

Exhibit J

Traffic Impact Study EID Wastewater Collections Operations Facility Relocation El Dorado County

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JULY 2019



Traffic Impact Study – Wastewater Collections Operations Facility Relocation

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1 INTRODUCTION

1.1 Purpose and Scope of the TIS

The purpose of this Traffic Impact Study (TIS) is to identify traffic impacts associated with the proposed El Dorado Irrigation District (EID) wastewater collections operations facility relocation project (proposed project) in El Dorado County (County). This TIS has been prepared per the County's *Transportation Impact Study Guidelines* (2014), and its scope of analysis has been reviewed by the County's Long Range Planning Department. In addition, this TIS complies with the County's General Plan Circulation Element requirements.

The objectives of this TIS are:

- Document existing traffic conditions, including roadway segment and intersection levels of service in the study area;
- Estimate trip generation, distribution, and assignment characteristics for the proposed project;
- Analyze the traffic impacts that would occur as a result of project traffic under the Existing and Cumulative conditions;
- Describe the significance of the potential impacts under the Existing and Cumulative conditions;
- Identify mitigation measures for any significantly impacted transportation facilities;
- Describe the adequacy of project access locations; and,
- Describe active transportation and transit facilities in the vicinity of the project site.

Dudek analyzed study area roadway segments and intersections for the following study scenarios:

Existing Condition

The TIS includes a description of existing traffic conditions in the site vicinity, including existing roadway system, existing weekday AM and PM peak hour traffic volumes, existing roadway segment daily traffic volumes, and traffic operations. All traffic data was collected in March of 2019 during typical weekday traffic operations.

Existing plus Project

This condition includes analysis of traffic operations under existing conditions with project-related traffic added to the existing AM and PM peak hour traffic volumes, and roadway segment daily

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traffic volumes. The traffic impacts specific to the project under this condition were used as the basis for determining project's direct impacts.

Cumulative 2040

This condition includes analysis of traffic operation under Cumulative 2040 conditions within a long-term horizon period. This scenario assumes buildout of the land uses designated in the County's General Plan. The proposed project is consistent with the Open space land use designations in the General Plan, however necessitates the approval of a conditional use permit prior to operation. The Long Range Planning Department provided model plot data from the El Dorado County Travel Demand Model which was utilized to derive the Cumulative 2040 volumes. The data was post-processed via the NCHRP's "incremental" method and with the County's standard methodology to eliminate errors and balance volumes. Raw model plots are located in Appendix C.

Cumulative 2040 plus Project

This condition includes analysis of traffic operations under Cumulative 2040 conditions with project-related traffic added to the AM and PM peak hour traffic volumes. The traffic impacts specific to the project under this condition were used as the basis for determining the project's contribution to cumulative impacts.

1.2 Project Description, Location and Study Area

EID is proposing to relocate their existing Bass Lake wastewater collection operation and maintenance facility to El Dorado Hills Wastewater Treatment Plant. The proposed project includes expansion of an existing building, new office and storage buildings, maintenance and materials storage buildings, resurfacing areas for vehicle circulation and parking, operations support materials and equipment staging areas. The project would be located within a 5.183-acre property in the community of El Dorado Hills in unincorporated El Dorado County. The site is approximately 0.8 miles southeast of the intersection of White Rock Road and Latrobe Road.

Existing uses in the vicinity include the existing treatment plant and wastewater storage pond to the north, a frontage road leading to Latrobe Road to the west, vacant commercial land and Blackstone Parkway to the east, and single family residential 300-feet to the south and east of the project.

Figure 1 shows the project location and study area, and Figure 2 illustrates the project's site plan.

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1.2.1 Study Area

As illustrated in Figure 1, the study area is comprised of the following seven intersections and two roadway segments:

Intersections

1. Latrobe Road/Project Access
2. Latrobe Road/Suncast Lane
3. Latrobe Road/Golden Foothill Parkway-Monte Verde Drive
4. Latrobe Road/White Rock Road
5. Latrobe Road/Town Center Boulevard
6. Latrobe Road/US-50 Eastbound Ramps
7. El Dorado Hills Boulevard-Latrobe Road/US-50 Westbound Ramps-Saratoga Way

Roadway Segments

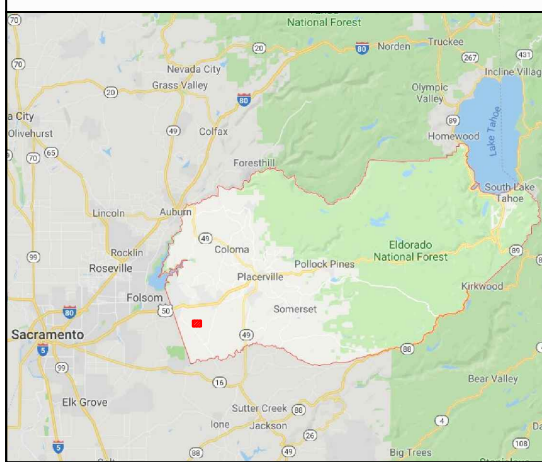
1. Latrobe Road, North of Project Access
2. Latrobe Road, South of White Rock Road

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Regional Location

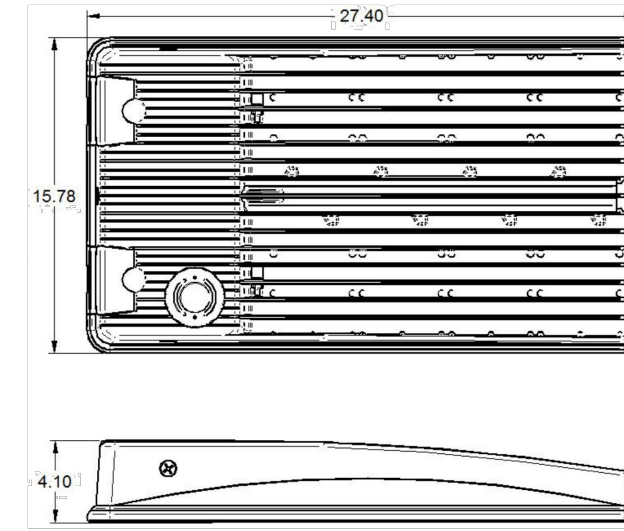


Source: Google Maps, 08/2018

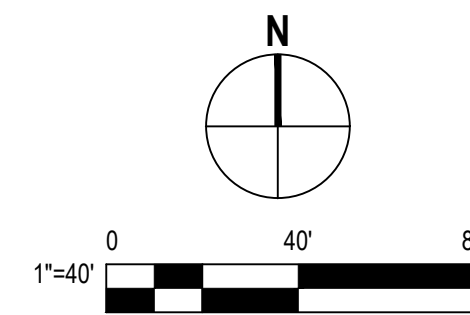
FIGURE 1
 Project Site Location and Study Area
 19-1798 E 11 of 284
 EIR/W Collection Operations Facility Relocation

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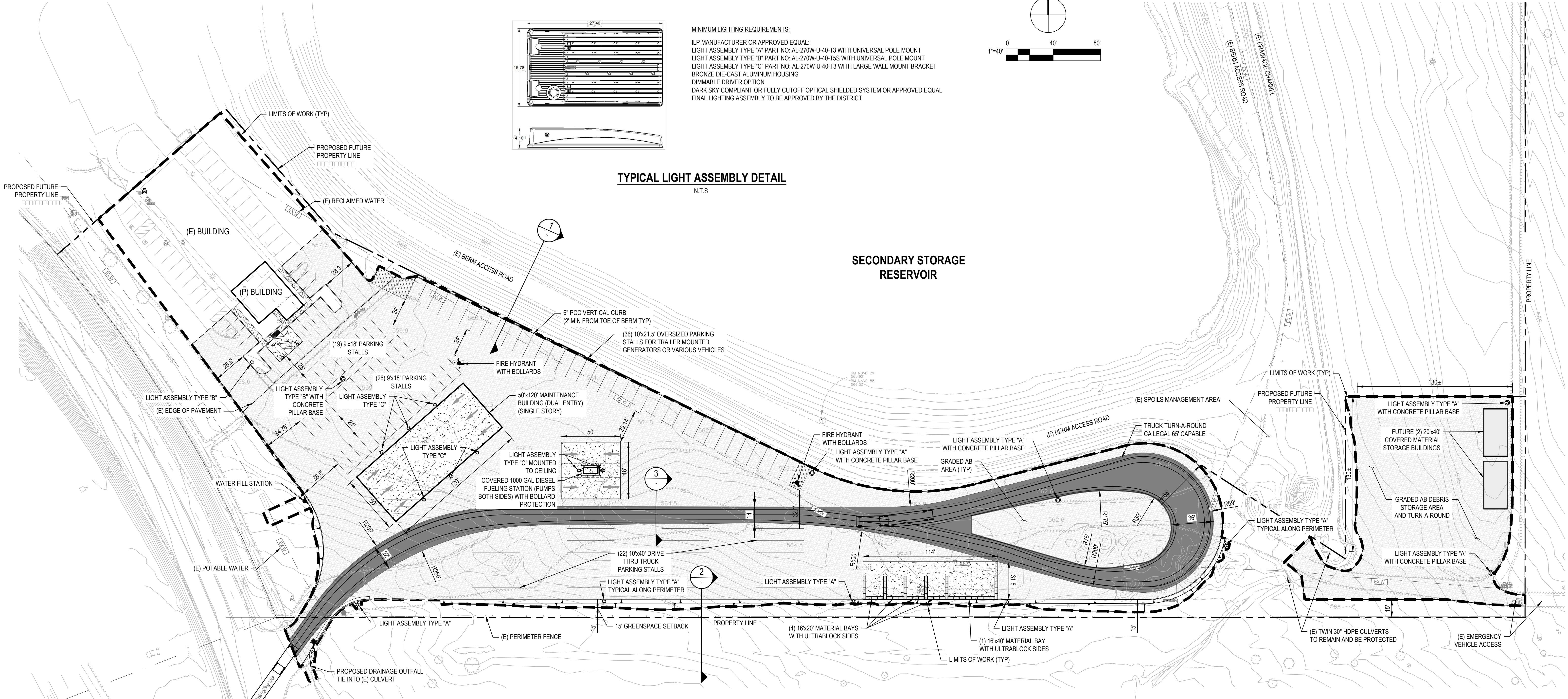


MINIMUM LIGHTING REQUIREMENTS:
 ILP MANUFACTURER OR APPROVED EQUAL:
 LIGHT ASSEMBLY TYPE "A" PART NO. AL-270W-U-40-T3 WITH UNIVERSAL POLE MOUNT
 LIGHT ASSEMBLY TYPE "B" PART NO. AL-270W-U-40-TSS WITH UNIVERSAL POLE MOUNT
 LIGHT ASSEMBLY TYPE "C" PART NO. AL-270W-U-40-T3 WITH LARGE WALL MOUNT BRACKET
 BRONZE DIE-CAST ALUMINUM HOUSING
 DIMMABLE DRIVER OPTION
 DARK SKY COMPLIANT OR FULLY CUTOFF OPTICAL SHIELDED SYSTEM OR APPROVED EQUAL
 FINAL LIGHTING ASSEMBLY TO BE APPROVED BY THE DISTRICT



TYPICAL LIGHT ASSEMBLY DETAIL
 N.T.S.

SECONDARY STORAGE RESERVOIR



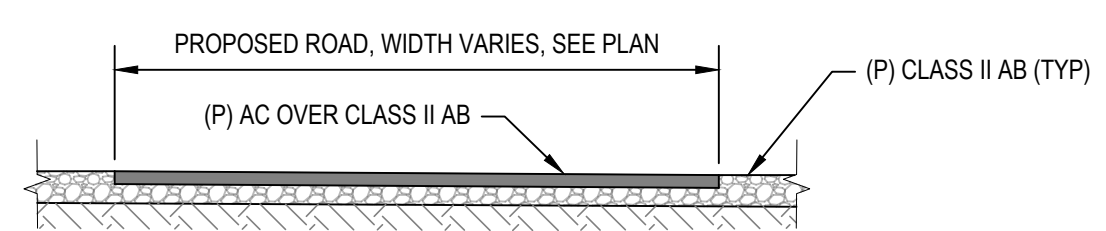
OPEN SPACE

Legend

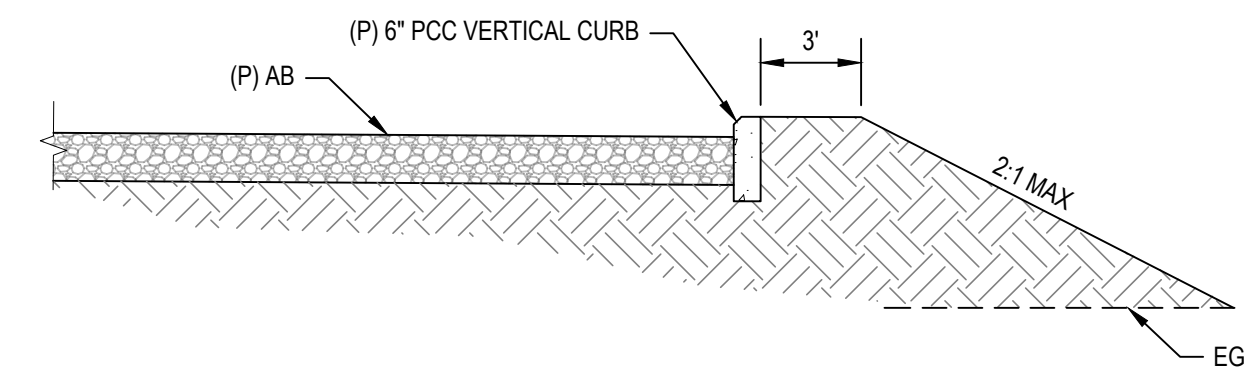
- (P) CLASS II AB (COMPACTED TO 95%)
- (P) AC / CLASS II AB (COMPACTED TO 95%)
- (P) CONCRETE / CLASS II AB (COMPACTED TO 95%)

General Notes

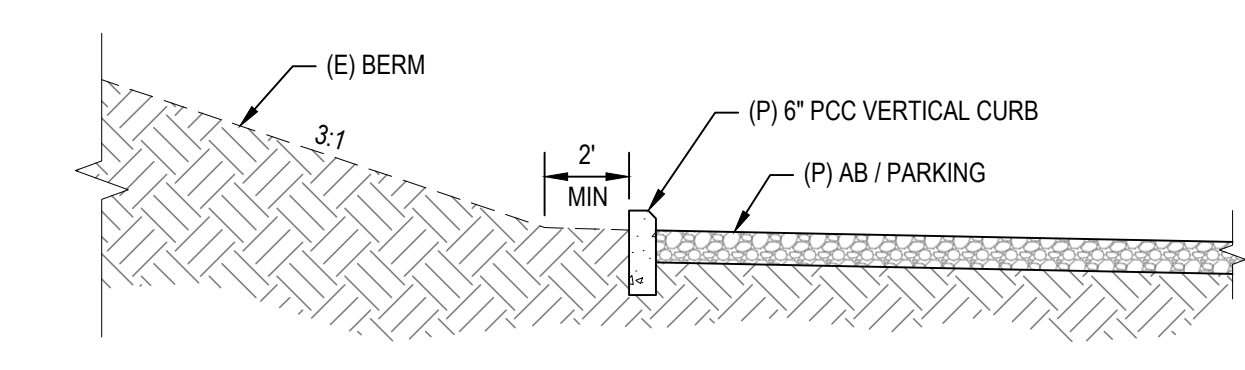
1. PARKING COUNT AS FOLLOWS: DELINEATED FOR REVIEW PURPOSES ONLY
 - 9' x 18' (52 NEW + 26 EXISTING = 78 TOTAL)
 - 10' x 21.5' (36 NEW)
 - 10' x 40' (22 NEW)
2. ALL PROPOSED LIGHTING TO BE PER LIGHTING DETAIL, THIS SHEET.



SECTION 3 - TYPICAL ROADWAY SECTION
 N.T.S.



SECTION 2 - CURB AND GUTTER
 N.T.S.



SECTION 1 - CURB AT TOE OF BERM
 N.T.S.

