.0	3.9
Utilization, x	0.20				0.96	0.69	0.83	1.08
Dep. headway, hd	6.95				6.41	6.48	6.30	6.20
Capacity	355				562	553	568	627
Delay	11.71				54.12	22.29	32.83	84.72
LOS	B				F	C	D	F
Approach:								
Delay	11.71				40.93		62.33	
LOS	B				E		F	
Intersection Delay 50.56			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 13-14
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031314 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	63	5	32	16	3	17	19	999	27	184	1243	11
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.67				0.71	0.97	0.97	0.75
Flow Rate	141				728	515	640	843
% Heavy Veh	0				0	5	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	141				728	515	640	843
Left-Turn	94				26	0	0	0
Right-Turn	47				0	0	0	14
Prop. Left-Turns	0.7				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.3				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	141				728	515	640	843
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13				0.65	0.46	0.57	0.75
hd, final value	6.97				6.70	6.77	6.74	6.64
x, final value	0.27				1.36	0.97	1.20	1.56
Move-up time, m	2.0				2.3		2.3	
Service Time	5.0				4.4	4.5	4.4	4.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	141				728	515	640	843
Service Time	5.0				4.4	4.5	4.4	4.3
Utilization, x	0.27				1.36	0.97	1.20	1.56
Dep. headway, hd	6.97				6.70	6.77	6.74	6.64
Capacity	391				728	532	640	843
Delay	12.56				191.83	57.21	129.20	276.90
LOS	B				F	F	F	F
Approach:								
Delay	12.56				136.05		213.16	
LOS	B				F		F	

Intersection Delay 169.86 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 13-14
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031314 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	48	5	28	16	3	17	14	746	27	184	925	9
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.67				0.71	0.97	0.97	0.75
Flow Rate	112				544	384	476	629
% Heavy Veh	0				0	5	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	112				544	384	476	629
Left-Turn	71				19	0	0	0
Right-Turn	41				0	0	0	12
Prop. Left-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	112				544	384	476	629
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10				0.48	0.34	0.42	0.56
hd, final value	6.93				6.44	6.51	6.34	6.24
x, final value	0.22				0.97	0.69	0.84	1.09
Move-up time, m	2.0				2.3		2.3	
Service Time	4.9				4.1	4.2	4.0	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	112				544	384	476	629
Service Time	4.9				4.1	4.2	4.0	3.9
Utilization, x	0.22				0.97	0.69	0.84	1.09
Dep. headway, hd	6.93				6.44	6.51	6.34	6.24
Capacity	362				559	550	565	629
Delay	11.82				56.49	22.65	33.61	88.23
LOS	B				F	C	D	F
Approach:								
Delay	11.82				42.49		64.70	
LOS	B				E		F	

Intersection Delay 52.33 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 13-14
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031314 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	64	5	36	16	3	17	19	1002	27	184	1243	12
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.67				0.71	0.97	0.97	0.75
Flow Rate	148				731	516	640	845
% Heavy Veh	0				0	5	5	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	148				731	516	640	845
Left-Turn	95				26	0	0	0
Right-Turn	53				0	0	0	16
Prop. Left-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	148				731	516	640	845
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.13				0.65	0.46	0.57	0.75
hd, final value	6.95				6.73	6.79	6.77	6.67
x, final value	0.29				1.37	0.97	1.20	1.57
Move-up time, m	2.0				2.3		2.3	
Service Time	4.9				4.4	4.5	4.5	4.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	148				731	516	640	845
Service Time	4.9				4.4	4.5	4.5	4.4
Utilization, x	0.29				1.37	0.97	1.20	1.57
Dep. headway, hd	6.95				6.73	6.79	6.77	6.67
Capacity	398				731	530	640	845
Delay	12.70				196.19	58.50	131.23	281.29
LOS	B				F	F	F	F
Approach:								
Delay	12.70				139.21		216.62	
LOS	B				F		F	
Intersection Delay 172.62			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 14-15
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031415 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	36	5	24	16	3	17	16	727	27	184	850	13
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.70				0.64	0.92	0.92	0.63
Flow Rate	85				592	395	461	694
% Heavy Veh	0				0	3	7	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	85				592	395	461	694
Left-Turn	51				25	0	0	0
Right-Turn	34				0	0	0	20
Prop. Left-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.1	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	85				592	395	461	694
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.53	0.35	0.41	0.62
hd, final value	6.91				6.31	6.34	6.29	6.15
x, final value	0.16				1.04	0.70	0.81	1.19
Move-up time, m	2.0				2.3		2.3	
Service Time	4.9				4.0	4.0	4.0	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	85				592	395	461	694
Service Time	4.9				4.0	4.0	4.0	3.9
Utilization, x	0.16				1.04	0.70	0.81	1.19
Dep. headway, hd	6.91				6.31	6.34	6.29	6.15
Capacity	335				592	565	571	694
Delay	11.26				72.20	22.22	30.00	121.50
LOS	B				F	C	D	F
Approach:								
Delay	11.26				52.20		84.98	
LOS	B				F		F	

