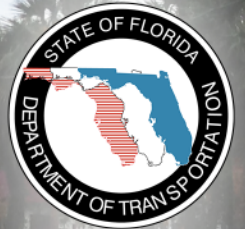


# Orange Avenue

## CORRIDOR PLANNING STUDY



## EXISTING CONDITIONS REPORT



City of Orlando

Prepared For:  
The Florida Department of Transportation  
District Five  
116 East Indiana Avenue  
DeLand, FL 32724

Submitted By:  
DRMP, Inc.  
941 Lake Baldwin Lane  
Orlando, Florida 32814

August 2013

# EXISTING CONDITIONS AND CHARACTERISTICS REPORT

SR 527 (Orange Avenue)  
From Pineloch Avenue to Anderson Street

Prepared For:  
FDOT District Five

Planning Office  
133 South Semoran Boulevard  
Orlando, FL 32807

Prepared By:  
**DRMP, Inc.**

941 Lake Baldwin Lane  
Orlando, Florida 32814

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## **Chapter 1**

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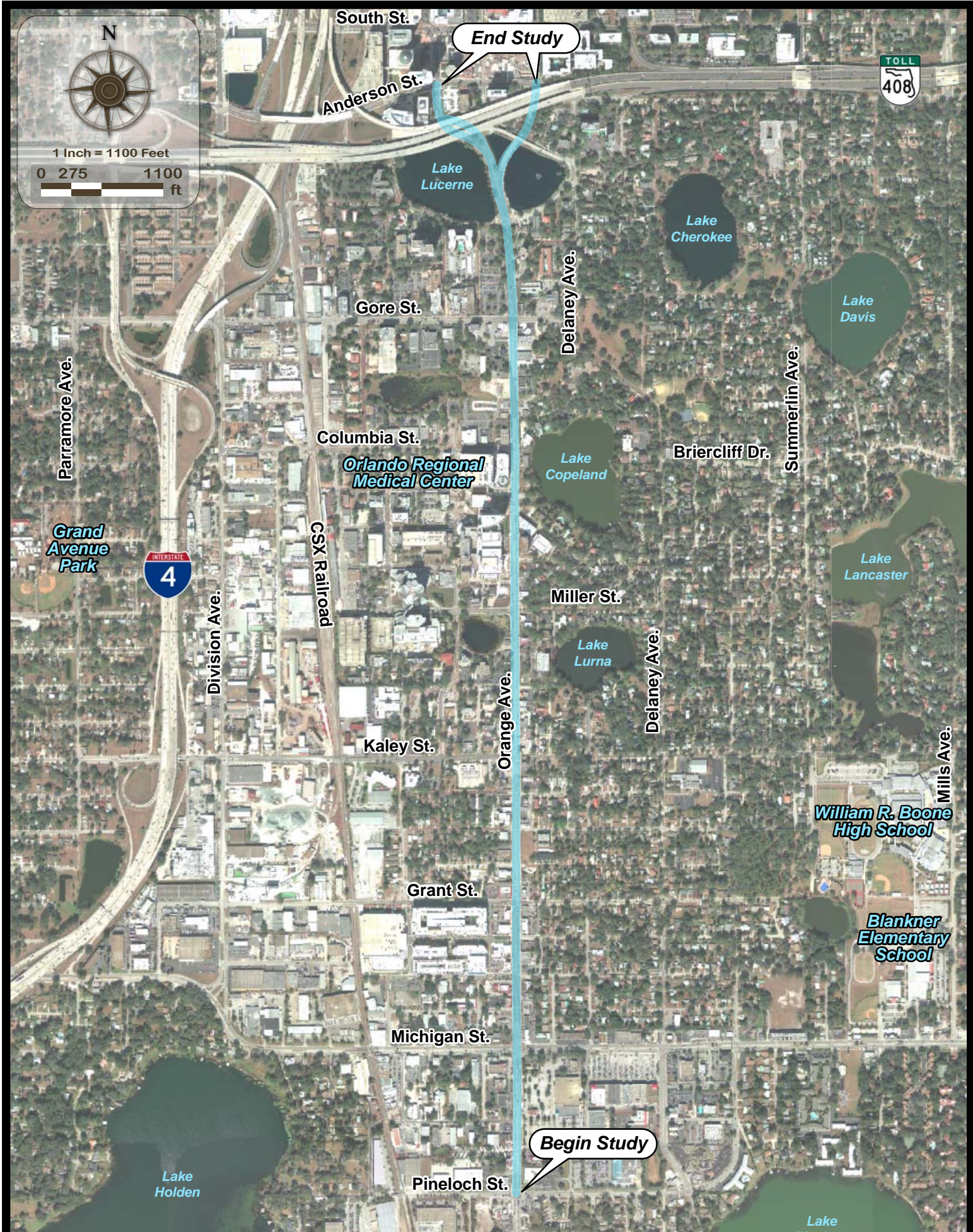
# **Introduction and Summary**

# 1 INTRODUCTION

Orange Avenue / SR 527 has been the subject of various previous studies and Visioning Plans conducted to improve conditions along this corridor. A number of the development and planning goals outlined in these studies have been implemented in an effort to transform Orange Avenue into a multimodal route that would serve downtown Orlando and the southern neighborhoods.

In November 2012, the Florida Department of Transportation engaged the services of DRMP, Inc to perform a Corridor Planning Study on SR 527 from Pineloch Avenue to Anderson Street. Figure 1 illustrates the study area.

This process will combine planning and engineering efforts to develop a range of feasible improvement strategies. As part of the analysis, previous studies, plans and visions were documented, as well as an inventory of existing traffic, pedestrian and bicycle, and transit conditions and facilities. The purpose of this Existing Corridor Characteristics Report is to document the existing facilities, conditions and previous studies conducted within the study area.



N

1 Inch = 1100 Feet

0 275 1100 ft



**End Study**

**Begin Study**



## Chapter 2

---

# Plans and Previous Studies

## 2 REVIEW OF PLANNING DOCUMENTS

An inventory of previous studies and plans relative to the study area in regards to operations and planning goals were collected and are summarized below.

### 2.1 Orange/Michigan Vision Plan

The purpose of the *Orange/Michigan Vision Plan* was to develop appropriate guidelines for the private development of the Orange Avenue Corridor. This involved consideration of the expansion of the Orlando Health Campus, future implementation of the Sun Rail, and the designation of S. Orange Avenue and Michigan Street as a Main Street District. A portion of the study area from Gore Street south to Pineloch Avenue is located within the Downtown South Main Street district and is one of five Main Street districts within the City of Orlando. Recommendations were made concerning urban form, urban design, setbacks and streetscapes, transportation, and implementation. These recommendations can be summarized as follows:

- Urban Form – The Transect Plan is intended to provide a rational system to evaluate, understand, and design new development in a method consistent with gradual land use changes from undeveloped land to dense urban areas. Transect zones are applied to the study area and include the following:
  - T6 Urban Core Zone – medium to high-density mixed-use and medical buildings with highest pedestrian level of activity and transit-oriented
  - T5 Urban Center Zone – mix of larger apartment and office buildings, with commercial activities typical on ground level
  - T4 General Urban Zone – smaller scale commercial, office and residential buildings with active uses and pedestrian oriented buildings
  - T3.5 Townhome/Work-live Zone – mix of attached and semi-detached residential and office buildings, with residential characters, commercial uses prohibited
  - T3 Suburban Zone – generous and various front yard setbacks, single family homes and duplexes, commercial and office uses prohibited

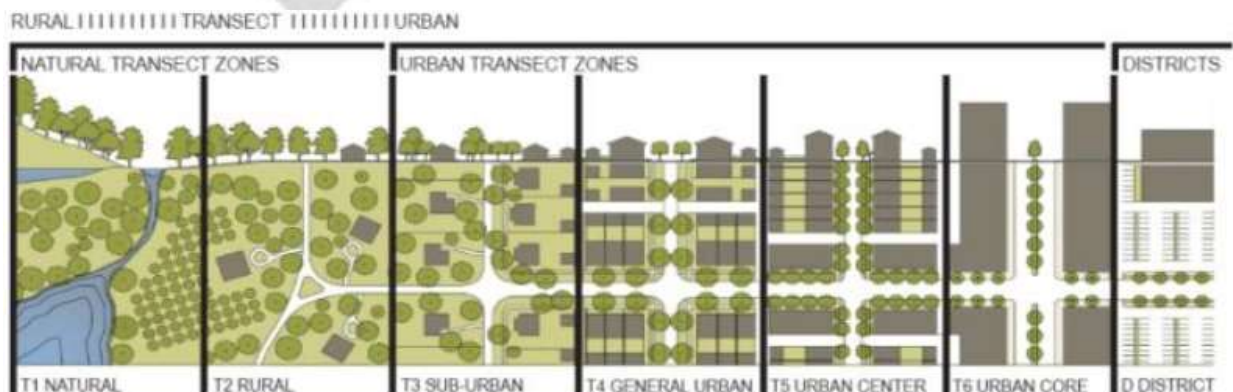


Figure 2: Transect Plan proposed by the Orange/Michigan Vision Plan.

Urban Design – Standards proposed in this section outline specific architectural treatments and site designs to be utilized in the Corridor. These vary for each transect and include articulation, architectural style, stormwater design, zoning, and branding of the Corridor.

- Articulation – required to in varying increments for each transect.
- Architectural Style – Used the SODO development as a design example for new development, mixing both modern and traditional styles
- Stormwater Design – site-sensitive grading techniques, and requiring stormwater plans with site section drawing to be submitted with all Land Development applications and stormwater systems to function as site amenities
- Traditional City Zoning – proposed extension of traditional city zoning south of Michigan Street to promote a congruent street experience and pedestrian-friendly development
- Branding the Corridor – the Orange Avenue/Michigan Street intersection should serve as a gateway and focal point of the Downtown South area, Right of way restrictions to properties developed on the four corners of the intersection would provide pedestrian plaza areas or other entrance features, and special aesthetic applications to the intersection should be used



Figure 3: Examples of Corridor Branding

- Setbacks – Recommended setbacks along Orange Avenue for the purpose of providing consistency with new developments and opportunity for future streetscape installation.
  - Sidewalk easement of 13 feet from back-of-curb to provide a 7 foot sidewalk and 6 foot landscape strip

- Private property setback of 7 feet to all for a “courtyard” area
- Streetscapes – The conceptual streetscape proposed on Orange Avenue is located within existing right-of-way available today, with additional sidewalk easements obtained from private property owners.

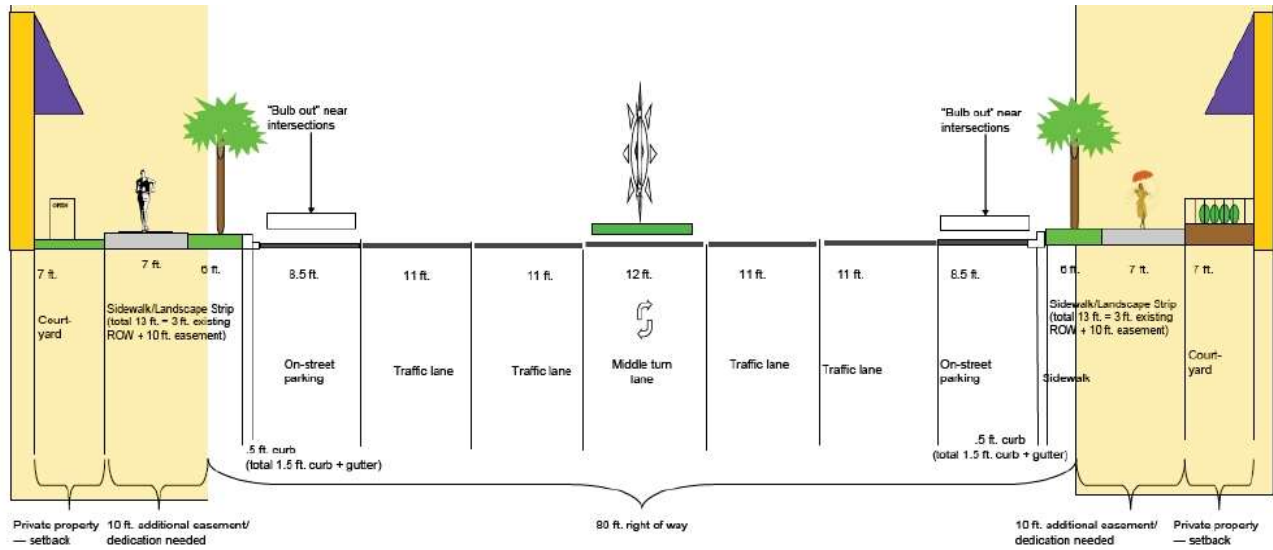
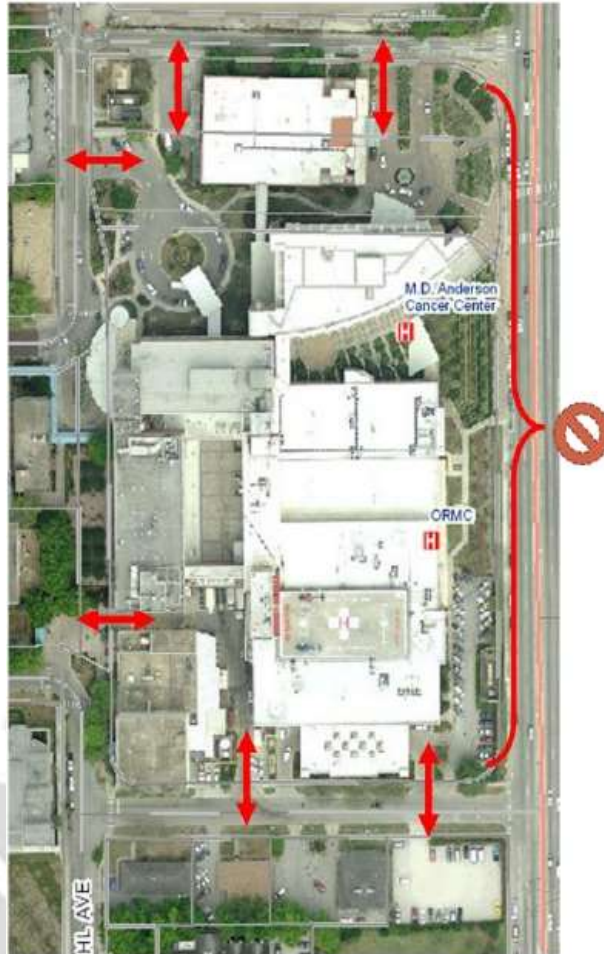


Figure 4: Proposed Streetscape Typical Section

- Transportation – Access management by transect zone, median plan, bus stops and shelters
  - In all transect zones, cross-access easements between parking and driveways on adjacent properties are proposed where possible, and where not possible, future cross access will be provided for with stub-outs. Unnecessary curb cuts should be closed upon substantial improvements or expansions.



**Figure 5: Proposed Cross-Access Easements on Adjacent Properties**

- The conceptual median plan consists of three philosophies. Middle turn lanes should be utilized to provide right-of-way needed for medians were turn lanes are unnecessary. Dual left-turn lanes should be re-stripped to delineate a single left turn lane (either west or east) when possible. Where access is available by a side street or adjoining property, the Orange Avenue access may be restricted to right in right out.
- Implementation is proposed through a city-initiated Growth Management Plan and zoning amendments consistent with the Transect Plan, ongoing coordination with the Main Street and South Downtown Community Councils, and support for the establishment of improvement districts throughout the corridor.

## 2.2 South Downtown Vision Plan

The South Downtown area's boundaries, described in the South Downtown Vision Plan, consist of the area east of I-4, north of Michigan Street, west of Orange Avenue, and south of SR 408. The purpose of the plan is to propose measures to promote future development in the area accommodating the Orlando Health campus, new medical office, retail and residential development, mixed-use development in proximity to the Sun Rail station, redevelopment and intensification of industrial areas along I-4, and to promote existing businesses. This plan involves improvements to the existing transportation system, developing a distinct community character, creating "park-once" district and the transit infrastructure to accommodate them, development of workforce housing, and preservation of existing residential neighborhoods.



Figure 6: Proposed Transportation Connectivity in South Downtown

As part of the plan, the transportation strategy involves breaking existing large block areas into smaller blocks that will encourage better urban development and connectivity. This will provide new connections into the Downtown core and offset traffic on Orange Avenue and Division Street. It is also proposed to upgrade and widen the existing Atlanta Avenue to serve as a north

south alternative to Orange Avenue and Division Street. The streetscape plan consists of the existing lane configuration to Orange, with the addition of street tree plantings and more on street parking where possible. Four different transit options are proposed to function within the study area, Sun Rail, Lymmo (the downtown circulator) service, covered access for pedestrians from the train station to all hospital access points, and expanded LYNX bus service. These transit improvements are supported further by the addition of parks and bicycle and pedestrian trails throughout the area. Major and local way finding gateways are proposed at significant and major intersections in the study area. A workforce housing strategy is proposed in five redevelopment areas within the study area. These were identified based on nearby transit and employment centers.



**Figure 7: Proposed Workforce Housing Strategy**

The conceptual phasing strategy divides the proposed redevelopment measures into three conceptual phases, near-term, mid-term, and long-term. Near-term phasing included projects already in process and some complete. The mid-term phase consists of transportation network enhancements, and development around the future transit station. The long-term phase proposes redevelopment of the remaining South Downtown area based on future transportation connections.

## 2.3 LYNX

The *South LYMMO Corridor AA Report* was conducted to evaluate alternatives to enhance transit service in downtown Orlando, including a potential expansion of the existing LYMMO bus circulator system. Nine build alternatives were proposed in the study, all consisting of varying route options for the LYMMO. All proposed BTR routes would operate primarily within existing right-of-way in mixed traffic, with transit priority concentrated at intersection with signal priority. Alternative 8 (South Orange Avenue/Columbia Street/Sligh Boulevard/Two-Way on Orange Avenue) was identified as the locally preferred alternative. The project proposes 17 stations, many with enhanced shelters, passenger seating, lighting, trash receptacles, real time passenger information, way finding signage, ticket kiosks, bike racks, and landscaping. Service hours of the proposed route would consist of 16 hour weekday service (6 AM to 10 PM), 18 hour Friday service (6 AM to 12 AM), 14 hour Saturday service (8 AM to 10 PM), and 12 hour Sunday and holiday service (10 AM to 10 PM). Headway on weekday peak periods would be 10 minutes, and 15 minutes for other periods.



Figure 8: Preferred Alternative 8 Route Map



## 2.4 Orlando Health Planning Vision

The purpose of the *Orlando Health Planning Vision* is to develop a vision for the properties within immediate walking distance to the future SunRail station. This was developed with future land use and planned LYMMO, LYNX, and SunRail transit within the study area.

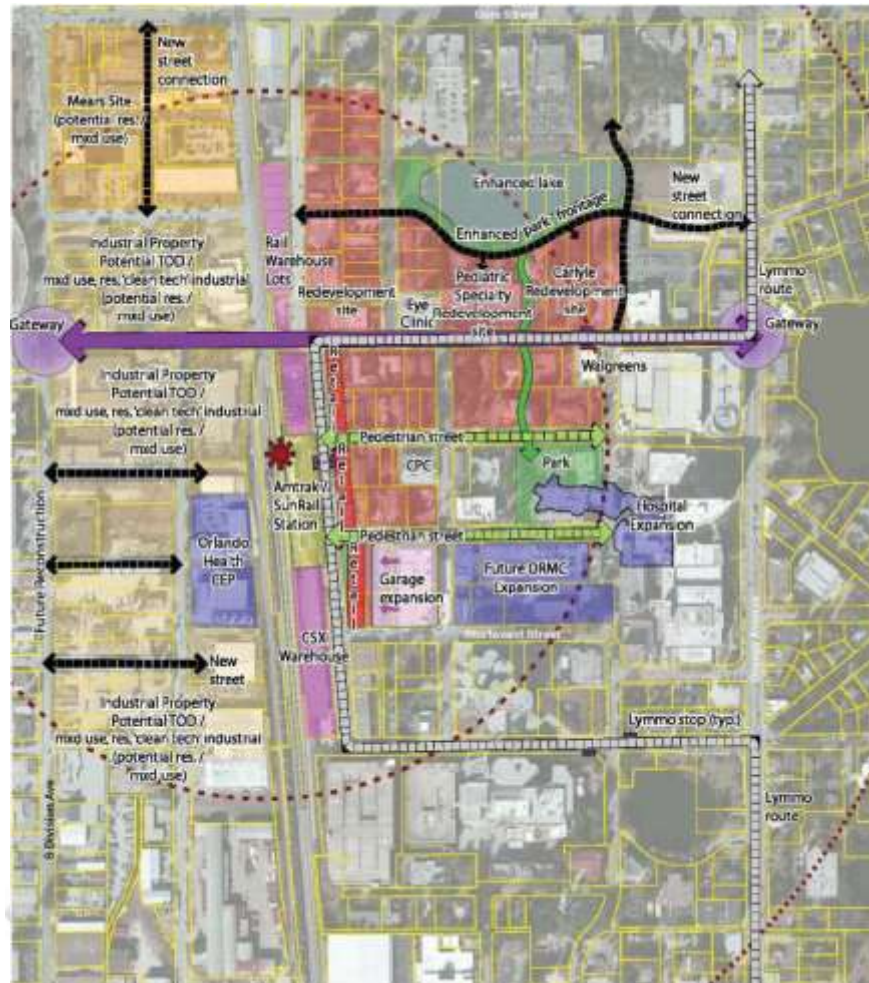


Figure 9: Orlando Health Planning Vision Study Area

Development areas were identified to focus on the “slightly different issues and opportunities” they present relative to the study area. Each area will be supported by a network of pedestrian friendly streets, utility and stormwater infrastructure, adequate parking, local transit and street connectivity, open green spaces, and mixed-use development. This will also involve several proposed typical sections and improvements to existing streets, additional landscaping to connect green spaces, and providing additional parking where necessary. Each development area will have a unique vision based on the characteristics of the area.

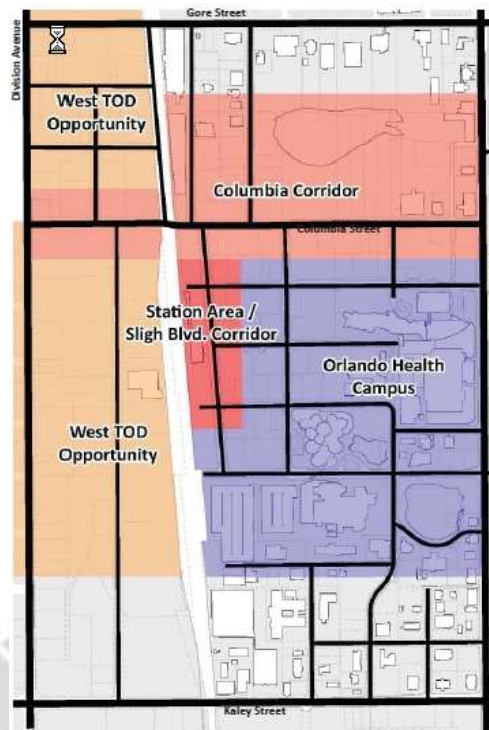


Figure 10: Proposed Development Areas

## 2.5 Review of the Long Range Transportation Plan and the Capital Improvements Program

A review of MetroPlan Orlando Long Range Transportation Plan (LRTP) indicated the following projects relevant to the study are:

- Pedestrian Facilities upgrade on Kaley Avenue from the I-4 interchange to the Orange Avenue/Kaley Avenue intersection
- Expansion of the Lynx Bus Rapid Transit (Discussed in detail in Section 2.3 of this document)
- Construction and implementation of the SunRail commuter rail, scheduled for completion in 2014

Orange Avenue from Gore Street to Anderson Street is within the boundary addressed by the City of Orlando's Comprehensive Plan within the Transportation Element. Various proposed improvements and/or designations within the study area include:

- Orange Avenue from Magnolia Drive to Lucerne Circle is designated as a Primary Pedestrian Street in the Downtown Pedestrian Street Designation
- Orange Avenue from Lucerne Circle to Miller Street is designated as a Secondary Pedestrian Street in the Downtown Pedestrian Street Designation
- Addition of LYMMO BRT service south on Orange Avenue from downtown to Orlando Heath Campus
- Orange Avenue from South Street to Lucerne Circle, the addition of a single NB contraflow transit lane with the elimination of on-street parking and/or ROW from the Performing Arts Center block.
- Proposed Improvements to the Orange Avenue/Gore Street intersection and surrounding area include Developing Division Street as a second Gateway to Downtown as a way of reducing the volume on Orange Avenue and improving the Orange Avenue/Gore Street intersection operation. Addition of either a NB Left or NB Thru lane with the elimination of on-street parking on Orange Avenues south of the intersection.
- Lucerne Terrace Extension is proposed as an alternative north/south route to the Orlando Heath Campus to alleviate volume on Orange Avenue and improve operations.

There are no projects in the study area on the City of Orlando's Capital Improvements Program (CIP).

## **2.6 Ongoing Near Term Projects**

The most significant near term project in the study area is the construction of a 48,000 square foot Wal-Mart Neighborhood Marketplace Shop in the Market at Southside Shopping plaza on Orange Avenue between Pineloch Avenue and Michigan Street. The anticipated completion date is July 2013.

**DRAFT**

## **Chapter 3**

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# **Existing Roadway Characteristics**

### 3 EXISTING ROADWAY CHARACTERISTICS

Existing multi-modal travel and roadway characteristics were collected and documented, including existing roadway and classification, existing typical sections, speed limits, bicycle and pedestrian accommodations, existing transit service, traffic signals and timing plans, existing utilities, and existing traffic volumes.

#### 3.1 Existing Roadway and Classification

The study area roadways are known by both their designated state road number and by local names, SR 527 and Orange Avenue. The Orange Avenue corridor is a 5-lane Principle Arterial, with two lanes traveling in the north and south direction, and a center two-way left turn lane. Portions of the corridor have medians or one-way left turn lanes, and on street parking in various locations.

#### 3.2 Existing Typical Sections

FDOT provided As-Built Plans that show the existing typical section of Orange Avenue from Pineloch Avenue to Gore Street, as illustrated in Figure 11.

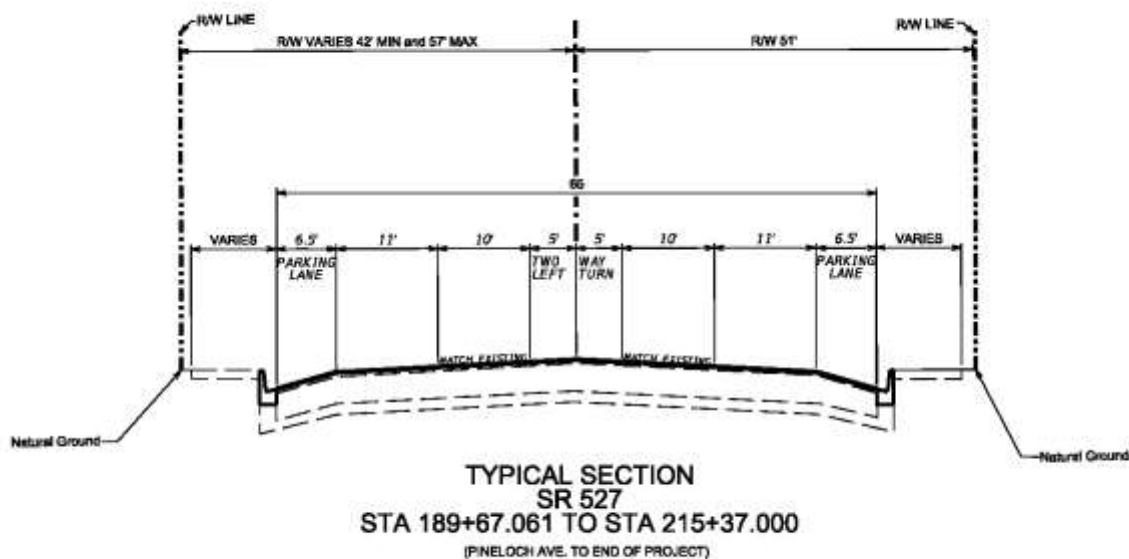


Figure 11 - FDOT Typical Section of Orange Avenue from Pineloch Avenue to Gore Street

However, typical sections vary through the corridor and include 6 lane section with a bike lane, 5 lane section with on-street parallel parking on one or both sides of the street, and 5 lanes with no on-street parking. Figures 12 - 14 illustrate examples of varying typical sections found in the study area.

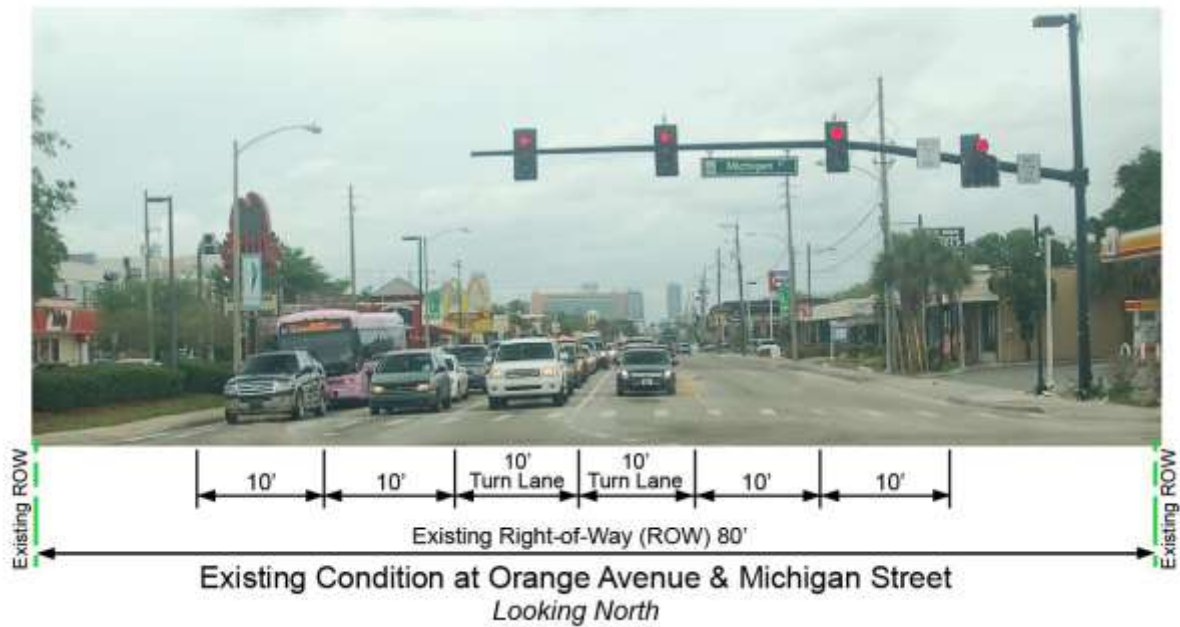


Figure 12: 5-Lane Typical Section with No On-Street Parking



Figure 13: 5-Lane Typical Section with On-Parking on One Side of the Street

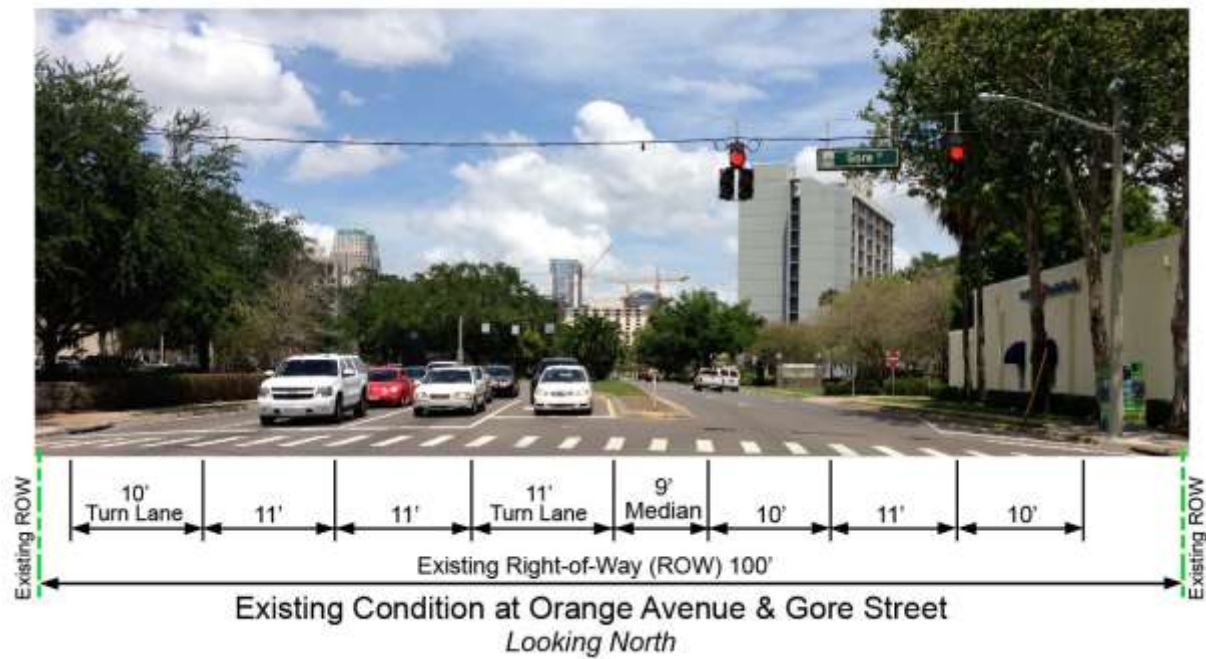


Figure 14: 6-Lane Typical Section with No On-Street Parking

### 3.3 Speed Limits

The corridor currently has speed limits varying from 40 mph from Lake Pineloch Avenue to Grant Street, 35 mph from Grant Street to Kaley Avenue, and 30 mph from Kaley Avenue to Anderson Street. Maps illustrating the existing corridor speed limits are provided on Figure 15.

### 3.4 Bicycle and Pedestrian Accommodations

Bicycle and pedestrian accommodations vary throughout the Orange Avenue corridor due to the changes in type section. Maps depicting the locations of bicycle lanes and sidewalks are included on Figure 15.

### 3.5 Parking Inventory

An inventory of existing on street parking locations is included on Figure 15.



## 3.6 Transit Service

### 3.6.1 Service Routes and Stop Locations

Five transit service routes currently serve the corridor, Lynx bus routes 3, 7, 11, 18, and 40. All stops in study area are shown on Figure 15.

- Route 3 has the following characteristics:
  - Runs on Orange Avenue from Anderson Street to Lucerne Circle
  - Runs parallel to Orange on Delaney Avenue from Lucerne Circle to Pineloch Avenue.
  - 1 hour headways on weekdays, and reduced service hours for weekends and holidays
- Route 7 has the following characteristics:
  - Runs on Orange Avenue from Anderson Street of Pineloch Avenue.
  - 1 hour headways on weekdays, and reduced service hours for weekends and holidays
- Route 11 has the following characteristics:
  - Runs on Orange Avenue from Anderson Street to south of Pineloch Avenue
  - 30 minute headways on weekdays, and reduced service hours for weekends and holidays
- Route 18 has the following characteristics:
  - Runs on Orange Avenue from Anderson Street to south of Pineloch Avenue
  - 1 hour headways on weekdays, and reduced service hours for weekends and holidays
- Route 40 has the following characteristics:
  - Runs parallel to Orange Avenue on Lucerne Terrace and Rosalind Avenue from Anderson Street to Gore Street
  - Runs parallel to Orange Avenue on Sligh Boulevard west of Orlando Regional Medical Center from Gore Street to Colombia Street
  - Runs on Orange Avenue from Miller Street to Michigan Street
  - 1 hour headway times on weekdays, and reduced service hours for weekends and holidays

Complete Lynx transit maps and scheduled are located in Appendix A.

### **3.6.2 Transit Use Patterns**

The daily ridership averages for passengers boarding and alighting data are included on Figure 15. The stop with the highest quantity of passengers boarding is located on the northbound side of Orange Avenue near Illiana Street. The stop with the highest quantity of passengers alighting is located on the southbound side of Orange Avenue near Michigan Avenue. These stops are less than 400 feet apart and provide access to a large shopping area at the Market at Southside.

Other stops that have significantly higher loading and offloading passengers include stops near Grant Street, Kaley Street, Fernwood Street, and Columbia Street. Table 1 below displays the boarding and alighting data for each existing bus stop on Orange Avenue within the study area with corresponding major destinations / attractions.

**DRAFT**

Table 1: Boarding and Alighting Data

Stop Name	Direction	Weekday Average Passenger Volume			Nearby Destination/ Attraction
		Boarding	Alighting	Total	
2800 ORANGE AVE / ILLIANA ST	NB	129	86	215	The Market at Southside
2700 ORANGE AVE / MICHIGAN	SB	56	102	158	The Market at Southside
2300 ORANGE AVE / GRANT ST	SB	68	72	140	SODO
1800 ORANGE AVE / KALEY ST	NB	85	35	120	Shops/Medical Offices
2400 ORANGE AVE / CRYSTAL LAKE ST	NB	78	37	115	SODO
1400 ORANGE AVE / FERNWOOD ST	NB	86	26	112	ORMC / Medical Offices
1700 ORANGE AVE / PENNSYLVANIA ST	SB	29	80	109	ORMC / Medical Offices / Neighborhoods
800 ORANGE AVE / GORE ST	NB	69	37	106	Orlando Cloisters Senior Living Community / Medical Offices
1108 ORANGE AVE / COLUMBIA ST	SB	27	70	97	ORMC / Medical Offices
2893 ORANGE AVE / PINELOCK AVE	NB	36	42	78	The Market at Southside / Neighborhoods
2211 ORANGE AVE / MURIEL ST	NB	50	27	77	Medical Offices / Neighborhoods
1500 ORANGE AVE / STURTEVANT ST	SB	22	49	71	ORMC / Medical Offices
2800 ORANGE AVE / ILLIANA ST	SB	31	27	58	The Market at Southside
700 ORANGE AVE / LUCERNE CIR	SB	23	29	52	Orlando Cloisters Senior Living Community / Medical Offices
930 S ORANGE AVE / GORE ST	SB	18	34	52	Orlando Cloisters Senior Living Community / Medical Offices
ORANGE AVE / COLUMBIA ST	NB	40	9	48	ORMC / Amtrak Station
1700 ORANGE AVE / HOLLENBECK DR	SB	18	11	29	Medical Offices / Neighborhoods
2100 ORANGE AVE / HARDING ST	SB	8	18	26	Medical Offices / Neighborhoods
1700 ORANGE AVE / HOLLENBECK DR	NB	17	9	25	Medical Offices / Neighborhoods
700 ORANGE AVE / LUCERNE CIR	NB	8	8	17	Orlando Cloisters Senior Living Community/ Medical Offices
1600 ORANGE AVE / MILLER ST	SB	0	0	0	ORMC / Medical Offices
1900 ORANGE AVE / ESTHER ST	SB	0	0	0	Medical Offices / Neighborhoods

Complete Ridership Data Tables are located in Appendix B.



# Orange Avenue Corridor Planning Study

Existing Corridor Characteristics - Bus Stop Locations, Speed Limits, Bike Lanes, and On-Street Parking

Figure 15



## **Chapter 4**

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### **Traffic**

## 4 TRAFFIC

### 4.1 Traffic Signals and Connectivity

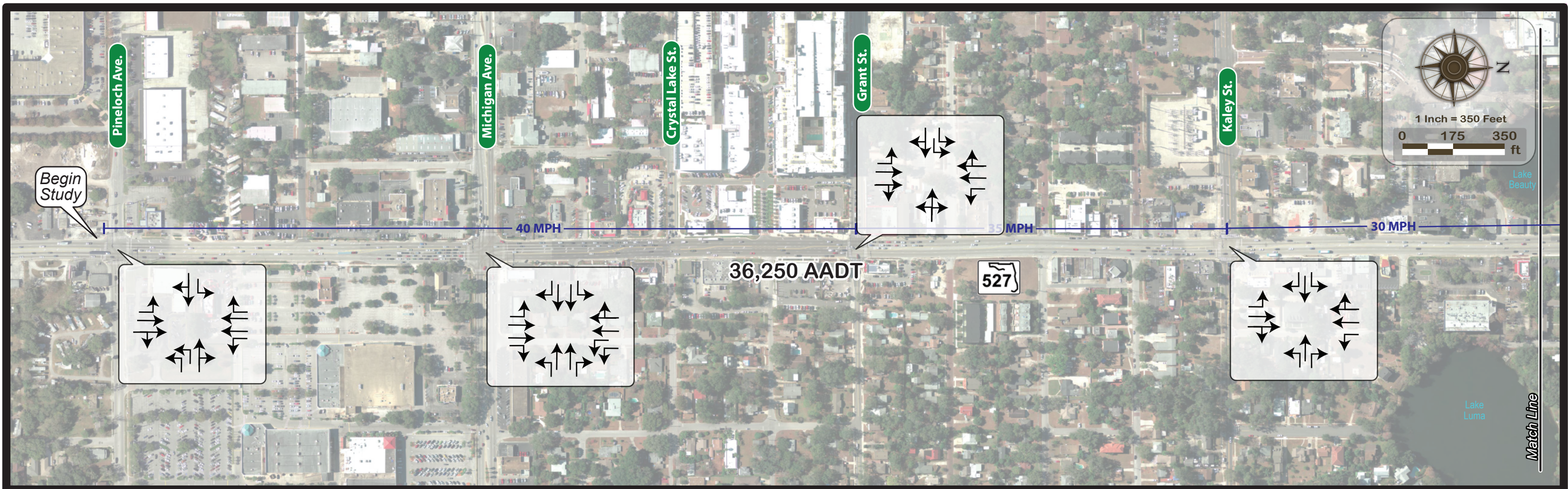
Within the study area, there are 11 signalized intersections on Orange Avenue:

- Orange Avenue/E. Pineloch Avenue
- Orange Avenue/Michigan Street
- Orange Avenue/Grant Street
- Orange Avenue/Kaley Avenue
- Orange Avenue/Miller Street
- Orange Avenue/Copeland Drive
- Orange Avenue/Columbia Street
- Orange Avenue/Gore Street
- Orange Avenue/S. Lucerne Circle
- Orange Avenue/Rosalind Avenue
- Orange Avenue/Anderson Street

Figure 16 illustrates the intersection lane configurations for all signalized study area intersections.

### 4.2 AADT Volumes

Current Annual Average Daily Traffic (AADT) volumes in the study area are provided for Orange Avenue, Michigan Street, Gore Street, Kaley Avenue, Grant Street, Division Street, and Delaney Avenue. AADT volumes are illustrated on Figure 16.



- Legend**
- Existing Geometry
  - Speed Limits

**Orange Avenue Corridor Planning Study**  
 Existing Corridor Characteristics - Speed Limit, Lane Configurations, and AADT

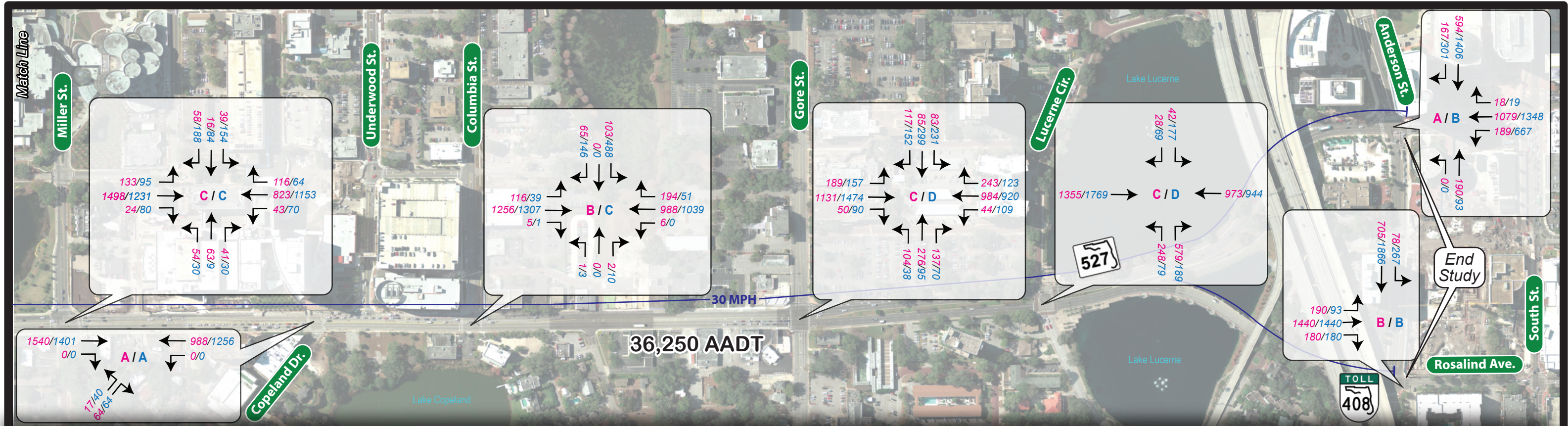
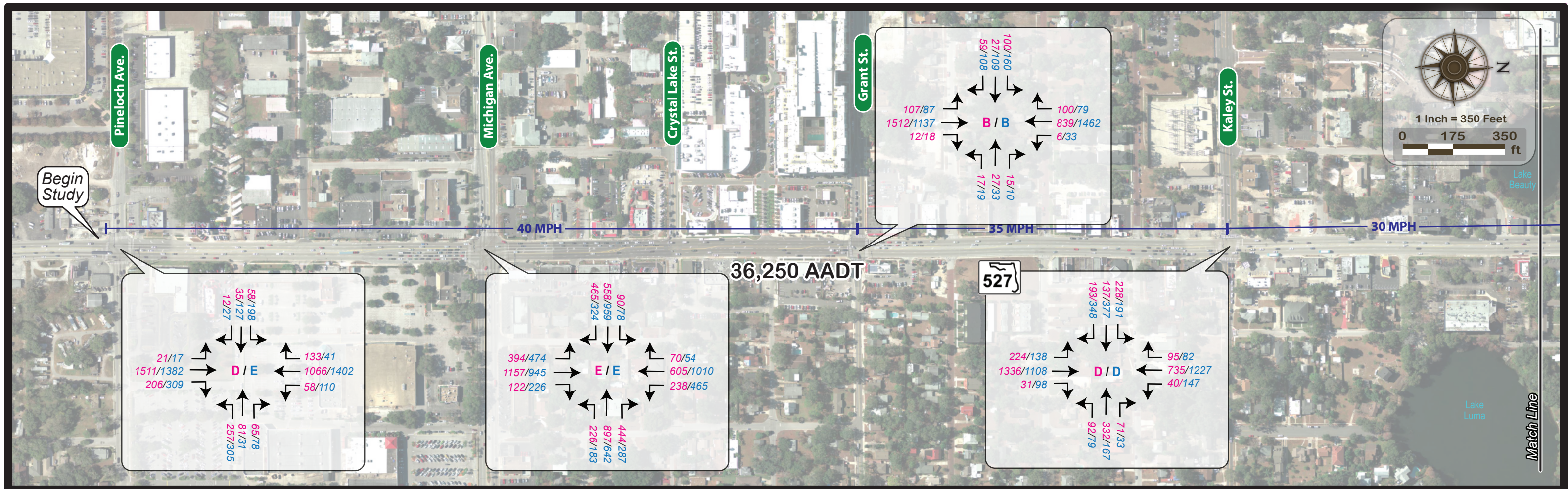
Figure 16



### 4.3 Existing Operations

Several traffic signals in the corridor and immediate side streets coordinated timing plans, to achieve optimized progression through the corridor. Figure 17 depicts existing intersection Level of Service and Volumes for the AM, and PM peak hours. Synchro reports are located in Appendix C.