NO.	DATE	REVISION	BY	APPD



DRAWN BY: PEM
 CHECKED BY: CSM
 SCALE: AS NOTED
 REVIEWED BY: CSM

EL DORADO IRRIGATION DISTRICT
 2890 MOSQUITO ROAD - P. O. BOX 1047
 PLACERVILLE, CALIFORNIA 95667

**EL DORADO HILLS WASTEWATER COLLECTION FACILITY
 RELOCATION IMPROVEMENTS
 SITE PLAN**

DATE:	09/27/2019	2
PROJECT NO.:	11159165	OF
DWG. NO.:	C1.1	7

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1.3 Methodology

Level of service (LOS) is commonly used as a qualitative description of roadway segments and intersection operations and is based on the design capacity of the roadway segment or intersection configuration, compared to the volume of traffic using the roadway segment or intersection.

1.3.1 Intersections

El Dorado County and Caltrans utilize the Highway Capacity Manual (HCM) intersection analysis methodology to analyze the operation of signalized and unsignalized study intersections. The HCM intersection analysis methodology was used to analyze the operation of signalized and unsignalized study intersections. The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the average total delay per vehicle for signalized intersection and the corresponding control delay experienced per vehicle for the worst movement for unsignalized intersections. The Synchro 10 LOS software was used to determine intersection LOS. Synchro is consistent with the HCM 6th methodology (Transportation Research Board 2017).

Table 1 shows the LOS values by delay ranges for unsignalized and signalized intersections under the HCM methodology.

Table 1
Levels of Service for Intersections using HCM Methodology

Level of Service	Unsignalized Intersections Control Delay (in seconds)	Signalized Intersections Control Delay (in seconds)
A	< 10.0	< 10.0
B	> 10.0 to < 15.0	> 10.0 to < 20.0
C	> 15.0 to < 25.0	> 20.0 to < 35.0
D	> 25.0 to < 35.0	> 35.0 to < 55.0
E	> 35.0 to < 50.0	> 55.0 to < 80.0
F	> 50.0	> 80.0

Source: HCM 2017

For certain cases, such as closely spaced intersections and over-capacity conditions, the TIS Guidelines state that microsimulation software such as SimTraffic 10 should be utilized to better approximate traffic operations. SimTraffic 10 still applies the same HCM 6th methodology. In order to provide consistency with previous TIS’ reports done within the study area, along with the Long Range Planning Department’s guidance, the use of SimTraffic 10 was recommended for the following intersections:

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3. Latrobe Road/Golden Foothill Parkway-Monte Verde Drive
4. Latrobe Road/White Rock Road
5. Latrobe Road/Town Center Boulevard
6. Latrobe Road/US-50 Eastbound Ramps
7. El Dorado Hills Boulevard-Latrobe Road/US-50 Westbound Ramps-Saratoga Way

All SimTraffic parameters and guidelines as listed in the County’s TIS Guidelines were followed.

The remaining intersections of Latrobe Road/Project Access and Latrobe Road/Suncast Lane were analyzed with Synchro 10, which utilizes the standard HCM 6th methodology described above.

1.3.2 Roadway Segments

Roadway segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the *El Dorado County Peak Hour Roadway Segment Los Criterion*, table 1 of the County’s TIS Guidelines. This table provides peak hour level of service thresholds for different street classifications, based on traffic volumes, and travel lanes. Table 2 presents the roadway segment LOS thresholds by facility type in the study area per El Dorado County standards.

Table 2
El Dorado County Roadway Segment LOS Thresholds

Functional Classification	HCM 2010 Planning Level Volumes ¹				
	LOS A	LOS B	LOS C	LOS D	LOS E
Two-Lane Arterial	–	–	850	1,540	1,650
Four-Lane Arterial, Undivided	–	–	1,760	3,070	3,130
Four-Lane Arterial, Divided	–	–	1,850	3,220	3,290
Six-Lane Arterial, Divided	–	–	2,760	4,680	4,710
Four-Lane Multi-Highway (Two Dir.)	–	2,240	3,230	4,250	4,970
Two Freeway Lanes (One Dir.)	–	2,070	2,880	3,590	4,150
Two Freeway Lanes + Auxiliary Lane (One Dir.)	–	2,610	3,630	4,520	5,230
Three Freeway Lanes (One Dir.)	–	3,100	4,320	5,380	6,230
Three Freeway Lanes + Auxiliary Lane (One Dir.)	–	3,640	5,070	6,320	7,310
Four Freeway Lanes (One Dir.)	–	4,140	5,760	7,180	8,310

Source: El Dorado County Transportation Impact Study Guidelines, 2014.

Note: LOS = Level of Service, – Level of Service is not achievable due to type of facility.

¹ Freeway LOS based on HCM 2010, Exhibit 10-8, Urban Area, Rolling Terrain, K-factor of 0.09, and D-factor of 0.60.
0.602-lane highway (and arterial 2-lane) LOS based on HCM 2010, Exhibit 15-30, Class II Rolling, .09 K-factor, and D-factor of 0.60.

Arterial LOS based on HCM 2010, Exhibit 16-14, K-factor of 0.09, posted speed 45 mi/h.

Volumes are for both directions unless noted.

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The roadway segment data collected was reviewed, and it was determined that the AM Peak Hour volume was greater than the PM Peak Hour volume. Therefore, for the purposes of the roadway segment analysis, the AM Peak Hour was analyzed in comparison to Table 2.

1.4 Significance Criteria

The study area intersections and roadway segments are located within the jurisdiction of El Dorado County and Caltrans. The significance criteria for El Dorado County and Caltrans is described below.

1.4.1 El Dorado County

This TIS uses the level of service thresholds provided in the County’s Circulation Element of the General Plan. According to *Policy TC-Xd* of the Circulation Element:

“Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in Community Regions or LOS D in the Rural Centers and Rural Regions except as specified in Table TC-2. The volume to capacity ratio of the roadway segments listed in Table TC-2 shall not exceed the ratio specified in that table. Level of Service will be as defined in the latest edition of the Highway Capacity Manual (Transportation Research Board, National Research Council) and calculated using the methodologies contained in that manual. Analysis periods shall be based on the professional judgment of the Department of Transportation which shall consider periods including, but not limited to, Weekday Average Daily Traffic (ADT), AM Peak Hour, and PM Peak hour traffic volumes.”

All intersections and segments analyzed fall under the “Community Regions” category and therefore LOS E was utilized as the lowest acceptable LOS within this study.

Additionally, *Policy TC-Xe* of the Circulation Element defines the term “worsen” as it relates to the number of project trips added to deficient intersections and segments in the transportation network:

- “A. A 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or*
- B. The addition of 100 or more daily trips, or*
- C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour.”*

1.4.2 Caltrans

The following intersections in the study area are under the jurisdiction of Caltrans:

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6. Latrobe Road/US-50 Eastbound Ramps
7. El Dorado Hills Boulevard-Latrobe Road/US-50 Westbound Ramps-Saratoga Way

As stated in the Caltrans *Guide for the Preparation of Traffic Impact Studies* (December 2002), the level of service for operating State highway facilities is based upon measures of effectiveness (MOEs). These MOEs describe the measures best suited for analyzing State highway facilities (i.e., freeway segments, signalized intersections, on- or off-ramps, etc.). Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities; however, Caltrans acknowledges that this may not always be feasible and if an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained.

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2 EXISTING CONDITIONS

This section describes existing conditions within the study area. Characteristics are provided for the existing roadway system, daily roadway segment traffic volumes, peak hour traffic volumes, and traffic operations.

2.1 Roadway System

The existing traffic controls and geometrics at the study area intersections are shown in Figure 3. Characteristics of the existing street system in the study are described below.

US Route 50 (US 50) is located north of the project site. This freeway is an east-west national highway that extends from Sacramento to Ocean City, Maryland. Locally, the highway is a highly used thoroughfare connecting El Dorado County to the City of Sacramento to the west and to Lake Tahoe and Nevada to the east. The posted speed limit is 65 miles per hour (MPH), and interchanges in the study area are located at El Dorado Hills Boulevard and Silva Valley Parkway.

Latrobe Road is located west of the project site. This roadway is identified as a north-south 4-lane divided road south of White Rock Road, and a 6-lane divided road north of White Rock Road by the El Dorado County Circulation Element. It extends from rural communities in the south near State Route 16 (SR-16) and proceeds northward to merge into El Dorado Hills Boulevard at the US 50 junction. From Latrobe Road, project traffic would utilize the Project Access frontage road approximately 1,400 feet south of the Latrobe Road/Suncast Lane intersection.

White Rock Road is located north of the project site. This roadway is identified as an east-west 4-lane divided road and demarcated as the Capital Southeast Connector Corridor by the El Dorado County Circulation Element. It connects from Silva Valley Parkway in the east and proceeds west towards unincorporated Sacramento County where it merges into Grant Line Road.

El Dorado Hills Boulevard is located north of the project site and is a continuation of Latrobe Road. This roadway is identified as a north-south 6-lane divided road by the El Dorado County Circulation Element. It extends from Latrobe Road near US 50 and proceeds northward toward Green Valley Road before merging into Salmon Falls Road.

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2.2 Transit System

El Dorado Transit provides public transit service in El Dorado County.

The El Dorado Transit Park and Ride is located approximately one mile north of the project site, on the northeast corner of the Latrobe Road/White Rock Road intersection. Routes C, 50x, and 70 utilize the Park and Ride to provide multi-modal service throughout the region. Route 70 currently provides service along Latrobe Road and Golden Foothill Parkway, however is scheduled to cease service on June 1, 2019. Therefore, the Park and Ride is the closest accessible transit location for the project.

Route 50x provides express regional service from Placerville in the east to Folsom in the west. Service is currently provided only on weekdays from 5:53 a.m. to 6:45 p.m. with stops providing access to the Sacramento Regional Transit (SacRT) light rail service. SacRT provides access to the downtown Sacramento area, as well as various locations north and south of Sacramento.

Route C, provides express service for commuters to and from Placerville and downtown Sacramento. Service is currently provided only on weekdays from 5:10 a.m. to 6:25 p.m. with stops along downtown Sacramento streets, as well as park and ride locations through El Dorado County. SacRT is also accessible via Route C.

2.3 Pedestrian and Bicycle Facilities

2.3.1 Pedestrian Facilities

Within the immediate project access area and along unimproved portions of Latrobe Road there are currently no pedestrian facilities available. Portions of Latrobe Road towards its intersection with Suncast Lane and with Golden Foothill Parkway-Monte Verde Drive possess sidewalks only near each intersection. Sidewalks are available on both sides of the road for the southern leg of the Latrobe Road/White Rock Road intersection, and from the eastern section of the north leg of the Latrobe Road/Town Center Boulevard intersection northward underneath US 50 and past Saratoga Way. Otherwise pedestrian facilities are provided along several other corridors including Monte Verde Drive, White Rock Road, Town Center Boulevard, and Saratoga Way.

2.3.2 Bicycle Facilities

As identified by Caltrans, the following classes are used to identify bicycle facilities within the County:

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Class I Bike Paths are hard-surface routes within an exclusive right-of-way physically separated from vehicular roadways and intended specifically for non-motorized use.

Class II Bike Lanes are marked bicycle lanes within roadways adjacent to the curb lane, delineated by appropriate striping and signage.

Class III Bike Routes are marked by a series of signs designating a preferred route between destinations such as residential neighborhoods and shopping areas. These routes share the right-of-way with on-road vehicles.

Currently, there is a Class II bicycle lane along sides of Latrobe Road that proceeds northwards through Saratoga Way. A Class I bicycle path is constructed along the eastern edge of Latrobe Road, starting from the Blackstone Subdivision south of the project, proceeding northward to merge into the existing Class II bicycle lane along the eastern side of Latrobe Road. Class II bicycle lanes are also provided along both sides of White Rock Road

2.4 Traffic Volumes

Existing weekday average daily traffic (ADT) counts at the study roadway segments and peak hour turn movement counts at the study intersections were conducted in March 2019, during a typical non-holiday week while area schools were in-session. Due to the peak hour differing between intersections, volumes were balanced to account for a consistent analysis. Raw traffic count worksheets are provided in Appendix A. This analysis focuses on the weekday daily, AM (6:00 a.m. to 9:00 a.m.) and the PM (4:00 p.m. to 7:00 p.m.) peak periods. The peak periods represent the highest volume of traffic for the adjacent street system.

Existing weekday ADT and AM and PM peak hour volumes are summarized on Figure 4.

2.5 Roadway Operations

A roadway segment LOS analysis was prepared for the existing conditions using the roadway segment LOS methodologies as discussed in Section 1.3. Table 3 shows the results of the existing conditions LOS analysis for the study roadway segments.

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Table 3
Existing Roadway Segment Level of Service

Roadway Segment	Facility Type ¹	AM Peak ²	
		Volume	LOS ¹
1. Latrobe Road, North of Project Access Road	4-Lane Arterial, Divided	2,139	D
2. Latrobe Road, South of White Rock Road	4-Lane Arterial, Divided	2,730	D

Notes: Volume – Two-way volume.

LOS – Level of Service

¹ LOS C is lowest LOS achievable due to type of facility.

² The AM peak hour was identified as the highest peak hour for the segment analyzed.

BOLD value indicates unsatisfactory LOS

As shown in the table, all of the study area roadway segments are currently operating with satisfactory LOS (LOS D) or better under existing conditions.

2.6 Intersection Operations

An intersection LOS analysis was prepared for the existing conditions using HCM 6th methodology via the Synchro and SimTraffic LOS software as discussed in Section 1.3. Table 4 shows the results of the existing conditions LOS analysis. LOS worksheets are provided in Appendix B.

Table 4
Existing Weekday Peak Hour Intersection LOS

No.	Intersection	Software	AM Peak		PM Peak	
			Delay ¹	LOS ²	Delay ¹	LOS ²
1	Latrobe Road/Project Access ³	Synchro	13.6	B	13.3	B
2	Latrobe Road/Suncast Lane	Synchro	6.5	A	7.2	A
3	Latrobe Road/Golden Foothill Pkwy-Monte Verde Dr	SimTraffic	20.1	C	24.5	C
4	Latrobe Road/White Rock Road	SimTraffic	37.2	D	33.8	C
5	Latrobe Road/Town Center Boulevard	SimTraffic	30.0	C	76.9	E
6	Latrobe Rd-El Dorado Hills Blvd/US-50 EB Ramps	SimTraffic	45.7	D	29.6	C
7	Latrobe Rd-El Dorado Hills Blvd/US-50 WB Ramps-Saratoga Wy	SimTraffic	47.8	D	37.6	D

Notes: Analyzed using Highway Capacity Manual (HCM 6th Edition) methodology.

