

Agenda

Greenville City Council

January 17, 2013 7:00 PM City Council Chambers 200 West Fifth Street

Assistive listening devices are available upon request for meetings held in the Council Chambers. If an interpreter is needed for deaf or hearing impaired citizens, please call 252-329-4422 (voice) or 252-329-4060 (TDD) no later than two business days prior to the meeting.

- I. Call Meeting To Order
- **II.** Invocation Mayor Thomas
- III. Pledge of Allegiance
- IV. Roll Call
- V. Approval of Agenda
- VI. Appointments
 - 1. Appointments to Boards and Commissions

VII. Old Business

- 2. Resolutions Establishing State Legislative Initiatives
- 3. Presentation on the proposed City of Greenville Lighting Standards

VIII. New Business

Public Hearings

4. Amendment of the 2011-2012 HOME program funding plan

Public Comment Period

• The Public Comment Period is a period reserved for comments by the public. Items that were or are scheduled to be the subject of public hearings conducted at the same meeting or another meeting during the same week shall not be discussed. A total of 30 minutes is allocated with each individual being allowed no more than 3 minutes. Individuals who registered with the City Clerk to speak will speak in the order registered until the allocated 30 minutes expires. If time remains after all persons who registered have spoken, individuals who did not register will have an opportunity to speak until the allocated 30 minutes expires.

Other Items of Business

- 5. Discussion on Contract for Services with the Greenville-Pitt County Chamber of Commerce
- 6. Budget ordinance amendment #5 to the 2012-2013 City of Greenville budget (Ordinance #12-027) and amendment to the Special Revenue Grant Fund (Ordinance #11-003)
- 7. Proposed completion schedule for 2013-2018 Consolidated Plan and 2013-2014 Annual Action Plan (CDBG and HOME funds)
- 8. Report on 1st Street Parking Improvement Project
- 9. Report on the development of a rental registry program
- IX. Comments from Mayor and City Council
- X. City Manager's Report
- XI. Adjournment



City of Greenville, North Carolina

Meeting Date: 1/17/2013 Time: 7:00 PM

<u>Title of Item:</u> Appointments to Boards and Commissions

Explanation: City Council appointments need to be made to the Community Appearance

Commission, Firefighters Relief Fund Committee, Greenville Bicycle and Pedestrian Commission, Historic Preservation Commission, Human Relations Council, Pitt-Greenville Convention & Visitors Authority, Public Transportation

and Parking Commission, and the Youth Council.

Fiscal Note: No direct fiscal impact.

Recommendation: Make appointments to the Community Appearance Commission, Firefighters

Relief Fund Committee, Greenville Bicycle and Pedestrian Commission, Historic Preservation Commission, Human Relations Council, Pitt-Greenville Convention & Visitors Authority, Public Transportation and Parking Commission, and the

Youth Council.

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Muni Report Appointments to Boards and Commissions 914698

Appointments to Boards and Commissions

January 13, 2013

Community Appearance Commission

Council Liaison: Calvin Mercer

Name	District #	Current Term	Reappointment Status	Expiration Date
Carol Phillips	4	First term	Does not meet attendance	April 2014
			requirement	

Firefighters' Relief Fund Committee

Council Liaison: Not Applicable

District #	Current Term	Reappointment Status	Expiration Date
4	Appointed by City Council	Eligible	January 2013
5	Appointed by Firefighters	Eligible	January 2013
	4	District # Term 4 Appointed by City Council	District # Term Status 4 Appointed by City Council Eligible

Greenville Bicycle and Pedestrian Commission

Council Liaison: Council Member Calvin Mercer

Name	District #	Current Term	Reappointment Status	Expiration Date
Chip Davis	4	Filling unexpired term	Eligible	January 2013
John Kenney	3	Initial term	Eligible	January 2013
Henry Robbins	1	Unexpired	Eligible	January 2013
Gunnar Swanson	3	Initial term	Eligible	January 2013

Historic Preservation Commission

Council Liaison: Council Member Marion Blackburn

0 0 00000000000000000000000000000000000				
Name	District #	Current Term	Reappointment Status	Expiration Date
Roger Kammerer	3	First term	Ineligible	January 2013
Ann Schwarzmann	4	First term	Does not wish	January 2013

to be reappointed

Ryan Webb 5 First term Eligible January 2013

Human Relations Council

Council Liaison: Mayor Pro Tem Rose Glover

Student Representatives

Name	District #	Current Term	Reappointment Status	Expiration Date
Available (ECU)		Unexpired Term	Eligible	October 2012
Available (PCC)		Unexpired Term	Eligible	October 2012
Abdel Abdel-Rahma	n 5	Second Term	Ineligible S	eptember 2012

Pitt Greenville Convention & Visitors Authority

Council Liaison: Mayor Pro-Tem Rose Glover

Name	District #	Current Term	Reappointment Status	Expiration Date
Joseph Frigden (City (2))		Second term	Resigned	July 2012
Linda Snell		Unexpired Term	Ineligible	July 2014

- 1: Owners/operators of hotels/motels
- 2: Members of tourist or convention-related businesses
- 3: Residents not involved in tourist or convention-related business

Public Transportation & Parking Commission

Council Liaison: Council Member Calvin Mercer

Name	District #	Current Term	Reappointment Status	Expiration Date
Eric Foushee	5	First Term	Resigned	January 2015

Youth Council

Council Liaison: Council Member Marion Blackburn

Youth Council continued

Name	District #	Current Term	Reappointmen Status	t Expiration Date
13 Available Slots		Filling unexpired term	Eligible	September 2013

Applicants for **Community Appearance Commission**

Lucy Fox **Application Date:** 3/28/2012

Home Phone:

1045 E. Rock Spring Rd. Greenville, NC 27858

(919) 450-7477 **Business Phone:** (919) 450-7477

District #: 4 Email: lucyfoxlcsw@gmail.com

Applicants for Firefighters Relief Fund Committee

None.

Applicants for Greenville Bicycle and Pedestrian Commission

Titus C. Yancey Application Date: 7/13/2012

116-A Concord Drive Greenville, NC 27834

Home Phone: (252) 756-3085 **Business Phone:** (252) 327-6369

Applicants for Historic Preservation Commission

Scott H. Duke Application Date: 2/20/2012

2223-C Locksley Drive

Greenville, NC 27858 Home Phone:

Business Phone: (252) 328-2950 **District #:** 4 **Email:** scotthduke@gmail.com

Terry King Application Date: 8/25/2012

1310 Thomas Langston Rd. #7
Winterville, NC 28590 **Home Phone:** (252) 412-5228

Business Phone:

District #: 2 Email: terryeu2@aol.com

Dustin Mills **Application Date:** 4/9/2012

504 Daventry Drive
Greenville, NC 27858 **Home Phone:** (919) 480-0791 **Business Phone:** (252) 558-0207

District #: 5 **Email:** dmills@pirhl.com

Tyrone O. Walston
2706 Webb Street

Application Date: 6/12/2012

Greenville, NC 27834

Home Phone: (252) 412-7351

Business Phone: (252) 355-8736

District #: 2

Email: walston tyrone@yahoo.com

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Human Relations Council

Wanda Carr Application Date: 10/13/2010

2304 British Court

Greenville, NC 27858

2609B Boone Court

Greenville, NC 27834 **Home Phone:** (252) 321-1409

Business Phone:

District #: 1 Email: carrwdc@hotmail.com

Isaac Chemmanam

Application Date: 1/18/2012
402 Lochview Drive

Greenville, NC 27858 **Home Phone:** (252) 561-8759 **Business Phone:** (252) 412-2045

District #: 4 Email: isaac.chemmanam@gmail.com

Scott H. Duke **Application Date:** 2/20/2012

Home Phone:

2223-C Locksley Drive

Business Phone: (252) 328-2950 **District #:** 4 **Email:** scotthduke@gmail.com

Evan Lewis Application Date: 7/17/2007

3402 Dunhaven Drive
Greenville, NC 27834 **Home Phone:** (252) 353-6997

Business Phone: (252) 758-0113 **District #:** 5 **Email:** evanl@legalaidnc.org

Aaron Lucier Application Date: 2/23/2011

1516 Thayer Drive
Winterville, NC 28590

Home Phone: (252) 321-3910

Business Phone: (252) 328-2758

District #: 5 Email: luciera@ecu.edu

Angela Marshall Application Date: 4/29/2011

Greenville, NC 27834 **Home Phone:** (252) 258-4104 **Business Phone:** (252) 328-4173

District #: 1 **Email:** marshalla@ecu.edu

Brittney Partridge **Application Date:** 7/15/2010 925 Spring Forest Road, Apt. 9

Greenville, NC 27834 **Home Phone:** (252) 489-8390

Business Phone:

District #: 1 Email: partridgeb06@students.ecu.edu

Titus C. Yancey

Application Date: 7/13/2012
116-A Concord Drive

Greenville, NC 27834 **Home Phone:** (252) 756-3085 **Business Phone:** (252) 327-6369

District #: 2 Email: titusyancey@gmail.com

Applicants for Pitt-Greenville Convention and Visitors Authority (City)

Brian Brown Application Date: 2/23/2011

2237 Penncross Drive
Greenville, NC 27834

Home Phone: (252) 414-3943

Business Phone: (252) 353-7379

District #: 5 Email: bbrown@myrepexpress.com

Wanda Carr
Application Date: 10/13/2010
2304 British Court

Greenville, NC 27834 **Home Phone:** (252) 321-1409

Business Phone:District #: 1
Email: carrwdc@

Email: carrwdc@hotmail.com

Brian Cooper Application Date: 3/5/2011 1149 Mulberry Lane, #34-G

 Greenville, NC 27858
 Home Phone:
 (252) 439-0651

 Business Phone:
 (252) 439-0651

 District #:
 5
 Email: brianevans
 99@yahoo.com

Ann Eleanor Application Date: 2/13/2011

102 Lindenwood Drive Greenville, NC 27834 **Home Phone:** (252) 227-4240

Business Phone:

District #: 5 **Email:** aeleanor@suddenlink.net

Terry King **Application Date:** 8/25/2012 1310 Thomas Langston Rd. #7

Winterville, NC 28590 **Home Phone:** (252) 412-5228

Business Phone:

District #: 2 Email: terryeu2@aol.com

JJ McLamb
Application Date: 2/27/2012
102 Christina Drive

Greenville, NC 27858

Home Phone: (252) 814-6050

Business Phone: (252) 737-4669

District #: 4

Email: jjmclamb@suddenlink.net

Bridget Moore Application Date: 7/13/2011 4128A Bridge Court

Winterville, NC 28590

Home Phone: (252) 355-7377

Business Phone: (252) 756-1002

District #: 5

Email: bmoore2004@netzero.com

Jose Morales **Application Date:** 12/13/2012

500 Paladin Drive
Greenville, NC 27834

Home Phone:

Business Phone: (252) 758-7282

District #: Email:

Applicants for Public Transportation & Parking Commission

None.

Applicants for Youth Council

None.



City of Greenville, North Carolina

Meeting Date: 1/17/2013 Time: 7:00 PM

<u>Title of Item:</u> Resolutions Establishing State Legislative Initiatives

Explanation: Abstract: At its Monday, January 13, 2013, meeting, City Council is scheduled

to identify legislative initiatives to pursue with the local legislative delegation during the 2013 Session of the North Carolina General Assembly. Based upon this identification, resolutions were to be prepared and scheduled to be acted

upon by City Council at the Thursday, January 17, 2013, meeting.

Explanation: Based upon the direction of City Council at its January 14, 2013, meeting, resolutions which establish the City's legislative initiatives for the 2013

Session of the North Carolina General Assembly will be prepared for City

Council's consideration.

Fiscal Note: The development of the legislative initiatives will not have a fiscal impact.

Recommendation: Approval of the resolutions which establish the City's legislative initiatives.

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City of Greenville, North Carolina

Meeting Date: 1/17/2013 Time: 7:00 PM

<u>Title of Item:</u> Presentation on the proposed City of Greenville Lighting Standards

Explanation:

The Public Works Department has been working on proposing a City of Greenville Lighting Standard. An interim lighting standard was adopted from Greenville Utilities Commission on April 15, 2011 which directly reflects the lighting standard currently used throughout the City.

The Public Works Department addressed City Council on December 8, 2011, with an overview of the City of Greenville Draft Lighting Standard and to receive recommendation to move forward by developing two stakeholders groups to review the draft standard. One stakeholders group was to review the draft street lighting standards and the other was to review the draft parking lot lighting standards.

Meetings were held with the stakeholders groups over the past several months in order to inform, openly discuss and make decisions on what the proposed lighting standard should envelope. Some of the topics that were discussed involved different types of light bulbs, varying fixtures, energy efficient lighting, glare control, and nighttime visibility.

The street lighting stakeholders group decided that public safety should be the primary focus for lighting requirements and suggested to add a requirement for certain light types to the street lighting policy because of better color rendering properties. Certain bulbs produce a white light compared to the orange luminance of the standard high pressure sodium (HPS) bulbs that are currently used for street lighting.

The parking lot stakeholders group concluded that the City's proposed draft standards should be modified to be more flexible, with average illumination levels which would give an illumination range that parking lot owners would have to abide by, rather than basing it on parking lot usage. Also included were conditions to maintain a maximum lighting level at the owner's property boundaries to not cause a nuisance on adjacent property.

Upon City Council's approval of the draft City of Greenville Lighting Standards, the Public Works Department intends to include the standards in the City's Manual of Standard Design and Details (MSDD).

As a second step, the Public Works Department is working on additions/changes to the existing City ordinance. These additions/changes will be also be reviewed by stakeholders groups and carried through the Community Development Department process for adoption prior to being brought before Council for adoption as an ordinance change into the City Code.

Fiscal Note:

There are no costs associated with developing or adopting the lighting standard. There would be additional costs incurred on the City's lighting budget due to increasing the lighting levels on the City's streets and any other modifications to the lighting policy that are adopted.

Recommendation:

Approve the City of Greenville Lighting Standards and provide that they be included in the City's Manual of Standard Design and Details (MSDD).

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Street Lighting Standards

Lighting Standards for the City of Greenville



STREET LIGHTING

<u>Purpose:</u> To provide adequate lighting for all pedestrians, bicyclists and motorized vehicles in the city.

<u>Definitions:</u> See Appendix

The standards and specifications found in this chapter are for the materials and construction of street lighting within the City of Greenville. Any deviation from this standard requires approval from the City Engineer and/or Greenville Utilities Commission.

SECTION 1 DESIGN AND CONSTRUCTION

All work performed and all materials used in connection with the installation of any public roadway lighting or appurtenances shall be in accordance with the requirements of the appropriate standards of the National Electric Manufacturers Association; Underwriters Laboratory approvals, and the American Association of the State Highway and Transportation Officials criteria, and as modified by the following:

SECTION 2 DESIGN

All lighting shall be designed in accordance with the latest requirements of the Illuminating Engineering Society of North America: "American National Standards Practice for Roadway Lighting" and the following criteria:

Street Illumination Requirements:

The following table provides a minimum design standard for illumination and uniformity ratio for all public and private streets.

		Average Illuminance (foot-	Uniformity Ratio
*Road Classification	**Area Classification	candles)	(Average:Minimum)
Minor Thoroughfare or greater	Commercial/Industrial	1.2	3:1
	Residential	0.7	4:1
Collector	Commercial/Industrial	0.9	3:1
	Residential	0.5	4:1
Minor road or lesser	Commercial/Industrial	0.6	3:1
	Residential	0.3	6:1

^{*} Refer to the *Greenville Manual of Standards and Design Details: Street Standards* for road classification definitions.

** Commercial/Industrial – The area of a municipality that has heavy vehicular and pedestrian traffic and heavy demand for parking during peak traffic periods or peak business hours. This includes densely developed apartment areas, hospitals, public libraries, and neighborhood recreational centers.

Residential – A residential development, or a mixture of residential and commercial establishments, characterized by few pedestrians and a low parking demand or turnover at night. This includes single family homes, townhouses, small apartments, regional parks, cemeteries, and vacant lands.

SECTION 3 POLES

The lighting pole shall be designed in accordance with the "Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals", by the American Association of State Highway and Transportation Officials (AASHTO), latest edition. They shall meet wind load standards for NCDOT Wind Zone-2 (130 MPH).

- 1. All residential lighting shall be mounted on poles that are provided by the Greenville Utilities Commission.
- 2. All thoroughfare lighting shall be mounted on concrete or aluminum poles.
- 3. All poles shall be identical along an entire continuous street or throughout a subdivision with public roadways.

Please reference the Greenville Utilities Commission for available pole types that are in stock. Approval from the City Engineer and Greenville Utilities Commission is necessary for use of poles that are not stocked by the Greenville Utilities Commission.

SECTION 4 FOUNDATION

Aluminum or Steel Pole Foundation Location Requirements:

Pole locations in general should be kept as far away from the roadways as possible and shall be located behind existing barrier or guard rails where possible, or shall have foundations built into barrier or retaining wall where feasible.

Poles shall be located behind sidewalk, where applicable, unless otherwise approved by the City Engineer and/or Greenville Utilities Commission.

Minimum pole setback requirements from back of curb or edge of traveled pavement to the face of the pole shall be as follows:

Typical areas where barrier curb is used is in dense urban areas or on bridges

Pole Type	Behind Barrier	Without Barrier
	Curb	Curb
Frangible	2 Ft.	12 Ft.
Non-Frangible	6 Ft.	17 Ft.

Decorative Ornamental Pole Direct Buried Location Requirements:

Direct bury poles shall be located two (2) feet behind the adjacent curb.

SECTION 5 LUMINAIRES

All luminaires shall have Type II distribution optics unless otherwise approved, conforming to the patterns specified in 2.3.2.1 of the American Standard Practice for Roadway Lighting. Such luminaires shall have medium distribution as specified in 2.2.2 and semi-cutoff as specified in 2.4.2 of the American Standard Practice for Roadway Lighting.

1. Standard light fixtures shall meet the following requirements:

- a. All fixtures on residential streets shall be 8,500 to 14,000 lumen lamps (or the equivalent lumen output of 100 to 150 watt high pressure sodium bulb).
- b. All fixtures along thoroughfares shall be 23,000 to 45,000 lumen lamps (or the equivalent lumen output of 250 to 400 watt high pressure sodium bulb). The 14,000 to 23,000 lumen (or the equivalent lumen output of 150 to 250 watt high pressure sodium bulb) fixtures shall be placed along thoroughfares in residential areas when spillover from the higher lumen fixtures would be excessive.
- c. All fixtures on public and private streets shall be semi-cutoff with LED luminaires unless otherwise approved by the City Engineer and/or Greenville Utilities Commission.
- d. Full-cut-off fixtures may be required by the City Engineer in areas such as public parks where light pollution may be a concern.
- e. Please reference Greenville Utilities Commission for bulb types that are in stock.

Parking Lot Lighting Requirements – Private and Public Lots

- 1. Parking lots shall be illuminated to a minimum of 0.2 foot-candles and a maximum of 10.0 foot-candles at all points throughout parking lot.
- 2. All private and public parking lot lighting shall be mounted on any pole that does not exceed forty (40) feet in height
- 3. Any lighting used to illuminate off-street parking areas shall be directed away from adjacent properties and streets in such a way as not to create a nuisance. In no case shall such lighting exceed 0.5 foot-candles at any property line which is shared by a residentially zoned property, a property which has residential uses on the first floor, or a residential street. In no case shall such lighting exceed 2.5 foot-candles at any property line. The use of varying cutoff lighting fixtures and/or lighting shields may be used to meet this requirement. Non cutoff fixtures may not be used at any time.
- 4. All fixtures used for parking lot lighting shall be 8,500 to 45,000 lumen lamps (or the equivalent lumen output of 100 to 400 watt high pressure sodium bulb).
- 5. All parking lot lighting shall exceed a color rendering index (CRI) of 50.

SECTION 6 EXTERIOR LIGHTING

1. Exterior:

Light fixtures shall use full-cutoff lenses or hoods to prevent glare or spillover onto adjacent lands and streets.

2. Canopies:

No light source in a canopy structure shall extend downward farther than the lowest edge of the canopy ceiling.

3. Wall Pack Lighting:

Wall packs on buildings may be used at entrances to a building to light unsafe areas. They are not intended to bring attention to the building or provide general building or site lighting. All wall pack lighting shall be fully shielded and be directed downward. They shall also be low-wattage luminaires (100 watts or less) and shall not be visible beyond the property boundaries of the building.



Appendix: Definitions

- Candela (cd) The unit of luminous intensity. Formerly the term "candle" was used.
- Color Rendering Index A measure of a light source's ability to show object colors "realistically" or "naturally" compared to a familiar reference source, either incandescent light or daylight.
- Foot-candle (fc) The illumination on a surface one square foot in area on which there is uniformly distributed a light flux of one lumen. One footcandle equals 10.76 lux.
- *Illuminance* The density of the luminous flux incident on a surface. It is the quotient of luminous flux by area of the surface when the latter is uniformly illuminated.
- *Lamp* A generic term for a man-made source of light which is produced either by incandescence or luminescence.
- Lumen (lm) A unit of measure of the quantity of light. One lumen is the amount of light which falls on an area of one square foot every point of which is one foot from the source of one candela (candle). A light source of one candela emits a total of 12.57 lumens.
- Luminaire A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and to connect the lamps to the power supply.
- Luminance (L) The luminous intensity of a surface in a given direction per unit of projected area of the surface as viewed from that direction (measured in foot-lamberts).
- Luminous Flux the measure of the power of light as perceived by the human eye
- Lux (lx) The International System (SI) unit of illumination. It is defined as the amount of light on a surface of one square metre all points of which are one metre from a uniform source of one candela. One lux equals .0929 foot-candle.
- *Spacing* The distance between successive lighting units measured along the centerline of the roadway.
- Uniformity Ratio The ratio of the average footcandles (lux) of illumination on the pavement area to the footcandles (lux) at the point of minimum illuminance on the pavement. A uniformity ratio of 3:1 means the average footcandles (lux) value on the pavement is three times the footcandles (lux) value at the point of least illuminance on the pavement. A perfect uniformity ratio is 1:1.



City of Greenville, North Carolina

Meeting Date: 1/17/2013 Time: 7:00 PM

Title of Item: Amendment of the 2011-2012 HOME program funding plan

Explanation:

Abstract: This request is to amend the 2011-2012 HOME program funding plan. The amendment would re-allocate \$226,000 for multi-family development projects to substandard housing rehabilitation.

Explanation: The 2011-2012 Annual Plan for housing activities funded with CDBG and HOME program funds was approved by City Council on April 14, 2011. Following approval of the Annual Plan, the North Carolina Housing Finance Agency as part of the 2011 Housing Tax Credit program application rules placed a temporary moratorium for application submission by jurisdictions in several North Carolina counties that had received past tax credit awards. This moratorium was put in place to allow application consideration from counties in other areas of the state that had not recently received tax credits for the development of affordable rental housing. Pitt County was one of the counties impacted because 4 multi-family projects had been awarded in Greenville in a 24-month period.

The annual plan for the City of Greenville included HOME funding of \$226,000 for affordable multi-family housing development. The funds were to be used as a local match to partner with a multi-family housing developer. This has been done successfully and in compliance with program guidelines in developments such as Crystal Springs, Nathaniel Village, and Winslow Point (now under development). The local commitment provides additional points in the application ranking by the NC Housing Finance Agency.

Because Pitt County was excluded from participating in the 2012 affordable tax credit application process, the \$226,000 budgeted must be allocated to another eligible activity under the HOME program. Staff recommends that the funds be re-allocated to the Housing Rehabilitation activity to provide needed resources in this activity. The new HOME budget for Housing Rehabilitation in the HOME program will be \$336,000. This will also allow the program to meet timeliness guidelines established under the program.

Fiscal Note: Re-allocation of existing resources totaling \$226,000 in federal funds from multi-

family affordable housing development to substandard housing.

Recommendation: Following the public hearing, approve the program amendment and re-allocation

of project funding.

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Excerpts of the 2011-12 Annual Plan

Proposed Uses of Federal & Local Funds in FY 2011

revised 8/11/2011

Program / Activity	CDBG Funds	Funds	Other Federal	Housing Bonds	Local/Privat e	Total	Proposed Units
AFFORDABLE HOUSING		H	OUSING				
Multifamily Rental Housing	ФО.	0000					
Housing Rehabilitation	\$0	\$226,000	\$0	\$0	\$1,000,000		3
Rental Rehabilitation	\$230,621	\$100,000	\$500,000		\$0		7
Tenant Based Rental Assistance	\$50,000	\$0	\$0	\$0	\$50,000		2
Teriant Based Nemal Assistance		\$30,000					15
Sub-Total	\$280,621	\$356,000	\$500,000	***	A		
ADMINISTRATION	\$200,021	\$350,000	\$500,000	\$0	\$1,050,000	\$2,186,621	27
City of Greenville	\$148,700	\$50,000	00	00	40.40.000		
Sub-Total	\$148,700		\$0	\$0	\$340,000		9
CHDO	\$140,700	\$50,000	\$0	\$0	\$340,000	\$538,700	9
01100	60	\$0	\$0	\$0	\$0		2
New Construction	\$0 \$0	Ø400 040	\$0	\$0	\$0		2
14CW Construction	\$0	\$100,340		\$150,000			2
Sub-Total	\$0	£400.040					
PUBLIC SERVICE	40	\$100,340	\$0	\$0	\$0	\$100,340	2
Housing Counseling							
Job Training		\$0 \$0	\$0	\$0	\$0		
Counseling & Outreach		\$0 \$0	\$0	\$0	\$0		8
Domestic Violence Prevention		\$0	\$0	\$0	\$0		
Youth Development		\$0	\$0 \$0	\$0	\$0		
Contingency	\$94,450	\$0	\$0 \$0	\$0	\$0		
Sub-Total	\$94,450	\$0	\$0	\$0	\$0		25
REVITALIZATION	ψ04,430	\$0	\$0	\$0	\$0	\$94,450	25
Acquisition	\$0	\$0		00			
Clearance/Demolition	\$0	\$0	\$0 \$0	\$0	\$0		
Relocation	\$0	\$0	\$0		\$0		
	\$0	\$0	\$0	60	\$0		
Sub-Total	\$0	\$0	\$0	\$0 \$0	\$0	1	
Total	\$523,771	VIEW CONTRACTOR OF THE PARTY OF	\$500,000		\$0	\$0	0
ECONOMIC DEVELOPMENT		Ψ300,340	\$300,000	ΨU	\$1,390,000	\$2,920,111	63
Small Business Incubator	\$170,000	\$0	\$0	\$0	<u> </u>		
ED Services	\$50,000	\$0	\$0	\$0	\$0 \$0		4
conomic Development Total	\$220,000	\$0	\$0	\$0	\$0	£220.000	1
PROGRAM INCOME				40	40	\$220,000	5
Small Business Incubator	\$24,000	\$0	\$0	\$0	\$0		
enant Based Rental Assistance	\$0	\$20,000	\$0	\$0	\$0		1
Administration	\$6,000	\$10,000	70		Ψυ		1
Program Income Total	\$30,000	\$30,000	\$0	\$0	\$0	\$60,000	2
PROGRAM DELIVERY						\$00,000	2
Program Delivery Total	\$0	¢0	00				
James of y Total	40	\$0	\$0 TOTALS	\$0	\$0	\$0	0

9. Economic Development

Activity 2011-6

Regulatory Citations:

24 CFR 570.203

Description: These funds will be used to assist in the development of a small business incubator center in the West Greenville 45-Block Area to promote economic development and entrepreneurship. In addition, this program provides funds to assist private nonprofit agencies with programs providing job training; employment and job placement services; or training for potential entrepreneurs.

Funding Amount:

\$220,000

CDBG

Performance Measurement

Objective:

Create Economic Opportunities

Outcome:

Availability/Accessibility

Output Indicators:

Number of jobs created 10 Goal:

10

10. Multifamily Rental Housing

Activity 2011-7

Regulatory Citations:

24 CFR Part 92.205-(a) (1)

Description: These funds will be used to support an affordable rental housing low income housing tax credit project application to North Carolina Housing Finance Agency for funding. The award of HOME funds will be a competitive process of nonprofits and private housing developers.

Funding Amount:

\$226,000 HOME

\$1,000,000

Private Investment

Performance Measurement

Objective:

Providing Decent Housing

Outcome:

Affordability

Output Indicators:

Number of HOME assisted units

Goal: 3

11. Tenant Based Rental Assistance

Activity 2011-8

Regulatory Citations:

24 CFR Part 92.209

Description: These funds will be used to assist eligible individuals and

families with security deposits and rental payments.

Funding Amount:

\$30,000

HOME

\$20,000

Program Income



City of Greenville, North Carolina

Meeting Date: 1/17/2013 Time: 7:00 PM

Title of Item:

Discussion on Contract for Services with the Greenville-Pitt County Chamber of Commerce

Explanation:

Abstract: City Council Member Glover has requested that the City's contract for services with the Greenville-Pitt County Chamber of Commerce be added as a discussion item for City Council. The City's current contract for services with the Chamber is for \$10,000. This contract runs July 1, 2012 – June 30, 2013, and has been paid in full via two payments of \$5,000.