Intersection Delay 67.63 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 14-15
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031415 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	48	5	32	16	3	17	22	977	27	184	1142	17
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.70				0.64	0.92	0.92	0.63
Flow Rate	113				796	531	620	932
% Heavy Veh	0				0	3	7	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	113				796	531	620	932
Left-Turn	68				34	0	0	0
Right-Turn	45				0	0	0	26
Prop. Left-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.1	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	113				796	531	620	932
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10				0.71	0.47	0.55	0.83
hd, final value	6.91				6.61	6.64	6.68	6.54
x, final value	0.22				1.46	0.98	1.15	1.69
Move-up time, m	2.0				2.3		2.3	
Service Time	4.9				4.3	4.3	4.4	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	113				796	531	620	932
Service Time	4.9				4.3	4.3	4.4	4.2
Utilization, x	0.22				1.46	0.98	1.15	1.69
Dep. headway, hd	6.91				6.61	6.64	6.68	6.54
Capacity	363				796	543	620	932
Delay	11.82				235.75	58.83	111.31	336.80
LOS	B				F	F	F	F
Approach:								
Delay	11.82				164.95		246.72	
LOS	B				F		F	
Intersection Delay 201.58			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 14-15
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031415 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	37	5	27	16	3	17	16	729	27	184	850	14
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.70				0.64	0.92	0.92	0.63
Flow Rate	90				593	396	461	696
% Heavy Veh	0				0	3	7	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	90				593	396	461	696
Left-Turn	52				25	0	0	0
Right-Turn	38				0	0	0	22
Prop. Left-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.1	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	90				593	396	461	696
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.53	0.35	0.41	0.62
hd, final value	6.89				6.33	6.36	6.31	6.17
x, final value	0.17				1.04	0.70	0.81	1.19
Move-up time, m	2.0				2.3		2.3	
Service Time	4.9				4.0	4.1	4.0	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	90				593	396	461	696
Service Time	4.9				4.0	4.1	4.0	3.9
Utilization, x	0.17				1.04	0.70	0.81	1.19
Dep. headway, hd	6.89				6.33	6.36	6.31	6.17
Capacity	340				593	563	569	696
Delay	11.32				73.83	22.51	30.38	124.47
LOS	B				F	C	D	F
Approach:								
Delay	11.32				53.28		86.98	
LOS	B				F		F	