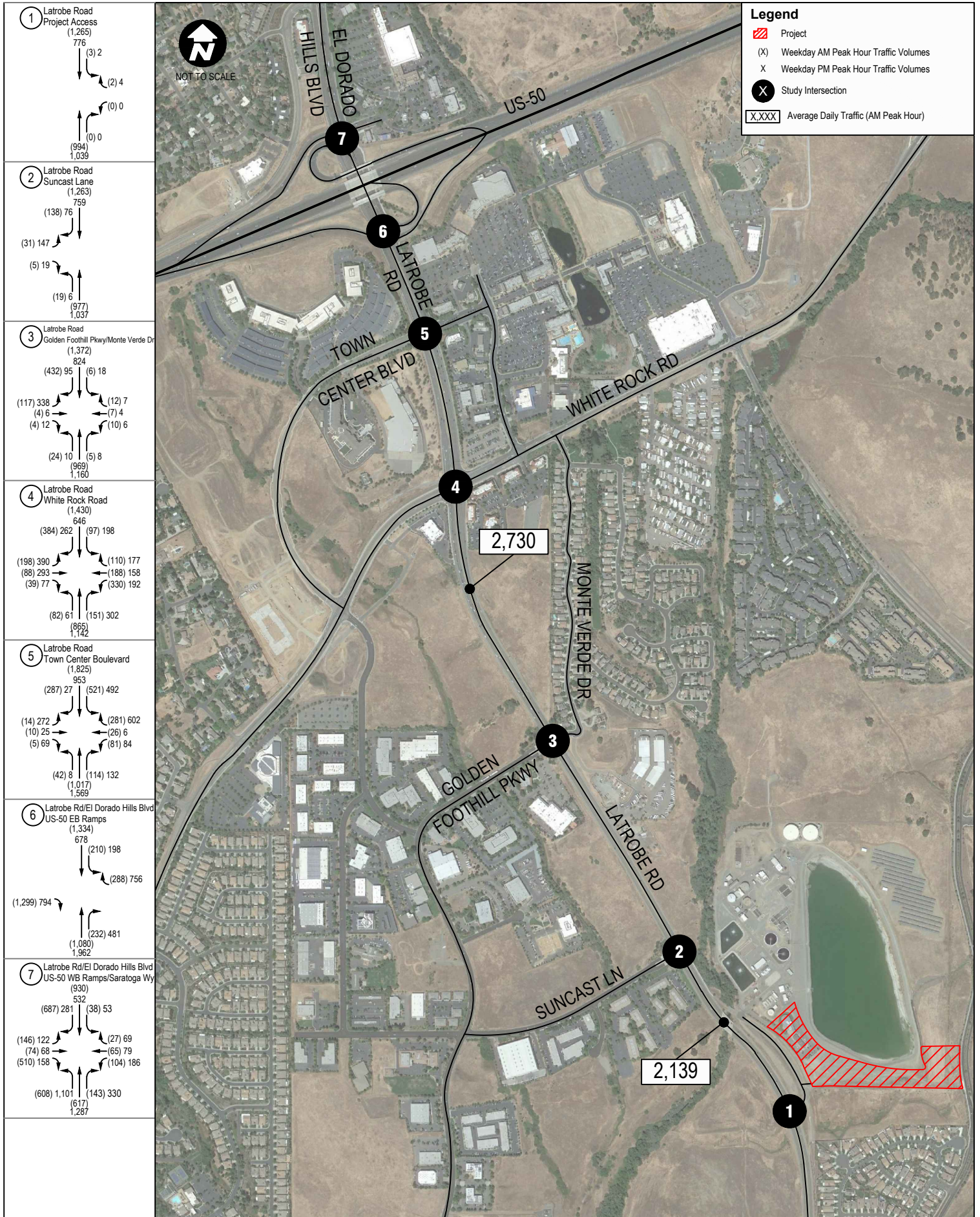
¹ Delay in seconds per vehicle.

² Level of Service (LOS).

³ Two-Way Stop Control reported as worst movement.

BOLD value indicates unsatisfactory LOS

As shown in the table, all of the study area intersections are currently operating at LOS E or better under existing conditions, during both peak hours.



Source: Google Maps, 08/2018

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3 PROJECT TRAFFIC

This section documents the trip generation, distribution, and assignment of project traffic.

3.1 Trip Generation

Trip generation estimates for the proposed project are based on typical operations provided by EID. In order to provide a conservative analysis and due to the distance of the existing Bass Lake facility from the study area, no existing trip credits were applied. Trip generation rates and resulting trip generation estimates for the project are summarized in Table 5.

**Table 5
Project Trip Generation**

Trip Generation								
Vehicle Type ¹	Daily Quantity	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Passenger Cars (Employees & Visitors) ²	20	40	20	0	20	0	20	20
Field Vehicles (mix of passenger cars and trucks) ²	20	40	0	20	20	20	0	20
Vendor Trucks	2	4	1	1	2	1	1	2
Total Trip Generation		84	21	21	42	21	21	42

Notes:

- ¹ Trip generation estimates provided by EID, and is based on typical operations.
- ² Will also be deployed intermittently 24-hours a day, 7-days a week for emergency response.

The project would generate approximately 84 daily trips, 42 AM peak hour net trips (21 inbound and 21 outbound), and 42 PM peak hour trips (21 inbound and 21 outbound).

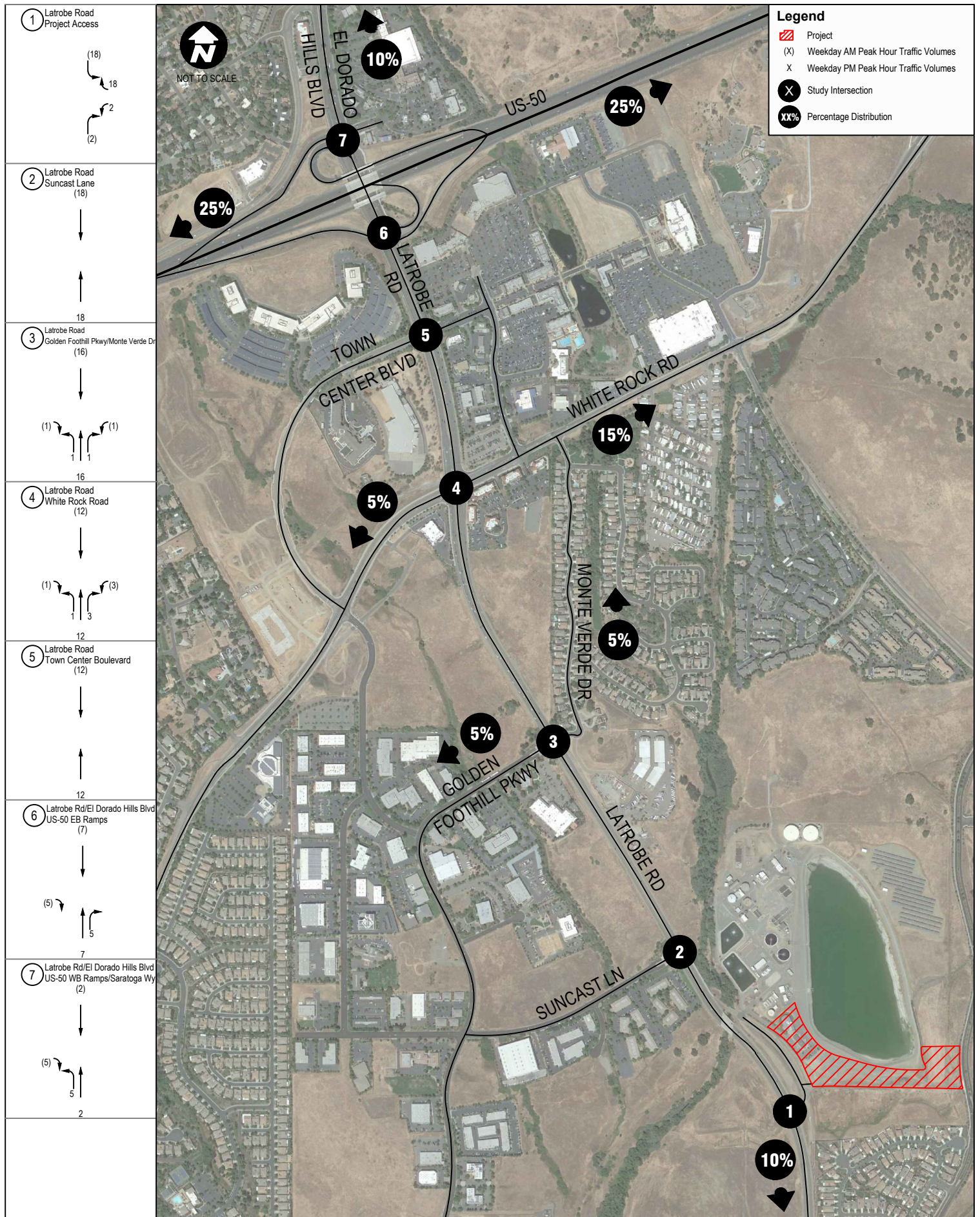
3.2 Trip Distribution and Assignment

Project trip distribution percentages were based on logical travel paths to commute corridors in the study area and guidance provided by EID. All project traffic will enter along the project access frontage road off of Latrobe Road.

Project trips were assigned to the study area intersections by applying the above-referenced project trip generation estimates to the trip distribution percentages at each study area roadway segment and intersection. Separate trip distribution and trip assignment values were calculated for each vehicle type. Field vehicles, for instance, were assumed to possess a dispersed pattern, whereas passenger cars were assumed to utilize US 50 and the Latrobe Road corridor. The resulting project trip distribution percentages and assignments are shown in Figures 5, 6, 7, and 8 for passenger cars, field vehicles, vendor trucks, and total project traffic, respectively.

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

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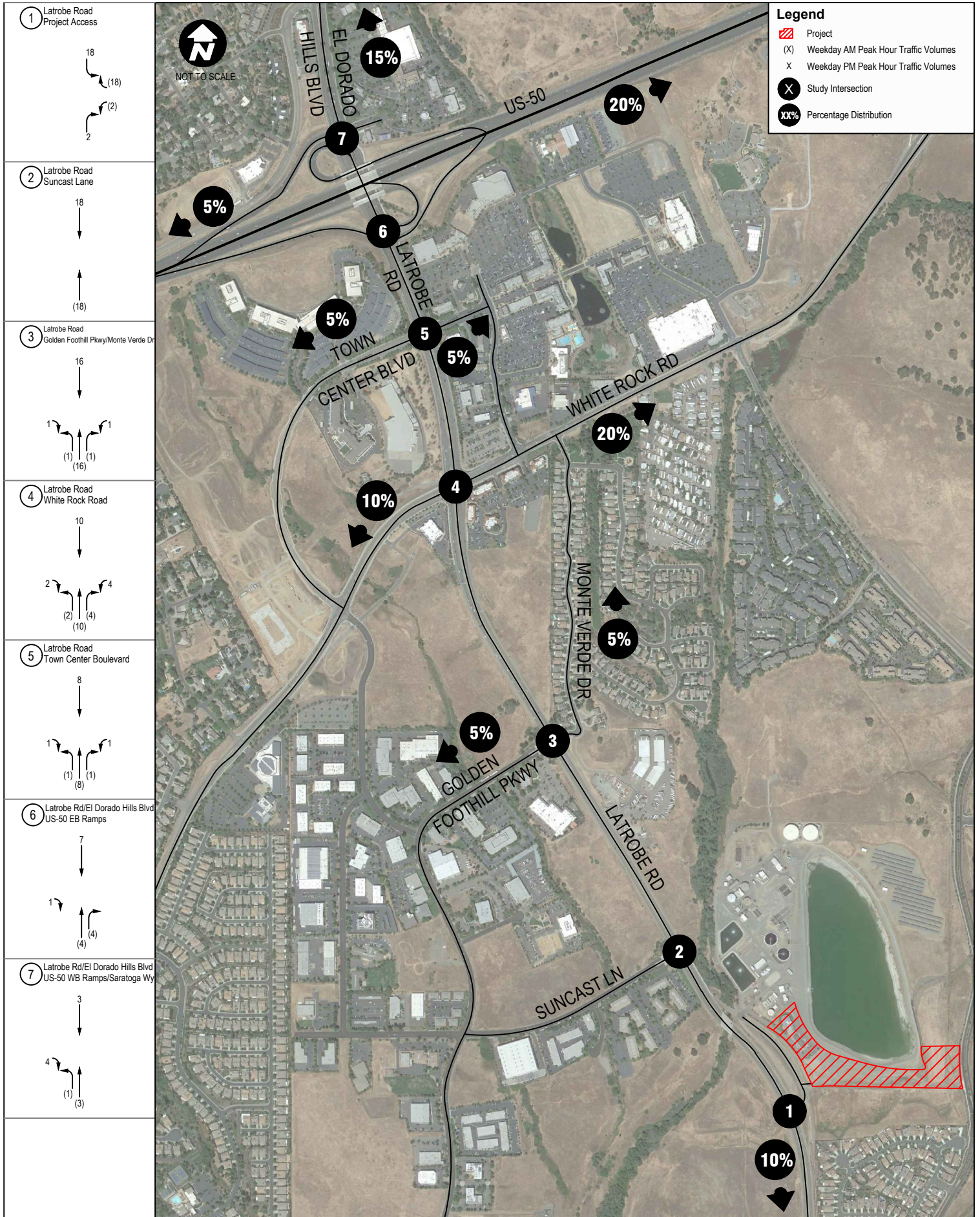


Source: Google Maps, 08/2018

FIGURE 5
 Project Trip Distribution and Assignment – Passenger Cars
 19-1798 E 29 of 284
 EPCW Collections Operations Facility Relocation

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

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Source: Google Maps, 08/2018

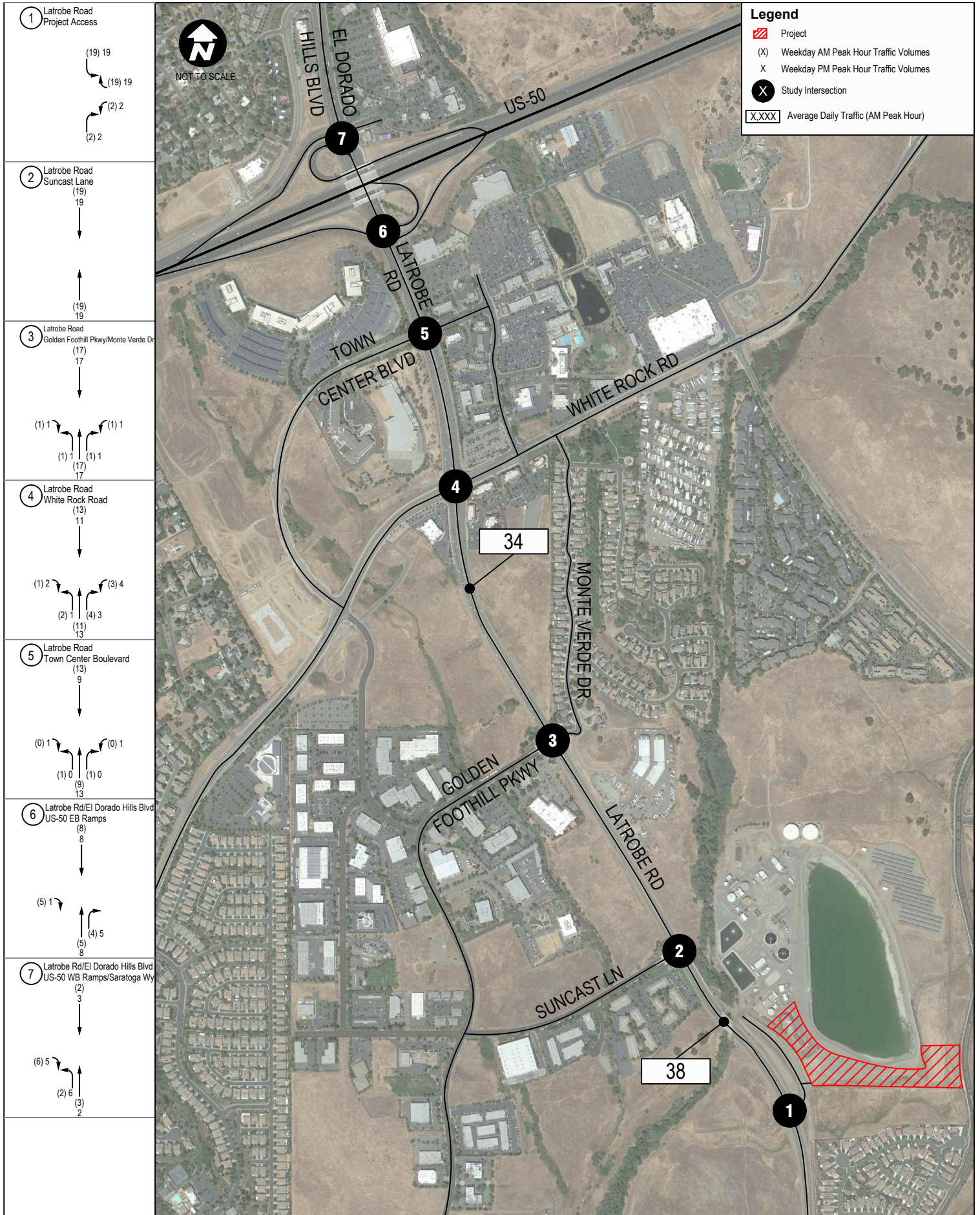
FIGURE 6
 Project Trip Distribution and Assignment – Field Vehicles
 19-1798-E-31 of 284

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

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Traffic Impact Study – Wastewater Collections Operations Facility Relocation

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Source: Google Maps, 08/2018

FIGURE 8
 Project Trip Assignment – Total
 19-1798 E 35 of 284
 EPCW Collections Operations Facility Relocation

May 31, 2019 - 11:00am mpsocvnc 2170255199988180 Doc:El Dorado Hills EPCW Collections Operations Facility Relocation - Subarea 1 - Technical Studies/Conceptual/Access/Relocation_SIB_08_2018.dwg User: fjb1716

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4 EXISTING PLUS PROJECT CONDITIONS

This section describes project-specific impacts under Existing plus Project conditions within the study area for roadway segment and intersection operations, and analyzes significance based on the threshold criteria.