Legend  
 C/E Level of Service (AM/PM)    #/# AM/PM Turning Movement Counts

# Orange Avenue Corridor Planning Study

## 2012 Existing Turning Movement Counts and LOS

Figure 17



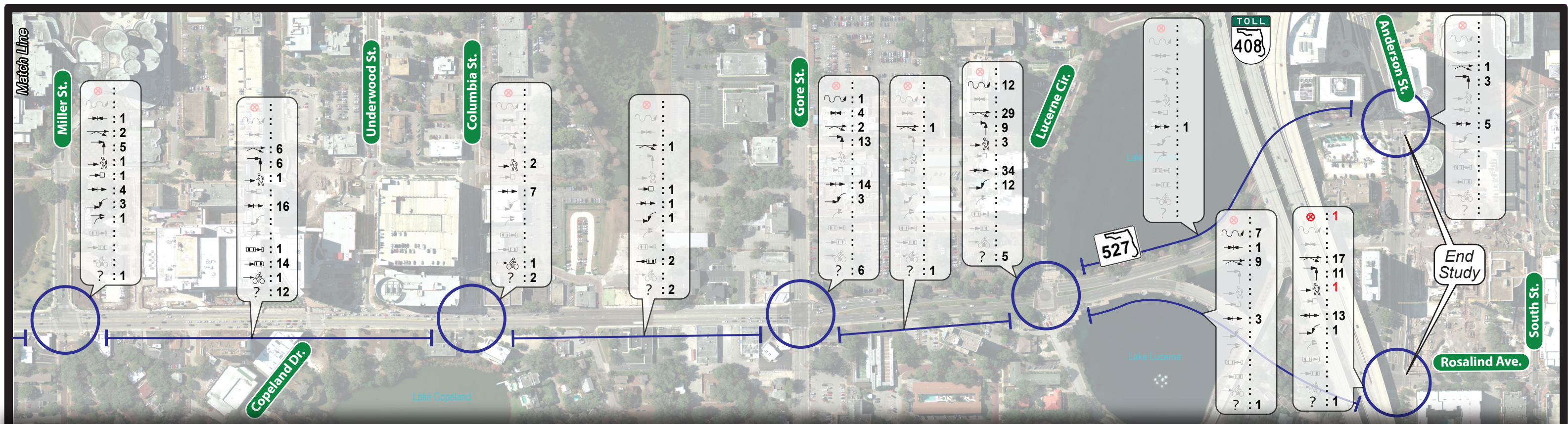
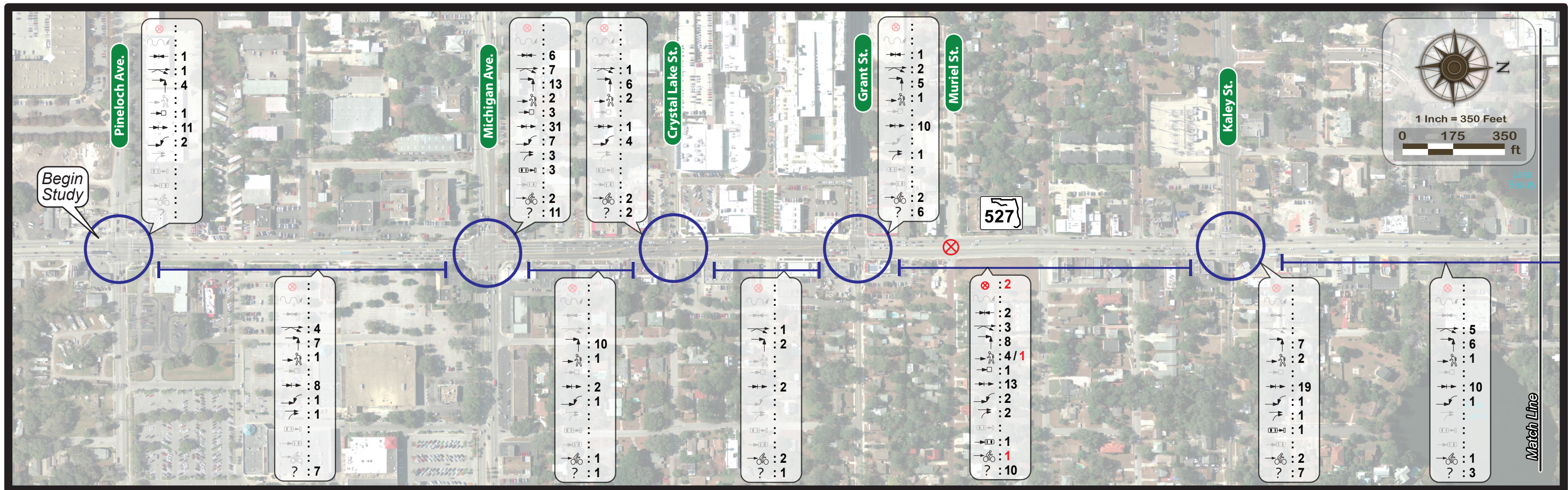
#### 4.4 Crash Data and Safety Summary

Five years of crash data was collected and reviewed for the corridor. A total of 648 crashes were reported within the corridor, with 3 fatalities involving two pedestrians and a cyclist. Table 2 below highlights the percentages of crash types and conditions.

Table 2: Crash Type and Conditions

Total No.	Fatal	Head On	Collision w/Pedestrian	Collision w/Bicycle	Rear-End	Angle	Left Turn	Right Turn	Side Swipe
648	3	16	19	16	205	116	38	7	88
%	0%	2%	3%	2%	32%	18%	6%	1%	14%

Two of the three reported fatalities occurred at the Orange Avenue/Muriel Street intersection, currently stop controlled on the minor street. The remaining fatality occurred near the intersection of Rosalind Avenue/Anderson Street and involved a pedestrian. The nature and location of these crashes indicate that there was an improper mid-block crossing and the designated cross walks were not utilized. The highest incidence of collision types was rear-end, with a majority of those occurring at the study area intersections. The second highest occurring collision was Angle crashes consisting of 18% of total crashes, which a majority occurred at unsignalized intersection with stop control on the minor streets. This indicates a difficulty of vehicles turning off the minor streets and merging with NB and SB traffic on Orange Avenue. Figure 18 below highlight the location and type of crashes that occurred in the study area. Raw crash data is included in Appendix D.



**Legend**

⊗ 1. Fatality	↔ 5. Right Angle Crash	↔ 9. Left Turn Crash	↔ 13. Collision w/ Bike
⊘ 2. Out of Control /Off-road	↔ 6. Collision w/ Pedestrian	↔ 10. Right Turn Crash	? 14. Unknown / Other
↔ 3. Head On Crash	↔ 7. Fixed Object / Utility Pole	↔ 11. Back-up Crash	
↔ 4. Side-Swipe	↔ 8. Rear End Crash	↔ 12. Parked Car	

## Orange Avenue Corridor Planning Study

### Existing Corridor Characteristics - Crash Data 2007-2012

#### 4.5 Issues and Observations

Various locations throughout the corridor were observed for operational and safety issues, based on comments and previous problems, discussed with local residents/businesses, City of Orlando officials, and FDOT department staff. The following locations were observed during field reviews on Tuesday April 9, 2013 and Friday, April 12, 2013:

- Orange Avenue/Pineloch Avenue intersection – WBL volume is high and the entire queue was not served in one cycle, a few cars had to wait two cycle lengths to turn. At this time of day no heavy vehicles were observed in the EBL movement, however due to previous discussions with local stakeholders, there are times in the day that this movement is very heavy. The EBL turn radius is not sufficient for heavy vehicles to easily make the turn onto Orange Avenue from Pineloch Avenue.
- Orange Avenue/Michigan Street – This is a very heavy intersection with the majority of NB heavy trucks turning left on to Michigan Street to I-4. There is a high volume of heavy trucks in the EBR movement and encroach on the NB left lane on Orange Avenue because of insufficient turn radius at this intersection. The pedestrian facilities are directly next to the intersection on the SW corner and pedestrians are not considered by many drivers. It would be more effective to move the sidewalk closer to the CVS parking lot and providing a larger turning radius for the high volume of heavy vehicles in the EBR lane. The SBT queue extends into the upstream Orange Avenue/Grant Street intersection. Three pedestrians were observed crossing Orange Avenue between Pineloch Avenue and Michigan Street from the mid-block bus stops. Figure 19 below illustrates two of the pedestrians crossing mid-block on Orange Avenue between Pineloch Avenue and Michigan Street.



**Figure 19: Pedestrians observed crossing mid-block between Pineloch Avenue and Michigan Street**

- On Street parking across from SODO – On-street parking is provided on the NB side of Orange Avenue across from the SODO shopping center. Parking conditions were observed and tested at this location and was found by the observers to be unsafe on the driver’s side of the vehicle. A small percentage of the available parking was being utilized at this time.
- The Dunkin Doughnuts Drive Thru driveway on Orange – Two vehicles were observed utilizing the Dunkin Doughnuts Drive Thru during the observation, both vehicles were forced to drive beyond the stop bar exposing the front bumper of the vehicles to SB traffic on Orange. In addition this blocked the sidewalk across the driveway. This was due to a lack in sight distance because of the lack of setback that the building currently has on the sidewalk on Orange Avenue. Figure 20 illustrates an example of one vehicle observed exiting the drive thru.



**Figure 20: Dunkin Doughnuts Drive Thru Driveway**

- On Street parking south of Kaley across from Dunkin Doughnuts – The available on-street parking was utilized during the field operations at this location. At the time there were no other cars parked in the currently provided spaces. This location was considered difficult and unsafe to exit the vehicle on the driver's side by the observers.

- Orange Avenue/Gore Street intersection – There are 3 NB through lanes on the north leg of the intersection, only the left and middle lanes being utilized by the majority of traffic, the right hand lane being utilized primarily by the busses stopping at the mid-block bus stop on Orange Ave between Gore Street and Lucerne Circle. Figure 21 illustrates the current NB configuration.



Figure 21: Third NB through lane north of the Orange Avenue/Gore Street intersection

Throughout the corridor, setbacks and pedestrian facilities provided are inconsistent. At the south end of the study area on the east side of Orange Avenue, there is a 15 foot setback for the sidewalk as illustrated below in Figure 22.



Figure 22: Sidewalk Setback on Orange Avenue between Pineloch Avenue and Michigan Street.



Below in Figure 23, two different streetscapes occur on the same block in front of the SODO shopping center on the west side of Orange Avenue north between Michigan Street and Grant Street.



Figure 23: SODO Streetscape

On the same block of Orange Avenue on the east side of the road across from the SODO shopping center there is a third style of streetscape illustrated below in Figure 24.



Figure 24: Streetscape on Orange Avenue across from the SODO shopping center

Figure 25 below illustrates the streetscape directly north of Grant Street on the west side of Orange Avenue with another inconsistent setback. This portion of Orange Avenue is also the location of two fatalities in the last five years involving one pedestrian and one cyclist.



Figure 25: Orange Avenue streetscape north of Gore Street

## **Chapter 5**

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# **Environmental Characteristics**

## **5 ENVIRONMENTAL CHARACTERISTICS**

### **5.1 Soils**

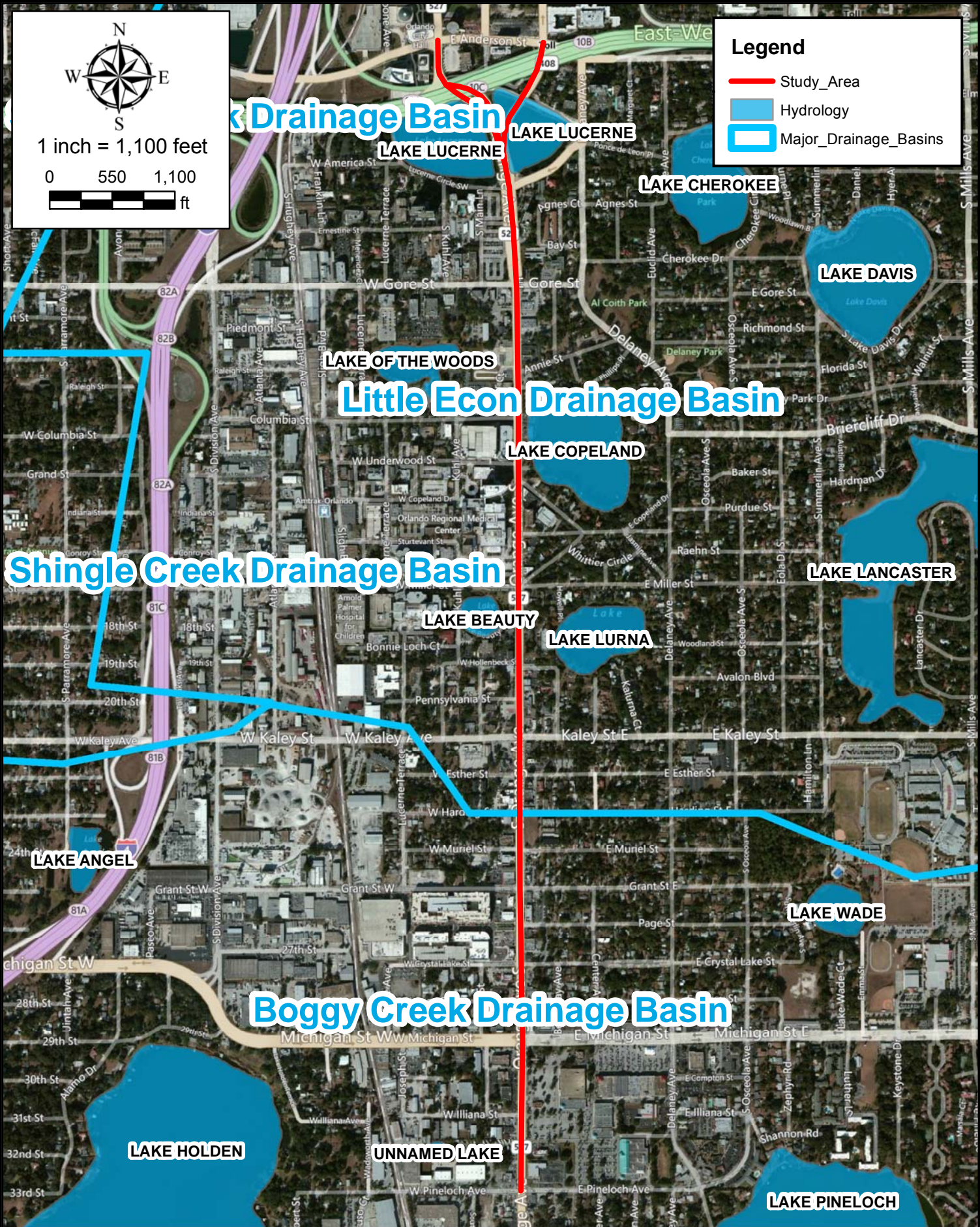
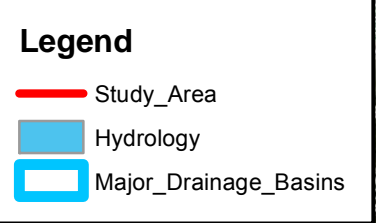
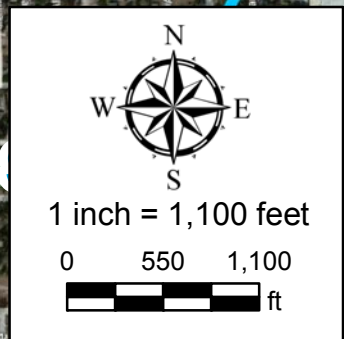
Soil maps indicating the types of soils present in the study area are provided in Appendix E.

**DRAFT**

## **5.2 Drainage System Inventory**

The study area segment of Orange Avenue consists of a closed drainage system for stormwater conveyance. Figure 26 is a map illustrating all drainage basins in the study area.

**DRAFT**

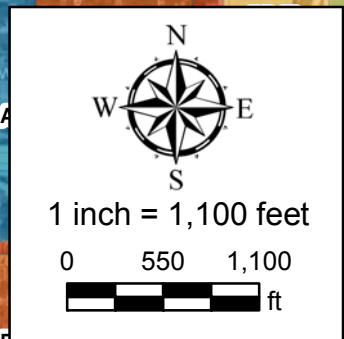


### **5.3 Land Uses**

Study area zoning is depicted in Figure 27 and Figure 28 illustrates the future land use for the study area.

**DRAFT**



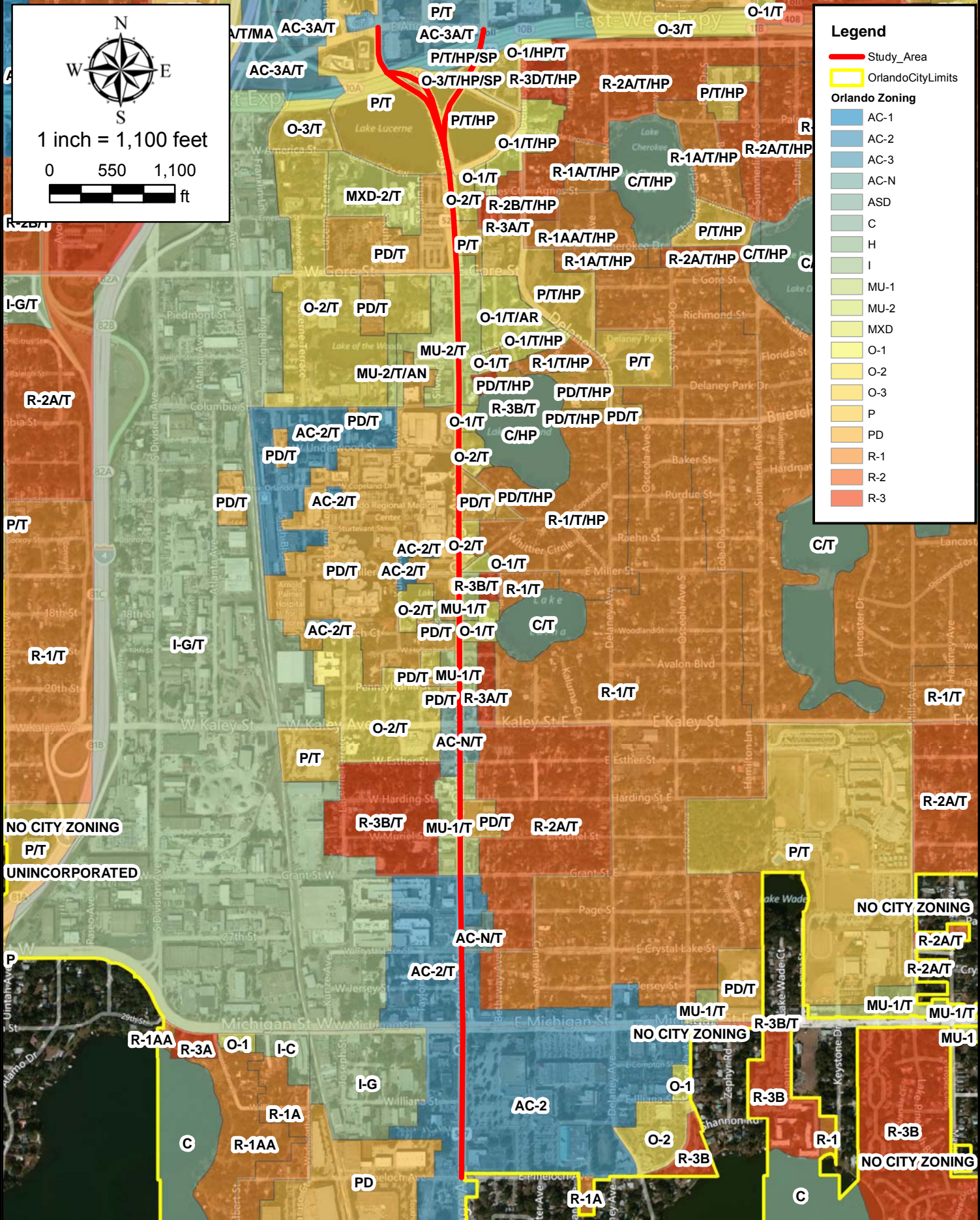


**Legend**

- Study\_Area
- Orlando City Limits

**Orlando Zoning**

- AC-1
- AC-2
- AC-3
- AC-N
- ASD
- C
- H
- I
- MU-1
- MU-2
- MXD
- O-1
- O-2
- O-3
- P
- PD
- R-1
- R-2
- R-3



N  
W E  
S

1 inch = 1,100 feet

0 550 1,100  
ft

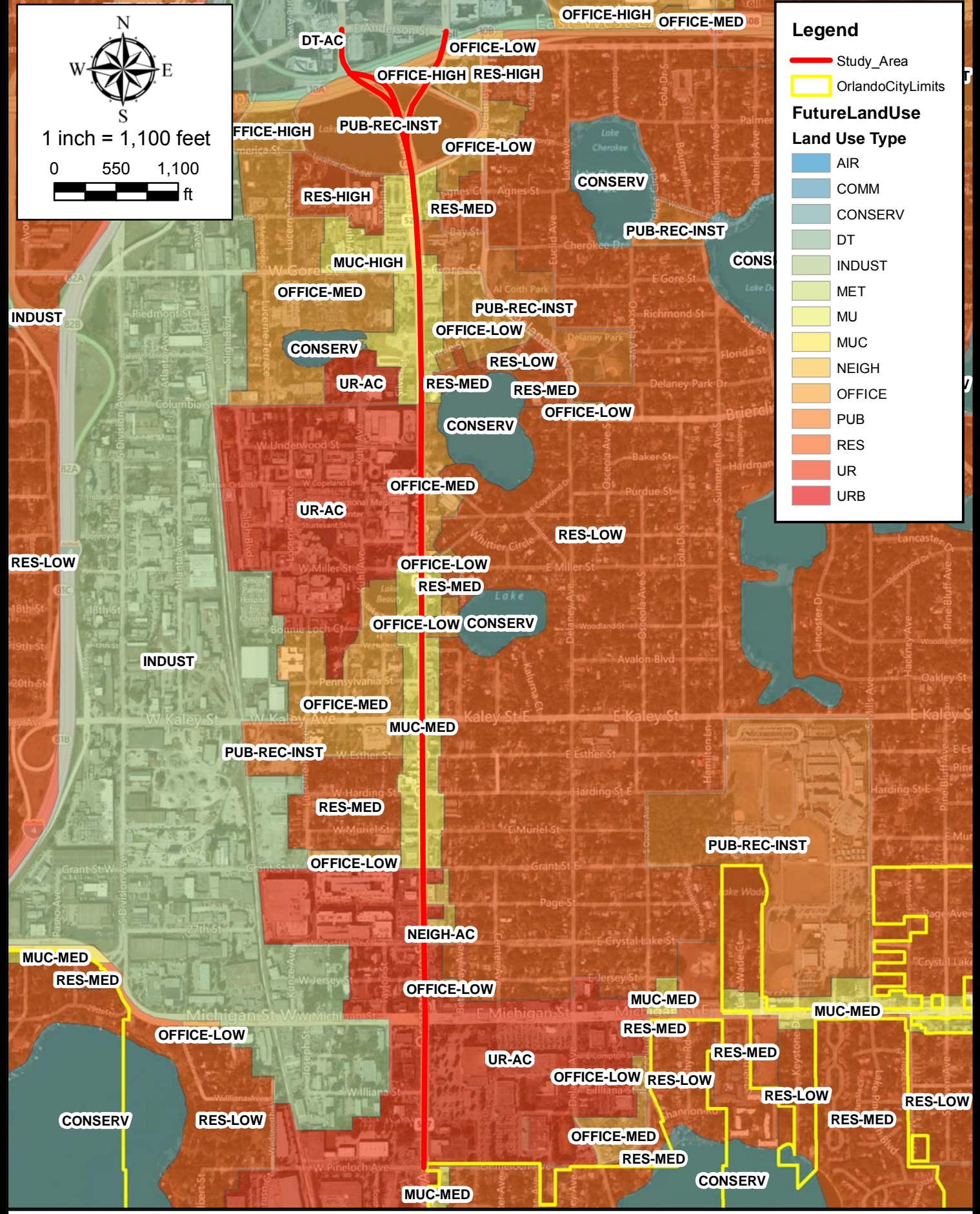
**Legend**

- Study\_Area
- OrlandoCityLimits

**FutureLandUse**

**Land Use Type**

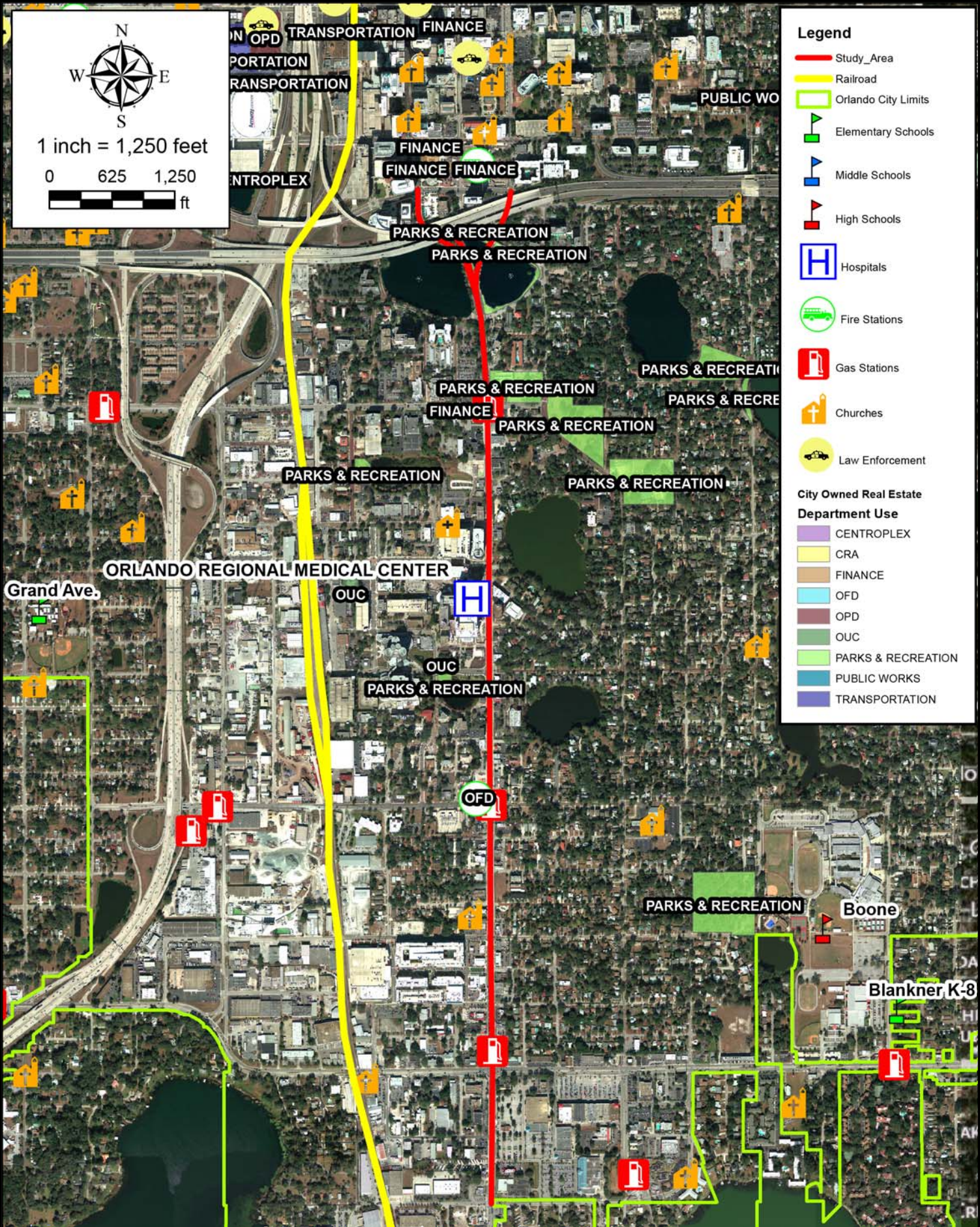
- AIR
- COMM
- CONSERV
- DT
- INDUST
- MET
- MUC
- NEIGH
- OFFICE
- PUB
- RES
- UR
- URB



#### **5.4 Public Property and Historic Districts**

All government owned public property surrounding the study area is shown in Figure 29. Figure 30 highlights the designated Historic Districts and their boundaries, around the study area.

DRAFT



N  
W E  
S

1 inch = 1,250 feet

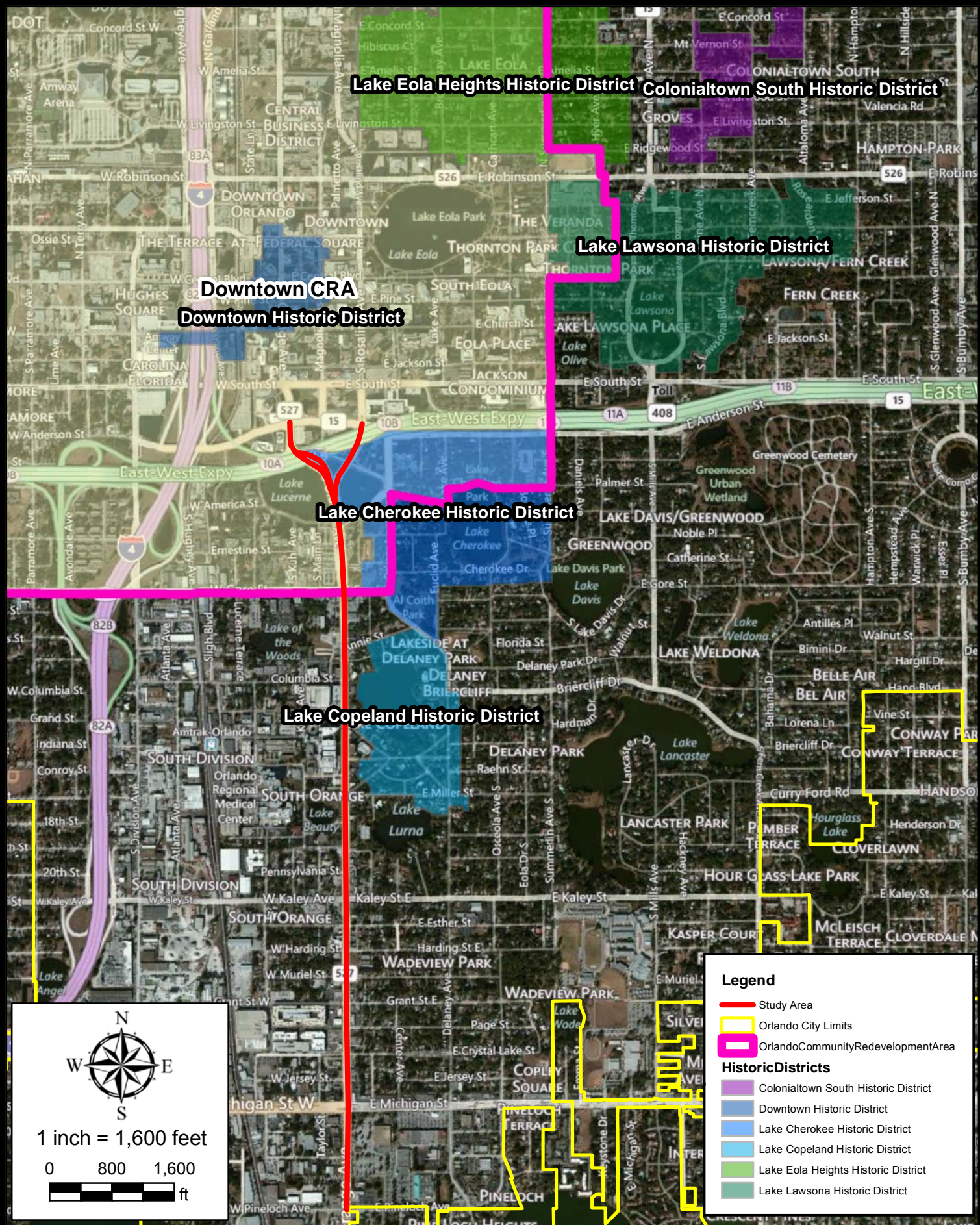
0 625 1,250  
ft

**Legend**

- Study\_Area
- Railroad
- Orlando City Limits
- Elementary Schools
- Middle Schools
- High Schools
- H Hospitals
- Fire Stations
- Gas Stations
- Churches
- Law Enforcement

**City Owned Real Estate Department Use**

- CENTROPLEX
- CRA
- FINANCE
- OFD
- OPD
- OUC
- PARKS & RECREATION
- PUBLIC WORKS
- TRANSPORTATION



Lake Eola Heights Historic District Colonialtown South Historic District

Downtown CRA  
Downtown Historic District

Lake Lawsona Historic District

Lake Cherokee Historic District

Lake Copeland Historic District

**Legend**

- Study Area
- Orlando City Limits
- Orlando Community Redevelopment Area
- Historic Districts**
- Colonialtown South Historic District
- Downtown Historic District
- Lake Cherokee Historic District
- Lake Copeland Historic District
- Lake Eola Heights Historic District
- Lake Lawsona Historic District

N  
W —+— E  
S

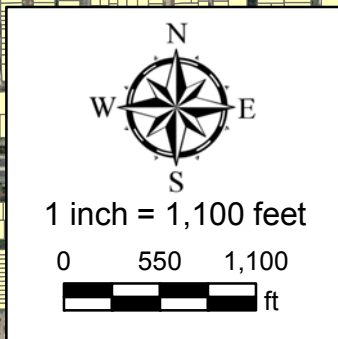
1 inch = 1,600 feet

0 800 1,600  
ft

## 5.5 Property Parcels and Population Density


2011 parcel data and unit land prices are illustrated on Figure 31. Figure 32 depicts the relative population density around the study area.

DRAFT












N  
W E  
S  
1 inch = 1,100 feet  
0 550 1,100 ft

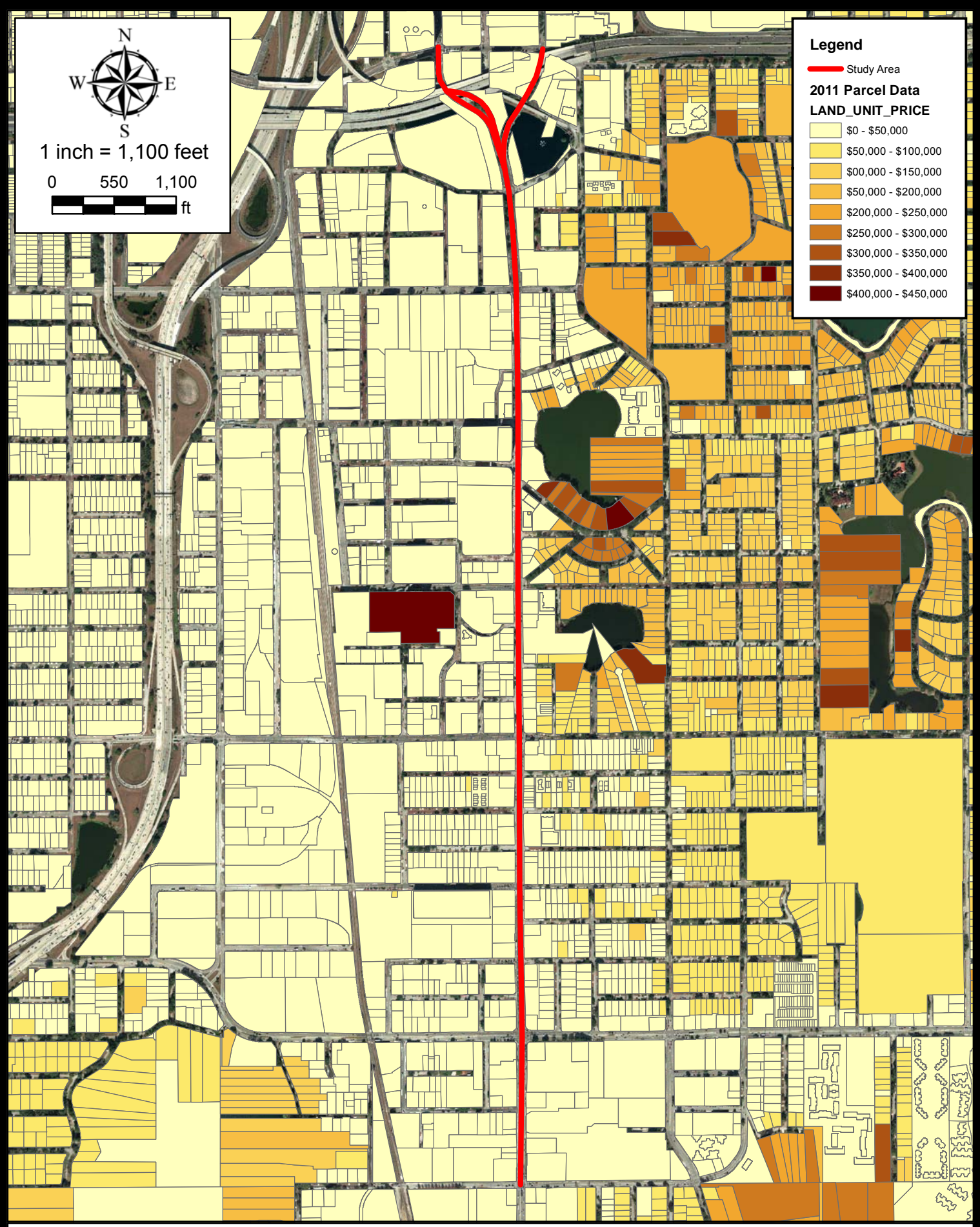
**Legend**

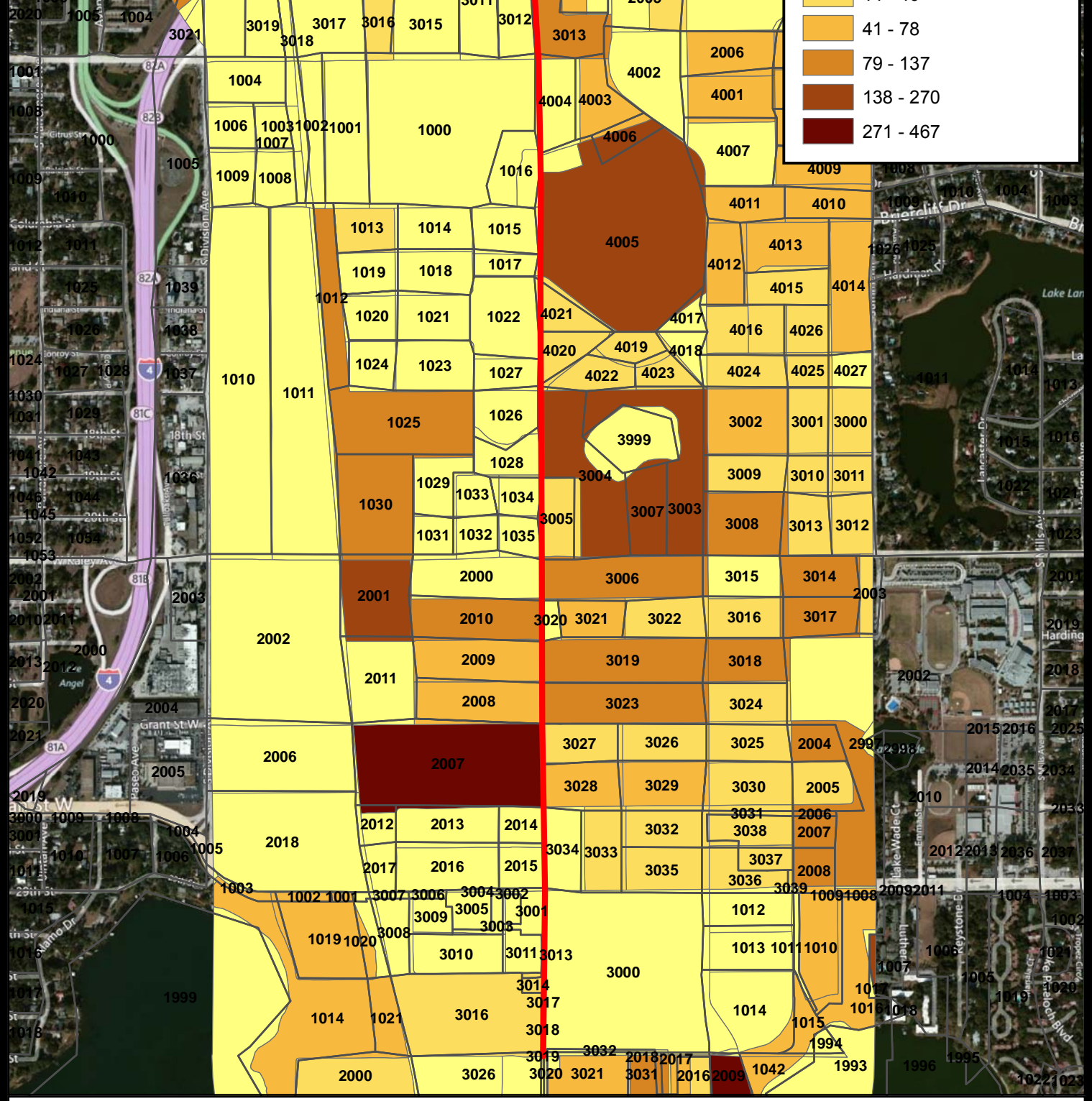
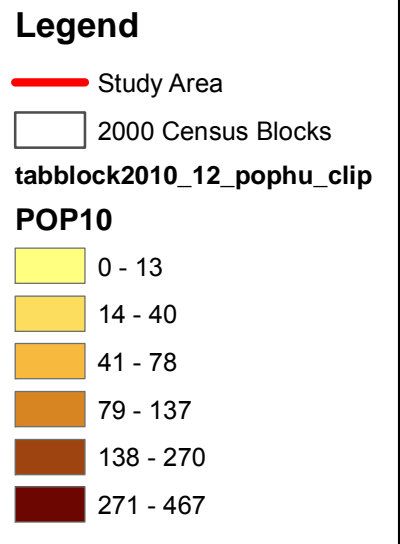
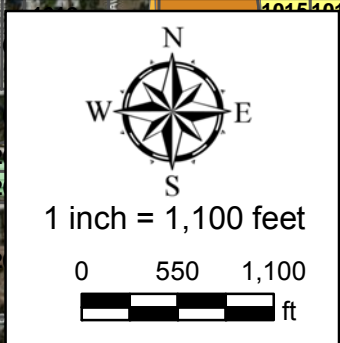
 Study Area

**2011 Parcel Data**

**LAND\_UNIT\_PRICE**

	\$0 - \$50,000
	\$50,000 - \$100,000
	\$100,000 - \$150,000
	\$150,000 - \$200,000
	\$200,000 - \$250,000
	\$250,000 - \$300,000
	\$300,000 - \$350,000
	\$350,000 - \$400,000
	\$400,000 - \$450,000







## **Chapter 6**

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### **Utilities**

## 6 UTILITIES

A Sunshine One Ticket was created to document all existing facilities located on the corridor. Table 3 below illustrates the utilities and facility owners within the study area. The Sunshine One Ticket is located in Appendix F.

Table 3: Utilities and Facility Owners

Utility Owner/Agency	Utility Type	General Location
AT&T	Above ground high capacity fiber optic cable - with TECO poles	South of Pineloch Ave to Orange Ave (east side)
	High capacity fiber optic cable	East/West along 408 duct
Bright House Networks	Above Ground fiber optic cable	North/South on Orange Avenue along TECO poles
Embarq	Fiber Optic Cable	Along 408 duct
FLP Fibernet	Above Ground fiber optic cable	North/South on Orange Avenue along TECO poles
Level 3 Communications	HDPE pipes	North/South on Orange Avenue from Pineloch Avenue to Kaley Street
OUC	N/A	N/A
TECO	4" Steel gas main	East/West on Pineloch crossing Orange Avenue
	2" Plastic gas main	Along Orange Avenue
Windstream	96 count underground fiber	S/W corner of Orange and Anderson

## **Chapter 7**

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### **Summary**

## 7 SUMMARY

The Orange Avenue Corridor has been the subject of previous planning efforts summarized in this report. Roadway and land use characteristics vary throughout the corridor. Relatively high volume AADT and pedestrian and bicycle volumes are consistent along the corridor, however the facilities for these users varies. There are multiple typical sections on Orange Avenue and there are currently three speed limit changes in the study area. Crash rates are relatively high within the last five years and 3 fatalities have occurred on the corridor, all involving pedestrians and cyclists. The information presented in this report is intended to factor into the development of potential improvement concepts.

## **Appendix A**

### Transit Routes and Schedules

# Link 18

S. Orange Avenue/  
Kissimmee

Monday–Saturday service

No Sunday/Holiday service

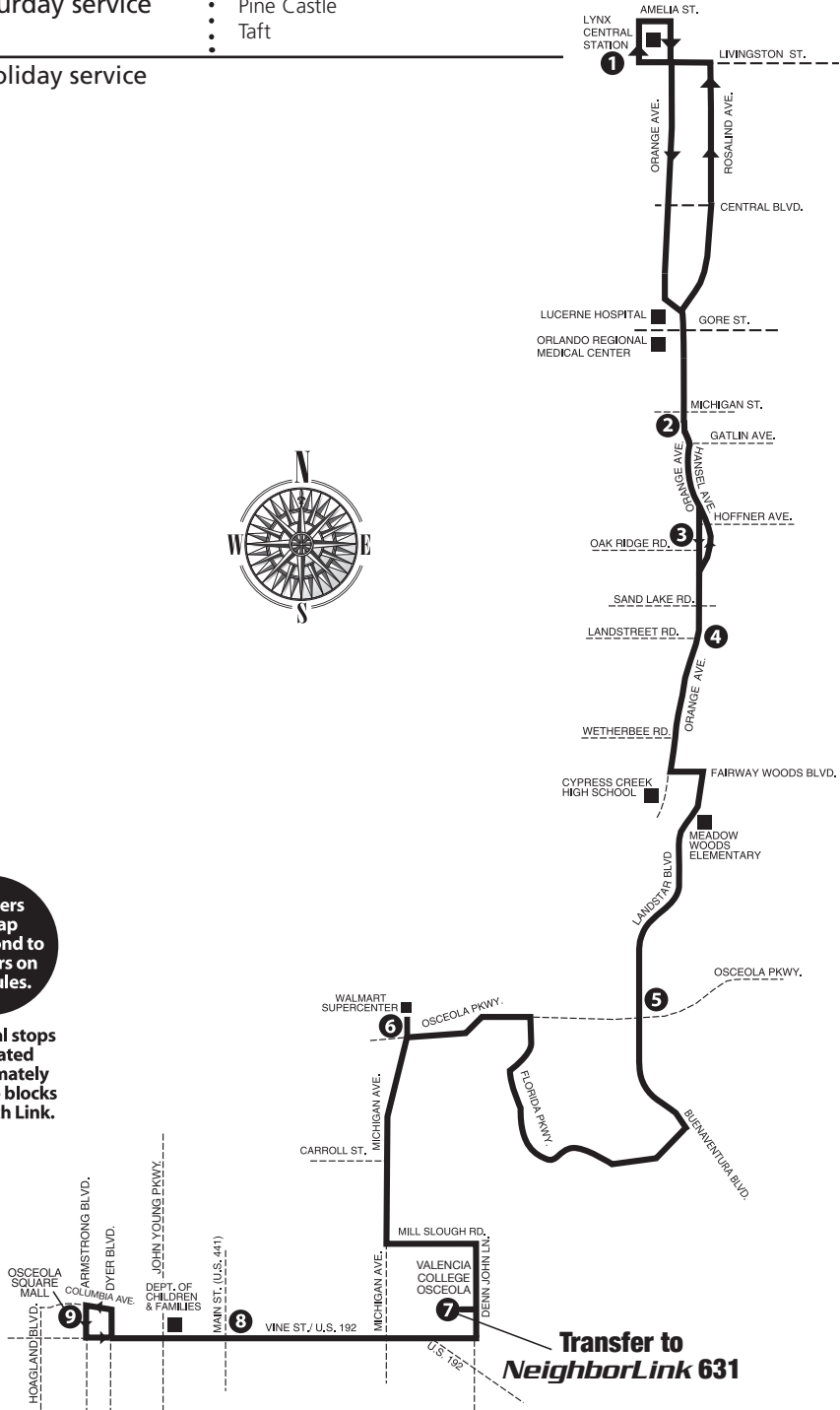
- **SERVING:**
- LYNX Central Station
- NeighborLink 631
- Lucerne Hospital
- Orlando Regional Medical Center
- Pine Castle
- Taft

Meadow Woods  
Cypress Creek High School  
Valencia College Osceola  
Vine Street  
Osceola Square Mall



Numbers on map correspond to numbers on schedules.