Explanation

The City currently has a contract for services with the Chamber for \$10,000. This contract runs July 1, 2012 – June 30, 2013, and has been paid in full via two payments of \$5,000. Under the terms of the contract for services, it is stated that the Chamber will use its best efforts to publicize the economic, educational, social, and cultural benefits of Greenville; assist in recruiting business and industry to Greenville; and provide information on the City. Further, the Chamber will:

- a. Help publicize and promote the City's economic development initiatives and programs;
- b. Coordinate the annual joint appreciation dinner for law enforcement and Greenville Fire-Rescue professionals;
- c. Coordinate the annual Community Unity Breakfast; and
- d. Help support and promote the Minority Business Council.

The Chamber is required at the end of the contract period to provide City Council with a report outlining the significant achievements of the Chamber with regard to the work performed under the contract.

In addition to this contract for services, the City is a member of the Chamber and, as such, membership dues are paid annually. The City's Chamber membership is currently up for renewal as it runs January 1 – December 31. The City has received an invoice for calendar year 2013 dues in the amount

of \$4,086.

Fiscal Note:

Funds were included in the current year's budget for the contract for services and the Chamber membership. The City has paid the Chamber the full \$10,000 obligated under the current Contract for Services, which is effective until June 30, 2013.

Recommendation:

Provide direction to staff on any further action desired.

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□ Contract

NORTH CAROLINA PITT COUNTY

CONTRACT FOR SERVICES

This CONTRACT is made the 1st day of July, 2012 between the City of Greenville, a North Carolina municipal corporation (the CITY), and the Greenville-Pitt County Chamber of Commerce (the CHAMBER);

WITNESSETH

1. Consideration.

The consideration of this CONTRACT are the services to be performed by the CHAMBER for the CITY, and the sum of \$10,000 paid by the CITY to the CHAMBER.

2. Work to be Performed.

The CHAMBER will use its best efforts to publicize the economic, educational, social, and cultural benefits of Greenville; assist in recruiting business and industry to Greenville; and provide information on the City.

Further, the CHAMBER will:

- a. Help publicize and promote the CITY's economic development initiatives and programs;
- b. Coordinate the annual joint appreciation dinner for law enforcement and Greenville Fire-Rescue professionals;
- c. Coordinate the annual Community Unity Breakfast; and
- d. Help support and promote the Minority Business Council.

Both parties expressly acknowledge the mutual benefit of acting in a cooperative manner in pursuit of each of their missions. In the spirit of total quality, the CHAMBER seeks continuous improvement in those key areas of community development addressed in its Program of Work.

3. Schedule of Payments.

Payment of \$10,000 will be made by the CITY to the CHAMBER on a semi-annual basis. Each payment shall be \$5,000, with the first payment to be made within 30 days of receipt of the

annual report for the 2011-2012 contract period, and the second and final payment to be made on or about January 1, 2013.

4. Reports.

At the end of the contract period, the CHAMBER shall report to the City Council the significant achievements of the CHAMBER with regard to the work performed under Section 2 of this CONTRACT.

5. Duration, Termination, and Amendment.

This CONTRACT shall commence on July 1, 2012, and terminate on June 30, 2013. This CONTRACT may be amended with the consent of both parties when such an amendment is made in writing and signed by an authorized officer of each party.

IN WITNESS WHEREOF, the parties have set their hands and seals this the day and year first written above.

CITY OF GREENVILLE

Thomas M. Moton, Jr., Interim City Manager

ATTEST:

Carol L. Barwick, City Clerk

APPROVED AS TO FORM:

David A. Holec, City Attorney

PRE-AUDIT CERTIFICATION

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

Bernita W. Demery, Director of Financial Services

Account Number 010-1050-403, 08-01

CHAMBER OF COMMERCE

Susanne D. Sartelle, President

ATTEST:

Scott Senatore, Senior Vice President



City of Greenville, North Carolina

Meeting Date: 1/17/2013 Time: 7:00 PM

Title of Item:

Budget ordinance amendment #5 to the 2012-2013 City of Greenville budget (Ordinance #12-027) and amendment to the Special Revenue Grant Fund (Ordinance #11-003)

Explanation:

Abstract: The budget amendment is for City Council to review and approve proposed changes to the adopted 2012-2013 budget that have been submitted by department directors.

Explanation: Attached is an amendment to the 2012-2013 budget ordinance for consideration at the January 14, 2013, City Council meeting. For ease of reference, a footnote has been added to each line item of the budget ordinance amendment, which corresponds to the explanation below:

A To appropriate remaining funds from the American Reinvestment Recovery Act Funds for Public Transportation. These funds will be used for the purchase of new bus shelters and replacement garage equipment needed to maintain the GREAT buses (\$145,797).

- **B** To appropriate Program Income received from HOME and CDBG activities during fiscal years 2011 and 2012 that may be used for future program activities (\$169,041).
- C To appropriate grant funds to the Police Department received from Walmart to purchase iPads to be used for crime scenes, conducting interviews, and writing reports (\$2,884).

Fiscal Note:

The budget ordinance amendment affects the following funds: increase Public Transportation Fund by \$145,797; increase the Housing Fund by \$169,041; and increase the Special Revenue Grant Fund by \$2,884.

<u>Fund</u> Name	Original /Amended Budget	Proposed Amendment	Amended Budget 1/14/2013
Public Transportation	\$ 2,240,749	\$ 145,797	\$ 2,386,546
Housing	\$ 1,581,461	\$ 169,041	\$ 1,750,502
Special Revenue Grant	\$ 659,037	\$ 2,884	\$ 661,921

Recommendation:

Approve budget ordinance amendment #5 to the 2012-2013 City of Greenville budget (Ordinance #12-027) and amendment to the Special Revenue Grant Fund (Ordinance #11-003)

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Budget_Amendment_FY_2012_2013_932360

ORDINANCE NO. -

CITY OF GREENVILLE, NORTH CAROINA

Ordinance (#5) Amending the 2012-2013 Budget (Ordinance No. 12-027) and amendment to the Special Revenue Grant Fund (Ordinance No. 11-003)

THE CITY COUNCIL OF THE CITY OF GREENVILLE, NORTH CAROLINA, DOES ORDAIN:

Section I: Estimated Revenues and Appropriations. Public Transportation Fund, of Ordinance 12-027, is hereby amended by increasing estimated revenues and appropriations in the amount indicated:

	ORIGINAL BUDGET		mended 1/14/13	An	Total nendments	Amended Budget
ESTIMATED REVENUES						
Operating Grant	\$ 597,145		\$ -	\$	-	\$ 597,145
Capital Grant	593,997		-		-	593,997
Planning Grant	32,103		-		-	32,103
Residual ARRA Funding	-	Α	145,797		145,797	145,797
State Maintenance Assistance Program	250,000		-		-	250,000
Other Revenue	277,006		-		-	277,006
Appropriated Fund Balance	490,498		-		-	490,498
TOTAL REVENUES	\$ 2,240,749		\$ 145,797	\$	145,797	\$ 2,386,546
APPROPRIATIONS						
PublicTransportation	\$ 2,240,749	Α	\$ 145,797	\$	145,797	\$ 2,386,546
Total Expenditures	\$ 2,240,749		\$ 145,797	\$	145,797	\$ 2,386,546
TOTAL APPROPRIATIONS	\$ 2,240,749		\$ 145,797	\$	145,797	\$ 2,386,546

Section II: Estimated Revenues and Appropriations. Housing Fund, of Ordinance 12-027, is hereby amended by increasing estimated revenues and appropriations in the amount indicated:

	ORIGINAL BUDGET		 mended 1/14/13	An	Total nendments	Amended Budget
ESTIMATED REVENUES						
Annual CDBG Grant Funding	\$ 781,037		\$ -	\$	-	\$ 781,037
HUD City of Greenville	387,237		-		-	387,237
Transfer from Sm. Business Loan Fund	71,029		-		-	71,029
Program Income	-	В	169,041		169,041	169,041
Transfer from General Fund	 342,158		-		-	342,158
TOTAL REVENUES	\$ 1,581,461		\$ 169,041	\$	169,041	\$ 1,750,502
APPROPRIATIONS						
Housing	\$ 1,581,461	В	\$ 169,041	\$	169,041	\$ 1,750,502
Total Expenditures	\$ 1,581,461		\$ 169,041	\$	169,041	\$ 1,750,502
TOTAL APPROPRIATIONS	\$ 1,581,461		\$ 169,041	\$	169,041	\$ 1,750,502

Section III Estimated Revenues and Appropriations. Special Revenue Grant Fund, of Ordinance 11-003, is hereby amended by increasing estimated revenues and appropriations in the amount indicated:

		ADJUSTED BUDGET		 Amended 1/14/13		Total Amendments		Amended 2012-2013 Budget
ESTIMATED REVENUES Special Fed/State/Loc Grant	\$	608.501	С	\$ 2.884	s	359.409	\$	967.910
Transfer from General Fund	Ψ	50,536		 -	Ψ	20,000	Ψ	70,536
TOTAL REVENUES	\$	659,037		\$ 2,884	\$	379,409	\$	1,038,446
APPROPRIATIONS								
Personnel	\$	-		\$ -	\$	22,000	\$	22,000
Operating		399,255	С	2,884		329,572		728,827
Capital Outlay		259,782		-		27,837		287,619
Total Expenditures	\$	659,037		\$ 2,884	\$	379,409	\$	1,038,446
TOTAL APPROPRIATIONS	\$	659,037		\$ 2,884	\$	379,409	\$	1,038,446

Section IV: All ordinances and clauses of ordinances in conflict with this ordinance are hereby repealed.

Section V: This ordinance will become effective upon its adoption.

Adopted this 14th day of January, 2013.

Allen M. Thomas, Mayor

ATTEST:

Carol L. Barwick, City Clerk

Item #6 Doc # 932360



City of Greenville, North Carolina

Meeting Date: 1/17/2013 Time: 7:00 PM

Title of Item:

Proposed completion schedule for 2013-2018 Consolidated Plan and 2013-2014 Annual Action Plan (CDBG and HOME funds)

Explanation:

Abstract: The Consolidated and Annual Action Plans are required plans which identify housing objectives and resources that will be used to address the identified needs. This item identifies a proposed schedule for completion of the plans.

Explanation: The Community Development Department, Housing Division, is in the process of updating the five-year Consolidated Plan, which is mandated by the U.S. Department of Housing and Urban Development (HUD). The Consolidated Plan is designed to assist municipalities in assessing their needs in affordable housing, community development, and economic development. Furthermore, the plan is a data-driven approach which takes into consideration market conditions. Ultimately, the plan helps ensure that the City is making good place-based investment decisions. The current Consolidated Plan was last updated in 2008 and remained in effect until 2013.

In addition to the Consolidated Plan update, the Housing Division is also in the process of identifying activities for the upcoming 2013-2014 Annual Action Plan. The Annual Action Plan is the annual allocation of resources for housing activities utilizing Community Development Block Grant (CDBG) and HOME Investment Partnership Funds. The proposed activities must tie back to the identified objectives of the Consolidated Plan. As a requirement for receiving CDBG and HOME Investment Partnership Funds, the City must prepare an Annual Action Plan each year.

The City of Greenville is an "Entitlement City" under the CDBG program and a "Participating Jurisdiction" under the HOME Investment Partnership Funds program. Those designations result in an annual formula allocation of CDBG and HOME funds to the City by HUD to benefit low to moderate income residents. Expenditure of CDBG and HOME funds must meet grant program national objectives.

Both the Consolidated Plan and Annual Action Plan process requires the City to hold two separate public hearings prior to the adoption of a final resolution approving each plan. The first public hearing is considered a "planning" hearing to allow for public participation in the process. This will help identify possible activities that might be carried out within the five years (Consolidated Plan) and/or the current fiscal year (Annual Action Plan).

A plan development schedule is attached for review.

Fiscal Note: It is anticipated that the City will receive \$781,037 in CDBG funds and \$387,237

from the HOME program for fiscal year 2013-2014, based upon the December

2012 preliminary projections released by Assistant Secretary of the U.S.

Department of Housing and Urban Development.

Recommendation: Approve the proposed plan development schedule

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D 2013 2014 Schedule for Consolidated Plan and annual Action Plan 944165

Attachment number 1 Page 1 of 1

2013-2018 CONSOLIDATED PLAN AND 2013-2014 ANNUAL ACTION PLAN PROPOSED DEVELOPMENT SCHEDULE

January 11, 2013 Deadline for Submission of Subrecipient

Applications for funding

February 13, 2013 Subrecipient Organizations

presentations of funding requests to Affordable Housing Loan Committee

February 14, 2013 First Public Hearing

February 27 & March 13, 2013 Community Meetings to receive

comments

April 1-30, 2013 Thirty (30) Day Public Comment Period

April 2, 2013 Redevelopment Commission Review of

Draft Annual Action Plan

April 10, 2013 Affordable Housing Loan Committee

Review/Recommendation of

Subrecipient Funding

April 10, 2013 Affordable Housing Loan Committee

Review of Draft Annual Action Plan

May 9, 2013 Second and Final Public Hearing

May 9, 2013 City Council Adoption/Resolution

May 16, 2013 Submission to U.S. Dept. of H.U.D.



City of Greenville, North Carolina

Meeting Date: 1/17/2013 Time: 7:00 PM

Title of Item:

Report on 1st Street Parking Improvement Project

Explanation:

Abstract: Parking improvements in Greenville's uptown commercial district were identified as a goal by the City Council for the current year. The 1st Street corridor, bounded by Reade Street and Pitt Street, was specifically identified as an area where excess roadway could be retrofitted to incorporate additional parking. Current plans call for the narrowing of 1st Street from four to two lanes with the additional space utilized to provide 106 new on-street parking spaces.

Explanation: Parking improvements in Greenville's uptown commercial district were identified as a goal by the City Council for the current year. As part of their current year program of work, the Redevelopment Commission hired land planning and engineering firm Kimley-Horn and Associates to develop alternatives that would lead to the addition of parking along the 1st Street corridor between Reade and Cotanche Streets.

The attached report provides detailed information regarding a road diet from four to two lanes along 1st Street, a recommended parking alternative that includes parallel parking to the north of 1st Street and angled parking to the south of 1st Street, and inclusion of bike lanes along the corridor. Kimley-Horn reached this recommendation based on analysis of current traffic patterns and four parking alternatives, along with extensive discussions with City staff. The recommended parking alternative provides a net gain of 106 parking spaces and minimally impacts traffic along the corridor. As part of the project, it is recommended that the roadway be resurfaced allowing for restriping to be laid down on fresh pavement. With City Council approval, Kimley-Horn will produce construction documents for the project by February 11, 2013, with resurfacing and restriping scheduled to take place approximately three (3) months later following a competitive bid process.

Fiscal Note:

Staff estimates the cost for resurfacing along 1st Street is \$175,000, and the estimated cost for restriping along 1st Street is \$20,000. Final estimates for resurfacing and restriping will be completed as part of the construction

documentation process by Kimley-Horn. Funds for the restriping portion of this project have been designated in the current Redevelopment Commission budget through the 2004 general obligation bond issue for Center City revitalization. Funds for street resurfacing will come from the City's street resurfacing budget.

Recommendation:

Approve the parking alternative identified in the Traffic and Parking Report completed by Kimley-Horn and Associates, Inc.

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☐ First Street Parking Project Report





TRAFFIC AND PARKING REPORT



1st StreetParking Improvement Project

City of Greenville, NC

Prepared for:



Prepared by:

Kimley-Horn and Associates, Inc.

Redevelopment Commission of Greenville, NC Traffic and Parking Report

for

1st Street Parking Improvement Project
Greenville, North Carolina

Prepared for:

Redevelopment Commission of Greenville, NC

Prepared By:
Kimley-Horn and Associates, Inc.
NC License #F-0102
P.O. Box 33068
Raleigh, North Carolina 27636-3068
(919) 677-2000

012654006 January 2013



This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

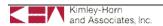






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1.0 Executive Summary

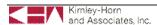
In creating the Town Common Master Plan, the City of Greenville established making connections between the Town Common and the downtown core as a key principle. 1st Street, however, stands today as a four-lane, vehicular-focused divider between the park and downtown Greenville, discouraging residents and visitors from walking between the two. The Town Common also has limited public parking within or adjacent to the park, further discouraging patronage. The City has identified the opportunity to narrow 1st Street as a potential solution to the issues identified above. Both the Town Common Master Plan and the January 2012 Uptown District Public Parking Review recommended reducing the number of lanes on 1st Street to provide additional on-street parking. The 2011 Greenville MPO Bicycle and Pedestrian Master Plan also recommended adding bicycle lanes on this section of 1st Street.

This report presents traffic analyses, parking concepts, and recommendations for transportation and parking improvements required to meet anticipated traffic demands and increase the amount of on-street parking.

Based on the analysis presented herein and comments received from City of Greenville Staff and the Greenville Redevelopment Commission, it is recommended that 1st Street be restriped from Pitt Street to N. Holly Street to provide one vehicular travel lane and one bicycle lane in each direction with parallel parking on the north side of the street and 45 degree angle parking on the south side of the street. This plan will provide approximately 106 additional on-street parking spaces along this section of 1st Street to serve the Town Common as well as existing and future development along the corridor. The following roadway laneage is recommended with the proposed project:

- Restripe the existing shared through/right lane on eastbound 1st Street at Pitt Street to an exclusive right-turn lane
- Maintain the existing left-turn lane and one through lane on westbound 1st Street at Pitt Street
- Maintain the existing left-turn lane and one through lane on eastbound 1st Street at Greene Street
- Provide one through lane and an exclusive right-turn lane with a minimum of 50 feet of storage on westbound 1st Street at Greene Street
- Restripe the rest of the corridor to provide one vehicular lane and one bicycle lane in each direction with no exclusive left or right-turn lanes

These recommendations are consistent with the recommendations from the Town Common Master Plan, the Uptown District Public Parking Review, and the Greenville MPO Bicycle and Pedestrian Master Plan. Analysis indicates that with the recommended roadway laneage in place, all of the study

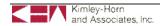








intersections are expected to continue to operate at acceptable levels of service in the AM, Noon, and PM peak hours for the Existing and Future (2018) Build conditions.







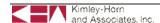


2.0 Introduction

In creating the Town Common Master Plan, the City of Greenville established making connections between the Town Common and the downtown core as a key principle. 1st Street, however, stands today as a four-lane, vehicular-focused divider between the park and downtown Greenville, discouraging residents and visitors from walking between the two. The Town Common also has limited public parking within or adjacent to the park, further discouraging patronage. Conversely, 1st Street carries fewer than 6,000 vehicles per day and does not serve as a major east-west thoroughfare. 5th and 10th Streets, on the other hand, provide nearby parallel thoroughfares with better connectivity east and west of downtown.

The City has identified the opportunity to narrow 1st Street as a potential solution to the issues identified above. Both the Town Common Master Plan and the January 2012 Uptown District Public Parking Review recommended reducing the number of lanes on 1st Street to provide additional on-street parking. The 2011 Greenville MPO Bicycle and Pedestrian Master Plan also recommended adding bicycle lanes on this section of 1st Street.

Kimley-Horn and Associates, Inc. was retained to determine the potential traffic impacts of reducing the number of travel lanes on the section of 1st Street between Pitt Street and N. Holly Street from four down to two and to develop roadway striping concepts to provide additional on-street parking on 1st Street. This report presents traffic analyses, parking concepts, and recommendations for transportation and parking improvements required to meet anticipated traffic demands and increase the amount of on-street parking.









3.0 Study Area and Existing Conditions

3.1 Study Area

The study area for this analysis includes the following intersections:

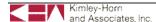
- 1st Street at Pitt Street
- 1st Street at Greene Street
- 1st Street at Washington Street
- 1st Street at Evans Street
- 1st Street at Cotanche Street
- 1st Street at Reade Street

Figure 1 shows the study area.

3.2 Existing Conditions

1st Street is a 4-lane undivided roadway with 55 feet of pavement from Pitt Street to just east of Reade Street. From there it tapers down to a 2-lane section at Summit Street. This section of 1st Street carries approximately 6,000 vehicles per day and has a posted speed limit of 35 miles per hour. The surrounding land uses are primarily commercial on the south side of the street, single family residential to the east, and the Town Common on the north side of the street.

Parallel parking is provided on the south side of the street with 35 spaces currently striped.





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ET PRRING STUDY AREA (MT PROJECT

TRAFFIC AND PARKING REPORT 1ST STREET PARKING IMPROVEMENT PROJECT









4.0 Traffic Capacity Analysis

Traffic capacity analyses were performed at the study intersections for the Existing year (2012) and Design year (2018) No Build and Build conditions for typical weekday AM, noon, and PM peak hour traffic conditions. The No Build condition reflects the existing roadway laneage, while the Build condition reduces the number of through lanes on 1st Street from 4 lanes to 2. No analysis was performed for special event conditions such as a Sunday in the Park event since traffic count data were not available for such an event. The largest traffic event in this area is the 4th of July at the Town Common; however, both 1st Street and 2nd Street are closed to vehicle traffic between Greene Street and Reade Street. Therefore, any changes to the laneage on 1st Street will have no impact on 4th of July operations.

4.1 Existing Traffic

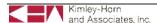
AM, Noon, and PM peak hour turning movement counts at the study intersections were provided by the City of Greenville. Through volumes on 1st Street were balanced between Cotanche Street and Reade Street due to the lack of driveways on this block. Through volumes on the rest of the corridor were not balanced as the presence of mid-block driveways were assumed to account for minor imbalances in traffic. The existing AM, Noon, and PM peak hour traffic volumes are shown on Figure 2, and the traffic count data are included in the Appendix.

4.2 Future Year Traffic

Historic average daily traffic (ADT) volumes indicate that from 2004 to 2010 traffic in this part of downtown Greenville grew at rates ranging from 0% to 2.37% per year. To present a conservative analysis, an annual growth rate of 2.5% was applied to the existing traffic volumes to obtain the projected Design year (2018) traffic volumes.

While the East Carolina University Master Plan calls for a future performing arts center on the southeast quadrant of 1st Street at Reade Street and a hotel/conference center on the southwest quadrant of this intersection, construction is not proposed to start on either of these facilities until the year 2021. Therefore, no specific approved developments were included in the background traffic volumes.

To be conservative, no diversion of existing 1st Street traffic to adjacent roadways was assumed in the analysis. The projected Design year traffic volumes are shown on Figure 3, and historic ADT and growth rate calculations are included in the Appendix.







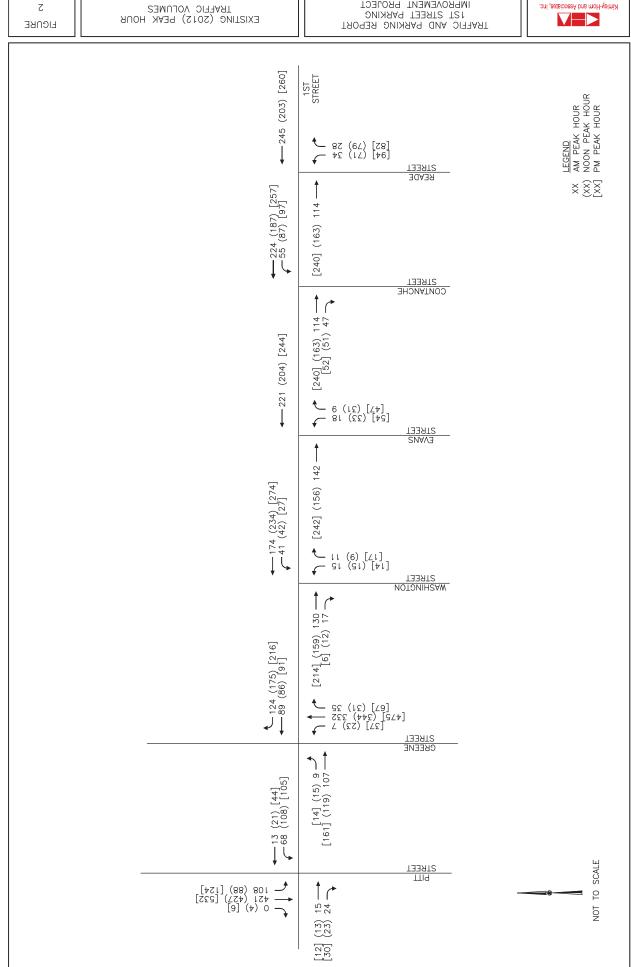


4.3 Intersection Capacity Analysis

Capacity analyses were performed using Synchro Version 7 software for the Existing and Design year No Build and Build conditions. Table 1 summarizes the results of the analysis, and Synchro LOS reports are attached. Analysis indicates that all of the study intersections operate at LOS A or B in the AM, Noon, and PM peak hours for the Existing and Future No Build conditions.



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7

ІМРВОУЕМЕЙТ РВОЈЕСТ TRAFFIC AND PARKING REPORT

Kimley-Hom and Associates, Inc.

Item #8

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TRAFFIC AND PARKING REPORT 1ST STREET PARKING IMPROVEMENT PROJECT







1st Street Parking Improvement Project

City of Greenville, NC

			T.	Tabla 1			
			Intersection Level-of-Service Summary	of-Service Summ	ary		
· V	7		No Build			Build	
mlev	Condition	AM Peak-Hr	Noon Peak-Hr	PM Peak-Hr	AM Peak-Hr	Noon Peak-Hr	PM Peak-Hr
-Horn			1st Street at Pitt	1st Street at Pitt Street - Signalized	p		
	Existing (2012) Traffic	A (5.4)	A (9.0)	B (11.0)	A (6.2)	A (9.3)	B (10.8)
	Projected (2018) Traffic	A (5.6)	A (9.2)	B (11.5)	A (6.7)	A (9.5)	A (9.1)
		-	1st Street at Greene Street - Signalized	ie Street - Signal	ized		
	Existing (2012) Traffic	B (15.1)	B (14.8)	B (14.1)	B (15.4)	B (15.9)	B (14.6)
	Projected (2018) Traffic	B (15.2)	B (15.2)	B (15.8)	B (15.6)	B (16.4)	B (16.5)
		1st Si	1st Street at Washington Street - Unsignalized	on Street – Unsig	nalized		
	Existing (2012) Traffic	NB - B (10.1)	NB - B (10.4)	NB - B (10.1)	NB - B (10.5)	NB – B (11.0)	NB - B (11.2)
	Projected (2018) Traffic	NB - B (10.3)	NB – B (10.9)	NB - B (10.3)	NB - B (11.0)	NB – B (12.1)	NB – B (11.9)
		1,	1st Street at Evans	Street at Evans Street - Unsignalized	lized		
	Existing (2012) Traffic	NB - A (9.9)	NB – A (9.9)	NB - B (11.6)	NB - B (10.5)	NB - B (10.4)	NB – B (12.5)
	Projected (2018) Traffic	NB – B (10.7)	NB – B (10.7)	NB – B (12.4)	NB – B (11.6)	NB – B (11.4)	NB – B (13.8)
		1^{st}	Street at Cotanche Street - Unsignalized	e Street – Unsign	alized		
	Existing (2012) Traffic	WB - A (1.6)	WB - A (2.6)	WB - A (2.5)	WB - A (1.9)	WB - A (2.9)	WB - A (3.1)
	Projected (2018) Traffic	WB - A (1.7)	WB - A (2.8)	WB - A (2.7)	WB - A (2.0)	WB - A (3.3)	WB - A (3.4)
		1,	1st Street at Reade Street – Unsignalized	$Street-{\it Unsigna}$	lized		
	Existing (2012) Traffic	NB - A (9.8)	NB - A (10.0)	NB - B (11.3)	NB - B (10.6)	NB - B (10.6)	NB – B (12.6)
	Projected (2018) Traffic	NB – A (10.0)	NB – B (10.5)	NB - B (12.2)	NB – B (10.8)	NB – B (11.4)	NB – B (14.0)
_							







4.4 Roadway Link Capacity Analysis

A roadway link analysis was also performed using the Florida Department of Transportation (FDOT) 2009 Quality/Level of Service Handbook. This document is considered a valid national reference for roadway LOS volume thresholds and is commonly used for similar comparisons nationwide. FDOT volume threshold tables indicate that the capacity of a Class II two-lane undivided City roadway without turn lanes like the proposed section of 1st Street is approximately 10,650 vehicles per day. Based on the projected growth rate, this section of 1st Street is expected to carry approximately 7,000 vehicles per day in the design year 2018. With this amount of traffic 1st Street is expected to operate at LOS B for the Design year 2018 Build condition.

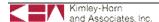
4.5 Recommended Roadway Laneage

The following roadway laneage is recommended with the proposed project:

- Restripe the existing shared through/right lane on eastbound 1st Street at Pitt Street to an exclusive right-turn lane
- Maintain the existing left-turn lane and one through lane on westbound 1st Street at Pitt Street
- Maintain the existing left-turn lane and one through lane on eastbound 1st Street at Greene Street
- Provide one through lane and an exclusive right-turn lane with a minimum of 50 feet of storage on westbound 1st Street at Greene Street
- Restripe the rest of the corridor to provide one vehicular lane and one bicycle lane in each direction with no exclusive left or right-turn lanes

The recommended roadway laneage is shown on Figure 4. No changes are proposed to the side street approaches at any of the study intersections.

Analysis indicates that with the recommended roadway laneage in place, all of the study intersections are expected to continue to operate at LOS A or B in the AM, Noon, and PM peak hours for the Existing and Future Build conditions. Due to ample gaps in the opposing eastbound traffic, left turns from 1st Street onto Washington Street and Cotanche Street are not expected to significantly impede westbound through traffic on 1st Street, and observations of SimTraffic simulations indicate no queuing issues are anticipated at any of the study intersections with the proposed reduction in laneage.