4.1 Traffic Volumes

Project traffic volumes shown in Figure 8 were added to the Existing traffic volumes shown in Figure 4 to derive the Existing plus Project traffic condition. Figure 9 shows the Existing plus Project traffic volumes.

4.2 Roadway Operations

As shown in Table 6, with the addition of project traffic, the study area roadway segments along Latrobe Road would continue to operate at LOS D.

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

Table 6
Existing plus Project Roadway Segment Level of Service

Roadway Segment	Facility Type ¹	AM Peak ²		AM Project Traffic	Existing plus Project		Significant Impact?
		Volume	LOS ¹	Volume	Volume	LOS ¹	AM Peak
1. Latrobe Road, North of Project Access Road	4-Lane Arterial, Divided	2,139	D	38	2,177	D	no
2. Latrobe Road, South of White Rock Road	4-Lane Arterial, Divided	2,730	D	34	2,764	D	no

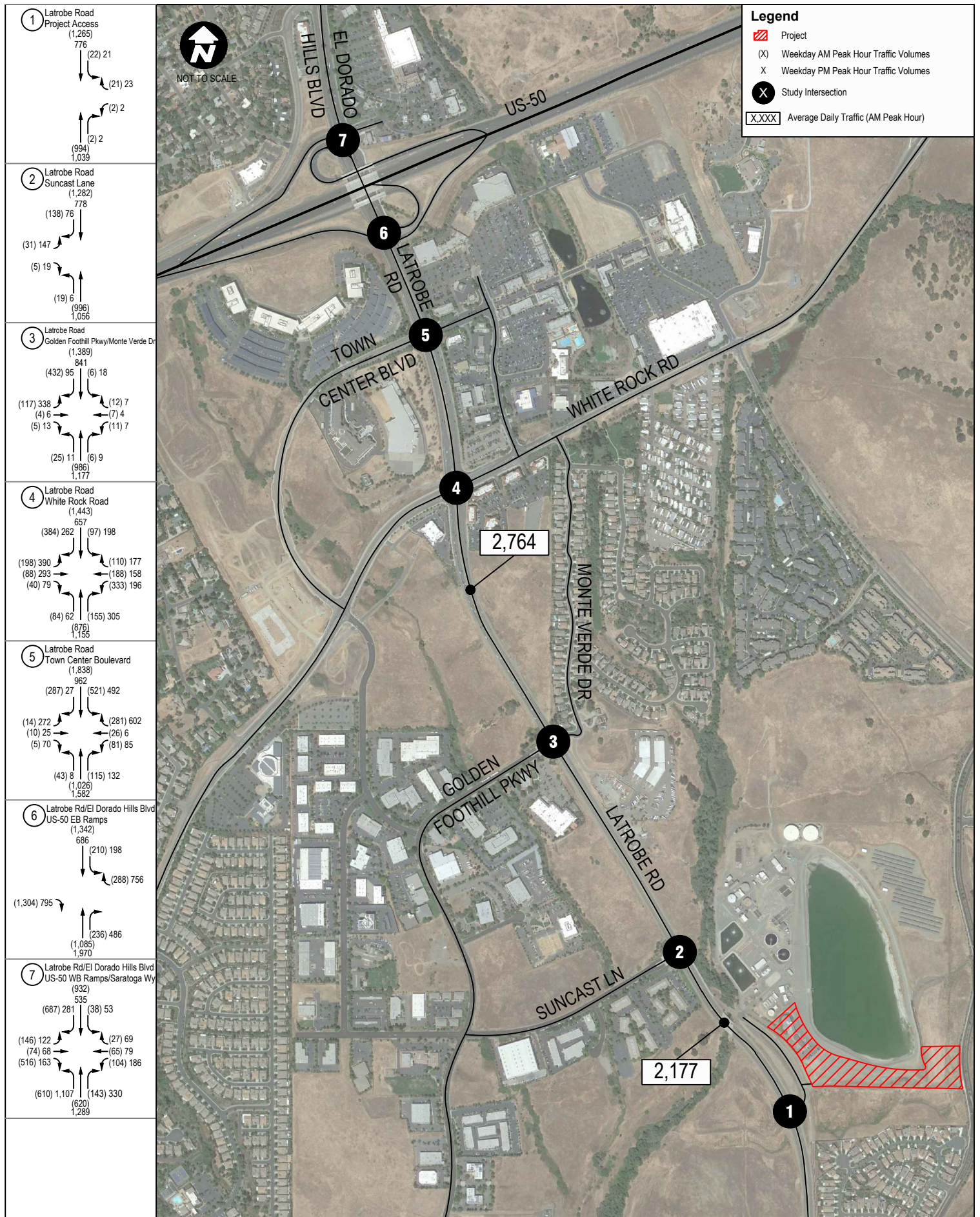
Notes: Volume – Two-way volume.

LOS – Level of Service

¹ LOS C is lowest LOS achievable due to type of facility.

² The AM peak hour was identified as the highest peak hour for the segment analyzed.

BOLD value indicates unsatisfactory LOS



Source: Google Maps, 08/2018

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

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Traffic Impact Study – Wastewater Collections Operations Facility Relocation

4.3 Intersection Operations

An intersection LOS analysis was prepared for the existing conditions using HCM 6th methodology via the Synchro and SimTraffic LOS software as discussed in Section 1.3. Table 7 summarizes the results of the Existing plus Project intersection analysis for the AM and PM peak hours. Detailed LOS calculation worksheets are included in Appendix B.

As shown in Table 7, all of the study area intersections are forecast to continue to operate with satisfactory LOS, at LOS E or better, under Existing plus Project conditions during both peak hours. Since all study area intersections are forecast to operate at LOS E or better, the project is not considered to have an impact under Existing plus Project conditions.

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

Table 7
Existing plus Project Peak Hour Intersection Level of Service

No.	Intersection	LOS Method	Existing				Existing plus Project				Change in Delay		Significant Impact?	
			AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	AM	PM
			Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²				
1	Latrobe Road/Project Access ³	Synchro	13.6	B	13.3	B	22.9	C	17.2	C	9.3	3.9	no	no
2	Latrobe Road/Suncast Lane	Synchro	6.5	A	7.2	A	6.5	A	7.2	A	0.0	0.0	no	no
3	Latrobe Road/Golden Foothill Pkwy-Monte Verde Dr	SimTraffic	20.1	C	24.5	C	21.5	C	24.6	C	1.4	0.1	no	no
4	Latrobe Road/White Rock Road	SimTraffic	37.2	D	33.8	C	37.6	D	33.1	C	0.4	-0.7	no	no
5	Latrobe Road/Town Center Boulevard	SimTraffic	30.0	C	76.9	E	30.0	C	76.8	E	0.0	-0.1	no	no
6	Latrobe Rd-El Dorado Hills Blvd/US-50 EB Ramps	SimTraffic	45.7	D	29.6	C	46.1	D	30.3	C	0.4	0.7	no	no
7	Latrobe Rd-El Dorado Hills Blvd/US-50 WB Ramps-Saratoga Wy	SimTraffic	47.8	D	37.6	D	54.5	D	39.4	D	6.7	1.8	no	no

Notes: Analyzed using Highway Capacity Manual (HCM 6th Edition) methodology.

¹ Delay in seconds per vehicle.

² Level of Service (LOS).

³ Two-Way Stop Control reported as worst movement

BOLD value indicates unsatisfactory LOS

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

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Traffic Impact Study – Wastewater Collections Operations Facility Relocation

5 CUMULATIVE 2040 CONDITIONS

This section presents the results of a Cumulative buildout conditions analysis that assumes that the County’s General Plan’s land uses and roadway improvement are fully constructed. Roadway improvements were compared using the County’s most recent Capital Improvement Program (CIP), as well as another TIS that has been reviewed by the County (Montano de El Dorado, Kimley Horn 2016). Mainly, Latrobe Road south of White Rock Road is considered for expansion from a 4-lane divided roadway to 6-lane divided roadway. Cumulative 2040 geometrics are reflected in Figure 10.

As mandated by the County’s TIS Guidelines, all Cumulative 2040 conditions are based upon the El Dorado Travel Demand Model. Raw model plots are presented in Appendix C.

5.1 Traffic Volumes

Cumulative 2040 traffic volumes were obtained from El Dorado County, which utilizes the El Dorado Travel Demand Model (TDM) to provide forecasted traffic volumes. Dudek obtained model data in the form of daily and peak hour total volume volumes for the “validation year” (2016) and “cumulative year” (2040), and then post-processed the data for daily roadway segment and intersection peak hour turning movements. Volume balancing methodology (B-turns) consistent with the National Cooperative Highway Research Program’s (NCHRP) *Report 255* was the method used for post-processing the model approach and departure volumes into turning movement data. The NCHRP method conforms to the standards described in the “El Dorado County Travel Demand Model 2012 Update” (2013) document that provides user instructions for working with the County’s TDM. Volumes were then rounded and balanced to create a consistent analysis. All Cumulative 2040 worksheets are included in Appendix C.

Figure 11 illustrates the Cumulative 2040 traffic volumes for the daily and peak hour conditions.

5.2 Roadway Operations

A roadway segment operations analysis was prepared for the Cumulative 2040 conditions using the roadway capacity thresholds for average daily traffic as discussed in Section 1. Table 8 shows the results of the Cumulative 2040 conditions analysis for the study area roadway segments.

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

Table 8
Cumulative 2040 Roadway Segment Level of Service

Roadway Segment	Facility Type ¹	AM Peak ²	
		Volume	LOS ¹
1. Latrobe Road, North of Project Access Road	4-Lane Arterial, Divided	2,139 ³	D
2. Latrobe Road, South of White Rock Road	6-Lane Arterial, Divided	3,700	D

Notes: Volume – Two-way volume.

LOS – Level of Service

¹ LOS C is lowest LOS achievable due to type of facility.

² The AM peak hour was identified as the highest peak hour for the segment analyzed.

³ Model results shows daily traffic decrease; conservatively analyzed as equivalent to existing volumes.

BOLD value indicates unsatisfactory LOS

As shown in Table 8, all of the study area roadway segments will continue to operate with satisfactory LOS (LOS D) or better under Cumulative 2040 conditions.

5.3 Intersection Operations

An intersection LOS analysis was prepared for the existing conditions using HCM 6th methodology via the Synchro and SimTraffic LOS software as discussed in Section 1.3. Table 9 shows the results of the Cumulative 2040 conditions LOS analysis, detailed LOS worksheets are included in Appendix B.

Table 9
Cumulative 2040 Weekday Peak Hour Intersection LOS

No.	Intersection	Software	AM Peak		PM Peak	
			Delay ¹	LOS ²	Delay ¹	LOS ²
1	Latrobe Road/Project Access ³	Synchro	13.5	B	14.5	B
2	Latrobe Road/Suncast Lane	Synchro	5.8	A	11.0	B
3	Latrobe Road/Golden Foothill Pkwy-Monte Verde Dr	SimTraffic	23.1	C	58.4	E
4	Latrobe Road/White Rock Road	SimTraffic	53.5	D	113.1	F
5	Latrobe Road/Town Center Boulevard	SimTraffic	34.2	C	57.1	E
6	Latrobe Rd-El Dorado Hills Blvd/US-50 EB Ramps	SimTraffic	43.8	D	18.2	B
7	Latrobe Rd-El Dorado Hills Blvd/US-50 WB Ramps-Saratoga Wy	SimTraffic	36.2	D	50.3	D

Notes: Analyzed using Highway Capacity Manual (HCM 6th Edition) methodology.

¹ Delay in seconds per vehicle.

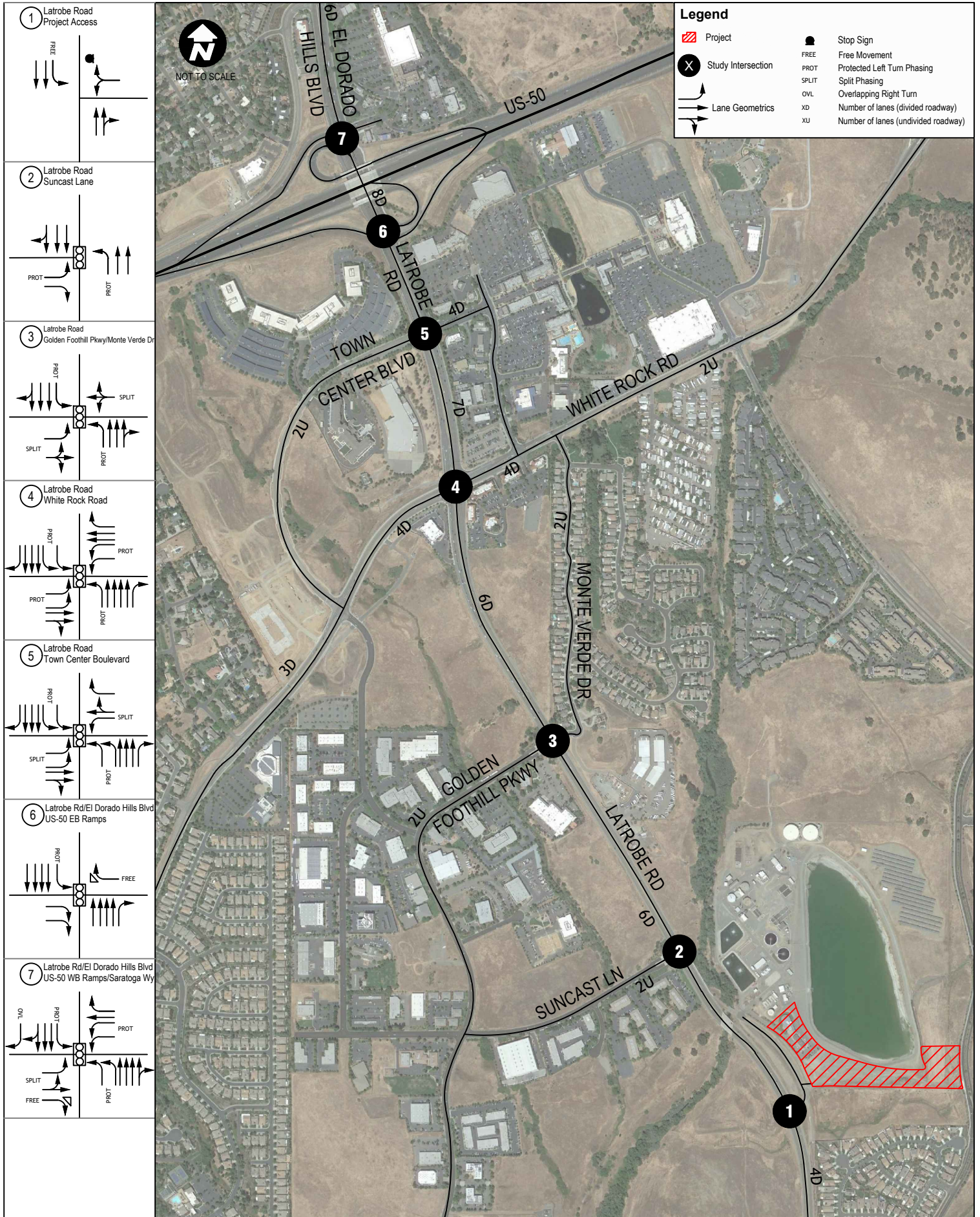
² Level of Service (LOS).

³ Two-Way Stop Control reported as worst movement.

BOLD value indicates unsatisfactory LOS

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

As shown in Table 9, most of the study area intersections are forecast to continue to operate at LOS E or better under Cumulative 2040 conditions during both peak hours, with the exception of Latrobe Road/White Rock Road, which is forecast to operate at LOS F (113.1) in the PM peak hour.