Additional stops are located approximately every two blocks along each Link.



Transfer to  
**NeighborLink 631**



## Monday - Saturday

### DOWNTOWN ORLANDO TO KISSIMMEE

1	2	3	4	5	6	7	8	9
LYNX CENTRAL STATION	ORANGE AVE. & MICHIGAN ST	ORANGE AVE. & OAK RIDGE RD.	ORANGE AVE. & LANDSTREET RD.	BUENAVENTURA BLVD.	OSCEOLA PKWY. WALMART SUPERCENTER	VALENCIA COLLEGE OSCEOLA	VINE ST. & MAIN ST.	OSCEOLA SQUARE MALL
5:45	5:59	6:08	6:16	6:35	6:50	7:03	7:10	7:18
6:45	7:02	7:11	7:19	7:40	7:56	8:12	8:20	8:30
7:45	8:02	8:11	8:19	8:40	8:56	9:12	9:20	9:30
8:45	9:02	9:11	9:19	9:40	9:56	10:12	10:20	10:30
9:45	10:02	10:11	10:19	10:40	10:55	11:10	11:18	11:30
10:45	11:02	11:11	11:19	11:40	11:55	<b>12:10</b>	<b>12:18</b>	<b>12:30</b>
11:45	<b>12:02</b>	<b>12:11</b>	<b>12:19</b>	<b>12:40</b>	<b>12:55</b>	<b>1:10</b>	<b>1:18</b>	<b>1:30</b>
12:45	1:04	1:13	1:21	1:42	1:57	2:12	2:20	2:32
1:45	2:04	2:13	2:21	2:42	2:57	3:12	3:20	3:32
2:45	3:04	3:13	3:21	3:42	3:57	4:12	4:20	4:32
3:45	4:05	4:14	4:23	4:44	4:59	5:11	5:19	5:31
4:45	5:05	5:14	5:23	5:44	5:59	6:11	6:19	6:31
5:45	6:05	6:14	6:23	6:44	6:59	7:11	7:19	7:31
6:45	7:02	7:11	7:19	7:40	7:56	8:11	8:19	8:31
7:45	8:00	8:09	8:17	8:36	8:51	9:06	9:14	9:26

### KISSIMMEE TO DOWNTOWN ORLANDO

9	8	7	6	5	4	3	2	1
OSCEOLA SQUARE MALL	VINE ST. & MAIN ST	VALENCIA COLLEGE OSCEOLA	OSCEOLA PKWY. WALMART SUPERCENTER	BUENAVENTURA BLVD.	OSCEOLA PKWY. & OSCEOLA PKWY.	ORANGE AVE. & LANDSTREET RD.	HANSEL AVE. & HOFFNER AVE.	ORANGE AVE. & MICHIGAN ST.
LYNX CENTRAL STATION								
5:45	5:59	6:08	6:16	6:35	6:50	7:03	7:10	7:18
6:45	7:02	7:11	7:19	7:40	7:56	8:12	8:20	8:30
7:45	8:02	8:11	8:19	8:40	8:56	9:12	9:20	9:30
8:45	9:02	9:11	9:19	9:40	9:56	10:12	10:20	10:30
9:45	10:02	10:11	10:19	10:40	10:55	11:10	11:18	11:30
10:45	11:02	11:11	11:19	11:40	11:55	<b>12:10</b>	<b>12:18</b>	<b>12:30</b>
11:45	<b>12:02</b>	<b>12:11</b>	<b>12:19</b>	<b>12:40</b>	<b>12:55</b>	<b>1:10</b>	<b>1:18</b>	<b>1:30</b>
12:45	1:04	1:13	1:21	1:42	1:57	2:12	2:20	2:32
1:45	2:04	2:13	2:21	2:42	2:57	3:12	3:20	3:32
2:45	3:04	3:13	3:21	3:42	3:57	4:12	4:20	4:32
3:45	4:05	4:14	4:23	4:44	4:59	5:11	5:19	5:31
4:45	5:05	5:14	5:23	5:44	5:59	6:11	6:19	6:31
5:45	6:05	6:14	6:23	6:44	6:59	7:11	7:19	7:31
6:45	7:02	7:11	7:19	7:40	7:56	8:11	8:19	8:31
7:45	8:00	8:09	8:17	8:36	8:51	9:06	9:14	9:26

P.M. Times are shown in bold



# Link 11

## S. Orange Avenue/Orlando International Airport

Monday–Sunday & Holiday service

### SERVING:

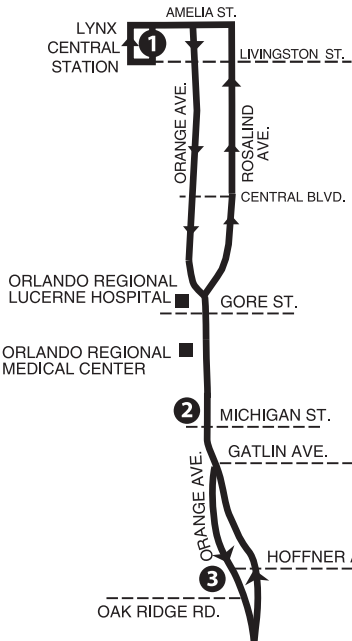
LYNX Central Station  
 Lucerne Hospital  
 Orlando Regional  
 Medical Center

Pine Castle  
 Orlando International  
 Airport

Monday - Friday

#### DOWNTOWN ORLANDO TO O.I.A.

#### O.I.A. TO DOWNTOWN ORLANDO



1	2	3	4	5	5	4	3	2	1
LYNX CENTRAL STATION	ORANGE AVE. & MICHIGAN ST.	ORANGE AVE. & OAK RIDGE RD.	ORANGE AVE. & MCCOY RD.	ORLANDO INTERNATIONAL AIRPORT	ORLANDO INTERNATIONAL AIRPORT	ORANGE AVE. & MCCOY RD.	HANSEL AVE. & HOFFNER AVE.	ORANGE AVE. & MICHIGAN ST.	LYNX CENTRAL STATION
5:00	5:11	5:17	5:23	5:40	5:52	6:09	6:15	6:22	6:35
5:30	5:41	5:47	5:53	6:10	6:22	6:39	6:45	6:52	7:05
6:00	6:12	6:20	6:26	6:45	6:52	7:09	7:15	7:22	7:35
6:30	6:42	6:50	6:56	7:15	7:22	7:39	7:45	7:52	8:05
7:00	7:12	7:20	7:26	7:45	7:52	8:09	8:15	8:22	8:35
7:30	7:42	7:50	7:56	8:15	8:19	8:38	8:44	8:52	9:05
8:00	8:12	8:20	8:26	8:45	8:49	9:08	9:14	9:22	9:35
8:30	8:42	8:50	8:56	9:15	9:19	9:38	9:44	9:52	10:05
9:00	9:12	9:20	9:26	9:45	9:49	10:08	10:14	10:22	10:35
9:30	9:42	9:50	9:56	10:15	10:19	10:38	10:44	10:52	11:05
10:00	10:12	10:20	10:26	10:45	10:49	11:08	11:14	11:22	11:35
10:30	10:42	10:50	10:56	11:15	11:19	11:38	11:44	11:52	<b>12:05</b>
11:00	11:12	11:20	11:26	11:45	11:49	<b>12:08</b>	<b>12:14</b>	<b>12:22</b>	<b>12:35</b>
11:30	11:42	11:50	11:56	<b>12:15</b>	<b>12:19</b>	<b>12:38</b>	<b>12:44</b>	<b>12:52</b>	<b>1:05</b>
<b>12:00</b>	<b>12:12</b>	<b>12:20</b>	<b>12:26</b>	<b>12:45</b>	<b>12:49</b>	<b>1:08</b>	<b>1:14</b>	<b>1:22</b>	<b>1:35</b>
<b>12:30</b>	<b>12:42</b>	<b>12:50</b>	<b>12:56</b>	<b>1:15</b>	<b>1:19</b>	<b>1:38</b>	<b>1:44</b>	<b>1:52</b>	<b>2:05</b>
1:00	1:12	1:20	1:26	1:45	1:49	2:08	2:14	2:22	2:35
1:30	1:42	1:50	1:56	2:15	2:19	2:38	2:44	2:52	3:05
2:00	2:12	2:20	2:26	2:45	2:49	3:08	3:14	3:22	3:35
2:30	2:42	2:50	2:56	3:15	3:19	3:38	3:44	3:52	4:05
3:00	3:12	3:20	3:26	3:45	3:49	4:08	4:14	4:22	4:35
3:30	3:42	3:50	3:56	4:15	4:19	4:38	4:44	4:52	5:05
4:00	4:12	4:20	4:26	4:45	4:49	5:08	5:14	5:22	5:35
4:30	4:42	4:50	4:56	5:15	5:19	5:38	5:44	5:52	6:05
5:00	5:12	5:20	5:26	5:45	5:49	6:08	6:14	6:22	6:35
5:30	5:42	5:50	5:56	6:15	6:22	6:39	6:45	6:52	7:05
6:00	6:12	6:20	6:26	6:45	6:52	7:09	7:15	7:22	7:35
6:30	6:42	6:50	6:56	7:15	7:22	7:39	7:45	7:52	8:05
7:00	7:11	7:18	7:24	7:41	7:42	7:59	8:05	8:12	8:25
8:00	8:11	8:18	8:24	8:41	8:57	9:14	9:20	9:27	9:40
9:00	9:11	9:18	9:24	9:41	9:42	9:59	10:05	10:12	10:25
10:00	10:11	10:18	10:24	10:41	10:52	11:09	11:15	11:22	11:35
11:00	11:11	11:18	11:24	11:41	11:52	12:09	12:15	12:22	12:35

P.M. Times are shown in bold

Numbers on map correspond to numbers on schedules.

Additional stops are located approximately every two blocks along each Link.





# Link 11

## Saturday

### DOWNTOWN ORLANDO TO O.I.A.

LYNX CENTRAL STATION	ORANGE AVE. & MICHIGAN ST.	ORANGE AVE. & OAK RIDGE RD.	ORANGE AVE. & MCCOY RD.	ORLANDO INTERNATIONAL AIRPORT
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
5:00	5:11	5:17	5:23	5:40
5:30	5:41	5:47	5:53	6:10
6:00	6:12	6:20	6:26	6:45
6:30	6:42	6:50	6:56	7:15
7:00	7:12	7:20	7:26	7:45
7:30	7:42	7:50	7:56	8:15
8:00	8:12	8:20	8:26	8:45
8:30	8:42	8:50	8:56	9:15
9:00	9:12	9:20	9:26	9:45
9:30	9:42	9:50	9:56	10:15
10:00	10:12	10:20	10:26	10:45
10:30	10:42	10:50	10:56	11:15
11:00	11:12	11:20	11:26	11:45
11:30	11:42	11:50	11:56	<b>12:15</b>
<b>12:00</b>	<b>12:12</b>	<b>12:20</b>	<b>12:26</b>	<b>12:45</b>
<b>12:30</b>	<b>12:42</b>	<b>12:50</b>	<b>12:56</b>	<b>1:15</b>
<b>1:00</b>	<b>1:12</b>	<b>1:20</b>	<b>1:26</b>	<b>1:45</b>
<b>1:30</b>	<b>1:42</b>	<b>1:50</b>	<b>1:56</b>	<b>2:15</b>
<b>2:00</b>	<b>2:12</b>	<b>2:20</b>	<b>2:26</b>	<b>2:45</b>
<b>2:30</b>	<b>2:42</b>	<b>2:50</b>	<b>2:56</b>	<b>3:15</b>
<b>3:00</b>	<b>3:12</b>	<b>3:20</b>	<b>3:26</b>	<b>3:45</b>
<b>3:30</b>	<b>3:42</b>	<b>3:50</b>	<b>3:56</b>	<b>4:15</b>
<b>4:00</b>	<b>4:12</b>	<b>4:20</b>	<b>4:26</b>	<b>4:45</b>
<b>4:30</b>	<b>4:42</b>	<b>4:50</b>	<b>4:56</b>	<b>5:15</b>
<b>5:00</b>	<b>5:12</b>	<b>5:20</b>	<b>5:26</b>	<b>5:45</b>
<b>5:30</b>	<b>5:42</b>	<b>5:50</b>	<b>5:56</b>	<b>6:15</b>
<b>6:00</b>	<b>6:12</b>	<b>6:20</b>	<b>6:26</b>	<b>6:45</b>
<b>6:30</b>	<b>6:42</b>	<b>6:50</b>	<b>6:56</b>	<b>7:15</b>
<b>7:00</b>	<b>7:11</b>	<b>7:18</b>	<b>7:24</b>	<b>7:41</b>
<b>8:00</b>	<b>8:11</b>	<b>8:18</b>	<b>8:24</b>	<b>8:41</b>
<b>9:00</b>	<b>9:11</b>	<b>9:18</b>	<b>9:24</b>	<b>9:41</b>

P.M. Times are shown in bold

### O.I.A. TO DOWNTOWN ORLANDO

ORLANDO INTERNATIONAL AIRPORT	ORANGE AVE. & MCCOY RD.	HANSEL AVE. & HOFFNER AVE.	ORANGE AVE. & MICHIGAN ST.	LYNX CENTRAL STATION
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
5:52	6:09	6:15	6:22	6:35
6:22	6:39	6:45	6:52	7:05
6:52	7:09	7:15	7:22	7:35
7:22	7:39	7:45	7:52	8:05
7:52	8:09	8:15	8:22	8:35
8:19	8:38	8:44	8:52	9:05
8:49	9:08	9:14	9:22	9:35
9:19	9:38	9:44	9:52	10:05
9:49	10:08	10:14	10:22	10:35
10:19	10:38	10:44	10:52	11:05
10:49	11:08	11:14	11:22	11:35
11:19	11:38	11:44	11:52	12:05
11:49	<b>12:08</b>	<b>12:14</b>	<b>12:22</b>	<b>12:35</b>
<b>12:19</b>	<b>12:38</b>	<b>12:44</b>	<b>12:52</b>	<b>1:05</b>
<b>12:49</b>	<b>1:08</b>	<b>1:14</b>	<b>1:22</b>	<b>1:35</b>
<b>1:19</b>	<b>1:38</b>	<b>1:44</b>	<b>1:52</b>	<b>2:05</b>
<b>1:49</b>	<b>2:08</b>	<b>2:14</b>	<b>2:22</b>	<b>2:35</b>
<b>2:19</b>	<b>2:38</b>	<b>2:44</b>	<b>2:52</b>	<b>3:05</b>
<b>2:49</b>	<b>3:08</b>	<b>3:14</b>	<b>3:22</b>	<b>3:35</b>
<b>3:19</b>	<b>3:38</b>	<b>3:44</b>	<b>3:52</b>	<b>4:05</b>
<b>3:49</b>	<b>4:08</b>	<b>4:14</b>	<b>4:22</b>	<b>4:35</b>
<b>4:19</b>	<b>4:38</b>	<b>4:44</b>	<b>4:52</b>	<b>5:05</b>
<b>4:49</b>	<b>5:08</b>	<b>5:14</b>	<b>5:22</b>	<b>5:35</b>
<b>5:19</b>	<b>5:38</b>	<b>5:44</b>	<b>5:52</b>	<b>6:05</b>
<b>5:49</b>	<b>6:08</b>	<b>6:14</b>	<b>6:22</b>	<b>6:35</b>
<b>6:22</b>	<b>6:39</b>	<b>6:45</b>	<b>6:52</b>	<b>7:05</b>
<b>6:52</b>	<b>7:09</b>	<b>7:15</b>	<b>7:22</b>	<b>7:35</b>
<b>7:22</b>	<b>7:39</b>	<b>7:45</b>	<b>7:52</b>	<b>8:05</b>
<b>7:52</b>	<b>8:09</b>	<b>8:15</b>	<b>8:22</b>	<b>8:35</b>
<b>8:52</b>	<b>9:09</b>	<b>9:15</b>	<b>9:22</b>	<b>9:35</b>
<b>9:52</b>	<b>10:09</b>	<b>10:15</b>	<b>10:22</b>	<b>10:35</b>

## Sunday & Holiday

### DOWNTOWN ORLANDO TO O.I.A.

LYNX CENTRAL STATION	ORANGE AVE. & MICHIGAN ST.	ORANGE AVE. & OAK RIDGE RD.	ORANGE AVE. & MCCOY RD.	ORLANDO INTERNATIONAL AIRPORT
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
5:45	5:58	6:04	6:10	6:25
6:45	6:58	7:04	7:10	7:25
7:45	7:58	8:04	8:10	8:25
8:45	8:58	9:04	9:10	9:25
9:45	9:58	10:04	10:10	10:25
10:45	10:58	11:04	11:10	11:25
11:45	11:58	<b>12:04</b>	<b>12:10</b>	<b>12:25</b>
<b>12:45</b>	<b>12:58</b>	<b>1:04</b>	<b>1:10</b>	<b>1:25</b>
<b>1:45</b>	<b>1:58</b>	<b>2:04</b>	<b>2:10</b>	<b>2:25</b>
<b>2:45</b>	<b>2:58</b>	<b>3:04</b>	<b>3:10</b>	<b>3:25</b>
<b>3:45</b>	<b>3:58</b>	<b>4:04</b>	<b>4:10</b>	<b>4:25</b>
<b>4:45</b>	<b>4:58</b>	<b>5:04</b>	<b>5:10</b>	<b>5:25</b>
<b>5:45</b>	<b>5:58</b>	<b>6:04</b>	<b>6:10</b>	<b>6:25</b>
<b>6:45</b>	<b>6:58</b>	<b>7:04</b>	<b>7:10</b>	<b>7:25</b>
<b>7:45</b>	<b>7:58</b>	<b>8:04</b>	<b>8:10</b>	<b>8:25</b>

### O.I.A. TO DOWNTOWN ORLANDO

ORLANDO INTERNATIONAL AIRPORT	ORANGE AVE. & MCCOY RD.	HANSEL AVE. & HOFFNER AVE.	ORANGE AVE. & MICHIGAN ST.	LYNX CENTRAL STATION
<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
6:25	6:40	6:46	6:52	7:05
7:25	7:40	7:46	7:52	8:05
8:25	8:40	8:46	8:52	9:05
9:25	9:40	9:46	9:52	10:05
10:25	10:40	10:46	10:52	11:05
11:25	11:40	11:46	11:52	<b>12:05</b>
<b>12:25</b>	<b>12:40</b>	<b>12:46</b>	<b>12:52</b>	<b>1:05</b>
<b>1:25</b>	<b>1:40</b>	<b>1:46</b>	<b>1:52</b>	<b>2:05</b>
<b>2:25</b>	<b>2:40</b>	<b>2:46</b>	<b>2:52</b>	<b>3:05</b>
<b>3:25</b>	<b>3:40</b>	<b>3:46</b>	<b>3:52</b>	<b>4:05</b>
<b>4:25</b>	<b>4:40</b>	<b>4:46</b>	<b>4:52</b>	<b>5:05</b>
<b>5:25</b>	<b>5:40</b>	<b>5:46</b>	<b>5:52</b>	<b>6:05</b>
<b>6:25</b>	<b>6:40</b>	<b>6:46</b>	<b>6:52</b>	<b>7:05</b>
<b>7:25</b>	<b>7:40</b>	<b>7:46</b>	<b>7:52</b>	<b>8:05</b>
<b>8:25</b>	<b>8:40</b>	<b>8:46</b>	<b>8:52</b>	<b>9:05</b>

P.M. Times are shown in bold



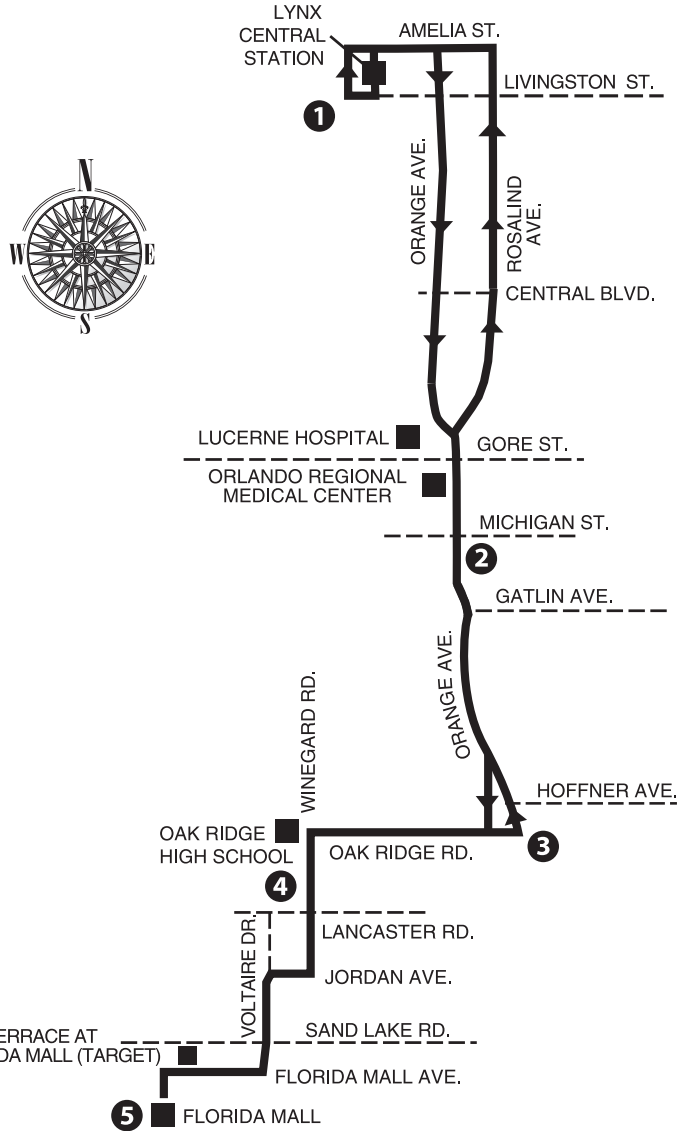
# Link 7

## S. Orange Avenue/ Florida Mall

Monday–Sunday & Holiday  
service

- **SERVING:**
- LYNX Central Station
- Lucerne Hospital
- Orlando Regional
- Medical Center
- Pine Castle

Winegard Road  
Oak Ridge High School  
Sky Lake  
The Terrace at Florida Mall



Numbers on map correspond to numbers on schedules.

Additional stops are located approximately every two blocks along each Link.



# Link 7

## Monday - Saturday

### DOWNTOWN ORLANDO TO FLORIDA MALL

1	2	3	4	5
LYNX CENTRAL STATION	ORANGE AVE. & MICHIGAN ST.	ORANGE AVE. & OAK RIDGE RD.	WINEGARD RD. & LANCASTER RD.	FLORIDA MALL
4:15	4:27	4:33	4:37	4:46
5:15	5:27	5:33	5:37	5:46
6:15	6:31	6:39	6:44	6:55
7:15	7:31	7:39	7:44	7:55
8:15	8:31	8:39	8:44	8:55
9:15	9:31	9:39	9:44	9:55
10:15	10:31	10:39	10:44	10:55
11:15	11:31	11:39	11:44	11:55
<b>12:15</b>	<b>12:33</b>	<b>12:41</b>	<b>12:46</b>	<b>12:57</b>
1:15	1:33	1:41	1:46	1:57
2:15	2:33	2:41	2:46	2:57
3:15	3:34	3:42	3:47	3:58
4:15	4:34	4:42	4:47	4:58
5:15	5:34	5:42	5:47	5:58
6:15	6:31	6:39	6:44	6:55
7:15	7:28	7:35	7:39	7:49
8:15	8:28	8:35	8:39	8:49
9:15	9:28	9:35	9:39	9:49
10:15	10:28	10:35	10:39	10:49
11:15	11:28	11:35	11:39	11:49

### FLORIDA MALL TO DOWNTOWN ORLANDO

5	4	3	2	1
FLORIDA MALL	WINEGARD RD. & LANCASTER RD.	HANSEL AVE. & HOFFNER AVE.	ORANGE AVE. & MICHIGAN ST.	LYNX CENTRAL STATION
5:14	5:24	5:32	5:38	5:50
6:14	6:24	6:32	6:38	6:50
7:09	7:19	7:28	7:35	7:50
8:08	8:18	8:28	8:35	8:50
9:08	9:18	9:28	9:35	9:50
10:08	10:18	10:27	10:35	10:50
11:08	11:18	11:27	11:35	11:50
<b>12:08</b>	<b>12:18</b>	<b>12:27</b>	<b>12:35</b>	<b>12:50</b>
1:08	1:18	1:27	1:35	1:50
2:08	2:18	2:27	2:35	2:50
3:08	3:18	3:27	3:35	3:50
4:06	4:16	4:26	4:34	4:50
5:06	5:16	5:26	5:34	5:50
6:06	6:16	6:26	6:34	6:50
7:06	7:16	7:26	7:34	7:50
8:15	8:25	8:33	8:39	8:50
9:15	9:25	9:33	9:39	9:50
10:15	10:25	10:33	10:39	10:50
11:15	11:25	11:33	11:39	11:50
12:15	12:25	12:33	12:39	12:50

P.M. Times are shown in bold

## Sunday & Holiday

### DOWNTOWN ORLANDO TO FLORIDA MALL

1	2	3	4	5
LYNX CENTRAL STATION	ORANGE AVE. & MICHIGAN ST.	ORANGE AVE. & OAK RIDGE RD.	WINEGARD RD. & LANCASTER RD.	FLORIDA MALL
5:15	5:27	5:33	5:39	5:47
6:15	6:28	6:35	6:41	6:49
7:15	7:28	7:35	7:41	7:49
8:15	8:28	8:35	8:41	8:49
9:15	9:28	9:35	9:41	9:49
10:15	10:28	10:35	10:41	10:49
11:15	11:28	11:35	11:41	11:49
<b>12:15</b>	<b>12:28</b>	<b>12:35</b>	<b>12:41</b>	<b>12:49</b>
1:15	1:28	1:35	1:41	1:49
2:15	2:28	2:35	2:41	2:49
3:15	3:28	3:35	3:41	3:49
4:15	4:28	4:35	4:41	4:49
5:15	5:28	5:35	5:41	5:49
6:15	6:28	6:35	6:41	6:49
7:15	7:28	7:35	7:41	7:49

### FLORIDA MALL TO DOWNTOWN ORLANDO

5	4	3	2	1
FLORIDA MALL	WINEGARD RD. & LANCASTER RD.	HANSEL AVE. & HOFFNER AVE.	ORANGE AVE. & MICHIGAN ST.	LYNX CENTRAL STATION
5:56	6:08	6:15	6:23	6:35
6:56	7:08	7:15	7:23	7:35
7:56	8:08	8:15	8:23	8:35
8:56	9:08	9:15	9:23	9:35
9:56	10:08	10:15	10:23	10:35
10:56	11:08	11:15	11:23	11:35
11:56	<b>12:08</b>	<b>12:15</b>	<b>12:23</b>	<b>12:35</b>
<b>12:56</b>	1:08	1:15	1:23	1:35
1:56	2:08	2:15	2:23	2:35
2:56	3:08	3:15	3:23	3:35
3:56	4:08	4:15	4:23	4:35
4:56	5:08	5:15	5:23	5:35
5:56	6:08	6:15	6:23	6:35
6:56	7:08	7:15	7:23	7:35
7:56	8:08	8:15	8:23	8:35

P.M. Times are shown in bold



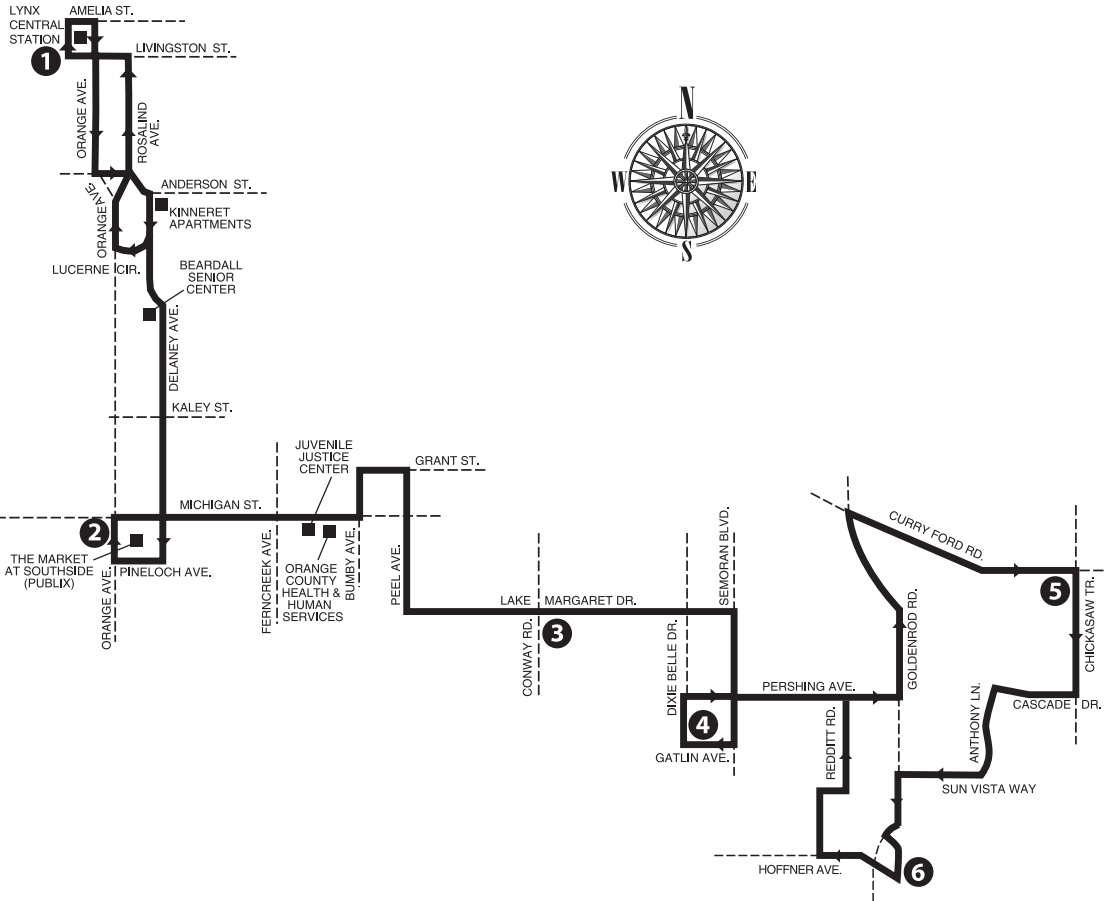
# Link 3

## Lake Margaret

Monday–Sunday  
& Holiday Service

**SERVING:**  
 LYNX Central Station  
 Delaney Ave.  
 Kinneret Apts.  
 Beardall Senior Center  
 The Market at Southside

E. Michigan St.  
 Juvenile Justice Center  
 Orange County Health  
 & Human Services  
 Social Security Admin. Bldg.  
 East Orlando Estates  
 Charlin Park



**Numbers on map correspond to numbers on schedules.**

**Additional stops are located approximately every two blocks along each Link.**



# Link 3

## Monday - Saturday

DOWNTOWN ORLANDO TO LAKE MARGARET							
1	2	3	4	5	6	4	
LYNX CENTRAL STATION	ORANGE AVE & MICHIGAN ST.	LAKE MARGARET DR. & CONWAY RD.	DIXIE BELLE DR. & GATLIN AVE.	CURRY FORD RD. & CHICKASAW TR.	GOLDENROD RD. & HOFFNER AVE	DIXIE BELLE DR. & GATLIN AVE.	
4:30	4:50	5:03	5:13	5:28	5:41	5:55	
5:30	5:50	6:03	6:13	6:28	6:41	6:55	
6:30	6:50	7:03	7:13	7:28	7:41	7:55	
7:30	7:50	8:03	8:13	8:28	8:41	8:55	
8:30	8:50	9:03	9:13	9:28	9:41	9:55	
9:30	9:50	10:03	10:13	10:28	10:41	10:55	
10:30	10:50	11:03	11:13	11:28	11:41	11:55	
11:30	11:50	<b>12:03</b>	<b>12:13</b>	<b>12:28</b>	<b>12:41</b>	<b>12:55</b>	
<b>12:30</b>	<b>12:50</b>	<b>1:03</b>	<b>1:13</b>	<b>1:28</b>	<b>1:41</b>	<b>1:55</b>	
<b>1:30</b>	<b>1:50</b>	<b>2:03</b>	<b>2:13</b>	<b>2:28</b>	<b>2:41</b>	<b>2:55</b>	
<b>2:30</b>	<b>2:50</b>	<b>3:03</b>	<b>3:13</b>	<b>3:28</b>	<b>3:41</b>	<b>3:55</b>	
<b>3:30</b>	<b>3:50</b>	<b>4:03</b>	<b>4:13</b>	<b>4:28</b>	<b>4:41</b>	<b>4:55</b>	
<b>4:30</b>	<b>4:50</b>	<b>5:03</b>	<b>5:13</b>	<b>5:28</b>	<b>5:41</b>	<b>5:55</b>	
<b>5:30</b>	<b>5:50</b>	<b>6:03</b>	<b>6:13</b>	<b>6:28</b>	<b>6:41</b>	<b>6:55</b>	
<b>6:30</b>	<b>6:50</b>	<b>7:03</b>	<b>7:13</b>	<b>7:28</b>	<b>7:41</b>	<b>7:55</b>	
<b>7:30</b>	<b>7:50</b>	<b>8:03</b>	<b>8:13</b>	<b>8:28</b>	<b>8:41</b>	<b>8:55</b>	
<b>8:30</b>	<b>8:50</b>	<b>9:03</b>	<b>9:13</b>	<b>9:28</b>	<b>9:41</b>	<b>9:55</b>	

LAKE MARGARET TO DOWNTOWN ORLANDO							
4	3	2	1				
DIXIE BELLE DR. & GATLIN AVE.	LAKE MARGARET DR. & CONWAY RD.	ORANGE AVE & MICHIGAN ST.	LYNX CENTRAL STATION				
6:02	6:14	6:32	6:50				
7:02	7:14	7:32	7:50				
8:02	8:14	8:32	8:50				
9:02	9:14	9:32	9:50				
10:02	10:14	10:32	10:50				
11:02	11:14	11:32	11:50				
<b>12:02</b>	<b>12:14</b>	<b>12:32</b>	<b>12:50</b>				
<b>1:02</b>	<b>1:14</b>	<b>1:32</b>	<b>1:50</b>				
<b>2:02</b>	<b>2:14</b>	<b>2:32</b>	<b>2:50</b>				
<b>3:02</b>	<b>3:14</b>	<b>3:32</b>	<b>3:50</b>				
<b>4:02</b>	<b>4:14</b>	<b>4:32</b>	<b>4:50</b>				
<b>5:02</b>	<b>5:14</b>	<b>5:32</b>	<b>5:50</b>				
<b>6:02</b>	<b>6:14</b>	<b>6:32</b>	<b>6:50</b>				
<b>7:02</b>	<b>7:14</b>	<b>7:32</b>	<b>7:50</b>				
<b>8:02</b>	<b>8:14</b>	<b>8:32</b>	<b>8:50</b>				
<b>8:57</b>	<b>9:09</b>	<b>9:27</b>	<b>9:45</b>				

P.M. Times are shown in bold

## Sunday & Holiday

DOWNTOWN ORLANDO TO LAKE MARGARET							
1	2	3	4	5	6	4	
LYNX CENTRAL STATION	ORANGE AVE & MICHIGAN ST.	LAKE MARGARET DR. & CONWAY RD.	DIXIE BELLE DR. & GATLIN AVE.	CURRY FORD RD. & CHICKASAW TR.	GOLDENROD RD. & HOFFNER AVE	DIXIE BELLE DR. & GATLIN AVE.	
4:15	4:33	4:48	5:03	5:12	5:29	5:42	
5:15	5:33	5:48	6:03	6:12	6:29	6:42	
6:15	6:33	6:48	7:03	7:12	7:29	7:42	
7:15	7:33	7:48	8:03	8:12	8:29	8:42	
8:15	8:33	8:48	9:03	9:12	9:29	9:42	
9:15	9:33	9:48	10:03	10:12	10:29	10:42	
10:15	10:33	10:48	11:03	11:12	11:29	11:42	
11:15	11:33	11:48	<b>12:03</b>	<b>12:12</b>	<b>12:29</b>	<b>12:42</b>	
<b>12:15</b>	<b>12:33</b>	<b>12:48</b>	<b>1:03</b>	<b>1:12</b>	<b>1:29</b>	<b>1:42</b>	
<b>1:15</b>	<b>1:33</b>	<b>1:48</b>	<b>2:03</b>	<b>2:12</b>	<b>2:29</b>	<b>2:42</b>	
<b>2:15</b>	<b>2:33</b>	<b>2:48</b>	<b>3:03</b>	<b>3:12</b>	<b>3:29</b>	<b>3:42</b>	
<b>3:15</b>	<b>3:33</b>	<b>3:48</b>	<b>4:03</b>	<b>4:12</b>	<b>4:29</b>	<b>4:42</b>	
<b>4:15</b>	<b>4:33</b>	<b>4:48</b>	<b>5:03</b>	<b>5:12</b>	<b>5:29</b>	<b>5:42</b>	
<b>5:15</b>	<b>5:33</b>	<b>5:48</b>	<b>6:03</b>	<b>6:12</b>	<b>6:29</b>	<b>6:42</b>	
<b>6:15</b>	<b>6:33</b>	<b>6:48</b>	<b>7:03</b>	<b>7:12</b>	<b>7:29</b>	<b>7:42</b>	

LAKE MARGARET TO DOWNTOWN ORLANDO							
4	3	2	1				
DIXIE BELLE DR. & GATLIN AVE.	LAKE MARGARET DR. & CONWAY RD.	ORANGE AVE & MICHIGAN ST.	LYNX CENTRAL STATION				
5:52	6:03	6:20	6:35				
6:52	7:03	7:20	7:35				
7:52	8:03	8:20	8:35				
8:52	9:03	9:20	9:35				
9:52	10:03	10:20	10:35				
10:52	11:03	11:20	11:35				
11:52	<b>12:03</b>	<b>12:20</b>	<b>12:35</b>				
<b>12:52</b>	<b>1:03</b>	<b>1:20</b>	<b>1:35</b>				
<b>1:52</b>	<b>2:03</b>	<b>2:20</b>	<b>2:35</b>				
<b>2:52</b>	<b>3:03</b>	<b>3:20</b>	<b>3:35</b>				
<b>3:52</b>	<b>4:03</b>	<b>4:20</b>	<b>4:35</b>				
<b>4:52</b>	<b>5:03</b>	<b>5:20</b>	<b>5:35</b>				
<b>5:52</b>	<b>6:03</b>	<b>6:20</b>	<b>6:35</b>				
<b>6:52</b>	<b>7:03</b>	<b>7:20</b>	<b>7:35</b>				
<b>7:52</b>	<b>8:03</b>	<b>8:20</b>	<b>8:35</b>				

P.M. Times are shown in bold



**Appendix B**

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Ridership Data

DAY_OF_WEEK	STOP	DIRECTION	STOP_NAME	TOTAL_ON	TOTAL_OFF	Total Ridership	AVERAGE_LOAD	AVG_LAT	AVG_LONG		
WKD	3182	NBND	2800 ORANGE AVE AND ILLIANA	129.1	129	86.3	86	215	14.1	28.511354	-81.376227
WKD	6166	SBND	200 ORANGE AVE	111.6	112	53.1	53	165	15.7	28.539469	-81.379002
WKD	3014	SBND	2700 ORANGE AVE AND MICHIGAN	55.8	56	101.8	102	158	13.1	28.512445	-81.376403
WKD	8011	SBND	2300 ORANGE AVE AND GRANT ST	68.1	68	72.2	72	140	14.7	28.516063	-81.376478
WKD	3185	NBND	1800 ORANGE AVE AND KALEY ST	85.2	85	35.2	35	120	15.1	28.520712	-81.376327
WKD	3183	NBND	2400 ORANGE AVE AND CRYSTAL	77.9	78	37.2	37	115	14.3	28.515034	-81.376298
WKD	7224	NBND	1400 ORANGE AVE AND FERNWOOD	85.7	86	26.1	26	112	16.2	28.525414	-81.376413
WKD	3009	SBND	1700 ORANGE AVE AND PENNSYLV	28.9	29	80.5	80	109	15.5	28.521194	-81.376492
WKD	3190	NBND	800 ORANGE AVE AND GORE ST	68.7	69	37.1	37	106	16.5	28.531970	-81.376553
WKD	3005	SBND	1108 ORANGE AVE AND COLUMBIA	27.4	27	70.1	70	97	16.1	28.527094	-81.376552
WKD	7306	NBND	2893 ORANGE AVE AND PINELOCK	36.4	36	41.5	42	78	13.3	28.509519	-81.376231
WKD	5833	NBND	2211 ORANGE AVE AND MURIEL S	50.2	50	26.8	27	77	14.6	28.517162	-81.376306
WKD	3006	SBND	1500 ORANGE AVE AND STURTEVA	22.2	22	49.0	49	71	15.7	28.524576	-81.376523
WKD	3015	SBND	2800 ORANGE AVE AND ILLIANA	31.1	31	27.3	27	58	13.2	28.510982	-81.376395
WKD	3003	SBND	700 ORANGE AVE AND LUCERNE C	23.1	23	29.4	29	52	17.0	28.533168	-81.376852
WKD	5991	SBND	930 S ORANGE AVE AND GORE ST	18.1	18	34.2	34	52	16.7	28.530145	-81.376596
WKD	7560	NBND	ORANGE AVE AND COLUMBIA ST	39.6	40	8.6	9	48	16.7	28.527799	-81.376413
WKD	3008	SBND	1700 ORANGE AVE	17.7	18	10.8	11	29	16.1	28.522222	-81.376505
WKD	3011	SBND	2100 ORANGE AVE AND HARDING	8.0	8	17.8	18	26	15.4	28.517993	-81.376456
WKD	3186	NBND	1700 ORANGE AVE AND HOLLENBE	16.6	17	8.8	9	25	15.2	28.522253	-81.376355
WKD	3191	NBND	700 ORANGE AVE AND LUCERNE C	8.2	8	8.4	8	17	16.5	28.533431	-81.376625
WKD	3007	SBND	1600 ORANGE AVE AND MILLER S	0.0	0	0.4	0	0	15.7	28.523290	-81.376503
WKD	3010	SBND	1900 ORANGE AVE AND ESTHER S	0.0	0	0.4	0	0	15.5	28.519565	-81.376464