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TRAFFIC AND PARKING REPORT 1ST STREET PARKING IMPROVEMENT PROJECT

Kimley-Hom and Associates, Inc.

 \forall **LICNKE**

RECOMMENDED ROADWAY LANEAGE



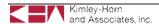




5.0 Crash Data Review

A crash data strip analysis report was obtained from the City of Greenville for the 1st Street corridor for the three-year period from September 2009 to September 2012. Crash records indicate that there were 33 reported crashes on 1st Street within the study area during this period, which results in a total crash rate of 1077.05 crashes per 100 million vehicle miles traveled. This is significantly higher than the either the Pitt County 5-year (2005-2009) crash rate of 392.04 or the statewide 3-year (2008-2010) crash rate for 4-lane undivided urban secondary routes of 372.8. However, 21 of the reported crashed occurred at the signalized intersection of 1st Street at Greene Street. 13 of those crashes were angle crashes involving a vehicle traveling northbound on Greene Street and either an eastbound or westbound vehicle on 1st Street. Though detailed information is not available for these crashes, it is anticipated that these are due to one of the vehicles involved running a red indicator.

None of the reported crashes involved fatalities or Class A injuries, and the severity index of 4.14 is well below the critical threshold of 7.4. Records for the other 12 reported crashes along the corridor do not indicate a consistent crash pattern along this section of 1st Street, and excluding the crashes at Greene Street results in a crash rate of 392.15 crashes per 100 million vehicle miles traveled, which is comparable to the Pitt County 5-year crash rate. Based on this review, the existing crash data do not indicate safety concerns that would be exacerbated by the proposed lane reductions on 1st Street. The reduction in the number of travel lanes and the addition of on-street parking and bicycle lanes may actually improve safety along this corridor by naturally reducing vehicular travel speeds.









6.0 Conceptual Striping and Parking Plan

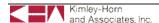
Based on the results of the traffic capacity analysis, the following four roadway striping alternatives were presented to City staff and the Redevelopment Commission for review:

- Angle parking on the north/Parallel parking on the south
- Parallel parking on both sides
- Angle parking on both sides
- Parallel parking on the north/Angle parking on the south

Factors considered in evaluating the four options included the number of parking spaces provided, the presence of bicycle lanes, the ability to maintain existing signal detector loops, the width of travel lanes, the direction of any angle parking, and how closely the future pavement markings would match the existing markings. Based on comments received from City staff and the Redevelopment Commission, the option with parallel parking on the north side of the street and 45 degree angle parking on the south side of the street was selected as the preferred alternative. It is anticipated that this plan will provide approximately 62 parallel parking spaces on the north side of the street and 79 spaces (angle with some parallel) on the south side for a total of 141 on-street parking spaces along this section of 1st Street, which is a net increase of 106 spaces. In addition to the on-street parking, this alternative consists of one vehicular travel lane and one bicycle lane in each direction on 1st Street from Greene Street to N. Holly Street as shown on Figures 5A and 5B. This option was selected for the following reasons:

- Bicycle lanes provided in both directions
- Maximizes on-street parking
- Angle parking for traffic coming to the Town Common from Pitt Street and Green Street
- Parallel parking on the north side of the street allows parents with small children that are going to the park to unload directly onto the sidewalk
- No expected modifications to the detector loops for the traffic signals at Pitt Street and Greene Street
- Planned resurfacing of 1st Street will eliminate any potential confusion between remnants of existing lane markings and the new striping

It should be noted that the recommended alternative is consistent with the Town Common Master Plan, the Uptown District Public Parking Review, and the Greenville MPO Bicycle and Pedestrian Master Plan since it reduces the laneage on 1st Street from 4 lanes to 2, it provides a significant amount of additional on-street parking, and provides bicycle lanes in both directions on 1st Street.



2A FIGURE CONCEPTUAL STRIPING PLAN (PITT ST TO COTANCHE ST)

TRAFFIC AND PARKING 1ST STREET PARKING REPORT





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Item # 8

CONCEPTUAL STRIPING PLAN (COTANCHE ST TO N. HOLLY ST)

TRAFFIC AND PARKING REPORT IST STREET PARKING IMPROVEMENT PROJECT





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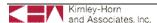


7.0 Recommendations

Based on the analysis presented herein and comments received from City of Greenville Staff and the Greenville Redevelopment Commission, it is recommended that 1st Street be restriped from Pitt Street to N. Holly Street to provide one vehicular travel lane and one bicycle lane in each direction with parallel parking on the north side of the street and 45 degree angle parking on the south side of the street. This plan will provide approximately 106 additional on-street parking spaces along this section of 1st Street to serve the Town Common as well as existing and future development along the corridor. The following roadway laneage is recommended with the proposed project:

- Restripe the existing shared through/right lane on eastbound 1st Street at Pitt Street to an exclusive right-turn lane
- Maintain the existing left-turn lane and one through lane on westbound 1st Street at Pitt Street
- Maintain the existing left-turn lane and one through lane on eastbound 1st Street at Greene Street
- Provide one through lane and an exclusive right-turn lane with a minimum of 50 feet of storage on westbound 1st Street at Greene Street
- Restripe the rest of the corridor to provide one vehicular lane and one bicycle lane in each direction with no exclusive left or right-turn lanes

These recommendations are consistent with the recommendations from the Town Common Master Plan, the Uptown District Public Parking Review, and the Greenville MPO Bicycle and Pedestrian Master Plan. Analysis indicates that with the recommended roadway laneage in place, all of the study intersections are expected to continue to operate at acceptable levels of service in the AM, Noon, and PM peak hours for the Existing and Future (2018) Build conditions.



Item #8

Appendix

Traffic Count Data

Study Name 1st & Pitt
Start Date Tuesday, March 27, 2012 7:00 AM
End Date Tuesday, March 27, 2012 6:00 PM
Site Code

Report Summary

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Study Name 1st & Greene
Start Date Thursday, March
End Date Thursday, March
Site Code

1st & Greene Thursday, March 29, 2012 7:00 AM Thursday, March 29, 2012 6:00 PM

Report Summary

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12:00 PM - 1:00 PM	Heavy	0	0	0	0	0	П	н	0	0	0	1	н	0	0	0	0	0	0	0	H	0	c		; c	, r
	%	%0	%0	%0	%0	%0	%0	1%	%0	%0	%0	%0	13%	%0	%0	%0	9,0	%60	260	900	13%	%0	196	1 %) //	7 70
	Total	0	0	0	0	•	234	175	98	0	0	261	150	31	344	23	0	398	0	0	119	15	0	134	100	703
	PHF	0	0	0	0	0	0.93	0.88	0.83	0	0	98.0	0.83	0.7	76.0	0.64	0	0.97	0	0	0.88	0.67		880	6 6	200
	Approach %					%0	%49	*****				33%	19%					50%	%0				,	17%	14%	100
6.100	(,	,	,)												-									
reak s	5	0	0	0	0	0	684	509	88	0	0	297	224	29	461	37	0	265	0	0	157	14	0	171	125	1033
specified Period	2	%0	%0	950	%	%0	97%	97%	%16	560	%0	97%	%86	100%	97%	100%	%0	%86	%0	960	9686	100%	%0	98%	98%	97%
4:00 PM - 6:00 PM	Medium	0	0	0	0	0	12	7	7	0	0	4	2	0	10	0	0	10	0	Ö	7	0	0	7	7	16
One Hour Peak	%	%0	%0	%0	960	960	7%	3.%	2%	%0	%0	1%	1%	9%0	2%	%6	%0	2%	%0	9%	1%	9%0	%0	1%	2%	2%
4:45 PM - 5:45 PM	Heavy	0	0	0	0	0	O	S	1	0	0	9	2	0	4	0	0	4	0	0	7	0	0	7	1	12
	96	760	%0	%0	%0	%0	198	296	1%	960	%0	2%	15%	%0	1%	360	960	19%	%0	960	1%	%0	960	13%	1%	1%
	Total	0	0	0	0	•	705	216	16	0	0	307	877	29	475	37	0	579	0	0	191	14	0	175	128	1001
	PHF	0	0	0	0	0	0.8	0.87	0.73	0	0	0.83	0.85	92.0	0.76	0.71	0	0.78	0	0	0.77	0.58	0	0.81	0.82	0.83
	Approach %					%0	9 69%					29%	21%					55%	%60					16%	12%	
		SAN TO SAN THE				Bell Bell Bell Bell Bell Bell Bell Bell		TOTAL STREET,			THE REAL PROPERTY.		STREET, STREET	ACTURE DESCRIPTION OF THE PERSON OF THE PERS	THE RESIDENCE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN	A COLUMN TO A COLU	The state of the s									

File Name : 1stWashington Site Code : 00000000

Start Date : 4/4/2012

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Groups Printed- Unshifted

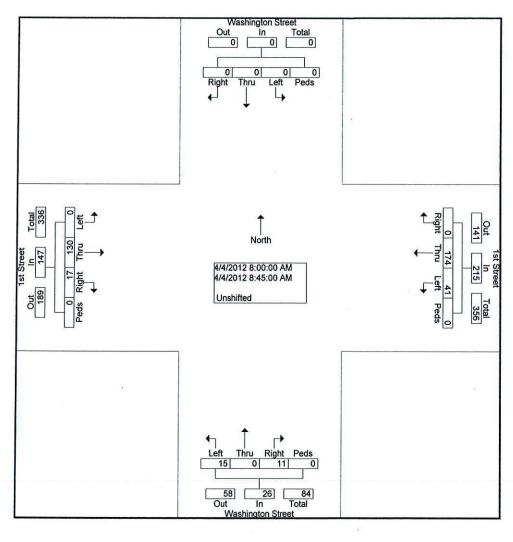
			hington rom No					1st Stre From Ea	et	os Printed		Was	hington rom So	Street				1st Stre			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	In Tota
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	10101	1.0	1.0	1.0	1.0	Total	1.0	1.0	1.0	1.0	10101	
07:00	0	0	0	0	0	0	33	4	0	37	1	0	0	0	1	0	15	0	0	15	5
07:15	0	0	0	0	0	0	39	4	0	43	0	0	1	0	1	0	29	0	0	29	7
07:30	0	0	0	0	0	0	35	4	0	39	1	0	0	0	1	1	42	0	0	43	8
07:45	0	0	0	0	0	0	56	11	0	67	0	0	5	0	5	1	39	0	0	40	11
Total	0	0	0	0	0	0	163	23	0	186	2	0	6	0	8	2	125	0	0	127	32
08:00	0	0	0	0	0	0	43	9	0	52	0	0	1	0	1	3	34	0	0	37	g
08:15	0	0	0	0	0	0	44	5	0	49	3	0	5	0	8	3	28	0	0	31	
08:30	0	0	0	0	0	0	42	12	0	54	2	0	4	0	6	6	31	0	0	37	9
08:45	0	0	0	0	0	0	45	15	0	60	6	0	5	0	11	5	37	0	0	42	1
Total	0	0	0	0	0	0	174	41	0	215	11	0	15	0	26	17	130	0	0	147	38
11:00	0	0	0	0	0	0	45	6	0	51	4	0	4	0	8	4	20	0	0	24	8
11:15	0	0	0	0	o l	0	29	9	0	38	4	0	4	0	8	6	21	0	0	27	
11:30	0	Õ	0	0	ő	0	42	4	0	46	5	0	2	0	7	2	41	ő	0	43	
11:45	0	Õ	0	0	Ö	Õ	56	11	0	67	0	0	3	0	3	3	52	0	0	55	1
Total	0	0	0	0	0	0	172	30	0	202	13	0	13	0	26	15	134	0	0	149	3
12:00	0	0	0	0	0	0	56	10	0	66	3	0	2	0	5	4	32	0	0	36	1
12:15	0	0	0	0	0	0	60	10	0	70	2	0	8	0	10	4	40	0	0	44	1
12:30	0	0	0	0	0	0	62	11	0	73	4	0	2	0	6	1	35	0	0	36	1
12:45	0	0	0	0	0	0	65	7	0	72	5	0	3	0	8	4	34	0	0	38	1
Total	0	0	0	0	0	0	243	38	0	281	14	0	15	0	29	13	141	0	0	154	4
40.00	0	•									-			_	T					1	
16:00	0	0	0	0	0	1	70	10	0	81	3	0	2	0	5	5	43	0	0	48	1
16:15 16:30	0	0	0	0	0	0	46	7	0	53	5	0	1	0	6	3	34	0	0	37	
	0	0	0	0	0	0	74	5	0	79	6	0	1	0	7	2	51	0	0	53	1
16:45 Total	0	0	0	0	0	0	68 258	12 34	0	80 293	15	0	<u>3</u>	0	22	13	50 178	0	0	53 191	1 5
	-	-								293	13	U	87/	U	22	13	1/0	U	U	191	Ü
17:00	0	0	0	0	0	0	82	6	0	88	3	0	6	0	9	1	60	0	0	61	1
17:15 17:30	0	0	0	0	0	0	50	4	0	54	7	0	4	0	11	0	53	0	0	53	1
	0	0	0	0	0	0	58	6	0	64	4	0	2	0	6	0	46	0	0	46	1
# 17:45	0	0	0	0	0	0	55	5	0	60	4	0	1	0	5	2	39	0	0	41	1
∞ Total	0	0	0	0	0	.0	245	21	0	266	18	0	13	0	31	3	198	0	0	201	4
and Total	0	0	0	0	0	1	1255	187	0	1443	73	0	69	0	142	63	906	0	0	969	25
pprch %	0.0	0.0	0.0	0.0	(86)	0.1	87.0	13.0	0.0	(44 (148)	51.4	0.0	48.6	0.0		6.5	93.5	0.0	0.0	75.70.70	
	0.0	0.0	0.0	0.0	0.0	0.0	49.1	7.3	0.0	56.5	2.9		2.7			-10		0.0			

File Name : 1stWashington Site Code : 00000000

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			hington rom No					1st Stre					hington rom So	Street uth				1st Stre rom W			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Fron	n 07:00 t	to 08:45	- Peak	1 of 1							6										
Intersection	08:00																			Î	
Volume	0	0	0	0	0	0	174	41	0	215	11	0	15	0	26	17	130	0	0	147	388
Percent	0.0	0.0	0.0	0.0	*****	0.0	80.9	19.1	0.0		42.3	0.0	57.7	0.0		11.6	88.4	0.0	0.0		
08:45 Volume	0	0	0	0	0	0	45	15	0	60	6	0	5	0	11	5	37	0	0	42	113
Peak Factor																					0.85
High Int.	6:45:00	AM				08:45					08:45					08:45					
Volume Peak Factor	0	0	0	0	0	0	45	15	0	60 0.896	6	0	5	0	11 0.591	5	37	0	0	42 0.875	

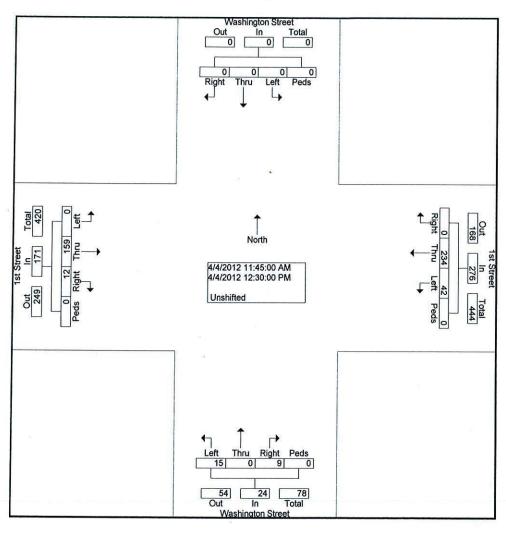


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			hington rom No					1st Stre					hington rom So					1st Stre			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
eak Hour From	11:00 1	o 12:45	- Peak	1 of 1																	
	11:45										ľ									1	
Volume	0	0	0	0	0	0	234	42	0	276	9	0	15	0	24	12	159	0	0	171	471
Percent	0.0	0.0	0.0	0.0		0.0	84.8	15.2	0.0	270	37.5	0.0	62.5	0.0		7.0	93.0	0.0	0.0		200
11:45 Volume	0	0	0	0	0	0	56	11	0	67	0	0	3	0	3	3	52	0	0	55	125
Peak Factor																					0.94
High Int.						12:30					12:15					11:45					
Volume Peak Factor	0	0	0	0	0	0	62	11	0	73 0.945	2	0	8	0	10 0.600	3	52	0	0	55 0.777	

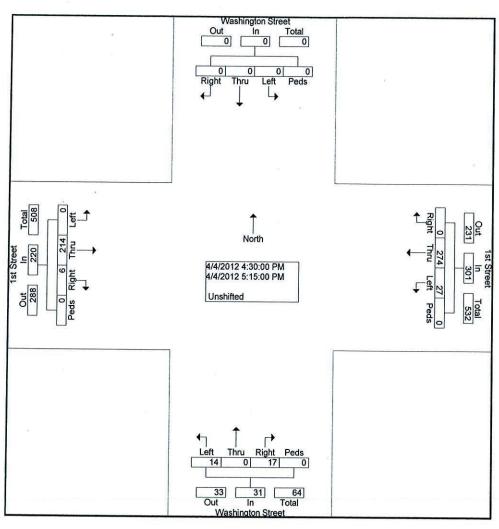


File Name : 1stWashington Site Code : 00000000

Start Date : 4/4/2012

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			hington rom No					1st Stre					hington rom So					1st Stre			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Fron	n 16:00	to 17:45	- Peak	1 of 1					100000000000000000000000000000000000000											10101	
Intersection	16:30									4						r				1	
Volume	0	0	0	0	0	0	274	27	0	301	17	0	14	0	31	6	214	0	0	220	552
Percent	0.0	0.0	0.0	0.0		0.0	91.0	9.0	0.0		54.8	0.0	45.2	0.0	57.00	2.7	97.3	0.0	0.0		
17:00 Volume	0	0	0	0	0	0	82	6	0	88	3	0	6	0	9	1	60	0	0	61	158
Peak Factor																				1	0.87
High Int.			2	17.25	1755	17:00					17:15					17:00					
Volume	0	0	0	0	0	0	82	6	0	88	7	0	4	0	11	1	60	0	0	61	
Peak Factor										0.855					0.705					0.902	



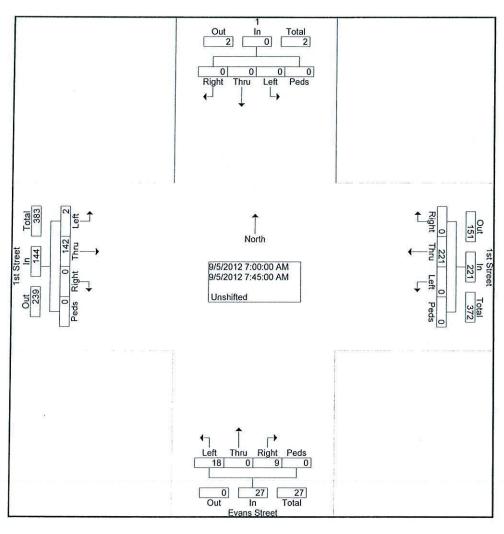
File Name :1stEvans Site Code : 00000000 Start Date : 9/5/2012 Page No : 1

										ps Printe	d- Unshit	fted									
			1 From No	orth				1st Stre					vans St rom So					1st Stre			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	Total	1.0	1.0	1.0	1.0	Total	1.0	1.0	1.0	1.0	Total	Total
06:45	0	0	0	0	0	0	34	0	0	34	2	0	2	0	4	0	17	0	0	17	55
Total	0	0	0	0	0	0	34	0	0	34	2	0	2	0	4	0	17	0	0	17	55
07:00	0	0	0	0	0	0	49	0	0	49	3	0	3	0	6	0	29	2	0	31	86
07:15	0	0	0	0	0	0	55	0	0	55	1	0	5	0	6	0	39	0	0	39	100
07:30	0	0	0	0	0	0	59	0	0	59	3	0	5	0	8	0	43	0	0	43	110
07:45 Total	0	0	0	0	0	0	58	0	0	58	2	0	5	0	7	0	31	0	0	31	96
Total	U	U	U	U	0	0	221	0	0	221	9	0	18	0	27	0	142	2	0	144	392
08:00	0	0	0	0	0	0	54	0	0	54	1	0	6	0	7	0	25	0	0	25	86
08:15 08:30	0	0	0	0	0	0	39	0	0	39	8	0	10	0	18	0	21	0	0	21	78
00.30	U	U	U	0	0	0	35	0	0	35	4	0	8	0	12	0	26	0	0	26	73
Total	0	0	0	0	0	0	128	0	0	128	13	0	24	0	37	0	72	0	0	72	237
10:45	0	0	0	0	0	0	32	0	0	32	4	0	7	0	11	0	28	0	0	28	71
Total	0	0	0	0	0	0	32	0	0	32	4	0	7	0	11	0	28	0	0	28	71
11:00	0	0	0	0	0	0	44	0	0	44	5	0	5	0	10	0	20	0	0	20	74
11:15	0	0	0	0	0	0	34	0	Ö	34	7	0	6	0	13	0	31	0	0	31	78
11:30	0	0	0	0	0	0	32	0	0	32	7	0	7	0	14	2	24	0	0	26	72
11:45	0	0	0	0	0	0	48	0	0	48	15	0	5	0	20	4	33	0	0	37	105
Total	0	0	0	0	0	0	158	0	0	158	34	0	23	0	57	6	108	0	0	114	329
12:00	0	0	0	0	0	0	58	0	0	58	5	0	6	0	11	0	46	0	0	46	115
12:15	0	0	0	0	0	0	40	0	0	40	6	0	6	1	13	0	35	0	0	35	88
12:30	0	0	0	0	0	0	53	0	0	53	3	0	12	0	15	0	31	0	Õ	31	99
12:45	0	0	0	0	0	0	53	0	0	53	17	0	9	0	26	0	44	0	0	44	123
Total	0	0	0	0	0	0	204	0	0	204	31	0	33	1	65	0	156	0	0	156	425
15:45	0	0	0	0	0	0	57	0	0	57	10	0	9	0	19	0	49	0	0	49	125
Total	0	0	0	0	0	0	57	0	0	57	10	0	9	0	19	0	49	0	0	49	125
T _{16:00}	0	0	0	0	0	0	41	0	0	41	12	0	8	0	20	0	40	0	0	40	101
⇒ _{16:15}	0	0	0	0	0	0	66	0	0	66	6	0	9	0	15	2	52	0	0	54	135
# _{6:30}	0	0	0	0	0	0	64	5	0	69	10	0	11	1	22	0	50	0	0	50	141
6:45	0	0	0	0	0	4	60	0	0	64	24	2	24	1	51	0	73	0	0	73	188
Total	0	0	0	0	0	4	231	5	0	240	52	2	52	2	108	2	215	0	0	217	565
17:00	0	0	0	0	0	1	54	2	0	57	7	0	10	0	17	0	67	0	0	67	141
17:15	0	0	0	0	0	0	46	0	0	46	9	1	10	0	20	1	54	0	0	55	121
17:30	0	0	0	0	0	0	46	0	0	46	10	0	4	0	14	0	31	0	0	31	91
and Total	0	0	0	0	0		211	7	0	1223	181	3	192	3	379	9	939	2	0	950	2552
		0.0 0.0	0.0	0.0	0.0		99.0	0.6	0.0		47.8		50.7	8.0			98.8	0.2	0.0		
Total 70	U.U	U.U	U.U	0.0	0.0	0.2	47.5	0.3	0.0	47.9	7.1	0.1	7.5	0.1	14.9	0.4	36.8	0.1	0.0	37.2	

File Name : 1stEvans Site Code : 00000000 Start Date : 9/5/2012

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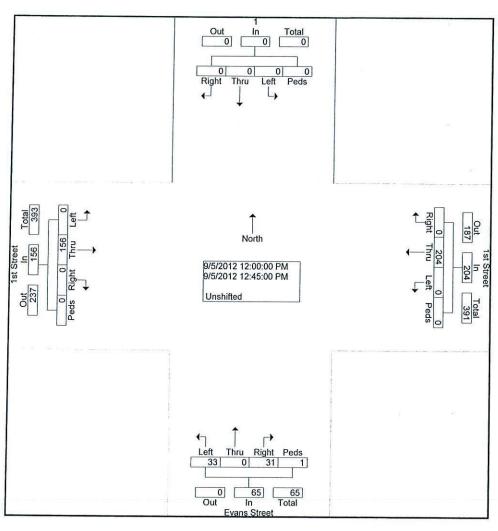
		F	1 rom No	orth				1st Stre					vans Strom So					1st Stre rom We			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Fron	n 06:45 t	o 08:45	- Peak	1 of 1																	
Intersection				7720	55216		(Parana)	027	1005	25,4419				62	CERT		10.554/00	5000	397		1101010101
Volume	0	0	0	0	0	0	221	0	0	221	9	0	18	0	27	0	142	2	0	144	392
Percent	0.0	0.0	0.0	0.0		0.0	100. 0	0.0	0.0		33.3	0.0	66.7	0.0		0.0	98.6	1.4	0.0		
07:30 Volume	0	0	0	0	0	0	59	0	0	59	3	0	5	0	8	0	43	0	0	43	110
Peak Factor															8 1					1	0.89
High Int.	6:30:00	AM				07:30					07:30					07:30					
Volume	0	0	0	0	0	0	59	0	0	59	3	0	5	0	8	0	43	0	0	43	
Peak Factor										0.936					0.844					0.837	



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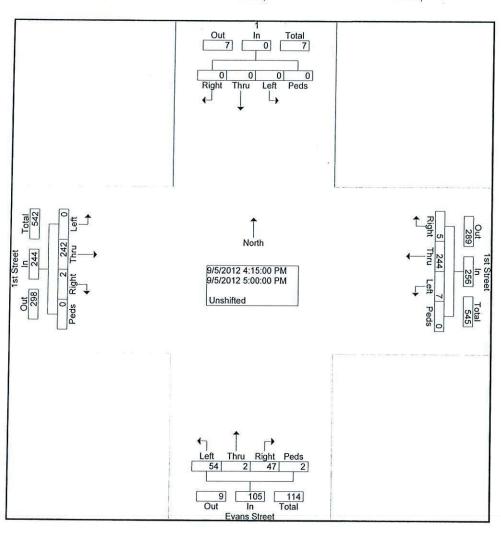
		F	rom No	orth				1st Stre					vans St rom So					1st Stre			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Fron	n 11:00	to 12:45	- Peak	1 of 1																7 - 14	1,711
Intersection	12:00					1					I									1	
Volume	0	0	0	0	0	0	204	0	0	204	31	0	33	1	65	0	156	0	0	156	425
Percent	0.0	0.0	0.0	0.0		0.0	100. 0	0.0	0.0		47.7	0.0	50.8	1.5		0.0	100. 0	0.0	0.0		
12:45	0	0	0	0	0			•	•			7.29	120	120	14232	1124	15070			26,770	
Volume	U	U	U	0	0	0	53	0	0	53	17	0	9	0	26	0	44	0	0	44	123
Peak Factor																				10	0.86
High Int.						12:00					12:45					12:00					0.00
Volume	0	0	0	0	0	0	58	0	0	58	17	0	9	0	26	0	46	0	Λ	46	
Peak Factor						-	9.55%	- 5		0.879	liter	v	U	U	0.625	J	10	O	U	0.848	



File Name: 1stEvans Site Code: 00000000 Start Date: 9/5/2012

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		F	1 rom No	rth				1st Stre From Ea					vans St					1st Stre		8	
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From	16:15	to 17:30	- Peak	1 of 1														10.77			
Intersection	16:15										-					N.				1	
Volume	0	0	0	0	0	5	244	7	0	256	47	2	54	2	105	2	242	0	0	244	605
Percent	0.0	0.0	0.0	0.0	-	2.0	95.3	2.7	0.0	200	44.8	1.9	51.4	1.9	100	0.8	99.2	0.0	0.0	277	000
16:45	0	0	•			0774170				10000			10000000000	1.0	V MOORE O			0.0	0.0	2112000	
Volume	U	0	0	0	0	4	60	0	0	64	24	2	24	1	51	0	73	0	0	73	188
Peak Factor																					0.80
High Int.						16:30					16:45					16:45				- 1	0.00
Volume	0	0	0	0	0	0	64	5	0	69	24	2	24	1	51	0	73	0	0	73	
Peak Factor			1000				3.	·		0.928	27	2	24		0.515	U	13	U	U	0.836	