Intersection Delay 69.03 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 14-15
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031415 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	49	5	35	16	3	17	22	979	27	184	1142	18
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.70				0.64	0.92	0.92	0.63
Flow Rate	120				798	532	620	934
% Heavy Veh	0				0	3	7	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	120				798	532	620	934
Left-Turn	70				34	0	0	0
Right-Turn	50				0	0	0	28
Prop. Left-Turns	0.6				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.4				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.1	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.1				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	120				798	532	620	934
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11				0.71	0.47	0.55	0.83
hd, final value	6.90				6.63	6.66	6.71	6.57
x, final value	0.23				1.47	0.98	1.16	1.70
Move-up time, m	2.0				2.3		2.3	
Service Time	4.9				4.3	4.4	4.4	4.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	120				798	532	620	934
Service Time	4.9				4.3	4.4	4.4	4.3
Utilization, x	0.23				1.47	0.98	1.16	1.70
Dep. headway, hd	6.90				6.63	6.66	6.71	6.57
Capacity	370				798	541	620	934
Delay	11.95				239.62	60.20	113.25	341.60
LOS	B				F	F	F	F
Approach:								
Delay	11.95				167.85		250.49	
LOS	B				F		F	
Intersection Delay 204.37			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 15-16
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031516 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	8	5	37	16	3	17	16	764	27	184	997	10
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.50				0.79	0.98	0.98	0.63
Flow Rate	90				503	389	508	807
% Heavy Veh	13				0	4	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	90				503	389	508	807
Left-Turn	16				20	0	0	0
Right-Turn	74				0	0	0	15
Prop. Left-Turns	0.2				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	90				503	389	508	807
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.45	0.35	0.45	0.72
hd, final value	6.75				6.38	6.43	6.15	6.07
x, final value	0.17				0.89	0.69	0.87	1.36
Move-up time, m	2.0				2.3		2.3	
Service Time	4.7				4.1	4.1	3.9	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	90				503	389	508	807
Service Time	4.7				4.1	4.1	3.9	3.8
Utilization, x	0.17				0.89	0.69	0.87	1.36
Dep. headway, hd	6.75				6.38	6.43	6.15	6.07
Capacity	340				563	556	583	807
Delay	11.11				40.81	22.45	36.44	191.29
LOS	B				E	C	E	F
Approach:								
Delay	11.11				32.80		131.47	
LOS	B				D		F	
Intersection Delay 88.44			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 15-16
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031516 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	11	5	50	16	3	17	22	1027	27	184	1316	13
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.50				0.79	0.98	0.98	0.63
Flow Rate	122				676	524	671	1064
% Heavy Veh	13				0	4	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	122				676	524	671	1064
Left-Turn	22				27	0	0	0
Right-Turn	100				0	0	0	20
Prop. Left-Turns	0.2				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	122				676	524	671	1064
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11				0.60	0.47	0.60	0.95
hd, final value	6.80				6.63	6.68	6.65	6.57
x, final value	0.23				1.24	0.97	1.24	1.94
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.3	4.4	4.3	4.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	122				676	524	671	1064
Service Time	4.8				4.3	4.4	4.3	4.3
Utilization, x	0.23				1.24	0.97	1.24	1.94
Dep. headway, hd	6.80				6.63	6.68	6.65	6.57
Capacity	372				676	540	671	1064
Delay	11.82				146.49	57.45	144.52	445.90
LOS	B				F	F	F	F
Approach:								
Delay	11.82				107.61		329.34	
LOS	B				F		F	
Intersection Delay 229.63			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 15-16
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031516 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	9	5	39	16	3	17	16	767	27	184	979	11
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.50				0.79	0.98	0.98	0.63
Flow Rate	96				504	391	498	794
% Heavy Veh	13				0	4	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	96				504	391	498	794
Left-Turn	18				20	0	0	0
Right-Turn	78				0	0	0	17
Prop. Left-Turns	0.2				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	96				504	391	498	794
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.09				0.45	0.35	0.44	0.71
hd, final value	6.76				6.39	6.44	6.18	6.10
x, final value	0.18				0.89	0.70	0.86	1.35
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.1	4.1	3.9	3.8

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	96				504	391	498	794
Service Time	4.8				4.1	4.1	3.9	3.8
Utilization, x	0.18				0.89	0.70	0.86	1.35
Dep. headway, hd	6.76				6.39	6.44	6.18	6.10
Capacity	346				562	556	579	794
Delay	11.24				41.33	22.73	34.97	185.05
LOS	B				E	C	D	F
Approach:								
Delay	11.24				33.20		127.20	
LOS	B				D		F	

Intersection Delay 85.48 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 15-16
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031516 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	12	5	52	16	3	17	22	1030	27	184	1316	14
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.50				0.79	0.98	0.98	0.63
Flow Rate	128				678	525	671	1066
% Heavy Veh	13				0	4	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	128				678	525	671	1066
Left-Turn	24				27	0	0	0
Right-Turn	104				0	0	0	22
Prop. Left-Turns	0.2				0.0	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	128				678	525	671	1066
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11				0.60	0.47	0.60	0.95
hd, final value	6.80				6.65	6.70	6.68	6.59
x, final value	0.24				1.25	0.98	1.24	1.95
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.3	4.4	4.4	4.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	128				678	525	671	1066
Service Time	4.8				4.3	4.4	4.4	4.3
Utilization, x	0.24				1.25	0.98	1.24	1.95
Dep. headway, hd	6.80				6.65	6.70	6.68	6.59
Capacity	378				678	538	671	1066
Delay	11.96				149.59	58.68	146.54	450.82
LOS	B				F	F	F	F
Approach:								
Delay	11.96				109.92		333.28	
LOS	B				F		F	