AADAY	AAROUTE	AADIR	AATIMPER	AAQSTOPA	AANAMSTP	SON	SOFF	STOTAL	AALOAD	AALAT	AALONG	NTRPSMPLE
WEEKDAY		3 SBND	AM PEAK 05:30AM-08:59AM 03182	03182	2800 ORANGE AVE AND ILLIANA	4	1	5	13.14	28.511461	-81.376225	4
WEEKDAY		3 SBND	AM PEAK 05:30AM-08:59AM 06166	06166	200 ORANGE AVE	2	0	2	14.79	28.539526	-81.378997	4
WEEKDAY		3 NBND	AM PEAK 05:30AM-08:59AM 03182	03182	2800 ORANGE AVE AND ILLIANA	1	3	4	16.33	28.511328	-81.376225	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 03003	03003	700 ORANGE AVE AND LUCERNE C	2	0	2	18.18	28.533235	-81.376847	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 03005	03005	1108 ORANGE AVE AND COLUMBIA	1	4	4	16.47	28.526827	-81.376557	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 03006	03006	1500 ORANGE AVE AND STURTEVA	1	2	4	16.11	28.524540	-81.376540	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 03007	03007	1600 ORANGE AVE AND MILLER S	0	0	0	16.11	28.523332	-81.376516	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 03008	03008	1700 ORANGE AVE	0	0	1	16.19	28.522154	-81.376506	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 03009	03009	1700 ORANGE AVE AND PENNSYLV	3	4	6	15.70	28.521192	-81.376505	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 03010	03010	1900 ORANGE AVE AND ESTHER S	0	0	0	15.70	28.519525	-81.376476	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 03011	03011	2100 ORANGE AVE AND HARDING	0	1	1	15.56	28.518037	-81.376466	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 03014	03014	2700 ORANGE AVE AND MICHIGAN	1	4	5	13.21	28.512418	-81.376416	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 03015	03015	2800 ORANGE AVE AND ILLIANA	1	0	2	13.59	28.511004	-81.376409	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 05991	05991	930 S ORANGE AVE AND GORE ST	2	4	6	17.51	28.530126	-81.376607	3
WEEKDAY		7 SBND	AM PEAK 05:30AM-08:59AM 06166	06166	200 ORANGE AVE	2	0	2	17.70	28.539657	-81.378940	3
WEEKDAY		7 NBND	AM PEAK 05:30AM-08:59AM 03182	03182	2800 ORANGE AVE AND ILLIANA	2	4	6	18.41	28.511337	-81.376222	3
WEEKDAY		7 NBND	AM PEAK 05:30AM-08:59AM 03185	03185	1800 ORANGE AVE AND KALEY ST	5	1	6	19.62	28.520668	-81.376323	3
WEEKDAY		7 NBND	AM PEAK 05:30AM-08:59AM 03186	03186	1700 ORANGE AVE AND HOLLENBE	0	1	1	19.48	28.522168	-81.376345	3
WEEKDAY		7 NBND	AM PEAK 05:30AM-08:59AM 03190	03190	800 ORANGE AVE AND GORE ST	0	1	1	18.26	28.531963	-81.376516	3
WEEKDAY		7 NBND	AM PEAK 05:30AM-08:59AM 03191	03191	700 ORANGE AVE AND LUCERNE C	1	0	1	18.50	28.533415	-81.376638	3
WEEKDAY		7 NBND	AM PEAK 05:30AM-08:59AM 05833	05833	2211 ORANGE AVE AND MURIEL S	3	3	5	18.35	28.516525	-81.376286	3
WEEKDAY		7 NBND	AM PEAK 05:30AM-08:59AM 07224	07224	1400 ORANGE AVE AND FERNWOOD	2	4	6	18.95	28.525390	-81.376426	3
WEEKDAY		7 NBND	AM PEAK 05:30AM-08:59AM 07560	07560	ORANGE AVE AND COLUMBIA ST	0	1	2	18.63	28.527766	-81.376399	3
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 03003	03003	700 ORANGE AVE AND LUCERNE C	2	5	8	18.57	28.533158	-81.376829	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 03005	03005	1108 ORANGE AVE AND COLUMBIA	1	13	14	16.29	28.526844	-81.376562	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 03006	03006	1500 ORANGE AVE AND STURTEVA	1	10	11	15.05	28.524538	-81.376525	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 03007	03007	1600 ORANGE AVE AND MILLER S	0	0	0	14.99	28.523257	-81.376508	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 03008	03008	1700 ORANGE AVE	0	2	2	14.77	28.522047	-81.376502	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 03009	03009	1700 ORANGE AVE AND PENNSYLV	9	8	18	14.93	28.521252	-81.376501	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 03010	03010	1900 ORANGE AVE AND ESTHER S	0	0	0	14.93	28.519537	-81.376466	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 03011	03011	2100 ORANGE AVE AND HARDING	1	1	1	14.87	28.517987	-81.376453	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 03014	03014	2700 ORANGE AVE AND MICHIGAN	2	7	9	13.09	28.512343	-81.376402	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 03015	03015	2800 ORANGE AVE AND ILLIANA	1	2	3	13.00	28.510891	-81.376392	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 05991	05991	930 S ORANGE AVE AND GORE ST	0	4	4	18.04	28.530171	-81.376599	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 06166	06166	200 ORANGE AVE	3	2	6	19.03	28.539212	-81.378877	7
WEEKDAY		11 SBND	AM PEAK 05:30AM-08:59AM 08011	08011	2300 ORANGE AVE AND GRANT ST	2	10	13	13.71	28.516025	-81.376473	7
WEEKDAY		11 NBND	AM PEAK 05:30AM-08:59AM 03182	03182	2800 ORANGE AVE AND ILLIANA	4	2	6	9.47	28.511420	-81.376230	7
WEEKDAY		11 NBND	AM PEAK 05:30AM-08:59AM 03183	03183	2400 ORANGE AVE AND CRYSTAL	6	3	9	9.91	28.515061	-81.376297	7
WEEKDAY		11 NBND	AM PEAK 05:30AM-08:59AM 03185	03185	1800 ORANGE AVE AND KALEY ST	13	2	14	11.73	28.520724	-81.376327	7
WEEKDAY		11 NBND	AM PEAK 05:30AM-08:59AM 03186	03186	1700 ORANGE AVE AND HOLLENBE	0	0	0	11.78	28.522170	-81.376351	7
WEEKDAY		11 NBND	AM PEAK 05:30AM-08:59AM 03190	03190	800 ORANGE AVE AND GORE ST	3	2	5	12.39	28.532004	-81.376522	7
WEEKDAY		11 NBND	AM PEAK 05:30AM-08:59AM 03191	03191	700 ORANGE AVE AND LUCERNE C	0	0	1	12.43	28.533409	-81.376618	7
WEEKDAY		11 NBND	AM PEAK 05:30AM-08:59AM 05833	05833	2211 ORANGE AVE AND MURIEL S	2	0	2	10.18	28.517456	-81.376316	7
WEEKDAY		11 NBND	AM PEAK 05:30AM-08:59AM 07224	07224	1400 ORANGE AVE AND FERNWOOD	4	2	6	12.03	28.525382	-81.376439	7
WEEKDAY		11 NBND	AM PEAK 05:30AM-08:59AM 07560	07560	ORANGE AVE AND COLUMBIA ST	2	2	4	12.15	28.527891	-81.376416	7
WEEKDAY		13 SBND	AM PEAK 05:30AM-08:59AM 06166	06166	200 ORANGE AVE	1	1	2	18.78	28.539603	-81.379293	4
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 03003	03003	700 ORANGE AVE AND LUCERNE C	3	3	6	19.80	28.533177	-81.376888	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 03005	03005	1108 ORANGE AVE AND COLUMBIA	1	3	4	18.94	28.527046	-81.376561	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 03006	03006	1500 ORANGE AVE AND STURTEVA	1	2	3	18.48	28.524537	-81.376516	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 03007	03007	1600 ORANGE AVE AND MILLER S	0	0	0	18.48	28.523240	-81.376500	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 03008	03008	1700 ORANGE AVE	0	1	1	18.32	28.522087	-81.376494	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 03009	03009	1700 ORANGE AVE AND PENNSYLV	0	3	4	17.30	28.521210	-81.376490	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 03010	03010	1900 ORANGE AVE AND ESTHER S	0	0	0	17.26	28.519701	-81.376472	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 03011	03011	2100 ORANGE AVE AND HARDING	0	1	2	16.87	28.518101	-81.376463	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 03014	03014	2700 ORANGE AVE AND MICHIGAN	3	4	6	15.75	28.512472	-81.376401	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 03015	03015	2800 ORANGE AVE AND ILLIANA	2	1	3	16.12	28.511036	-81.376395	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 05991	05991	930 S ORANGE AVE AND GORE ST	1	1	1	19.66	28.530179	-81.376600	3
WEEKDAY		18 SBND	AM PEAK 05:30AM-08:59AM 06166	06166	200 ORANGE AVE	2	1	3	19.54	28.539061	-81.378886	3
WEEKDAY		18 NBND	AM PEAK 05:30AM-08:59AM 03182	03182	2800 ORANGE AVE AND ILLIANA	4	6	10	24.16	28.511306	-81.376234	4
WEEKDAY		18 NBND	AM PEAK 05:30AM-08:59AM 03183	03183	2400 ORANGE AVE AND CRYSTAL	2	3	5	24.03	28.514982	-81.376289	4
WEEKDAY		18 NBND	AM PEAK 05:30AM-08:59AM 03185	03185	1800 ORANGE AVE AND KALEY ST	6	2	7	25.19	28.520694	-81.376325	4
WEEKDAY		18 NBND	AM PEAK 05:30AM-08:59AM 03186	03186	1700 ORANGE AVE AND HOLLENBE	1	2	2	24.95	28.522303	-81.376346	4
WEEKDAY		18 NBND	AM PEAK 05:30AM-08:59AM 03190	03190	800 ORANGE AVE AND GORE ST	3	2	5	26.02	28.531943	-81.376510	4
WEEKDAY		18 NBND	AM PEAK 05:30AM-08:59AM 03191	03191	700 ORANGE AVE AND LUCERNE C	1	0	1	26.16	28.533379	-81.376596	4
WEEKDAY		18 NBND	AM PEAK 05:30AM-08:59AM 05833	05833	2211 ORANGE AVE AND MURIEL S	1	1	2	24.15	28.517445	-81.376314	4
WEEKDAY		18 NBND	AM PEAK 05:30AM-08:59AM 07224	07224	1400 ORANGE AVE AND FERNWOOD	3	1	4	25.43	28.525386	-81.376402	4
WEEKDAY		18 NBND	AM PEAK 05:30AM-08:59AM 07560	07560	ORANGE AVE AND COLUMBIA ST	3	1	4	25.79	28.527729	-81.376409	4
WEEKDAY		40 SBND	AM PEAK 05:30AM-08:59AM 03008	03008	1700 ORANGE AVE	1	0	1	14.09	28.522218	-81.376553	4
WEEKDAY		40 SBND	AM PEAK 05:30AM-08:59AM 03009	03009	1700 ORANGE AVE AND PENNSYLV	2	2	5	14.05	28.521104	-81.376492	4
WEEKDAY		40 SBND	AM PEAK 05:30AM-08:59AM 03010	03010	1900 ORANGE AVE AND ESTHER S	0	0	0	14.00	28.519275	-81.376461	4
WEEKDAY		40 SBND	AM PEAK 05:30AM-08:59AM 03011	03011	2100 ORANGE AVE AND HARDING	0	0	1	13.99	28.517823	-81.376453	4
WEEKDAY		40 SBND	AM PEAK 05:30AM-08:59AM 08011	08011	2300 ORANGE AVE AND GRANT ST	7	2	9	15.21	28.516051	-81.376462	4
WEEKDAY		40 NBND	AM PEAK 05:30AM-08:59AM 03183	03183	2400 ORANGE AVE AND CRYSTAL	1	3	4	19.56	28.515049	-81.376305	3
WEEKDAY		40 NBND	AM PEAK 05:30AM-08:59AM 03185	03185	1800 ORANGE AVE AND KALEY ST	4	2	6	20.19	28.520736	-81.376323	3
WEEKDAY		40 NBND	AM PEAK 05:30AM-08:59AM 03186	03186	1700 ORANGE AVE AND HOLLENBE	0	1	1	19.94	28.522188	-81.376371	3
WEEKDAY		40 NBND	AM PEAK 05:30AM-08:59AM 03190	03190	800 ORANGE AVE AND GORE ST	2	0	2	17.88	28.531905	-81.376677	3
WEEKDAY		40 NBND	AM PEAK 05:30AM-08:59AM 03191	03191	700 ORANGE AVE AND LUCERNE C	0	0	0	17.96	28.533344	-81.376593	3
WEEKDAY		40 NBND	AM PEAK 05:30AM-08:59AM 05833	05833	2211 ORANGE AVE AND MURIEL S	0	0	0	19.60	28.517559	-81.376321	3
WEEKDAY		51 SBND	AM PEAK 05:30AM-08:59AM 06166	06166	200 ORANGE AVE	0	1	1	15.73	28.539634	-81.378900	3
WEEKDAY		200 NBND	AM PEAK 05:30AM-08:59AM 06166	06166	200 ORANGE AVE	0	7	7	0.67	28.539721	-81.378887	3
WEEKDAY		204 SBND	AM PEAK 05:30AM-08:59AM 06166	06166	200 ORANGE AVE	0	0	0	16.20	28.539890	-81.381102	1



AADAY	AAROUTE	AADIR	AATIMPER	AAQSTOPA	AANAMSTP	SON	SOFF	STOTAL	AALOAD	AALAT	AALONG	NTRPSMPLE	
WEEKDAY		3 NBND	PM PEAK 03:00PM-05:59P103182		2800 ORANGE AVE AND ILLIAN/		5	2	7	11.70	28.511373	-81.376223	3
WEEKDAY		3 SBND	PM PEAK 03:00PM-05:59P103182		2800 ORANGE AVE AND ILLIAN/		8	1	9	23.67	28.511349	-81.376222	3
WEEKDAY		3 SBND	PM PEAK 03:00PM-05:59P106166		200 ORANGE AVE		3	0	3	19.74	28.539734	-81.379040	3
WEEKDAY		7 NBND	PM PEAK 03:00PM-05:59P103182		2800 ORANGE AVE AND ILLIAN/		5	6	11	16.65	28.511356	-81.376216	3
WEEKDAY		7 NBND	PM PEAK 03:00PM-05:59P103185		1800 ORANGE AVE AND KALEY		5	1	6	19.28	28.520683	-81.376311	3
WEEKDAY		7 NBND	PM PEAK 03:00PM-05:59P103186		1700 ORANGE AVE AND HOLLEI		0	1	1	19.17	28.522250	-81.376328	3
WEEKDAY		7 NBND	PM PEAK 03:00PM-05:59P103190		800 ORANGE AVE AND GORE S		2	1	3	22.87	28.531952	-81.376502	3
WEEKDAY		7 NBND	PM PEAK 03:00PM-05:59P103191		700 ORANGE AVE AND LUCERN		1	0	1	23.11	28.533376	-81.376626	3
WEEKDAY		7 NBND	PM PEAK 03:00PM-05:59P105833		2211 ORANGE AVE AND MURIEI		7	3	10	17.80	28.516402	-81.376276	3
WEEKDAY		7 NBND	PM PEAK 03:00PM-05:59P107224		1400 ORANGE AVE AND FERNV		8	1	9	21.41	28.525452	-81.376384	3
WEEKDAY		7 NBND	PM PEAK 03:00PM-05:59P107560		ORANGE AVE AND COLUMBIA S		4	0	5	22.78	28.527797	-81.376373	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P103003		700 ORANGE AVE AND LUCERN		1	1	2	21.42	28.533178	-81.376783	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P103005		1108 ORANGE AVE AND COLUM		1	1	3	21.32	28.526881	-81.376546	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P103006		1500 ORANGE AVE AND STURTI		2	3	5	20.96	28.524559	-81.376527	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P103007		1600 ORANGE AVE AND MILLER		0	0	0	20.96	28.523244	-81.376509	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P103008		1700 ORANGE AVE		0	0	0	20.92	28.521961	-81.376497	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P103009		1700 ORANGE AVE AND PENNS		2	3	5	20.30	28.521146	-81.376494	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P103010		1900 ORANGE AVE AND ESTHE		0	0	0	20.21	28.519409	-81.376477	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P103011		2100 ORANGE AVE AND HARDI		1	2	3	20.02	28.518017	-81.376472	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P103014		2700 ORANGE AVE AND MICHIG		4	6	9	18.20	28.512384	-81.376410	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P103015		2800 ORANGE AVE AND ILLIAN/		4	2	5	18.87	28.510934	-81.376399	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P105991		930 S ORANGE AVE AND GORE		1	1	1	21.33	28.530164	-81.376582	3
WEEKDAY		7 SBND	PM PEAK 03:00PM-05:59P106166		200 ORANGE AVE		4	1	5	21.37	28.539432	-81.379124	3
WEEKDAY		11 NBND	PM PEAK 03:00PM-05:59P103182		2800 ORANGE AVE AND ILLIAN/		17	6	23	15.27	28.511374	-81.376225	6
WEEKDAY		11 NBND	PM PEAK 03:00PM-05:59P103183		2400 ORANGE AVE AND CRYST.		11	3	14	16.69	28.514977	-81.376283	6
WEEKDAY		11 NBND	PM PEAK 03:00PM-05:59P103185		1800 ORANGE AVE AND KALEY		9	4	13	18.03	28.520748	-81.376312	6
WEEKDAY		11 NBND	PM PEAK 03:00PM-05:59P103186		1700 ORANGE AVE AND HOLLEI		2	0	2	18.37	28.522199	-81.376335	6
WEEKDAY		11 NBND	PM PEAK 03:00PM-05:59P103190		800 ORANGE AVE AND GORE S		5	2	6	21.13	28.531984	-81.376507	6
WEEKDAY		11 NBND	PM PEAK 03:00PM-05:59P103191		700 ORANGE AVE AND LUCERN		1	1	1	21.13	28.533448	-81.376643	6
WEEKDAY		11 NBND	PM PEAK 03:00PM-05:59P105833		2211 ORANGE AVE AND MURIEI		4	2	6	17.06	28.517306	-81.376296	6
WEEKDAY		11 NBND	PM PEAK 03:00PM-05:59P107224		1400 ORANGE AVE AND FERNV		12	2	15	20.05	28.525464	-81.376398	6
WEEKDAY		11 NBND	PM PEAK 03:00PM-05:59P107560		ORANGE AVE AND COLUMBIA S		4	0	4	20.66	28.527816	-81.376407	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P103003		700 ORANGE AVE AND LUCERN		3	3	7	15.29	28.533180	-81.376823	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P103005		1108 ORANGE AVE AND COLUM		3	4	7	15.25	28.527143	-81.376551	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P103006		1500 ORANGE AVE AND STURTI		3	4	8	15.08	28.524574	-81.376520	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P103007		1600 ORANGE AVE AND MILLER		0	0	0	15.08	28.523258	-81.376499	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P103008		1700 ORANGE AVE		1	1	1	15.06	28.522129	-81.376492	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P103009		1700 ORANGE AVE AND PENNS		2	13	15	13.26	28.521226	-81.376494	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P103010		1900 ORANGE AVE AND ESTHE		0	0	0	13.26	28.519587	-81.376459	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P103011		2100 ORANGE AVE AND HARDI		1	1	2	13.17	28.518072	-81.376453	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P103014		2700 ORANGE AVE AND MICHIG		5	10	15	10.34	28.512488	-81.376398	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P103015		2800 ORANGE AVE AND ILLIAN/		3	4	7	10.29	28.510989	-81.376390	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P105991		930 S ORANGE AVE AND GORE		1	1	2	15.32	28.530135	-81.376579	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P106166		200 ORANGE AVE		6	3	9	15.33	28.538961	-81.379001	6
WEEKDAY		11 SBND	PM PEAK 03:00PM-05:59P108011		2300 ORANGE AVE AND GRANT		3	15	18	11.23	28.516059	-81.376464	6
WEEKDAY		13 SBND	PM PEAK 03:00PM-05:59P106166		200 ORANGE AVE		1	0	2	10.52	28.539618	-81.379128	3
WEEKDAY		18 NBND	PM PEAK 03:00PM-05:59P103182		2800 ORANGE AVE AND ILLIAN/		3	3	5	13.30	28.511392	-81.376238	3
WEEKDAY		18 NBND	PM PEAK 03:00PM-05:59P103183		2400 ORANGE AVE AND CRYST.		3	0	3	14.07	28.515052	-81.376292	3
WEEKDAY		18 NBND	PM PEAK 03:00PM-05:59P103185		1800 ORANGE AVE AND KALEY		1	0	2	14.54	28.520685	-81.376341	3
WEEKDAY		18 NBND	PM PEAK 03:00PM-05:59P103186		1700 ORANGE AVE AND HOLLEI		0	0	0	14.62	28.522201	-81.376354	3
WEEKDAY		18 NBND	PM PEAK 03:00PM-05:59P103190		800 ORANGE AVE AND GORE S		1	2	4	15.11	28.531938	-81.376524	3
WEEKDAY		18 NBND	PM PEAK 03:00PM-05:59P103191		700 ORANGE AVE AND LUCERN		0	0	1	15.11	28.533285	-81.376603	3
WEEKDAY		18 NBND	PM PEAK 03:00PM-05:59P105833		2211 ORANGE AVE AND MURIEI		1	1	2	14.22	28.517350	-81.376315	3
WEEKDAY		18 NBND	PM PEAK 03:00PM-05:59P107224		1400 ORANGE AVE AND FERNV		3	1	4	15.39	28.525393	-81.376429	3
WEEKDAY		18 NBND	PM PEAK 03:00PM-05:59P107560		ORANGE AVE AND COLUMBIA S		0	0	0	15.43	28.527831	-81.376454	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P103003		700 ORANGE AVE AND LUCERN		1	2	2	23.77	28.533247	-81.376831	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P103005		1108 ORANGE AVE AND COLUM		1	1	2	24.07	28.527296	-81.376543	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P103006		1500 ORANGE AVE AND STURTI		2	0	2	24.59	28.524550	-81.376519	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P103007		1600 ORANGE AVE AND MILLER		0	0	0	24.59	28.523238	-81.376496	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P103008		1700 ORANGE AVE		1	0	1	24.90	28.522167	-81.376491	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P103009		1700 ORANGE AVE AND PENNS		0	1	1	24.68	28.521081	-81.376478	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P103010		1900 ORANGE AVE AND ESTHE		0	0	0	24.68	28.519507	-81.376455	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P103011		2100 ORANGE AVE AND HARDI		0	1	1	24.50	28.518038	-81.376453	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P103014		2700 ORANGE AVE AND MICHIG		7	4	11	25.40	28.512478	-81.376401	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P103015		2800 ORANGE AVE AND ILLIAN/		2	2	4	25.62	28.510960	-81.376400	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P105991		930 S ORANGE AVE AND GORE		1	0	1	24.07	28.530128	-81.376585	3
WEEKDAY		18 SBND	PM PEAK 03:00PM-05:59P106166		200 ORANGE AVE		4	0	5	24.05	28.539630	-81.379117	3
WEEKDAY		40 NBND	PM PEAK 03:00PM-05:59P103183		2400 ORANGE AVE AND CRYST.		3	3	6	15.52	28.515049	-81.376286	3
WEEKDAY		40 NBND	PM PEAK 03:00PM-05:59P103185		1800 ORANGE AVE AND KALEY		2	1	3	15.87	28.520619	-81.376322	3
WEEKDAY		40 NBND	PM PEAK 03:00PM-05:59P103186		1700 ORANGE AVE AND HOLLEI		0	0	1	15.90	28.522310	-81.376383	3
WEEKDAY		40 NBND	PM PEAK 03:00PM-05:59P103190		800 ORANGE AVE AND GORE S		4	1	5	17.78	28.532039	-81.376590	3
WEEKDAY		40 NBND	PM PEAK 03:00PM-05:59P103191		700 ORANGE AVE AND LUCERN		0	0	0	17.76	28.533518	-81.376625	3
WEEKDAY		40 NBND	PM PEAK 03:00PM-05:59P105833		2211 ORANGE AVE AND MURIEI		1	1	2	15.71	28.517438	-81.376298	3
WEEKDAY		40 SBND	PM PEAK 03:00PM-05:59P103008		1700 ORANGE AVE		3	0	3	22.29	28.522322	-81.376559	3
WEEKDAY		40 SBND	PM PEAK 03:00PM-05:59P103009		1700 ORANGE AVE AND PENNS		1	1	2	22.47	28.521149	-81.376481	3
WEEKDAY		40 SBND	PM PEAK 03:00PM-05:59P103010		1900 ORANGE AVE AND ESTHE		0	0	0	22.47	28.519619	-81.376453	3
WEEKDAY		40 SBND	PM PEAK 03:00PM-05:59P103011		2100 ORANGE AVE AND HARDI		0	0	0	22.61	28.518109	-81.376451	3
WEEKDAY		40 SBND	PM PEAK 03:00PM-05:59P108011		2300 ORANGE AVE AND GRANT		16	3	18	26.88	28.516157	-81.376476	3
WEEKDAY		51 SBND	PM PEAK 03:00PM-05:59P106										

**Appendix C**

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Synchro Reports

# Timings

## 1: W Pineloch Av & Orange AV

3/5/2013



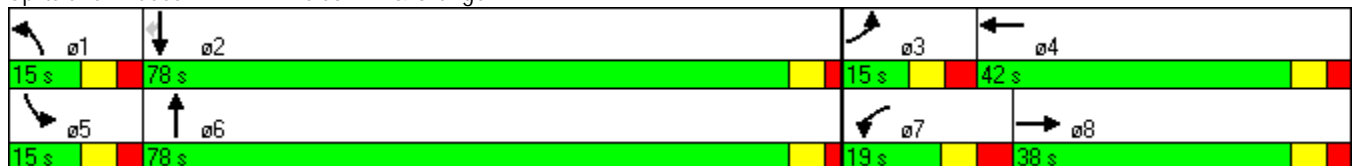
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↖↗	↗	↖	↕	↖	↕↕	↗
Volume (vph)	58	35	257	81	21	1511	58	1066	133
Turn Type	Prot		Prot		Prot		Prot		Perm
Protected Phases	3	8	7	4	1	6	5	2	
Permitted Phases									2
Detector Phase	3	8	7	4	1	6	5	2	2
Switch Phase									
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	20.0	7.0	20.0	20.0
Minimum Split (s)	15.0	38.0	15.0	42.0	15.0	34.0	15.0	37.0	37.0
Total Split (s)	15.0	38.0	19.0	42.0	15.0	78.0	15.0	78.0	78.0
Total Split (%)	10.0%	25.3%	12.7%	28.0%	10.0%	52.0%	10.0%	52.0%	52.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.5	3.0	4.0	3.0	3.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	0.0
Total Lost Time (s)	5.5	5.0	6.0	5.0	5.0	4.0	5.0	4.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.4	14.2	13.0	18.4	9.8	96.0	12.4	101.4	99.4
Actuated g/C Ratio	0.06	0.09	0.09	0.12	0.07	0.64	0.08	0.68	0.66
v/c Ratio	0.52	0.26	0.86	0.62	0.18	0.77	0.40	0.45	0.12
Control Delay	85.3	51.8	93.8	62.0	69.6	25.4	70.9	13.0	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.3	51.8	93.8	62.0	69.6	25.4	70.9	13.0	6.8
LOS	F	D	F	E	E	C	E	B	A
Approach Delay		70.3		82.3		25.9		15.0	
Approach LOS		E		F		C		B	

### Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 104 (69%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 130  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.86  
 Intersection Signal Delay: 29.8  
 Intersection Capacity Utilization 74.1%  
 Analysis Period (min) 15

Intersection LOS: C  
 ICU Level of Service D

### Splits and Phases: 1: W Pineloch Av & Orange AV



Queues

1: W Pineloch Av & Orange AV

3/5/2013



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	58	47	257	146	21	1717	58	1066	133
v/c Ratio	0.52	0.26	0.86	0.62	0.18	0.77	0.40	0.45	0.12
Control Delay	85.3	51.8	93.8	62.0	69.6	25.4	70.9	13.0	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.3	51.8	93.8	62.0	69.6	25.4	70.9	13.0	6.8
Queue Length 50th (ft)	56	33	130	114	20	654	56	252	20
Queue Length 95th (ft)	106	73	#207	182	49	909	m82	m300	m42
Internal Link Dist (ft)		867		1023		1024		1248	
Turn Bay Length (ft)	190		250		100		171		125
Base Capacity (vph)	112	403	298	448	122	2229	149	2391	1071
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.12	0.86	0.33	0.17	0.77	0.39	0.45	0.12

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 1: W Pineloch Av & Orange AV

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	35	12	257	81	65	21	1511	206	58	1066	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	5.0		6.0	5.0		5.0	4.0		5.0	4.0	6.0
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.96		1.00	0.93		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1791		3433	1738		1770	3476		1770	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1791		3433	1738		1770	3476		1770	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	58	35	12	257	81	65	21	1511	206	58	1066	133
RTOR Reduction (vph)	0	10	0	0	23	0	0	5	0	0	0	24
Lane Group Flow (vph)	58	37	0	257	123	0	21	1712	0	58	1066	109
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	6.0	10.9		11.0	16.4		5.0	91.1		9.0	95.1	95.1
Effective Green, g (s)	8.0	12.9		13.0	18.4		7.0	93.1		11.0	97.1	95.1
Actuated g/C Ratio	0.05	0.09		0.09	0.12		0.05	0.62		0.07	0.65	0.63
Clearance Time (s)	7.5	7.0		8.0	7.0		7.0	6.0		7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.5		3.0	3.5	3.5
Lane Grp Cap (vph)	94	154		298	213		83	2157		130	2291	1004
v/s Ratio Prot	0.03	0.02		c0.07	c0.07		0.01	c0.49		c0.03	c0.30	
v/s Ratio Perm												0.07
v/c Ratio	0.62	0.24		0.86	0.58		0.25	0.79		0.45	0.47	0.11
Uniform Delay, d1	69.5	64.0		67.6	62.1		69.0	21.3		66.6	13.3	10.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.01	0.92	0.96
Incremental Delay, d2	11.5	0.8		21.7	3.8		1.6	3.1		1.7	0.5	0.1
Delay (s)	81.0	64.8		89.4	65.9		70.6	24.4		69.2	12.7	10.5
Level of Service	F	E		F	E		E	C		E	B	B
Approach Delay (s)		73.7			80.9			24.9			15.1	
Approach LOS		E			F			C			B	

### Intersection Summary

HCM Average Control Delay	29.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	74.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 2: W Michigan ST & Orange AV

3/5/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↗
Volume (vph)	90	558	465	226	897	444	394	1157	122	238	605
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot	
Protected Phases	3	8	1	7	4	5	1	6	7	5	2
Permitted Phases			8			4			6		
Detector Phase	3	8	1	7	4	5	1	6	7	5	2
Switch Phase											
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0	7.0	7.0	20.0
Minimum Split (s)	15.5	41.5	15.0	15.0	38.0	15.0	15.0	39.5	15.0	15.0	38.5
Total Split (s)	16.0	40.0	33.0	24.0	48.0	20.0	33.0	66.0	24.0	20.0	53.0
Total Split (%)	10.7%	26.7%	22.0%	16.0%	32.0%	13.3%	22.0%	44.0%	16.0%	13.3%	35.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	4.5	3.5	4.0	4.5	3.5	4.0	4.0	2.5	4.5	4.0	2.5
Lost Time Adjust (s)	-1.0	-2.0	-2.0	-1.0	-2.0	-2.0	-1.0	-2.0	-2.0	-1.0	-2.0
Total Lost Time (s)	7.5	5.5	6.0	7.0	5.0	6.0	7.0	4.5	6.0	7.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	8.5	34.5	61.0	17.0	43.0	62.0	26.0	61.5	84.0	13.0	48.5
Actuated g/C Ratio	0.06	0.23	0.41	0.11	0.29	0.41	0.17	0.41	0.56	0.09	0.32
v/c Ratio	0.90	0.69	0.67	1.12	1.04	0.66	0.77	0.80	0.14	0.93	0.60
Control Delay	134.5	57.8	21.7	158.6	93.6	37.7	54.2	29.2	5.7	114.0	20.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	134.5	57.8	21.7	158.6	93.6	37.7	54.2	29.2	5.7	114.0	20.1
LOS	F	E	C	F	F	D	D	C	A	F	C
Approach Delay		48.9			87.1			33.3			44.6
Approach LOS		D			F			C			D

### Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 73 (49%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.12  
 Intersection Signal Delay: 54.6  
 Intersection LOS: D  
 Intersection Capacity Utilization 89.4%  
 ICU Level of Service E  
 Analysis Period (min) 15

### Splits and Phases: 2: W Michigan ST & Orange AV



Queues

2: W Michigan ST & Orange AV

3/5/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	90	558	465	226	897	444	394	1157	122	238	675
v/c Ratio	0.90	0.69	0.67	1.12	1.04	0.66	0.77	0.80	0.14	0.93	0.60
Control Delay	134.5	57.8	21.7	158.6	93.6	37.7	54.2	29.2	5.7	114.0	20.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	134.5	57.8	21.7	158.6	93.6	37.7	54.2	29.2	5.7	114.0	20.1
Queue Length 50th (ft)	89	265	191	~255	~498	319	219	394	17	124	134
Queue Length 95th (ft)	#201	332	275	#429	#634	449	280	432	m14	#237	234
Internal Link Dist (ft)		7901			1808			1248			1264
Turn Bay Length (ft)	160		175	360		205	265		325	305	
Base Capacity (vph)	100	814	697	201	860	677	509	1451	886	255	1126
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.69	0.67	1.12	1.04	0.66	0.77	0.80	0.14	0.93	0.60

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 2: W Michigan ST & Orange AV

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	90	558	465	226	897	444	394	1157	122	238	605	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	5.5	6.0	7.0	5.0	6.0	7.0	4.5	6.0	7.0	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	*0.83	0.95	1.00	*0.83	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3000	1583	2938	3539	1583	2938	3484	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	2938	3539	1583	2938	3484	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	90	558	465	226	897	444	394	1157	122	238	605	70
RTOR Reduction (vph)	0	0	53	0	0	24	0	0	0	0	0	0
Lane Group Flow (vph)	90	558	412	226	897	420	394	1157	122	238	675	0
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		
Protected Phases	3	8	1	7	4	5	1	6	7	5	2	
Permitted Phases			8			4			6			
Actuated Green, G (s)	7.5	32.5	57.5	16.0	41.0	53.0	25.0	59.5	75.5	12.0	46.5	
Effective Green, g (s)	8.5	34.5	61.5	17.0	43.0	57.0	26.0	61.5	79.5	13.0	48.5	
Actuated g/C Ratio	0.06	0.23	0.41	0.11	0.29	0.38	0.17	0.41	0.53	0.09	0.32	
Clearance Time (s)	8.5	7.5	8.0	8.0	7.0	8.0	8.0	6.5	8.0	8.0	6.5	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	100	814	649	201	860	602	509	1451	839	255	1126	
v/s Ratio Prot	0.05	0.16	0.11	c0.13	c0.30	0.07	0.13	c0.33	0.02	c0.08	0.19	
v/s Ratio Perm			0.15			0.20			0.06			
v/c Ratio	0.90	0.69	0.64	1.12	1.04	0.70	0.77	0.80	0.15	0.93	0.60	
Uniform Delay, d1	70.3	52.8	35.3	66.5	53.5	39.2	59.2	38.8	18.0	68.1	42.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.66	0.34	1.12	0.42	
Incremental Delay, d2	59.8	2.6	2.3	100.9	42.5	3.8	5.2	3.2	0.1	36.9	2.2	
Delay (s)	130.1	55.4	37.6	167.4	96.0	43.1	51.5	28.9	6.3	113.1	20.0	
Level of Service	F	E	D	F	F	D	D	C	A	F	C	
Approach Delay (s)		54.0			91.3			32.6			44.3	
Approach LOS		D			F			C			D	

### Intersection Summary

HCM Average Control Delay	56.6	HCM Level of Service	E
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	23.5
Intersection Capacity Utilization	89.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



# Timings

## 3: W Grant ST & Orange AV

3/5/2013

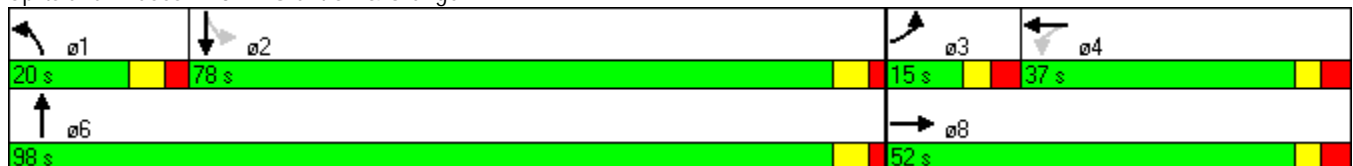


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	100	27	17	27	107	1512	6	839
Turn Type	Prot		Perm		Prot		Perm	
Protected Phases	3	8		4	1	6		2
Permitted Phases			4				2	
Detector Phase	3	8	4	4	1	6	2	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	20.0	20.0	20.0
Minimum Split (s)	15.0	36.5	36.5	36.5	15.0	44.0	29.0	29.0
Total Split (s)	15.0	52.0	37.0	37.0	20.0	98.0	78.0	78.0
Total Split (%)	10.0%	34.7%	24.7%	24.7%	13.3%	65.3%	52.0%	52.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.5	3.5	3.5	3.5	2.5	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag	Lead		Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effect Green (s)	10.2	24.2		12.2	16.3	116.3	95.5	95.5
Actuated g/C Ratio	0.07	0.16		0.08	0.11	0.78	0.64	0.64
v/c Ratio	0.43	0.27		0.43	0.56	0.59	0.03	0.45
Control Delay	73.0	21.5		63.4	71.2	7.9	12.7	11.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	73.0	21.5		63.4	71.2	7.9	12.7	11.3
LOS	E	C		E	E	A	B	B
Approach Delay		49.2		63.4		12.0		11.3
Approach LOS		D		E		B		B

### Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 43 (29%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow  
 Natural Cycle: 100  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.59  
 Intersection Signal Delay: 15.3  
 Intersection LOS: B  
 Intersection Capacity Utilization 80.9%  
 ICU Level of Service D  
 Analysis Period (min) 15

### Splits and Phases: 3: W Grant ST & Orange AV



# Queues

## 3: W Grant ST & Orange AV

3/5/2013



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	100	86	59	107	1524	6	939
v/c Ratio	0.43	0.27	0.43	0.56	0.59	0.03	0.45
Control Delay	73.0	21.5	63.4	71.2	7.9	12.7	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.0	21.5	63.4	71.2	7.9	12.7	11.3
Queue Length 50th (ft)	48	22	46	87	551	1	126
Queue Length 95th (ft)	81	71	94	m115	685	m3	167
Internal Link Dist (ft)		807	703		1264		1264
Turn Bay Length (ft)	260			85		120	
Base Capacity (vph)	240	569	348	207	2605	196	2110
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.15	0.17	0.52	0.59	0.03	0.45

### Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 3: W Grant ST & Orange AV

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	27	59	17	27	15	107	1512	12	6	839	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5		4.5	5.0		5.0	5.0	
Lane Util. Factor	0.97	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.90			0.97		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	1671			1773		1770	3358		1770	3309	
Flt Permitted	0.95	1.00			0.87		0.95	1.00		0.17	1.00	
Satd. Flow (perm)	3433	1671			1569		1770	3358		307	3309	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	100	27	59	17	27	15	107	1512	12	6	839	100
RTOR Reduction (vph)	0	49	0	0	9	0	0	0	0	0	4	0
Lane Group Flow (vph)	100	37	0	0	50	0	107	1524	0	6	935	0
Parking (#/hr)								0			0	
Turn Type	Prot			Perm			Prot			Perm		
Protected Phases	3	8			4		1	6			2	
Permitted Phases				4						2		
Actuated Green, G (s)	8.2	23.5			8.8		14.3	114.0		93.2	93.2	
Effective Green, g (s)	10.2	25.5			10.8		16.3	115.0		94.2	94.2	
Actuated g/C Ratio	0.07	0.17			0.07		0.11	0.77		0.63	0.63	
Clearance Time (s)	6.5	6.5			6.5		6.5	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	233	284			113		192	2574		193	2078	
v/s Ratio Prot	c0.03	0.02					0.06	c0.45			0.28	
v/s Ratio Perm					c0.03					0.02		
v/c Ratio	0.43	0.13			0.44		0.56	0.59		0.03	0.45	
Uniform Delay, d1	67.1	52.8			66.7		63.4	7.5		10.6	14.5	
Progression Factor	1.00	1.00			1.00		1.02	0.92		0.87	0.70	
Incremental Delay, d2	1.3	0.2			2.7		2.2	0.6		0.2	0.5	
Delay (s)	68.4	53.0			69.4		67.1	7.5		9.4	10.7	
Level of Service	E	D			E		E	A		A	B	
Approach Delay (s)		61.3			69.4			11.4			10.7	
Approach LOS		E			E			B			B	

### Intersection Summary

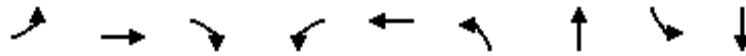
HCM Average Control Delay	15.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	80.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

# Timings

## 4: W Kaley ST. & Orange Av

3/5/2013

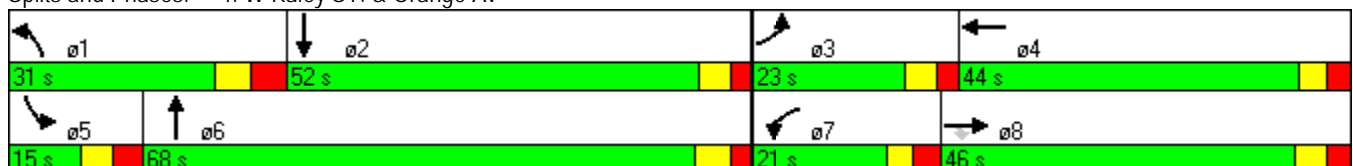


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↶	↑	↷	↶	↷	↶	↷	↶	↷
Volume (vph)	228	137	193	92	332	224	1336	40	735
Turn Type	Prot		Perm	Prot		Prot		Prot	
Protected Phases	3	8		7	4	1	6	5	2
Permitted Phases			8						
Detector Phase	3	8	8	7	4	1	6	5	2
Switch Phase									
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	20.0	7.0	20.0
Minimum Split (s)	15.0	37.5	37.5	15.0	39.0	15.0	31.5	15.0	35.0
Total Split (s)	23.0	46.0	46.0	21.0	44.0	31.0	68.0	15.0	52.0
Total Split (%)	15.3%	30.7%	30.7%	14.0%	29.3%	20.7%	45.3%	10.0%	34.7%
Yellow Time (s)	3.5	3.5	3.5	3.0	3.0	4.0	4.0	3.5	3.5
All-Red Time (s)	2.5	3.0	3.0	3.0	3.0	4.0	2.5	3.5	2.5
Lost Time Adjust (s)	0.0	-2.0	-2.0	0.0	-2.0	0.0	-2.0	0.0	-2.0
Total Lost Time (s)	6.0	4.5	4.5	6.0	4.0	8.0	4.5	7.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	Max	C-Max	None	C-Max
Act Effct Green (s)	17.0	43.7	43.7	12.4	39.6	23.4	67.0	7.7	48.0
Actuated g/C Ratio	0.11	0.29	0.29	0.08	0.26	0.16	0.45	0.05	0.32
v/c Ratio	1.13	0.25	0.32	0.63	0.94	0.81	0.91	0.44	0.78
Control Delay	161.5	42.9	6.7	84.6	84.0	96.3	33.2	92.7	28.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	161.5	42.9	6.7	84.6	84.0	96.3	33.2	92.7	28.1
LOS	F	D	A	F	F	F	C	F	C
Approach Delay		78.8			84.1		42.1		31.1
Approach LOS		E			F		D		C

### Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 21 (14%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.13  
 Intersection Signal Delay: 51.1  
 Intersection LOS: D  
 Intersection Capacity Utilization 94.8%  
 ICU Level of Service F  
 Analysis Period (min) 15

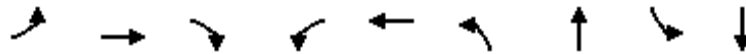
### Splits and Phases: 4: W Kaley ST. & Orange Av



Queues

4: W Kaley ST. & Orange Av

3/5/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	228	137	193	92	403	224	1367	40	830
v/c Ratio	1.13	0.25	0.32	0.63	0.94	0.81	0.91	0.44	0.78
Control Delay	161.5	42.9	6.7	84.6	84.0	96.3	33.2	92.7	28.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	161.5	42.9	6.7	84.6	84.0	96.3	33.2	92.7	28.1
Queue Length 50th (ft)	~259	103	0	88	382	198	710	40	57
Queue Length 95th (ft)	#436	167	62	149	#591	#350	#826	84	245
Internal Link Dist (ft)		802			953		1264		1256
Turn Bay Length (ft)	175			90		170		90	
Base Capacity (vph)	201	542	598	177	432	276	1499	94	1064
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.13	0.25	0.32	0.52	0.93	0.81	0.91	0.43	0.78

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis

## 4: W Kaley ST. & Orange Av

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	228	137	193	92	332	71	224	1336	31	40	735	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	4.5	4.5	6.0	4.0		8.0	4.5		7.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1600		1770	3351		1770	3305	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583	1770	1814		1770	3351		1770	3305	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	228	137	193	92	332	71	224	1336	31	40	735	95
RTOR Reduction (vph)	0	0	137	0	5	0	0	1	0	0	7	0
Lane Group Flow (vph)	228	137	56	92	398	0	224	1366	0	40	823	0
Parking (#/hr)								0			0	
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Actuated Green, G (s)	17.0	41.7	41.7	12.4	37.6		23.4	63.6		6.3	46.0	
Effective Green, g (s)	17.0	43.7	43.7	12.4	39.6		23.4	65.6		6.3	48.0	
Actuated g/C Ratio	0.11	0.29	0.29	0.08	0.26		0.16	0.44		0.04	0.32	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.0		8.0	6.5		7.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	4.5		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	201	543	461	146	422		276	1466		74	1058	
v/s Ratio Prot	c0.13	c0.07		0.05	c0.25		c0.13	c0.41		0.02	0.25	
v/s Ratio Perm			0.04									
v/c Ratio	1.13	0.25	0.12	0.63	0.94		0.81	0.93		0.54	0.78	
Uniform Delay, d1	66.5	40.7	39.1	66.6	54.1		61.2	40.1		70.4	46.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.27	0.60		1.14	0.50	
Incremental Delay, d2	104.3	0.2	0.1	8.6	30.1		19.0	10.4		7.1	5.1	
Delay (s)	170.8	40.9	39.2	75.1	84.2		96.5	34.6		87.3	28.2	
Level of Service	F	D	D	E	F		F	C		F	C	
Approach Delay (s)		93.4			82.5			43.3			30.9	
Approach LOS		F			F			D			C	

### Intersection Summary

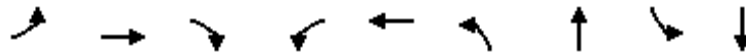
HCM Average Control Delay	53.7	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	27.0
Intersection Capacity Utilization	94.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

# Timings

## 5: W Miller ST. & Orange Avenue

3/5/2013

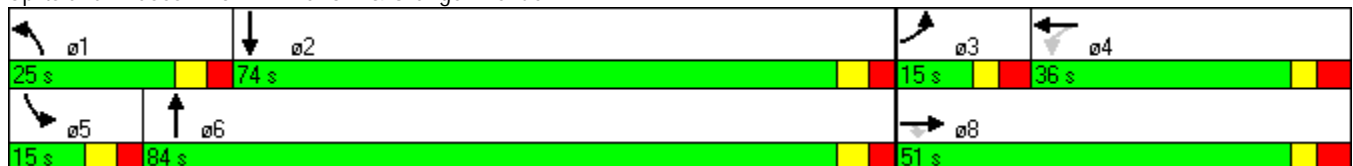


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↑	↗		↔	↖	↕	↖	↕
Volume (vph)	39	16	58	54	63	133	1498	43	823
Turn Type	Prot		Perm	Perm		Prot		Prot	
Protected Phases	3	8			4	1	6	5	2
Permitted Phases			8	4					
Detector Phase	3	8	8	4	4	1	6	5	2
Switch Phase									
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	20.0	7.0	20.0
Minimum Split (s)	15.0	41.0	41.0	36.0	36.0	15.0	39.5	15.0	38.5
Total Split (s)	15.0	51.0	51.0	36.0	36.0	25.0	84.0	15.0	74.0
Total Split (%)	10.0%	34.0%	34.0%	24.0%	24.0%	16.7%	56.0%	10.0%	49.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.5	3.5	3.5	3.5
All-Red Time (s)	3.5	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	-3.0	-3.0	0.0	-3.0	-3.0	-1.5	-1.0	-1.0	-1.0
Total Lost Time (s)	3.5	4.0	7.0	4.0	4.0	5.0	5.5	5.5	5.5
Lead/Lag	Lead			Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)	11.0	34.8	31.8		23.0	17.5	93.0	9.8	83.1
Actuated g/C Ratio	0.07	0.23	0.21		0.15	0.12	0.62	0.07	0.55
v/c Ratio	0.30	0.04	0.15		0.65	0.64	0.69	0.37	0.49
Control Delay	72.0	39.7	10.4		71.4	66.9	21.0	90.4	26.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	72.0	39.7	10.4		71.4	66.9	21.0	90.4	26.1
LOS	E	D	B		E	E	C	F	C
Approach Delay		35.8			71.4		24.7		28.9
Approach LOS		D			E		C		C

### Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 32 (21%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 29.1  
 Intersection LOS: C  
 Intersection Capacity Utilization 76.0%  
 ICU Level of Service D  
 Analysis Period (min) 15

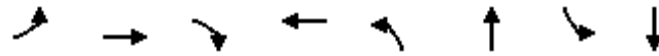
### Splits and Phases: 5: W Miller ST. & Orange Avenue



# Queues

## 5: W Miller ST. & Orange Avenue

3/5/2013



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	39	16	58	158	133	1522	43	939
v/c Ratio	0.30	0.04	0.15	0.65	0.64	0.69	0.37	0.49
Control Delay	72.0	39.7	10.4	71.4	66.9	21.0	90.4	26.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.0	39.7	10.4	71.4	66.9	21.0	90.4	26.1
Queue Length 50th (ft)	37	12	0	147	136	353	44	475
Queue Length 95th (ft)	77	30	36	216	m146	m393	89	569
Internal Link Dist (ft)		797		923		1256		828
Turn Bay Length (ft)	250		190		105		140	
Base Capacity (vph)	136	584	505	339	241	2191	122	1931
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	40	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.03	0.11	0.47	0.55	0.71	0.35	0.49

### Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



# HCM Signalized Intersection Capacity Analysis

## 5: W Miller ST. & Orange Avenue

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	16	58	54	63	41	133	1498	24	43	823	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0	7.0		4.0		5.0	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85		0.96		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583		1767		1770	3531		1770	3474	
Flt Permitted	0.95	1.00	1.00		0.88		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583		1589		1770	3531		1770	3474	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	39	16	58	54	63	41	133	1498	24	43	823	116
RTOR Reduction (vph)	0	0	45	0	0	0	0	1	0	0	6	0
Lane Group Flow (vph)	39	16	13	0	158	0	133	1521	0	43	933	0
Turn Type	Prot		Perm	Perm			Prot			Prot		
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases			8	4								
Actuated Green, G (s)	6.6	33.1	33.1		20.0		16.0	89.5		7.4	80.9	
Effective Green, g (s)	9.6	36.1	33.1		23.0		17.5	90.5		8.4	81.9	
Actuated g/C Ratio	0.06	0.24	0.22		0.15		0.12	0.60		0.06	0.55	
Clearance Time (s)	6.5	7.0	7.0		7.0		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	113	448	349		244		207	2130		99	1897	
v/s Ratio Prot	c0.02	0.01					c0.08	c0.43		0.02	0.27	
v/s Ratio Perm			0.01		c0.10							
v/c Ratio	0.35	0.04	0.04		0.65		0.64	0.71		0.43	0.49	
Uniform Delay, d1	67.2	43.6	45.9		59.7		63.3	20.7		68.5	21.1	
Progression Factor	1.00	1.00	1.00		1.00		0.98	0.90		1.22	1.12	
Incremental Delay, d2	1.8	0.0	0.0		5.8		2.4	0.7		2.9	0.9	
Delay (s)	69.0	43.7	46.0		65.5		64.5	19.5		86.6	24.6	
Level of Service	E	D	D		E		E	B		F	C	
Approach Delay (s)		53.6			65.5			23.1			27.4	
Approach LOS		D			E			C			C	

### Intersection Summary

HCM Average Control Delay	28.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 6: Copeland Dr & Orange Avenue

3/5/2013



Lane Group	WBL	WBR	NBT	SBT
Lane Configurations				
Volume (vph)	17	64	1540	988
Turn Type	custom			
Protected Phases			2	2
Permitted Phases	4	4		
Detector Phase	4	4	2	2
Switch Phase				
Minimum Initial (s)	7.0	7.0	20.0	20.0
Minimum Split (s)	35.0	35.0	29.0	29.0
Total Split (s)	35.0	35.0	115.0	115.0
Total Split (%)	23.3%	23.3%	76.7%	76.7%
Yellow Time (s)	3.0	3.0	3.5	3.5
All-Red Time (s)	3.0	3.0	2.5	2.5
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	6.0	4.0	4.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	C-Max	C-Max
Act Effect Green (s)	9.8	7.8	135.6	135.6
Actuated g/C Ratio	0.07	0.05	0.90	0.90
v/c Ratio	0.15	0.45	0.48	0.31
Control Delay	68.5	24.8	6.4	0.3
Queue Delay	0.0	0.0	1.3	0.0
Total Delay	68.5	24.8	7.8	0.3
LOS	E	C	A	A
Approach Delay	33.9		7.8	0.3
Approach LOS	C		A	A

### Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 117 (78%), Referenced to phase 2:NBSB, Start of Yellow  
 Natural Cycle: 70  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.48  
 Intersection Signal Delay: 5.8  
 Intersection Capacity Utilization 56.7%  
 Analysis Period (min) 15  
 Intersection LOS: A  
 ICU Level of Service B

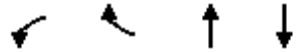
Splits and Phases: 6: Copeland Dr & Orange Avenue



# Queues

## 6: Copeland Dr & Orange Avenue

3/5/2013



Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	17	64	1540	988
v/c Ratio	0.15	0.45	0.48	0.31
Control Delay	68.5	24.8	6.4	0.3
Queue Delay	0.0	0.0	1.3	0.0
Total Delay	68.5	24.8	7.8	0.3
Queue Length 50th (ft)	16	0	312	3
Queue Length 95th (ft)	42	49	618	4
Internal Link Dist (ft)	836		828	484
Turn Bay Length (ft)				
Base Capacity (vph)	366	358	3199	3199
Starvation Cap Reductn	0	0	1358	554
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.05	0.18	0.84	0.37
<b>Intersection Summary</b>				

# HCM Signalized Intersection Capacity Analysis

## 6: Copeland Dr & Orange Avenue

3/5/2013



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	17	64	1540	0	0	988
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1770	1583	3539			3539
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1770	1583	3539			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	17	64	1540	0	0	988
RTOR Reduction (vph)	0	61	0	0	0	0
Lane Group Flow (vph)	17	3	1540	0	0	988
Turn Type	custom		Perm			
Protected Phases			2			2
Permitted Phases	4	4			2	
Actuated Green, G (s)	6.4	6.4	131.6			131.6
Effective Green, g (s)	8.4	6.4	133.6			133.6
Actuated g/C Ratio	0.06	0.04	0.89			0.89
Clearance Time (s)	6.0	6.0	6.0			6.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	99	68	3152			3152
v/s Ratio Prot			c0.44			0.28
v/s Ratio Perm	c0.01	0.00				
v/c Ratio	0.17	0.04	0.49			0.31
Uniform Delay, d1	67.5	68.9	1.6			1.2
Progression Factor	1.00	1.00	3.56			0.05
Incremental Delay, d2	0.8	0.2	0.4			0.2
Delay (s)	68.3	69.1	6.0			0.3
Level of Service	E	E	A			A
Approach Delay (s)	68.9		6.0			0.3
Approach LOS	E		A			A

### Intersection Summary

HCM Average Control Delay	5.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 7: Columbia ST. & Orange Avenue

3/5/2013

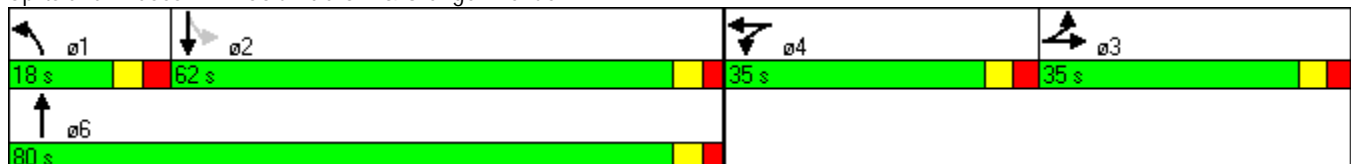


Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↔↔	↔	↔↔	↔	↕↕	↔	↕↕
Volume (vph)	103	0	0	116	1256	6	988
Turn Type	Split			Prot		Perm	
Protected Phases	3	3	4	1	6		2
Permitted Phases						2	
Detector Phase	3	3	4	1	6	2	2
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	20.0	20.0	20.0
Minimum Split (s)	35.0	35.0	35.0	15.0	32.0	37.0	37.0
Total Split (s)	35.0	35.0	35.0	18.0	80.0	62.0	62.0
Total Split (%)	23.3%	23.3%	23.3%	12.0%	53.3%	41.3%	41.3%
Yellow Time (s)	3.0	3.0	3.0	3.5	3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	2.5	2.5	2.5
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-1.5	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead		Lag	Lag
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max
Act Effect Green (s)	11.9	11.9	9.0	17.1	126.5	104.5	104.5
Actuated g/C Ratio	0.08	0.08	0.06	0.11	0.84	0.70	0.70
v/c Ratio	0.38	0.12	0.03	0.58	0.42	0.02	0.49
Control Delay	69.1	0.4	50.3	95.1	1.4	15.3	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	69.1	0.4	50.3	95.1	1.4	15.3	12.2
LOS	E	A	D	F	A	B	B
Approach Delay		42.5	50.3		9.3		12.2
Approach LOS		D	D		A		B

### Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 103 (69%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.58  
 Intersection Signal Delay: 12.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 70.6%  
 ICU Level of Service C  
 Analysis Period (min) 15

### Splits and Phases: 7: Columbia ST. & Orange Avenue



# Queues

## 7: Columbia ST. & Orange Avenue

3/5/2013



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	103	65	3	116	1261	6	1182
v/c Ratio	0.38	0.12	0.03	0.58	0.42	0.02	0.49
Control Delay	69.1	0.4	50.3	95.1	1.4	15.3	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	69.1	0.4	50.3	95.1	1.4	15.3	12.2
Queue Length 50th (ft)	50	0	1	120	14	1	132
Queue Length 95th (ft)	81	0	12	188	18	m5	359
Internal Link Dist (ft)		752	638		484		1088
Turn Bay Length (ft)	280			130		110	
Base Capacity (vph)	709	704	346	205	2982	287	2409
Starvation Cap Reductn	0	0	0	0	418	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.09	0.01	0.57	0.49	0.02	0.49

### Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 7: Columbia ST. & Orange Avenue

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↗			↔		↖	↕↗		↖	↕↗	
Volume (vph)	103	0	65	1	0	2	116	1256	5	6	988	194
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0		5.0	5.0	
Lane Util. Factor	0.97	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.85			0.91		1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	1583			1667		1770	3537		1770	3452	
Flt Permitted	0.95	1.00			0.98		0.95	1.00		0.22	1.00	
Satd. Flow (perm)	3433	1583			1667		1770	3537		411	3452	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	103	0	65	1	0	2	116	1256	5	6	988	194
RTOR Reduction (vph)	0	60	0	0	2	0	0	0	0	0	6	0
Lane Group Flow (vph)	103	5	0	0	1	0	116	1261	0	6	1176	0
Turn Type	Split		Split				Prot		Perm			
Protected Phases	3	3		4	4		1	6			2	
Permitted Phases										2		
Actuated Green, G (s)	9.9	9.9			1.4		15.6	120.7		98.6	98.6	
Effective Green, g (s)	11.9	11.9			3.4		17.1	121.7		99.6	99.6	
Actuated g/C Ratio	0.08	0.08			0.02		0.11	0.81		0.66	0.66	
Clearance Time (s)	6.0	6.0			6.0		6.5	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	272	126			38		202	2870		273	2292	
v/s Ratio Prot	c0.03	0.00			c0.00		c0.07	0.36			c0.34	
v/s Ratio Perm										0.01		
v/c Ratio	0.38	0.04			0.03		0.57	0.44		0.02	0.51	
Uniform Delay, d1	65.5	63.8			71.7		63.0	4.1		8.6	12.8	
Progression Factor	1.00	1.00			1.00		1.36	0.28		1.39	0.99	
Incremental Delay, d2	0.9	0.1			0.3		3.5	0.4		0.1	0.6	
Delay (s)	66.4	63.9			72.0		89.1	1.6		12.0	13.3	
Level of Service	E	E			E		F	A		B	B	
Approach Delay (s)		65.5			72.0			9.0			13.3	
Approach LOS		E			E			A			B	

### Intersection Summary

HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 8: W Gore ST & Orange Avenue

3/5/2013

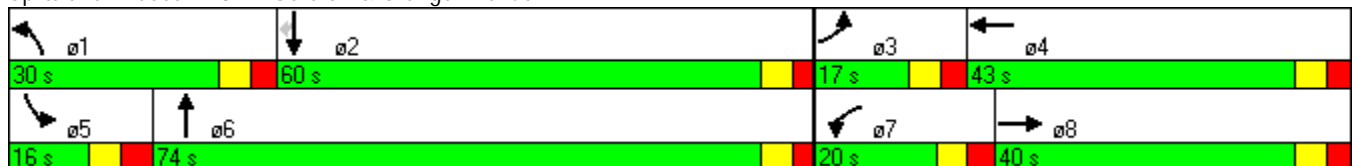


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↕	↖	↕	↖	↕	↖	↕	↗
Volume (vph)	83	85	104	276	189	1131	44	984	243
Turn Type	Prot		Prot		Prot		Prot		Perm
Protected Phases	3	8	7	4	1	6	5	2	
Permitted Phases									2
Detector Phase	3	8	7	4	1	6	5	2	2
Switch Phase									
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	20.0	7.0	20.0	20.0
Minimum Split (s)	15.0	39.5	15.0	43.5	15.0	31.0	15.0	37.0	37.0
Total Split (s)	17.0	40.0	20.0	43.0	30.0	74.0	16.0	60.0	60.0
Total Split (%)	11.3%	26.7%	13.3%	28.7%	20.0%	49.3%	10.7%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.5	3.5	2.5	2.5
Lost Time Adjust (s)	-1.0	-2.0	-1.0	-2.0	-1.0	-2.0	-1.0	-2.0	-2.0
Total Lost Time (s)	5.5	4.5	5.5	4.5	5.5	4.0	6.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effect Green (s)	11.1	22.9	13.6	25.4	24.1	85.6	10.8	70.0	70.0
Actuated g/C Ratio	0.07	0.15	0.09	0.17	0.16	0.57	0.07	0.47	0.47
v/c Ratio	0.71	0.37	0.72	0.74	0.74	0.65	0.38	0.66	0.32
Control Delay	97.8	24.9	92.6	59.1	93.0	11.9	86.5	31.3	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.8	24.9	92.6	59.1	93.0	11.9	86.5	31.3	5.8
LOS	F	C	F	E	F	B	F	C	A
Approach Delay		46.2		65.8		23.1		28.4	
Approach LOS		D		E		C		C	

### Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 99 (66%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 115  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 33.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 78.2%  
 ICU Level of Service D  
 Analysis Period (min) 15

### Splits and Phases: 8: W Gore ST & Orange Avenue





# Queues

## 8: W Gore ST & Orange Avenue

3/5/2013



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	83	202	104	413	189	1181	44	984	243
v/c Ratio	0.71	0.37	0.72	0.74	0.74	0.65	0.38	0.66	0.32
Control Delay	97.8	24.9	92.6	59.1	93.0	11.9	86.5	31.3	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	97.8	24.9	92.6	59.1	93.0	11.9	86.5	31.3	5.8
Queue Length 50th (ft)	81	38	100	178	191	140	39	427	20
Queue Length 95th (ft)	#160	75	#183	228	279	207	m76	566	146
Internal Link Dist (ft)		1092		1228		1088		827	
Turn Bay Length (ft)	85		185		245		50		
Base Capacity (vph)	122	778	154	818	280	1808	121	1485	770
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.26	0.68	0.50	0.68	0.65	0.36	0.66	0.32

### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 8: W Gore ST & Orange Avenue

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	85	117	104	276	137	189	1131	50	44	984	243
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	4.5		5.5	4.5		5.5	4.0		6.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.91		1.00	0.95		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1593	2909		1593	3027		1593	3165		1593	3185	1425
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1593	2909		1593	3027		1593	3165		1593	3185	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	83	85	117	104	276	137	189	1131	50	44	984	243
RTOR Reduction (vph)	0	99	0	0	46	0	0	2	0	0	0	106
Lane Group Flow (vph)	83	103	0	104	367	0	189	1179	0	44	984	137
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	10.1	20.9		12.6	23.4		23.1	82.1		8.4	67.9	67.9
Effective Green, g (s)	11.1	22.9		13.6	25.4		24.1	84.1		9.4	69.9	69.9
Actuated g/C Ratio	0.07	0.15		0.09	0.17		0.16	0.56		0.06	0.47	0.47
Clearance Time (s)	6.5	6.5		6.5	6.5		6.5	6.0		7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	118	444		144	513		256	1775		100	1484	664
v/s Ratio Prot	0.05	0.04		c0.07	c0.12		c0.12	c0.37		0.03	0.31	
v/s Ratio Perm												0.10
v/c Ratio	0.70	0.23		0.72	0.72		0.74	0.66		0.44	0.66	0.21
Uniform Delay, d1	67.8	55.8		66.4	58.9		59.9	23.1		67.8	30.9	23.7
Progression Factor	1.00	1.00		1.00	1.00		1.29	0.42		1.18	0.87	0.71
Incremental Delay, d2	17.3	0.3		16.3	4.7		9.9	1.9		2.9	2.2	0.7
Delay (s)	85.1	56.1		82.7	63.6		87.5	11.5		82.8	29.3	17.6
Level of Service	F	E		F	E		F	B		F	C	B
Approach Delay (s)		64.5			67.5			21.9			28.9	
Approach LOS		E			E			C			C	

### Intersection Summary

HCM Average Control Delay	34.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	78.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 9: S Lucerne CR & Orange Avenue

3/5/2013

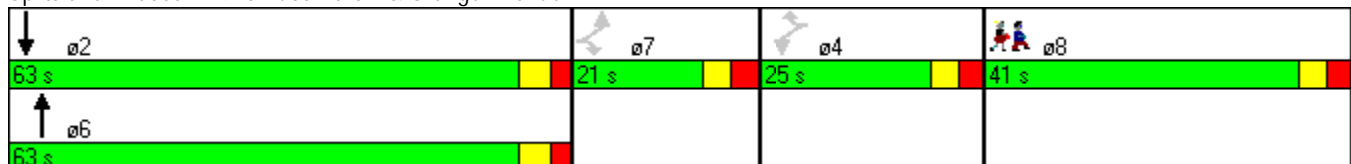


Lane Group	EBL	EBR	WBL	WBR	NBT	SBT	ø8
Lane Configurations							
Volume (vph)	42	28	248	579	1355	973	
Turn Type	custom	custom	custom	custom			
Protected Phases					6	2	8
Permitted Phases	7	7	4	4			
Detector Phase	7	7	4	4	6	2	
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	20.0	20.0	7.0
Minimum Split (s)	42.5	42.5	42.0	42.0	30.5	26.5	41.0
Total Split (s)	21.0	21.0	25.0	25.0	63.0	63.0	41.0
Total Split (%)	14.0%	14.0%	16.7%	16.7%	42.0%	42.0%	27%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5	3.0
All-Red Time (s)	3.5	3.5	3.0	3.0	2.5	2.5	3.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	4.5	4.5	4.0	4.0	4.0	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Max	C-Max	None
Act Effect Green (s)	12.4	12.4	24.4	24.4	103.4	103.4	
Actuated g/C Ratio	0.08	0.08	0.16	0.16	0.69	0.69	
v/c Ratio	0.32	0.19	0.65	0.94	0.43	0.31	
Control Delay	70.3	23.0	67.8	38.7	8.3	10.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	70.3	23.0	67.8	38.7	8.3	10.0	
LOS	E	C	E	D	A	A	
Approach Delay					8.3	10.0	
Approach LOS					A	A	

### Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 106 (71%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 160  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 19.8  
 Intersection Capacity Utilization 82.3%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service E

### Splits and Phases: 9: S Lucerne CR & Orange Avenue



Queues

9: S Lucerne CR & Orange Avenue

3/5/2013



Lane Group	EBL	EBR	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	42	28	248	579	1355	973
v/c Ratio	0.32	0.19	0.65	0.94	0.43	0.31
Control Delay	70.3	23.0	67.8	38.7	8.3	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.3	23.0	67.8	38.7	8.3	10.0
Queue Length 50th (ft)	40	0	154	140	128	138
Queue Length 95th (ft)	80	33	#228	#407	162	162
Internal Link Dist (ft)					827	351
Turn Bay Length (ft)		90		200		
Base Capacity (vph)	175	182	383	613	3155	3155
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	0.24	0.15	0.65	0.94	0.43	0.31

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis

## 9: S Lucerne CR & Orange Avenue

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖↗		↗		↑↑↑			↑↑↑	
Volume (vph)	42	0	28	248	0	579	0	1355	0	0	973	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.0		4.0		4.0			4.0	
Lane Util. Factor	1.00		1.00	*0.74		1.00		0.91			0.91	
Frt	1.00		0.85	1.00		0.85		1.00			1.00	
Flt Protected	0.95		1.00	0.95		1.00		1.00			1.00	
Satd. Flow (prot)	1593		1425	2357		1425		4577			4577	
Flt Permitted	0.95		1.00	0.95		1.00		1.00			1.00	
Satd. Flow (perm)	1593		1425	2357		1425		4577			4577	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	42	0	28	248	0	579	0	1355	0	0	973	0
RTOR Reduction (vph)	0	0	26	0	0	381	0	0	0	0	0	0
Lane Group Flow (vph)	42	0	2	248	0	198	0	1355	0	0	973	0
Turn Type	custom		custom	custom		custom						
Protected Phases								6			2	
Permitted Phases	7		7	4		4						
Actuated Green, G (s)	9.0		9.0	22.4		22.4		100.1			100.1	
Effective Green, g (s)	11.0		11.0	24.4		24.4		102.1			102.1	
Actuated g/C Ratio	0.07		0.07	0.16		0.16		0.68			0.68	
Clearance Time (s)	6.5		6.5	6.0		6.0		6.0			6.0	
Vehicle Extension (s)	4.0		4.0	4.0		4.0		3.0			3.0	
Lane Grp Cap (vph)	117		105	383		232		3115			3115	
v/s Ratio Prot								c0.30			0.21	
v/s Ratio Perm	c0.03		0.00	0.11		c0.14						
v/c Ratio	0.36		0.02	0.65		0.85		0.43			0.31	
Uniform Delay, d1	66.1		64.5	58.8		61.1		10.9			9.7	
Progression Factor	1.00		1.00	1.00		1.00		0.74			1.00	
Incremental Delay, d2	2.6		0.1	4.2		25.7		0.3			0.3	
Delay (s)	68.7		64.6	62.9		86.8		8.3			10.0	
Level of Service	E		E	E		F		A			A	
Approach Delay (s)		67.1			79.6			8.3			10.0	
Approach LOS		E			E			A			A	

Intersection Summary		
HCM Average Control Delay	28.4	HCM Level of Service C
HCM Volume to Capacity ratio	0.50	
Actuated Cycle Length (s)	150.0	Sum of lost time (s) 12.5
Intersection Capacity Utilization	82.3%	ICU Level of Service E
Analysis Period (min)	15	
c Critical Lane Group		



Queues  
10: Anderson St &

3/5/2013



Lane Group	EBT	NBT
Lane Group Flow (vph)	783	1810
v/c Ratio	0.43	0.81
Control Delay	20.7	14.4
Queue Delay	0.0	0.0
Total Delay	20.7	14.4
Queue Length 50th (ft)	78	132
Queue Length 95th (ft)	108	184
Internal Link Dist (ft)	747	150
Turn Bay Length (ft)		
Base Capacity (vph)	1810	2234
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.43	0.81
<b>Intersection Summary</b>		

# HCM Signalized Intersection Capacity Analysis

## 10: Anderson St &

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Volume (vph)	78	705	0	0	0	0	190	1440	180	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.91						0.91				
Frt		1.00						0.99				
Flt Protected		1.00						0.99				
Satd. Flow (prot)		5060						4983				
Flt Permitted		1.00						0.99				
Satd. Flow (perm)		5060						4983				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	78	705	0	0	0	0	190	1440	180	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	30	0	0	0	0
Lane Group Flow (vph)	0	783	0	0	0	0	0	1780	0	0	0	0
Turn Type	Split						Split					
Protected Phases	4	4					2	2				
Permitted Phases												
Actuated Green, G (s)		16.1						19.9				
Effective Green, g (s)		16.1						19.9				
Actuated g/C Ratio		0.36						0.44				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		1810						2204				
v/s Ratio Prot		c0.15						c0.36				
v/s Ratio Perm												
v/c Ratio		0.43						0.81				
Uniform Delay, d1		11.0						10.9				
Progression Factor		1.80						1.00				
Incremental Delay, d2		0.7						3.3				
Delay (s)		20.4						14.2				
Level of Service		C						B				
Approach Delay (s)		20.4			0.0			14.2			0.0	
Approach LOS		C			A			B			A	

### Intersection Summary

HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

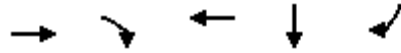
c Critical Lane Group



# Timings

## 11: Anderson St & Orange Ave

3/5/2013

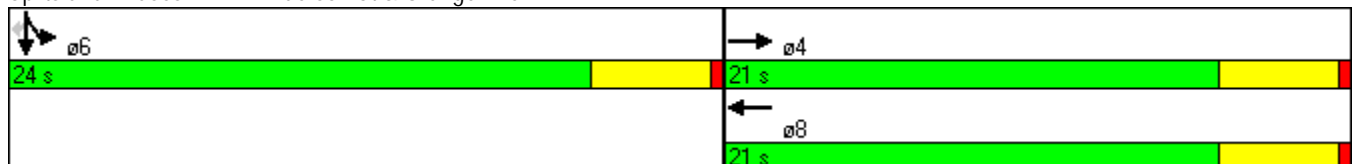


Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↗	↑	↖↑↑	↗
Volume (vph)	594	167	190	1079	18
Turn Type		Free			Perm
Protected Phases	4		8	6	
Permitted Phases		Free			6
Detector Phase	4		8	6	6
Switch Phase					
Minimum Initial (s)	4.0		4.0	4.0	4.0
Minimum Split (s)	20.5		20.5	20.5	20.5
Total Split (s)	21.0	0.0	21.0	24.0	24.0
Total Split (%)	46.7%	0.0%	46.7%	53.3%	53.3%
Yellow Time (s)	4.0		4.0	4.0	4.0
All-Red Time (s)	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Max		Max	Max	Max
Act Effect Green (s)	16.5	45.0	16.5	19.5	19.5
Actuated g/C Ratio	0.37	1.00	0.37	0.43	0.43
v/c Ratio	0.32	0.11	0.28	0.58	0.03
Control Delay	10.8	0.1	2.2	11.0	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	0.1	2.2	11.0	4.2
LOS	B	A	A	B	A
Approach Delay	8.5		2.2	10.9	
Approach LOS	A		A	B	

### Intersection Summary

Cycle Length: 45  
 Actuated Cycle Length: 45  
 Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Yellow  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.58  
 Intersection Signal Delay: 9.3  
 Intersection LOS: A  
 Intersection Capacity Utilization 45.5%  
 ICU Level of Service A  
 Analysis Period (min) 15

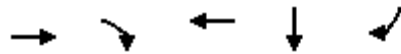
Splits and Phases: 11: Anderson St & Orange Ave



# Queues

## 11: Anderson St & Orange Ave

3/5/2013



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	594	167	190	1268	18
v/c Ratio	0.32	0.11	0.28	0.58	0.03
Control Delay	10.8	0.1	2.2	11.0	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	0.1	2.2	11.0	4.2
Queue Length 50th (ft)	38	0	1	83	0
Queue Length 95th (ft)	58	0	m1	117	8
Internal Link Dist (ft)	269		747	115	
Turn Bay Length (ft)					
Base Capacity (vph)	1865	1560	683	2188	680
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	0.32	0.11	0.28	0.58	0.03

### Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 11: Anderson St & Orange Ave

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑						↑↑↑	↑
Volume (vph)	0	594	167	0	190	0	0	0	0	189	1079	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0		4.5						4.5	4.5
Lane Util. Factor		0.91	1.00		1.00						0.91	1.00
Frbp, ped/bikes		1.00	0.99		1.00						1.00	0.98
Flpb, ped/bikes		1.00	1.00		1.00						1.00	1.00
Frt		1.00	0.85		1.00						1.00	0.85
Flt Protected		1.00	1.00		1.00						0.99	1.00
Satd. Flow (prot)		5085	1560		1863						5048	1545
Flt Permitted		1.00	1.00		1.00						0.99	1.00
Satd. Flow (perm)		5085	1560		1863						5048	1545
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	594	167	0	190	0	0	0	0	189	1079	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	10
Lane Group Flow (vph)	0	594	167	0	190	0	0	0	0	0	1268	8
Confl. Peds. (#/hr)			9							2		3
Turn Type			Free							Split		Perm
Protected Phases		4			8					6	6	
Permitted Phases			Free									6
Actuated Green, G (s)		16.5	45.0		16.5						19.5	19.5
Effective Green, g (s)		16.5	45.0		16.5						19.5	19.5
Actuated g/C Ratio		0.37	1.00		0.37						0.43	0.43
Clearance Time (s)		4.5			4.5						4.5	4.5
Lane Grp Cap (vph)		1865	1560		683						2187	670
v/s Ratio Prot		c0.12			0.10						c0.25	
v/s Ratio Perm			0.11									0.01
v/c Ratio		0.32	0.11		0.28						0.58	0.01
Uniform Delay, d1		10.2	0.0		10.1						9.6	7.3
Progression Factor		1.00	1.00		0.15						1.00	1.00
Incremental Delay, d2		0.5	0.1		0.6						1.1	0.0
Delay (s)		10.7	0.1		2.1						10.8	7.3
Level of Service		B	A		A						B	A
Approach Delay (s)		8.4			2.1			0.0			10.7	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM Average Control Delay	9.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 1: W Pineloch Av & Orange AV

3/5/2013



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↗	↖↗	↗	↖	↕	↖	↕	↗
Volume (vph)	198	127	305	31	17	1382	110	1402	41
Turn Type	Prot		Prot		Prot		Prot		Perm
Protected Phases	3	8	7	4	1	6	5	2	
Permitted Phases									2
Detector Phase	3	8	7	4	1	6	5	2	2
Switch Phase									
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	20.0	7.0	20.0	20.0
Minimum Split (s)	15.0	38.0	15.0	42.0	15.0	34.0	15.0	37.0	37.0
Total Split (s)	26.0	39.0	29.0	42.0	19.0	93.0	19.0	93.0	93.0
Total Split (%)	14.4%	21.7%	16.1%	23.3%	10.6%	51.7%	10.6%	51.7%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.5	3.0	4.0	3.0	3.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	0.0
Total Lost Time (s)	5.0	4.5	5.5	4.5	5.0	4.0	5.0	4.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	21.0	22.1	21.9	23.5	9.8	98.9	18.2	112.8	110.8
Actuated g/C Ratio	0.12	0.12	0.12	0.13	0.05	0.55	0.10	0.63	0.62
v/c Ratio	0.96	0.68	0.73	0.40	0.18	0.89	0.61	0.63	0.04
Control Delay	128.8	87.3	87.0	33.8	85.1	43.3	105.0	12.9	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.8	87.3	87.0	33.8	85.1	43.3	105.0	12.9	8.1
LOS	F	F	F	C	F	D	F	B	A
Approach Delay		110.7		73.0		43.7		19.3	
Approach LOS		F		E		D		B	

### Intersection Summary

Cycle Length: 180  
 Actuated Cycle Length: 180  
 Offset: 150 (83%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 130  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.96  
 Intersection Signal Delay: 43.2  
 Intersection Capacity Utilization 87.0%  
 Analysis Period (min) 15

Intersection LOS: D  
 ICU Level of Service E

### Splits and Phases: 1: W Pineloch Av & Orange AV



Queues

1: W Pineloch Av & Orange AV

3/5/2013



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	198	154	305	109	17	1691	110	1402	41
v/c Ratio	0.96	0.68	0.73	0.40	0.18	0.89	0.61	0.63	0.04
Control Delay	128.8	87.3	87.0	33.8	85.1	43.3	105.0	12.9	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.8	87.3	87.0	33.8	85.1	43.3	105.0	12.9	8.1
Queue Length 50th (ft)	237	172	180	48	20	931	135	238	4
Queue Length 95th (ft)	#413	247	237	110	49	#1201	m167	m293	m7
Internal Link Dist (ft)		867		1023		1024		1248	
Turn Bay Length (ft)	190		250		100		171		125
Base Capacity (vph)	207	352	448	397	138	1901	180	2218	980
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.44	0.68	0.27	0.12	0.89	0.61	0.63	0.04

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 1: W Pineloch Av & Orange AV

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	198	127	27	305	31	78	17	1382	309	110	1402	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	4.5		5.5	4.5		5.0	4.0		5.0	4.0	6.0
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.97		1.00	0.89		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1814		3433	1663		1770	3442		1770	3539	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1814		3433	1663		1770	3442		1770	3539	1583
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	198	127	27	305	31	78	17	1382	309	110	1402	41
RTOR Reduction (vph)	0	4	0	0	56	0	0	9	0	0	0	5
Lane Group Flow (vph)	198	150	0	305	53	0	17	1682	0	110	1402	36
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	19.0	20.1		19.9	21.5		5.0	96.8		16.2	108.0	108.0
Effective Green, g (s)	21.0	22.1		21.9	23.5		7.0	98.8		18.2	110.0	108.0
Actuated g/C Ratio	0.12	0.12		0.12	0.13		0.04	0.55		0.10	0.61	0.60
Clearance Time (s)	7.0	6.5		7.5	6.5		7.0	6.0		7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.5		3.0	3.5	3.5
Lane Grp Cap (vph)	207	223		418	217		69	1889		179	2163	950
v/s Ratio Prot	c0.11	c0.08		0.09	0.03		0.01	c0.49		c0.06	c0.40	
v/s Ratio Perm												0.02
v/c Ratio	0.96	0.67		0.73	0.25		0.25	0.89		0.61	0.65	0.04
Uniform Delay, d1	79.0	75.5		76.2	70.3		83.9	35.8		77.5	22.5	14.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.24	0.52	0.61
Incremental Delay, d2	49.7	7.7		6.3	0.6		1.9	6.8		3.7	0.9	0.0
Delay (s)	128.8	83.2		82.5	70.9		85.8	42.6		99.6	12.6	9.1
Level of Service	F	F		F	E		F	D		F	B	A
Approach Delay (s)		108.8			79.4			43.0			18.7	
Approach LOS		F			E			D			B	

### Intersection Summary

HCM Average Control Delay	43.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	22.5
Intersection Capacity Utilization	87.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 2: W Michigan ST & Orange AV

3/5/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	78	959	324	183	642	287	474	945	226	465	1010
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot	
Protected Phases	3	8	1	7	4	5	1	6	7	5	2
Permitted Phases			8			4			6		
Detector Phase	3	8	1	7	4	5	1	6	7	5	2
Switch Phase											
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	20.0	7.0	7.0	20.0
Minimum Split (s)	15.5	41.5	15.0	15.0	38.0	15.0	15.0	39.5	15.0	15.0	38.5
Total Split (s)	23.0	53.0	34.0	22.0	52.0	33.0	34.0	72.0	22.0	33.0	71.0
Total Split (%)	12.8%	29.4%	18.9%	12.2%	28.9%	18.3%	18.9%	40.0%	12.2%	18.3%	39.4%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5	4.0	4.0	4.0	3.5	4.0	4.0
All-Red Time (s)	4.5	3.5	4.0	4.5	3.5	4.0	4.0	2.5	4.5	4.0	2.5
Lost Time Adjust (s)	-1.0	-2.0	-2.0	-1.0	-2.0	-2.0	-1.0	-2.0	-2.0	-1.0	-2.0
Total Lost Time (s)	7.5	5.5	6.0	7.0	5.0	6.0	7.0	4.5	6.0	7.0	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	13.9	47.5	75.0	15.0	48.6	80.6	27.0	67.5	88.0	26.0	66.5
Actuated g/C Ratio	0.08	0.26	0.42	0.08	0.27	0.45	0.15	0.38	0.49	0.14	0.37
v/c Ratio	0.57	1.03	0.48	1.24	0.79	0.38	1.07	0.71	0.29	1.10	0.82
Control Delay	96.4	99.8	23.3	213.4	69.6	23.2	111.0	38.6	16.0	117.9	41.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.4	99.8	23.3	213.4	69.6	23.2	111.0	38.6	16.0	117.9	41.7
LOS	F	F	C	F	E	C	F	D	B	F	D
Approach Delay		81.4			81.3			56.4			64.9
Approach LOS		F			F			E			E

### Intersection Summary

Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 112 (62%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow	
Natural Cycle: 125	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 69.6	Intersection LOS: E
Intersection Capacity Utilization 99.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 2: W Michigan ST & Orange AV

Queues

2: W Michigan ST & Orange AV

3/5/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	78	959	324	183	642	287	474	945	226	465	1064
v/c Ratio	0.57	1.03	0.48	1.24	0.79	0.38	1.07	0.71	0.29	1.10	0.82
Control Delay	96.4	99.8	23.3	213.4	69.6	23.2	111.0	38.6	16.0	117.9	41.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.4	99.8	23.3	213.4	69.6	23.2	111.0	38.6	16.0	117.9	41.7
Queue Length 50th (ft)	90	-633	179	-267	378	150	-368	340	55	-366	667
Queue Length 95th (ft)	153	#773	249	#443	460	233	m#450	m425	m70	#512	751
Internal Link Dist (ft)		7901			1808			1248			1264
Turn Bay Length (ft)	160		175	360		205	265		325	305	
Base Capacity (vph)	152	934	679	148	810	762	441	1327	774	424	1297
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	1.03	0.48	1.24	0.79	0.38	1.07	0.71	0.29	1.10	0.82

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



# HCM Signalized Intersection Capacity Analysis

## 2: W Michigan ST & Orange AV

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↗	
Volume (vph)	78	959	324	183	642	287	474	945	226	465	1010	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	5.5	6.0	7.0	5.0	6.0	7.0	4.5	6.0	7.0	4.5	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	*0.83	0.95	1.00	*0.83	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3000	1583	2938	3539	1583	2938	3512	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	2938	3539	1583	2938	3512	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	78	959	324	183	642	287	474	945	226	465	1010	54
RTOR Reduction (vph)	0	0	19	0	0	55	0	0	0	0	0	0
Lane Group Flow (vph)	78	959	305	183	642	232	474	945	226	465	1064	0
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		
Protected Phases	3	8	1	7	4	5	1	6	7	5	2	
Permitted Phases			8			4			6			
Actuated Green, G (s)	12.9	45.5	71.5	14.0	46.6	71.6	26.0	65.5	79.5	25.0	64.5	
Effective Green, g (s)	13.9	47.5	75.5	15.0	48.6	75.6	27.0	67.5	83.5	26.0	66.5	
Actuated g/C Ratio	0.08	0.26	0.42	0.08	0.27	0.42	0.15	0.38	0.46	0.14	0.37	
Clearance Time (s)	8.5	7.5	8.0	8.0	7.0	8.0	8.0	6.5	8.0	8.0	6.5	
Vehicle Extension (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	137	934	664	148	810	665	441	1327	734	424	1297	
v/s Ratio Prot	0.04	c0.27	0.07	c0.10	0.21	0.05	c0.16	0.27	0.03	c0.16	c0.30	
v/s Ratio Perm			0.12			0.09			0.12			
v/c Ratio	0.57	1.03	0.46	1.24	0.79	0.35	1.07	0.71	0.31	1.10	0.82	
Uniform Delay, d1	80.2	66.2	37.6	82.5	61.0	35.5	76.5	48.0	30.2	77.0	51.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.77	0.56	0.73	0.72	
Incremental Delay, d2	6.5	36.5	0.7	151.2	5.7	0.4	51.5	1.5	0.2	66.4	4.4	
Delay (s)	86.6	102.7	38.3	233.7	66.7	35.9	116.5	38.3	17.0	122.8	41.4	
Level of Service	F	F	D	F	E	D	F	D	B	F	D	
Approach Delay (s)		86.4			86.2			57.9			66.2	
Approach LOS		F			F			E			E	

### Intersection Summary

HCM Average Control Delay	72.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	26.5
Intersection Capacity Utilization	99.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 3: W Grant ST & Orange AV

3/5/2013

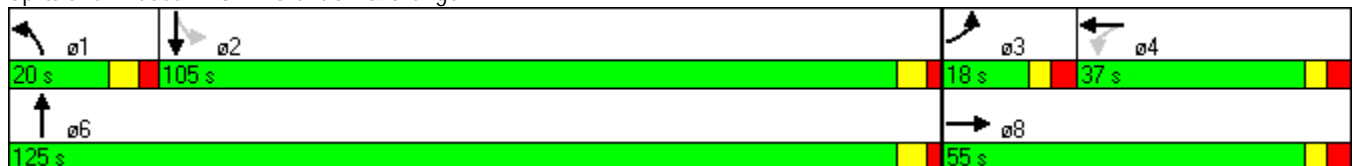


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Volume (vph)	160	109	19	33	87	1137	33	1462
Turn Type	Prot		Perm		Prot		Perm	
Protected Phases	3	8		4	1	6		2
Permitted Phases			4				2	
Detector Phase	3	8	4	4	1	6	2	2
Switch Phase								
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	20.0	20.0	20.0
Minimum Split (s)	15.0	36.5	36.5	36.5	15.0	44.0	37.0	37.0
Total Split (s)	18.0	55.0	37.0	37.0	20.0	125.0	105.0	105.0
Total Split (%)	10.0%	30.6%	20.6%	20.6%	11.1%	69.4%	58.3%	58.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.5	3.5	3.5	3.5	2.5	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	5.0	5.0	5.0
Lead/Lag	Lead		Lag	Lag	Lead		Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effect Green (s)	13.2	31.6		13.9	16.2	138.9	118.2	118.2
Actuated g/C Ratio	0.07	0.18		0.08	0.09	0.77	0.66	0.66
v/c Ratio	0.64	0.67		0.51	0.55	0.45	0.11	0.70
Control Delay	93.1	70.0		87.0	92.4	5.3	8.3	9.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	93.1	70.0		87.0	92.4	5.3	8.3	9.2
LOS	F	E		F	F	A	A	A
Approach Delay		79.8		87.0		11.4		9.2
Approach LOS		E		F		B		A

### Intersection Summary

Cycle Length: 180  
 Actuated Cycle Length: 180  
 Offset: 69 (38%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 19.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 80.2%  
 ICU Level of Service D  
 Analysis Period (min) 15

### Splits and Phases: 3: W Grant ST & Orange AV



Queues

3: W Grant ST & Orange AV

3/5/2013



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	160	217	62	87	1155	33	1541
v/c Ratio	0.64	0.67	0.51	0.55	0.45	0.11	0.70
Control Delay	93.1	70.0	87.0	92.4	5.3	8.3	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.1	70.0	87.0	92.4	5.3	8.3	9.2
Queue Length 50th (ft)	96	212	66	82	350	7	189
Queue Length 95th (ft)	140	303	119	m123	527	m10	228
Internal Link Dist (ft)		807	703		1264		1264
Turn Bay Length (ft)	260			85		120	
Base Capacity (vph)	257	504	276	171	2590	301	2192
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.43	0.22	0.51	0.45	0.11	0.70

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 3: W Grant ST & Orange AV

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	109	108	19	33	10	87	1137	18	33	1462	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	4.5			4.5		4.5	5.0		5.0	5.0	
Lane Util. Factor	0.97	1.00			1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.93			0.98		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3433	1724			1795		1770	3354		1770	3336	
Flt Permitted	0.95	1.00			0.83		0.95	1.00		0.25	1.00	
Satd. Flow (perm)	3433	1724			1506		1770	3354		457	3336	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	160	109	108	19	33	10	87	1137	18	33	1462	79
RTOR Reduction (vph)	0	23	0	0	5	0	0	0	0	0	2	0
Lane Group Flow (vph)	160	194	0	0	57	0	87	1155	0	33	1539	0
Parking (#/hr)								0			0	
Turn Type	Prot			Perm			Prot			Perm		
Protected Phases	3	8			4		1	6			2	
Permitted Phases				4						2		
Actuated Green, G (s)	11.2	29.6			11.9		14.2	137.9		117.2	117.2	
Effective Green, g (s)	13.2	31.6			13.9		16.2	138.9		118.2	118.2	
Actuated g/C Ratio	0.07	0.18			0.08		0.09	0.77		0.66	0.66	
Clearance Time (s)	6.5	6.5			6.5		6.5	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	252	303			116		159	2588		300	2191	
v/s Ratio Prot	0.05	c0.11					c0.05	0.34			c0.46	
v/s Ratio Perm					0.04					0.07		
v/c Ratio	0.63	0.64			0.49		0.55	0.45		0.11	0.70	
Uniform Delay, d1	81.1	68.9			79.7		78.4	7.2		11.4	19.7	
Progression Factor	1.00	1.00			1.00		1.06	0.65		0.57	0.39	
Incremental Delay, d2	5.2	4.4			3.3		3.0	0.4		0.4	1.0	
Delay (s)	86.2	73.3			83.0		85.9	5.1		6.8	8.7	
Level of Service	F	E			F		F	A		A	A	
Approach Delay (s)		78.8			83.0			10.7			8.6	
Approach LOS		E			F			B			A	

### Intersection Summary

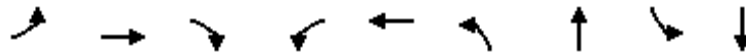
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	14.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

# Timings

## 4: W Kaley ST. & Orange Av

3/5/2013

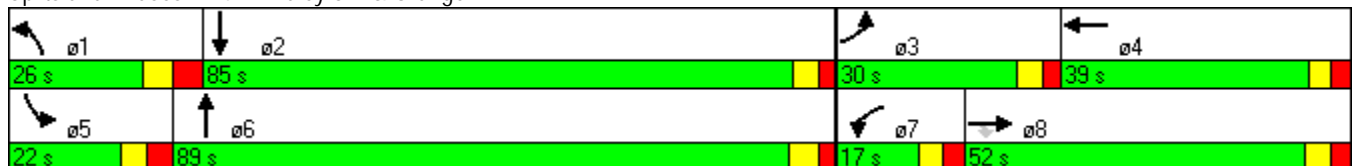


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	191	377	348	79	167	138	1108	82	1227
Turn Type	Prot		Perm	Prot		Prot		Prot	
Protected Phases	3	8		7	4	1	6	5	2
Permitted Phases			8						
Detector Phase	3	8	8	7	4	1	6	5	2
Switch Phase									
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	20.0	7.0	20.0
Minimum Split (s)	15.0	37.5	37.5	15.0	39.0	15.0	31.5	15.0	35.0
Total Split (s)	30.0	52.0	52.0	17.0	39.0	26.0	89.0	22.0	85.0
Total Split (%)	16.7%	28.9%	28.9%	9.4%	21.7%	14.4%	49.4%	12.2%	47.2%
Yellow Time (s)	3.5	3.5	3.5	3.0	3.0	4.0	4.0	3.5	3.5
All-Red Time (s)	2.5	3.0	3.0	3.0	3.0	4.0	2.5	3.5	2.5
Lost Time Adjust (s)	0.0	-2.0	-2.0	0.0	-2.0	0.0	-2.0	0.0	-2.0
Total Lost Time (s)	6.0	4.5	4.5	6.0	4.0	8.0	4.5	7.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	Max	C-Max	None	C-Max
Act Effct Green (s)	22.0	42.5	42.5	10.3	31.3	23.7	93.1	12.1	81.0
Actuated g/C Ratio	0.12	0.24	0.24	0.06	0.17	0.13	0.52	0.07	0.45
v/c Ratio	0.88	0.86	0.66	0.78	0.71	0.59	0.70	0.69	0.92
Control Delay	113.8	84.4	31.7	125.9	81.9	113.0	21.3	117.8	30.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.8	84.4	31.7	125.9	81.9	113.0	21.3	117.8	30.4
LOS	F	F	C	F	F	F	C	F	C
Approach Delay		70.5			94.4		30.7		35.3
Approach LOS		E			F		C		D

### Intersection Summary

Cycle Length: 180  
 Actuated Cycle Length: 180  
 Offset: 40 (22%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 46.0  
 Intersection LOS: D  
 Intersection Capacity Utilization 90.7%  
 ICU Level of Service E  
 Analysis Period (min) 15

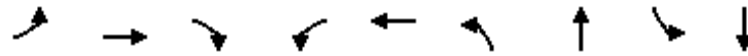
### Splits and Phases: 4: W Kaley ST. & Orange Av



Queues

4: W Kaley ST. & Orange Av

3/5/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	191	377	348	79	200	138	1206	82	1374
v/c Ratio	0.88	0.86	0.66	0.78	0.71	0.59	0.70	0.69	0.92
Control Delay	113.8	84.4	31.7	125.9	81.9	113.0	21.3	117.8	30.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.8	84.4	31.7	125.9	81.9	113.0	21.3	117.8	30.4
Queue Length 50th (ft)	223	426	163	94	220	172	626	101	156
Queue Length 95th (ft)	#357	549	279	#186	313	#283	752	164	405
Internal Link Dist (ft)		802			953		1264		1256
Turn Bay Length (ft)	175			90		170		90	
Base Capacity (vph)	236	492	563	108	315	233	1721	148	1494
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.77	0.62	0.73	0.63	0.59	0.70	0.55	0.92

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis

## 4: W Kaley ST. & Orange Av

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	377	348	79	167	33	138	1108	98	82	1227	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	4.5	4.5	6.0	4.0		8.0	4.5		7.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583	1770	1600		1770	3321		1770	3308	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583	1770	1817		1770	3321		1770	3308	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	191	377	348	79	167	33	138	1108	98	82	1227	147
RTOR Reduction (vph)	0	0	151	0	4	0	0	3	0	0	5	0
Lane Group Flow (vph)	191	377	197	79	196	0	138	1203	0	82	1369	0
Parking (#/hr)								0			0	
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases			8									
Actuated Green, G (s)	22.0	40.5	40.5	10.3	29.3		23.7	91.1		12.1	79.0	
Effective Green, g (s)	22.0	42.5	42.5	10.3	31.3		23.7	93.1		12.1	81.0	
Actuated g/C Ratio	0.12	0.24	0.24	0.06	0.17		0.13	0.52		0.07	0.45	
Clearance Time (s)	6.0	6.5	6.5	6.0	6.0		8.0	6.5		7.0	6.0	
Vehicle Extension (s)	2.0	3.0	3.0	2.0	3.0		2.5	3.0		2.0	3.0	
Lane Grp Cap (vph)	216	440	374	101	278		233	1718		119	1489	
v/s Ratio Prot	c0.11	c0.20		0.04	0.12		c0.08	c0.36		0.05	c0.41	
v/s Ratio Perm			0.12									
v/c Ratio	0.88	0.86	0.53	0.78	0.70		0.59	0.70		0.69	0.92	
Uniform Delay, d1	77.7	65.8	60.0	83.7	70.0		73.6	32.9		82.1	46.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.39	0.55		1.14	0.44	
Incremental Delay, d2	31.2	15.1	1.3	29.5	7.9		9.7	2.2		11.1	9.6	
Delay (s)	109.0	80.9	61.3	113.3	77.9		111.7	20.4		104.6	30.0	
Level of Service	F	F	E	F	E		F	C		F	C	
Approach Delay (s)		79.3			87.9			29.7			34.2	
Approach LOS		E			F			C			C	

### Intersection Summary

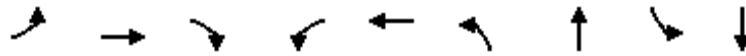
HCM Average Control Delay	46.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	27.0
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