File Name: 1stCotanche

Site Code : 000000000 Start Date : 9/6/2012

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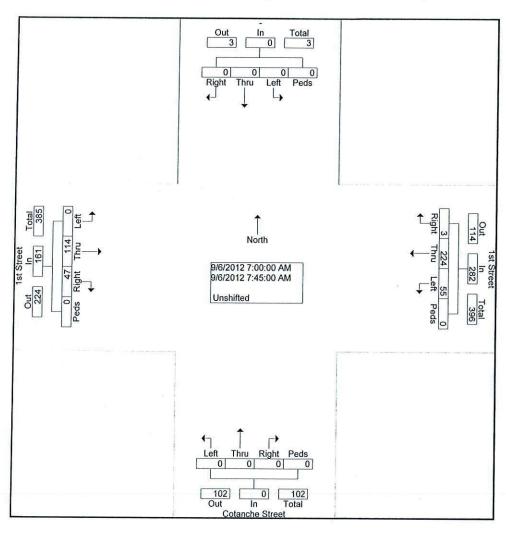
									C	as Diales	l Hastit						Page	e NO	. 1		
								1st Stre		ps Printed	I- Unsnif		anche S	Street				1st Stre	et		
			From No	orth				From Ea	ast				rom So					rom We			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	To
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
06:45	0	0	0	0	0	0	35	6	0	41	0	0	0	0	0	4	19	1	0	24	
Total	0	0	0	0	0	0	35	6	0	41	0	0	0	0	0	4	19	1	0	24	
07:00	0	0	0	0	0	0	49	12	0	61	0	0	0	0	0	5	28	0	0	33	
07:15	0	0	0	0	0	3	64	16	0	83	0	0	0	0	0	7	31	0	0	38	
07:30	0	0	0	0	0	0	60	12	0	72	0	0	0	0	0	24	32	0	0	56	
07:45 Total	0	0	0	0	0	3	51 224	15 55	0	66 282	0	0	0	0	0	11 47	114	0	0	34 161	- 5
00.00	0	0			5552	I REEL							1.00	1 1500				100			
08:00	0	0	0	0	0	0	45	12	0	57	0	0	0	0	0	6	17	0	0	23	
08:15	0	0	0	0	0	0	35	11	0	46	0	0	0	0	0	14	16	0	0	30	
08:30	0	0	0	0	0	0	27	13	0	40	0	0	0	0	0	10	19	0	0	29	
Total	0	0	0	0	0	0	107	36	0	143	0	0	0	0	0	30	52	0	0	82	
10:45	0	0	ó	0	0	0	36	10	. 0	46	0	0	0	0	٥١	E	26	1	٥	32	
Total	0	0	0	0	0	0	36	10	0	46	0	0	0	0	0	5	26 26	1	0	32	
11:00	0	0	0	0		0	00	40	•	I	•			•	G CO					-	
11:15	0	0	0	0	0	0	39	18	0	57	0	0	0	0	0	6	28	0	0	34	
11:30	0	0	0	0	0	0	33 36	13 18	0	46	0	0	0	0	0	9	24	0	0	33	
11:45	0	0	0	0	0	0	38	15	0	54 53	0	0	0	0	0	10 15	28	0	0	38 50	55
Total	0	0	0	0	0	0	146	64	0	210	0	0	0	0	0	40	33 113	0	2	155	
12:00	0	0	0	0	0	0	46	20	0	ce l	0	0	0	0	ا م	40	25	0	٥	40	
12:15	0	0	0	0	0	0	52	20 17	0	66	0	0	0	0	0	13 12	35 37	0	0	48 49	1
12:30	Ö	0	0	0	0	0	51	35	0	86	0	0	0	0	0	11	23	0		36	
		U	U	U		U			U	00	U	U	U	U	0	111	23	0	2	30	9
Total	0	0	0	0	0	0	149	72	0	221	0	0	0	0	0	36	95	0	2	133	
15:45	0	0	0	0	0	0	52	21	0	73	0	0	0	0	0	10	33	1	0	44	
Total	0	0	0	0	0	0	52	21	0	73	0	0	0	0	0	10	33	1	0	44	
EE 16:00	0	0	0	0	0	0	55	15	0	70	0	0	0	0	0	13	45	0	0	58	
16:15 06:30 16:45	0	0	0	0	0	1	48	15	0	64	0	0	0	0	0	11	49	0	1	61	
$od^{6:30}$	0	0	0	0	0	1	59	17	0	77	0	0	0	0	0	14	46	0	0	60	•
16:45	0	0	0	0	0	2	72	28	0	102	0	0	0	0	0	21	82	0	0	103	2
Total	0	0	0	0	0	4	234	75	0	313	0	0	0	0	0	59	222	0	1	282	(
17:00	0	0	0	0	0	0	68	24	0	92	0	0	0	0	0	14	55	0	0	69	
17:15	0	0	0	0	0	0	58	28	0	86	0	0	0	0	0	3	47	3	0	53	
17:30	0	0	0	0	0	0	49	21	0	70	0	0	0	0	0	9	50	0	0	59	1
id Total	0	0	0	0	0		1158	412	0	1577	0	0	0	0	0	257	826	6	5	1094	28
	0.0	0.0	0.0	0.0	0.5			26.1	0.0		0.0	0.0	0.0	0.0			75.5	0.5	0.5	1	
Total %	0.0	0.0	0.0	0.0	0.0	0.3	43.4	15.4	0.0	59.0	0.0	0.0	0.0	0.0	0.0	9.6	30.9	0.2	0.2	41.0	

File Name: 1stCotanche Site Code: 00000000

Start Date : 9/6/2012

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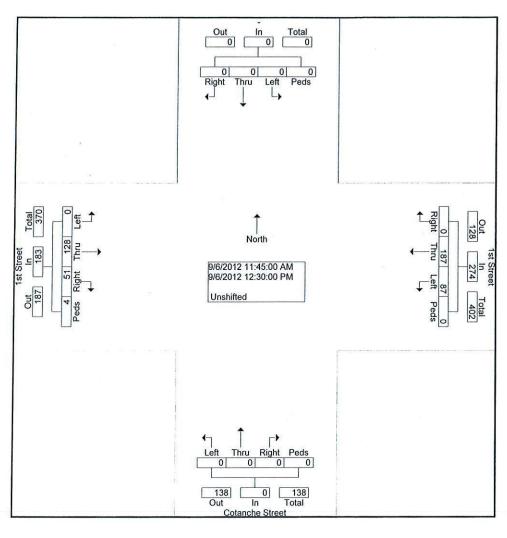
		F	rom No	orth				1st Stre					anche s					1st Stre			
Start Time	3	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Fron	n 06:45	to 08:45	- Peak	1 of 1																1 - 1 - 1	
Intersection	07:00					1					f				1					1	
Volume	0	0	0	0	0	3	224	55	0	282	0	0	- 0	0	0	47	114	0	0	161	443
Percent	0.0	0.0	0.0	0.0		1.1	79.4	19.5	0.0	mon	0.0	0.0	0.0	0.0	1.50	29.2	70.8	0.0	0.0		, ,,,
07:30 Volume	0	0	0	0	0	0	60	12	0	72	0	0	0	0	0	24	32	0	0	56	128
Peak Factor																					0.86
High Int.	6:30:00	MA				07:15					6:30:00	AM			1	07:30					0.00
Volume Peak Factor	0	0	0	0	0	3	64	16	0	83 0.849	0	0	0	0	0	24	32	0	0	56 0.719	



File Name: 1stCotanche Site Code: 00000000 Start Date: 9/6/2012

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		F	rom No	orth				1st Stre					anche s					1st Stre			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Fron	n 11:00	to 12:45	- Peak	1 of 1																70	
Intersection	11:45																				
Volume	0	0	0	0	0	0	187	87	0	274	0	0	0	0	0	51	128	0	4	183	457
Percent	0.0	0.0	0.0	0.0	-	0.0	68.2	31.8	0.0	1000110	0.0	0.0	0.0	0.0		27.9	69.9	0.0	2.2		
12:30 Volume	0	0	0	0	0	0	51	35	0	86	0	0	0	0	0	11	23	0	2	36	122
Peak Factor										9											0.93
High Int.						12:30										11:45					
Volume	0	0	0	0	0	0	51	35	0	86	0	0	0	0	0	15	33	0	2	50	
Peak Factor					58%					0.797										0.915	

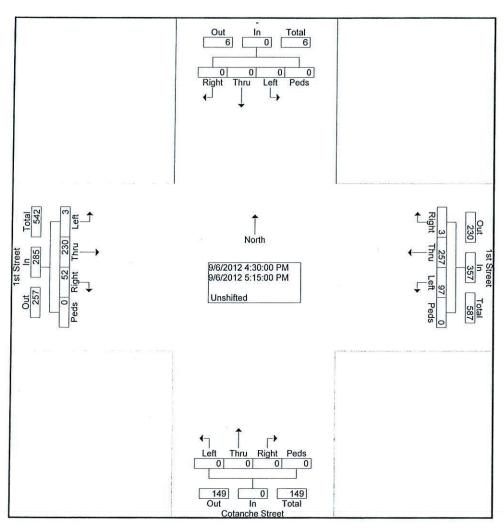


File Name : 1stCotanche Site Code : 00000000

Start Date : 9/6/2012

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		F	rom No	orth				1st Stre					anche s				200	1st Stre			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Fron	n 16:00	to 17:30	- Peak	1 of 1																	
Intersection	16:30																			1	
Volume	0	0	0	0	0	3	257	97	0	357	0	0	0	0	0	52	230	3	0	285	642
Percent	0.0	0.0	0.0	0.0	113	0.8	72.0	27.2	0.0	9900000	0.0	0.0	0.0	0.0	0.007.0	18.2	80.7	1.1	0.0		
16:45	0	0	0	0	0	2	72	28	0	102	0	٥	0	0	0	21	82	0	0	103	205
Volume	U	U	U	U	U	2	12	20	U	102	U	0	U	U	U	21	02	U	U	103	203
Peak Factor																					0.78
High Int.					,	16:45										16:45					
Volume	0	0	0	0	0	2	72	28	0	102	0	0	0	0	0	21	82	0	0	103	
Peak Factor										0.875										0.692	



File Name : 1stReade | Site Code : 00000000

Start Date : 4/4/2012

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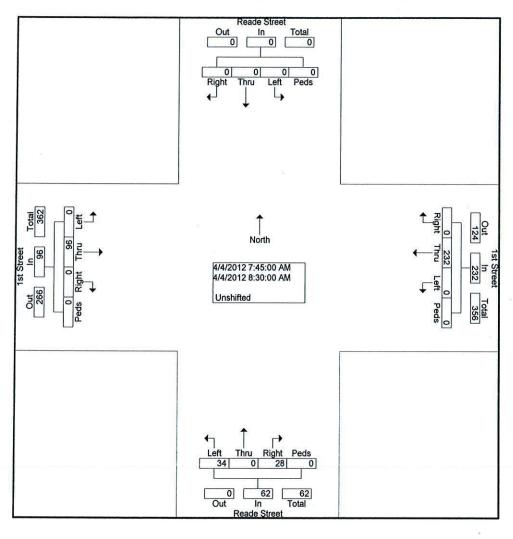
0	Deleted	1114-1
Groups	Printeg-	Unshifted

			eade St					1st Stre	et	os Fillile	01101111	R	eade St					1st Stre			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left		App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	Total	1.0	1.0	1.0	1.0	Total	1.0	1.0	1.0	1.0	TOtal	rotar
07:00	0	0	0	0	0	0	34	0	0	34	2	0	8	0	10	0	11	0	1	12	56
07:15	0	0	0	0	0	0	39	0	0	39	2	0	7	0	9	0	18	0	0	18	66
07:30	0	0	0	0	0	0	50	0	0	50	1	0	4	0	5	0	32	0	0	32	87
07:45	0	0	0	0	0	0	76	0	0	76	5	0	11	0	16	0	27	0	0	27	119
Total	0	0	0	0	0	0	199	0	0	199	10	0	30	0	40	0	88	0	1	89	328
08:00	0	0	0	0	0	0	61	0	0	61	4	0	8	0	12	0	25	0	0	25	98
08:15	0	0	0	0	0	0	41	0	0	41	6	0	6	0	12	0	19	0	0	19	72
08:30	0	0	0	0	0	0	54	0	0	54	13	0	9	0	22	0	25	0	0	25	101
08:45	0	0	0	0	0	0	49	0	0	49	6	0	9	0	15	1	35	0	0	36	100
Total	0	0	0	0	0	0	205	0	0	205	29	0	32	0	61	1	104	0	0	105	371
11:00	0	0	0	0	0	0	29	0	0	29	5	0	21	1	27	0	26	0	0	26	82
11:15	0	0	0	0	0	0	36	0	0	36	13	0	10	0	23	0	22	0	0	22	81
11:30	0	0	0 .	0	0	0	47	0	0	47	11	0	14	0	25	0	38	0	0	38	110
11:45	0	0	0	0	0	0	49	0	0	49	18	0	17	0	35	0	44	0	0	44	128
Total	0	0	0	0	0	0	161	0	0	161	47	0	62	1	110	0	130	0	0	130	401
12:00	0	0	0	0	0	0	47	0	0	47	13	0	17	0	30	0	38	0	0	38	115
12:15	0	0	0	0	0	0	53	0	0	53	17	0	17	1	35	1	43	0	0	44	132
12:30	0.	0	0	0	0	0	49	0	0	49	31	0	20	0	51	0	38	0	0	38	138
12:45	0	0	0	0	0	0	53	0	0	53	12	0	24	1	37	0	34	0	0	34	124
Total	0	0	0	0	0	0	202	0	0	202	73	0	78	2	153	1	153	0	0	154	509
16:00	0	0	0	0	0	0	64	0	0	64	22	0	19	1	42	0	41	0	0	41	147
16:15	0	0	0	0	ő	0	50	Õ	0	50	22	Ö	17	Ó	39	0	40	0	0	40	129
16:30	0	0	0	0	0	2	50	0	0	52	21	0	26	Ö	47	0	53	0	0	53	152
16:45	0	0	0	0	0	1	61	0	0	62	23	0	22	0	45	Ō	50	0	0	50	157
Total	0	0	0	0	0	3	225	0	0	228	88	0	84	1	173	0	184	0	0	184	585
17:00 17:15	0	0	0	0	0	0	48	0	0	48	25	0	30	0	55	1	73	0	0	74	177
<u>Φ</u> 17:15	0	0	0	0	0	0	41	0	0	41	13	0	16	0	29	0	64	Õ	Õ	64	134
∃ 17:30	0	0	0	0	0	0	62	0	0	62	25	0	10	0	35	0	51	0	Õ	51	148
# 17:45	0	0	0	0	0	0	67	0	0	67	14	0	19	0	33	0	50	0	0	50	150
	0	0	0	0	0	0	218	0	0	218	77	0	75	0	152	1	238	0	0	239	609
rand Total	0	0	0	0	0	3	1210	0	0	1213	324	0	361	4	689	3	897	0	1	901	2803
Apprch %	0.0	0.0	0.0	0.0	350	0.2	99.8	0.0	0.0		47.0	0.0	52.4	0.6	555	0.3	99.6	0.0	0.1	551	2000
Total %	0.0	0.0	0.0	0.0	0.0	0.1	43.2	0.0	0.0	43.3	11.6	0.0	12.9	0.1	24.6	0.1	32.0	0.0	0.0	32.1	

File Name: 1stReade Site Code: 00000000 Start Date: 4/4/2012

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			eade St rom No					1st Stre From Ea					eade St			8		1st Stre rom We	100		
Start Time	Right	Thru	Left		App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
eak Hour From	07:00 t	to 08:45	- Peak	1 of 1								- Hi								1000	
Intersection Volume	07:45 0	0	0	0	0	0	232	0	0	232	28	0	34	0	62	0	96	0	0	96	390
Percent	0.0	0.0	0.0	0.0		0.0	100. 0	0.0	0.0		45.2	0.0	54.8	0.0		0.0	100. 0	0.0	0.0		
07:45 Volume Peak Factor	0	0	0	0	0	0	76	0	0	76	5	0	11	0	16	0	27	0	0	27	119
	6:45:00 0	AM 0	0	0	0	07:45 0	76	0	0	76 0.763	08:30 13	0	9	0	22 0.705	07:45 0	27	0	0	27 0.889	0.81

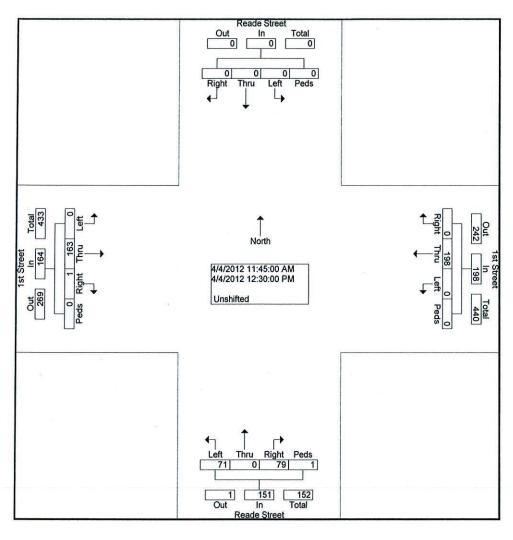


File Name: 1stReade Site Code: 00000000

Start Date : 4/4/2012

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			eade St rom No	1000	74			1st Stre From Ea					eade St					1st Stre	100 Sec.		
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Fron	n 11:00	to 12:45	- Peak	1 of 1													9)				
Intersection	11:45																				
Volume	0	0	0	0	0	0	198	0	0	198	79	0	71	1	151	1	163	0	0	164	513
Percent	0.0	0.0	0.0	0.0		0.0	100. 0	0.0	0.0		52.3	0.0	47.0	0.7		0.6	99.4	0.0	0.0		
12:30 Volume	0	0	0	0	0	0	49	0	0	49	31	0	20	0	51	0	38	0	0	38	138
Peak Factor High Int.						12:15					12:30					11:45					0.92
Volume Peak Factor	0	0	0	0	0	0	53	0	0	53 0.934	31	0	20	0	51 0.740	0	44	0	0	44 0.932	

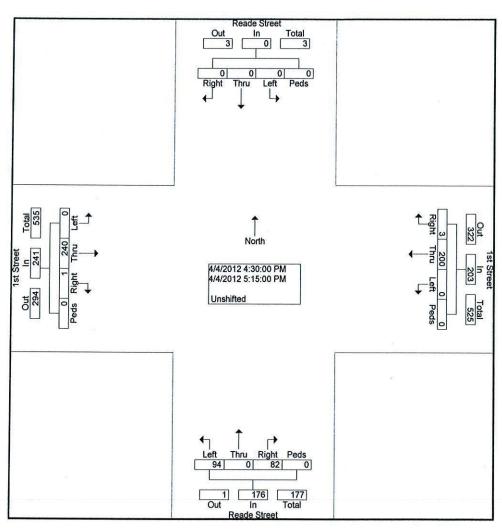


File Name: 1stReade Site Code: 00000000

Start Date : 4/4/2012

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			eade St rom No	000000000000000000000000000000000000000				1st Stre					eade St rom So		1			1st Stre			
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
eak Hour Fron	n 16:00	to 17:45	- Peak	1 of 1																	
Intersection	16:30					1					Ĭ.									Ĩ	
Volume	0	0	0	0	0	3	200	0	0	203	82	0	94	0	176	1	240	0	0	241	620
Percent	0.0	0.0	0.0	0.0		1.5	98.5	0.0	0.0		46.6	0.0	53.4	0.0	11.33	0.4	99.6	0.0	0.0		
17:00 Volume	0	0	0	0	0	0	48	0	0	48	25	0	30	0	55	1	73	0	0	74	177
Peak Factor																					0.87
High Int.						16:45					17:00					17:00					
Volume	0	0	0	0	0	1	61	0	0	62	25	0	30	0	55	1	73	0	0	74	
Peak Factor										0.819					0.800					0.814	



		1st Stre	et Improve ric Growth	Ist Street Improvement Project Historic Growth Rate Data	oct		
			Count	unt		Grow	Growth Rate
Street	Link	2010	2008	2006	2004	2008-2010	2004-2010
S Green St	4th to 5th	0069	0099	ı	1	2.25%	
S Pitt St	4th to 5th	8400	7700	ı	7300		2.37%
E 5th St	East of Reade	13000	9200	13000	13000		0.00%
W 1st St	Washington to Evans	2200	2200	5400	5200		1.54%
E 1st St	Reade to Holly	2900	6200	0009	2200		0.58%

Synchro Output: Existing (2012) AM

	۶	→	•	•	←	•	•	†	~	/	+	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑ ↑		*	†					7	↑ 1>	
Volume (vph)	0	15	24	68	13	0	0	0	0	108	421	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			-1%			0%			3%	
Storage Length (ft)	0		0	50		0	0		0	225		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	100		100	100		100	100		100	25		100
Satd. Flow (prot)	0	2795	0	1633	1719	0	0	0	0	1539	3169	0
Flt Permitted				0.727						0.950		
Satd. Flow (perm)	0	2795	0	1249	1719	0	0	0	0	1539	3169	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27										
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		264			295			379			406	
Travel Time (s)		5.1			5.7			7.4			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	76	14	0	0	0	0	120	468	0
Turn Type				Perm						Perm		
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		7.0		7.0	7.0					10.0	10.0	
Minimum Split (s)		23.0		23.0	23.0					23.0	23.0	
Total Split (s)	0.0	30.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0
Total Split (%)	0.0%	37.5%	0.0%	37.5%	37.5%	0.0%	0.0%	0.0%	0.0%	62.5%	62.5%	0.0%
Yellow Time (s)		3.5		3.5	3.5					4.0	4.0	
All-Red Time (s)		1.5		1.5	1.5					1.6	1.6	
Lost Time Adjust (s)	1.0	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	-0.6	-0.6	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					C-Min	C-Min	
Act Effct Green (s)		9.2		9.2	9.2					64.2	64.2	
Actuated g/C Ratio		0.12		0.12	0.12					0.80	0.80	
v/c Ratio		0.13		0.53	0.07					0.10	0.18	
Control Delay		17.5		18.0	3.8					3.0	2.9	
Queue Delay		0.0		0.0	0.0					0.0	0.0	
Total Delay		17.5		18.0	3.8					3.0	2.9	
LOS		В		В	Α					Α	Α	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		17.5			15.8						2.9	
Approach LOS		В			В						Α	
Queue Length 50th (ft)		4		3	0					11	24	
Queue Length 95th (ft)		17		6	2					30	50	
Internal Link Dist (ft)		184			215			299			326	
Turn Bay Length (ft)				50						225		
Base Capacity (vph)		892		390	537					1236	2544	
Starvation Cap Reductn		0		0	0					0	0	
Spillback Cap Reductn		0		0	0					0	0	
Storage Cap Reductn		0		0	0					0	0	
Reduced v/c Ratio		0.05		0.19	0.03					0.10	0.18	
Intersection Summary												

Intersection Summary

Area Type: CBD

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 37 (46%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 50

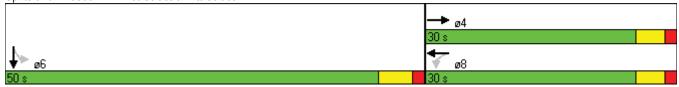
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 5.4 Intersection LOS: A Intersection Capacity Utilization 38.3% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: 1st Street & Pitt Street



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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	^			†	7	7	↑ ↑				
Volume (vph)	9	107	0	0	89	124	7	332	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	8	12	12	12	12	12	12	12	12
Grade (%)		0%			2%			-3%			0%	
Storage Length (ft)	50		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		0	0		0
Taper Length (ft)	100		100	100		100	100		100	100		100
Satd. Flow (prot)	1624	3154	0	0	1693	1425	1649	3213	0	0	0	0
Flt Permitted	0.689						0.950					
Satd. Flow (perm)	1178	3154	0	0	1693	1425	1649	3213	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						148		23				
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		295			324			348			362	
Travel Time (s)		5.7			6.3			6.8			7.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	0%	0%	0%	1%	0%	1%	3%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	127	0	0	106	148	8	437	0	0	0	0
Turn Type	Perm					Perm	Perm					
Protected Phases		4			8			2				
Permitted Phases	4					8	2					
Detector Phase	4	4			8	8	2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0	7.0	10.0	10.0				
Minimum Split (s)	23.0	23.0			23.0	23.0	23.0	23.0				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	30.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	37.5%	37.5%	0.0%	0.0%	37.5%	37.5%	62.5%	62.5%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.6	3.6			3.6	3.6	4.0	4.0				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.8	1.8				
Lost Time Adjust (s)	-0.1	-0.1	1.0	1.0	-0.1	-0.1	-0.8	-0.8	1.0	1.0	1.0	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None	None	C-Min	C-Min				
Act Effct Green (s)	9.2	9.2			9.2	9.2	60.8	60.8				
Actuated g/C Ratio	0.12	0.12			0.12	0.12	0.76	0.76				
v/c Ratio	0.08	0.35			0.54	0.50	0.01	0.18				
Control Delay	33.8	36.1			43.5	12.2	3.0	2.9				
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0				
					43.5	12.2	3.0	2.9				
Total Delay	33.8	36.1			43.3	14.4	5.0	2.5				

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		35.9			25.3			2.9				
Approach LOS		D			С			Α				
Queue Length 50th (ft)	5	32			51	0	1	22				
Queue Length 95th (ft)	19	54			88	40	4	40				
Internal Link Dist (ft)		215			244			268			282	
Turn Bay Length (ft)	50											
Base Capacity (vph)	368	986			529	547	1254	2447				
Starvation Cap Reductn	0	0			0	0	0	0				
Spillback Cap Reductn	0	0			0	0	0	0				
Storage Cap Reductn	0	0			0	0	0	0				
Reduced v/c Ratio	0.03	0.13			0.20	0.27	0.01	0.18				
Intersection Summary												
Area Type:	CBD											
Cycle Length: 80												
Actuated Cycle Length: 80)											
Offset: 30 (38%), Referen	ced to phase	2:NBTL,	Start of 0	Green								
Natural Cycle: 50												
Control Type: Actuated-Co	ordinated											

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 15.1 Intersection LOS: B Intersection Capacity Utilization 38.3% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: 1st Street & Greene Street



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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	∱ 1>			4₽	*	7
Volume (vph)	130	17	41	174	15	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		50	0
Storage Lanes		0	0		1	1
Taper Length (ft)		100	100		175	100
Satd. Flow (prot)	3128	0	0	3153	1540	1377
Flt Permitted				0.990	0.950	
Satd. Flow (perm)	3128	0	0	3153	1540	1377
Link Speed (mph)	35			35	35	
Link Distance (ft)	324			306	327	
Travel Time (s)	6.3			6.0	6.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	171	0	0	250	17	13
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized						
Intersection Capacity Utiliz	zation 24.6%			IC	CU Level	of Service A
Analysis Period (min) 15						

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	† ‡			414	ሻ	7
Volume (veh/h)	130	17	41	174	15	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	151	20	48	202	17	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	324					
pX, platoon unblocked			0.99		0.99	0.99
vC, conflicting volume			171		358	85
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			149		338	63
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		97	99
cM capacity (veh/h)			1419		606	981
	ED 4	ED 0		MD		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	101	70	115	135	17	13
Volume Left	0	0	48	0	17	0
Volume Right	0	20	0	0	0	13
cSH	1700	1700	1419	1700	606	981
Volume to Capacity	0.06	0.04	0.03	0.08	0.03	0.01
Queue Length 95th (ft)	0	0	3	0	2	1
Control Delay (s)	0.0	0.0	3.3	0.0	11.1	8.7
Lane LOS			A		В	Α
Approach Delay (s)	0.0		1.5		10.1	
Approach LOS					В	
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utiliz	zation		24.6%	IC	U Level	of Service
Analysis Period (min)			15			
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	^			^	ሻ	7	
Volume (vph)	142	0	0	221	18	9	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	11	16	
Grade (%)	0%			0%	0%		
Storage Length (ft)		0	0		25	0	
Storage Lanes		0	0		1	1	
Taper Length (ft)		100	100		25	100	
Satd. Flow (prot)	3185	0	0	3185	1540	1615	
Flt Permitted					0.950		
Satd. Flow (perm)	3185	0	0	3185	1540	1615	
Link Speed (mph)	35			35	35		
Link Distance (ft)	306			342	315		
Travel Time (s)	6.0			6.7	6.1		
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)	0%			0%	0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	160	0	0	248	20	10	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type:	CBD						
Control Type: Unsignalized							
Intersection Capacity Utiliza)		IC	CU Level	of Service	A
Analysis Period (min) 15							
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	∱ ∱			4₽		
Volume (vph)	114	47	55	224	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		0	0
Taper Length (ft)		100	100		100	100
Satd. Flow (prot)	3045	0	0	3153	0	0
Flt Permitted				0.990		
Satd. Flow (perm)	3045	0	0	3153	0	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	342			317	329	
Travel Time (s)	6.7			6.2	6.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	320	0	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized						
Intersection Capacity Utiliza	tion 20.5%			IC	U Level	of Service A
Analysis Period (min) 15						

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	† 1>			414		
Volume (veh/h)	114	47	55	224	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	131	54	63	257	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	972					
pX, platoon unblocked						
vC, conflicting volume			185		413	93
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			185		413	93
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		100	100
cM capacity (veh/h)			1387		541	946
	ED 4	ED 0		WD 0		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2		
Volume Total	87	98	149	172		
Volume Left	0	0	63	0		
Volume Right	0	54	0	0		
cSH	1700	1700	1387	1700		
Volume to Capacity	0.05	0.06	0.05	0.10		
Queue Length 95th (ft)	0	0	4	0		
Control Delay (s)	0.0	0.0	3.5	0.0		
Lane LOS	0.0		A			
Approach Delay (s)	0.0		1.6			
Approach LOS						
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utiliz	ation		20.5%	IC	U Level	of Service
Analysis Period (min)			15			
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	^			^	ሻ	7	
Volume (vph)	114	0	0	245	34	28	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	
Grade (%)	0%			0%	0%		
Storage Length (ft)		0	0		0	0	
Storage Lanes		0	0		1	1	
Taper Length (ft)		100	100		100	100	
Satd. Flow (prot)	3185	0	0	3185	1593	1425	
Flt Permitted					0.950		
Satd. Flow (perm)	3185	0	0	3185	1593	1425	
Link Speed (mph)	35			35	35		
Link Distance (ft)	317			803	348		
Travel Time (s)	6.2			15.6	6.8		
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)	0%			0%	0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	139	0	0	299	41	34	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type:	CBD						
Control Type: Unsignalized	l						
Intersection Capacity Utiliza	ation 17.5%)		IC	CU Level	of Service	A e
Analysis Period (min) 15							