Intersection Delay 232.29 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 16-17
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031617 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	15	5	33	16	3	17	30	813	27	184	1135	8
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.75				0.63	0.93	0.93	0.45
Flow Rate	64				691	437	609	1279
% Heavy Veh	7				0	5	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	64				691	437	609	1279
Left-Turn	20				47	0	0	0
Right-Turn	44				0	0	0	17
Prop. Left-Turns	0.3				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.7				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	64				691	437	609	1279
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06				0.61	0.39	0.54	1.14
hd, final value	6.80				6.44	6.50	6.23	6.17
x, final value	0.12				1.24	0.79	1.05	2.19
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.1	4.2	3.9	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	64				691	437	609	1279
Service Time	4.8				4.1	4.2	3.9	3.9
Utilization, x	0.12				1.24	0.79	1.05	2.19
Dep. headway, hd	6.80				6.44	6.50	6.23	6.17
Capacity	314				691	555	609	1279
Delay	10.73				142.63	29.20	76.92	556.79
LOS	B				F	D	F	F
Approach:								
Delay	10.73				98.69		402.00	
LOS	B				F		F	

Intersection Delay 282.79 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 16-17
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031617 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	20	5	44	16	3	17	40	1093	27	184	1525	11
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.75				0.63	0.93	0.93	0.45
Flow Rate	84				929	588	819	1719
% Heavy Veh	7				0	5	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	84				929	588	819	1719
Left-Turn	26				63	0	0	0
Right-Turn	58				0	0	0	24
Prop. Left-Turns	0.3				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.7				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	84				929	588	819	1719
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.07				0.83	0.52	0.73	1.53
hd, final value	6.80				6.51	6.56	6.53	6.47
x, final value	0.16				1.68	1.07	1.49	3.09
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.2	4.3	4.2	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	84				929	588	819	1719
Service Time	4.8				4.2	4.3	4.2	4.2
Utilization, x	0.16				1.68	1.07	1.49	3.09
Dep. headway, hd	6.80				6.51	6.56	6.53	6.47
Capacity	334				929	588	819	1719
Delay	11.07				330.79	84.05	246.13	958.55
LOS	B				F	F	F	F
Approach:								
Delay	11.07				235.15		728.65	
LOS	B				F		F	

Intersection Delay 533.22 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 16-17
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031617 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	16	5	35	16	3	17	30	816	27	184	1135	9
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.75				0.63	0.93	0.93	0.45
Flow Rate	67				694	438	609	1282
% Heavy Veh	7				0	5	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	67				694	438	609	1282
Left-Turn	21				47	0	0	0
Right-Turn	46				0	0	0	20
Prop. Left-Turns	0.3				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.7				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	67				694	438	609	1282
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06				0.62	0.39	0.54	1.14
hd, final value	6.80				6.45	6.51	6.25	6.19
x, final value	0.13				1.24	0.79	1.06	2.20
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.2	4.2	3.9	3.9