# Timings

## 5: W Miller ST. & Orange Avenue

3/5/2013

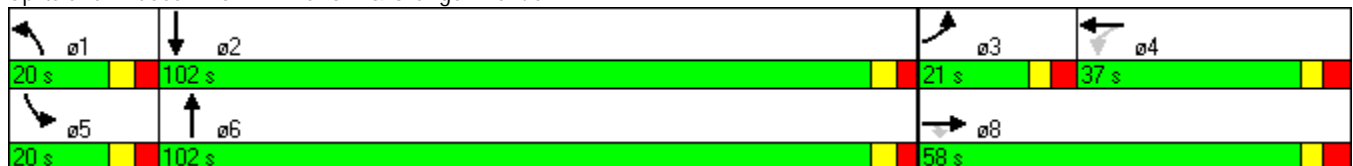


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↖	↑	↗		↔	↖	↕	↖	↕
Volume (vph)	154	84	188	30	9	95	1231	70	1153
Turn Type	Prot		Perm	Perm		Prot		Prot	
Protected Phases	3	8			4	1	6	5	2
Permitted Phases			8	4					
Detector Phase	3	8	8	4	4	1	6	5	2
Switch Phase									
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	20.0	7.0	20.0
Minimum Split (s)	15.0	41.0	41.0	36.0	36.0	15.0	39.5	15.0	38.5
Total Split (s)	21.0	58.0	58.0	37.0	37.0	20.0	102.0	20.0	102.0
Total Split (%)	11.7%	32.2%	32.2%	20.6%	20.6%	11.1%	56.7%	11.1%	56.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.5	3.5	3.5	3.5
All-Red Time (s)	3.5	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0
Lost Time Adjust (s)	-3.0	-3.0	0.0	-3.0	-3.0	-1.5	-1.0	-1.0	-1.0
Total Lost Time (s)	3.5	4.0	7.0	4.0	4.0	5.0	5.5	5.5	5.5
Lead/Lag	Lead			Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.5	37.7	34.7		16.7	16.5	113.8	13.5	111.3
Actuated g/C Ratio	0.10	0.21	0.19		0.09	0.09	0.63	0.08	0.62
v/c Ratio	0.90	0.22	0.41		0.51	0.59	0.59	0.53	0.56
Control Delay	123.9	59.3	9.5		90.2	97.1	9.7	116.3	27.8
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.1
Total Delay	123.9	59.3	9.5		90.2	97.1	9.7	116.3	27.9
LOS	F	E	A		F	F	A	F	C
Approach Delay		60.7			90.2		15.6		32.7
Approach LOS		E			F		B		C

### Intersection Summary

Cycle Length: 180  
 Actuated Cycle Length: 180  
 Offset: 62 (34%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 110  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 30.1  
 Intersection LOS: C  
 Intersection Capacity Utilization 70.1%  
 ICU Level of Service C  
 Analysis Period (min) 15

### Splits and Phases: 5: W Miller ST. & Orange Avenue

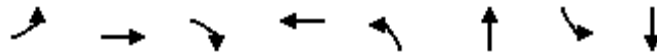




# Queues

## 5: W Miller ST. & Orange Avenue

3/5/2013



Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	154	84	188	69	95	1311	70	1217
v/c Ratio	0.90	0.22	0.41	0.51	0.59	0.59	0.53	0.56
Control Delay	123.9	59.3	9.5	90.2	97.1	9.7	116.3	27.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	123.9	59.3	9.5	90.2	97.1	9.7	116.3	27.9
Queue Length 50th (ft)	183	83	0	79	116	160	85	256
Queue Length 95th (ft)	#330	133	70	134	m167	190	145	693
Internal Link Dist (ft)		797		923		1256		828
Turn Bay Length (ft)	250		190		105		140	
Base Capacity (vph)	172	559	583	265	172	2220	152	2174
Starvation Cap Reductn	0	0	0	0	0	0	0	188
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.15	0.32	0.26	0.55	0.59	0.46	0.61

### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 5: W Miller ST. & Orange Avenue

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	154	84	188	30	9	30	95	1231	80	70	1153	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	4.0	7.0		4.0		5.0	5.5		5.5	5.5	
Lane Util. Factor	1.00	1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85		0.94		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00	1.00		0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583		1716		1770	3507		1770	3511	
Flt Permitted	0.95	1.00	1.00		0.83		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583		1448		1770	3507		1770	3511	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	154	84	188	30	9	30	95	1231	80	70	1153	64
RTOR Reduction (vph)	0	0	152	0	0	0	0	2	0	0	2	0
Lane Group Flow (vph)	154	84	36	0	69	0	95	1309	0	70	1215	0
Turn Type	Prot		Perm	Perm			Prot			Prot		
Protected Phases	3	8			4		1	6		5	2	
Permitted Phases			8	4								
Actuated Green, G (s)	14.5	34.7	34.7		13.7		15.0	112.8		12.5	110.3	
Effective Green, g (s)	17.5	37.7	34.7		16.7		16.5	113.8		13.5	111.3	
Actuated g/C Ratio	0.10	0.21	0.19		0.09		0.09	0.63		0.08	0.62	
Clearance Time (s)	6.5	7.0	7.0		7.0		6.5	6.5		6.5	6.5	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	172	390	305		134		162	2217		133	2171	
v/s Ratio Prot	c0.09	0.05					c0.05	c0.37		0.04	0.35	
v/s Ratio Perm			0.02		c0.05							
v/c Ratio	0.90	0.22	0.12		0.51		0.59	0.59		0.53	0.56	
Uniform Delay, d1	80.3	58.9	60.0		77.8		78.5	19.4		80.2	20.0	
Progression Factor	1.00	1.00	1.00		1.00		1.11	0.43		1.30	1.26	
Incremental Delay, d2	39.9	0.3	0.2		3.3		3.9	0.8		3.5	1.0	
Delay (s)	120.3	59.2	60.2		81.1		91.1	9.2		107.4	26.3	
Level of Service	F	E	E		F		F	A		F	C	
Approach Delay (s)		81.7			81.1			14.7			30.8	
Approach LOS		F			F			B			C	

### Intersection Summary

HCM Average Control Delay	31.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	70.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 6: Copeland Dr & Orange Avenue

3/5/2013



Lane Group	WBL	WBR	NBT	SBT
Lane Configurations				
Volume (vph)	40	64	1401	1256
Turn Type	custom			
Protected Phases			2	2
Permitted Phases	4	4		
Detector Phase	4	4	2	2
Switch Phase				
Minimum Initial (s)	7.0	7.0	20.0	20.0
Minimum Split (s)	35.0	35.0	29.0	29.0
Total Split (s)	35.0	35.0	145.0	145.0
Total Split (%)	19.4%	19.4%	80.6%	80.6%
Yellow Time (s)	3.0	3.0	3.5	3.5
All-Red Time (s)	3.0	3.0	2.5	2.5
Lost Time Adjust (s)	-2.0	0.0	-2.0	-2.0
Total Lost Time (s)	4.0	6.0	4.0	4.0
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	C-Max	C-Max
Act Effct Green (s)	11.7	9.7	160.3	160.3
Actuated g/C Ratio	0.06	0.05	0.89	0.89
v/c Ratio	0.35	0.44	0.44	0.40
Control Delay	88.0	25.5	1.6	7.9
Queue Delay	0.0	0.0	0.0	0.4
Total Delay	88.0	25.5	1.6	8.3
LOS	F	C	A	A
Approach Delay	49.5		1.6	8.3
Approach LOS	D		A	A

### Intersection Summary

Cycle Length: 180	
Actuated Cycle Length: 180	
Offset: 82 (46%), Referenced to phase 2:NBSB, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 6.5	Intersection LOS: A
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Copeland Dr & Orange Avenue



# Queues

## 6: Copeland Dr & Orange Avenue

3/5/2013



Lane Group	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	40	64	1401	1256
v/c Ratio	0.35	0.44	0.44	0.40
Control Delay	88.0	25.5	1.6	7.9
Queue Delay	0.0	0.0	0.0	0.4
Total Delay	88.0	25.5	1.6	8.3
Queue Length 50th (ft)	46	0	100	401
Queue Length 95th (ft)	90	54	108	611
Internal Link Dist (ft)	836		828	484
Turn Bay Length (ft)				
Base Capacity (vph)	305	309	3151	3151
Starvation Cap Reductn	0	0	152	1164
Spillback Cap Reductn	0	1	48	60
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.13	0.21	0.47	0.63

### Intersection Summary

# HCM Signalized Intersection Capacity Analysis

## 6: Copeland Dr & Orange Avenue

3/5/2013



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	40	64	1401	0	0	1256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	6.0	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1770	1583	3539			3539
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1770	1583	3539			3539
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	40	64	1401	0	0	1256
RTOR Reduction (vph)	0	61	0	0	0	0
Lane Group Flow (vph)	40	3	1401	0	0	1256
Turn Type	custom		Perm			
Protected Phases			2			2
Permitted Phases	4	4			2	
Actuated Green, G (s)	9.7	9.7	158.3			158.3
Effective Green, g (s)	11.7	9.7	160.3			160.3
Actuated g/C Ratio	0.06	0.05	0.89			0.89
Clearance Time (s)	6.0	6.0	6.0			6.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	115	85	3152			3152
v/s Ratio Prot			c0.40			0.35
v/s Ratio Perm	c0.02	0.00				
v/c Ratio	0.35	0.04	0.44			0.40
Uniform Delay, d1	80.5	80.7	1.8			1.7
Progression Factor	1.00	1.00	0.66			4.28
Incremental Delay, d2	1.8	0.2	0.4			0.3
Delay (s)	82.3	80.9	1.5			7.5
Level of Service	F	F	A			A
Approach Delay (s)	81.5		1.5			7.5
Approach LOS	F		A			A

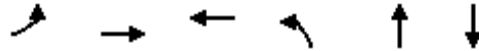
### Intersection Summary

HCM Average Control Delay	7.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 7: Columbia ST. & Orange Avenue

3/5/2013

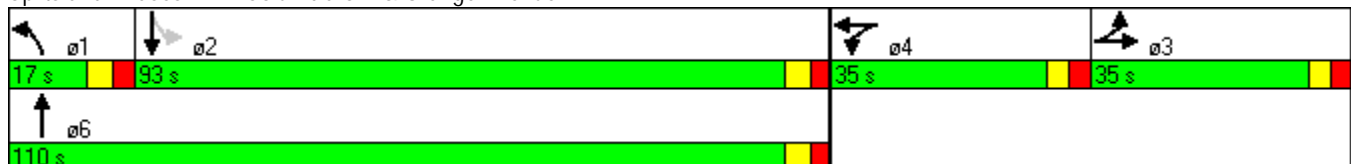


Lane Group	EBL	EBT	WBT	NBL	NBT	SBT
Lane Configurations						
Volume (vph)	488	0	0	39	1307	1039
Turn Type	Split			Prot		
Protected Phases	3	3	4	1	6	2
Permitted Phases						
Detector Phase	3	3	4	1	6	2
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	7.0	20.0	20.0
Minimum Split (s)	35.0	35.0	35.0	15.0	32.0	32.0
Total Split (s)	35.0	35.0	35.0	17.0	110.0	93.0
Total Split (%)	19.4%	19.4%	19.4%	9.4%	61.1%	51.7%
Yellow Time (s)	3.0	3.0	3.0	3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	2.5	2.5
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-1.5	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lead	Lead		Lag
Lead-Lag Optimize?						
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	33.4	33.4	9.2	11.1	132.2	118.7
Actuated g/C Ratio	0.19	0.19	0.05	0.06	0.73	0.66
v/c Ratio	0.76	0.24	0.14	0.36	0.50	0.47
Control Delay	77.6	1.0	45.5	103.8	7.3	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0
Total Delay	77.6	1.0	45.5	103.8	7.6	8.0
LOS	E	A	D	F	A	A
Approach Delay		59.9	45.5		10.4	8.0
Approach LOS		E	D		B	A

### Intersection Summary

Cycle Length: 180  
 Actuated Cycle Length: 180  
 Offset: 151 (84%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow  
 Natural Cycle: 120  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 19.9  
 Intersection LOS: B  
 Intersection Capacity Utilization 64.2%  
 ICU Level of Service C  
 Analysis Period (min) 15

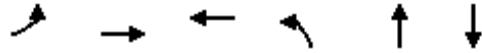
### Splits and Phases: 7: Columbia ST. & Orange Avenue



# Queues

## 7: Columbia ST. & Orange Avenue

3/5/2013


























Lane Group	EBL	EBT	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	488	146	13	39	1308	1090
v/c Ratio	0.76	0.24	0.14	0.36	0.50	0.47
Control Delay	77.6	1.0	45.5	103.8	7.3	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.3	0.0
Total Delay	77.6	1.0	45.5	103.8	7.6	8.0
Queue Length 50th (ft)	285	0	4	49	170	127
Queue Length 95th (ft)	338	0	30	85	427	143
Internal Link Dist (ft)		752	638		484	1088
Turn Bay Length (ft)	280			130		
Base Capacity (vph)	658	609	293	124	2598	2319
Starvation Cap Reductn	0	0	0	0	608	0
Spillback Cap Reductn	0	8	0	0	0	79
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.24	0.04	0.31	0.66	0.49

### Intersection Summary

# HCM Signalized Intersection Capacity Analysis

## 7: Columbia ST. & Orange Avenue

3/5/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 				 			 			 	
Volume (vph)	488	0	146	3	0	10	39	1307	1	0	1039	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0		5.0	5.0			5.0	
Lane Util. Factor	0.97	1.00			1.00		1.00	0.95			0.95	
Frt	1.00	0.85			0.90		1.00	1.00			0.99	
Flt Protected	0.95	1.00			0.99		0.95	1.00			1.00	
Satd. Flow (prot)	3433	1583			1650		1770	3539			3514	
Flt Permitted	0.95	1.00			0.99		0.95	1.00			1.00	
Satd. Flow (perm)	3433	1583			1650		1770	3539			3514	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	488	0	146	3	0	10	39	1307	1	0	1039	51
RTOR Reduction (vph)	0	119	0	0	10	0	0	0	0	0	1	0
Lane Group Flow (vph)	488	27	0	0	3	0	39	1308	0	0	1089	0
Turn Type	Split			Split			Prot			Perm		
Protected Phases	3	3		4	4		1	6			2	
Permitted Phases										2		
Actuated Green, G (s)	31.4	31.4			3.0		8.2	127.6			112.9	
Effective Green, g (s)	33.4	33.4			5.0		9.7	128.6			113.9	
Actuated g/C Ratio	0.19	0.19			0.03		0.05	0.71			0.63	
Clearance Time (s)	6.0	6.0			6.0		6.5	6.0			6.0	
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	637	294			46		95	2528			2224	
v/s Ratio Prot	c0.14	0.02			c0.00		0.02	c0.37			0.31	
v/s Ratio Perm												
v/c Ratio	0.77	0.09			0.07		0.41	0.52			0.49	
Uniform Delay, d1	69.6	60.7			85.2		82.4	11.6			17.6	
Progression Factor	1.00	1.00			1.00		1.19	0.57			0.42	
Incremental Delay, d2	5.5	0.1			0.7		2.6	0.7			0.7	
Delay (s)	75.1	60.9			85.9		100.6	7.4			8.0	
Level of Service	E	E			F		F	A			A	
Approach Delay (s)		71.8			85.9			10.1			8.0	
Approach LOS		E			F			B			A	
<b>Intersection Summary</b>												
HCM Average Control Delay			22.4				HCM Level of Service				C	
HCM Volume to Capacity ratio			0.55									
Actuated Cycle Length (s)			180.0				Sum of lost time (s)			13.0		
Intersection Capacity Utilization			64.2%				ICU Level of Service			C		
Analysis Period (min)			15									
c	Critical Lane Group											



# Timings

## 8: W Gore ST & Orange Avenue

3/5/2013



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↕	↖	↕	↖	↕	↖	↕	↗
Volume (vph)	231	299	38	95	157	1474	109	920	123
Turn Type	Prot		Prot		Prot		Prot		Perm
Protected Phases	3	8	7	4	1	6	5	2	
Permitted Phases									2
Detector Phase	3	8	7	4	1	6	5	2	2
Switch Phase									
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	20.0	7.0	20.0	20.0
Minimum Split (s)	15.0	39.5	15.0	43.5	15.0	31.0	15.0	37.0	37.0
Total Split (s)	31.0	56.0	17.0	42.0	28.0	89.0	18.0	79.0	79.0
Total Split (%)	17.2%	31.1%	9.4%	23.3%	15.6%	49.4%	10.0%	43.9%	43.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	2.5	3.5	2.5	2.5
Lost Time Adjust (s)	-1.0	-2.0	-1.0	-2.0	-1.0	-2.0	-1.0	-2.0	-2.0
Total Lost Time (s)	5.5	4.5	5.5	4.5	5.5	4.0	6.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effect Green (s)	25.5	34.9	10.2	16.8	24.5	95.6	22.1	93.7	93.7
Actuated g/C Ratio	0.14	0.19	0.06	0.09	0.14	0.53	0.12	0.52	0.52
v/c Ratio	1.02	0.72	0.42	0.48	0.72	0.93	0.56	0.56	0.16
Control Delay	138.5	67.5	95.8	47.6	97.5	36.9	97.3	27.4	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	138.5	67.5	95.8	47.6	97.5	36.9	97.3	27.4	4.9
LOS	F	E	F	D	F	D	F	C	A
Approach Delay		91.5		56.6		42.4		31.7	
Approach LOS		F		E		D		C	

### Intersection Summary

Cycle Length: 180  
 Actuated Cycle Length: 180  
 Offset: 128 (71%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 125  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.02  
 Intersection Signal Delay: 48.8  
 Intersection LOS: D  
 Intersection Capacity Utilization 91.4%  
 ICU Level of Service F  
 Analysis Period (min) 15

### Splits and Phases: 8: W Gore ST & Orange Avenue



Queues

8: W Gore ST & Orange Avenue

3/5/2013



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	231	451	38	165	157	1564	109	920	123
v/c Ratio	1.02	0.72	0.42	0.48	0.72	0.93	0.56	0.56	0.16
Control Delay	138.5	67.5	95.8	47.6	97.5	36.9	97.3	27.4	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	138.5	67.5	95.8	47.6	97.5	36.9	97.3	27.4	4.9
Queue Length 50th (ft)	~289	243	44	56	171	974	132	259	6
Queue Length 95th (ft)	#480	296	89	94	m237	#1185	204	555	29
Internal Link Dist (ft)		1092		1228		1088		827	
Turn Bay Length (ft)	85		185		245		50		
Base Capacity (vph)	226	901	102	676	229	1679	195	1657	787
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.50	0.37	0.24	0.69	0.93	0.56	0.56	0.16

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 8: W Gore ST & Orange Avenue

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	231	299	152	38	95	70	157	1474	90	109	920	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.5	4.5		5.5	4.5		5.5	4.0		6.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.95		1.00	0.94		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1593	3024		1593	2983		1593	3158		1593	3185	1425
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1593	3024		1593	2983		1593	3158		1593	3185	1425
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	231	299	152	38	95	70	157	1474	90	109	920	123
RTOR Reduction (vph)	0	40	0	0	63	0	0	2	0	0	0	47
Lane Group Flow (vph)	231	411	0	38	102	0	157	1562	0	109	920	76
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	24.5	32.9		7.8	16.2		23.5	92.2		21.1	90.3	90.3
Effective Green, g (s)	25.5	34.9		8.8	18.2		24.5	94.2		22.1	92.3	92.3
Actuated g/C Ratio	0.14	0.19		0.05	0.10		0.14	0.52		0.12	0.51	0.51
Clearance Time (s)	6.5	6.5		6.5	6.5		6.5	6.0		7.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	226	586		78	302		217	1653		196	1633	731
v/s Ratio Prot	c0.15	c0.14		0.02	0.03		c0.10	c0.49		0.07	0.29	
v/s Ratio Perm												0.05
v/c Ratio	1.02	0.70		0.49	0.34		0.72	0.94		0.56	0.56	0.10
Uniform Delay, d1	77.2	67.7		83.4	75.3		74.5	40.4		74.3	30.0	22.6
Progression Factor	1.00	1.00		1.00	1.00		1.10	0.68		1.16	0.84	0.58
Incremental Delay, d2	65.7	3.8		4.7	0.7		9.5	10.8		3.3	1.4	0.3
Delay (s)	143.0	71.5		88.1	76.0		91.8	38.2		89.5	26.5	13.4
Level of Service	F	E		F	E		F	D		F	C	B
Approach Delay (s)		95.7			78.2			43.1			31.1	
Approach LOS		F			E			D			C	

### Intersection Summary

HCM Average Control Delay	50.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	180.0	Sum of lost time (s)	11.0
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

# Timings

## 9: S Lucerne CR & Orange Avenue

3/5/2013

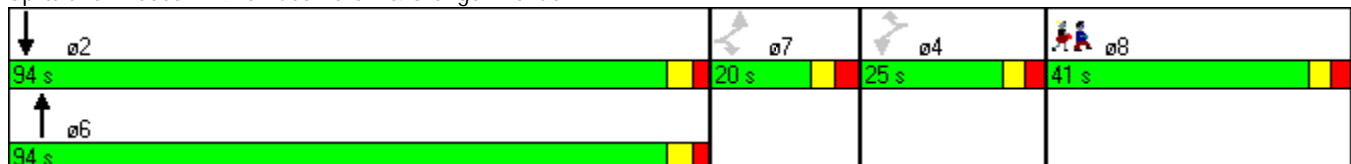


Lane Group	EBL	EBR	WBL	WBR	NBT	SBT	ø8
Lane Configurations							
Volume (vph)	177	69	79	189	1769	944	
Turn Type	custom	custom	custom	custom			
Protected Phases					6	2	8
Permitted Phases	7	7	4	4			
Detector Phase	7	7	4	4	6	2	
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	7.0	20.0	20.0	7.0
Minimum Split (s)	41.0	41.0	41.0	41.0	30.0	26.0	41.0
Total Split (s)	20.0	20.0	25.0	25.0	94.0	94.0	41.0
Total Split (%)	11.1%	11.1%	13.9%	13.9%	52.2%	52.2%	23%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5	3.0
All-Red Time (s)	3.5	3.5	3.0	3.0	2.5	2.5	3.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	
Total Lost Time (s)	4.5	4.5	4.0	4.0	4.0	4.0	
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	None	C-Max	C-Max	None
Act Effect Green (s)	15.5	15.5	14.7	14.7	137.3	137.3	
Actuated g/C Ratio	0.09	0.09	0.08	0.08	0.76	0.76	
v/c Ratio	1.29	0.44	0.41	0.65	0.51	0.27	
Control Delay	233.9	46.7	84.2	19.9	2.3	6.8	
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	
Total Delay	233.9	46.7	84.2	19.9	2.5	6.8	
LOS	F	D	F	B	A	A	
Approach Delay					2.5	6.8	
Approach LOS					A	A	

### Intersection Summary

Cycle Length: 180  
 Actuated Cycle Length: 180  
 Offset: 170 (94%), Referenced to phase 2:SBT and 6:NBT, Start of Yellow  
 Natural Cycle: 155  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.29  
 Intersection Signal Delay: 20.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 71.9%  
 ICU Level of Service C  
 Analysis Period (min) 15

### Splits and Phases: 9: S Lucerne CR & Orange Avenue



# Queues

## 9: S Lucerne CR & Orange Avenue

3/5/2013



Lane Group	EBL	EBR	WBL	WBR	NBT	SBT
Lane Group Flow (vph)	177	69	79	189	1769	944
v/c Ratio	1.29	0.44	0.41	0.65	0.51	0.27
Control Delay	233.9	46.7	84.2	19.9	2.3	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay	233.9	46.7	84.2	19.9	2.5	6.8
Queue Length 50th (ft)	~265	34	61	0	55	110
Queue Length 95th (ft)	#439	92	99	85	m61	145
Internal Link Dist (ft)					827	351
Turn Bay Length (ft)		90		200		
Base Capacity (vph)	137	158	275	333	3492	3492
Starvation Cap Reductn	0	0	0	0	720	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.29	0.44	0.29	0.57	0.64	0.27
























### Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

# HCM Signalized Intersection Capacity Analysis

## 9: S Lucerne CR & Orange Avenue

3/5/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				 				  			  	
Volume (vph)	177	0	69	79	0	189	0	1769	0	0	944	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5		4.5	4.0		4.0		4.0			4.0	
Lane Util. Factor	1.00		1.00	*0.74		1.00		0.91			0.91	
Frt	1.00		0.85	1.00		0.85		1.00			1.00	
Flt Protected	0.95		1.00	0.95		1.00		1.00			1.00	
Satd. Flow (prot)	1593		1425	2357		1425		4577			4577	
Flt Permitted	0.95		1.00	0.95		1.00		1.00			1.00	
Satd. Flow (perm)	1593		1425	2357		1425		4577			4577	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	177	0	69	79	0	189	0	1769	0	0	944	0
RTOR Reduction (vph)	0	0	36	0	0	174	0	0	0	0	0	0
Lane Group Flow (vph)	177	0	33	79	0	15	0	1769	0	0	944	0
Turn Type	custom		custom	custom		custom						
Protected Phases								6			2	
Permitted Phases	7		7	4		4						
Actuated Green, G (s)	13.5		13.5	12.7		12.7		135.3			135.3	
Effective Green, g (s)	15.5		15.5	14.7		14.7		137.3			137.3	
Actuated g/C Ratio	0.09		0.09	0.08		0.08		0.76			0.76	
Clearance Time (s)	6.5		6.5	6.0		6.0		6.0			6.0	
Vehicle Extension (s)	4.0		4.0	4.0		4.0		3.0			3.0	
Lane Grp Cap (vph)	137		123	192		116		3491			3491	
v/s Ratio Prot								c0.39			0.21	
v/s Ratio Perm	c0.11		0.02	c0.03		0.01						
v/c Ratio	1.29		0.27	0.41		0.13		0.51			0.27	
Uniform Delay, d1	82.2		77.0	78.5		76.7		8.3			6.4	
Progression Factor	1.00		1.00	1.00		1.00		0.25			1.00	
Incremental Delay, d2	175.0		1.6	2.0		0.7		0.2			0.2	
Delay (s)	257.3		78.6	80.5		77.4		2.2			6.6	
Level of Service	F		E	F		E		A			A	
Approach Delay (s)		207.2			78.3			2.2			6.6	
Approach LOS		F			E			A			A	
<b>Intersection Summary</b>												
HCM Average Control Delay			25.5								HCM Level of Service	C
HCM Volume to Capacity ratio			0.57									
Actuated Cycle Length (s)			180.0								Sum of lost time (s)	12.5
Intersection Capacity Utilization			71.9%								ICU Level of Service	C
Analysis Period (min)			15									
c	Critical Lane Group											

# Timings

## 10: Anderson St & Rosaline Ave

3/5/2013



Lane Group	EBT	NBT
Lane Configurations		
Volume (vph)	1866	1440
Turn Type		
Protected Phases	4	2
Permitted Phases		
Detector Phase	4	2
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	20.5	20.5
Total Split (s)	32.0	28.0
Total Split (%)	53.3%	46.7%
Yellow Time (s)	4.0	4.0
All-Red Time (s)	0.5	0.5
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	4.5	4.5
Lead/Lag		
Lead-Lag Optimize?		
Recall Mode	Max	Max
Act Effct Green (s)	27.5	23.5
Actuated g/C Ratio	0.46	0.39
v/c Ratio	0.89	0.88
Control Delay	21.7	23.7
Queue Delay	0.0	0.0
Total Delay	21.7	23.7
LOS	C	C
Approach Delay	21.7	23.7
Approach LOS	C	C

### Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 60

Control Type: Pretimed

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 22.6

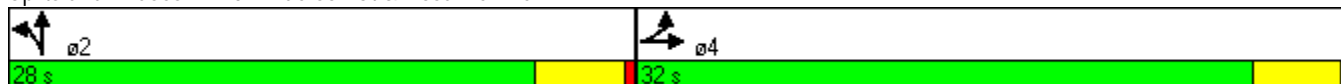
Intersection LOS: C

Intersection Capacity Utilization 81.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 10: Anderson St & Rosaline Ave



## Queues

### 10: Anderson St & Rosaline Ave

3/5/2013



Lane Group	EBT	NBT
Lane Group Flow (vph)	2073	1713
v/c Ratio	0.89	0.88
Control Delay	21.7	23.7
Queue Delay	0.0	0.0
Total Delay	21.7	23.7
Queue Length 50th (ft)	236	202
Queue Length 95th (ft)	#322	#276
Internal Link Dist (ft)	370	370
Turn Bay Length (ft)		
Base Capacity (vph)	2319	1954
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.89	0.88

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



# HCM Signalized Intersection Capacity Analysis

## 10: Anderson St & Rosaline Ave

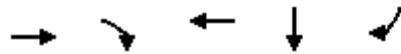
3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑						↑↑↑				
Volume (vph)	207	1866	0	0	0	0	93	1440	180	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5						4.5				
Lane Util. Factor		0.91						0.91				
Frbp, ped/bikes		1.00						1.00				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.98				
Flt Protected		1.00						1.00				
Satd. Flow (prot)		5060						4992				
Flt Permitted		1.00						1.00				
Satd. Flow (perm)		5060						4992				
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	207	1866	0	0	0	0	93	1440	180	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	2073	0	0	0	0	0	1713	0	0	0	0
Confl. Peds. (#/hr)			995									
Turn Type	Split						Split					
Protected Phases	4	4					2	2				
Permitted Phases												
Actuated Green, G (s)		27.5						23.5				
Effective Green, g (s)		27.5						23.5				
Actuated g/C Ratio		0.46						0.39				
Clearance Time (s)		4.5						4.5				
Lane Grp Cap (vph)		2319						1955				
v/s Ratio Prot		c0.41						c0.34				
v/s Ratio Perm												
v/c Ratio		0.89						0.88				
Uniform Delay, d1		14.9						16.9				
Progression Factor		1.00						1.00				
Incremental Delay, d2		5.8						5.9				
Delay (s)		20.7						22.8				
Level of Service		C						C				
Approach Delay (s)		20.7			0.0			22.8			0.0	
Approach LOS		C			A			C			A	
<b>Intersection Summary</b>												
HCM Average Control Delay			21.7				HCM Level of Service				C	
HCM Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			60.0				Sum of lost time (s)			9.0		
Intersection Capacity Utilization			81.5%				ICU Level of Service				D	
Analysis Period (min)			15									
c Critical Lane Group												

Timings  
11: Anderson St &

3/5/2013



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Configurations	↑↑↑	↗	↑	↖↑↑	↗
Volume (vph)	1406	301	93	1348	19
Turn Type		Free			Perm
Protected Phases	4		8	6	
Permitted Phases		Free			6
Detector Phase	4		8	6	6
Switch Phase					
Minimum Initial (s)	4.0		4.0	4.0	4.0
Minimum Split (s)	20.5		20.5	20.5	20.5
Total Split (s)	21.2	0.0	21.2	28.8	28.8
Total Split (%)	42.4%	0.0%	42.4%	57.6%	57.6%
Yellow Time (s)	4.0		4.0	4.0	4.0
All-Red Time (s)	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.0	4.5	4.5	4.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	Max		Max	Max	Max
Act Effct Green (s)	16.7	50.0	16.7	24.3	24.3
Actuated g/C Ratio	0.33	1.00	0.33	0.49	0.49
v/c Ratio	0.83	0.19	0.15	0.83	0.02
Control Delay	21.0	0.3	12.5	15.1	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	0.3	12.5	15.1	3.7
LOS	C	A	B	B	A
Approach Delay	17.3		12.5	15.0	
Approach LOS	B		B	B	

Intersection Summary

Cycle Length: 50  
 Actuated Cycle Length: 50  
 Offset: 0 (0%), Referenced to phase 6:SBTL, Start of Yellow  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.83  
 Intersection Signal Delay: 16.0  
 Intersection LOS: B  
 Intersection Capacity Utilization 74.3%  
 ICU Level of Service D  
 Analysis Period (min) 15

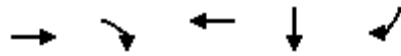
Splits and Phases: 11: Anderson St &



# Queues

## 11: Anderson St &

3/5/2013



Lane Group	EBT	EBR	WBT	SBT	SBR
Lane Group Flow (vph)	1406	301	93	2015	19
v/c Ratio	0.83	0.19	0.15	0.83	0.02
Control Delay	21.0	0.3	12.5	15.1	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	0.3	12.5	15.1	3.7
Queue Length 50th (ft)	135	0	19	169	0
Queue Length 95th (ft)	#189	0	44	227	8
Internal Link Dist (ft)	787		370	129	
Turn Bay Length (ft)					
Base Capacity (vph)	1698	1558	622	2432	763
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	0.83	0.19	0.15	0.83	0.02

### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

# HCM Signalized Intersection Capacity Analysis

## 11: Anderson St &

3/5/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑		↑						↑↑↑	↑
Volume (vph)	0	1406	301	0	93	0	0	0	0	667	1348	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.0		4.5						4.5	4.5
Lane Util. Factor		0.91	1.00		1.00						0.91	1.00
Frbp, ped/bikes		1.00	0.98		1.00						1.00	0.98
Flpb, ped/bikes		1.00	1.00		1.00						1.00	1.00
Frt		1.00	0.85		1.00						1.00	0.85
Flt Protected		1.00	1.00		1.00						0.98	1.00
Satd. Flow (prot)		5085	1558		1863						5002	1549
Flt Permitted		1.00	1.00		1.00						0.98	1.00
Satd. Flow (perm)		5085	1558		1863						5002	1549
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1406	301	0	93	0	0	0	0	667	1348	19
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	10
Lane Group Flow (vph)	0	1406	301	0	93	0	0	0	0	0	2015	9
Confl. Peds. (#/hr)			14			1				1		1
Turn Type			Free							Split		Perm
Protected Phases		4			8					6	6	
Permitted Phases			Free									6
Actuated Green, G (s)		16.7	50.0		16.7						24.3	24.3
Effective Green, g (s)		16.7	50.0		16.7						24.3	24.3
Actuated g/C Ratio		0.33	1.00		0.33						0.49	0.49
Clearance Time (s)		4.5			4.5						4.5	4.5
Lane Grp Cap (vph)		1698	1558		622						2431	753
v/s Ratio Prot		c0.28			0.05						c0.40	
v/s Ratio Perm			0.19									0.01
v/c Ratio		0.83	0.19		0.15						0.83	0.01
Uniform Delay, d1		15.3	0.0		11.7						11.1	6.6
Progression Factor		1.00	1.00		1.00						1.00	1.00
Incremental Delay, d2		4.8	0.3		0.5						3.4	0.0
Delay (s)		20.1	0.3		12.2						14.5	6.7
Level of Service		C	A		B						B	A
Approach Delay (s)		16.6			12.2			0.0			14.4	
Approach LOS		B			B			A			B	

### Intersection Summary

HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	74.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

## **Appendix D**

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### Crash Data

# Collision Summary

Section: 75040 000 State Road: S.R. 527  
 Route: Orange Ave from Pinloch Ave to Gore St M.P.: 11.783 - 13.289 Engineer: DRMP, Inc.  
 Study Period: 01/01/07 TO 12/31/11 County: Orange

No.	FHP Report	Date	Week Day	Mile Post	Time	Type	Fatal	Injury Severity	Prop. Damage	Day / Night	Wet / Dry	Contributing Cause
1	767883960	1/4/2007	Thursday	11.919 SR 527	6:21 PM	Sideswipe	0	1	\$ 600.00	Dawn	Dry	Disreg. Other Traffic Control
2	765888070	1/4/2007	Thursday	12.064 SR 527	4:18 PM	Rear-End	0	2	\$ 700.00	Daylight	Dry	Careless Driving
3	765888850	1/9/2007	Tuesday	12.661 SR 527	3:27 PM	Sideswipe	0	1	\$ 500.00	Daylight	Dry	Careless Driving
4	762559080	1/13/2007	Saturday	12.052 SR 527	9:15 PM	Rear-End	0	1	\$ 500.00	Dark (Street Light)	Dry	Careless Driving
5	765897580	1/21/2007	Sunday	13.076 SR 527	7:10 PM	Rear-End	0	1	\$ 1,000.00	Dark (Street Light)	Dry	Careless Driving
6	765873650	1/22/2007	Monday	12.991 SR 527	6:30 PM	Rear-End	0	1	\$ 200.00	Dark (Street Light)	Wet	Careless Driving
7	762571610	1/25/2007	Thursday	12.033 SR 527	9:15 AM	Sideswipe	0	1	\$ 1,300.00	Daylight	Wet	All Other
8	765898990	1/26/2007	Friday	12.498 SR 527	6:50 PM	Left-Turn	0	2	\$ 1,500.00	Dark (Street Light)	Dry	Failed to Yield
9	767889900	1/29/2007	Monday	12.247 SR 527	1:00 PM	Rear-End	0	1	\$ 300.00	Daylight	Dry	Followed too Closely
10	739052940	1/29/2007	Monday	12.887 SR 527	9:48 AM	Sideswipe	0	1	\$ 150.00	Daylight	Dry	All Other
11	765826340	1/30/2007	Tuesday	12.029 SR 527	10:00 AM	Rear-End	0	3	\$ 14,000.00	Daylight	Dry	Followed too Closely
12	765815530	1/31/2007	Wednesday	12.033 SR 527	1:10 PM	Coll. w/ Bicycle	0	2	\$ -	Daylight	Dry	Failed to Yield
13	765826350	2/2/2007	Friday	12.285 SR 527	6:39 AM	Coll. w/ Pedestrian	0	3	\$ 100.00	Dark (Street Light)	Wet	No Improper Drvng / Act
14	708376540	2/12/2007	Monday	12.033 SR 527	10:53 AM	All Others	0	1	\$ 5,000.00	Daylight	Dry	All Other
15	765855010	3/5/2007	Monday	12.033 SR 527	1:57 PM	Rear-End	0	1	\$ 500.00	Daylight	Dry	All Other
16	765858230	3/15/2007	Thursday	12.033 SR 527	11:33 AM	Rear-End	0	1	\$ 600.00	Daylight	Dry	All Other
17	765873670	3/15/2007	Thursday	12.782 SR 527	2:22 PM	Rear-End	0	2	\$ 4,000.00	Daylight	Wet	Careless Driving
18	763012310	3/22/2007	Thursday	11.783 SR 527	8:00 AM	Left-Turn	0	3	\$ 17,000.00	Daylight	Dry	Failed to Yield
19	767887880	3/28/2007	Wednesday	12.033 SR 527	9:18 AM	Angle	0	3	\$ 22,000.00	Daylight	Dry	Disregarded Traff Sgnl
20	765877450	3/29/2007	Thursday	13.289 SR 527	2:51 PM	Left-Turn	0	3	\$ 7,500.00	Daylight	Dry	Failed to Yield
21	736165840	4/10/2007	Tuesday	13.157 SR 527	2:21 PM	Sideswipe	0	0	\$ 1,000.00	Daylight	Wet	All Other
22	765792690	4/18/2007	Wednesday	12.879 SR 527	3:00 AM	Coll. w/ Parked Car	0	0	\$ 200.00	Dark (Street Light)	Dry	All Other
23	765875510	4/19/2007	Thursday	12.033 SR 527	11:46 AM	Rear-End	0	1	\$ 1,600.00	Daylight	Dry	Followed too Closely
24	765899100	5/7/2007	Monday	12.266 SR 527	9:15 AM	Rear-End	0	3	\$ 4,500.00	Daylight	Dry	Followed too Closely
25	728182610	5/19/2007	Saturday	12.988 SR 527	7:15 PM	Angle	0	1	\$ 6,000.00	Daylight	Dry	Improper Turn
26	765780160	5/25/2007	Friday	12.538 SR 527	3:15 PM	Angle	0	2	\$ 6,000.00	Daylight	Dry	Failed to Yield
27	765825220	6/8/2007	Friday	12.266 SR 527	3:07 PM	Sideswipe	0	1	\$ 200.00	Daylight	Dry	Careless Driving
28	765783080	6/9/2007	Saturday	12.536 SR 527	3:03 AM	Rear-End	0	2	\$ 3,500.00	Dark (Street Light)	Dry	No Improper Drvng / Act
29	765779490	6/19/2007	Tuesday	13.285 SR 527	4:55 PM	Rear-End	0	1	\$ 1,500.00	Daylight	Wet	All Other
30	765779790	6/28/2007	Thursday	12.610 SR 527	2:24 PM	Angle	0	2	\$ 3,500.00	Daylight	Dry	Disregarded Stop Sign
31	765794840	7/3/2007	Tuesday	12.033 SR 527	6:09 PM	All Others	0	1	\$ 500.00	Daylight	Dry	All Other
32	765763680	7/9/2007	Monday	12.215 SR 527	7:30 AM	Coll. w/ Bicycle	0	3	\$ 370.00	Daylight	Dry	Failed to Yield
33	765763420	7/11/2007	Wednesday	12.099 SR 527	3:13 PM	Angle	0	3	\$ 2,500.00	Daylight	Dry	Improper Lane Change
34	765897320	7/21/2007	Saturday	12.536 SR 527	8:46 PM	All Others	0	1	\$ 5,000.00	Dark (Street Light)	Wet	All Other
35	765778700	7/25/2007	Wednesday	12.035 SR 527	4:30 PM	Backed Into	0	1	\$ 225.00	Daylight	Dry	Careless Driving
36	765772620	8/9/2007	Thursday	12.033 SR 527	11:39 AM	Rear-End	0	2	\$ 500.00	Daylight	Dry	Followed too Closely
37	765780020	8/10/2007	Friday	13.251 SR 527	3:46 PM	Rear-End	0	4	\$ 5,500.00	Daylight	Dry	Careless Driving
38	767864360	8/24/2007	Friday	12.549 SR 527	1:56 PM	Rear-End	0	3	\$ 1,000.00	Daylight	Dry	Followed too Closely
39	765766500	8/26/2007	Sunday	12.035 SR 527	2:35 AM	Rear-End	0	1	\$ 500.00	Dark (Street Light)	Dry	Followed too Closely
40	765759070	8/26/2007	Sunday	12.958 SR 527	3:10 AM	Coll. w/ Parked Car	0	1	\$ 800.00	Dark (Street Light)	Dry	Careless Driving
41	765767330	9/1/2007	Saturday	12.033 SR 527	8:34 PM	Rear-End	0	2	\$ 750.00	Dark (Street Light)	Dry	Careless Driving
42	767854810	9/2/2007	Sunday	12.411 SR 527	11:30 AM	Rear-End	0	1	\$ 800.00	Daylight	Dry	All Other
43	765785860	9/5/2007	Wednesday	13.124 SR 527	4:05 PM	Rear-End	0	3	\$ 14,700.00	Daylight	Dry	Exceeded Safe Spd Lmt
44	765785910	9/5/2007	Wednesday	13.289 SR 527	7:22 PM	Angle	0	2	\$ 9,500.00	Daylight	Dry	Improper Turn
45	767853510	9/10/2007	Monday	12.723 SR 527	3:07 PM	Coll. w/ Bicycle	0	4	\$ 100.00	Daylight	Wet	No Improper Drvng / Act
46	765767340	9/11/2007	Tuesday	12.029 SR 527	9:50 PM	Sideswipe	0	1	\$ 2,000.00	Dark (Street Light)	Dry	No Improper Drvng / Act
47	727804880	9/20/2007	Thursday	11.976 SR 527	2:30 PM	Left-Turn	0	1	\$ 1,500.00	Daylight	Dry	Failed to Yield
48	767864390	9/26/2007	Wednesday	12.737 SR 527	2:51 PM	Rear-End	0	1	\$ 41,000.00	Daylight	Wet	Careless Driving
49	765859210	10/1/2007	Monday	13.289 SR 527	10:03 AM	Rear-End	0	1	\$ 7,010.00	Daylight	Wet	Careless Driving
50	765873960	10/2/2007	Tuesday	12.474 SR 527	2:36 AM	Coll. w/ Pedestrian	0	4	\$ 3,000.00	Dark (Street Light)	Wet	No Improper Drvng / Act
51	708359840	10/11/2007	Thursday	12.343 SR 527	8:21 AM	Coll. w/ Pedestrian	1	5	\$ 2,500.00	Daylight	Dry	Drugs - Under Influence
52	762558440	10/13/2007	Saturday	11.976 SR 527	8:29 PM	Sideswipe	0	1	\$ 1,501.00	Dark (Street Light)	Dry	All Other
53	763005090	10/13/2007	Saturday	12.190 SR 527	10:38 AM	Rear-End	0	1	\$ 3,000.00	Daylight	Dry	Followed too Closely
54	765873760	10/15/2007	Monday	12.033 SR 527	6:53 PM	Right-Turn	0	3	\$ 50.00	Daylight	Dry	Improper Turn
55	914782760	10/26/2007	Friday	13.289 SR 527	1:43 AM	Angle	0	3	\$ 15,000.00	Dark (Street Light)	Dry	Disregarded Traff Sgnl
56	914784170	11/3/2007	Saturday	12.033 SR 527	7:24 PM	l. w/ Fixed Object Above Rd	0	2	\$ 2,000.00	Dark (Street Light)	Dry	All Other
57	752956720	11/6/2007	Tuesday	11.783 SR 527	9:08 PM	Head-On	0	2	\$ 5,000.00	Dark (Street Light)	Dry	Careless Driving
58	765780230	11/6/2007	Tuesday	13.289 SR 527	10:13 AM	Head-On	0	3	\$ 7,000.00	Daylight	Dry	Failed to Yield
59	767875370	11/21/2007	Wednesday	12.285 SR 527	11:12 AM	Angle	0	2	\$ 4,000.00	Daylight	Dry	Disregarded Traff Sgnl
60	914791510	11/21/2007	Wednesday	12.349 SR 527	1:00 PM	Head-On	0	2	\$ 1,200.00	Daylight	Dry	Failed to Yield
61	914791540	11/23/2007	Friday	12.983 SR 527	12:18 AM	Coll. w/ Parked Car	0	4	\$ 7,000.00	Dark (Street Light)	Dry	Careless Driving
62	762591430	11/29/2007	Thursday	12.099 SR 527	3:44 PM	Coll. w/ Bicycle	0	3	\$ 50.00	Daylight	Dry	Disregarded Traff Sgnl
63	765811540	12/12/2007	Wednesday	11.910 SR 527	4:40 PM	Coll. w/ Pedestrian	0	2	\$ -	Daylight	Dry	All Other
64	763012410	12/13/2007	Thursday	12.794 SR 527	10:18 AM	Right-Turn	0	1	\$ 60.00	Daylight	Dry	Failed to Yield
65	752995500	12/14/2007	Friday	12.719 SR 527	12:34 PM	Rear-End	0	2	\$ 7,500.00	Daylight	Dry	Followed too Closely
66	727805110	12/17/2007	Monday	13.289 SR 527	11:10 AM	Angle	0	1	\$ -	Daylight	Dry	Careless Driving
67	765896730	12/21/2007	Friday	11.783 SR 527	8:36 AM	Angle	0	1	\$ 300.00	Daylight	Wet	All Other
68	914782220	12/21/2007	Friday	12.939 SR 527	1:28 AM	Coll. w/ Parked Car	0	1	\$ 15,500.00	Dark (Street Light)	Wet	Alcohol - Under Infl
69	736185150	12/28/2007	Friday	11.783 SR 527	1:45 PM	Rear-End	0	2	\$ 100.00	Daylight	Dry	Careless Driving
70	728199690	1/4/2008	Friday	13.289 SR 527	9:05 AM	Rear-End	0	1	\$ 25.00	Daylight	Dry	Careless Driving
71	727796090	1/7/2008	Monday	12.159 SR 527	5:59 PM	Coll. w/ MV on Roadway	0	1	\$ 5,000.00	Dark (Street Light)	Wet	Failed to Yield
72	727796100	1/7/2008	Monday	12.266 SR 527	7:05 PM	Rear-End	0	1	\$ 50.00	Dark (Street Light)	Wet	Followed too Closely
73	915516110	1/9/2008	Wednesday	12.014 SR 527	2:52 PM	Rear-End	0	2	\$ 2,750.00	Daylight	Dry	All Other
74	765897090	1/10/2008	Thursday	11.802 SR 527	8:59 AM	Rear-End	0	2	\$ 7,000.00	Daylight	Dry	Careless Driving
75	727796110	1/11/2008	Friday	12.905 SR 527	9:42 PM	Coll. w/ Parked Car	0	3	\$ 9,000.00	Dark (Street Light)	Dry	All Other
76	915517440	1/22/2008	Tuesday	12.033 SR 527	9:23 AM	Left-Turn	0	4	\$ 12,000.00	Daylight	Dry	Improper Turn
77	915519480	1/30/2008	Wednesday	12.536 SR 527	4:49 PM	Angle	0	3	\$ 3,200.00	Daylight	Dry	No Improper Drvng / Act
78	915516860	1/31/2008	Thursday	12.288 SR 527	5:07 PM	Rear-End	0	3	\$ 5,100.00	Daylight	Dry	Careless Driving
79	914792100	2/4/2008	Monday	12.852 SR 527	5:04 PM	Rear-End	0	1	\$ 301.00	Daylight	Dry	Followed too Closely
80	753099520	2/21/2008	Thursday	12.794 SR 527	2:16 AM	Left-Turn	0	4	\$ 20,000.00	Dark (Street Light)	Dry	Failed to Yield
81	765864350	2/27/2008	Wednesday	12.159 SR 527	9:13 AM	Angle	0	3	\$ 4,500.00	Daylight	Dry	All Other
82	767864980	2/29/2008	Friday	13.289 SR 527	12:25 PM	Angle	0	3	\$ 3,000.00	Daylight	Dry	Failed to Yield
83	96469310	3/3/2008	Monday	12.871 SR 527	2:36 PM	Rear-End	0	2	\$ 1,750.00	Daylight	Dry	Careless Driving
84	762598790	3/3/2008	Monday	13.289 SR 527	8:30 AM	Rear-End	0	2	\$ 2,500.00	Daylight	Dry	Followed too Closely
85	765892210	3/7/2008	Friday	12.285 SR 527	6:02 PM	Rear-End	0	3	\$ 6,501.00	Dusk	Dry	Careless Driving
86	753099530	3/14/2008	Friday	12.286 SR 527	6:07 PM	Rear-End	0	1	\$ -	Daylight	Wet	All Other
87	914794000	3/19/2008	Wednesday	13.289 SR 527	4:26 PM	Rear-End	0	2	\$ 11,000.00	Daylight	Dry	Careless Driving
88	753099540	3/20/2008	Thursday	13.000 SR 527	5:33 PM	Angle	0	1	\$ 3,000.00	Daylight	Dry	Careless Driving
89	915502100	3/28/2008	Friday	11.783 SR 527	10:01 AM	Rear-End	0	2	\$ 3,300.00	Daylight	Dry	Careless Driving
90	915509170	3/30/2008	Sunday	13.289 SR 527	2:30 AM	Angle	0	3	\$ 20,000.00	Dark (Street Light)	Dry	Disregarded Traff Sgnl
91	762598890	4/4/2008	Friday	13.143 SR 527	10:16 AM	All Others	0	2	\$ 200.00	Daylight	Dry	All Other
92	915540460	4/13/2008	Sunday	12.033 SR 527	9:30 PM	Backed Into	0	1	\$ 2,000.00	Dark (Street Light)	Dry	Followed too Closely
93	915540150	4/14/2008	Monday	12.990 SR 527	9:35 AM	Rear-End	0	2	\$ 1,000.00	Daylight	Dry	Careless Driving
94	767864940	4/18/2008	Friday	12.033 SR 527	7:21 PM	Rear-End	0	1	\$ 1,001.00	Daylight	Dry	All Other
95	915508280	4/25/2008	Friday	12.159 SR 527	5:25 PM	Angle	0	1	\$ 100.00	Day		