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	^			^	*	7
Volume (veh/h)	114	0	0	245	34	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	139	0	0	299	41	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1289					
pX, platoon unblocked						
vC, conflicting volume			139		288	70
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			139		288	70
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		94	97
cM capacity (veh/h)			1442		679	979
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	70	70	149	149	41	34
Volume Left	0	0	0	0	41	0
Volume Right	0	0	0	0	0	34
cSH	1700	1700	1700	1700	679	979
Volume to Capacity	0.04	0.04	0.09	0.09	0.06	0.03
Queue Length 95th (ft)	0	0	0	0	5	3
Control Delay (s)	0.0	0.0	0.0	0.0	10.7	8.8
Lane LOS					В	Α
Approach Delay (s)	0.0		0.0		9.8	
Approach LOS					A	
Intersection Summary						
			1.4			
Average Delay	otion			10	المرااا	of Comiles
Intersection Capacity Utiliza	ation		17.5%	IC	U Level (of Service
Analysis Period (min)			15			

Synchro Output: Existing (2012) Noon

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑ 1>		ሻ	†					ሻ	∱ }	
Volume (vph)	0	13	23	108	21	0	0	0	0	88	427	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			-1%			0%			3%	
Storage Length (ft)	0		0	50		0	0		0	225		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	100		100	100		100	100		100	25		100
Satd. Flow (prot)	0	2782	0	1633	1719	0	0	0	0	1569	3197	0
Flt Permitted				0.730						0.950		
Satd. Flow (perm)	0	2782	0	1255	1719	0	0	0	0	1569	3197	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25									2	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		264			295			379			406	
Travel Time (s)		5.1			5.7			7.4			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	•											
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)		- 70										
Lane Group Flow (vph)	0	39	0	116	23	0	0	0	0	95	463	0
Turn Type	-		-	Perm						Perm		
Protected Phases		4			8						6	
Permitted Phases		•		8						6		
Detector Phase		4		8	8					6	6	
Switch Phase		•										
Minimum Initial (s)		7.0		7.0	7.0					10.0	10.0	
Minimum Split (s)		23.0		23.0	23.0					23.0	23.0	
Total Split (s)	0.0	30.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0
Total Split (%)	0.0%	37.5%	0.0%	37.5%	37.5%	0.0%	0.0%	0.0%	0.0%	62.5%	62.5%	0.0%
Yellow Time (s)	0.070	3.5	0.070	3.5	3.5	0.070	0.070	0.070	0.070	4.0	4.0	0.070
All-Red Time (s)		1.5		1.5	1.5					1.6	1.6	
Lost Time Adjust (s)	1.0	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	-0.6	-0.6	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	0.0	0.0	5.0	0.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	5.0
Lead-Lag Optimize?												
Recall Mode		None		None	None					C-Min	C-Min	
Act Effct Green (s)		11.3		11.3	11.3					62.1	62.1	
Actuated g/C Ratio		0.14		0.14	0.14					0.78	0.78	
v/c Ratio		0.14		0.14	0.14					0.78	0.78	
Control Delay		15.5		31.1	12.4					3.9	3.7	
Queue Delay		0.0		0.0	0.0					0.0	0.0	
Total Delay		15.5		31.1	12.4					3.9	3.7	
LOS		15.5 B		31.1 C	12.4 B					3.9 A	3. <i>1</i>	
LUU		D		U	D					А	А	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		15.5			28.0						3.8	
Approach LOS		В			С						Α	
Queue Length 50th (ft)		3		21	4					10	29	
Queue Length 95th (ft)		15		36	11					30	60	
Internal Link Dist (ft)		184			215			299			326	
Turn Bay Length (ft)				50						225		
Base Capacity (vph)		887		392	537					1217	2480	
Starvation Cap Reductn		0		0	0					0	0	
Spillback Cap Reductn		0		0	0					0	0	
Storage Cap Reductn		0		0	0					0	0	
Reduced v/c Ratio		0.04		0.30	0.04					0.08	0.19	

Intersection Summary

Area Type: CBD

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 50

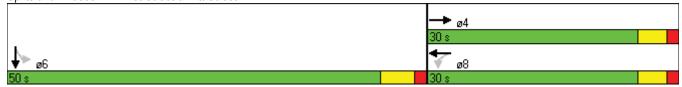
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 9.0 Intersection LOS: A Intersection Capacity Utilization 42.0% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: 1st Street & Pitt Street



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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	^			†	7	ሻ	↑ ↑				
Volume (vph)	15	119	0	0	86	175	23	344	31	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	8	12	12	12	12	12	12	12	12
Grade (%)		0%		_	2%			-3%			0%	
Storage Length (ft)	50	• • • • • • • • • • • • • • • • • • • •	0	0		0	0	0,0	0	0	• • • • • • • • • • • • • • • • • • • •	0
Storage Lanes	1		0	0		1	1		0	0		0
Taper Length (ft)	100		100	100		100	100		100	100		100
Satd. Flow (prot)	1624	3217	0	0	1693	1425	1649	3258	0	0	0	0
Flt Permitted	0.698	0211			.000	1.20	0.950	0200				
Satd. Flow (perm)	1194	3217	0	0	1693	1425	1649	3258	0	0	0	0
Right Turn on Red	1101	0217	Yes		1000	Yes	1010	0200	Yes			Yes
Satd. Flow (RTOR)			100			186		19	100			100
Link Speed (mph)		35			35	100		35			35	
Link Opeca (mpn) Link Distance (ft)		295			324			348			362	
Travel Time (s)		5.7			6.3			6.8			7.1	
Confl. Peds. (#/hr)		5.1			0.0			0.0			7.1	
Confl. Peds. (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	0%	100%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Heavy Vehicles (%)	0%	0	0%	0%	0%	0		0%	0%	0%	0%	0%
Bus Blockages (#/hr)	U	U	U	U	U	U	0	U	U	U	U	U
Parking (#/hr)		0%			0%			0%			0%	
Mid-Block Traffic (%)		U 70			U%			U%			U%	
Shared Lane Traffic (%)	16	127	0	0	91	186	24	399	0	0	0	0
Lane Group Flow (vph)		121	U	0	91		Perm	399	U	0	U	U
Turn Type Protected Phases	Perm	1			8	Perm	Pellii	2				
	1	4			0	0	2	Z				
Permitted Phases	4	4			0	8	2	2				
Detector Phase	4	4			8	0	2	2				
Switch Phase	7.0	7.0			7.0	7.0	40.0	40.0				
Minimum Initial (s)	7.0	7.0			7.0	7.0	10.0	10.0				
Minimum Split (s)	23.0	23.0	0.0	0.0	23.0	23.0	23.0	23.0	0.0	0.0	0.0	0.0
Total Split (s)	30.0	30.0	0.0	0.0	30.0	30.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	37.5%	37.5%	0.0%	0.0%	37.5%	37.5%	62.5%	62.5%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.6	3.6			3.6	3.6	4.0	4.0				
All-Red Time (s)	1.5	1.5	4.0	4.0	1.5	1.5	1.8	1.8	4.0	4.0	4.0	4.0
Lost Time Adjust (s)	-0.1	-0.1	1.0	1.0	-0.1	-0.1	-0.8	-0.8	1.0	1.0	1.0	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None	None	C-Min	C-Min				
Act Effct Green (s)	8.7	8.7			8.7	8.7	61.3	61.3				
Actuated g/C Ratio	0.11	0.11			0.11	0.11	0.77	0.77				
v/c Ratio	0.12	0.36			0.50	0.58	0.02	0.16				
Control Delay	34.4	37.1			42.7	13.2	2.7	2.7				
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0				
Total Delay	34.4	37.1			42.7	13.2	2.7	2.7				
LOS	С	D			D	В	Α	Α				

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		36.8			22.9			2.7				
Approach LOS		D			С			Α				
Queue Length 50th (ft)	8	33			44	0	2	18				
Queue Length 95th (ft)	25	57			85	55	8	37				
Internal Link Dist (ft)		215			244			268			282	
Turn Bay Length (ft)	50											
Base Capacity (vph)	373	1005			529	573	1265	2502				
Starvation Cap Reductn	0	0			0	0	0	0				
Spillback Cap Reductn	0	0			0	0	0	0				
Storage Cap Reductn	0	0			0	0	0	0				
Reduced v/c Ratio	0.04	0.13			0.17	0.32	0.02	0.16				

Intersection Summary

Area Type: CBD

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 15.1 Intersection LOS: B
Intersection Capacity Utilization 42.0% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: 1st Street & Greene Street



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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	∱ ∱			4₽	ሻ	7
Volume (vph)	159	12	42	234	15	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		50	0
Storage Lanes		0	0		1	1
Taper Length (ft)		100	100		175	100
Satd. Flow (prot)	3150	0	0	3160	1540	1377
Flt Permitted				0.992	0.950	
Satd. Flow (perm)	3150	0	0	3160	1540	1377
Link Speed (mph)	35			35	35	
Link Distance (ft)	324			306	327	
Travel Time (s)	6.3			6.0	6.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	0	0	294	16	10
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized						
Intersection Capacity Utiliz	zation 27.2%)		IC	CU Level	of Service
Analysis Period (min) 15						

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	† ‡			414	ሻ	7
Volume (veh/h)	159	12	42	234	15	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	169	13	45	249	16	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	324					
pX, platoon unblocked			0.99		0.99	0.99
vC, conflicting volume			182		389	91
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			158		367	66
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		97	99
cM capacity (veh/h)			1407		582	976
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	113	69	128	166	16	10
Volume Left	0	0	45	0	16	0
Volume Right	1700	13	1407	1700	0	10
cSH	1700	1700	1407	1700	582	976
Volume to Capacity	0.07	0.04	0.03	0.10	0.03	0.01
Queue Length 95th (ft)	0	0	2	0	2	1
Control Delay (s)	0.0	0.0	2.8	0.0	11.4	8.7
Lane LOS	0.0		Α		B	Α
Approach Delay (s)	0.0		1.2		10.4	
Approach LOS					В	
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utiliz	zation		27.2%	IC	U Level	of Service
Analysis Period (min)			15			
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	^			^	, j	7	
Volume (vph)	156	0	0	204	33	31	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	11	16	
Grade (%)	0%			0%	0%		
Storage Length (ft)		0	0		25	0	
Storage Lanes		0	0		1	1	
Taper Length (ft)		100	100		25	100	
Satd. Flow (prot)	3185	0	0	3185	1540	1615	
Flt Permitted					0.950		
Satd. Flow (perm)	3185	0	0	3185	1540	1615	
Link Speed (mph)	35			35	35		
Link Distance (ft)	306			342	315		
Travel Time (s)	6.0			6.7	6.1		
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)	0%			0%	0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	181	0	0	237	38	36	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type:	CBD						
Control Type: Unsignalized							
Intersection Capacity Utiliz	ation 16.3%			IC	CU Level	of Service A	Α
Analysis Period (min) 15							

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	^			^	ሻ	7
Volume (veh/h)	156	0	0	204	33	31
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	181	0	0	237	38	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	630					
pX, platoon unblocked						
vC, conflicting volume			181		300	91
vC1, stage 1 conf vol						,
vC2, stage 2 conf vol						
vCu, unblocked vol			181		300	91
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)					3.0	
tF (s)			2.2		3.5	3.3
p0 queue free %			100		94	96
cM capacity (veh/h)			1391		667	949
· · · · · · · ·	ED 4	ED 0		M/D O		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	91	91	119	119	38	36
Volume Left	0	0	0	0	38	0
Volume Right	1700	0	1700	0	0	36
cSH	1700	1700	1700	1700	667	949
Volume to Capacity	0.05	0.05	0.07	0.07	0.06	0.04
Queue Length 95th (ft)	0	0	0	0	5	3
Control Delay (s)	0.0	0.0	0.0	0.0	10.7	8.9
Lane LOS			2.2		В	Α
Approach Delay (s)	0.0		0.0		9.9	
Approach LOS					Α	
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utiliz	ation		16.3%	IC	U Level	of Service
Analysis Period (min)			15			
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑ ↑			4₽		
Volume (vph)	163	51	87	187	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		0	0
Taper Length (ft)		100	100		100	100
Satd. Flow (prot)	3064	0	0	3134	0	0
Flt Permitted				0.984		
Satd. Flow (perm)	3064	0	0	3134	0	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	342			317	329	
Travel Time (s)	6.7			6.2	6.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	1	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	227	0	0	292	0	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized						
Intersection Capacity Utilization	ation 22.0%)		IC	CU Level	of Service A
Analysis Period (min) 15						

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑ ↑			414		
Volume (veh/h)	163	51	87	187	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	173	54	93	199	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	972					
pX, platoon unblocked						
vC, conflicting volume			228		485	114
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			228		485	114
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		100	100
cM capacity (veh/h)			1338		476	917
Direction, Lane #	EB 1	EB 2	WB 1	WB 2		
Volume Total	116	112	159	133		
Volume Left	0	0	93	0		
Volume Right	0	54	0	0		
cSH	1700	1700	1338	1700		
Volume to Capacity	0.07	0.07	0.07	0.08		
Queue Length 95th (ft)	0	0.07	6	0.00		
Control Delay (s)	0.0	0.0	4.8	0.0		
Lane LOS	0.0	0.0	A	0.0		
Approach Delay (s)	0.0		2.6			
Approach LOS	0.0					
Intersection Summary						
			1.5			
Average Delay	ntion		22.0%	10	Hlavala	of Service
Intersection Capacity Utiliza	ILIOII			IC	U Level (of vice
Analysis Period (min)			15			

	Intersection Summary
	Area Type:
	Control Type: Unsignalize
	Intersection Capacity Utili
	Analysis Period (min) 15
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	^			44	7	7	
Volume (vph)	163	0	0	203	71	79	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	
Grade (%)	0%			0%	0%		
Storage Length (ft)		0	0		0	0	
Storage Lanes		0	0		1	1	
Taper Length (ft)		100	100		100	100	
Satd. Flow (prot)	3179	0	0	3185	1593	1425	
Flt Permitted					0.950		
Satd. Flow (perm)	3179	0	0	3185	1593	1425	
Link Speed (mph)	35			35	35		
Link Distance (ft)	317			803	348		
Travel Time (s)	6.2			15.6	6.8		
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	1	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)	0%			0%	0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	175	0	0	218	76	85	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type:	CBD						
Control Type: Unsignalized							
Intersection Capacity Utilization 17.3%)	ICU Level of Service A				Α

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	^			† †	ሻ	7
Volume (veh/h)	163	0	0	203	71	7 9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	175	0	0	218	76	85
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1289					
pX, platoon unblocked						
vC, conflicting volume			175		284	88
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			175		284	88
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		89	91
cM capacity (veh/h)			1399		682	953
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	88	88	109	109	76	85
Volume Left	0	0	0	0	76	0
Volume Right	0	0	0	0	0	85
cSH	1700	1700	1700	1700	682	953
Volume to Capacity	0.05	0.05	0.06	0.06	0.11	0.09
Queue Length 95th (ft)	0.05	0.03	0.00	0.00	9	7
Control Delay (s)	0.0	0.0	0.0	0.0	10.9	9.1
Lane LOS	0.0	0.0	0.0	0.0	10.9 B	
Approach Delay (s)	0.0		0.0		10.0	Α
Approach LOS	0.0		0.0		10.0	
Approach LOS					А	
Intersection Summary						
Average Delay			2.9			
Intersection Capacity Utiliz	zation		17.3%	IC	U Level	of Service
Analysis Period (min)			15			
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Synchro Output: Existing (2012) PM

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑ ↑		7	1					ች	↑ ↑	
Volume (vph)	0	12	30	105	44	0	0	0	0	124	532	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	12	12	12	12	12	12	12	12	12
Grade (%)		-3%			-1%			0%			3%	
Storage Length (ft)	0		0	50		0	0		0	225		0
Storage Lanes	0		0	1		0	0		0	1		0
Taper Length (ft)	100		100	100		100	100		100	25		100
Satd. Flow (prot)	0	2686	0	1633	1702	0	0	0	0	1569	3194	0
Flt Permitted				0.728						0.950		
Satd. Flow (perm)	0	2686	0	1251	1702	0	0	0	0	1569	3194	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31									2	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		264			295			379			406	
Travel Time (s)		5.1			5.7			7.4			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	8%	0%	0%	1%	0%	0%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	108	45	0	0	0	0	128	554	0
Turn Type				Perm						Perm		
Protected Phases		4			8						6	
Permitted Phases				8						6		
Detector Phase		4		8	8					6	6	
Switch Phase												
Minimum Initial (s)		7.0		7.0	7.0					10.0	10.0	
Minimum Split (s)		23.0		23.0	23.0					23.0	23.0	
Total Split (s)	0.0	30.0	0.0	30.0	30.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0
Total Split (%)	0.0%	37.5%	0.0%	37.5%	37.5%	0.0%	0.0%	0.0%	0.0%	62.5%	62.5%	0.0%
Yellow Time (s)		3.5		3.5	3.5					4.0	4.0	
All-Red Time (s)		1.5		1.5	1.5					1.6	1.6	
Lost Time Adjust (s)	1.0	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	-0.6	-0.6	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None		None	None					C-Min	C-Min	
Act Effct Green (s)		10.9		10.9	10.9					62.5	62.5	
Actuated g/C Ratio		0.14		0.14	0.14					0.78	0.78	
v/c Ratio		0.11		0.64	0.19					0.10	0.22	
Control Delay		14.3		47.8	29.8					3.7	3.7	
Queue Delay		0.0		0.0	0.0					0.0	0.0	
- 1		0.0		0.0	0.0					0.0	0.0	
Total Delay		14.3		47.8	29.8					3.7	3.7	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		14.3			42.5						3.7	
Approach LOS		В			D						Α	
Queue Length 50th (ft)		2		58	24					14	35	
Queue Length 95th (ft)		15		108	56					37	70	
Internal Link Dist (ft)		184			215			299			326	
Turn Bay Length (ft)				50						225		
Base Capacity (vph)		861		391	532					1226	2497	
Starvation Cap Reductn		0		0	0					0	0	
Spillback Cap Reductn		0		0	0					0	0	
Storage Cap Reductn		0		0	0					0	0	
Reduced v/c Ratio		0.05		0.28	0.08					0.10	0.22	

Area Type: CBD

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 37 (46%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 11.0 Intersection LOS: B
Intersection Capacity Utilization 50.2% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: 1st Street & Pitt Street



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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	^			†	7	ሻ	↑ ↑				
Volume (vph)	14	161	0	0	91	216	37	475	67	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	8	12	12	12	12	12	12	12	12
Grade (%)		0%			2%			-3%			0%	
Storage Length (ft)	50		0	0		0	0		0	0		0
Storage Lanes	1		0	0		1	1		0	0		0
Taper Length (ft)	100		100	100		100	100		100	100		100
Satd. Flow (prot)	1624	3217	0	0	1676	1411	1649	3207	0	0	0	0
Flt Permitted	0.686						0.950					
Satd. Flow (perm)	1173	3217	0	0	1676	1411	1649	3207	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						260		32				
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		295			324			348			362	
Travel Time (s)		5.7			6.3			6.8			7.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	2%	0%	1%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	194	0	0	110	260	45	653	0	0	0	0
Turn Type	Perm					Perm	Perm					
Protected Phases		4			8			2				
Permitted Phases	4					8	2					
Detector Phase	4	4			8	8	2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0	7.0	10.0	10.0				
Minimum Split (s)	23.0	23.0			23.0	23.0	23.0	23.0				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	30.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	37.5%	37.5%	0.0%	0.0%	37.5%	37.5%	62.5%	62.5%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.6	3.6			3.6	3.6	4.0	4.0				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.8	1.8				
Lost Time Adjust (s)	-0.1	-0.1	1.0	1.0	-0.1	-0.1	-0.8	-0.8	1.0	1.0	1.0	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None	None	C-Min	C-Min				
Act Effct Green (s)	9.4	9.4			9.4	9.4	60.6	60.6				
Actuated g/C Ratio	0.12	0.12			0.12	0.12	0.76	0.76				
v/c Ratio	0.12	0.51			0.56	0.66	0.04	0.27				
Control Delay	29.7	35.7			43.9	13.1	3.0	3.3				
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0				
Total Delay	29.7	35.7			43.9	13.1	3.0	3.3				
LOS	С	D			D	В	Α	Α				

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		35.2			22.3			3.3				
Approach LOS		D			С			Α				
Queue Length 50th (ft)	8	48			53	0	4	35				
Queue Length 95th (ft)	23	70			89	47	13	61				
Internal Link Dist (ft)		215			244			268			282	
Turn Bay Length (ft)	50											
Base Capacity (vph)	367	1005			524	620	1250	2438				
Starvation Cap Reductn	0	0			0	0	0	0				
Spillback Cap Reductn	0	0			0	0	0	0				
Storage Cap Reductn	0	0			0	0	0	0				
Reduced v/c Ratio	0.05	0.19			0.21	0.42	0.04	0.27				

Area Type: CBD

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 14.1 Intersection LOS: B
Intersection Capacity Utilization 50.2% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: 1st Street & Greene Street



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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑ ↑			4₽	7	7
Volume (vph)	214	6	27	274	14	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		50	0
Storage Lanes		0	0		1	1
Taper Length (ft)		100	100		175	100
Satd. Flow (prot)	3173	0	0	3173	1540	1377
Flt Permitted				0.996	0.950	
Satd. Flow (perm)	3173	0	0	3173	1540	1377
Link Speed (mph)	35			35	35	
Link Distance (ft)	324			306	327	
Travel Time (s)	6.3			6.0	6.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)	201			00/	00/	
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)	0.50			0.10	10	00
Lane Group Flow (vph)	253	0	0	346	16	20
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized	d					
Intersection Capacity Utiliz	zation 29.4%	ı		IC	CU Level	of Service A
Analysis Period (min) 15						

	-	•	•	←	4	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	† ‡			414	*	7
Volume (veh/h)	214	6	27	274	14	17
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	246	7	31	315	16	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	324					
pX, platoon unblocked			0.97		0.97	0.97
vC, conflicting volume			253		469	126
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			175		397	45
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		97	98
cM capacity (veh/h)			1360		551	987
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	164	89	136	210	16	20
Volume Left		09	31		16	0
	0	7	0	0	0	20
Volume Right cSH	1700	1700	1360	1700	551	987
	0.10	0.05	0.02	0.12	0.03	0.02
Volume to Capacity			0.02	0.12	0.03	
Queue Length 95th (ft)	0.0	0.0		0.0	11.7	2 8.7
Control Delay (s)	0.0	0.0	1.9	0.0	11.7 B	
Lane LOS	0.0		A 0.7		10.1	Α
Approach Delay (s) Approach LOS	0.0		0.7		10.1 B	
Approach LOS					D	
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utiliz	zation		29.4%	IC	U Level	of Service
Analysis Period (min)			15			
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	^			^	7	7
Volume (vph)	242	0	0	244	54	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	16
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		25	0
Storage Lanes		0	0		1	1
Taper Length (ft)		100	100		25	100
Satd. Flow (prot)	3185	0	0	3185	1540	1070
Flt Permitted					0.950	
Satd. Flow (perm)	3185	0	0	3185	1540	1070
Link Speed (mph)	35			35	35	
Link Distance (ft)	306			342	315	
Travel Time (s)	6.0			6.7	6.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	54%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	299	0	0	301	67	58
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized	1					
Intersection Capacity Utilization	ation 17.5%)		IC	CU Level	of Service A
Analysis Period (min) 15						

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	^			^	*	7
Volume (veh/h)	242	0	0	244	54	47
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	299	0	0	301	67	58
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	630					
pX, platoon unblocked						
vC, conflicting volume			299		449	149
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			299		449	149
tC, single (s)			4.1		6.8	8.0
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.8
p0 queue free %			100		88	92
cM capacity (veh/h)			1259		538	728
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	149	149	151	151	67	58
Volume Left	0	0	0	0	67	0
Volume Right	0	0	0	0	0	58
cSH	1700	1700	1700	1700	538	728
Volume to Capacity	0.09	0.09	0.09	0.09	0.12	0.08
Queue Length 95th (ft)	0.03	0.03	0.03	0.03	11	6
Control Delay (s)	0.0	0.0	0.0	0.0	12.6	10.4
Lane LOS	0.0	0.0	0.0	3.0	12.0 B	В
Approach Delay (s)	0.0		0.0		11.6	
Approach LOS	0.0		0.0		В	
Intersection Summary			0.0			
Average Delay	41		2.0		111.	
Intersection Capacity Utiliza	ation		17.5%	IC	U Level (of Service
Analysis Period (min)			15			

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	∱ ∱			4₽		
Volume (vph)	240	52	97	257	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	11	11
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		0	0
Taper Length (ft)		100	100		100	100
Satd. Flow (prot)	3099	0	0	3141	0	0
Flt Permitted				0.986		
Satd. Flow (perm)	3099	0	0	3141	0	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	342			317	329	
Travel Time (s)	6.7			6.2	6.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	375	0	0	453	0	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized						
Intersection Capacity Utiliz	ation 26.9%)		IC	CU Level	of Service
Analysis Period (min) 15						

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑ ↑			414		
Volume (veh/h)	240	52	97	257	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	308	67	124	329	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	972					
pX, platoon unblocked						
vC, conflicting volume			374		754	187
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			374		754	187
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			89		100	100
cM capacity (veh/h)			1181		308	823
Direction, Lane #	EB 1	EB 2	WB 1	WB 2		
Volume Total	205	169	234	220		
Volume Left	0	0	124	0		
Volume Right	0	67	0	0		
cSH	1700	1700	1181	1700		
Volume to Capacity	0.12	0.10	0.11	0.13		
Queue Length 95th (ft)	0	0	9	0		
Control Delay (s)	0.0	0.0	4.9	0.0		
Lane LOS			A			
Approach Delay (s)	0.0		2.5			
Approach LOS						
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization	ation		26.9%	10	יוון איטן ל	of Service
Analysis Period (min)	aliUII		15	10	O LEVEL	JI SEI VICE
Analysis Fellou (IIIIII)			13			

Lane Group EBT EBR WBL WBT NBR Lane Configurations ↑↑ ↑↑ ↑ ↑ Volume (vph) 240 0 0 260 94 82 Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900 1900 Lane Width (ft) 12
Volume (vph) 240 0 0 260 94 82 Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900 Lane Width (ft) 12 12 12 12 12 12 12 12 Grade (%) 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0% 0
Volume (vph) 240 0 0 260 94 82 Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900 Lane Width (ft) 12 12 12 12 12 12 12 Grade (%) 0% 0% 0% 0% 0% 0% 0% 0% 0% 0
Lane Width (ft) 12
Grade (%) 0% 0% 0% Storage Length (ft) 0 0 0 0 Storage Lanes 0 0 1 1 Taper Length (ft) 100 100 100 100 Satd. Flow (prot) 3185 0 0 3185 1593 1425 Flt Permitted 0.950 0 0 3185 1593 1425 Satd. Flow (perm) 3185 0 0 3185 1593 1425 Link Speed (mph) 35 35 35 35 Link Distance (ft) 317 803 348 Travel Time (s) 6.2 15.6 6.8 Confl. Peds. (#/hr) Confl. Bikes (#/hr) 0.88 0.88 0.88 0.88 0.88
Storage Length (ft) 0 0 0 0 Storage Lanes 0 0 1 1 Taper Length (ft) 100 100 100 100 Satd. Flow (prot) 3185 0 0 3185 1593 1425 Flt Permitted 0.950 0.950 0 0.950 0.950 0 0.950 0 0.950 0 0.950 0.950 0 0.950 0.950 <td< td=""></td<>
Storage Lanes 0 0 1 1 Taper Length (ft) 100 100 100 100 Satd. Flow (prot) 3185 0 0 3185 1593 1425 Flt Permitted 0.950 0
Taper Length (ft) 100 100 100 100 Satd. Flow (prot) 3185 0 0 3185 1593 1425 Flt Permitted 0.950
Satd. Flow (prot) 3185 0 0 3185 1593 1425 Flt Permitted 0.950 Satd. Flow (perm) 3185 0 0 3185 1593 1425 Link Speed (mph) 35 35 35 Link Distance (ft) 317 803 348 Travel Time (s) 6.2 15.6 6.8 Confl. Peds. (#/hr) Confl. Bikes (#/hr) Peak Hour Factor 0.88 0.88 0.88 0.88 0.88
Flt Permitted 0.950 Satd. Flow (perm) 3185 0 0 3185 1593 1425 Link Speed (mph) 35 35 35 Link Distance (ft) 317 803 348 Travel Time (s) 6.2 15.6 6.8 Confl. Peds. (#/hr) Confl. Bikes (#/hr) Peak Hour Factor 0.88 0.88 0.88 0.88 0.88
Satd. Flow (perm) 3185 0 0 3185 1593 1425 Link Speed (mph) 35 35 35 Link Distance (ft) 317 803 348 Travel Time (s) 6.2 15.6 6.8 Confl. Peds. (#/hr) Confl. Bikes (#/hr) Peak Hour Factor 0.88 0.88 0.88 0.88 0.88
Link Speed (mph) 35 35 35 Link Distance (ft) 317 803 348 Travel Time (s) 6.2 15.6 6.8 Confl. Peds. (#/hr) Confl. Bikes (#/hr) Peak Hour Factor 0.88 0.88 0.88 0.88 0.88 0.88
Link Distance (ft) 317 803 348 Travel Time (s) 6.2 15.6 6.8 Confl. Peds. (#/hr) Confl. Bikes (#/hr) Peak Hour Factor 0.88 0.88 0.88 0.88 0.88 0.88
Travel Time (s) 6.2 15.6 6.8 Confl. Peds. (#/hr) Confl. Bikes (#/hr) Peak Hour Factor 0.88 0.88 0.88 0.88 0.88 0.88
Confl. Peds. (#/hr) Confl. Bikes (#/hr) Peak Hour Factor 0.88 0.88 0.88 0.88 0.88
Confl. Bikes (#/hr) Peak Hour Factor 0.88 0.88 0.88 0.88 0.88 0.88
Peak Hour Factor 0.88 0.88 0.88 0.88 0.88
Growth Factor 100% 100% 100% 100% 100% 100%
Heavy Vehicles (%) 2% 2% 2% 2% 2% 2%
Bus Blockages (#/hr) 0 0 0 0 0
Parking (#/hr)
Mid-Block Traffic (%) 0% 0%
Shared Lane Traffic (%)
Lane Group Flow (vph) 273 0 0 295 107 93
Sign Control Free Free Stop
Intersection Summary
Area Type: CBD
Control Type: Unsignalized
Intersection Capacity Utilization 20.4% ICU Level of Service A
Analysis Period (min) 15