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	67				694	438	609	1282
Service Time	4.8				4.2	4.2	3.9	3.9
Utilization, x	0.13				1.24	0.79	1.06	2.20
Dep. headway, hd	6.80				6.45	6.51	6.25	6.19
Capacity	317				694	554	609	1282
Delay	10.78				145.56	29.51	77.75	561.21
LOS	B				F	D	F	F
Approach:								
Delay	10.78				100.66		405.51	
LOS	B				F		F	
Intersection Delay 285.27			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 16-17
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031617 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	21	5	46	16	3	17	40	1096	27	184	1525	12
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.75				0.63	0.93	0.93	0.45
Flow Rate	89				932	589	819	1721
% Heavy Veh	7				0	5	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	89				932	589	819	1721
Left-Turn	28				63	0	0	0
Right-Turn	61				0	0	0	26
Prop. Left-Turns	0.3				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.7				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.1				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.2				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	89				932	589	819	1721
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.83	0.52	0.73	1.53
hd, final value	6.80				6.53	6.58	6.55	6.48
x, final value	0.17				1.69	1.08	1.49	3.10
Move-up time, m	2.0				2.3		2.3	
Service Time	4.8				4.2	4.3	4.2	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	89				932	589	819	1721
Service Time	4.8				4.2	4.3	4.2	4.2
Utilization, x	0.17				1.69	1.08	1.49	3.10
Dep. headway, hd	6.80				6.53	6.58	6.55	6.48
Capacity	339				932	589	819	1721
Delay	11.17				335.17	85.61	247.88	963.73
LOS	B				F	F	F	F
Approach:								
Delay	11.17				238.53		732.91	
LOS	B				F		F	

Intersection Delay 536.24 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 17-18
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031718 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	7	5	38	16	3	17	30	37	27	184	966	1350
% Thrus Left Lane									50			50

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.32				0.81	0.88	0.88	0.83
Flow Rate	139				59	21	548	2207
% Heavy Veh	0				0	5	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	139				59	21	548	2207
Left-Turn	21				37	0	0	0
Right-Turn	118				0	0	0	1626
Prop. Left-Turns	0.2				0.6	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.7
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.5				0.3	0.1	0.1	-0.5

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	139				59	21	548	2207
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.12				0.05	0.02	0.49	1.96
hd, final value	5.42				6.66	6.43	5.07	4.50
x, final value	0.21				0.11	0.04	0.77	2.76
Move-up time, m	2.0				2.3		2.3	
Service Time	3.4				4.4	4.1	2.8	2.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	139				59	21	548	2207
Service Time	3.4				4.4	4.1	2.8	2.2
Utilization, x	0.21				0.11	0.04	0.77	2.76
Dep. headway, hd	5.42				6.66	6.43	5.07	4.50
Capacity	389				309	271	710	2207
Delay	9.84				10.17	9.38	22.73	805.65
LOS	A				B	A	C	F
Approach:								
Delay	9.84				9.97		649.92	
LOS	A				A		F	

Intersection Delay 602.79 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 17-18
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031718 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	9	5	51	16	3	17	50	1298	27	184	1814	11
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.32				0.81	0.88	0.88	0.83
Flow Rate	187				862	737	1030	1105
% Heavy Veh	0				0	5	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	187				862	737	1030	1105
Left-Turn	28				61	0	0	0
Right-Turn	159				0	0	0	13
Prop. Left-Turns	0.1				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.9				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.5				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	187				862	737	1030	1105
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.17				0.77	0.66	0.92	0.98
hd, final value	6.55				6.84	6.89	6.86	6.80
x, final value	0.34				1.64	1.41	1.96	2.09
Move-up time, m	2.0				2.3		2.3	
Service Time	4.5				4.5	4.6	4.6	4.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	187				862	737	1030	1105
Service Time	4.5				4.5	4.6	4.6	4.5
Utilization, x	0.34				1.64	1.41	1.96	2.09
Dep. headway, hd	6.55				6.84	6.89	6.86	6.80
Capacity	437				862	737	1030	1105
Delay	12.88				313.46	215.85	456.18	511.27
LOS	B				F	F	F	F
Approach:								
Delay	12.88				268.47		484.69	
LOS	B				F		F	

Intersection Delay 374.01 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 17-18
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031718 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	8	5	41	16	3	17	37	972	27	184	1350	10
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.32				0.81	0.88	0.88	0.83
Flow Rate	153				644	552	767	825
% Heavy Veh	0				0	5	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	153				644	552	767	825
Left-Turn	25				45	0	0	0
Right-Turn	128				0	0	0	12
Prop. Left-Turns	0.2				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.5				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	153				644	552	767	825
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.14				0.57	0.49	0.68	0.73
hd, final value	6.56				6.73	6.78	6.75	6.69
x, final value	0.28				1.20	1.04	1.44	1.53
Move-up time, m	2.0				2.3		2.3	
Service Time	4.6				4.4	4.5	4.4	4.4