No.	FHP Report	Date	Week Day	Mile Post	Time	Type	Fatal	Injury Severity	Prop. Damage	Day / Night	Wet / Dry	Contributing Cause
116	736197440	7/29/2008	Tuesday	12.033 SR 527	9:49 AM	Left-Turn	0	3	\$ 13,800.00	Daylight	Dry	Failed to Yield
117	914776360	7/29/2008	Tuesday	12.465 SR 527	12:50 PM	Angle	0	1	\$ 200.00	Daylight	Dry	Failed to Yield
118	915531590	7/30/2008	Wednesday	12.949 SR 527	10:10 AM	Coll. w/ Parked Car	0	0	\$ 200.00	Daylight	Dry	All Other
119	914754890	8/1/2008	Friday	12.033 SR 527	5:11 PM	Angle	0	1	\$ 5,800.00	Daylight	Dry	Disregarded Stop Sign
120	765833320	8/1/2008	Friday	13.143 SR 527	3:25 PM	Left-Turn	0	2	\$ 2,500.00	Daylight	Wet	Failed to Yield
121	915507960	8/3/2008	Sunday	12.364 SR 527	12:31 AM	Coll. w/ Parked Car	0	1	\$ 6,000.00	Dark (Street Light)	Dry	Careless Driving
122	915505600	8/8/2008	Friday	11.783 SR 527	1:01 PM	All Others	0	1	\$ 3,000.00	Daylight	Wet	Careless Driving
123	915507240	8/11/2008	Monday	12.033 SR 527	7:09 AM	Right-Turn	0	2	\$ 1,000.00	Daylight	Dry	Careless Driving
124	914760800	8/14/2008	Thursday	12.536 SR 527	8:38 AM	Right-Turn	0	2	\$ 2,000.00	Daylight	Dry	Followed too Closely
125	914760870	8/18/2008	Monday	12.990 SR 527	7:25 AM	All Others	0	1	\$ 800.00	Unknown	Wet	Careless Driving
126	914752390	8/21/2008	Thursday	12.455 SR 527	2:40 AM	Coll. w/ Pedestrian	0	2	\$ -	Dark (Street Light)	Wet	Failed to Yield
127	914755580	8/26/2008	Tuesday	13.058 SR 527	11:50 AM	Rear-End	0	3	\$ 3,100.00	Daylight	Dry	Careless Driving
128	765866880	9/5/2008	Friday	12.033 SR 527	4:00 PM	Left-Turn	0	3	\$ 40,000.00	Daylight	Dry	Failed to Yield
129	915507540	9/5/2008	Friday	12.033 SR 527	9:30 AM	Rear-End	0	1	\$ 500.00	Daylight	Wet	Careless Driving
130	914754590	9/15/2008	Monday	12.096 SR 527	1:51 PM	All Others	0	1	\$ 4,200.00	Daylight	Dry	All Other
131	914787950	10/2/2008	Thursday	12.168 SR 527	2:49 PM	All Others	0	2	\$ 5,500.00	Unknown	Wet	All Other
132	914787740	10/2/2008	Thursday	12.178 SR 527	2:56 PM	Angle	0	3	\$ 3,000.00	Daylight	Dry	Failed to Yield
133	914787780	10/4/2008	Saturday	12.536 SR 527	4:30 PM	Angle	0	3	\$ 11,000.00	Daylight	Dry	All Other
134	914787890	10/6/2008	Monday	12.335 SR 527	11:14 AM	Rear-End	0	1	\$ 7,000.00	Daylight	Dry	Followed too Closely
135	915502230	10/8/2008	Wednesday	12.150 SR 527	5:27 PM	Rear-End	0	3	\$ 300.00	Daylight	Dry	Exceeded Safe Spd Lmt
136	915535050	10/8/2008	Wednesday	12.285 SR 527	5:00 PM	Coll. w/ MV on Roadway	0	3	\$ 10,000.00	Daylight	Dry	Disregarded Traff Sgnl
137	914741640	10/9/2008	Thursday	12.019 SR 527	6:11 PM	Sideswipe	0	1	\$ 1,000.00	Daylight	Wet	Improper Lane Change
138	914744980	10/19/2008	Sunday	12.538 SR 527	5:14 PM	Rear-End	0	2	\$ 400.00	Daylight	Dry	Careless Driving
139	914787600	10/21/2008	Tuesday	12.658 SR 527	3:02 PM	Rear-End	0	2	\$ 5,300.00	Daylight	Dry	Careless Driving
140	914723420	10/24/2008	Friday	12.283 SR 527	5:19 PM	Right-Turn	0	1	\$ 1,001.00	Daylight	Dry	Careless Driving
141	914740050	10/31/2008	Friday	12.033 SR 527	8:30 PM	Head-On	0	2	\$ 2,000.00	Daylight	Dry	Disregarded Traff Sgnl
142	914723940	11/12/2008	Wednesday	12.555 SR 527	5:23 PM	Sideswipe	0	1	\$ 500.00	Daylight	Dry	All Other
143	914723930	11/12/2008	Wednesday	12.998 SR 527	4:47 PM	Coll. w/ Parked Car	0	0	\$ 1,500.00	Dusk	Dry	All Other
144	914723910	11/12/2008	Wednesday	13.289 SR 527	3:38 PM	Head-On	0	3	\$ 550.00	Daylight	Dry	Improper Turn
145	914732050	11/16/2008	Sunday	12.033 SR 527	1:19 PM	Rear-End	0	2	\$ 7,000.00	Daylight	Dry	All Other
146	914724090	11/18/2008	Tuesday	12.033 SR 527	7:00 AM	Rear-End	0	3	\$ 400.00	Daylight	Dry	Careless Driving
147	914779600	11/18/2008	Tuesday	12.786 SR 527	11:08 AM	All Others	0	1	\$ 2,000.00	Daylight	Dry	All Other
148	914732690	12/7/2008	Sunday	12.533 SR 527	3:45 PM	Rear-End	0	3	\$ 700.00	Daylight	Dry	Followed too Closely
149	914738230	12/8/2008	Monday	13.058 SR 527	4:43 PM	Rear-End	0	1	\$ 1,000.00	Daylight	Dry	Careless Driving
150	727872510	12/15/2008	Monday	12.871 SR 527	6:00 PM	Rear-End	0	1	\$ 600.00	Dark (Street Light)	Dry	Improper Passing
151	914731360	12/18/2008	Thursday	12.794 SR 527	6:08 PM	Left-Turn	0	2	\$ 5,500.00	Daylight	Dry	Improper Turn
152	114323260	12/19/2008	Friday	13.289 SR 527	7:21 PM	Left-Turn	0	2	\$ 1,050.00	Dark (Street Light)	Dry	Improper Turn
153	908194350	12/24/2008	Wednesday	12.029 SR 527	2:25 PM	Rear-End	0	2	\$ -	Daylight	Dry	Careless Driving
154	914785240	1/5/2009	Monday	12.033 SR 527	8:18 PM	Angle	0	1	\$ 1,000.00	Dark (Street Light)	Dry	All Other
155	914730600	1/8/2009	Thursday	12.035 SR 527	9:22 AM	Coll. w/ Bicycle	0	2	\$ 51.00	Daylight	Dry	Failed to Yield
156	914730680	1/10/2009	Saturday	12.474 SR 527	11:32 PM	Angle	0	2	\$ 5,000.00	Dark (Street Light)	Dry	Failed to Yield
157	914738730	1/12/2009	Monday	12.798 SR 527	11:13 PM	Rear-End	0	2	\$ 300.00	Dark (Street Light)	Dry	Careless Driving
158	915518960	1/13/2009	Tuesday	11.908 SR 527	2:36 PM	Rear-End	0	2	\$ 2,500.00	Daylight	Wet	Followed too Closely
159	914732080	1/15/2009	Thursday	12.033 SR 527	9:51 AM	Head-On	0	3	\$ 100.00	Daylight	Dry	All Other
160	914785250	1/20/2009	Tuesday	12.033 SR 527	11:09 PM	Head-On	0	2	\$ 13,000.00	Dark (Street Light)	Dry	Careless Driving
161	92382700	1/23/2009	Friday	13.213 SR 527	4:50 PM	Rear-End	0	3	\$ 13,500.00	Daylight	Dry	Careless Driving
162	914733360	1/24/2009	Saturday	12.156 SR 527	2:44 AM	Angle	0	2	\$ 10,000.00	Dark (Street Light)	Dry	Improper Turn
163	908192390	1/27/2009	Tuesday	11.786 SR 527	1:57 PM	Rear-End	0	2	\$ 3,500.00	Daylight	Dry	Careless Driving
164	914733980	1/28/2009	Wednesday	13.003 SR 527	8:51 PM	Coll. w/ Parked Car	0	0	\$ 200.00	Dark (Street Light)	Dry	All Other
165	908194130	1/29/2009	Thursday	13.114 SR 527	12:16 PM	Coll. w/ Parked Car	0	4	\$ 9,500.00	Daylight	Dry	All Other
166	908192970	2/5/2009	Thursday	12.159 SR 527	12:04 PM	Left-Turn	0	2	\$ 8,000.00	Daylight	Dry	Disregarded Stop Sign
167	915521430	2/10/2009	Tuesday	12.163 SR 527	9:19 AM	Sideswipe	0	1	\$ 1,000.00	Daylight	Dry	Improper Passing
168	914750460	2/12/2009	Thursday	12.474 SR 527	2:39 AM	Coll. w/ Pedestrian	0	2	\$ -	Dark (Street Light)	Dry	Alc & Drugs - Under Infl
169	908194510	2/16/2009	Monday	12.038 SR 527	1:11 PM	Rear-End	0	2	\$ 1,500.00	Daylight	Dry	Careless Driving
170	908181420	2/17/2009	Tuesday	12.794 SR 527	4:13 PM	Angle	0	2	\$ 7,000.00	Daylight	Dry	Disregarded Traff Sgnl
171	908181680	2/19/2009	Thursday	12.798 SR 527	2:00 PM	Rear-End	0	2	\$ 1,900.00	Daylight	Wet	All Other
172	114330550	2/21/2009	Saturday	12.042 SR 527	7:26 PM	Rear-End	0	2	\$ 1.00	Dark (Street Light)	Dry	Followed too Closely
173	908194200	2/24/2009	Tuesday	12.033 SR 527	4:26 PM	Rear-End	0	3	\$ 1,400.00	Daylight	Dry	Careless Driving
174	914737110	3/3/2009	Tuesday	12.033 SR 527	7:35 AM	Sideswipe	0	1	\$ 300.00	Daylight	Dry	Careless Driving
175	914736160	3/4/2009	Wednesday	11.995 SR 527	9:35 AM	Sideswipe	0	1	\$ 1,500.00	Daylight	Dry	Improper Lane Change
176	914731640	3/6/2009	Friday	12.031 SR 527	1:37 PM	Rear-End	0	3	\$ 1,500.00	Daylight	Dry	Followed too Closely
177	914739130	3/7/2009	Saturday	12.019 SR 527	11:19 PM	Rear-End	0	2	\$ 2,800.00	Dark (Street Light)	Dry	Followed too Closely
178	908187690	3/9/2009	Monday	13.289 SR 527	11:59 AM	Angle	0	2	\$ 6,000.00	Daylight	Dry	Failed to Yield
179	908181920	3/10/2009	Tuesday	12.031 SR 527	2:08 PM	Angle	0	1	\$ 3,000.00	Daylight	Dry	Improper Lane Change
180	908194590	3/13/2009	Friday	12.033 SR 527	7:16 AM	Left-Turn	0	2	\$ 13,000.00	Daylight	Dry	Improper Turn
181	908162950	3/19/2009	Thursday	12.033 SR 527	1:40 PM	Head-On	0	3	\$ 6,000.00	Daylight	Dry	Disregarded Traff Sgnl
182	914739970	3/19/2009	Thursday	12.835 SR 527	11:28 PM	Coll. w/ Parked Car	0	1	\$ 15,000.00	Dark (Street Light)	Dry	Alc & Drugs - Under Infl
183	914752560	3/26/2009	Thursday	12.474 SR 527	8:00 AM	Head-On	0	2	\$ 6,000.00	Unknown	Dry	Careless Driving
184	736178750	4/1/2009	Wednesday	12.794 SR 527	12:10 PM	Rear-End	0	2	\$ 700.00	Daylight	Dry	Followed too Closely
185	915502820	4/7/2009	Tuesday	12.536 SR 527	12:12 PM	Angle	0	2	\$ 3,000.00	Daylight	Dry	Disregarded Traff Sgnl
186	908155040	4/15/2009	Wednesday	12.536 SR 527	3:12 PM	Coll. w/ Pedestrian	0	3	\$ 300.00	Daylight	Dry	Disregarded Traff Sgnl
187	908178130	4/20/2009	Monday	12.756 SR 527	7:00 PM	Left-Turn	0	2	\$ 7,000.00	Daylight	Dry	Failed to Yield
188	915521470	4/24/2009	Friday	12.349 SR 527	3:33 PM	Left-Turn	0	3	\$ 10,000.00	Daylight	Dry	Failed to Yield
189	908163260	5/3/2009	Sunday	12.828 SR 527	1:40 PM	Angle	0	3	\$ 3,000.00	Daylight	Dry	All Other
190	908162550	5/11/2009	Monday	13.289 SR 527	5:44 PM	Left-Turn	0	2	\$ 20,000.00	Daylight	Dry	Improper Turn
191	914755420	5/15/2009	Friday	12.536 SR 527	4:25 PM	Backed Into	0	1	\$ 302.00	Daylight	Dry	Improper Backing
192	908164620	5/18/2009	Monday	12.304 SR 527	9:35 AM	Right-Turn	0	1	\$ 700.00	Daylight	Dry	Careless Driving
193	908165020	5/20/2009	Wednesday	12.243 SR 527	6:11 PM	Rear-End	0	3	\$ 2,500.00	Dusk	Wet	Followed too Closely
194	914724220	5/25/2009	Monday	12.042 SR 527	1:40 AM	Sideswipe	0	1	\$ 4,000.00	Dark (Street Light)	Dry	All Other
195	914719530	5/27/2009	Wednesday	12.033 SR 527	5:33 PM	Angle	0	1	\$ 2,500.00	Daylight	Dry	All Other
196	914776960	5/29/2009	Friday	12.833 SR 527	2:10 PM	Rear-End	0	3	\$ 2,100.00	Daylight	Dry	Careless Driving
197	914776970	6/3/2009	Wednesday	12.033 SR 527	2:36 PM	Sideswipe	0	4	\$ 201.00	Daylight	Dry	Failed to Yield
198	908193260	6/4/2009	Thursday	12.281 SR 527	12:59 PM	Rear-End	0	2	\$ 2,000.00	Daylight	Wet	Followed too Closely
199	908185100	6/8/2009	Monday	12.047 SR 527	1:52 PM	Angle	0	1	\$ 600.00	Daylight	Dry	Failed to Yield
200	908177020	6/14/2009	Sunday	12.536 SR 527	4:06 PM	Coll. w/ Bicycle	0	2	\$ -	Daylight	Dry	Careless Driving
201	914778430	6/16/2009	Tuesday	12.876 SR 527	7:46 PM	All Others	0	2	\$ 1,750.00	Dusk	Wet	All Other
202	908166120	6/18/2009	Thursday	12.479 SR 527	12:28 PM	Angle	0	2	\$ 3,700.00	Daylight	Dry	Improper Turn
203	908199300	6/18/2009	Thursday	13.289 SR 527	10:51 AM	Angle	0	2	\$ 2,000.00	Daylight	Dry	Failed to Yield
204	908175300	6/19/2009	Friday	12.033 SR 527	1:47 PM	Rear-End	0	1	\$ 700.00	Daylight	Dry	All Other
205	908194400	6/20/2009	Saturday	12.033 SR 527	2:18 PM	Rear-End	0	1	\$ 301.00	Daylight	Dry	Careless Driving
206	908199090	6/27/2009	Saturday	13.003 SR 527	11:37 AM	Rear-End	0	1	\$ 500.00	Daylight	Dry	Followed too Closely
207	915532690	7/14/2009	Tuesday	12.794 SR 527	4:36 AM	Head-On	0	2	\$ 5,500.00	Dark (Street Light)	Dry	Disregarded Traff Sgnl
208	908156130	7/17/2009	Friday	11.976 SR 527	10:48 AM	All Others	0	2	\$ 400.00	Daylight	Dry	Careless Driving
209	908178760	7/20/2009	Monday	12.159 SR 527	7:35 AM	Sideswipe	0	1	\$ 3,000.00	Daylight	Dry	Careless Driving
210	908175920	7/21/2009	Tuesday	12.833 SR 527	12:04 PM	Angle	0	3	\$ 12,000.00	Daylight	Dry	Disregarded Stop Sign
211	762557960	7/28/2009	Tuesday	12.536 SR 527	4:16 PM	Occup						

No.	FHP Report	Date	Week Day	Mile Post	Time	Type	Fatal	Injury Severity	Prop. Damage	Day / Night	Wet / Dry	Contributing Cause
238	908151480	11/12/2009	Thursday	12.033 SR 527	11:44 AM	Rear-End	0	2	\$ 8,000.00	Daylight	Dry	Followed too Closely
239	914726370	11/13/2009	Friday	12.159 SR 527	12:18 PM	Left-Turn	0	2	\$ 4,000.00	Daylight	Dry	Failed to Yield
240	908165510	11/18/2009	Wednesday	12.266 SR 527	4:58 PM	Rear-End	0	4	\$ 13,500.00	Daylight	Dry	Careless Driving
241	908156260	11/23/2009	Monday	12.033 SR 527	10:03 AM	Sideswipe	0	1	\$ 600.00	Daylight	Dry	Improper Lane Change
242	914735210	11/24/2009	Tuesday	12.285 SR 527	5:54 PM	Angle	0	1	\$ 1,500.00	Dark (Street Light)	Wet	No Improper Drvng / Act
243	114346230	11/25/2009	Wednesday	12.536 SR 527	10:51 AM	Rear-End	0	2	\$ 2,001.00	Daylight	Wet	All Other
244	912397270	11/30/2009	Monday	12.536 SR 527	9:41 AM	Rear-End	0	3	\$ 400.00	Daylight	Dry	Followed too Closely
245	912397290	12/1/2009	Tuesday	12.517 SR 527	3:34 PM	Rear-End	0	2	\$ 200.00	Daylight	Dry	Careless Driving
246	912396210	12/4/2009	Friday	12.028 SR 527	7:24 PM	Rear-End	0	1	\$ 1,000.00	Dark (Street Light)	Wet	Followed too Closely
247	915508870	12/4/2009	Friday	12.654 SR 527	1:48 PM	Rear-End	0	3	\$ 7,250.00	Daylight	Wet	Followed too Closely
248	912396160	12/4/2009	Friday	13.289 SR 527	11:04 AM	All Others	0	2	\$ 6,000.00	Daylight	Wet	All Other
249	912396220	12/6/2009	Sunday	13.063 SR 527	2:06 PM	Rear-End	0	2	\$ 8,500.00	Dark (Street Light)	Dry	Followed too Closely
250	912395010	12/7/2009	Monday	12.033 SR 527	2:28 PM	Backed Into	0	1	\$ 200.00	Dark (Street Light)	Dry	No Improper Drvng / Act
251	912397490	12/8/2009	Tuesday	12.408 SR 527	2:25 PM	Rear-End	0	2	\$ 9,400.00	Daylight	Dry	Followed too Closely
252	912397470	12/9/2009	Wednesday	12.961 SR 527	3:05 PM	Coll. w/ Parked Car	0	2	\$ 1,200.00	Daylight	Dry	Alc & Drugs - Under Infl
253	912397450	12/10/2009	Thursday	11.907 SR 527	11:10 AM	All Others	0	1	\$ 200.00	Daylight	Wet	All Other
254	914726380	12/13/2009	Sunday	12.829 SR 527	10:34 AM	Coll. w/ Parked Car	0	1	\$ 300.00	Daylight	Dry	Careless Driving
255	912397650	12/17/2009	Thursday	12.036 SR 527	4:05 PM	Rear-End	0	1	\$ 400.00	Daylight	Wet	All Other
256	914734640	12/20/2009	Sunday	12.794 SR 527	6:33 PM	Left-Turn	0	3	\$ 18,000.00	Dark (Street Light)	Dry	Improper Turn
257	914724280	1/11/2010	Monday	12.033 SR 527	8:07 PM	Coll. w/ Pedestrian	0	4	\$ 500.00	Dark (Street Light)	Dry	All Other
258	908179740	1/25/2010	Monday	12.033 SR 527	12:00 AM	Coll. w/ Pedestrian	0	2	\$ -	Dark (No Street Light)	Dry	All Other
259	908157930	1/25/2010	Monday	12.281 SR 527	3:21 PM	Rear-End	0	3	\$ 500.00	Daylight	Dry	Careless Driving
260	914724410	1/27/2010	Wednesday	12.794 SR 527	3:48 AM	Angle	0	1	\$ 2,200.00	Dark (Street Light)	Dry	Improper Turn
261	908168230	1/29/2010	Friday	12.033 SR 527	10:59 AM	Rear-End	0	2	\$ 5,000.00	Daylight	Dry	Careless Driving
262	914706050	1/29/2010	Friday	12.243 SR 527	10:53 PM	Coll. w/ Bicycle	0	3	\$ 51.00	Dark (Street Light)	Dry	All Other
263	912390750	1/29/2010	Friday	13.289 SR 527	7:12 PM	Angle	0	1	\$ 300.00	Dark (Street Light)	Dry	All Other
264	914785480	2/1/2010	Monday	12.159 SR 527	5:52 PM	Angle	0	1	\$ 100.00	Dark (Street Light)	Dry	Failed to Yield
265	908199430	2/1/2010	Monday	12.658 SR 527	12:13 PM	Rear-End	0	1	\$ 3,000.00	Daylight	Dry	Careless Driving
266	914752890	2/1/2010	Monday	12.871 SR 527	6:40 PM	Rear-End	0	1	\$ 3,001.00	Dark (Street Light)	Wet	Failed to Yield
267	912395030	2/5/2010	Friday	12.052 SR 527	4:31 PM	Sideswipe	0	1	\$ 1,201.00	Daylight	Wet	Failed to Yield
268	762559200	2/5/2010	Friday	13.275 SR 527	6:33 PM	Rear-End	0	1	\$ 3,300.00	Dark (Street Light)	Wet	Followed too Closely
269	908168240	2/9/2010	Tuesday	12.564 SR 527	1:21 PM	Coll. w/ Pedestrian	0	2	\$ 900.00	Daylight	Dry	No Improper Drvng / Act
270	912395040	2/12/2010	Friday	12.412 SR 527	3:23 AM	All Others	0	1	\$ 6,000.00	Dark (Street Light)	Dry	Careless Driving
271	912388090	2/16/2010	Tuesday	12.005 SR 527	8:51 AM	Rear-End	0	1	\$ 2,000.00	Daylight	Dry	Careless Driving
272	912389460	2/16/2010	Tuesday	12.544 SR 527	12:10 PM	Rear-End	0	3	\$ 10,000.00	Daylight	Dry	Careless Driving
273	914724480	2/17/2010	Wednesday	11.929 SR 527	8:26 PM	Rear-End	0	1	\$ 1,000.00	Daylight	Dry	No Improper Drvng / Act
274	908183810	2/23/2010	Tuesday	12.033 SR 527	11:30 AM	Angle	0	3	\$ 2,500.00	Daylight	Dry	Improper Lane Change
275	912395170	2/25/2010	Thursday	12.939 SR 527	9:17 PM	Rear-End	0	2	\$ 10,500.00	Dark (Street Light)	Dry	Careless Driving
276	804855460	3/8/2010	Monday	12.610 SR 527	10:10 AM	Sideswipe	0	1	\$ 200.00	Daylight	Dry	Failed to Yield
277	908156290	3/11/2010	Thursday	12.151 SR 527	2:35 PM	Coll. w/ Pedestrian	0	4	\$ -	Daylight	Wet	All Other
278	912395310	3/12/2010	Friday	11.986 SR 527	12:47 PM	Rear-End	0	2	\$ 600.00	Daylight	Wet	Followed too Closely
279	912389820	3/16/2010	Tuesday	11.938 SR 527	12:10 PM	Angle	0	3	\$ 24,000.00	Daylight	Dry	Drove Left of Center
280	915517790	3/17/2010	Wednesday	13.289 SR 527	10:45 AM	Rear-End	0	2	\$ 2,000.00	Daylight	Dry	Followed too Closely
281	912391730	3/18/2010	Thursday	11.783 SR 527	4:38 PM	Left-Turn	0	2	\$ 6,000.00	Daylight	Dry	Improper Turn
282	912378270	3/18/2010	Thursday	12.033 SR 527	3:11 AM	Utility / Light Pole	0	1	\$ 2,000.00	Dark (Street Light)	Wet	Careless Driving
283	908156300	3/19/2010	Friday	12.033 SR 527	12:02 PM	Utility / Light Pole	0	0	\$ -	Daylight	Dry	All Other
284	912371390	3/26/2010	Friday	13.289 SR 527	2:15 PM	Angle	0	2	\$ 4,500.00	Daylight	Dry	Disregarded Traff Sgnl
285	912396320	3/29/2010	Monday	12.958 SR 527	10:00 PM	Rear-End	0	2	\$ 7,500.00	Dark (Street Light)	Dry	Failed to Yield
286	915517770	4/2/2010	Friday	12.489 SR 527	7:31 AM	Angle	0	2	\$ 1,400.00	Daylight	Dry	Careless Driving
287	915521500	4/15/2010	Thursday	11.788 SR 527	2:46 PM	Rear-End	0	1	\$ 14,000.00	Daylight	Dry	Careless Driving
288	908193760	4/15/2010	Thursday	12.955 SR 527	12:09 PM	All Others	0	3	\$ 200.00	Daylight	Dry	Careless Driving
289	109639320	4/26/2010	Monday	12.266 SR 527	2:45 PM	All Others	0	3	\$ 500.00	Daylight	Dry	No Improper Drvng / Act
290	912371750	4/29/2010	Thursday	12.033 SR 527	4:05 PM	Angle	0	1	\$ 600.00	Daylight	Dry	Failed to Yield
291	776981700	5/6/2010	Thursday	11.802 SR 527	2:00 PM	Rear-End	0	1	\$ 4,000.00	Daylight	Dry	Careless Driving
292	912376850	5/7/2010	Friday	12.285 SR 527	9:30 PM	Sideswipe	0	3	\$ 13,000.00	Dark (Street Light)	Dry	Improper Lane Change
293	914706300	5/12/2010	Wednesday	12.412 SR 527	8:51 AM	All Others	0	2	\$ 5,000.00	Daylight	Dry	All Other
294	912374850	5/22/2010	Saturday	12.414 SR 527	2:25 PM	Sideswipe	0	1	\$ 2,020.00	Daylight	Dry	Careless Driving
295	111909110	6/11/2010	Friday	12.560 SR 527	3:17 PM	Angle	0	2	\$ -	Daylight	Dry	All Other
296	917987060	6/11/2010	Friday	12.833 SR 527	5:30 AM	Sideswipe	0	2	\$ 2,500.00	Dark (Street Light)	Dry	All Other
297	914785540	6/12/2010	Saturday	12.536 SR 527	2:49 AM	Coll. w/ Bicycle	0	3	\$ 500.00	Dark (Street Light)	Dry	Failed to Yield
298	914738940	6/15/2010	Tuesday	12.266 SR 527	12:02 AM	Coll. w/ MV on Roadway	0	2	\$ 1,000.00	Dark (Street Light)	Dry	All Other
299	908199170	6/26/2010	Saturday	12.956 SR 527	9:51 AM	Rear-End	0	2	\$ 5,000.00	Daylight	Dry	Careless Driving
300	908186130	6/28/2010	Monday	12.833 SR 527	4:53 PM	Angle	0	2	\$ 4,000.00	Daylight	Dry	Disregarded Stop Sign
301	917981450	6/30/2010	Wednesday	12.033 SR 527	3:24 PM	Rear-End	0	1	\$ 900.00	Daylight	Dry	Careless Driving
302	727805430	7/1/2010	Thursday	12.033 SR 527	3:20 PM	All Others	0	3	\$ 2,300.00	Daylight	Dry	Disregarded Traff Sgnl
303	917981580	7/7/2010	Wednesday	12.534 SR 527	10:31 AM	Rear-End	0	2	\$ 3,000.00	Daylight	Dry	Careless Driving
304	917982580	7/13/2010	Tuesday	11.901 SR 527	2:46 PM	Angle	0	2	\$ 1,300.00	Daylight	Dry	Failed to Yield
305	908150620	7/15/2010	Thursday	12.033 SR 527	1:37 PM	Rear-End	0	3	\$ 2.00	Daylight	Dry	All Other
306	912374350	7/16/2010	Friday	12.033 SR 527	5:38 PM	Angle	0	3	\$ 1,200.00	Daylight	Dry	Improper Turn
307	917987020	7/18/2010	Sunday	12.814 SR 527	9:30 AM	Sideswipe	0	1	\$ 2,500.00	Daylight	Dry	All Other
308	914753870	7/20/2010	Tuesday	12.033 SR 527	11:20 AM	Angle	0	3	\$ 450.00	Daylight	Dry	No Improper Drvng / Act
309	908165550	7/27/2010	Tuesday	12.033 SR 527	10:30 PM	Coll. w/ MV on Roadway	0	2	\$ 5,000.00	Dark (Street Light)	Dry	Failed to Yield
310	767888540	7/29/2010	Thursday	12.676 SR 527	5:47 AM	Angle	0	2	\$ -	Dark (Street Light)	Dry	Driving Wrong Side / Way
311	912360400	8/6/2010	Friday	12.052 SR 527	3:42 AM	Rear-End	0	2	\$ 800.00	Daylight	Dry	Improper Lane Change
312	912381810	8/11/2010	Wednesday	12.412 SR 527	12:33 PM	Angle	0	2	\$ 3,800.00	Daylight	Dry	Disregarded Stop Sign
313	912381820	8/11/2010	Wednesday	12.635 SR 527	4:57 PM	Sideswipe	0	1	\$ 600.00	Daylight	Wet	Improper Lane Change
314	752997670	8/15/2010	Sunday	12.536 SR 527	2:10 AM	Rear-End	0	1	\$ 1,001.00	Dark (Street Light)	Dry	Disregarded Traff Sgnl
315	111908920	8/16/2010	Monday	12.545 SR 527	4:15 PM	Rear-End	0	2	\$ 1,500.00	Daylight	Wet	Careless Driving
316	914771560	8/23/2010	Monday	12.958 SR 527	11:48 AM	Coll. w/ Pedestrian	0	1	\$ 300.00	Daylight	Dry	All Other
317	912360750	8/27/2010	Friday	12.838 SR 527	1:59 PM	All Others	0	1	\$ 1,800.00	Daylight	Dry	All Other
318	917971490	8/31/2010	Tuesday	12.591 SR 527	5:04 PM	Angle	0	2	\$ 1,200.00	Daylight	Dry	Careless Driving
319	818962440	9/8/2010	Wednesday	12.033 SR 527	2:30 PM	Angle	0	1	\$ 3,000.00	Daylight	Dry	All Other
320	818961290	9/10/2010	Friday	11.798 SR 527	2:42 PM	Angle	0	2	\$ 5,000.00	Daylight	Dry	Failed to Yield
321	818975460	9/10/2010	Friday	12.574 SR 527	12:34 PM	All Others	0	3	\$ 100.00	Daylight	Dry	All Other
322	765881210	9/11/2010	Saturday	12.393 SR 527	5:20 PM	Sideswipe	0	1	\$ 500.00	Daylight	Dry	All Other
323	818982620	9/18/2010	Saturday	12.871 SR 527	8:13 PM	Sideswipe	0	2	\$ 3,000.00	Dark (Street Light)	Dry	Improper Lane Change
324	776932380	9/20/2010	Monday	12.541 SR 527	8:15 PM	Rear-End	0	1	\$ 2,000.00	Dark (No Street Light)	Dry	Careless Driving
325	818967850	9/28/2010	Tuesday	12.038 SR 527	8:32 PM	Rear-End	0	2	\$ 4,000.00	Daylight	Wet	Careless Driving
326	818986680	9/29/2010	Wednesday	13.067 SR 527	12:30 PM	All Others	0	1	\$ 400.00	Daylight	Dry	All Other
327	818995360	10/1/2010	Friday	12.018 SR 527	2:54 PM	Angle	0	1	\$ 3,150.00	Daylight	Dry	Improper Lane Change
328	818986640	10/5/2010	Tuesday	11.938 SR 527	2:58 PM	All Others	0	1	\$ 50.00	Daylight	Dry	All Other
329	818986670	10/5/2010	Tuesday	12.536 SR 527	5:46 PM	Angle	0	3	\$ 550.00	Daylight	Dry	Failed to Yield
330	818972520	10/12/2010	Tuesday	12.159 SR 527	7:45 AM	Coll. w/ Pedestrian	0	3	\$ -	Daylight	Dry	No Improper Drvng / Act
331	818972090	10/15/2010	Friday	12.857 SR 527	8:15 PM	Sideswipe	0	1	\$ 2,500.00	Daylight	Dry	Failed to Yield
332	818986910	10/16/2010	Saturday	12.536 SR 527	2:09 AM	Left-Turn	0	1	\$ 8,000.00	Dark (Street Light)	Dry	Failed to Yield
333	818974570	10/21/2010	Thursday	12.412 SR 527	12:57 PM							



No.	FHP Report	Date	Week Day	Mile Post	Time	Type	Fatal	Injury Severity	Prop. Damage	Day / Night	Wet / Dry	Contributing Cause
360	819179190	1/10/2011	Monday	12.033 SR 527	12:00 AM	Unknown / Not Coded	0	1	\$ 900.00	Unknown	Wet	Unknown / Not Coded
361	819188890	1/11/2011	Tuesday	13.157 SR 527	12:00 AM	Unknown / Not Coded	0	0	\$ 800.00	Unknown	Wet	Unknown / Not Coded
362	819187430	1/12/2011	Wednesday	12.159 SR 527	12:00 AM	Unknown / Not Coded	0	1	\$ -	Unknown	Wet	Unknown / Not Coded
363	818965450	1/17/2011	Monday	12.052 SR 527	12:00 AM	Coll. w/ MV on Roadway	0	0	\$ 2,000.00	Daylight	Wet	Careless Driving
364	819189260	1/19/2011	Wednesday	12.323 SR 527	12:00 AM	Unknown / Not Coded	0	1	\$ 500.00	Daylight	Dry	Unknown / Not Coded
365	819166850	1/21/2011	Friday	12.033 SR 527	12:00 AM	Unknown / Not Coded	0	1	\$ 600.00	Unknown	Wet	Unknown / Not Coded
366	819192760	1/21/2011	Friday	12.159 SR 527	12:00 AM	Angle	0	1	\$ 6,000.00	Dusk	Dry	Disregarded Stop Sign
367	819192510	1/25/2011	Tuesday	12.555 SR 527	12:00 AM	Unknown / Not Coded	0	1	\$ 1,100.00	Unknown	Wet	Unknown / Not Coded
368	819179290	1/26/2011	Wednesday	13.285 SR 527	12:00 AM	All Others	0	1	\$ 400.00	Daylight	Dry	No Improper Drvng / Act
369	819193530	1/27/2011	Thursday	12.024 SR 527	12:00 AM	Unknown / Not Coded	0	0	\$ -	Unknown	Wet	Unknown / Not Coded
370	819171290	1/30/2011	Sunday	12.536 SR 527	12:00 AM	Unknown / Not Coded	0	0	\$ 700.00	Unknown	Wet	No Improper Drvng / Act
371	819197090	1/30/2011	Sunday	13.289 SR 527	12:00 AM	Head-On	0	1	\$ 17,000.00	Dark (Street Light)	Dry	No Improper Drvng / Act
372	819196030	2/1/2011	Tuesday	11.910 SR 527	12:00 AM	Right-Turn	0	1	\$ 3,000.00	Daylight	Dry	Disregarded Stop Sign
373	819196060	2/1/2011	Tuesday	12.517 SR 527	12:00 AM	Unknown / Not Coded	0	0	\$ -	Unknown	Wet	Unknown / Not Coded
374	819177040	2/4/2011	Friday	13.067 SR 527	12:00 AM	All Others	0	1	\$ 5,000.00	Dark (Street Light)	Dry	No Improper Drvng / Act
375	819194980	2/6/2011	Sunday	11.878 SR 527	12:00 AM	Unknown / Not Coded	0	1	\$ 4,600.00	Daylight	Dry	Careless Driving
376	819177670	2/6/2011	Sunday	11.935 SR 527	12:00 AM	Unknown / Not Coded	0	0	\$ -	Unknown	Wet	Unknown / Not Coded
377	819165920	2/6/2011	Sunday	12.465 SR 527	12:00 AM	Coll. w/ MV on Roadway	0	1	\$ 19,000.00	Dark (Street Light)	Dry	Failed to Yield
378	819199000	2/7/2011	Monday	12.534 SR 527	12:00 AM	Rear-End	0	3	\$ 3,500.00	Daylight	Dry	Followed too Closely
379	819200970	2/10/2011	Thursday	12.920 SR 527	12:00 AM	Backed Into	0	1	\$ 200.00	Daylight	Wet	Improper Backing
380	819201220	2/14/2011	Monday	12.508 SR 527	12:00 AM	Unknown / Not Coded	0	0	\$ 9,000.00	Unknown	Wet	Unknown / Not Coded
381	819199350	2/17/2011	Thursday	12.033 SR 527	12:00 AM	Angle	0	3	\$ 6,500.00	Daylight	Dry	Improper Turn
382	819197660	2/21/2011	Monday	12.304 SR 527	12:00 AM	Rear-End	0	3	\$ 15,000.00	Daylight	Dry	Careless Driving
383	819198500	2/21/2011	Monday	12.871 SR 527	12:00 AM	Angle	0	4	\$ 8,000.00	Daylight	Dry	Improper Turn
384	819208200	2/25/2011	Friday	12.140 SR 527	12:00 AM	Angle	0	2	\$ 6,000.00	Daylight	Dry	Improper Turn
385	819180910	2/25/2011	Friday	12.994 SR 527	12:00 AM	Unknown / Not Coded	0	1	\$ 1,000.00	Daylight	Dry	No Improper Drvng / Act
386	819207310	2/26/2011	Saturday	12.536 SR 527	12:00 AM	Rear-End	0	1	\$ 4,000.00	Dark (Street Light)	Dry	Careless Driving
387	819206540	2/28/2011	Monday	11.787 SR 527	12:00 AM	Rear-End	0	1	\$ 200.00	Daylight	Dry	Careless Driving
388	819207680	2/28/2011	Monday	12.862 SR 527	12:00 AM	Unknown / Not Coded	0	1	\$ 1,500.00	Daylight	Dry	Unknown / Not Coded
389	819211320	3/1/2011	Tuesday	12.474 SR 527	12:00 AM	Unknown / Not Coded	0	1	\$ 600.00	Daylight	Wet	No Improper Drvng / Act
390	819210950	3/2/2011	Wednesday	12.233 SR 527	12:00 AM	Angle	0	1	\$ 3,000.00	Daylight	Dry	Failed to Yield
391	819210940	3/4/2011	Friday	12.785 SR 527	12:00 AM	Rear-End	0	2	\$ 800.00	Daylight	Wet	All Other
392	821977280	3/26/2011	Saturday	12.474 SR 527	12:00 AM	Rear-End	0	1	\$ 2,000.00	Dark (Street Light)	Dry	Followed too Closely
393	821980770	3/29/2011	Tuesday	12.368 SR 527	12:00 AM	Coll. w/ Bicycle	1	5	\$ 500.00	Daylight	Dry	No Improper Drvng / Act
394	821980110	4/1/2011	Friday	11.792 SR 527	12:00 AM	Angle	0	2	\$ 1,500.00	Daylight	Dry	Failed to Yield
395	821984370	4/7/2011	Thursday	12.994 SR 527	12:00 AM	Rear-End	0	2	\$ 600.00	Daylight	Dry	No Improper Drvng / Act
396	821984470	4/8/2011	Friday	12.536 SR 527	12:00 AM	Coll. w/ Pedestrian	0	2	\$ 300.00	Daylight	Dry	All Other
397	820769220	4/12/2011	Tuesday	11.783 SR 527	1:06 PM	Hit Other Fixed Object	0	3	\$ 2,500.00	Daylight	Dry	No Improper Drvng / Act
398	821977820	4/17/2011	Sunday	12.517 SR 527	12:00 AM	#N/A	0	2	\$ 2,000.00	Daylight	Dry	#N/A
399	821985300	4/18/2011	Monday	13.143 SR 527	12:00 AM	Utility / Light Pole	0	2	\$ 200.00	Daylight	Dry	Careless Driving
400	821988620	4/28/2011	Thursday	12.266 SR 527	12:00 AM	Rear-End	0	2	\$ 4,000.00	Dark (Street Light)	Dry	No Improper Drvng / Act
401	819176780	5/3/2011	Tuesday	12.285 SR 527	12:00 AM	All Others	0	3	\$ 5,000.00	Daylight	Dry	No Improper Drvng / Act
402	810576110	5/6/2011	Friday	13.195 SR 527	8:46 AM	Rear-End	0	3	\$ 6,000.00	Daylight	Dry	Careless Driving
403	821996670	5/11/2011	Wednesday	13.289 SR 527	12:00 AM	Rear-End	0	3	\$ 2,000.00	Daylight	Dry	Followed too Closely
404	821997110	5/12/2011	Thursday	12.154 SR 527	12:00 AM	Angle	0	2	\$ 2,800.00	Daylight	Dry	Improper Turn
405	821998660	5/13/2011	Friday	12.842 SR 527	12:00 AM	Rear-End	0	3	\$ 2,500.00	Daylight	Dry	Careless Driving
406	821994490	5/15/2011	Sunday	12.536 SR 527	12:00 AM	Angle	0	1	\$ 10,500.00	Dark (Street Light)	Dry	No Improper Drvng / Act
407	822001940	5/17/2011	Tuesday	11.891 SR 527	12:00 AM	#N/A	0	4	\$ 800.00	Daylight	Dry	#N/A
408	821997120	5/18/2011	Wednesday	12.839 SR 527	12:00 AM	Rear-End	0	3	\$ 5,000.00	Daylight	Dry	Careless Driving
409	822001950	5/23/2011	Monday	12.525 SR 527	12:00 AM	Angle	0	2	\$ 2,500.00	Daylight	Dry	No Improper Drvng / Act
410	822002160	5/27/2011	Friday	12.323 SR 527	12:00 AM	Rear-End	0	1	\$ 2,500.00	Daylight	Dry	Followed too Closely
411	822008410	5/29/2011	Sunday	12.285 SR 527	12:00 AM	Head-On	0	3	\$ 20,000.00	Dark (Street Light)	Dry	Failed to Yield
412	822002050	6/4/2011	Saturday	12.794 SR 527	12:00 AM	#N/A	0	1	\$ 4,250.00	Daylight	Dry	#N/A
413	822009710	6/6/2011	Monday	12.033 SR 527	12:00 AM	Rear-End	0	2	\$ 1,200.00	Daylight	Dry	Careless Driving
414	822014170	6/10/2011	Friday	12.956 SR 527	12:00 AM	Coll. w/ MV on Roadway	0	1	\$ 200.00	Daylight	Dry	Unknown / Not Coded
415	822017000	6/12/2011	Sunday	12.285 SR 527	12:00 AM	Angle	0	2	\$ 10,000.00	Daylight	Dry	No Improper Drvng / Act
416	822018600	6/14/2011	Tuesday	12.033 SR 527	12:00 AM	Rear-End	0	3	\$ 1,200.00	Daylight	Dry	Careless Driving
417	822020160	6/21/2011	Tuesday	12.794 SR 527	12:00 AM	Utility / Light Pole	0	2	\$ 500.00	Daylight	Dry	No Improper Drvng / Act
418	821985700	6/21/2011	Tuesday	12.839 SR 527	12:00 AM	#N/A	0	0	\$ 1,000.00	Daylight	Dry	#N/A
419	822022800	6/24/2011	Friday	12.871 SR 527	12:00 AM	All Others	0	1	\$ 1,000.00	Dark (Street Light)	Dry	Careless Driving
420	829607110	6/29/2011	Wednesday	13.039 SR 527	12:00 AM	Rear-End	0	2	\$ 51.00	Daylight	Wet	All Other
421	829609720	7/17/2011	Sunday	12.756 SR 527	12:00 AM	Rear-End	0	2	\$ 10,000.00	Daylight	Dry	Careless Driving
422	822015190	7/17/2011	Sunday	12.878 SR 527	12:00 AM	Rear-End	0	2	\$ 2,500.00	Dark (Street Light)	Dry	Followed too Closely
423	829609810	7/19/2011	Tuesday	11.821 SR 527	12:00 AM	Angle	0	3	\$ 8,000.00	Daylight	Dry	Improper Turn
424	829614820	7/20/2011	Wednesday	12.358 SR 527	12:00 AM	Rear-End	0	3	\$ 700.00	Daylight	Dry	All Other
425	822020510	7/20/2011	Wednesday	13.069 SR 527	12:00 AM	Rear-End	0	1	\$ 5,500.00	Daylight	Dry	Followed too Closely
426	829612310	7/22/2011	Friday	12.090 SR 527	12:00 AM	Angle	0	2	\$ 3,000.00	Daylight	Dry	Failed to Yield
427	829618820	8/1/2011	Monday	12.805 SR 527	12:00 AM	Coll. w/ MV on Roadway	0	1	\$ 500.00	Daylight	Wet	All Other
428	829619280	8/4/2011	Thursday	13.289 SR 527	12:00 AM	Angle	0	1	\$ 50.00	Daylight	Dry	Failed to Yield
429	829613110	8/9/2011	Tuesday	11.783 SR 527	12:00 AM	Angle	0	3	\$ 3,000.00	Daylight	Wet	Careless Driving
430	829620460	8/9/2011	Tuesday	12.527 SR 527	12:00 AM	Rear-End	0	3	\$ 1,200.00	Daylight	Wet	Careless Driving
431	829620690	8/10/2011	Wednesday	12.727 SR 527	12:00 AM	Rear-End	0	2	\$ 500.00	Daylight	Wet	Followed too Closely
432	829622430	8/10/2011	Wednesday	12.794 SR 527	12:00 AM	Angle	0	3	\$ 1,200.00	Daylight	Dry	No Improper Drvng / Act
433	829623680	8/15/2011	Monday	12.159 SR 527	12:00 AM	Angle	0	3	\$ 8,700.00	Daylight	Dry	Disregarded Stop Sign
434	829623640	8/15/2011	Monday	12.949 SR 527	12:00 AM	#N/A	0	1	\$ 2,000.00	Daylight	Dry	#N/A
435	829626820	8/20/2011	Saturday	12.536 SR 527	12:00 AM	#N/A	0	1	\$ 200.00	Dark (Street Light)	Dry	#N/A
436	829616630	8/28/2011	Sunday	12.099 SR 527	12:00 AM	Angle	0	2	\$ 10,000.00	Daylight	Dry	Disregarded Stop Sign
437	829621660	9/7/2011	Wednesday	13.067 SR 527	12:00 AM	Coll. w/ Pedestrian	0	2	\$ 500.00	Daylight	Dry	Failed to Yield
438	822005540	9/8/2011	Thursday	13.289 SR 527	12:00 AM	Rear-End	0	1	\$ 800.00	Daylight	Dry	No Improper Drvng / Act
439	829637270	9/20/2011	Tuesday	12.159 SR 527	12:00 AM	Coll. w/ Bicycle	0	3	\$ 2,000.00	Daylight	Dry	No Improper Drvng / Act
440	829641220	10/4/2011	Tuesday	12.033 SR 527	12:00 AM	Coll. w/ MV on Roadway	0	1	\$ 350.00	Daylight	Dry	No Improper Drvng / Act
441	810584640	10/4/2011	Tuesday	13.281 SR 527	5:30 PM	Angle	0	3	\$ 1,500.00	Daylight	Dry	Careless Driving
442	829643630	10/6/2011	Thursday	12.099 SR 527	12:00 AM	Angle	0	3	\$ 5,000.00	Daylight	Dry	Disregarded Stop Sign
443	829641660	10/6/2011	Thursday	12.794 SR 527	12:00 AM	Angle	0	3	\$ 9,000.00	Daylight	Dry	Disregarded Traff Sgnl
444	822014970	10/8/2011	Saturday	12.408 SR 527	12:00 AM	Coll. w/ MV on Roadway	0	1	\$ 1,000.00	Dark (Street Light)	Wet	Improper Turn
445	829613300	10/8/2011	Saturday	12.479 SR 527	12:00 AM	Unknown / Not Coded	0	4	\$ -	Dark (Street Light)	Wet	All Other
446	829645720	10/9/2011	Sunday	12.033 SR 527	12:00 AM	Head-On	0	1	\$ 1,500.00	Dark (Street Light)	Wet	All Other
447	829644240	10/12/2011	Wednesday	12.033 SR 527	12:00 AM	Head-On	0	3	\$ 16,000.00	Dark (Street Light)	Dry	Improper Turn
448	822024720	10/22/2011	Saturday	12.150 SR 527	12:00 AM	Left-Turn	0	3	\$ 5,000.00	Dark (Street Light)	Dry	Improper Turn
449	829647130	10/22/2011	Saturday	12.159 SR 527	12:00 AM	Coll. w/ Pedestrian	0	3	\$ -	Dusk	Dry	All Other
450	829647290	10/24/2011	Monday	13.153 SR 527	12:00 AM	Coll. w/ Parked Car	0	3	\$ 7,000.00	Daylight	Dry	All Other
451	829627760	10/30/2011	Sunday	12.033 SR 527	12:00 AM	Left-Turn	0	1	\$ 3,000.00	Dark (Street Light)	Dry	No Improper Drvng / Act
452	829651570	11/3/2011	Thursday	12.159 SR 527	12:00 AM	Coll. w/ Bicycle	0	2	\$ 300.00	Daylight	Dry	Improper Turn
453	829660440	11/21/2011	Monday	13.289 SR 527	12:00 AM	Head-On	0	3	\$ 10,000.00	Daylight	Dry	Disregarded Traff Sgnl
454	829651270	11/28/20										