MovementEBTEBRWBLWBTNBLNBRLane Configurations↑↑↑↑↑↑Volume (veh/h)240002609482Sign ControlFreeFreeStop
Lane Configurations †† Volume (veh/h) 240 0 0 260 94 82 Sign Control Free Free Stop
Volume (veh/h) 240 0 0 260 94 82 Sign Control Free Free Stop
Sign Control Free Free Stop
Grade 0% 0% 0%
Peak Hour Factor 0.88 0.88 0.88 0.88 0.88 0.88
Hourly flow rate (vph) 273 0 0 295 107 93
Pedestrians
Lane Width (ft)
Walking Speed (ft/s)
Percent Blockage
Right turn flare (veh)
Median type None None
Median storage veh)
Upstream signal (ft) 1289
pX, platoon unblocked
vC, conflicting volume 273 420 136
vC1, stage 1 conf vol
vC2, stage 2 conf vol
vCu, unblocked vol 273 420 136
tC, single (s) 4.1 6.8 6.9
tC, 2 stage (s)
tF (s) 2.2 3.5 3.3
p0 queue free % 100 81 89
cM capacity (veh/h) 1288 561 887
, , ,
Direction, Lane # EB 1 EB 2 WB 1 WB 2 NB 1 NB 2
Volume Total 136 136 148 148 107 93
Volume Left 0 0 0 0 107 0
Volume Right 0 0 0 0 0 93
cSH 1700 1700 1700 1700 561 887
Volume to Capacity 0.08 0.08 0.09 0.09 0.19 0.11
Queue Length 95th (ft) 0 0 0 17 9
Control Delay (s) 0.0 0.0 0.0 12.9 9.5
Lane LOS B A
Approach Delay (s) 0.0 0.0 11.3
Approach LOS B
Intersection Summary
Average Delay 3.0
Intersection Capacity Utilization 20.4% ICU Level of Service
Analysis Period (min) 15
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Synchro Output: Future Build (2018) AM

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		†	7	ሻ	†					ሻ	↑ ↑	
Volume (vph)	0	15	24	68	13	0	0	0	0	108	421	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	11	11	11	12	12	12	12	12	12
Grade (%)		-3%			-1%			0%			3%	
Storage Length (ft)	0		0	50		0	0		0	225		0
Storage Lanes	0		1	1		0	0		0	1		0
Taper Length (ft)	100		100	100		100	100		100	25		100
Satd. Flow (prot)	0	1620	1377	1578	1661	0	0	0	0	1539	3169	0
Flt Permitted				0.746						0.950		
Satd. Flow (perm)	0	1620	1377	1239	1661	0	0	0	0	1539	3169	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			27									
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		264			295			379			406	
Travel Time (s)		5.1			5.7			7.4			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	27	76	14	0	0	0	0	120	468	0
Turn Type			Perm	Perm						Perm		
Protected Phases		4			8						6	
Permitted Phases			4	8						6		
Detector Phase		4	4	8	8					6	6	
Switch Phase												
Minimum Initial (s)		7.0	7.0	7.0	7.0					10.0	10.0	
Minimum Split (s)		23.0	23.0	23.0	23.0					23.0	23.0	
Total Split (s)	0.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0
Total Split (%)	0.0%	37.5%	37.5%	37.5%	37.5%	0.0%	0.0%	0.0%	0.0%	62.5%	62.5%	0.0%
Yellow Time (s)		3.5	3.5	3.5	3.5					4.0	4.0	
All-Red Time (s)		1.5	1.5	1.5	1.5					1.6	1.6	
Lost Time Adjust (s)	1.0	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	-0.6	-0.6	1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None	None	None	None					C-Min	C-Min	
Act Effct Green (s)		10.5	9.5	10.5	10.5					62.9	62.9	
Actuated g/C Ratio		0.13	0.12	0.13	0.13					0.79	0.79	
v/c Ratio		0.08	0.14	0.47	0.06					0.10	0.19	
Control Delay		29.3	13.4	19.3	8.8					3.5	3.4	
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	
Total Delay		29.3	13.4	19.3	8.8					3.5	3.4	
LOS		С	В	В	Α					Α	Α	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		19.5			17.7						3.4	
Approach LOS		В			В						Α	
Queue Length 50th (ft)		8	0	9	2					13	28	
Queue Length 95th (ft)		24	21	12	4					33	55	
Internal Link Dist (ft)		184			215			299			326	
Turn Bay Length (ft)				50						225		
Base Capacity (vph)		506	432	387	519					1209	2490	
Starvation Cap Reductn		0	0	0	0					0	0	
Spillback Cap Reductn		0	0	0	0					0	0	
Storage Cap Reductn		0	0	0	0					0	0	
Reduced v/c Ratio		0.03	0.06	0.20	0.03					0.10	0.19	

Area Type: **CBD**

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 30 (38%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 50

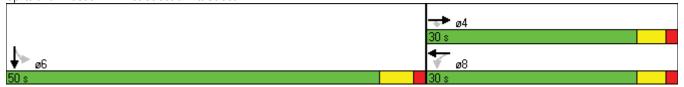
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 6.2 Intersection LOS: A Intersection Capacity Utilization 38.3% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: 1st Street & Pitt Street



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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	*	†			†	7	ሻ	↑ ↑				
Volume (vph)	9	107	0	0	89	124	7	332	35	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	12	12	12	12	12	12
Grade (%)		0%			2%			-3%			0%	
Storage Length (ft)	50		0	0		50	0		0	0		0
Storage Lanes	1		0	0		1	1		0	0		0
Taper Length (ft)	100		100	100		50	100		100	100		100
Satd. Flow (prot)	1570	1605	0	0	1636	1377	1649	3213	0	0	0	0
Flt Permitted	0.689						0.950					
Satd. Flow (perm)	1139	1605	0	0	1636	1377	1649	3213	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						148		23				
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		295			324			348			362	
Travel Time (s)		5.7			6.3			6.8			7.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	3%	0%	0%	0%	1%	0%	1%	3%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	127	0	0	106	148	8	437	0	0	0	0
Turn Type	Perm					Perm	Perm					
Protected Phases		4			8			2				
Permitted Phases	4					8	2					
Detector Phase	4	4			8	8	2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0	7.0	10.0	10.0				
Minimum Split (s)	23.0	23.0			23.0	23.0	23.0	23.0				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	30.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	37.5%	37.5%	0.0%	0.0%	37.5%	37.5%	62.5%	62.5%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.6	3.6			3.6	3.6	4.0	4.0				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.8	1.8				
Lost Time Adjust (s)	-0.1	-0.1	1.0	1.0	-0.1	-0.1	-0.8	-0.8	1.0	1.0	1.0	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None	None	C-Min	C-Min				
Act Effct Green (s)	11.8	11.8			11.8	11.8	58.2	58.2				
Actuated g/C Ratio	0.15	0.15			0.15	0.15	0.73	0.73				
v/c Ratio	0.07	0.54			0.44	0.45	0.01	0.19				
Control Delay	32.3	43.8			35.9	10.0	4.0	3.8				
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0				
Total Delay	32.3	43.8			35.9	10.0	4.0	3.8				
LOS	С	D			D	Α	Α	Α				

 $\label{thm:linear_continuity} K:\RAL_TPTO\Traffic\012654006\ 1st\ Street\ Parking\T4-Analysis\Synchro\Existing\ Build\ AM.syn\ Kimley-Horn\ and\ Associates,\ Inc.$

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		42.9			20.8			3.8				
Approach LOS		D			С			Α				
Queue Length 50th (ft)	5	61			49	0	1	27				
Queue Length 95th (ft)	18	104			83	38	5	48				
Internal Link Dist (ft)		215			244			268			282	
Turn Bay Length (ft)	50					50						
Base Capacity (vph)	356	502			511	532	1201	2345				
Starvation Cap Reductn	0	0			0	0	0	0				
Spillback Cap Reductn	0	0			0	0	0	0				
Storage Cap Reductn	0	0			0	0	0	0				
Reduced v/c Ratio	0.03	0.25			0.21	0.28	0.01	0.19				
Intono attan Comment												

Area Type: CBD

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 30 (38%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 15.4 Intersection LOS: B
Intersection Capacity Utilization 38.3% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: 1st Street & Greene Street



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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	f)			4	7	7
Volume (vph)	130	17	41	174	15	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		50	0
Storage Lanes		0	0		1	1
Taper Length (ft)		100	100		175	100
Satd. Flow (prot)	1595	0	0	1604	1540	1377
Flt Permitted				0.990	0.950	
Satd. Flow (perm)	1595	0	0	1604	1540	1377
Link Speed (mph)	35			35	35	
Link Distance (ft)	324			306	327	
Travel Time (s)	6.3			6.0	6.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	171	0	0	250	17	13
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized						
Intersection Capacity Utiliza	ation 34.8%)		IC	CU Level	of Service
Analysis Period (min) 15						

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			4	ሻ	7
Volume (veh/h)	130	17	41	174	15	11
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	151	20	48	202	17	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	324					
pX, platoon unblocked			0.95		0.95	0.95
vC, conflicting volume			171		459	161
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			96		400	85
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		97	99
cM capacity (veh/h)			1418		554	921
,	EB 1	MD 1		NB 2		
Direction, Lane # Volume Total	171	WB 1 250	NB 1 17	13		
Volume Left		48	17	0		
	0 20		0	13		
Volume Right cSH	1700	0 1418	554	921		
	0.10	0.03	0.03	0.01		
Volume to Capacity		0.03	0.03			
Queue Length 95th (ft) Control Delay (s)	0.0	1.7	11.7	9.0		
, ,	0.0					
Lane LOS	0.0	A	10 E	Α		
Approach Delay (s) Approach LOS	0.0	1.7	10.5 B			
Approach LOS			В			
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utiliza	ation		34.8%	IC	U Level o	of Service
Analysis Period (min)			15			
. ,						

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	†			†	*	7
Volume (vph)	142	0	0	221	18	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	16
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		25	0
Storage Lanes		0	0		1	1
Taper Length (ft)		100	100		25	100
Satd. Flow (prot)	1621	0	0	1621	1540	1615
Flt Permitted					0.950	
Satd. Flow (perm)	1621	0	0	1621	1540	1615
Link Speed (mph)	35			35	35	
Link Distance (ft)	306			342	315	
Travel Time (s)	6.0			6.7	6.1	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	160	0	0	248	20	10
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalize	d					

ICU Level of Service A

Intersection Capacity Utilization 22.9%

Analysis Period (min) 15

	-	•	1	←	4	1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	†			†	ሻ	7
Volume (veh/h)	142	0	0	221	18	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	160	0	0	248	20	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	630					
pX, platoon unblocked						
vC, conflicting volume			160		408	160
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			160		408	160
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		97	99
cM capacity (veh/h)			1420		600	886
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	160	248	20	10		
Volume Left	0	0	20	0		
Volume Right	0	0	0	10		
cSH	1700	1700	600	886		
Volume to Capacity	0.09	0.15	0.03	0.01		
Queue Length 95th (ft)	0	0	3	1		
Control Delay (s)	0.0	0.0	11.2	9.1		
Lane LOS			В	Α		
Approach Delay (s)	0.0	0.0	10.5			
Approach LOS			В			
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utiliza	ation		22.9%	IC	Ul evel d	of Service
Analysis Period (min)	20011		15	10	- 5 L0 VOI (J. 001 VI00
Analysis i chou (iiiii)			10			

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			ર્ન		
Volume (vph)	114	47	55	224	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	75		0	0
Storage Lanes		0	0		0	0
Taper Length (ft)		100	100		100	100
Satd. Flow (prot)	1557	0	0	1604	0	0
Flt Permitted				0.990		
Satd. Flow (perm)	1557	0	0	1604	0	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	342			317	329	
Travel Time (s)	6.7			6.2	6.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	185	0	0	320	0	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized						
Intersection Capacity Utiliz	zation 33.0%)		IC	CU Level	of Service
Analysis Period (min) 15						

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			ર્ન		
Volume (veh/h)	114	47	55	224	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	131	54	63	257	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	972					
pX, platoon unblocked						
vC, conflicting volume			185		542	158
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			185		542	158
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		100	100
cM capacity (veh/h)			1390		479	887
Direction, Lane #	EB 1	WB 1				
Volume Total	185	321				
Volume Left	0	63				
	54	0				
Volume Right cSH	1700	1390				
Volume to Capacity	0.11	0.05				
Queue Length 95th (ft)	0.11	4				
Control Delay (s)	0.0	1.9				
Lane LOS	0.0	1.9 A				
Approach Delay (s)	0.0	1.9				
Approach LOS	0.0	1.9				
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utiliza	ation		33.0%	IC	CU Level of	of Service
Analysis Period (min)			15			

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	†			†	ሻ	7	
Volume (vph)	114	0	0	245	34	28	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	12	12	
Grade (%)	0%			0%	0%		
Storage Length (ft)		0	0		0	0	
Storage Lanes		0	0		1	1	
Taper Length (ft)		100	100		100	100	
Satd. Flow (prot)	1621	0	0	1621	1593	1425	
Flt Permitted					0.950		
Satd. Flow (perm)	1621	0	0	1621	1593	1425	
Link Speed (mph)	35			35	35		
Link Distance (ft)	317			803	348		
Travel Time (s)	6.2			15.6	6.8		
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)	0%			0%	0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	139	0	0	299	41	34	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type:	CBD						
Control Type: Unsignalized							
Intersection Capacity Utiliza	ation 24.3%			IC	CU Level	of Service	A
Analysis Period (min) 15							

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	†				ሻ	7
Volume (veh/h)	114	0	0	245	34	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	139	0	0	299	41	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1289					
pX, platoon unblocked						
vC, conflicting volume			139		438	139
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			139		438	139
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		93	96
cM capacity (veh/h)			1444		576	909
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	139	299	41	34		
Volume Left	0	0	41	0		
Volume Right	0	0	0	34		
cSH	1700	1700	576	909		
Volume to Capacity	0.08	0.18	0.07	0.04		
Queue Length 95th (ft)	0.00	0	6	3		
Control Delay (s)	0.0	0.0	11.7	9.1		
Lane LOS		0.0	В	A		
Approach Delay (s)	0.0	0.0	10.6	, ,		
Approach LOS		0.0	В			
Intersection Summary						
			1.6			
Average Delay Intersection Capacity Utilization	otion		24.3%	10	ا ا ا میرما د	of Service
	autiti			IC	O Level (JI SELVICE
Analysis Period (min)			15			

Synchro Output: Future Build (2018) Noon

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		1	7	*	†					7	↑ ↑	
Volume (vph)	0	13	23	108	21	0	0	0	0	88	427	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	11	11	11	12	12	12	12	12	12
Grade (%)		-3%			-1%			0%			3%	
Storage Length (ft)	0		0	50		0	0		0	225		0
Storage Lanes	0		1	1		0	0		0	1		0
Taper Length (ft)	100		100	100		100	100		100	25		100
Satd. Flow (prot)	0	1620	1377	1578	1661	0	0	0	0	1569	3197	0
Flt Permitted				0.748						0.950		
Satd. Flow (perm)	0	1620	1377	1243	1661	0	0	0	0	1569	3197	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			25								2	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		264			295			379			406	
Travel Time (s)		5.1			5.7			7.4			7.9	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	14	25	116	23	0	0	0	0	95	463	0
Turn Type			Perm	Perm						Perm		
Protected Phases		4			8						6	
Permitted Phases			4	8						6		
Detector Phase		4	4	8	8					6	6	
Switch Phase												
Minimum Initial (s)		7.0	7.0	7.0	7.0					10.0	10.0	
Minimum Split (s)		23.0	23.0	23.0	23.0					23.0	23.0	
Total Split (s)	0.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0
Total Split (%)	0.0%	37.5%	37.5%	37.5%	37.5%	0.0%	0.0%	0.0%	0.0%	62.5%	62.5%	0.0%
Yellow Time (s)		3.5	3.5	3.5	3.5					4.0	4.0	
All-Red Time (s)		1.5	1.5	1.5	1.5					1.6	1.6	
Lost Time Adjust (s)	1.0	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	-0.6	-0.6	1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		None	None	None	None					C-Min	C-Min	
Act Effct Green (s)		11.4	10.4	11.4	11.4					62.0	62.0	
Actuated g/C Ratio		0.14	0.13	0.14	0.14					0.78	0.78	
v/c Ratio		0.06	0.12	0.65	0.10					0.08	0.19	
Control Delay		27.5	12.8	31.8	13.1					4.0	3.8	
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	
Total Delay		27.5	12.8	31.8	13.1					4.0	3.8	
LOS		С	В	С	В					Α	Α	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		18.1			28.7						3.8	
Approach LOS		В			С						Α	
Queue Length 50th (ft)		6	0	22	4					11	29	
Queue Length 95th (ft)		20	20	37	12					30	60	
Internal Link Dist (ft)		184			215			299			326	
Turn Bay Length (ft)				50						225		
Base Capacity (vph)		506	431	388	519					1216	2477	
Starvation Cap Reductn		0	0	0	0					0	0	
Spillback Cap Reductn		0	0	0	0					0	0	
Storage Cap Reductn		0	0	0	0					0	0	
Reduced v/c Ratio		0.03	0.06	0.30	0.04					0.08	0.19	

Area Type: CBD

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 50

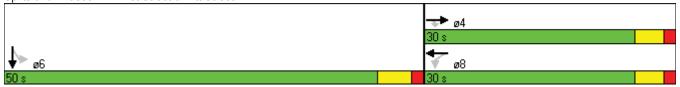
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 9.3 Intersection LOS: A Intersection Capacity Utilization 42.0% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: 1st Street & Pitt Street



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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	1			1	7	7	↑ ↑				
Volume (vph)	15	119	0	0	86	175	23	344	31	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	12	12	12	12	12	12
Grade (%)		0%			2%			-3%			0%	
Storage Length (ft)	50		0	0		50	0		0	0		0
Storage Lanes	1		0	0		1	1		0	0		0
Taper Length (ft)	100		100	100		50	100		100	100		100
Satd. Flow (prot)	1570	1637	0	0	1636	1377	1649	3258	0	0	0	0
Flt Permitted	0.698						0.950					
Satd. Flow (perm)	1154	1637	0	0	1636	1377	1649	3258	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						186		19				
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		295			324			348			362	
Travel Time (s)		5.7			6.3			6.8			7.1	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	127	0	0	91	186	24	399	0	0	0	0
Turn Type	Perm					Perm	Perm					
Protected Phases		4			8			2				
Permitted Phases	4					8	2					
Detector Phase	4	4			8	8	2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0	7.0	10.0	10.0				
Minimum Split (s)	23.0	23.0			23.0	23.0	23.0	23.0				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	30.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	37.5%	37.5%	0.0%	0.0%	37.5%	37.5%	62.5%	62.5%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.6	3.6			3.6	3.6	4.0	4.0				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.8	1.8				
Lost Time Adjust (s)	-0.1	-0.1	1.0	1.0	-0.1	-0.1	-0.8	-0.8	1.0	1.0	1.0	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None	None	C-Min	C-Min				
Act Effct Green (s)	10.2	10.2			10.2	10.2	59.8	59.8				
Actuated g/C Ratio	0.13	0.13			0.13	0.13	0.75	0.75				
v/c Ratio	0.11	0.61			0.44	0.55	0.02	0.16				
Control Delay	32.7	46.6			37.9	11.6	3.3	3.3				
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0				
Total Delay	32.7	46.6			37.9	11.6	3.3	3.3				
LOS	С	D			D	В	Α	Α				

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		45.1			20.2			3.3				
Approach LOS		D			С			Α				
Queue Length 50th (ft)	8	61			43	0	2	21				
Queue Length 95th (ft)	24	111			81	52	9	43				
Internal Link Dist (ft)		215			244			268			282	
Turn Bay Length (ft)	50					50						
Base Capacity (vph)	361	512			511	558	1232	2439				
Starvation Cap Reductn	0	0			0	0	0	0				
Spillback Cap Reductn	0	0			0	0	0	0				
Storage Cap Reductn	0	0			0	0	0	0				
Reduced v/c Ratio	0.04	0.25			0.18	0.33	0.02	0.16				
Intersection Cummens												

Area Type: CBD

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 42.0% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: 1st Street & Greene Street



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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	f)			4	ሻ	7
Volume (vph)	159	12	42	234	15	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		50	0
Storage Lanes		0	0		1	1
Taper Length (ft)		100	100		175	100
Satd. Flow (prot)	1604	0	0	1608	1540	1377
Flt Permitted				0.992	0.950	
Satd. Flow (perm)	1604	0	0	1608	1540	1377
Link Speed (mph)	35			35	35	
Link Distance (ft)	324			306	327	
Travel Time (s)	6.3			6.0	6.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	0	0	294	16	10
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized	d					
Intersection Capacity Utiliz	zation 39.7%			IC	CU Level	of Service
Analysis Period (min) 15						

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1			4	*	7
Volume (veh/h)	159	12	42	234	15	9
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	169	13	45	249	16	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	324					
pX, platoon unblocked			0.94		0.94	0.94
vC, conflicting volume			182		514	176
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			104		456	98
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		97	99
cM capacity (veh/h)			1405		514	905
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	182	294	16	10		
Volume Left	0	45	16	0		
Volume Right	13	0	0	10		
cSH	1700	1405	514	905		
Volume to Capacity	0.11	0.03	0.03	0.01		
Queue Length 95th (ft)	0	2	2	1		
Control Delay (s)	0.0	1.4	12.2	9.0		
Lane LOS		Α	В	Α		
Approach Delay (s)	0.0	1.4	11.0			
Approach LOS			В			
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utiliz	ation		39.7%	IC	U Level o	of Service
Analysis Period (min)			15			

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	†			^	Ť	7	
Volume (vph)	156	0	0	204	33	31	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	11	16	
Grade (%)	0%			0%	0%		
Storage Length (ft)		0	0		25	0	
Storage Lanes		0	0		1	1	
Taper Length (ft)		100	100		25	100	
Satd. Flow (prot)	1621	0	0	1621	1540	1615	
Flt Permitted					0.950		
Satd. Flow (perm)	1621	0	0	1621	1540	1615	
Link Speed (mph)	35			35	35		
Link Distance (ft)	306			342	315		
Travel Time (s)	6.0			6.7	6.1		
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)	0%			0%	0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	181	0	0	237	38	36	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type:	CBD						
Control Type: Unsignalized							
Intersection Capacity Utiliza	ation 21.9%)		IC	CU Level	of Service	A ¢
Analysis Period (min) 15							
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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	†			^	*	7
Volume (veh/h)	156	0	0	204	33	31
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	181	0	0	237	38	36
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	630					
pX, platoon unblocked			0.99		0.99	0.99
vC, conflicting volume			181		419	181
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			164		405	164
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		94	96
cM capacity (veh/h)			1396		594	869
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	181	237	38	36		
Volume Left	0	0	38	0		
Volume Right	0	0	0	36		
cSH	1700	1700	594	869		
Volume to Capacity	0.11	0.14	0.06	0.04		
Queue Length 95th (ft)	0	0	5	3		
Control Delay (s)	0.0	0.0	11.5	9.3		
Lane LOS			В	Α		
Approach Delay (s)	0.0	0.0	10.4			
Approach LOS			В			
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization 21.9%			IC	ICU Level of Service		
Analysis Period (min)			15			
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	- ↑			ર્ન		
Volume (vph)	163	51	87	187	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	75		0	0
Storage Lanes		0	0		0	0
Taper Length (ft)		100	100		100	100
Satd. Flow (prot)	1562	0	0	1595	0	0
Flt Permitted				0.984		
Satd. Flow (perm)	1562	0	0	1595	0	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	342			317	329	
Travel Time (s)	6.7			6.2	6.4	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	1	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	227	0	0	292	0	0
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized	d					
Intersection Capacity Utiliz	zation 35.9%)		IC	CU Level	of Service
Analysis Period (min) 15						

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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			4		
Volume (veh/h)	163	51	87	187	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	173	54	93	199	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	972					
pX, platoon unblocked						
vC, conflicting volume			228		585	201
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			228		585	201
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		100	100
cM capacity (veh/h)			1341		441	840
Direction, Lane #	EB 1	WB 1				
Volume Total	228	291				
Volume Left	0	93				
Volume Right	54	0				
cSH	1700	1341				
Volume to Capacity	0.13	0.07				
Queue Length 95th (ft)	0.13	6				
Control Delay (s)	0.0	2.9				
Lane LOS	0.0	Α.				
Approach Delay (s)	0.0	2.9				
Approach LOS		2.0				
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization	ation		35.9%	IC	CU Level o	of Service
Analysis Period (min)			15			
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	†			1	ሻ	7	
Volume (vph)	163	0	0	203	71	79	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	12	12	
Grade (%)	0%			0%	0%		
Storage Length (ft)		0	0		0	0	
Storage Lanes		0	0		1	1	
Taper Length (ft)		100	100		100	100	
Satd. Flow (prot)	1614	0	0	1621	1593	1425	
Flt Permitted					0.950		
Satd. Flow (perm)	1614	0	0	1621	1593	1425	
Link Speed (mph)	35			35	35		
Link Distance (ft)	317			803	348		
Travel Time (s)	6.2			15.6	6.8		
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	1	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)	0%			0%	0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	175	0	0	218	76	85	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type:	CBD						
Control Type: Unsignalized	d						
Intersection Capacity Utiliz	ation 22.9%)		IC	CU Level	of Service	A ¢
Analysis Period (min) 15							

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	†				*	7	-
Volume (veh/h)	163	0	0	203	71	79	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Hourly flow rate (vph)	175	0	0	218	76	85	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)	1289						
pX, platoon unblocked							
vC, conflicting volume			175		394	175	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			175		394	175	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		88	90	
cM capacity (veh/h)			1401		611	868	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2			
Volume Total	175	218	76	85			
Volume Left	0	0	76	0			
Volume Right	0	0	0	85			
cSH	1700	1700	611	868			
Volume to Capacity	0.10	0.13	0.12	0.10			
Queue Length 95th (ft)	0	0	11	8			
Control Delay (s)	0.0	0.0	11.7	9.6			
Lane LOS			В	Α			
Approach Delay (s)	0.0	0.0	10.6				
Approach LOS			В				
Intersection Summary							
Average Delay			3.1				
Intersection Capacity Utiliza	ation		22.9%	IC	U Level o	of Service	
Analysis Period (min)			15				
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Synchro Output: Future Build (2018) PM