Legend

- Project
- Study Intersection
- Free Movement
- Protected Left Turn Phasing
- Split Phasing
- Overlapping Right Turn
- Number of lanes (divided roadway)
- Number of lanes (undivided roadway)
- Stop Sign

- 1 Latrobe Road Project Access
- 2 Latrobe Road Suncastr Lane
- 3 Latrobe Road Golden Foothill Pkwy/Monte Verde Dr
- 4 Latrobe Road White Rock Road
- 5 Latrobe Road Town Center Boulevard
- 6 Latrobe Rd/El Dorado Hills Blvd US-50 EB Ramps
- 7 Latrobe Rd/El Dorado Hills Blvd US-50 WB Ramps/Saratoga Wy



May 31, 2019, 4:58pm - mps00016 - P:\2018\Environmental\888-8300 - Call Home\GOLDER\WORK PRODUCTS\2019\TWP City\mss00016\GIS\mss00016\GIS\888-8300\888-8300_05_31_19.dwg - Layer: Fig 13/04/2018

Source: Google Maps, 08/2018



FIGURE 10
 Cumulative 2040 Traffic Control and Geometrics
 19-1798-E-17 of 284
 EIP/W Collections Operations Facility Relocation

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

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Traffic Impact Study – Wastewater Collections Operations Facility Relocation

6 CUMULATIVE 2040 PLUS PROJECT CONDITIONS

This section describes cumulative impacts under Cumulative 2040 plus Project conditions within the study area for roadway segment and intersection operations, and analyzes significance based on the threshold criteria.

6.1 Traffic Volumes

The project trip assignment, as shown in Figure 8, was added to the Cumulative 2040 traffic volumes, as shown in Figure 11, to derive the Cumulative 2040 plus Project traffic volumes. Figure 12 shows the Cumulative 2040 plus Project traffic volumes.

As with Cumulative 2040 (without project) conditions, the existing roadway and intersection geometrics in the study area have been amended to reflect 2040 conditions, as shown in Figure 10.

6.2 Roadway Operations

As shown in Table 10, with the addition of project traffic, with the addition of project traffic, the study area roadway segments along Latrobe Road would continue to operate at LOS D in the Cumulative 2040 condition.

6.3 Intersection Operations

An intersection LOS analysis was prepared for the existing conditions using HCM 6th methodology via the Synchro and SimTraffic LOS software as discussed in Section 1.3. Table 11 summarizes the results of the Cumulative 2040 plus Project intersection analysis for the AM and PM peak hours. Detailed LOS calculation worksheets are included in Appendix B.

As shown in Table 11, most of the study area intersections are forecast to continue to operate at LOS E or better under Cumulative 2040 plus Project conditions during both peak hours with the exception of Latrobe Road/White Rock Road. This intersection is forecast to continue to operate at LOS F in the PM peak hour with addition of project traffic. However, although the increase in delay is 1 second, the project will be adding more than 10 vehicles in the PM peak hour, therefore this is a potentially significant impact that will require mitigation.

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

Table 10
Cumulative 2040 plus Project Roadway Segment Level of Service

Roadway Segment	Facility Type ¹	AM Peak ²		AM Project Traffic	Cumulative 2040 plus Project		Significant Impact?
		Volume	LOS ¹	Volume	Volume	LOS ¹	AM Peak
1. Latrobe Road, North of Project Access Road	4-Lane Arterial, Divided	2,139 ³	D	38	2,177	D	no
2. Latrobe Road, South of White Rock Road	4-Lane Arterial, Divided	3,700	D	34	3,734	D	no

Notes: Volume – Two-way volume.

LOS – Level of Service

¹ LOS C is lowest LOS achievable due to type of facility.

² The AM peak hour was identified as the highest peak hour for the segment analyzed.

³ Model results shows daily traffic decrease; conservatively analyzed as equivalent to existing volumes.

BOLD value indicates unsatisfactory LOS

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

Table 11
Cumulative 2040 plus Project Peak Hour Intersection Level of Service

No.	Intersection	LOS Method	Existing				Existing plus Project				Change in Delay		Significant Impact?	
			AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	AM	PM
			Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²	Delay ¹	LOS ²				
1	Latrobe Road/Project Access ³	Synchro	13.5	B	14.5	B	20.7	C	19.9	C	7.2	5.4	no	no
2	Latrobe Road/Suncast Lane	Synchro	5.8	A	11.0	B	5.8	A	11.1	B	0.0	0.1	no	no
3	Latrobe Road/Golden Foothill Pkwy-Monte Verde Dr	SimTraffic	23.1	C	58.4	E	22.8	C	57.1	E	-0.3	-1.3	no	no
4	Latrobe Road/White Rock Road	SimTraffic	53.5	D	113.1	F	54.1	D	114.1	F	0.6	1.0	no	yes
5	Latrobe Road/Town Center Boulevard	SimTraffic	34.2	C	57.1	E	34.5	C	59.0	E	0.3	1.9	no	no
6	Latrobe Rd-El Dorado Hills Blvd/US-50 EB Ramps	SimTraffic	43.8	D	18.2	B	43.9	D	18.8	B	0.1	0.6	no	no
7	Latrobe Rd-El Dorado Hills Blvd/US-50 WB Ramps-Saratoga Wy	SimTraffic	36.2	D	50.3	D	37.5	D	56.2	E	1.3	5.9	no	no

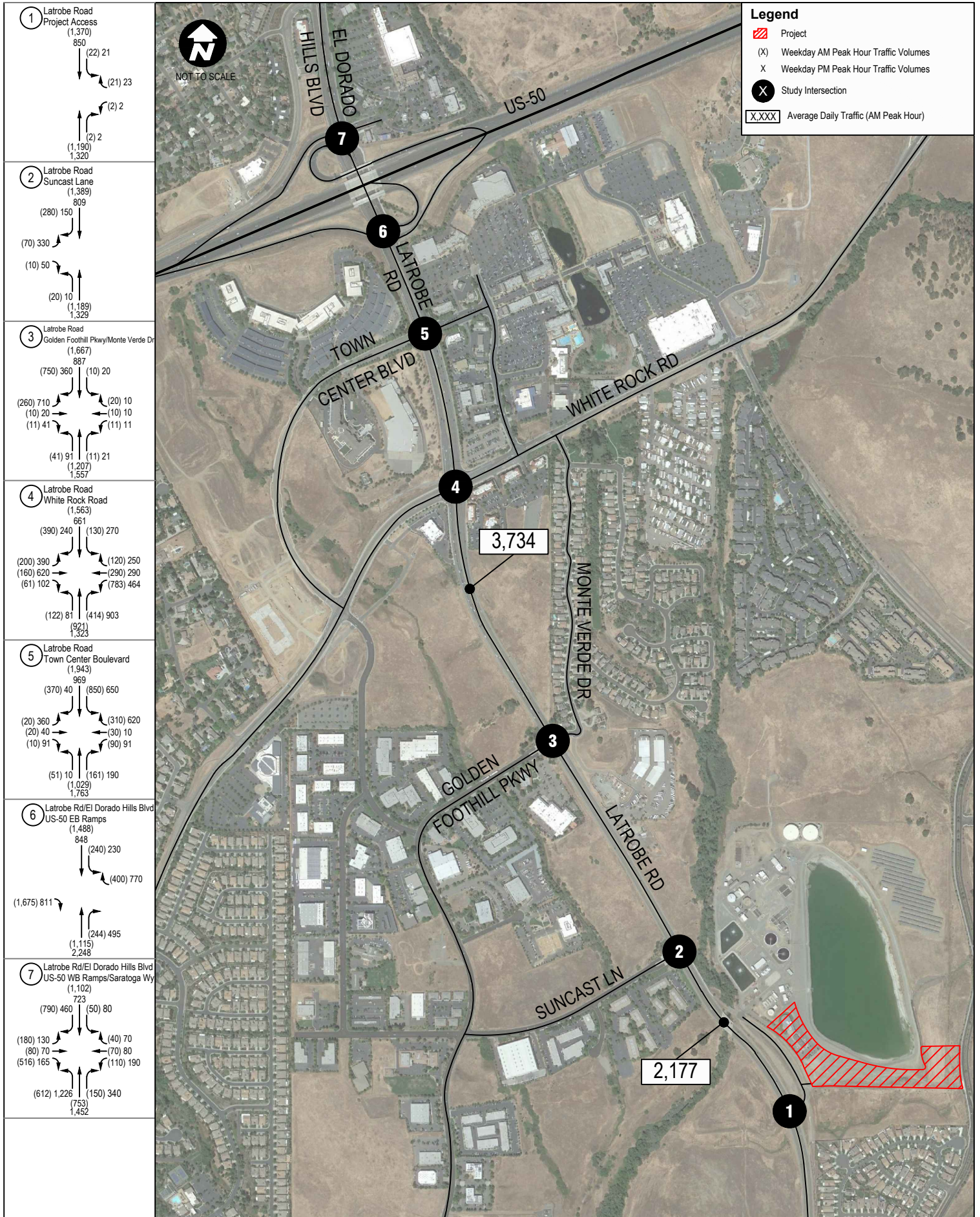
Notes: Analyzed using Highway Capacity Manual (HCM 6th Edition) methodology.

¹ Delay in seconds per vehicle.

² Level of Service (LOS).

³ Two-Way Stop Control reported as worst movement

BOLD value indicates unsatisfactory LOS



Source: Google Maps, 08/2018

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

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7 PROJECT ACCESS AND QUEUING

7.1 Project Access, Circulation, and Parking

As shown on the site plan (Figure 2), primary site access, including entry to the main facility building will be provided via the existing frontage road off of Latrobe Road. Emergency vehicle access will be also be provided along Blackstone Parkway.

The Latrobe Road/Project Access intersection will serve only the proposed project, as other vehicles proceed northbound/southbound due to the lack of other land uses near the project site. As such, low traffic volumes are expected along the project access frontage road, however due to the possibility of pedestrians or bicyclists, adequate sight distance should be kept and vegetation around the project driveway trimmed to provide unimpeded vision between vehicles and pedestrians or bicyclists.

Employee vehicle access to the project site would be from the frontage road at the main project site driveway near the southern portion of the site or from a smaller driveway along the northern edge of the site. Heavy equipment and trucks would only access the site via the southern entrance. Access to the facility would be controlled by gates at both access points. A California Legal 65' capable truck turnaround would be provided at the east end of the paved area.

The Proposed Project includes several parking areas to serve different uses within the expanded operations area. On-site parking would include 22 standard parking stalls for employees and 58 oversized stalls for large trucks, trailer-mounted equipment or other large vehicles.

7.2 Queuing Analysis

A queuing analysis was prepared for six intersections where project traffic is estimated to add traffic to critical turning movements with limited queuing capabilities. Queuing was calculated utilizing the SimTraffic software, and uses the highest calculated 95th percentile (design) queue.

7.2.1 Existing and Existing plus Project

The following will analyze the project's direct impact upon the storage lengths for the selected intersections. Table 12 shows the Existing condition queuing summary. All queuing worksheets are provided in Appendix B.

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

**Table 12
Existing Queuing Summary**

Intersection	Movement	Vehicle Storage Length ¹	Existing ²		Exceeds Vehicle Storage Length?	
			AM	PM	AM	PM
1. Latrobe Road/Project Access	SBL	230	10	8	no	no
3. Latrobe Road/Golden Foothill Pkwy/Monte Verde Dr	NBL	250	57	47	no	no
4. Latrobe Road/White Rock Road	WBL	200	246	135	yes	no
	NBL	350	131	98	no	no
	NBR	185	66	148	no	no
5. Latrobe Road/Town Center Boulevard	WBL	115	147	166	yes	yes
	NBL	290	66	113	no	no
	NBR ³	1000	78	1012	no	yes
6. Latrobe Rd/El Dorado Hills Blvd/US-50 EB Ramps	NBR	250	153	245	no	no
7. Latrobe Rd/El Dorado Hills Blvd/US-50 WB Ramps/Saratoga Wy	NBL ³	750	890	485	yes	no

Notes:

¹ Measured in feet.

² Based on 95th percentile (design) queue length in SimTraffic 10.

³ Not a storage lane. Pocket length measured to the nearest intersection.

XX Queue exceeds storage length.

As shown in Table 12, the 95th percentile (design) queue for the Existing condition did not exceed the storage length for the analyzed intersections and movements except for:

- 4. Latrobe Road/White Rock Road
 - Westbound left turn lane in the AM peak hour is exceeded by 46 feet.
- 5. Latrobe Road/Town Center Boulevard
 - Westbound left turn lane in the AM peak hour is exceeded by 32 feet and in the PM peak hour by 51 feet.
 - Northbound right turn lane in the PM peak hour is exceeded by 12 feet.
- 7. Latrobe Rd/El Dorado Hills Blvd/US-50 WB Ramps/Saratoga Wy
 - Northbound left turn lane in the AM peak hour is exceeded by 140 feet.

Table 13 shows the results of the Existing plus Project condition queuing summary.

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

Table 13
Existing plus Project Queuing Summary

Intersection	Movement	Vehicle Storage Length ¹	Existing plus Project ²		Exceeds Vehicle Storage Length?	
			AM	PM	AM	PM
1. Latrobe Road/Project Access	SBL	230	35	35	no	no
3. Latrobe Road/Golden Foothill Pkwy/Monte Verde Dr	NBL	250	60	42	no	no
4. Latrobe Road/White Rock Road	WBL	200	239	143	yes	no
	NBL	350	139	103	no	no
	NBR	185	63	135	no	no
5. Latrobe Road/Town Center Boulevard	WBL	115	151	171	yes	yes
	NBL	290	62	115	no	no
	NBR ³	1000	73	913	no	no
6. Latrobe Rd/El Dorado Hills Blvd/US-50 EB Ramps	NBR	250	150	235	no	no
7. Latrobe Rd/El Dorado Hills Blvd/US-50 WB Ramps/Saratoga Wy	NBL ³	750	958	579	yes	no

Notes:

- ¹ Measured in feet.
- ² Based on 95th percentile (design) queue length in SimTraffic 10.
- ³ Not a storage lane. Pocket length measured to the nearest intersection.
- XX** Queue exceeds storage length.

As shown in Table 13, the 95th percentile (design) queue for the Existing plus Project condition did not exceed the storage length for the analyzed intersections and movements except for:

- 4. Latrobe Road/White Rock Road
 - Westbound left turn lane in the AM peak hour is exceeded by 39 feet.
- 5. Latrobe Road/Town Center Boulevard
 - Westbound left turn lane in the AM peak hour is exceeded by 36 feet and in the PM peak hour by 56 feet.
- 7. Latrobe Rd/El Dorado Hills Blvd/US-50 WB Ramps/Saratoga Wy
 - Northbound left turn lane in the AM peak hour is exceeded by 208 feet.

With addition of project traffic the intersection of Latrobe Rd/El Dorado Hills Blvd/US-50 WB Ramps/Saratoga Way will have a northbound left turn queue increase of 68 feet, approximately

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

three car lengths, thereby creating a significant impact. The current El Dorado County Capital Improvement Program (CIP) identifies improvements to the US-50/El Dorado Hills Blvd interchange (CIP project 71323). Therefore, consistent with General Plan Goal TC-X and supporting Policy TC-Xf, payment of traffic impact mitigation fees would satisfy the project’s fair share obligation towards this improvement.

The project does not cause any movement not exceeding the storage length in the existing condition to exceed it with the addition of project traffic. Several movements will continue to exceed their storage length in addition to the project. Since there are no other direct project impacts that cause movements to exceed their storage lengths, the county’s collection of Traffic Impact Mitigation (TIM) fees will be utilized to account for the project’s impact on the existing roadway network.

7.2.2 Cumulative and Cumulative 2040 plus Project

The following will analyze the project’s cumulative impact upon the storage lengths for the selected intersections. Table 14 shows the Cumulative 2040 condition queuing summary. All queuing worksheets are provided in Appendix B.

**Table 14
Cumulative 2040 Queuing Summary**

Intersection	Movement	Vehicle Storage Length ¹	Cumulative 2040 ²		Exceeds Vehicle Storage Length?	
			AM	PM	AM	PM
1. Latrobe Road/Project Access	SBL	230	9	9	no	no
3. Latrobe Road/Golden Foothill Pkwy/Monte Verde Dr	NBL	250	92	178	no	no
4. Latrobe Road/White Rock Road	WBL	200	219	226	yes	yes
	NBL	350	376	128	yes	no
	NBR	185	159	216	no	yes
5. Latrobe Road/Town Center Boulevard	WBL	115	164	186	yes	yes
	NBL	290	79	86	no	no
	NBR ³	1000	110	138	no	no
6. Latrobe Rd/El Dorado Hills Blvd/US-50 EB Ramps	NBR	250	101	135	no	no
7. Latrobe Rd/El Dorado Hills Blvd/US-50 WB Ramps/Saratoga Wy	NBL ³	750	393	601	no	no

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

Notes:

- ¹ Measured in feet.
- ² Based on 95th percentile (design) queue length in SimTraffic 10.
- ³ Not a storage lane. Pocket length measured to the nearest intersection.
- XX** Queue exceeds storage length.