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	153				644	552	767	825
Service Time	4.6				4.4	4.5	4.4	4.4
Utilization, x	0.28				1.20	1.04	1.44	1.53
Dep. headway, hd	6.56				6.73	6.78	6.75	6.69
Capacity	403				644	552	767	825
Delay	12.07				131.23	75.50	226.47	266.73
LOS	B				F	F	F	F
Approach:								
Delay	12.07				105.51		247.34	
LOS	B				F		F	

Intersection Delay 177.42 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 17-18
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031718 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	10	5	54	16	3	17	50	1304	27	184	1814	13
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.32				0.81	0.88	0.88	0.83
Flow Rate	199				865	740	1030	1107
% Heavy Veh	0				0	5	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	199				865	740	1030	1107
Left-Turn	31				61	0	0	0
Right-Turn	168				0	0	0	15
Prop. Left-Turns	0.2				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.5				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	199				865	740	1030	1107
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.18				0.77	0.66	0.92	0.98
hd, final value	6.55				6.88	6.93	6.90	6.84
x, final value	0.36				1.65	1.43	1.97	2.10
Move-up time, m	2.0				2.3		2.3	
Service Time	4.6				4.6	4.6	4.6	4.5

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	199				865	740	1030	1107
Service Time	4.6				4.6	4.6	4.6	4.5
Utilization, x	0.36				1.65	1.43	1.97	2.10
Dep. headway, hd	6.55				6.88	6.93	6.90	6.84
Capacity	449				865	740	1030	1107
Delay	13.22				320.27	221.91	461.38	518.36
LOS	B				F	F	F	F
Approach:								
Delay	13.22				274.92		490.89	
LOS	B				F		F	
Intersection Delay 378.82			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 18-19
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031819 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	11	5	36	16	3	17	43	1028	27	184	1188	3
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.70				0.77	0.95	0.95	0.50
Flow Rate	66				722	541	625	1194
% Heavy Veh	0				0	4	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	66				722	541	625	1194
Left-Turn	15				55	0	0	0
Right-Turn	51				0	0	0	6
Prop. Left-Turns	0.2				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.4				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	66				722	541	625	1194
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06				0.64	0.48	0.56	1.06
hd, final value	6.61				6.45	6.48	6.45	6.38
x, final value	0.12				1.29	0.97	1.12	2.12
Move-up time, m	2.0				2.3		2.3	
Service Time	4.6				4.1	4.2	4.2	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	66				722	541	625	1194
Service Time	4.6				4.1	4.2	4.2	4.1
Utilization, x	0.12				1.29	0.97	1.12	2.12
Dep. headway, hd	6.61				6.45	6.48	6.45	6.38
Capacity	316				722	556	625	1194
Delay	10.52				165.20	56.85	99.19	522.89
LOS	B				F	F	F	F
Approach:								
Delay	10.52				118.79		377.31	
LOS	B				F		F	

Intersection Delay 265.90 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 18-19
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031819 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	15	5	48	16	3	17	58	1382	27	184	1597	4
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.70				0.77	0.95	0.95	0.50
Flow Rate	89				972	727	840	1606
% Heavy Veh	0				0	4	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	89				972	727	840	1606
Left-Turn	21				75	0	0	0
Right-Turn	68				0	0	0	8
Prop. Left-Turns	0.2				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.4				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	89				972	727	840	1606
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.86	0.65	0.75	1.43
hd, final value	6.62				6.53	6.56	6.56	6.48
x, final value	0.16				1.76	1.32	1.53	2.89
Move-up time, m	2.0				2.3		2.3	
Service Time	4.6				4.2	4.3	4.3	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	89				972	727	840	1606
Service Time	4.6				4.2	4.3	4.3	4.2
Utilization, x	0.16				1.76	1.32	1.53	2.89
Dep. headway, hd	6.62				6.53	6.56	6.56	6.48
Capacity	339				972	727	840	1606
Delay	10.90				366.63	178.14	265.24	870.60
LOS	B				F	F	F	F
Approach:								
Delay	10.90				285.98		662.71	
LOS	B				F		F	