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		•	7	ሻ	•					7	∱ ∱	
Volume (vph)	0	12	30	105	44	0	0	0	0	124	532	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	11	11	11	12	12	12	12	12	12
Grade (%)		-3%			-1%			0%			3%	
Storage Length (ft)	0		0	50		0	0		0	225		0
Storage Lanes	0		1	1		0	0		0	1		0
Taper Length (ft)	100		100	100		100	100		100	25		100
Satd. Flow (prot)	0	1500	1377	1578	1645	0	0	0	0	1569	3194	0
Flt Permitted				0.750						0.950		
Satd. Flow (perm)	0	1500	1377	1246	1645	0	0	0	0	1569	3194	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			31								2	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		264			295			379			406	
Travel Time (s)		5.1			5.7			7.4			7.9	
Confl. Peds. (#/hr)		0.1			0.1						7.0	
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	8%	0%	0%	1%	0%	0%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0 /0
Parking (#/hr)	v		· ·	Ū	· ·	J	Ū	· ·	v		· ·	J
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)		0 70			0 70			0 70			0 70	
Lane Group Flow (vph)	0	12	31	108	45	0	0	0	0	128	554	0
Turn Type	•	12	Perm	Perm	10	•	· ·	J		Perm	001	
Protected Phases		4	1 01111	1 01111	8					1 01111	6	
Permitted Phases		7	4	8	U					6	0	
Detector Phase		4	4	8	8					6	6	
Switch Phase		7	7	U	U					0	U	
Minimum Initial (s)		7.0	7.0	7.0	7.0					10.0	10.0	
Minimum Split (s)		23.0	23.0	23.0	23.0					23.0	23.0	
Total Split (s)	0.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0
Total Split (%)	0.0%	37.5%	37.5%	37.5%	37.5%	0.0%	0.0%	0.0%	0.0%	62.5%	62.5%	0.0%
Yellow Time (s)	0.070	3.5	3.5	3.5	3.5	0.070	0.070	0.070	0.070	4.0	4.0	0.070
All-Red Time (s)		1.5	1.5	1.5	1.5					1.6	1.6	
Lost Time Adjust (s)	1.0	0.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	-0.6	-0.6	1.0
Total Lost Time (s)	5.0	5.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	5.0	5.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead-Lag Optimize?												
Recall Mode		None	None	None	None					C-Min	C-Min	
Act Effct Green (s)		10.9	9.9	10.9	10.9					62.5	62.5	
Actuated g/C Ratio		0.14	0.12	0.14	0.14					02.5	02.5	
v/c Ratio		0.14	0.12	0.14	0.14					0.76	0.76	
										3.8		
Control Delay		28.1	12.7	46.0	28.0						3.7	
Queue Delay		0.0	0.0	0.0	0.0					0.0	0.0	
Total Delay		28.1	12.7	46.0	28.0					3.8	3.7	
LOS		С	В	D	С					Α	A	

 $\label{thm:linear_continuity} K:\RAL_TPTO\Traffic\012654006\ 1st\ Street\ Parking\T4-Analysis\Synchro\Existing\ Build\ PM.syn\ Kimley-Horn\ and\ Associates,\ Inc.$

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		17.0			40.7						3.7	
Approach LOS		В			D						Α	
Queue Length 50th (ft)		5	0	58	24					14	35	
Queue Length 95th (ft)		19	22	108	56					38	70	
Internal Link Dist (ft)		184			215			299			326	
Turn Bay Length (ft)				50						225		
Base Capacity (vph)		469	435	389	514					1225	2495	
Starvation Cap Reductn		0	0	0	0					0	0	
Spillback Cap Reductn		0	0	0	0					0	0	
Storage Cap Reductn		0	0	0	0					0	0	
Reduced v/c Ratio		0.03	0.07	0.28	0.09					0.10	0.22	

Intersection Summary

Area Type: **CBD**

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 37 (46%), Referenced to phase 6:SBTL, Start of Green

Natural Cycle: 50

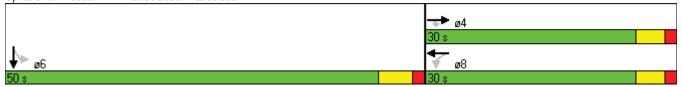
Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 10.8 Intersection LOS: B Intersection Capacity Utilization 50.2% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: 1st Street & Pitt Street



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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	†			†	7	ሻ	↑ ↑				
Volume (vph)	14	161	0	0	91	216	37	475	67	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	12	12	12	12	12	12
Grade (%)		0%		•	2%			-3%			0%	
Storage Length (ft)	50	0,0	0	0	_,0	50	0	0,0	0	0	0,0	0
Storage Lanes	1		0	0		1	1		0	0		0
Taper Length (ft)	100		100	100		50	100		100	100		100
Satd. Flow (prot)	1570	1637	0	0	1620	1364	1649	3207	0	0	0	0
Flt Permitted	0.686	1007			1020	1001	0.950	0201				
Satd. Flow (perm)	1134	1637	0	0	1620	1364	1649	3207	0	0	0	0
Right Turn on Red	1104	1007	Yes	U	1020	Yes	1043	0201	Yes	U	U	Yes
Satd. Flow (RTOR)			103			260		32	103			103
Link Speed (mph)		35			35	200		35			35	
Link Distance (ft)		295			324			348			362	
Travel Time (s)		5.7			6.3			6.8			7.1	
Confl. Peds. (#/hr)		5.7			0.3			0.0			7.1	
Confl. Bikes (#/hr)												
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
							100%					
Growth Factor	100%	100%	100%	100%	100%	100%		100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	2%	0%	1%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		00/			00/			00/			00/	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	47	40.4	•	•	4.40	000	4.5	050	•	•	•	0
Lane Group Flow (vph)	17	194	0	0	110	260	45	653	0	0	0	0
Turn Type	Perm				•	Perm	Perm	•				
Protected Phases	4	4			8			2				
Permitted Phases	4				•	8	2	•				
Detector Phase	4	4			8	8	2	2				
Switch Phase												
Minimum Initial (s)	7.0	7.0			7.0	7.0	10.0	10.0				
Minimum Split (s)	23.0	23.0			23.0	23.0	23.0	23.0				
Total Split (s)	30.0	30.0	0.0	0.0	30.0	30.0	50.0	50.0	0.0	0.0	0.0	0.0
Total Split (%)	37.5%	37.5%	0.0%	0.0%	37.5%	37.5%	62.5%	62.5%	0.0%	0.0%	0.0%	0.0%
Yellow Time (s)	3.6	3.6			3.6	3.6	4.0	4.0				
All-Red Time (s)	1.5	1.5			1.5	1.5	1.8	1.8				
Lost Time Adjust (s)	-0.1	-0.1	1.0	1.0	-0.1	-0.1	-0.8	-0.8	1.0	1.0	1.0	1.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None			None	None	C-Min	C-Min				
Act Effct Green (s)	13.1	13.1			13.1	13.1	56.9	56.9				
Actuated g/C Ratio	0.16	0.16			0.16	0.16	0.71	0.71				
v/c Ratio	0.09	0.72			0.41	0.59	0.04	0.29				
Control Delay	24.9	44.9			33.3	9.7	4.6	4.9				
Queue Delay	0.0	0.0			0.0	0.0	0.0	0.0				
	24.9						4.6					
LOS	С	D			С	Α	Α	Α				
Total Delay	24.9	44.9			33.3	9.7	4.6	4.9				

 $\label{thm:linear_continuity} K:\RAL_TPTO\Traffic\012654006\ 1st\ Street\ Parking\T4-Analysis\Synchro\Existing\ Build\ PM.syn\ Kimley-Horn\ and\ Associates,\ Inc.$

2: 1st Street & Greene Stre	٥ŧ

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		43.3			16.7			4.9				
Approach LOS		D			В			Α				
Queue Length 50th (ft)	7	94			50	0	6	48				
Queue Length 95th (ft)	21	135			81	43	17	82				
Internal Link Dist (ft)		215			244			268			282	
Turn Bay Length (ft)	50					50						
Base Capacity (vph)	354	512			506	605	1172	2289				
Starvation Cap Reductn	0	0			0	0	0	0				
Spillback Cap Reductn	0	0			0	0	0	0				
Storage Cap Reductn	0	0			0	0	0	0				
Reduced v/c Ratio	0.05	0.38			0.22	0.43	0.04	0.29				

Intersection Summary

Area Type: CBD

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Green

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 14.6 Intersection LOS: B Intersection Capacity Utilization 50.2% ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: 1st Street & Greene Street



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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	ĵ»			ર્ન	7	7	
Volume (vph)	214	6	27	274	14	17	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	11	11	
Grade (%)	0%			0%	0%		
Storage Length (ft)		0	0		50	0	
Storage Lanes		0	0		1	1	
Taper Length (ft)		100	100		175	100	
Satd. Flow (prot)	1614	0	0	1614	1540	1377	
FIt Permitted				0.996	0.950		
Satd. Flow (perm)	1614	0	0	1614	1540	1377	
Link Speed (mph)	35			35	35		
Link Distance (ft)	324			306	327		
Travel Time (s)	6.3			6.0	6.4		
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)	0%			0%	0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	253	0	0	346	16	20	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type:	CBD						
Control Type: Unsignalized	d						
Intersection Capacity Utiliz	zation 43.9%)		IC	CU Level	of Service	Α¢
Analysis Period (min) 15							

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Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	f			4	*	7	
Volume (veh/h)	214	6	27	274	14	17	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	
Hourly flow rate (vph)	246	7	31	315	16	20	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)	324						
pX, platoon unblocked			0.91		0.91	0.91	
vC, conflicting volume			253		626	249	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			129		540	125	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			98		96	98	
cM capacity (veh/h)			1325		447	842	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2			
Volume Total	253	346	16	20			
Volume Left	0	31	16	0			
Volume Right	7	0	0	20			
cSH	1700	1325	447	842			
Volume to Capacity	0.15	0.02	0.04	0.02			
Queue Length 95th (ft)	0	2	3	2			
Control Delay (s)	0.0	0.9	13.4	9.4			
Lane LOS		Α	В	Α			
Approach Delay (s)	0.0	0.9	11.2				
Approach LOS			В				
Intersection Summary							
Average Delay			1.1				
Intersection Capacity Utiliza	ation		43.9%	IC	HLevel	of Service	
Analysis Period (min)	auon		15	10	O FGACI	O C I VICE	
Miaiyaia i Giluu (IIIIII)			10				

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	^			^	7	7	
Volume (vph)	242	0	0	244	54	47	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	11	16	
Grade (%)	0%			0%	0%		
Storage Length (ft)		0	0		25	0	
Storage Lanes		0	0		1	1	
Taper Length (ft)		100	100		25	100	
Satd. Flow (prot)	1621	0	0	1621	1540	1070	
Flt Permitted					0.950		
Satd. Flow (perm)	1621	0	0	1621	1540	1070	
Link Speed (mph)	35			35	35		
Link Distance (ft)	306			342	315		
Travel Time (s)	6.0			6.7	6.1		
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	54%	
Bus Blockages (#/hr)	0	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)	0%			0%	0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	299	0	0	301	67	58	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type:	CBD						
Control Type: Unsignalized							
Intersection Capacity Utiliz	cation 24.3%)		IC	CU Level	of Service) A
Analysis Period (min) 15							

	-	•	•	-		1
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<u> </u>			†	ħ	7
Volume (veh/h)	242	0	0	244	54	47
Sign Control	Free		•	Free	Stop	••
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	299	0	0	301	67	58
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	630					
pX, platoon unblocked			0.94		0.94	0.94
vC, conflicting volume			299		600	299
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			225		545	225
tC, single (s)			4.1		6.4	6.7
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.8
p0 queue free %			100		86	91
cM capacity (veh/h)			1266		471	660
Direction, Lane #	EB 1	WB 1	NB 1	NB 2		
Volume Total	299	301	67	58		
Volume Left	0	0	67	0		
Volume Right	0	0	0	58		
cSH	1700	1700	471	660		
Volume to Capacity	0.18	0.18	0.14	0.09		
Queue Length 95th (ft)	0	0	12	7		
Control Delay (s)	0.0	0.0	13.9	11.0		
Lane LOS			В	В		
Approach Delay (s)	0.0	0.0	12.5			
Approach LOS			В			
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utiliza	ation		24.3%	IC	U Level o	of Service
Analysis Period (min)			15			
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	₽			ની			
Volume (vph)	240	52	97	257	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	11	11	11	11	11	11	
Grade (%)	0%			0%	0%		
Storage Length (ft)		0	75		0	0	
Storage Lanes		0	0		0	0	
Taper Length (ft)		100	100		100	100	
Satd. Flow (prot)	1582	0	0	1598	0	0	
Flt Permitted				0.986			
Satd. Flow (perm)	1582	0	0	1598	0	0	
Link Speed (mph)	35			35	35		
Link Distance (ft)	342			317	329		
Travel Time (s)	6.7			6.2	6.4		
Confl. Peds. (#/hr)							
Confl. Bikes (#/hr)							
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	
Bus Blockages (#/hr)	0	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)	0%			0%	0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	375	0	0	453	0	0	
Sign Control	Free			Free	Stop		
Intersection Summary							
Area Type:	CBD						
Control Type: Unsignalized							
Intersection Capacity Utiliza	tion 45.2%			IC	CU Level	of Service /	Α
Analysis Period (min) 15							

	→	•	•	←		
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>			4		
Volume (veh/h)	240	52	97	257	0	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	308	67	124	329	0	0
Pedestrians					-	
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)	110110			110110		
Upstream signal (ft)	972					
pX, platoon unblocked	012		0.99		0.99	0.99
vC, conflicting volume			374		919	341
vC1, stage 1 conf vol			014		313	0+1
vC2, stage 2 conf vol						
vCu, unblocked vol			359		911	326
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)			7.1		0.4	0.2
tF (s)			2.2		3.5	3.3
p0 queue free %			89		100	100
cM capacity (veh/h)			1184		269	706
			1104		209	700
Direction, Lane #	EB 1	WB 1				
Volume Total	374	454				
Volume Left	0	124				
Volume Right	67	0				
cSH	1700	1184				
Volume to Capacity	0.22	0.11				
Queue Length 95th (ft)	0	9				
Control Delay (s)	0.0	3.1				
Lane LOS		Α				
Approach Delay (s)	0.0	3.1				
Approach LOS						
Intersection Summary						
Average Delay			1.7			
Intersection Capacity Utilization	ation		45.2%	IC	الله الله	of Service
Analysis Period (min)	ation		15	IC	O LEVEL	O C I VICE
Alialysis i Gilou (IIIIII)			10			

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	Ť	7
Volume (vph)	240	0	0	260	94	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	1
Taper Length (ft)		100	100		100	100
Satd. Flow (prot)	1621	0	0	1621	1593	1425
Flt Permitted					0.950	
Satd. Flow (perm)	1621	0	0	1621	1593	1425
Link Speed (mph)	35			35	35	
Link Distance (ft)	317			803	348	
Travel Time (s)	6.2			15.6	6.8	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	273	0	0	295	107	93
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	CBD					
Control Type: Unsignalized						
Intersection Capacity Utiliza	ation 27.7%)		IC	CU Level	of Service
Analysis Period (min) 15						

	→	•	1	•	4	-	
Movement	EBT	EBR	WBL	WBT	NBL	NBR	
Lane Configurations	†			*	ሻ	7	
Volume (veh/h)	240	0	0	260	94	82	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	
Hourly flow rate (vph)	273	0	0	295	107	93	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (ft)	1289						
pX, platoon unblocked							
vC, conflicting volume			273		568	273	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			273		568	273	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			100		78	88	
cM capacity (veh/h)			1291		484	766	
Direction, Lane #	EB 1	WB 1	NB 1	NB 2			
Volume Total	273	295	107	93			
Volume Left	0	293	107	0			
Volume Right	0	0	0	93			
cSH	1700	1700	484	766			
Volume to Capacity	0.16	0.17	0.22	0.12			
	0.16	0.17	21	10			
Queue Length 95th (ft)	0.0	0.0	14.5	10.3			
Control Delay (s) Lane LOS	0.0	0.0	14.5 B	10.3 B			
Approach Delay (s)	0.0	0.0	12.6	D			
Approach LOS	0.0	0.0	12.0 B				
			D				
Intersection Summary							
Average Delay			3.3				
Intersection Capacity Utilization	ation		27.7%	IC	U Level of	of Service	
Analysis Period (min)			15				

FDOT LOS Tables

10/4/10

Generalized Annual Average Daily Volumes for Florida's **Urbanized Areas**¹

STATE S Class I (>0.00 Median		ZED ART	ERIALS				FREEW.	AVS		
*) to 1 99 signs				11	-		AIS		
*	7 W 1.77 M2116	alized intersec	ctions per mil	e)	Lanes	В	C		D	E
	В	С	D	E	4	43,500	59,80	00 73	3,600	79,400
Undivided	9,600	15,400	16,500	***	6	65,300	90,50	00 110	0,300	122,700
Divided	29,300	35,500	36,700	***	8	87,000	120,10	00 140	5,500	166,000
				***	10	108,700	151,70	00 184	4,000	209,200
Divided	60,800	71,800	73,800	***	12	149,300	202,10	00 238	3,600	252,500
						Fi	reeway A	djustment	S	
Class II (2.00) to 4.50 signa	alized intersec	tions per mil	e)				•		
Median	В	C	D	E					_	
Undivided	**					+ 20	,000	+ 5%	0	
Divided	**	25,000	33,200	35,100	<u> </u>					
Divided	**	39,000	50,300	53,100	1	NINTEDDI	IIPTED I	FI OW H	ICHWA	VÇ
Divided	**	53,100	67,300	70,900	'					
					Lanes		_	_		Е
ss III/IV (m	ore than 4.5 s	ignalized inte	rsections per	mile)	2	Undivided	7,800	,	22,200	27,900
Median	В	C	D	E	4	Divided	34,300	49,600	64,300	72,800
Undivided	**	5,100	11,900	14,900	6	Divided	51,500	74,400	96,400	109,400
Divided	**	12,600	28,200	31,900		Unintarrunt	od Flow L	liahway A	diustman	t a
Divided	**	19,700	43,700	48,200	Lanes					
Divided	**	27,000	59,500	64,700	2				5	5%
		,	,	,	 Multi	Undivided				5%
					Multi	Undivided		No	-2	25%
•	Divided Divided Class II (2.00 Median Undivided Divided Divided Divided SS III/IV (m Median Undivided Divided Divided Divided Divided Divided	Divided 45,000 Divided 60,800 Class II (2.00 to 4.50 signal Median B Undivided ** Divided ** Divided ** SS III/IV (more than 4.5 s) Median B Undivided ** Undivided ** Undivided ** Divided **	Divided 45,000 53,700 Divided 60,800 71,800 Class II (2.00 to 4.50 signalized intersect Median B C Undivided ** 10,500 10,500 Divided ** 25,000 39,000 Divided ** 39,000 53,100 SS III/IV (more than 4.5 signalized intermediation B C Undivided ** 5,100 Divided ** 12,600 12,600 Divided ** 19,700	Divided Divided 45,000 53,700 55,300 55,300 71,800 55,300 73,800 Class II (2.00 to 4.50 signalized intersections per mil Median B C Divided ** 10,500 15,200 33,200 Divided ** 25,000 33,200 Divided ** 39,000 50,300 Divided ** 53,100 67,300 SS III/IV (more than 4.5 signalized intersections per Median B C Divided ** 5,100 11,900 Divided ** 12,600 28,200 Divided ** 19,700 43,700	Divided 45,000 53,700 55,300 *** Divided 60,800 71,800 73,800 *** Class II (2.00 to 4.50 signalized intersections per mile) Median B C D E Undivided ** 10,500 15,200 16,200 Divided ** 25,000 33,200 35,100 Divided ** 39,000 50,300 53,100 Divided ** 53,100 67,300 70,900 SS III/IV (more than 4.5 signalized intersections per mile) Median B C D E Undivided ** 5,100 11,900 14,900 Divided ** 12,600 28,200 31,900 Divided ** 19,700 43,700 48,200	Divided 45,000 53,700 55,300 *** Divided 60,800 71,800 73,800 *** Class II (2.00 to 4.50 signalized intersections per mile) Median B C D E Undivided ** 10,500 15,200 16,200 Divided ** 25,000 33,200 35,100 Divided ** 39,000 50,300 53,100 Divided ** 53,100 67,300 70,900 SS III/IV (more than 4.5 signalized intersections per mile) Median B C D E Undivided ** 5,100 11,900 14,900 Divided ** 12,600 28,200 31,900 Divided ** 19,700 43,700 48,200 Divided ** 27,000 59,500 64,700 Lanes 2 Multi	Divided	Divided	Divided	Divided

Major City/County Roadways - 10% Other Signalized Roadways - 35%

State & Non-State Signalized Roadway Adjustments (Alter corresponding state volumes by the indicated percent.)

Divided/Undivided & Turn Lane Adjustments

271	iaca, e iiai i ia	ca ee I alli	Duite ragusti	110110
		Exclusive	Exclusive	Adjustment
Lanes	Median	Left Lanes	Right Lanes	Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
_	_	_	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding two-directional volumes in this table by 0.6.

roadway lanes to determine two-way maximum service volumes.) Paved Shoulder/ Bicvcle Lane

Coverage	В	C	D	E
0-49%	**	3,200	12,100	>12,100
50-84%	2,400	3,700	>3,700	***
85-100%	6,300	>6,300	***	***

PEDESTRIAN MODE²

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	В	C	D	E
0-49%	**	**	5,000	14,400
50-84%	**	**	11,300	18,800
85-100%	**	11.400	18.800	>18.800

BUS MODE (Scheduled Fixed Route)³

(Buses in peak hour in peak direction)

Sidewalk Coverage	В	С	D	Е
0-84%	>5	<u>≥</u> 4	<u>≥</u> 3	<u>≥</u> 2
85-100%	>4	<u>≥</u> 3	<u>≥</u> 2	<u>≥</u> 1

Values shown are presented as two-way annual average daily volumes for levels of service and are for the automobile/truck modes unless specifically stated. Although presented as daily volumes, they actually represent peak hour direction conditions with applicable K and D factors applied. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual, Bicycle LOS Model, Pedestrian LOS Model and Transit Capacity and Quality of Service Manual, respectively for the automobile/truck, bicycle, pedestrian and bus modes.

Source:

Florida Department of Transportation Systems Planning Office 605 Suwannee Street, MS 19 Tallahassee, FL 32399-0450

² Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

³ Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

^{**} Cannot be achieved using table input value defaults.

^{***} Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Crash Data

Study Criteria Summary

County:

PITT

City:

All and Rural

Date: 9/1/2009

to 9/1/2012

Study:

1STST

Location:

Report Details

						Re	port	t Det	ail	<u>s</u>											
Γ	Acc								1	Γotal		Inju	ries		Co	ond	ition	R	load	Trfc	Ctl
L	No	Crash ID	Milepost	Date	Acc	iden	t Typ	e	Da	mage	F	Α	В	С	R	L	. W	CI	h Ci	Dv	Op
	1	102862959	0.040	01/13/2010 08:26	LEFT TO		SAME		\$	1650	10	0	0	0	1	1	1	1	0	3	1
	Unit	1:1	Alchl/I	Orgs: 0	Speed:	0	MPH	Dir:	E		Veh	Mnvr	/Ped	Actr	1:	8	c	bj	Strk:		
	Unit	2:1	Alchl/I	Orgs: 0	Speed:	0	МРН	Dir:	W		Veh	Mnvr	/Ped	Actr	ı:	4		bj _	Strk:		
% =	2	103127420	0.040	11/11/2010 21:37	ANGLE				\$	9000	0	0	0	2	1	4	1	1	0	4	1
	Unit	1:1	Alchl/I	Orgs: 0	Speed:	15	MPH	Dir:	W		Veh	Mnvr	/Ped	Actr	1 :	4	C	bj	Strk:		
	Unit	2:1	Alchl/I	Orgs: 0	Speed:	20	MPH	Dir:	S		Veh	Mnvr	/Ped	Actr	ı: 	4		bj _	Strk:		
_	3	103538078	0.040	08/23/2012 16:52	PEDALCY	CLI	ST		\$	0	0	0	0	0	1	1	1	1	0	3	1
	Unit	1: 23	Alchl/I	Orgs: 7	Speed:	0	MPH	Dir:			Veh	Mnvr	/Ped	Actr	1 :		C	Ъj	Strk:	15	
0000	Unit	2:4	Alchl/I	Orgs: 0	Speed:	1	MPH	Dir:	E		Veh	Mnvr	/Ped	Actr	1 : —	7)bj _	Strk:	15 	
	4	103477269	0.109	06/06/2012 12:25	RAN OFI	F RO	AD -		\$	1000	.0	0	0	0	1	1	1	1	0	3	1
	Unit	1:1	Alch1/I	Orgs: 0	Speed:	30	MPH	Dir:	W		Veh	Mnvr	/Ped	Actr	ı:	4	C	Ъj	Strk:	55	
	Unit	2:1	Alchl/I	Orgs: 0	Speed:	30	MPH	Dir:	N		Veh	Mnvr	/Ped	Actr	ı:	4	C	bj	Strk:	55	
	5	102695503	0.110	09/26/2009 10:03	ANGLE			-10.5 %	\$	4500	0	0	0	0	1	1	. 2	1	0	3	1
-	Unit	1:3	Alchl/I	Orgs: 0	Speed:	35	MPH	Dir:	E		Veh	Mnvr	/Ped	Actr	1:	4	C	bj	Strk:		
} :	Unit	2:1	Alchl/I	Orgs: 0	Speed:	25	MPH	Dir:	N		Veh	Mnvr	/Ped	Actr	ı: _	4		bj -	Strk:		
o [—]	6	102751615	0.110	10/07/2009 11:47	OTHER (\$	2000	′0	0	0	1	1	1	. 2	1	0	3	1
	Unit	1:4	Alch1/D	Orgs: 0	Speed:	25	MPH	Dir:	E		Veh	Mnvr	/Ped	Actr	1:	4	(Ъj	Strk:		
	Unit	2:5	Alchl/D	orgs: 0	Speed:	35	MPH	Dir:	N		Veh	Mnvr	/Ped	Actr	1 :	4	C	Ъj	Strk:		POST (10 post 10 post
_	7	102731460	0.110	10/22/2009	LEFT TO		SAME		\$	2200	0	0	0	1	1	4	1	1	0	3	1
	Unit	1:4	Alchl/D	orgs: 0	Speed:	20	MPH	Dir:	NE		Veh	Mnvr	/Ped	Actr	1:	8	(bj	Strk:		
	Unit	2 : 1	Alch1/D	orgs: 0	Speed:	25	МРН	Dir:	W		Veh	Mnvr	/Ped	Actr	1 : 	4		bj _	Strk:		
	8	102821758	0.110	12/07/2009 08:38	ANGLE				\$	18000	0	0	0	2	1	1	1	1	. 0	3	1
	Unit	1 : 4	Alch1/D	orgs: 0	Speed:	30	MPH	Dir:	E		Veh	Mnvr	/Ped	Actr	1:	4	(Ъj	Strk:		

North Carolina Department of Transportation Traffic Engineering Accident Analysis System

Strip Analysis Report

7	Acc									Total		Inju	ries		Con	dition	F	Road	Trf	Ctl
	No	Crash ID	Milepost	Date	Acc	iden	t Typ	e		amage	F	Α	В	C F	₹	L V	/ c	h Ci	Dv	Op
-	Unit	2:4	Alch1/Dr	gs: 0	Speed:	20	МРН	Dir:	N	California Com-	Veh	Mnvr	/Ped 	Actn	: 4		Obj	Strk		
•	9	102821744	0.110	12/11/2009 11:09	ANGLE				\$	3000	0	0	0	2	Le	1 1	1	0	3	
	Unit	1:1	Alch1/Dr	gs: 0	Speed:	15	MPH	Dir:	E		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk		
	Unit	2:1	Alchl/Dr	gs: 0	Speed:	20	MPH	Dir:	N		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk	:	
120	10	102841352	0.110	12/15/2009 11:45	ANGLE				– \$	1600	0	0	0	0 :	L.	1 2		0	3	1
	Unit	1:1	Alch1/Dr	gs: 0	Speed:	35	MPH	Dir:	E		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk		
	Unit	2:4	Alch1/Dr	gs: 0	Speed:	35	MPH	Dir:	N		Veh	Mnvr	/Ped 	Actn	: 4		0bj	Strk 	: - —	
-	11	102862942	0.110	01/10/2010 15:09	HEAD ON	ı –	-		\$	12000	,0	0	0	3	L	1 1	. 1	0	3	1
	Unit	1:4	Alch1/Dr	gs: 0	Speed:	35	MPH	Dir:	E		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk	:	
	Unit	2 : 1	Alch1/Dr	gs: 0	Speed:	35	MPH	Dir:	N		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk	:	
•	12	102887699	0.110	02/26/2010 12:24	ANGLE				-	5000	0	0	0	1	- -	1 1		. 0	3	1
	Unit	1:1	Alchl/Dr	gs: 0	Speed:	30	MPH	Dir:	N		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk	:	
	Unit	2:3	Alchl/Dr	gs: 0	Speed:	30	MPH	Dir:	E		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk	:	
::	13	102905349	0.110	03/16/2010 07:50	ANGLE			3	– \$	15000	0	0	0	2		1 2			3	1
	Unit	1:1	Alchl/Dr	570l	Speed:	30	MPH	Dir:	W					Actn				Strk		
	Unit	2:3	Alch1/Dr	gs: 0	Speed:	35	MPH	Dir:	N		Veh	Mnvr	/Ped 	Actn	: 4		Obj	Strk	: - —	
×=	14	102920463	0.110	04/01/2010 16:43	LEFT TU		SAME	8	\$	7000	0	0	0			1 1		. 0		
=	Unit	1:1	Alch1/Dr	gs: 0	Speed:	0	MPH	Dir:	N				96 B	Actn			1103	Strk		
ltem	Unit	2:4	Alch1/Dr	gs: 0	Speed:	30	MPH	Dir:	N		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk	:	
#	15	102920647		04/02/2010 13:53			« — —		[7]	10500	0		1					. 0		1
	Unit	1:1	Alch1/Dr	(780)																
	Unit	2:4	Alch1/Dr	gs: 0	Speed:	35	MPH	Dir:	N		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk	:	
		102934048		04/21/2010 14:28					NEC.	14000										1
	Unit	1 : 2	Alchl/Dr	gs: 0	Speed:	35	MPH	Dir:	N		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk	:	
	Unit	2:1	Alch1/Dr	gs: 0	Speed:	35	MPH	Dir:	W		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk	:	
-	- 17	103062921	0.110	09/13/2010 15:33	ROADWAY													0	0	
	Unit	1:1	Alchl/Dr	10 - 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Speed:													Strk		
	Unit	2 : 1	Alch1/Dr	gs: 0	Speed:	20	MPH	Dir:	N		Veh	Mnvr	/Ped	Actn	: 4		Obj	Strk	:	