As shown in Table 14, the 95th percentile (design) queue for the Cumulative 2040 condition did not exceed the storage length for the analyzed intersections and movements except for:

- 4. Latrobe Road/White Rock Road
 - Westbound left turn lane in the AM peak hour is exceeded by 19 feet and in the PM peak hour by 26 feet.
 - Northbound left turn lane in the AM peak hour is exceeded by 26 feet.
 - Northbound right turn lane in the PM peak hour is exceeded by 31 feet.
- 5. Latrobe Road/Town Center Boulevard
 - Westbound left turn lane in the AM peak hour is exceeded by 49 feet and in the PM peak hour by 71 feet.

Table 15 shows the results of the Cumulative 2040 plus Project condition queuing summary.

**Table 15
Cumulative 2040 plus Project Queuing Summary**

Intersection	Movement	Vehicle Storage Length ¹	Cumulative 2040 plus Project ²		Exceeds Vehicle Storage Length?	
			AM	PM	AM	PM
1. Latrobe Road/Project Access	SBL	230	33	34	no	no
3. Latrobe Road/Golden Foothill Pkwy/Monte Verde Dr	NBL	250	77	168	no	no
4. Latrobe Road/White Rock Road	WBL	200	226	228	yes	yes
	NBL	350	358	133	yes	no
	NBR	185	167	211	no	yes
5. Latrobe Road/Town Center Boulevard	WBL	115	160	187	yes	yes
	NBL	290	76	75	no	no
	NBR ³	1000	121	108	no	no
6. Latrobe Rd/El Dorado Hills Blvd/US-50 EB Ramps	NBR	250	106	147	no	no

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

**Table 15
Cumulative 2040 plus Project Queuing Summary**

Intersection	Movement	Vehicle Storage Length ¹	Cumulative 2040 plus Project ²		Exceeds Vehicle Storage Length?	
			AM	PM	AM	PM
7. Latrobe Rd/El Dorado Hills Blvd/US-50 WB Ramps/Saratoga Wy	NBL ³	750	384	666	no	no

Notes:

- ¹ Measured in feet.
- ² Based on 95th percentile (design) queue length in SimTraffic 10.
- ³ Not a storage lane. Pocket length measured to the nearest intersection.
- XX** Queue exceeds storage length.

As shown in Table 15, the 95th percentile (design) queue for the Cumulative 2040 plus Project condition did not exceed the storage length for the analyzed intersections and movements except for:

- 4. Latrobe Road/White Rock Road
 - Westbound left turn lane in the AM peak hour is exceeded by 26 feet and in the PM peak hour by 28 feet.
 - Northbound left turn lane in the AM peak hour is exceeded by 8 feet.
 - Northbound right turn lane in the PM peak hour is exceeded by 26 feet.
- 5. Latrobe Road/Town Center Boulevard
 - Westbound left turn lane in the AM peak hour is exceeded by 45 feet and in the PM peak hour by 62 feet.

The project does not cause any movement not exceeding the storage length in the Cumulative 2040 condition to exceed it with the addition of project traffic. Several movements will continue to exceed their storage length in addition to the project. The project will contribute to the cumulative impacts that cause movements to exceed their storage lengths, the county’s collection of Traffic Impact Mitigation (TIM) fees will be utilized to account for the project’s impact on the existing roadway network.

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

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Traffic Impact Study – Wastewater Collections Operations Facility Relocation

8 MITIGATION MEASURES

The CIP includes a line item for unprogrammed traffic signal installation and operational and safety improvements at intersections, including improvements like construction of new traffic signals, construction of turn pockets, and the upgrade of existing traffic signal systems. The County annually monitors intersections with potential need for improvement through the Intersection Needs Prioritization Process. The Intersection Needs Prioritization Process is then used to inform the annual update to the CIP, and potential intersection improvements can be added, by the Board of Supervisors, to the CIP as funding becomes available. Therefore, appropriate mitigation, as determined by the CDS, would include payment of traffic impact mitigation fees to satisfy the project's fair share obligation towards this improvement or construction of the improvement with reimbursement for costs that exceed the project's proportional share if the improvement is needed but not included in future updates to the CIP or constructed by others.

Based on the traffic analysis completed for the Cumulative 2040 plus Project conditions, the following mitigation measures are proposed to offset the potentially significant impacts of the proposed project:

TRAF-1 Prior to the first day of operations, the project applicant shall pay the County's required fees, to improve the intersection of Latrobe Road/White Rock Road with the following improvements:

- Reconfigure northbound right turn movement from permitted to overlap phasing. Restrict westbound left U-turn movements.
- Reconfigure southbound right turn movement from permitted to overlap phasing. Restrict eastbound left U-turn movements.
- Reconfigure westbound right turn movement from permitted to overlap phasing. Restrict southbound left U-turn movements.

These mitigations are consistent with the improvements analyzed in the Montano de El Dorado TIS that was recently approved by the County.

With this modification, the LOS will decrease from LOS F (113.1) in the Cumulative 2040 condition, to LOS E (69.9) in the Cumulative 2040 plus Project (mitigated) condition. LOS worksheets are provided in Appendix B.

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

9 FINDINGS AND RECOMMENDATIONS

Based on the traffic analysis of the proposed project, the following findings on study area roadway segment and intersection levels of service, project trip generation, project access, and project impacts are made:

- The project would generate approximately 84 daily trips, 42 AM peak hour net trips (21 inbound and 21 outbound), and 42 PM peak hour trips (21 inbound and 21 outbound).
- In the Existing plus Project condition, all of the study area roadway segments would continue to operate at LOS D.
- All of the study area intersections are forecast to continue to operate with satisfactory LOS, at LOS E or better, under Existing plus Project conditions during both peak hours.
- In the Cumulative 2040 plus Project condition, all of the study area roadway segments would continue to operate at LOS D.
- All of the study area intersections are forecast to continue to operate with satisfactory LOS, at LOS E or better, under Cumulative 2040 plus Project conditions during both peak hours except for the intersection of Latrobe Road/White Rock Road. This intersection is forecast to continue to operate at LOS F in the PM peak hour with addition of project traffic. However, although the increase in delay is 1 second, the project will be adding more than 10 vehicles in the PM peak hour, therefore this is a potentially significant impact that will require mitigation.
 - Mitigation measure TRAF-1 states that prior to the first day of operations, the project applicant shall pay the County's required fees, to improve the intersection of Latrobe Road/White Rock Road with the following improvements:
 - Reconfigure northbound right turn movement from permitted to overlap phasing.
 - Reconfigure northbound right turn movement from permitted to overlap phasing. Restrict westbound left U-turn movements.
 - Reconfigure southbound right turn movement from permitted to overlap phasing. Restrict eastbound left U-turn movements.
 - Reconfigure westbound right turn movement from permitted to overlap phasing. Restrict southbound left U-turn movements.
 - The project's fair share at this intersection is 2.0 percent. With this modification, the LOS will decrease from LOS F (113.1) in the Cumulative 2040 condition, to LOS E (69.9) in the Cumulative 2040 plus Project (mitigated) condition.

Traffic Impact Study – Wastewater Collections Operations Facility Relocation

- The CIP includes a line item for unprogrammed traffic signal installation and operational and safety improvements at intersections, including improvements like construction of new traffic signals, construction of turn pockets, and the upgrade of existing traffic signal systems. The County annually monitors intersections with potential need for improvement through the Intersection Needs Prioritization Process. The Intersection Needs Prioritization Process is then used to inform the annual update to the CIP, and potential intersection improvements can be added, by the Board of Supervisors, to the CIP as funding becomes available. Therefore, appropriate mitigation, as determined by the CDS, would include payment of traffic impact mitigation fees to satisfy the project's fair share obligation towards this improvement or construction of the improvement with reimbursement for costs that exceed the project's proportional share if the improvement is needed but not included in future updates to the CIP or constructed by others.
- With addition of project traffic the intersection of Latrobe Rd/El Dorado Hills Blvd/US-50 WB Ramps/Saratoga Way will have a northbound left turn queue increase of 68 feet, approximately three car lengths, thereby creating a significant impact. The current El Dorado County Capital Improvement Program (CIP) identifies improvements to the US-50/El Dorado Hills Blvd interchange (CIP project 71323). Therefore, consistent with General Plan Goal TC-X and supporting Policy TC-Xf, payment of traffic impact mitigation fees would satisfy the project's fair share obligation towards this improvement.
- Project traffic will not create additional queues that exceed the storage lengths of intersection and critical movements analyzed; however project traffic will contribute to exceedance at several movements. The project will contribute to the cumulative impacts that cause movements to exceed their storage lengths, the county's collection of Traffic Impact Mitigation (TIM) fees will be utilized to account for the project's impact on the existing roadway network.
- Project access and circulation is considered to be adequate and visibility for both vehicles and pedestrians and bicyclists should be maintained to preserve safe sight distances. The project site possess adequate space for the circulation of project trucks and parking for employee passenger cars. Emergency vehicle access is also provided via Blackstone Parkway and along the project access frontage road.

APPENDIX A

Traffic Data

National Data & Surveying Services Intersection Turning Movement Count

Location: Latrobe Rd & Project Access (El Dorado Irrigation)
City: El Dorado Hills
Control: 1-Way Stop(WB)

Project ID: 19-07102-001
Date: 3/21/2019

Total

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Project Access (El Dorado Irrigation)				Project Access (El Dorado Irrigation)				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:00 AM	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	221
6:05 AM	0	119	0	0	2	100	0	0	0	0	0	0	0	0	0	0	221
6:15 AM	0	96	0	0	3	137	0	0	0	0	0	0	0	0	0	0	236
6:30 AM	0	106	0	0	4	147	0	0	0	0	0	0	0	0	0	0	257
6:45 AM	0	123	0	0	2	190	0	0	0	0	0	0	0	0	0	0	315
7:00 AM	0	162	0	0	1	204	0	0	0	0	0	0	0	0	0	0	367
7:15 AM	0	166	1	0	2	231	0	0	0	0	0	0	0	0	0	0	400
7:30 AM	0	205	0	0	1	346	0	0	0	0	0	0	0	0	0	0	552
7:45 AM	0	332	0	0	2	396	0	0	0	0	0	0	0	0	0	0	730
8:00 AM	0	256	0	0	0	276	0	0	0	0	0	0	0	0	1	0	533
8:15 AM	0	201	0	0	0	247	0	0	0	0	0	0	0	0	1	0	449
8:30 AM	0	165	0	0	1	189	0	0	0	0	0	0	0	0	1	0	356
8:45 AM	0	175	0	0	1	189	0	0	0	0	0	0	0	0	1	0	366
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	2106	1	0	19	2652	0	0	0	0	0	0	0	0	4	0	4782
	0.00%	99.95%	0.05%	0.00%	0.71%	99.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR:	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:	0	994	0	0	3	1265	0	0	0	0	0	0	0	0	2	0	2264
PEAK HR FACTOR:	0.000	0.748	0.000	0.000	0.375	0.799	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.775
			0.748				0.796								0.500		

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Project Access (El Dorado Irrigation)				Project Access (El Dorado Irrigation)				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	293	0	0	0	224	0	0	0	0	0	0	0	0	2	0	519
4:15 PM	0	243	0	0	1	185	0	0	0	0	0	0	0	0	2	0	431
4:30 PM	0	293	0	0	0	162	0	0	0	0	0	0	0	0	0	0	455
4:45 PM	0	199	0	0	1	189	0	0	0	0	0	0	0	0	0	0	389
5:00 PM	0	286	0	0	0	223	0	1	0	0	0	0	0	0	0	0	510
5:15 PM	0	223	0	0	0	213	0	0	0	0	0	0	0	0	0	0	436
5:30 PM	0	221	0	0	0	157	0	0	0	0	0	0	0	0	0	0	378
5:45 PM	0	147	0	0	0	174	0	1	0	0	0	0	0	0	0	0	322
6:00 PM	0	176	0	0	0	156	0	0	0	0	0	0	0	0	0	0	332
6:15 PM	0	118	0	0	0	181	0	0	0	0	0	0	0	0	0	0	299
6:30 PM	0	153	0	0	0	143	0	0	0	0	0	0	0	0	0	0	296
6:45 PM	0	112	0	0	0	145	0	0	0	0	0	0	0	0	0	0	257
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	2464	0	0	2	2152	0	2	0	0	0	0	0	0	4	0	4624
	0.00%	100.00%	0.00%	0.00%	0.09%	99.81%	0.00%	0.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR:	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL:	0	1028	0	0	2	760	0	0	0	0	0	0	0	0	4	0	1794
PEAK HR FACTOR:	0.000	0.877	0.000	0.000	0.500	0.848	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.864
			0.877				0.850								0.500		

National Data & Surveying Services Intersection Turning Movement Count

Location: Latrobe Rd & Project Access (El Dorado Irrigation)
City: El Dorado Hills
Control: 1-Way Stop(WB)

Project ID: 19-07102-001
Date: 3/21/2019

Bikes

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Project Access (El Dorado Irrigation)				Project Access (El Dorado Irrigation)				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0	0	0	0	0	0	0	0	2
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

National Data & Surveying Services **Intersection Turning** Movement Count

Location: Latrobe Rd & Project Access (El Dorado Irrigation)
City: El Dorado Hills

Project ID: 19-07102-001
Date: 3/21/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Latrobe Rd		Latrobe Rd		Project Access (El Dorado Irrigation)		Project Access (El Dorado Irrigation)		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