Intersection Delay 497.83 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 18-19
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031819 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	12	5	39	16	3	17	43	1033	27	184	1188	5
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.70				0.77	0.95	0.95	0.50
Flow Rate	72				725	544	625	1198
% Heavy Veh	0				0	4	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	72				725	544	625	1198
Left-Turn	17				55	0	0	0
Right-Turn	55				0	0	0	10
Prop. Left-Turns	0.2				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.4				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	72				725	544	625	1198
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.06				0.64	0.48	0.56	1.06
hd, final value	6.62				6.47	6.50	6.48	6.41
x, final value	0.13				1.30	0.98	1.12	2.13
Move-up time, m	2.0				2.3		2.3	
Service Time	4.6				4.2	4.2	4.2	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	72				725	544	625	1198
Service Time	4.6				4.2	4.2	4.2	4.1
Utilization, x	0.13				1.30	0.98	1.12	2.13
Dep. headway, hd	6.62				6.47	6.50	6.48	6.41
Capacity	322				725	554	625	1198
Delay	10.62				169.12	58.91	101.11	530.15
LOS	B				F	F	F	F
Approach:								
Delay	10.62				121.87		383.06	
LOS	B				F		F	
Intersection Delay 269.83			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 18-19
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031819 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	16	5	51	16	3	17	58	1387	27	184	1597	6
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.70				0.77	0.95	0.95	0.50
Flow Rate	94				975	730	840	1610
% Heavy Veh	0				0	4	4	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	94				975	730	840	1610
Left-Turn	22				75	0	0	0
Right-Turn	72				0	0	0	12
Prop. Left-Turns	0.2				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.8				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.4				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	94				975	730	840	1610
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.87	0.65	0.75	1.43
hd, final value	6.61				6.54	6.57	6.57	6.50
x, final value	0.17				1.77	1.33	1.53	2.91
Move-up time, m	2.0				2.3		2.3	
Service Time	4.6				4.2	4.3	4.3	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	94				975	730	840	1610
Service Time	4.6				4.2	4.3	4.3	4.2
Utilization, x	0.17				1.77	1.33	1.53	2.91
Dep. headway, hd	6.61				6.54	6.57	6.57	6.50
Capacity	344				975	730	840	1610
Delay	10.99				371.04	181.84	266.97	876.84
LOS	B				F	F	F	F
Approach:								
Delay	10.99				290.04		667.74	
LOS	B				F		F	

Intersection Delay 501.65 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 19-20
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031920 SA01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	17	5	41	16	3	17	27	970	27	184	998	7
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.68				0.83	0.90	0.90	0.63
Flow Rate	84				616	538	554	803
% Heavy Veh	0				0	3	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	84				616	538	554	803
Left-Turn	24				32	0	0	0
Right-Turn	60				0	0	0	11
Prop. Left-Turns	0.3				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.7				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.4				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	84				616	538	554	803
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.07				0.55	0.48	0.49	0.71
hd, final value	6.66				6.50	6.52	6.50	6.44
x, final value	0.16				1.11	0.97	1.00	1.44
Move-up time, m	2.0				2.3		2.3	
Service Time	4.7				4.2	4.2	4.2	4.1

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	84				616	538	554	803
Service Time	4.7				4.2	4.2	4.2	4.1
Utilization, x	0.16				1.11	0.97	1.00	1.44
Dep. headway, hd	6.66				6.50	6.52	6.50	6.44
Capacity	334				616	552	555	803
Delay	10.88				96.67	57.34	63.21	224.43
LOS	B				F	F	F	F
Approach:								
Delay	10.88				78.33		158.61	
LOS	B				F		F	
Intersection Delay 118.13			Intersection LOS F					

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 19-20
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031920 SA10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	23	5	55	16	3	17	36	1304	27	184	1341	9
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.68				0.83	0.90	0.90	0.63
Flow Rate	113				828	724	744	1079
% Heavy Veh	0				0	3	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	113				828	724	744	1079
Left-Turn	33				43	0	0	0
Right-Turn	80				0	0	0	14
Prop. Left-Turns	0.3				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.7				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.4				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	113				828	724	744	1079
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10				0.74	0.64	0.66	0.96
hd, final value	6.66				6.60	6.62	6.62	6.56
x, final value	0.21				1.52	1.33	1.37	1.97
Move-up time, m	2.0				2.3		2.3	
Service Time	4.7				4.3	4.3	4.3	4.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	113				828	724	744	1079
Service Time	4.7				4.3	4.3	4.3	4.3
Utilization, x	0.21				1.52	1.33	1.37	1.97
Dep. headway, hd	6.66				6.60	6.62	6.62	6.56
Capacity	363				828	724	744	1079
Delay	11.41				259.95	181.58	196.84	457.09
LOS	B				F	F	F	F
Approach:								
Delay	11.41				223.39		350.88	
LOS	B				F		F	