North Carolina Department of Transportation Traffic Engineering Accident Analysis System

Strip Analysis Report

T	A 0.0		-)E:		T			*				All and the same		_	Total		Inju	ıries		C	ondi	tion	R	oad	Т	rfc	Ctl
	Acc No		C	ras	sh	ID	l N	lile	pos	st		Da	ate	A	ccid	en	t Typ	e		amage	F	A	В	С	R	L	w	Cł	C	i c	v	Op
L							_			_	_					_									-							
10.7	18	1	03	318	99	960		0.1	10		06	/16 16	ř.	ANGLE	:				\$	8000	,0	0	0	0	1	1	1	1	0	i	3	1
	Unit			1	:	1		Al	.ch]	L/D	rgs	s: ()	Speed		35	МРН	Dir:	N		Veh	Mnvr	:/Ped	Ac	tn:	4	C	bj	Str	c :		
	Unit	:	100	2	:	4	_	A1	.ch]	_/D	rgs —	:) -	Speed	: 	0	MPH — —	Dir:	E		Veh	Mnvr	/Ped 	Act	tn:	4		Ъј 	Str	k: 		
	19	1	03	324	53	371		0.1	10		08		/2011 :58	SIDES			SAME		\$	1200	0	0	0	0	1	1	1	1	0	j	3	1
	Unit			1	:	1		Al	ch]	L/D	rgs	s: ()	Speed		5	MPH	Dir:	N		Veh	Mnvi	/Ped	Ac	tn:	5	C	Ъj	Str	k:		
_	Unit			2		1 _	_	A1 	ch]	_/D	rgs –			Speed	: 	5 —	MPH — —	Dir:	N		Veh	Mnvi — —	/Ped 	Ac:	tn:	4 		Ъј 	Str	k: 		-07
	20	1	03	26	20	041		0.1	10		09	/12 11	Ö.,	ANGLE	1				\$	6000	0	0	0	0	1	1	1	1	0		3	1
	Unit			1	:	1		Al	ch1	L/D	rgs	s: ()	Speed	:	0	MPH	Dir:	W		Veh	Mnv	c/Ped	Ac	tn:	4	C	bj	Str	k:		
,	Unit	_		2	:	1 — —	_	A1 	.ch]	_/D	rgs -	:) -	Speed 	: :	3 5 —	MPH 	Dir:	N		Veh	Mnvi	/Ped 	Ac	tn:	4)bj 	Str	k: 		
	21	1	03	34	5(025		0.1	.10		12		/2011 :02	ANGLE	3				\$	2300	0	0	0	0	1	1	2	1	0		3	1
	Unit			1		10		Al	ch]	L/D	rgs	3: ()	Speed	: 2	25	MPH	Dir:	N		Veh	Mnvı	r/Ped	Ac	tn:	4	C	bj	Str	k:		
	Unit	18		2	:	1		Al	ch]	L/D	rgs	3: ()	Speed	:	5	MPH	Dir:	Е		Veh	Mnvı	r/Ped	Ac	tn:	4		bj 	Str	k: 		_
Ī	22	1	03	41	43	 383		0.1	.10		03		/2012 :26	ANGLE		_			\$	19600	0	0	0	1	1	1	2	1	0		3	1
	Unit			1	:	4		Al	ch]	L/D	rgs	3: 1	E	Speed	: :	35	MPH	Dir:	E		Veh	Mnv	r/Ped	Ac	tn:	4	(Dbj	Str	k:		
	Unit			2	•	4		Al	ch]	L/D	rgs	s: (Ö	Speed	: 1	30	MPH	Dir:	N		Veh	Mnvi	r/Ped	Ac	tn:	4		Dbj _	Str	k:		
-	23	1	03	42	15	 579	_	0.1	10	-	03		/2012 :16	ANGLE		_			\$	1200	۵	0	0	1	2	1	3	1	O		4	1
	Unit	i i		1	:	2		Al	ch]	L/D	rgs	3: ()	Speed	: :	25	MPH	Dir:	N		Veh	Mnv	r/Ped	Ac	tn:	4	(Obj	Str	k:		
=	Unit	8	10000	2	•	1		Al	.ch]	L/D	rgs	s: ()	Speed	:	20	MPH	Dir:	E		Veh	Mnv	r/Ped	Ac	tn:	11	(Obj	Str	k:		
Item #8	24	1	03	11	.79	 940		0.3	16	_	03		/2011 :24	REAR STOP	END	, <u>s</u>	ELOW	OR	\$	4000	0	0	0	0	3	4	1	1	c	ke i	0	
ω	Unit			1	:	32		Al	.ch]	L/D	rgs	3: 7	7	Speed	: 1	35	MPH	Dir:	W		Veh	Mnv	r/Ped	Ac	tn:	4	(Obj	Str	k:		
	Unit	ij.		2		4		Al	.ch]	L/D	rgs	s: ()	Speed	:	15	MPH	Dir:	W		Veh	Mnv	r/Ped	Ac	tn:	11		Obj	Str	k:		
	Unit	9		3	:	1		Al	.ch]	L/D	rgs	3: ()	Speed	:	15	MPH	Dir	W		Veh	Mnv	r/Ped	Ac	tn:	11	(Obj	Str	k:		
T/-	25	1	03	14	7	704	-0	0.1	L78	_	11	33	/2010 :31	REAR STOP	END	, 5	ELOW	OR	\$	1600	0	0	0	0	1	4	1	1	()	0	
	Unit	e ii		1		1		Al	.ch]	L/D	rgs	s: ()	Speed	:	35	MPH	Dir	W	f	Veh	Mnv	r/Ped	l Ac	tn:	11		Obj	Str	k:		
	Unit	3	9	2	:	1		Al	.ch]	L/D	rgs	3: (0	Speed	:	10	MPH	Dir	W		Veh	Mnv	r/Ped	l Ac	tn:	11		Obj	Str	k:		
	26	1	02	68	86	 683	_	0.2	250	_	– 09	*****************	- 5/2009 :14	REAR STOP	END	, :	ELOW	OR	\$	1500	0	0	0	0	1	1	1	1	()	1	1
	Unit	100		1	•	1		Al	.ch	L/D	rgs	3: (0	Speed	:	5	MPH	Dir	N	ſ	Veh	Mnv	r/Ped	l Ac	tn:	4	2	Obj	Str	k:		
	Unit	•	1000	2	:	4		Al	.ch]	L/D	rgs	s: (0	Speed	:	0	MPH	Dir	N	I	Veh	Mnv	r/Ped	l Ac	tn:	11	9	Obj	Str	k:		

Road | Trfc Ctl Injuries Condition Total Acc Dv A В **Accident Type** Damage No Crash ID Milepost Date \$ 1000 03/29/2010 SIDESWIPE, SAME 102905670 DIRECTION 10:37 Veh Mnvr/Ped Actn: 7 Obj Strk: Speed: 0 MPH Dir: E Alchl/Drgs: 0 Unit 1:1 Veh Mnvr/Ped Actn: 4 Obj Strk: Speed: 35 MPH Dir: E Unit 2:1 Alchl/Drgs: 0 LEFT TURN, SAME 04/24/2010 \$ 3000 102935543 0.315 ROADWAY 10:27 Obj Strk: Veh Mnvr/Ped Actn: 2 Alchl/Drgs: 0 Speed: 0 MPH Dir: E Unit 1:1 Obj Strk: Alchl/Drgs: 0 Speed: 33 MPH Dir: E Veh Mnvr/Ped Actn: 4 2:1 Unit SIDESWIPE, SAME \$ 4000 10/19/2011 103293452 DIRECTION 16:05 Veh Mnvr/Ped Actn: 5 Obj Strk: 20 MPH Dir: S Unit **1** : 5 Alchl/Drgs: 0 Speed: Veh Mnvr/Ped Actn: 4 Obj Strk: Alchl/Drgs: 0 Speed: 20 MPH Dir: S Unit 2:1 12/30/2011 REAR END, SLOW OR \$ 4500 103360087 16:08 STOP Obj Strk: Veh Mnvr/Ped Actn: 4 Speed: 30 MPH Dir: W Alchl/Drgs: 0 Unit 1:4 Obj Strk: Speed: 5 MPH Dir: W Veh Mnvr/Ped Actn: 8 Alchl/Drgs: 0 2:4 Unit LEFT TURN, SAME \$ 1200 03/04/2010 31 102889715 15:15 ROADWAY Veh Mnvr/Ped Actn: 4 Obj Strk: 20 MPH Dir: N Unit 1:1 Alchl/Drgs: 0 Speed: Obj Strk: Veh Mnvr/Ped Actn: 4 Alchl/Drgs: 0 Speed: 25 MPH Dir: N 2 : 7 Unit \$ 1000 01/02/2011 PARKED MOTOR 32 103114485 0.390 VEHICLE 02:22 Speed: 15 MPH Dir: NW Veh Mnvr/Ped Actn: 8 Obj Strk: 20 Alchl/Drgs: 0 Unit 1 : 1Veh Mnvr/Ped Actn: 4 Obj Strk: 20 Alchl/Drgs: 0 Speed: 15 MPH Dir: N Unit tem 0 1 1 1 1 1 1 0 1 \$ 11000 0 10/17/2011 ANGLE 103285094 0.390 33 # 08:59 α Veh Mnvr/Ped Actn: 8 Obj Strk: Speed: 10 MPH Dir: N Alchl/Drgs: 0 Unit 1:1 Obj Strk: 35 MPH Dir: E Veh Mnvr/Ped Actn: 4 Alchl/Drgs: 0 Speed: Unit

Acc No - Accident Number

Legend for Report Details: Injuries: F - Fatal, A - Class A, B - Class B, C - Class C Condition: R - Road Surface, L - Ambient Light, W - Weather

etails: Rd Ch - Road Character

Rd Ci - Roadway Contributing Circumstances

Trfc Ctl - Traffic Control: Dv - Device, Op - Operating

Alchl/Drgs - Alcohol Drugs Suspected

Veh Mnvr/Ped Actn - Vehicle Maneuver/Pedestrian Action

Obj Strk - Object Struck

Summary Statistics

High Level Crash Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	33	100.00
Fatal Crashes	0	0.00
Non-Fatal Injury Crashes	14	42.42
Total Injury Crashes	14	42.42
Property Damage Only Crashes	19	57.58
Night Crashes	5	15.15
Wet Crashes	6	18.18
Alcohol/Drugs Involvement Crashes	1	3.03

Crash Severity Summary

Crash Type	Number of Crashes	Percent of Total
Total Crashes	33	100.00
Fatal Crashes	0	0.00
Class A Crashes	0	0.00
Class B Crashes	2	6.06
Class C Crashes	12	36.36
Property Damage Only Crashes	19	57.58

Vehicle Exposure Statistics

Item#

Annual ADT = 5700

Total Length = 0.49 (Miles)

0.789 (Kilometers)

Total Vehicle Exposure = 3.06 (MVMT)

4.93 (MVKMT)

Crash Rate	Crashes Per 100 Million Vehicle Miles	Crashes Per 100 Million Vehicle Kilometers
Total Crash Rate	1077.05	669.25
Fatal Crash Rate	0.00	0.00
Non Fatal Crash Rate	456.93	283.92
Night Crash Rate	163.19	101.40
Net Crash Rate	195.83	121.68
EPDO Rate	4458.34	2770.28

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Miscellaneous Statistics

Severity Index =	4.14
EPDO Crash Index =	136.60
Estimated Property Damage Total = \$	180050.00

Accident Type Summary

Accident Type	Number of Crashes	Percent of Total
ANGLE	15	45.45
HEAD ON	1	3.03
LEFT TURN, SAME ROADWAY	6	18.18
OTHER COLLISION WITH VEHICLE	1	3.03
PARKED MOTOR VEHICLE	1	3.03
PEDALCYCLIST	1	3.03
RAN OFF ROAD - RIGHT	1	3.03
REAR END, SLOW OR STOP	4	12.12
SIDESWIPE, SAME DIRECTION	3	9.09

Injury Summary

Injury Type	Number of Injuries	Percent of Total
Fatal Injuries	0	0.00
Class A Injuries	0	0.00
Class B Injuries	2	8.33
Class C Injuries	22	91.67
Total Non-Fatal Injuries	24	100.00
Total Injuries	24	100.00

Monthly Summary

Month	Number of Crashes	Percent of Total			
Jan	3	9.09			
Feb	1	3.03			
Mar	6	18.18			
Apr	4	12.12			
May	0	0.00			
Jun	2	6.06			
Jul	0	0.00			
Aug	2	6.06			
Sep	4	12.12			
Oct	4	12.12			
Nov	2	6.06			
Dec	5	15.15			

Daily Summary

Day	Number of Perc Crashes of To	
Mon	5	15.15
Tue	4	12.12
Wed	6	18.18
Thu	6	18.18
Fri	4	12.12
Sat	4	12.12
Sun	4	12.12

Hourly Summary

Hour	Number of	Percent
	Crashes	of Total
0000-0059	0	0.00
0100-0159	0	0.00
0200-0259	3	9.09
0300-0359	0	0.00
0400-0459	0	0.00
0500-0559	0	0.00
0600-0659	0	0.00
0700-0759	1	3.03
0800-0859	3	9.09
0900-0959	0	0.00
1000-1059	4	12.12
1100-1159	4	12.12
1200-1259	3	9.09
1300-1359	1	3.03
1400-1459	1	3.03
1500-1559	3	9.09
1600-1659	5	15.15
1700-1759	1	3.03
1800-1859	2	6.06
1900-1959	0	0.00
2000-2059	0	0.00
2100-2159	2	6.06
2200-2259	0	0.00
2300-2359	0	0.00

Light and Road Conditions Summary

Condition	Dry	Wet	Other	Total
Day	24	4	0	28
Dark	3	2	0	5
Other	0	0	0	0
Total	27	6	0	33

Object Struck Summary

Object Type		Times Struck	Percent of Total
PARKED MOTOR VEHICLE		2	33.33
PEDALCYCLIST	128	2	33.33
TRAFFIC ISLAND CURB OR MEDIAN		2	33.33 '

Vehicle Type Summary

Vehicle Type	Number Involved	Percent of Total
LIGHT TRUCK (MINI-VAN, PANEL)	3	4.48
PASSENGER CAR	40	59.70
PEDALCYCLE	1	1.49
PICKUP	2	2.99
SCHOOL BUS	1	1.49
SINGLE UNIT TRUCK (2-AXLE, 6-TIRE)	1	1.49
SPORT UTILITY	16	23.88
UNKNOWN	1	1.49
VAN	2	2.99

10/23/2012

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Yearly Totals Summary

Accident Totals

Year	Total Accidents	Fatal Accidents	Injury Accidents	Property Damage Only Accidents
2009	7	0	4	3
2010	13	0	7	6
2011	9	0	1	8
2012	4	0	2	2
rotal [33	0	14	19

Injury Totals

Year	Fatal Injur	ies	Class A, B, or C Injuries
2009	0		6
2010	0	Ñ	14
2011	0		2
2012	0		2
Total	0		24

Miscellaneous Totals

Year	Pr	operty Damage	EPDO Index	
2009	\$	32800	36.60	
2010	\$	83450	64.80	
2011	\$	42000	16.40	
2012	\$	21800	18.80	
Total	\$	180050	136.60	

Type of Accident Totals

	Run Off Road &							
Year	Left Turn	Right Turn	Rear End	Fixed Object	Angle	Side Swipe	Other	
2009	1	0	1	0	4	0	1	
2010	5	0	1	0	5	1	1	
2011	0	0	2	0	4	2	1	
2012	0	0	0	1	2	0	1	
Total	6	0	4	1	15	3	4	

Strip Diagram

	Milana de Anada IDa
Features	Milepost Crash IDs
	0.00
	0.01
	0.02
and the same and	0.03 0.04 102862959 103127420 103538078
PITT	
	0.05
	0.06
	0.07
	0.08
	0.09
NAMES OF STREET	0.10 0.11 103477269 102695503 102751615 102731460
SR 1531 GREEN	
	102821758 102821744 102841352 102862942
	102887699 102905349 102920463 102920647
	102934048 103062921 103189960 103245371
	103262041 103345025 103414383 103421579
	0.12 103117940
(4)	0.13
	0.14
	0.15
	0.16
	0.17
WASHINGTON	0.18 103147704
	0.19
	0.20
	0.21
	0.22
	0.23
EVANS	0.24
EVANS	0.25 102688683 102905670
	0.26
	0.27
	0.28
	0.29
	0.30
	0.31 102935543
COTANCH	0.32 103293452 103360087
200	0.33
	0.34
	0.35
	0.36
	0.37

item # c

North Carolina Department of Transportation Traffic Engineering Accident Analysis System Strip Analysis Report

Features	Milepost	Crash IDs
	0.38	
REED	0.39	102889715 103114485 103285094
	0.40	
	0.41	,
	0.42	
	0.43	
	0.44	
	0.45	
	0.46	
	0.47	
	0.48	
	0.49	

Study Criteria

Study Name	Log No.	PH No.	TIP No.	K/A Cf.	B/C Cf.	ADT	ADT Route
1STST				76.8	8.4	5700	

Request Date Courier Service	Phone No.	Ext.	Fax No.
------------------------------	-----------	------	---------

County			Munic	ipality				
Name	Code	Div.	Name	Code	Y-Line Ft.	Begin Date	End Date	Years
PITT	73	2	All and Rural		150	9/1/2009	9/1/2012	3.00
Location Text				Requestor				

Fich	ne Roads
Name	Code
	50010540

Strip Road

Name	Code	Begin MP	End MP	Miles	Kilometers
	50010540	0.000	0.490	0.490	0.789

2008-2010 Three Year Crash Rates By Road System, Type and Control Crash Rate per 100 Million Vehicle Miles Traveled

RURAL SECONDARY ROUTES

ROAD TYPE	SYSTEM MILES	TOTAL	FATAL	NON-FATAL INJURY	NIGHT	WET	RUN OFF ROAD
2 LANES UNDIVIDED	59,540	335.34	3.38	112.58	138.62	57.39	161.36
2 LANES CONT. LEFT TURN LANE*	10	537.47	1.50	158.69	190.13	91.32	199.12
3 LANES UNDIVIDED*	4	254.65	0.00	83.42	83.42	57.08	52.69
4 OR MORE LANES UNDIVIDED*	36	444.29	0.70	154.30	116.83	85.65	56.32
4+ LANES CONT. LEFT TURN LANE*	19	506.34	2.49	172.37	141.71	91.16	91.57
4 OR MORE LANES DIVIDED WITH							
NO CONTROL ACCESS	45	235.29	0.32	74.52	65.64	47.41	39.80
PARTIAL CONTROL ACCESS*	4	236.41	0.00	68.01	82.58	55.05	11.33
FULL CONTROL ACCESS	29	34.85	0.16	9.75	9.43	8.31	8.47
TOTAL	59,687	331.52	3.24	111.21	135.31	57.04	155.45

URBAN SECONDARY ROUTES

ROAD TYPE	SYSTEM MILES	TOTAL	FATAL	NON-FATAL INJURY	NIGHT	WET	RUN OFF ROAD
2 LANES UNDIVIDED	4,250	233.07	0.90	78.36	56.85	41.28	47.83
2 LANES CONT. LEFT TURN LANE*	21	365.83	0.00	138.98	81.15	56.94	34.52
3 LANES UNDIVIDED*	23	420.65	2.36	142.71	67.62	72.34	40.10
4 OR MORE LANES UNDIVIDED	240	372.80	0.85	128.90	75.89	68.20	30.41
4+ LANES CONT. LEFT TURN LANE	152	347.05	1.07	116.42	67.96	63.80	25.45
4 OR MORE LANES DIVIDED WITH							
NO CONTROL ACCESS	105	306.45	0.99	109.24	73.53	56.07	28.19
PARTIAL CONTROL ACCESS	31	146.82	0.95	48.11	38.96	29.34	20.55
FULL CONTROL ACCESS*	14	145.22	0.86	44.06	44.27	34.22	28.23
TOTAL	4,836	270.56	0.93	91.87	61.54	48.81	39.88

ALL SECONDARY ROUTES

ROAD TYPE	SYSTEM MILES	TOTAL	FATAL	NON-FATAL INJURY	NIGHT	WET	RUN OFF ROAD
- 3LANES UNDIVIDED	63,790	306.51	2.68	102.93	115.57	52.85	129.36
ALANES CONT. LEFT TURN LANE*	31	405.39	0.35	143.52	106.26	64.86	72.45
\$\textsquare LANES UNDIVIDED*	27	407.01	2.16	137.83	68.92	71.08	41.13
4 OR MORE LANES UNDIVIDED	276	380.14	0.84	131.50	80.09	69.99	33.07
4+ LANES CONT. LEFT TURN LANE	171	358.57	1.17	120.46	73.30	65.78	30.24
4 OR MORE LANES DIVIDED WITH							
NO CONTROL ACCESS	150	286.52	0.80	99.52	71.32	53.64	31.44
PARTIAL CONTROL ACCESS	35	152.94	0.89	49.47	41.94	31.10	19.92
FULL CONTROL ACCESS	43	82.06	0.46	24.43	24.33	19.39	16.92
TOTAL	64,523	308.15	2.35	103.80	107.02	53.88	111.14

NOTE: INCLUDES ONLY ROUTE SEGMENTS WITH COMPUTERIZED TRAFFIC VOLUMES

^{*} RATES ARE NOT STATISTICALLY SIGNIFICANT

Pitt County



	20			06	20	-	20			09		ar Avg.
<u>Reportable</u>	<u>Crashes</u>	<u>Injuries</u>										
Fatal	21	23	14	17	29	32	25	25	19	19	22	23
Non Fatal Injury	1,274	2,302	1,285	2,238	1,276	2,200	1,301	2,224	1,375	2,567	1,302	2,306
PDO	2,501		3,010		3,064		2,929		2,961		2,893	
Total	3,796	2,325	4,309	2,255	4,369	2,232	4,255	2,249	4,355	2,586	4,217	2,329
Alcohol Relate	ed Cras	<u>hes</u>										
Fatal	7	8	4	4	8	8	7	7	9	9	7	7
Non Fatal Injury	84	128	73	123	95	149	88	128	106	215	89	149
PDO	91		77		76		84		78		81	
Total	182	136	154	127	179	157	179	135	193	224	177	156
Percent Alco	hol Relate	ed										
Fatal	33.3%	34.8%	28.6%	23.5%	27.6%	25.0%	28.0%	28.0%	47.4%	47.4%	32.4%	31.0%
Non Fatal Injury	6.6%	5.6%	5.7%	5.5%	7.4%	6.8%	6.8%	5.8%	7.7%	8.4%	6.8%	6.4%
Total	4.8%	5.8%	3.6%	5.6%	4.1%	7.0%	4.2%	6.0%	4.4%	8.7%	4.2%	6.7%
Pedestrian Cra	<u>ashes</u>											
Fatal	6	7	2	2	4	4	4	4	1	1	3	4
Non Fatal Injury	11	17	17	19	17	24	8	10	22	29	15	20
PDO	3		0		0		2		0		1	
Total	20	24	19	21	21	28	14	14	23	30	19	23
Bicycle Crash	<u>es</u>											
Fatal	0	0	0	0	0	0	1	1	1	1	0	0
Non Fatal Injury	7	7	10	10	12	12	8	8	6	6	9	9
PDO	0		2		0		0		0		0	
Total	7	7	12	10	12	12	9	9	7	7	9	9
Motorcycle Cr	ashes											
Fatal	1	1	0	0	3	3	2	2	4	4	2	2
Non Fatal Injury	34	41	42	45	39	44	49	52	37	44	40	45
PDO	6		13		6		17		3		9	
Total	41	42	55	45	48	47	68	54	44	48	51	47

<u>County Ranking</u> 28 41 34 22 15

Item #8

General Information		Rani	king
		<u>2008</u>	<u>2009</u>
Population (2008)	155,621	16	15
Registered Vehicles (2008)	121,097	20	20
Estimated Avg. Annual Miles Traveled (100 MVMT) (2008)	13.51	24	24

Crash Rates

(Based on a 3 Year Average of All Reported Crashes)

Total Crash Rate (/100 MVMT)	392.04	6	2
Fatal Crash Rate (/100 MVMT)	1.90	42	30
Non Fatal Injury Crash Rate (/100 MVMT)	101.00	5	3
Crash Injuries Per 1000 People	15.63	18	12
Fatal Crash Injuries Per 1000 People	0.17	69	66
Crashes Per 1000 Reg. Veh.	43.75	7	7
Fatal Crashes Per 1000 Reg. Veh.	0.21	44	40
Percent Alcohol Related Crashes	4.0%	95	94
Severity Index	3.68	93	89

\$\$ Comprehensive Crash Cost \$\$ (Based on a 3 Year Average of All Reported Crashes in 2008 Dollars)		Ranking	
		<u>2008</u>	<u>2009</u>
Average Annual Cost	\$199,590,333	18	15
Average Cost Per Crash	\$37,670	89	87
Average Cost Per Person	\$1,283	68	55
Average Cost Per Vehicle	\$1,648	33	22
Average Cost / 100 Miles Traveled	\$14.77	28	13

Time To Next....

Crash	1.7	Hours		
Fatal Injury	328.5	Hours		
Injury	3.6	Hours		
Crash Cost Per Hour	\$2	\$22,784		



City of Greenville, North Carolina

Meeting Date: 1/17/2013 Time: 7:00 PM

<u>Title of Item:</u> Report on the development of a rental registry program

Explanation: Abstract: At their December 13, 2012, meeting, City Council requested that staff report back on the development of a rental registry program.

Explanation: Following the directive of City Council at its December 13, 2012, meeting, the City Manager appointed several staff members to prepare a report on the development of a rental registry program. Staff representatives of the City Attorney's Office, Information Technology Department, Police Department, Inspections Division of the Public Works Department, and Community Development Department met on December 21, 2012, to begin identifying the process and data needed for the development of a "pilot" rental registry program.

The City Attorney provided information to the team on the North Carolina General Statutes requirements for rental registry programs. Representatives from the various departments also identified the current data being collected by existing software systems for calls for service and minimum housing and nuisance violation tracking. Representatives held initial discussions on staffing resources and infrastructure needs for implementation of a program for a limited geographic area and city-wide. The General Statutes allows for three variations of the "registry program" concept. The options for the City can best be described as follows:

- 1. A city may implement a residential property inspection program for landlords or owners having more than 2 verified violations of the housing ordinances or codes within a 12-month period. A city may also implement a residential property inspection program in a targeted area designated by City Council.
- 2. A city may implement a registration program for residential rental units. No fee for a registration program may be charged except for properties where there are more than 2 verified violations of local ordinances within the previous 12 months or which are within the top 10% of crime and disorder problems.

3. A city may implement a permit program for residential rental properties with more than 3 verified violations in a 12-month period or which are within the top 10% of crime and disorder problems.

Based upon the initial assessment, it was determined that violation data required to provide the baseline summary information for a registry program is being collected by two systems. In addition, a third system, the Pitt County Tax property ownership database, is utilized to identify addresses that are rental properties. Code Enforcement uses the Mobile 311 system to track city code and minimum housing violation cases, and the Police Department tracks calls for service cases with the New World Records Management Service.

The current database programs are independent, non-integrated systems. As a result, the collection of addresses with 3 or more violations will require some manual tabulation and matching to identify a list of properties that would be placed on any type of rental registry program. This will involve significant effort and is estimated to take approximately 90 days to identify matching addresses and determine their ownership status. In summary, addresses from the Mobile 311 and New World System programs must be matched manually to some degree with the Pitt County property owner database. Moving forward, a system will be needed to eliminate this manual tabulation if a program is implemented.

As an example to illustrate the impact, violation cases entered into the Mobile 311 system since inception city-wide accounted for just over 10,000 locations. In order to determine the number of addresses with 3 or more violations, a manual sifting of the data is required. The number of locations entered in the Mobile 311 program alone is significant and will involve considerable data analysis.

The City of Charlotte recently adopted a program, and Police Department staff scheduled an information exchange conference call with members of the City of Charlotte's Police Department for January 9, 2013. This element of the analysis is important because our staff wants to learn from the experiences in Charlotte. In addition, the Code Enforcement Division of the Police Department will need to determine how this new program will be implemented with existing responsibilities.

Initial Conclusions

In summary, the preliminary findings at this time suggest that the major effort will be collecting and integrating the 3 or more violations data between 3 standalone systems. This will take at a minimum 90 days.

Development of an ordinance with a survey of other cities that have implemented a rental registry program will take approximately 60 days.

At this time, the baseline data from the Mobile 311 entries and the required validation indicates that the true impact of this new program to the Code Enforcement Division will be significant. There will also be considerable

assistance and staff needs from the Information Technology Department as a result. Staffing considerations for a "pilot program" are still being developed. The Police Department will need approximately 30-45 days to fully evaluate their needs in this area.

At this time, a conservative estimate is that it would take approximately 6 months to complete the data collection, analysis, evaluation of staff and program resources, along with ordinance and operational procedures development.

Fiscal Note: True costs to develop and implement the program are still under development at

this time.

Recommendation: City Council to receive the report and give additional guidance on the report

findings.

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