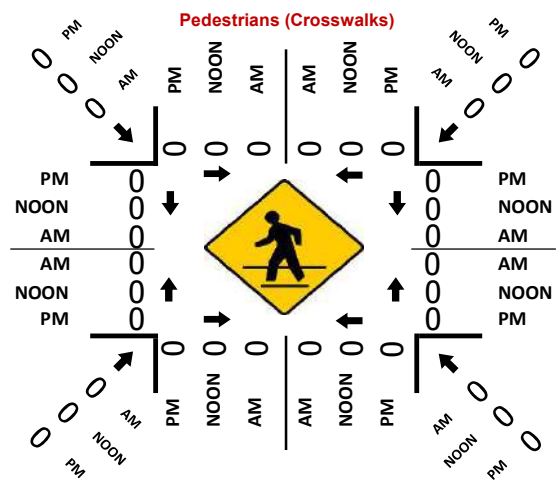
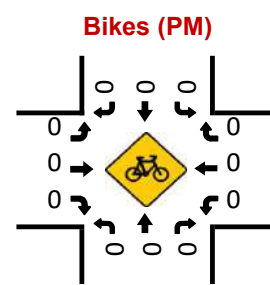
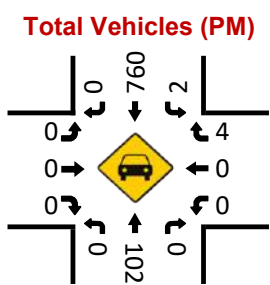
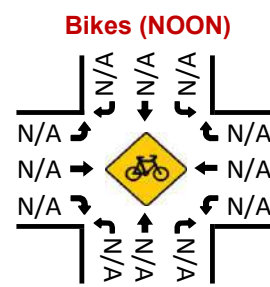
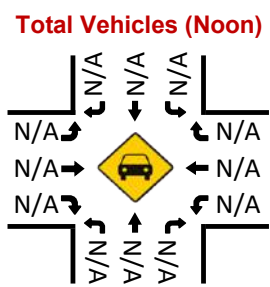
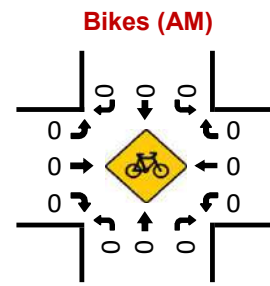
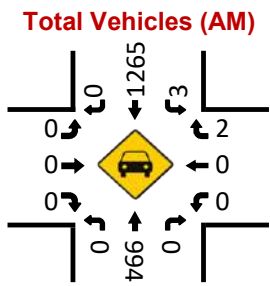
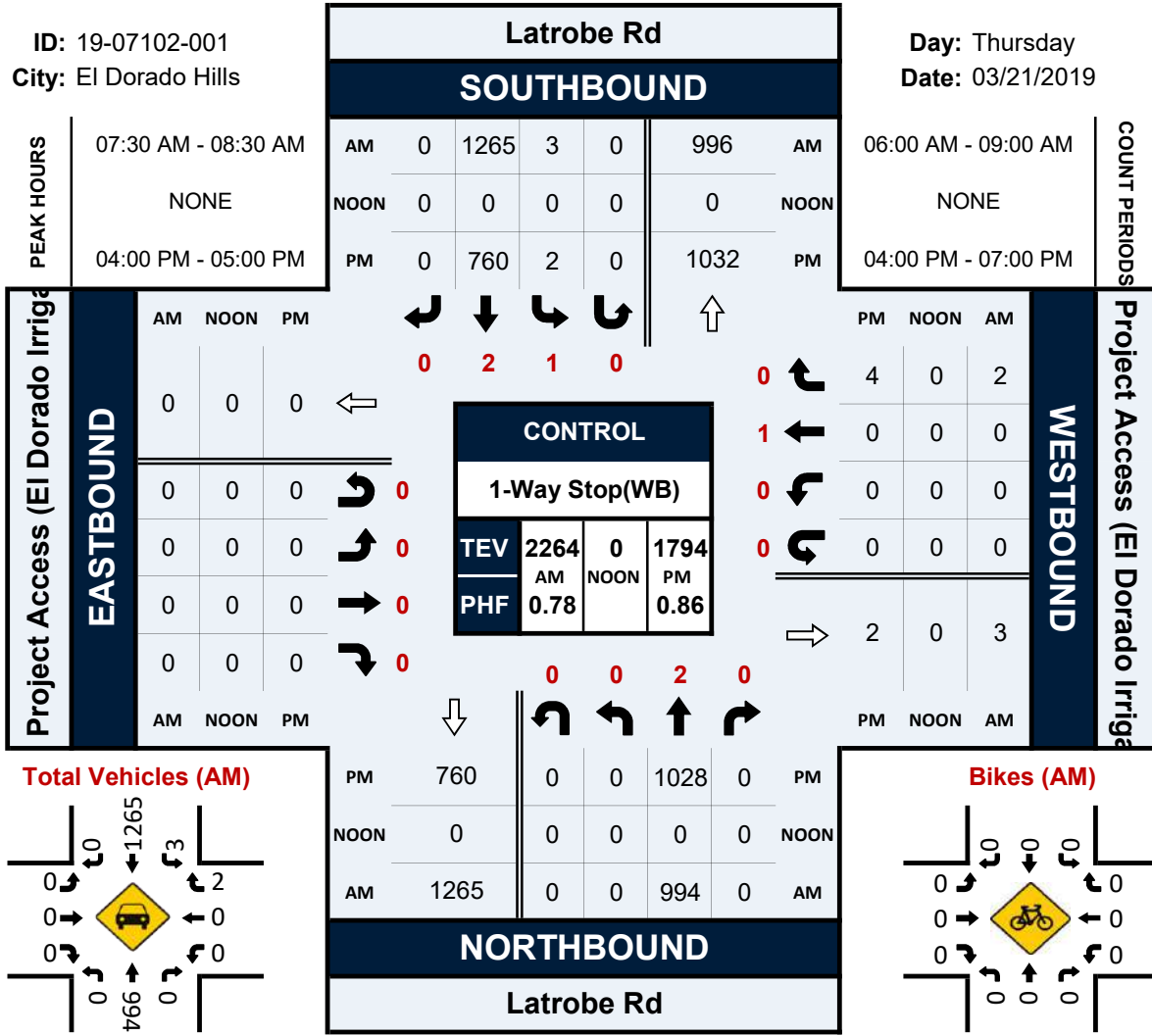
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Latrobe Rd & Project Access (El Dorado Irrigation)

Peak Hour Turning Movement Count

ID: 19-07102-001
City: El Dorado Hills

Day: Thursday
Date: 03/21/2019



National Data & Surveying Services Intersection Turning Movement Count

Location: Latrobe Rd & Suncaat Ln
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-002
Date: 3/21/2019

Total

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Suncaat Ln				Suncaat Ln				TOTAL	
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
AM	1	2	0	0	0	1.5	0.5	0	1	0	1	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
6:00 AM	1	122	0	0	0	104	6	0	0	0	0	0	0	0	0	0	0	233
6:15 AM	0	97	0	0	0	149	12	0	0	0	1	0	0	0	0	0	0	259
6:30 AM	0	109	0	0	0	146	14	0	0	0	0	0	0	0	0	0	0	269
6:45 AM	0	123	0	0	0	207	17	0	1	0	0	0	0	0	0	0	0	348
7:00 AM	0	158	0	0	0	205	18	0	2	0	1	0	0	0	0	0	0	384
7:15 AM	3	171	0	0	0	219	28	0	4	0	0	0	0	0	0	0	0	425
7:30 AM	1	188	0	0	0	339	28	0	2	0	0	0	0	0	0	0	0	558
7:45 AM	7	314	0	0	0	409	38	0	3	0	1	0	0	0	0	0	0	772
8:00 AM	8	266	0	1	0	256	42	0	16	0	1	0	0	0	0	0	0	590
8:15 AM	2	202	0	0	0	233	30	0	10	0	3	0	0	0	0	0	0	480
8:30 AM	3	152	0	1	0	175	28	0	2	0	1	0	0	0	0	0	0	362
8:45 AM	1	168	0	1	0	205	45	0	11	0	1	0	0	0	0	0	0	432
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		TOTAL
APPROACH %'s:	1.24%	98.62%	0.00%	0.14%	0.00%	89.64%	10.36%	0.00%	85.00%	0.00%	15.00%	0.00%	0	0	0	0		5112
PEAK HR:	07:30 AM - 08:30 AM																TOTAL	
PEAK HR VOL:	18	970	0	1	0	1237	138	0	31	0	5	0	0	0	0	0	0	2400
PEAK HR FACTOR:	0.563	0.772	0.000	0.250	0.000	0.756	0.821	0.000	0.484	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.777
	0.770				0.769				0.529									

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Suncaat Ln				Suncaat Ln				TOTAL	
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
PM	1	2	0	0	0	1.5	0.5	0	1	0	1	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
4:00 PM	1	307	0	0	0	219	24	0	40	0	6	0	0	0	0	0	0	597
4:15 PM	2	216	0	0	0	181	22	0	31	0	4	0	0	0	0	0	0	456
4:30 PM	2	299	0	0	0	159	17	0	43	0	2	0	0	0	0	0	0	522
4:45 PM	1	215	0	0	0	200	13	0	33	0	7	0	0	0	0	0	0	469
5:00 PM	1	294	0	0	0	199	10	0	60	0	11	0	0	0	0	0	0	575
5:15 PM	3	205	0	0	0	202	16	0	25	0	5	0	0	0	0	0	0	456
5:30 PM	0	230	0	0	0	167	7	0	29	0	5	0	0	0	0	0	0	438
5:45 PM	1	154	0	0	0	170	9	0	18	0	0	0	0	0	0	0	0	352
6:00 PM	3	168	0	0	0	147	7	0	24	0	1	0	0	0	0	0	0	350
6:15 PM	0	121	0	0	0	173	10	0	20	0	3	0	0	0	0	0	0	327
6:30 PM	5	142	0	0	0	148	10	0	14	0	0	0	0	0	0	0	0	319
6:45 PM	0	119	0	0	0	129	8	0	15	0	3	0	0	0	0	0	0	274
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		TOTAL
APPROACH %'s:	0.76%	99.24%	0.00%	0.00%	0.00%	93.19%	6.81%	0.00%	88.22%	0.00%	11.78%	0.00%	0	0	0	0		5135
PEAK HR:	04:00 PM - 05:00 PM																TOTAL	
PEAK HR VOL:	6	1037	0	0	0	759	76	0	147	0	19	0	0	0	0	0	0	2044
PEAK HR FACTOR:	0.750	0.844	0.000	0.000	0.000	0.866	0.792	0.000	0.855	0.000	0.679	0.000	0.000	0.000	0.000	0.000	0.000	0.856
	0.847				0.859				0.902									

National Data & Surveying Services Intersection Turning Movement Count

Location: Latrobe Rd & Suncastr Ln
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-002
Date: 3/21/2019

Bikes

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Suncastr Ln				Suncastr Ln				TOTAL
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	1.5	0.5	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR :	07:30 AM - 08:30 AM																
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Suncastr Ln				Suncastr Ln				TOTAL
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	1.5	0.5	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
PEAK HR :	04:00 PM - 05:00 PM																
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

National Data & Surveying Services **Intersection Turning** Movement Count

Location: Latrobe Rd & Suncast Ln
City: El Dorado Hills

Project ID: 19-07102-002
Date: 3/21/2019

Pedestrians (Crosswalks)

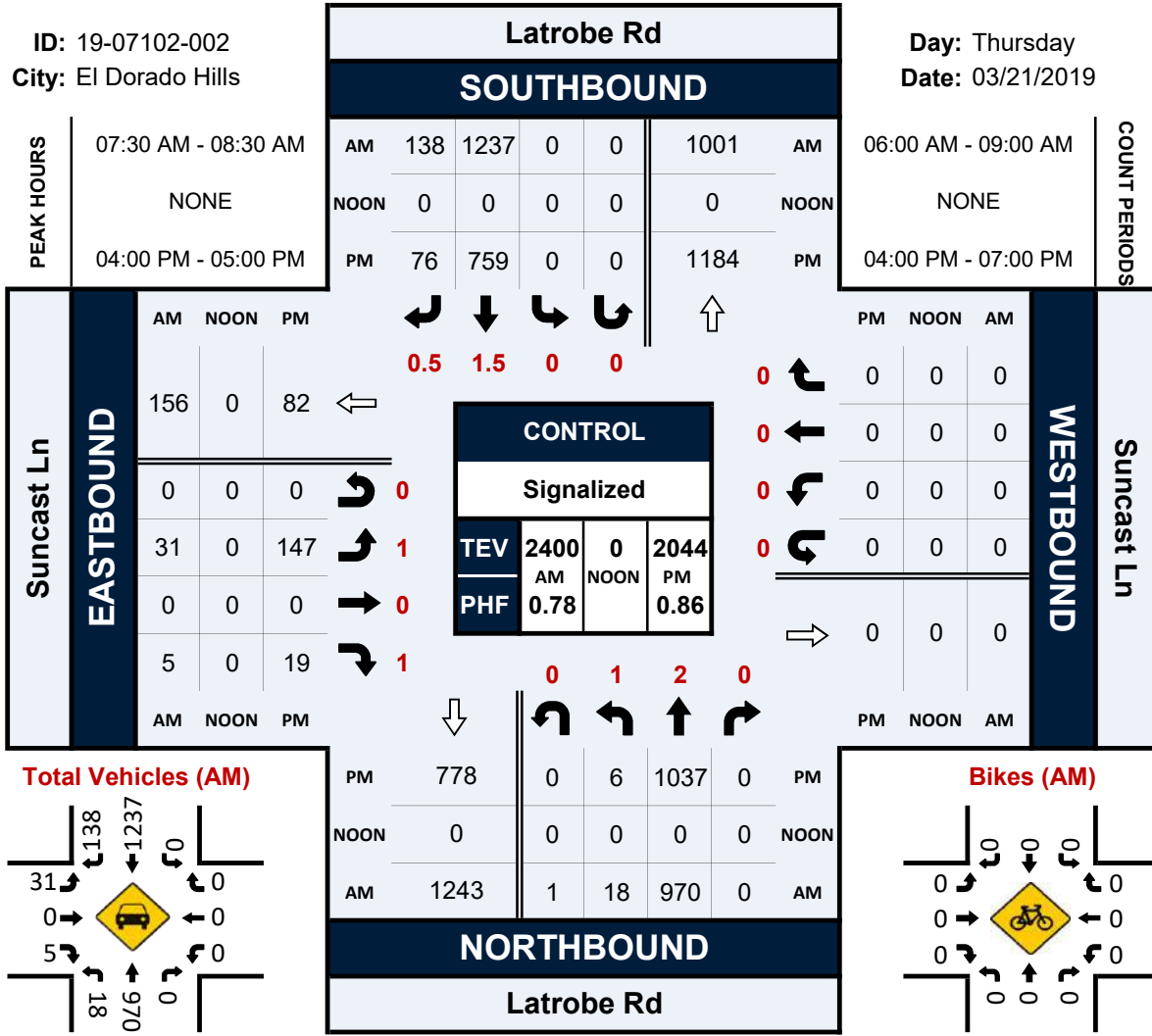
NS/EW Streets:	Latrobe Rd		Latrobe Rd		Suncast Ln		Suncast Ln		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	1	0	0	1	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	1	0	0	1	0	2
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Latrobe Rd & Suncast Ln

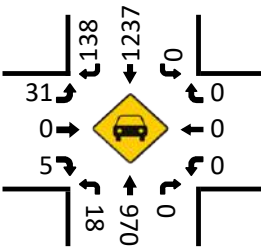
Peak Hour Turning Movement Count

ID: 19-07102-002
City: El Dorado Hills

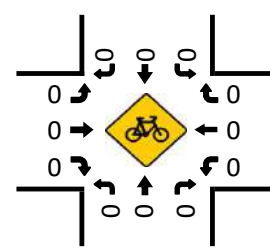
Day: Thursday
Date: 03/21/2019



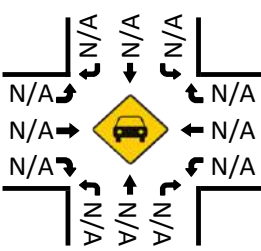
Total Vehicles (AM)



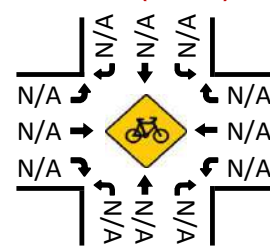
Bikes (AM)



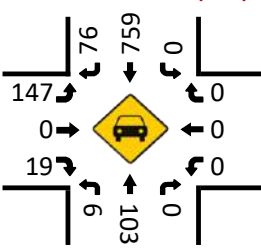
Total Vehicles (Noon)



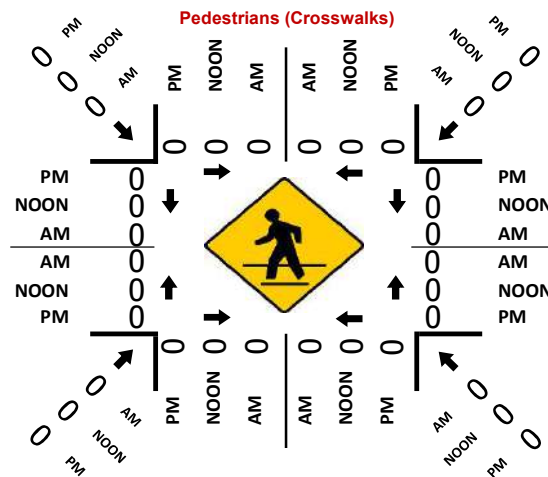
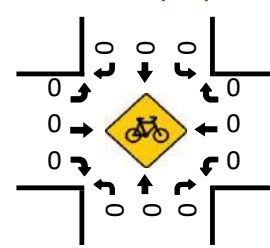
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Latrobe Rd & Golden Foothill Pkwy/Monte Verde Dr
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-003
Date: 3/21/2019