CrashNumber	Route	XRoute	CrashDate	CrashTime	Distance	Direction	Description	VehicleTotals	InjuryTotals	FatalityTotals	PedTotals
1	9316931	S ORANGE AVE	E ANDERSON ST	5/22/2009	13:29	0	Right Angle	2	0	0	0
2	76576224	S ORANGE AVE	E ANDERSON ST	9/25/2009	03:00	0	Right Angle	2	1	0	0
3	76589731	S ORANGE AVE	E ANDERSON ST	11/4/2009	02:41	0	Right Angle	2	0	0	0
4	76576765	S ORANGE AVE	E ANDERSON ST	11/25/2009	03:19	0	Right Angle	2	4	0	0
5	6571220	S ORANGE AVE	E ANDERSON ST	12/7/2009	00:59	0	Right Angle	2	0	0	0
6	91479007	S ORANGE AVE	E ANDERSON ST	12/10/2009	16:02	0	Right Angle	2	2	0	0
7	9571312	S ORANGE AVE	E ANDERSON ST	5/7/2010	10:10	0	Right Angle	2	0	0	0
8	90818765	S ORANGE AVE	E ANDERSON ST	5/15/2010	17:45	0	Right Angle	2	1	0	0
9	91238593	S ORANGE AVE	E ANDERSON ST	8/14/2010	22:44	0	Right Angle	2	0	0	0
10	72788464	E ANDERSON ST	S ORANGE AVE	10/8/2009	22:00	0	Right Angle	2	3	0	0
11	9776935	E ANDERSON ST	S ORANGE AVE	11/4/2009	00:44	0	Right Angle	2	0	0	0
12	72819910	E ANDERSON ST	S ORANGE AVE	12/10/2009	15:28	0	Right Angle	2	0	0	0
13	91237805	S ORANGE AVE	E ANDERSON ST	11/18/2010	02:15	15 N	Left Turn	2	0	0	0
14	9647422	S ORANGE AVE	E ANDERSON ST	3/28/2010	12:51	50 S	Other / Unknown	2	0	0	0
15	72788010	E ANDERSON ST	S ORANGE AVE	6/5/2009	1:02	50 E	Pedestrian	1	0	1	1
16	9656547	S ORANGE AVE	E ANDERSON ST	1/29/2010	18:03	0	Rear End	2	0	0	0
17	11433994	S ORANGE AVE	E ANDERSON ST	3/28/2010	18:44	0	Rear End	2	0	0	0
18	11010871	S ORANGE AVE	E ANDERSON ST	11/11/2010	19:28	10 N	Rear End	2	0	0	0
19	11190530	S ORANGE AVE	E ANDERSON ST	5/18/2010	17:48	10 S	Rear End	2	0	0	0
20	76587762	S ORANGE AVE	E ANDERSON ST	3/20/2009	11:43	20 S	Rear End	2	1	0	0
21	91478402	S ORANGE AVE	E ANDERSON ST	12/7/2009	23:12	25 N	Rear End	2	0	0	0
22	8683131	S ORANGE AVE	E ANDERSON ST	11/10/2009	10:50	40 S	Rear End	2	0	0	0
23	9553929	S ORANGE AVE	E ANDERSON ST	3/17/2010	17:45	50 S	Rear End	2	0	0	0
24	10580619	S ORANGE AVE	E ANDERSON ST	5/21/2010	03:29	75 N	Rear End	2	0	0	0
25	76589907	S ORANGE AVE	E ANDERSON ST	10/8/2009	15:07	100 S	Rear End	2	1	0	0
26	76788967	E ANDERSON ST	S ORANGE AVE	3/5/2009	18:27	10 W	Rear End	2	1	0	0
27	76788920	E ANDERSON ST	S ORANGE AVE	8/7/2009	14:03	2 W	Rear End	2	0	0	0
28	9779725	E ANDERSON ST	S ORANGE AVE	3/26/2010	17:11	0	Rear End	2	0	0	0
29	11190413	E ANDERSON ST	S ORANGE AVE	6/18/2010	11:25	0 E	Rear End	2	0	0	0
30	9789606	S ORANGE AVE	E ANDERSON ST	12/4/2009	22:11	0	Side Swipe	2	0	0	0
31	91551605	S ORANGE AVE	E ANDERSON ST	1/15/2010	17:21	0	Side Swipe	2	0	0	0
32	5573504	S ORANGE AVE	E ANDERSON ST	2/17/2010	16:15	0	Side Swipe	2	0	0	0
33	91550007	S ORANGE AVE	E ANDERSON ST	2/26/2010	00:21	0	Side Swipe	2	0	0	0
34	91552935	S ORANGE AVE	E ANDERSON ST	3/17/2010	08:13	0	Side Swipe	2	1	0	0
35	91553514	S ORANGE AVE	E ANDERSON ST	3/30/2010	12:32	0	Side Swipe	2	1	0	0
36	4335174	S ORANGE AVE	E ANDERSON ST	5/5/2010	20:10	0	Side Swipe	2	0	0	0
37	11192707	S ORANGE AVE	E ANDERSON ST	6/6/2010	15:44	0	Side Swipe	2	0	0	0
38	76258288	S ORANGE AVE	E ANDERSON ST	7/19/2010	03:15	0	Side Swipe	2	0	0	0
39	8676263	S ORANGE AVE	E ANDERSON ST	4/7/2009	14:34	1 S	Side Swipe	2	0	0	0

40	8881576	S ORANGE AVE	E ANDERSON ST	3/9/2009 22:55	10 N	Side Swipe	2	0	0	0
41	9568209	S ORANGE AVE	E ANDERSON ST	8/5/2010 13:03	10 S	Side Swipe	2	0	0	0
42	8788369	S ORANGE AVE	E ANDERSON ST	3/16/2009 10:00	25 S	Side Swipe	2	0	0	0
43	9235138	S ORANGE AVE	E ANDERSON ST	11/16/2009 14:06	45 N	Side Swipe	2	0	0	0
44	8877918	S ORANGE AVE	E ANDERSON ST	3/24/2010 08:13	50 N	Side Swipe	2	0	0	0
45	8879791	S ORANGE AVE	E ANDERSON ST	1/16/2010 18:50	75 S	Side Swipe	2	0	0	0
46	91236573	S ORANGE AVE	E ANDERSON ST	10/9/2010 02:24	100 N	Side Swipe	2	0	0	0
47	9316669	E ANDERSON ST	S ORANGE AVE	5/16/2009 22:50	0	Side Swipe	2	0	0	0
48	8682905	S ORANGE AVE	N LUCERNE CIR W	3/19/2008 14:41	0	Left Turn	2	0	0	0
49	9330804	S ORANGE AVE	N LUCERNE CIR W	3/30/2008 10:44	0	Left Turn	2	0	0	0
50	9645156	S ORANGE AVE	N LUCERNE CIR W	7/21/2008 03:06	0	Left Turn	2	0	0	0
51	9236934	S ORANGE AVE	N LUCERNE CIR W	8/14/2008 14:53	0	Left Turn	2	0	0	0
52	8682905	S ORANGE AVE	N LUCERNE CIR W	5/11/2009 14:41	0	Left Turn	2	0	0	0
53	9330804	S ORANGE AVE	N LUCERNE CIR W	5/24/2009 10:44	0	Left Turn	2	0	0	0
54	9645156	S ORANGE AVE	N LUCERNE CIR W	2/5/2010 03:06	0	Left Turn	2	0	0	0
55	9236934	S ORANGE AVE	N LUCERNE CIR W	3/4/2010 14:53	0	Left Turn	2	0	0	0
56	8789102	S ORANGE AVE	S LUCERNE CIR E	1/16/2006 10:29	0	Left Turn	2	0	0	0
57	9330932	S ORANGE AVE	S LUCERNE CIR E	4/20/2006 17:30	0	Left Turn	2	0	0	0
58	9783325	S ORANGE AVE	S LUCERNE CIR E	10/8/2006 02:21	20 N	Left Turn	2	0	0	0
59	9952912	S ORANGE AVE	S LUCERNE CIR E	1/31/2008 09:35	0	Left Turn	2	0	0	0
60	9776559	S ORANGE AVE	S LUCERNE CIR W	10/2/2006 14:34	0	Left Turn	2	0	0	0
61	9652212	S ORANGE AVE	N LUCERNE CIR W	8/1/2008 07:00	200 E	Other / Unknown	2	0	0	0
62	76589746	S ORANGE AVE	S LUCERNE CIR E	1/11/2006 11:13	75 N	Other / Unknown	2	3	0	0
63	11433415	S ORANGE AVE	S LUCERNE CIR E	6/21/2007 19:45	0	Other / Unknown	1	0	0	0
64	9316826	N LUCERNE CIR W	S ORANGE AVE	3/21/2008 13:52	50 W	Other/Unknown	2	0	0	0
65	9316826	N LUCERNE CIR W	S ORANGE AVE	5/17/2009 13:52	50 W	Other/Unknown	2	0	0	0
66	76257142	S ORANGE AVE	N LUCERNE CIR W	5/9/2008 13:25	40 S	Pedestrian	1	1	0	1
67	76257142	S ORANGE AVE	N LUCERNE CIR W	6/18/2009 13:25	40 S	Pedestrian	1	1	0	1
68	8371141	S LUCERNE CIR E	S ORANGE AVE	5/3/2007 13:00	0	Pedestrian	1	1	0	1
69	76582995	S ORANGE AVE	N LUCERNE CIR W	5/19/2008 6:03	100 S	Ran off Road	1	2	0	0
70	91473469	S ORANGE AVE	N LUCERNE CIR W	12/24/2008 03:47	100 S	Ran off Road	1	0	0	0
71	76582995	S ORANGE AVE	N LUCERNE CIR W	7/30/2009 6:03	100 S	Ran off Road	1	2	0	0
72	91473469	S ORANGE AVE	N LUCERNE CIR W	8/25/2010 03:47	100 S	Ran off Road	1	0	0	0
73	76585728	S ORANGE AVE	S LUCERNE CIR E	1/22/2006 02:53	100 N	Ran off Road	1	1	0	0
74	9316985	S ORANGE AVE	S LUCERNE CIR E	2/6/2006 17:38	50 S	Ran off Road	1	0	0	0
75	76789934	S ORANGE AVE	S LUCERNE CIR E	7/21/2006 8:57	50 S	Ran off Road	1	0	0	0
76	76577943	S ORANGE AVE	S LUCERNE CIR E	10/5/2006 05:34	100 N	Ran off Road	1	1	0	0
77	76788872	S ORANGE AVE	S LUCERNE CIR E	11/30/2006 02:43	0	Ran off Road	1	0	0	0

78	6571435	N LUCERNE CIR W	S ORANGE AVE	3/10/2008 17:18	30 W	Ran off Road	1	0	0	0
79	91472421	N LUCERNE CIR W	S ORANGE AVE	10/31/2008 02:31	25 W	Ran off Road	1	0	0	0
80	6571435	N LUCERNE CIR W	S ORANGE AVE	3/20/2009 17:18	30 W	Ran off Road	1	0	0	0
81	91472421	N LUCERNE CIR W	S ORANGE AVE	6/16/2010 02:31	25 W	Ran off Road	1	0	0	0
82	76584095	S ORANGE AVE	N LUCERNE CIR W	5/28/2008 18:50	0	Rear End	2	1	0	0
83	6587710	S ORANGE AVE	N LUCERNE CIR W	3/12/2008 14:45	100 S	Rear End	2	0	0	0
84	9657782	S ORANGE AVE	N LUCERNE CIR W	7/1/2008 10:27	10 N	Rear End	2	0	0	0
85	9565690	S ORANGE AVE	N LUCERNE CIR W	8/26/2008 18:40	0	Rear End	2	0	0	0
86	9774881	S ORANGE AVE	N LUCERNE CIR W	8/28/2008 17:20	0	Rear End	2	0	0	0
87	11430506	S ORANGE AVE	N LUCERNE CIR W	10/29/2008 11:23	15 N	Rear End	2	0	0	0
88	11190901	S ORANGE AVE	N LUCERNE CIR W	12/1/2008 13:40	50 N	Rear End	2	0	0	0
89	90815967	S ORANGE AVE	N LUCERNE CIR W	12/5/2008 18:11	100 N	Rear End	2	2	0	0
90	6587710	S ORANGE AVE	N LUCERNE CIR W	4/6/2009 14:45	100 S	Rear End	2	0	0	0
91	76584095	S ORANGE AVE	N LUCERNE CIR W	8/1/2009 18:50	0	Rear End	2	1	0	0
92	9657782	S ORANGE AVE	N LUCERNE CIR W	1/20/2010 10:27	10 N	Rear End	2	0	0	0
93	9565690	S ORANGE AVE	N LUCERNE CIR W	4/9/2010 18:40	0	Rear End	2	0	0	0
94	9774881	S ORANGE AVE	N LUCERNE CIR W	4/22/2010 17:20	0	Rear End	2	0	0	0
95	11430506	S ORANGE AVE	N LUCERNE CIR W	5/21/2010 11:23	15 N	Rear End	2	0	0	0
96	11190901	S ORANGE AVE	N LUCERNE CIR W	8/2/2010 13:40	50 N	Rear End	2	0	0	0
97	90815967	S ORANGE AVE	N LUCERNE CIR W	8/2/2010 18:11	100 N	Rear End	2	2	0	0
98	76587368	S ORANGE AVE	S LUCERNE CIR E	2/6/2006 02:30	0	Rear End	2	0	0	0
99	6566986	S ORANGE AVE	S LUCERNE CIR E	2/10/2006 15:03	0	Rear End	2	0	0	0
100	9328148	S ORANGE AVE	S LUCERNE CIR E	4/5/2006 13:18	50 N	Rear End	2	0	0	0
101	9334516	S ORANGE AVE	S LUCERNE CIR E	5/5/2006 15:19	0	Rear End	2	0	0	0
102	76581508	S ORANGE AVE	S LUCERNE CIR E	7/11/2006 9:20	0	Rear End	2	4	0	0
103	9228337	S ORANGE AVE	S LUCERNE CIR E	9/11/2006 12:30	0	Rear End	3	0	0	0
104	76577175	S ORANGE AVE	S LUCERNE CIR E	10/8/2006 14:16	0	Rear End	2	0	0	0
105	76577006	S ORANGE AVE	S LUCERNE CIR E	10/12/2006 15:00	0	Rear End	2	2	0	0
106	9647918	S ORANGE AVE	S LUCERNE CIR E	3/29/2007 15:34	5 S	Rear End	2	0	0	0
107	11193072	S ORANGE AVE	S LUCERNE CIR E	7/9/2007 16:17	40 N	Rear End	2	0	0	0
108	9783329	S ORANGE AVE	S LUCERNE CIR E	8/14/2007 09:36	10 S	Rear End	2	0	0	0
109	10959084	S ORANGE AVE	S LUCERNE CIR E	12/5/2007 16:25	0	Rear End	3	0	0	0
110	70835640	S ORANGE AVE	S LUCERNE CIR W	1/4/2006 11:30	30 S	Rear End	3	0	0	0
111	91238940	S ORANGE AVE	S LUCERNE CIR W	11/27/2007 13:50	50 S	Rear End	2	1	0	0
112	10959072	S ORANGE AVE	S LUCERNE CIR W	12/17/2007 18:01	15 N	Rear End	3	0	0	0
113	9949726	S ORANGE AVE	S LUCERNE CIR W	1/15/2008 14:45	0	Rear End	2	0	0	0
114	9567616	S LUCERNE CIR E	S ORANGE AVE	10/25/2007 16:22	40 E	Rear End	2	0	0	0
115	11605126	S LUCERNE CIR E	S ORANGE AVE	1/7/2008 08:09	5 E	Rear End	2	0	0	0
116	81898438	S LUCERNE CIR E	S ORANGE AVE	1/31/2008 08:30	20 E	Rear End	2	1	0	0
117	76587904	S ORANGE AVE	N LUCERNE CIR W	6/3/2008 17:00	0	Right Angle	3	2	0	0

118	90815242	S ORANGE AVE	N LUCERNE CIR W	11/12/2008 17:40	0	Right Angle	2	2	0	0
119	91798187	S ORANGE AVE	N LUCERNE CIR W	2/27/2009 15:42	0	Right Angle	2	3	0	0
120	76587904	S ORANGE AVE	N LUCERNE CIR W	8/7/2009 17:00	0	Right Angle	3	2	0	0
121	90815242	S ORANGE AVE	N LUCERNE CIR W	6/19/2010 17:40	0	Right Angle	2	2	0	0
122	91798187	S ORANGE AVE	N LUCERNE CIR W	12/24/2010 15:42	0	Right Angle	2	3	0	0
123	76580839	S ORANGE AVE	S LUCERNE CIR E	6/27/2006 7:09	0	Right Angle	2	2	0	0
124	91551921	S ORANGE AVE	S LUCERNE CIR E	1/17/2007 13:52	0	Right Angle	2	1	0	0
125	9236786	S ORANGE AVE	S LUCERNE CIR E	3/9/2007 16:25	0	Right Angle	2	0	0	0
126	9228650	S ORANGE AVE	S LUCERNE CIR W	10/12/2006 12:31	0	Right Angle	2	0	0	0
127	91238104	S ORANGE AVE	N LUCERNE CIR W	1/10/2009 17:20	30 N	Right Turn	2	0	0	0
128	91238104	S ORANGE AVE	N LUCERNE CIR W	11/10/2010 17:20	30 N	Right Turn	2	0	0	0
129	10962429	S ORANGE AVE	S LUCERNE CIR E	12/13/2007 12:58	0	Right Turn	2	0	0	0
130	9238063	S ORANGE AVE	N LUCERNE CIR W	3/19/2008 14:32	0	Side Swipe	2	0	0	0
131	75298800	S ORANGE AVE	N LUCERNE CIR W	4/29/2008 15:37	50 S	Side Swipe	2	0	0	0
132	9235026	S ORANGE AVE	N LUCERNE CIR W	6/17/2008 14:52	30 S	Side Swipe	2	0	0	0
133	9657119	S ORANGE AVE	N LUCERNE CIR W	6/30/2008 16:52	40 N	Side Swipe	2	0	0	0
134	11359337	S ORANGE AVE	N LUCERNE CIR W	12/1/2008 15:07	50 N	Side Swipe	2	0	0	0
135	91239626	S ORANGE AVE	N LUCERNE CIR W	1/12/2009 23:37	100 N	Side Swipe	2	0	0	0
136	90818594	S ORANGE AVE	N LUCERNE CIR W	1/19/2009 10:58	100 S	Side Swipe	2	0	0	0
137	9238063	S ORANGE AVE	N LUCERNE CIR W	5/13/2009 14:32	0	Side Swipe	2	0	0	0
138	75298800	S ORANGE AVE	N LUCERNE CIR W	6/9/2009 15:37	50 S	Side Swipe	2	0	0	0
139	9235026	S ORANGE AVE	N LUCERNE CIR W	12/2/2009 14:52	30 S	Side Swipe	2	0	0	0
140	9657119	S ORANGE AVE	N LUCERNE CIR W	12/23/2009 16:52	40 N	Side Swipe	2	0	0	0
141	11359337	S ORANGE AVE	N LUCERNE CIR W	6/19/2010 15:07	50 N	Side Swipe	2	0	0	0
142	91239626	S ORANGE AVE	N LUCERNE CIR W	11/19/2010 23:37	100 N	Side Swipe	2	0	0	0
143	90818594	S ORANGE AVE	N LUCERNE CIR W	12/14/2010 10:58	100 S	Side Swipe	2	0	0	0
144	8876735	S ORANGE AVE	S LUCERNE CIR E	3/17/2006 18:30	0	Side Swipe	2	0	0	0
145	9333046	S ORANGE AVE	S LUCERNE CIR E	5/1/2006 14:08	40 N	Side Swipe	2	0	0	0
146	8788360	S ORANGE AVE	S LUCERNE CIR E	8/28/2006 09:55	0	Side Swipe	2	0	0	0
147	9657977	S ORANGE AVE	S LUCERNE CIR E	3/29/2007 17:18	80 S	Side Swipe	2	0	0	0
148	91550606	S ORANGE AVE	S LUCERNE CIR E	4/4/2007 15:00	0	Side Swipe	2	0	0	0
149	11432033	S ORANGE AVE	S LUCERNE CIR E	6/12/2007 10:29	40 N	Side Swipe	2	0	0	0
150	11191975	S ORANGE AVE	S LUCERNE CIR E	7/17/2007 16:05	100 N	Side Swipe	2	0	0	0
151	10586553	S ORANGE AVE	S LUCERNE CIR E	8/23/2007 16:30	100 N	Side Swipe	2	0	0	0
152	10963092	S ORANGE AVE	S LUCERNE CIR W	1/8/2008 17:20	50 N	Side Swipe	2	0	0	0
153	8879533	N LUCERNE CIR W	S ORANGE AVE	3/19/2008 9:25	0	Side Swipe	2	0	0	0
154	76788855	N LUCERNE CIR W	S ORANGE AVE	2/20/2009 18:19	0	Side Swipe	2	0	0	0
155	8879533	N LUCERNE CIR W	S ORANGE AVE	5/11/2009 9:25	0	Side Swipe	2	0	0	0
156	76788855	N LUCERNE CIR W	S ORANGE AVE	12/23/2010 18:19	0	Side Swipe	2	0	0	0
157	9792466	S LUCERNE CIR E	S ORANGE AVE	10/15/2006 12:20	100 E	Side Swipe	2	0	0	0

158	91550902	S LUCERNE CIR E	S ORANGE AVE	3/3/2007 23:34	0	Side Swipe	2	0	0	0
159	81916695	S LUCERNE CIR W	S ORANGE AVE	1/24/2008 09:59	30 W	Side Swipe	2	0	0	0
160	9239438	S ORANGE AVE	S LUCERNE CIR E	2/29/2008 12:54	600 N	Other / Unknown	3	0	0	0
161	9328197	S ORANGE AVE	S LUCERNE CIR E	3/3/2008 23:15	700 N	Ran off Road	1	0	0	0
162	8789012	S ORANGE AVE	S LUCERNE CIR E	3/7/2008 00:24	1000 N	Ran off Road	1	0	0	0
163	76578034	S ORANGE AVE	S LUCERNE CIR E	6/25/2008 09:36	500 N	Ran off Road	1	1	0	0
164	91473922	S ORANGE AVE	S LUCERNE CIR E	10/21/2008 01:15	300 N	Ran off Road	1	0	0	0
165	91477669	S ORANGE AVE	S LUCERNE CIR E	8/14/2008 01:22	425 N	Ran off Road	1	1	0	0
166	91478483	S ORANGE AVE	S LUCERNE CIR E	9/25/2008 04:35	300 N	Ran off Road	1	0	0	0
167	11432992	S ORANGE AVE	SR 408 ON RAMP W	9/10/2008 11:15	10 N	Rear End	2	0	0	0
168	81916575	S ORANGE AVE	SR 408 E	2/27/2009 09:19	50 S	Side Swipe	2	0	0	0
169	91552433	S ORANGE AVE	SR 408 W	1/5/2009 18:30	150 S	Side Swipe	2	0	0	0
170	9647256	S ORANGE AVE	S LUCERNE CIR E	8/19/2008 14:45	300 N	Side Swipe	2	0	0	0
171	6583766	S ORANGE AVE	W ANDERSON ST	3/30/2009 18:24	0	Rear End	2	0	0	0
172	9230544	S ORANGE AVE	W ANDERSON ST	5/11/2009 12:43	100 N	Rear End	2	0	0	0
173	10590288	W ANDERSON ST	S ORANGE AVE	8/5/2010 13:43	60 W	Rear End	2	0	0	0
174	91552833	W ANDERSON ST	S ORANGE AVE	11/11/2010 18:16	0	Rear End	2	0	0	0
175	11359803	W ANDERSON ST	S ORANGE AVE	12/3/2010 17:44	100 W	Rear End	2	0	0	0
176	9568279	S ORANGE AVE	W ANDERSON ST	8/25/2010 09:24	0	Right Angle	2	0	0	0
177	81900236	S ORANGE AVE	W ANDERSON ST	12/24/2010 10:52	0	Right Angle	2	1	0	0
178	91552828	W ANDERSON ST	S ORANGE AVE	10/18/2010 14:51	0	Right Angle	2	1	0	0
179	11428494	S ORANGE AVE	W ANDERSON ST	9/26/2010 02:47	80 N	Side Swipe	2	0	0	0
180	9317598	S ORANGE AVE	W ANDERSON ST	5/24/2009 14:18	20 S	Rear End	2	0	0	0
181	76259588	S ORANGE AVE	E ANDERSON ST	3/3/2008 00:24	350 S	Head On	2	1	0	0
182	91473924	S ORANGE AVE	E ANDERSON ST	10/29/2008 22:41	300 S	Ran off Road	1	0	0	0
183	8677493	S ORANGE AVE	E ANDERSON ST	3/13/2008 8:19	200 S	Rear End	2	0	0	0
184	8677493	S ORANGE AVE	E ANDERSON ST	4/30/2009 8:19	200 S	Rear End	2	0	0	0
185	91550120	S ORANGE AVE	E ANDERSON ST	7/30/2008 16:31	200 S	Side Swipe	2	0	0	0
186	91550120	S ORANGE AVE	E ANDERSON ST	2/15/2010 16:31	200 S	Side Swipe	2	0	0	0
187	76258296	S ORANGE AVE	E ANDERSON ST	5/12/2008 18:09	250 S	Side Swipe	2	2	0	0
188	9654682	S ORANGE AVE	E ANDERSON ST	6/30/2008 08:00	500 S	Side Swipe	2	0	0	0
189	6587688	S ORANGE AVE	E ANDERSON ST	7/11/2008 16:29	660 S	Side Swipe	2	0	0	0
190	10586403	S ORANGE AVE	E ANDERSON ST	10/29/2008 13:21	800 S	Side Swipe	2	0	0	0
191	90818723	S ORANGE AVE	N LUCERNE CIR W	9/29/2008 11:45	300 S	Side Swipe	3	8	0	0
								1	0	0

192	76256267 S ORANGE AVE	S LUCERNE CIR E	1/14/2006 13:46	200 S	Other / Unknown	1	1	0	0
						1	21	0	0
							40	0	0
							<hr/>	<hr/>	<hr/>
							80	0	0

rear end	54
side swipe	55
other	26
angle	23
RT	3
LT	12
ped	4
head on	1

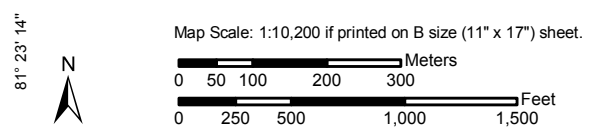
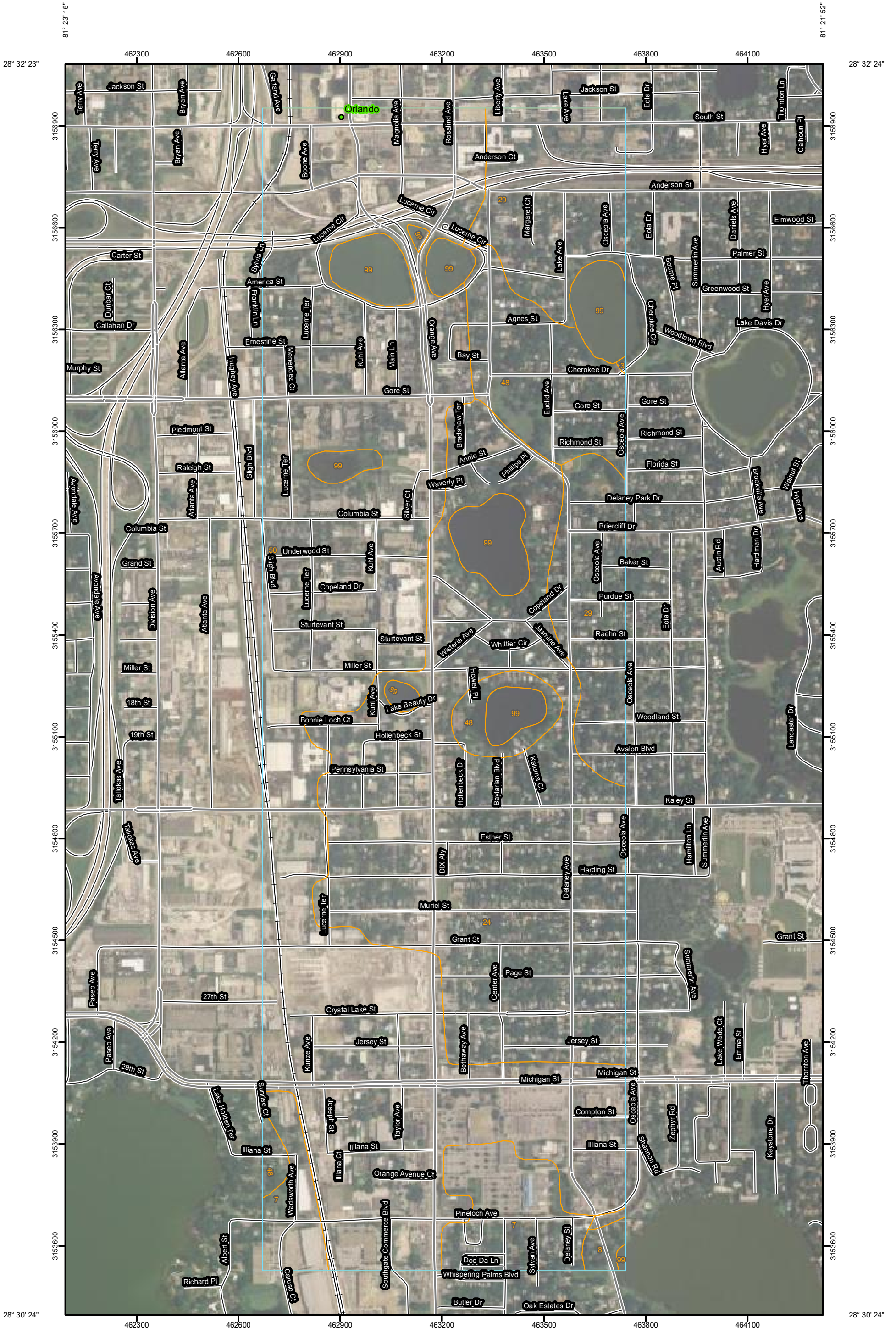
## **Appendix E**

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### **Soils**



Soil Map—Orange County, Florida  
(Orange Ave)



## MAP LEGEND






















### Area of Interest (AOI)


 Area of Interest (AOI)

### Soils


 Soil Map Units

### Special Point Features




-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other

### Special Line Features

-  Gully
-  Short Steep Slope
-  Other






### Political Features

 Cities

### Water Features

 Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

## MAP INFORMATION

Map Scale: 1:10,200 if printed on B size (11" × 17") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 17N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Orange County, Florida  
Survey Area Data: Version 8, Jul 6, 2012

Date(s) aerial images were photographed: 8/30/2007; 8/10/2007

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Orange County, Florida (FL095)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Basinger fine sand, depressional	0.2	0.0%
7	Candler-Urban land complex, 0 to 5 percent slopes	47.9	5.3%
8	Candler-Urban land complex, 5 to 12 percent slopes	3.7	0.4%
24	Millhopper-Urban land complex, 0 to 5 percent slopes	244.8	27.0%
29	Florahome-Urban land complex, 0 to 5 percent slopes	97.2	10.7%
48	Tavares-Urban land complex, 0 to 5 percent slopes	57.8	6.4%
50	Urban land	406.3	44.8%
99	Water	49.1	5.4%
<b>Totals for Area of Interest</b>		<b>906.9</b>	<b>100.0%</b>

## **Appendix F**

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### Utilities

## Melissa Gross

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**From:** Theresa Shaw  
**Sent:** Tuesday, March 19, 2013 9:44 AM  
**To:** Melissa Gross  
**Subject:** FW: SSOCOF CONFRM 2013/03/19 #00000 078301743-000 NORM DSGN NEW

-----Original Message-----

From: irth\_host@callsunshine.com [mailto:irth\_host@callsunshine.com]  
Sent: Tuesday, March 19, 2013 9:44 AM  
To: Theresa Shaw  
Subject: SSOCOF CONFRM 2013/03/19 #00000 078301743-000 NORM DSGN NEW

CONFRM 00000 CALL SUNSHINE 03/19/13 09:43:30ET 078301743-000 DESIGN STREET Ticket : 078301743 Rev:000  
Taken: 03/19/13 09:31ET

State: FL Cnty: ORANGE GeoPlace: ORLANDO  
CallerPlace: ORLANDO  
Subdivision:

Address :  
Street : S ORANGE AVE  
Cross 1 : W PINELOCH AVE  
Within 1/4 mile: Y  
Cross 2 : W ANDERSON ST

Locat: DESIGN R/O/W TO R/O/W ON S ORANGE AVE FROM W PINELOCH ST NORTH TO  
W ANDERSON ST APPROX 2 MILES

:  
Remarks : IN RESPONSE TO RECEIPT OF A DESIGN TICKET, SSOCOF PROVIDES THE  
ORIGINATOR OF THE DESIGN TICKET WITH A LIST OF SSOCOF MEMBERS IN THE  
VICINITY OF THE DESIGN PROJECT. SSOCOF DOES NOT NOTIFY SSOCOF MEMBERS OF  
THE RECEIPT BY SSOCOF OF A DESIGN TICKET. IT IS THE SOLE RESPONSIBILITY  
OF THE DESIGN ENGINEER TO CONTACT SSOCOF MEMBERS TO REQUEST INFORMATION  
ABOUT THE LOCATION OF SSOCOF MEMBERS' UNDERGROUND FACILITIES. SUBMISSION  
OF A DESIGN TICKET WILL NOT SATISFY THE REQUIREMENT OF CHAPTER 556,  
FLORIDA STATUTES, TO NOTIFY SSOCOF OF AN INTENT TO EXCAVATE OR DEMOLISH.  
THAT INTENT MUST BE MADE KNOWN SPECIFICALLY TO SSOCOF IN THE MANNER  
REQUIRED BY LAW. IN AN EFFORT TO SAVE TIME ON FUTURE CALLS, SAVE YOUR  
DESIGN TICKET NUMBER IF YOU INTEND TO BEGIN EXCAVATION WITHIN 90 DAYS OF  
YOUR DESIGN REQUEST. THE DESIGN TICKET CAN BE REFERENCED , AND THE  
INFORMATION ON IT CAN BE USED TO SAVE TIME WHEN YOU CALL IN THE EXCAVATION  
REQUEST.

\*\*\* LOOKUP BY BETWEEN \*\*\*

:  
Grids : 2830A8122B 2830B8122B 2831A8122B 2831B8122B 2831C8122B  
Grids : 2831D8122B 2832C8122B 2832D8122A 2832D8122B

Work date: 03/19/13 Time: 09:34ET Hrs notc: 000 Category: 6 Duration: UNKNOWN Due Date : 03/21/13 Time: 23:59ET  
Exp Date : 04/18/13 Time: 23:59ET Work type: DESIGN Boring: N White-lined: N  
Ug/Oh/Both: U Machinery: N Depth: DESIGN Permits: N N/A Done for : DESIGN

Company : DRMP INC Type: CONT  
Co addr : 941 LAKE BALDWIN LN  
City : ORLANDO State: FL Zip: 32814  
Caller : THERESA SHAW Phone: 407-896-0594 Ext: 1405 Contact : DESIGN Phone:  
BestTime: 8-5  
Mobile : 407-733-0355  
Fax : 407-896-4836  
Email : TSHAW@DRMP.COM

Submitted: 03/19/13 09:31ET Oper: BOB

Mbrs :

ATTF01 NANCY SPENCE\* 770-918-5424

ATT / T

2315 SALEM RD, 1ST FLOOR - F11

CONYERS, GA 30013

Level 1: NO

Level 2: NO

Level 3: YES, FEES WILL VARY

Level 4: NO

BH1956 MARVIN USRY JR 407-532-8509

BRIGHT HOUSE NETWORKS, LLC

3767 ALL AMERICAN BLVD

ORLANDO, FL 32810

Level 1: \$91.50 PER HR / 2 HR MINIMUM REQUEST WILL NEED TO BE IN WRITING

Level 2: \$91.50 PER HR / 2 HR MINIMUM REQUEST WILL NEED TO BE IN WRITING

Level 3: QUOTES PROVIDED BASED ON REVIEW OF REQUEST

Level 4: SERVICES NOT PROVIDED BY MEMBER

BH1957 MARVIN USRY JR 407-532-8509

BRIGHT HOUSE NETWORKS, LLC

3767 ALL AMERICAN BLVD

ORLANDO, FL 32810

Level 1: \$91.50 PER HR / 2 HR MINIMUM REQUEST WILL NEED TO BE IN WRITING

Level 2: \$91.50 PER HR / 2 HR MINIMUM REQUEST WILL NEED TO BE IN WRITING

Level 3: QUOTES PROVIDED BASED ON REVIEW OF REQUEST

Level 4: SERVICES NOT OFFERED BY MEMBER

COO600 DAVID BREITRICK 407-246-3525

CITY OF ORLANDO - BUREAU OF WASTEWATER

5100 L B MCLEOD RD

ORLANDO, FL 32811

Level 1: UP TO 3 SHEETS FREE FOURTH & OTHERS

81/2x11-\$1/24x36-\$3/34x44-\$4

Level 2: NOT ACCOMPLISHED BY CITY

Level 3: NOT ACCOMPLISHED BY CITY

Level 4: CALL FOR PRICE (VARIED) - MIN \$196/HR SOIL ONLY \$1324/HR

IN STREET  
FD1027 MIKE PICKLE 407-835-0341 Ext: 0341  
WINDSTREAM COMMUNICATIONS  
2301 LUCIEN WAY, SUITE 200  
MAITLAND, FL 32751

Level 1: SERVICES NOT PROVIDED BY MEMBER  
Level 2: SERVICES NOT PROVIDED BY MEMBER  
Level 3: SERVICES NOT PROVIDED BY MEMBER  
Level 4: SERVICES NOT PROVIDED BY MEMBER

FPLFEO DANNY HASKETT\*\* 305-552-2931  
FPL FIBERNET LLC  
9250 W FLAGLER ST  
MIAMI, FL 33174

Level 1: NO CHARGE  
Level 2: SERVICES NOT PROVIDED BY MEMBER  
Level 3: SERVICES NOT PROVIDED BY MEMBER  
Level 4: SERVICES NOT PROVIDED BY MEMBER

L3C900 JUDY HENRY 720-888-2061  
LEVEL 3 COMMUNICATIONS LLC  
1025 ELDORADO BLVD  
BROOMFIELD, CO 80021

Level 1:  
Level 2:  
Level 3:  
Level 4:

LS1104  
MCIU01 ANYONE INVESTIGATIONS 972-729-6016  
MCI  
2400 N. GLENVILLE  
RICHARDSON, TX 75082

Level 1: \$0  
Level 2: SERVICES NOT PROVIDED BY MEMBER  
Level 3: SERVICES NOT PROVIDED BY MEMBER  
Level 4: SERVICES NOT PROVIDED BY MEMBER

OCE979 SCOTT KAMIEN 407-806-4178  
ORLANDO ORANGE COUNTY EXPRESSWAY AUTHOR  
482 SOUTH KELLER ROAD  
ORLANDO, FL 32810

Level 1: SERVICES NOT PROVIDED BY MEMBER  
Level 2: SERVICES NOT PROVIDED BY MEMBER  
Level 3: SERVICES NOT PROVIDED BY MEMBER  
Level 4: SERVICES NOT PROVIDED BY MEMBER

OU1075 DAVE L BRAMLETT 407-418-5025  
ORLANDO UTILITIES COMMISSION-CHILLED WA  
PO BOX 3193  
ORLANDO, FL 32802

Level 1: SERVICES NOT PROVIDED BY MEMBER  
Level 2: SERVICES NOT PROVIDED BY MEMBER  
Level 3: SERVICES NOT PROVIDED BY MEMBER  
Level 4: SERVICES NOT PROVIDED BY MEMBER

OUC553 JIM BECK 407-244-8736  
ORLANDO UTILITIES COMMISSION

3800 GARDENIA AVE  
ORLANDO, FL 32839

Level 1: SERVICES NOT PROVIDED BY MEMBER  
Level 2: SERVICES NOT PROVIDED BY MEMBER  
Level 3: SERVICES NOT PROVIDED BY MEMBER  
Level 4: SERVICES NOT PROVIDED BY MEMBER

OUC582 STEWART C DARY \*\* 407-423-9100 Ext: 4885

ORLANDO UTILITIES COMMISSION  
PO BOX 3193  
ORLANDO, FL 32802

Level 1: NO CHARGE  
Level 2: SERVICES NOT PROVIDED BY MEMBER  
Level 3: SERVICES NOT PROVIDED BY MEMBER  
Level 4: NOT AVAILABLE

OUC613 STEWART C DARY \*\* 407-423-9100 Ext: 4885

ORLANDO UTILITIES COMMISSION  
PO BOX 3193  
ORLANDO, FL 32802

Level 1: NO CHARGE  
Level 2: SERVICES NOT PROVIDED BY MEMBER  
Level 3: SERVICES NOT PROVIDED BY MEMBER  
Level 4: SERVICES NOT PROVIDED BY MEMBER

PGSORL DEBORAH FRAZIER 407-420-6609

TECO PEOPLES GAS- ORLANDO  
600 W ROBINSON ST  
ORLANDO, FL 32801

Level 1: NONE AT THIS MOMENT  
Level 2: NONE AT THIS MOMENT  
Level 3: NONE AT THIS MOMENT  
Level 4: NONE AT THIS MOMENT

SBF20

SMN407 ROD JUDY 407-920-8981

EMBARQ COMMUNICATIONS INC.  
420 PINEVIEW ST.  
ALTAMONTE SPRINGS, FL 32701

Level 1: SERVICE NOT PROVIDED BY MEMBER  
Level 2: SERVICE NOT PROVIDED BY MEMBER  
Level 3: SERVICE NOT PROVIDED BY MEMBER  
Level 4: SERVICE NOT PROVIDED BY MEMBER

TW1829 SEAN MOSS 407-215-6895

T W TELECOM  
485 N. KELLER RD  
SUITE 551  
MAITLAND, FL 32751

Level 1: Member does not provide this service.  
Level 2: Member does not provide this service.  
Level 3: Member does not provide this service.  
Level 4: Member does not provide this service.

WTI426 MARK DOWNEY 407-862-6290 Ext: 116

WIRING TECHNOLOGIES, INC  
1015 SUNSHINE LANE  
ALTAMONTE SPRINGS, FL 32714



Level 1: MEMBER DOES NOT PROVIDE SERVICE

Level 2: MEMBER DOES NOT PROVIDE SERVICE

Level 3: MEMBER DOES NOT PROVIDE SERVICE

Level 4: MEMBER DOES NOT PROVIDE SERVICE