Intersection Delay 283.15 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 19-20
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2016
Project ID: INT031920 SF01
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	18	5	43	16	3	17	27	974	27	184	998	8
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.68				0.83	0.90	0.90	0.63
Flow Rate	89				618	541	554	804
% Heavy Veh	0				0	3	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	89				618	541	554	804
Left-Turn	26				32	0	0	0
Right-Turn	63				0	0	0	12
Prop. Left-Turns	0.3				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.7				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.4				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	89				618	541	554	804
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08				0.55	0.48	0.49	0.71
hd, final value	6.66				6.52	6.54	6.52	6.46
x, final value	0.16				1.12	0.98	1.00	1.44
Move-up time, m	2.0				2.3		2.3	
Service Time	4.7				4.2	4.2	4.2	4.2

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	89				618	541	554	804
Service Time	4.7				4.2	4.2	4.2	4.2
Utilization, x	0.16				1.12	0.98	1.00	1.44
Dep. headway, hd	6.66				6.52	6.54	6.52	6.46
Capacity	339				618	551	554	804
Delay	10.97				99.04	59.32	64.37	227.69
LOS	B				F	F	F	F
Approach:								
Delay	10.97				80.50		161.06	
LOS	B				F		F	

Intersection Delay 120.11 Intersection LOS F

HCS+: Unsignalized Intersections Release 5.3

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: ANTONIO FLAVIO
Agency/Co.: MOURA DUBEUX
Date Performed: 23/04/2016
Analysis Time Period: 19-20
Intersection: 03. RUA PINTO DE CAMPOS
Jurisdiction: PCR
Units: U. S. Metric
Analysis Year: 2026
Project ID: INT031920 SF10
East/West Street: RUA PINTO DE CAMPOS
North/South Street: AV. 17 DE AGOSTO

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	24	5	57	16	3	17	36	1308	27	184	1341	10
% Thrus Left Lane								50			50	

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LR				LT	T	T	TR
PHF	0.68				0.83	0.90	0.90	0.63
Flow Rate	118				830	726	744	1080
% Heavy Veh	0				0	3	3	0
No. Lanes	1				2		2	
Opposing-Lanes	0				2		2	
Conflicting-lanes	2				1		1	
Geometry group	1				5		5	
Duration, T 0.25 hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	118				830	726	744	1080
Left-Turn	35				43	0	0	0
Right-Turn	83				0	0	0	15
Prop. Left-Turns	0.3				0.1	0.0	0.0	0.0
Prop. Right-Turns	0.7				0.0	0.0	0.0	0.0
Prop. Heavy Vehicle	0.0				0.0	0.0	0.0	0.0
Geometry Group	1				5		5	
Adjustments Exhibit 17-33:								
hLT-adj	0.2				0.5		0.5	
hRT-adj	-0.6				-0.7		-0.7	
hHV-adj	1.7				1.7		1.7	
hadj, computed	-0.4				0.0	0.1	0.1	-0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	118				830	726	744	1080
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.10				0.74	0.65	0.66	0.96
hd, final value	6.67				6.61	6.64	6.64	6.58
x, final value	0.22				1.52	1.34	1.37	1.97
Move-up time, m	2.0				2.3		2.3	
Service Time	4.7				4.3	4.3	4.3	4.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	118				830	726	744	1080
Service Time	4.7				4.3	4.3	4.3	4.3
Utilization, x	0.22				1.52	1.34	1.37	1.97
Dep. headway, hd	6.67				6.61	6.64	6.64	6.58
Capacity	368				830	726	744	1080
Delay	11.52				263.27	184.58	198.38	460.12
LOS	B				F	F	F	F
Approach:								
Delay	11.52				226.55		353.35	
LOS	B				F		F	

Intersection Delay 285.42 Intersection LOS F