Total

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Golden Foothill Pkwy/Monte Verde Dr				Golden Foothill Pkwy/Monte Verde Dr				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	1.5	0.5	0	1	1.5	0.5	0	1	0	1	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	114	0	0	0	110	8	0	9	1	1	0	0	0	1	0	244
6:15 AM	1	94	0	0	0	149	25	0	1	0	2	0	0	1	0	0	273
6:30 AM	0	109	0	0	0	165	37	0	5	0	0	0	0	1	1	0	318
6:45 AM	3	124	0	0	0	213	78	0	5	0	0	0	0	1	2	0	426
7:00 AM	0	163	0	0	0	218	69	0	18	0	3	0	1	0	5	0	477
7:15 AM	4	169	0	0	0	265	65	0	10	0	3	0	1	1	3	0	521
7:30 AM	7	185	0	0	0	365	74	0	12	1	0	0	2	1	2	0	649
7:45 AM	6	286	3	0	1	460	116	1	24	0	0	0	0	3	3	0	903
8:00 AM	6	296	0	0	3	286	137	0	42	3	1	0	2	2	4	0	782
8:15 AM	5	202	2	0	1	261	105	0	39	0	3	0	5	1	3	0	627
8:30 AM	4	159	1	0	0	202	66	0	21	0	1	0	1	0	3	0	458
8:45 AM	3	154	2	0	1	233	88	1	21	0	3	0	0	1	2	0	509
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	39	2055	8	0	6	2927	868	2	207	5	17	0	12	12	29	0	6187
	1.86%	97.76%	0.38%	0.00%	0.16%	76.97%	22.82%	0.05%	90.39%	2.18%	7.42%	0.00%	22.64%	22.64%	54.72%	0.00%	
PEAK HR:	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:	24	969	5	0	5	1372	432	1	117	4	4	0	9	7	12	0	2961
PEAK HR FACTOR:	0.857	0.818	0.417	0.000	0.417	0.746	0.788	0.250	0.696	0.333	0.333	0.000	0.450	0.583	0.750	0.000	0.820
	0.826				0.783				0.679				0.778				

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Golden Foothill Pkwy/Monte Verde Dr				Golden Foothill Pkwy/Monte Verde Dr				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1	1.5	0.5	0	1	1.5	0.5	0	1	0	1	0	0	1	0	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	1	346	0	1	4	244	28	0	85	2	6	0	0	0	1	0	718
4:15 PM	3	247	2	0	4	203	29	1	53	2	2	0	0	3	0	0	549
4:30 PM	2	331	3	0	5	179	19	3	137	1	3	0	2	1	1	0	687
4:45 PM	3	236	3	0	3	216	25	0	63	1	1	0	4	0	5	0	560
5:00 PM	2	343	1	0	0	190	24	2	100	1	8	0	0	1	0	0	672
5:15 PM	2	226	2	0	5	209	22	1	59	1	4	0	2	0	1	0	534
5:30 PM	3	256	2	0	4	163	19	0	83	3	4	0	0	0	2	0	539
5:45 PM	2	171	0	0	3	168	26	0	55	1	5	0	1	0	3	0	435
6:00 PM	2	190	1	0	3	163	15	1	31	0	1	0	0	1	2	0	410
6:15 PM	2	133	3	0	1	179	23	1	44	1	2	0	0	0	2	0	391
6:30 PM	1	145	1	0	2	144	9	2	45	2	1	0	1	2	1	0	356
6:45 PM	1	136	1	0	2	153	3	0	20	2	0	0	1	1	1	0	321
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	24	2760	19	1	36	2211	242	11	775	17	37	0	11	9	19	0	6172
	0.86%	98.43%	0.68%	0.04%	1.44%	88.44%	9.68%	0.44%	93.49%	2.05%	4.46%	0.00%	28.21%	23.08%	48.72%	0.00%	
PEAK HR:	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL:	9	1160	8	1	16	842	101	4	338	6	12	0	6	4	7	0	2514
PEAK HR FACTOR:	0.750	0.838	0.667	0.250	0.800	0.863	0.871	0.333	0.617	0.750	0.500	0.000	0.375	0.333	0.350	0.000	0.875
	0.846				0.872				0.631				0.472				

National Data & Surveying Services Intersection Turning Movement Count

Location: Latrobe Rd & Golden Foothill Pkwy/Monte Verde Dr
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-003
Date: 3/21/2019

Bikes

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Golden Foothill Pkwy/Monte Verde Dr				Golden Foothill Pkwy/Monte Verde Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1.5 NT	0.5 NR	0 NU	1 SL	1.5 ST	0.5 SR	0 SU	1 EL	0 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1.5 NT	0.5 NR	0 NU	1 SL	1.5 ST	0.5 SR	0 SU	1 EL	0 ET	1 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	0	2	0	0	0	1	0	0	0	1	0	0	5
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250

National Data & Surveying Services **Intersection Turning** Movement Count

Location: Latrobe Rd & Golden Foothill Pkwy/Monte Verde Dr
City: El Dorado Hills

Project ID: 19-07102-003
Date: 3/21/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Latrobe Rd		Latrobe Rd		Golden Foothill Pkwy/Monte Verde Dr		Golden Foothill Pkwy/Monte Verde Dr		TOTAL
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

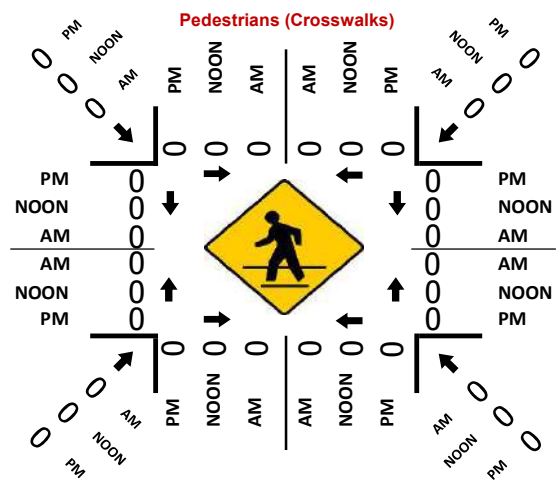
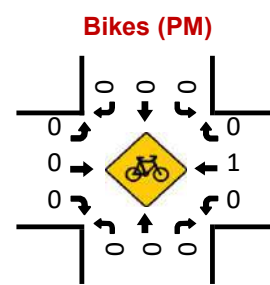
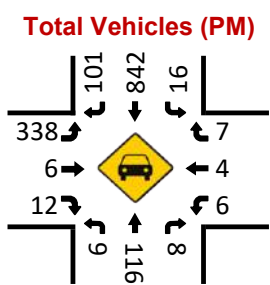
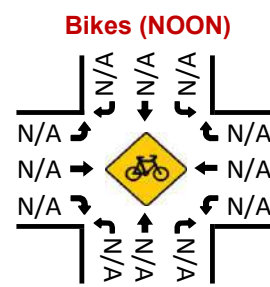
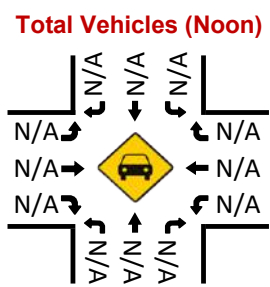
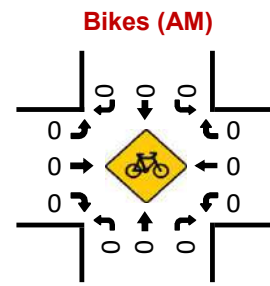
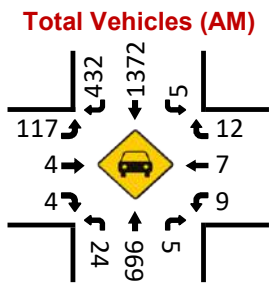
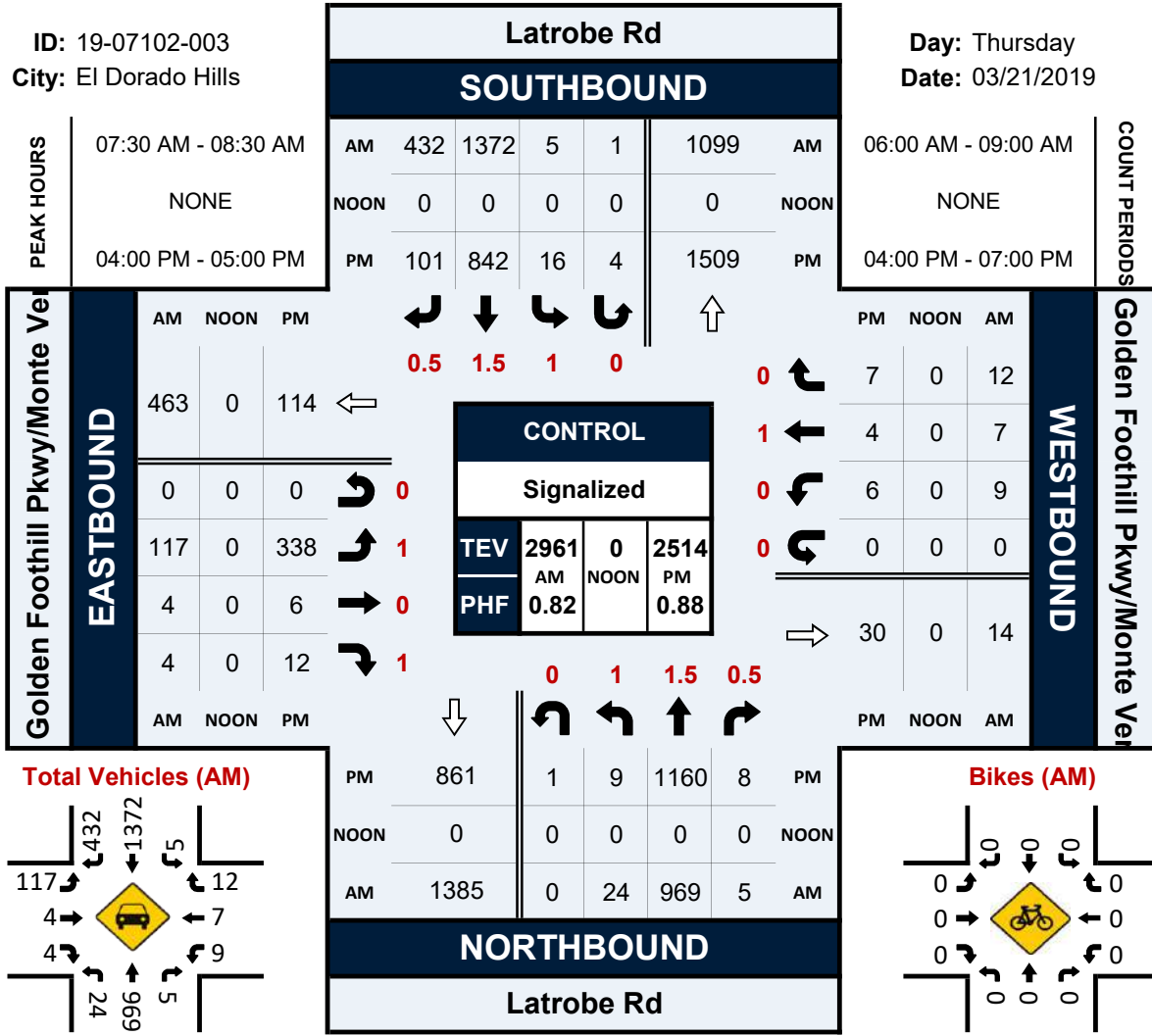
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	1	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	0	0	1	0	1
APPROACH %'s :							100.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Latrobe Rd & Golden Foothill Pkwy/Monte Verde Dr

Peak Hour Turning Movement Count

ID: 19-07102-003
City: El Dorado Hills

Day: Thursday
Date: 03/21/2019



National Data & Surveying Services Intersection Turning Movement Count

Location: Latrobe Rd & White Rock Rd
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-004
Date: 3/21/2019

Total

NS/EW Streets:	Latrobe Rd				Latrobe Rd				White Rock Rd				White Rock Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1	4	1	0	2	3	1	0	2	1.5	0.5	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	2	113	15	0	5	103	27	0	12	4	2	0	18	9	10	0	320
6:15 AM	3	80	8	0	5	129	17	0	11	6	2	0	44	18	18	0	341
6:30 AM	8	91	12	0	10	123	29	0	15	12	1	0	42	24	22	0	389
6:45 AM	12	99	13	0	19	273	54	0	23	9	1	0	65	31	21	0	620
7:00 AM	13	155	19	0	12	229	49	2	39	8	5	0	38	35	16	0	620
7:15 AM	17	132	15	1	21	235	71	0	35	19	5	0	64	46	24	0	685
7:30 AM	18	171	15	2	20	361	64	1	47	16	12	0	65	43	28	0	863
7:45 AM	21	239	42	0	22	432	118	0	46	21	13	0	102	52	20	1	1129
8:00 AM	28	278	49	1	32	355	117	1	51	23	3	0	86	48	25	0	1097
8:15 AM	9	159	42	1	21	272	85	0	54	28	10	0	74	45	37	0	837
8:30 AM	16	154	25	2	33	207	73	1	52	21	7	0	53	42	40	0	726
8:45 AM	12	156	30	0	36	256	75	1	66	25	6	0	66	31	42	0	802
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	6.98%	80.20%	12.51%	0.31%	5.91%	74.45%	19.49%	0.15%	63.52%	27.04%	9.44%	0.00%	49.62%	29.34%	20.97%	0.07%	8429
PEAK HR:	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL:	76	847	148	4	95	1420	384	2	198	88	38	0	327	188	110	1	3926
PEAK HR FACTOR:	0.679	0.762	0.755	0.500	0.742	0.822	0.814	0.500	0.917	0.786	0.731	0.000	0.801	0.904	0.743	0.250	0.869
	0.755				0.831				0.880				0.894				

NS/EW Streets:	Latrobe Rd				Latrobe Rd				White Rock Rd				White Rock Rd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	1	4	1	0	2	3	1	0	2	1.5	0.5	0	2	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	19	298	80	1	43	190	60	1	80	69	23	0	45	43	49	0	1001
4:15 PM	4	242	64	2	45	168	71	0	83	67	21	0	59	39	49	0	914
4:30 PM	20	328	89	2	51	142	77	2	83	81	16	0	41	39	47	1	1019
4:45 PM	12	250	65	4	50	166	61	2	103	74	24	0	44	39	34	0	928
5:00 PM	17	294	92	2	49	174	55	1	116	71	14	0	42	41	44	0	1012
5:15 PM	19	238	71	0	49	163	52	0	82	70	18	0	44	44	57	0	907
5:30 PM	11	256	55	0	32	144	60	0	89	74	21	0	27	34	41	0	844
5:45 PM	13	188	52	0	51	151	55	2	74	60	12	0	48	34	39	0	779
6:00 PM	8	185	36	1	52	119	54	3	107	60	13	0	39	24	40	0	741
6:15 PM	13	123	32	0	53	137	44	0	77	49	13	0	43	31	38	0	653
6:30 PM	6	150	31	1	50	132	36	0	52	31	13	0	28	21	37	0	588
6:45 PM	6	144	26	0	40	104	17	1	49	29	13	0	22	25	32	0	508
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	4.17%	75.94%	19.52%	0.37%	18.78%	59.49%	21.34%	0.40%	51.53%	38.06%	10.41%	0.00%	34.33%	29.49%	36.11%	0.07%	9894
PEAK HR:	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL:	53	1114	310	10	195	650	264	5	385	293	75	0	186	158	174	1	3873
PEAK HR FACTOR:	0.663	0.849	0.842	0.625	0.956	0.934	0.857	0.625	0.830	0.904	0.781	0.000	0.788	0.963	0.888	0.250	0.950
	0.847				0.981				0.937				0.883				

National Data & Surveying Services Intersection Turning Movement Count

Location: Latrobe Rd & White Rock Rd
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-004
Date: 3/21/2019

Bikes

NS/EW Streets:	Latrobe Rd				Latrobe Rd				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	4 NT	1 NR	0 NU	2 SL	3 ST	1 SR	0 SU	2 EL	1.5 ET	0.5 ER	0 EU	2 WL	2 WT	1 WR	0 WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2
	0.00%	0.00%	100.00%	0.00%									0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	4 NT	1 NR	0 NU	2 SL	3 ST	1 SR	0 SU	2 EL	1.5 ET	0.5 ER	0 EU	2 WL	2 WT	1 WR	0 WU	
4:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	1	1	2	0	0	0	0	0	1	3	0	0	9
	0.00%	100.00%	0.00%	0.00%	25.00%	25.00%	50.00%	0.00%					25.00%	75.00%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250

National Data & Surveying Services **Intersection Turning** Movement Count

Location: Latrobe Rd & White Rock Rd
City: El Dorado Hills

Project ID: 19-07102-004
Date: 3/21/2019

Pedestrians (Crosswalks)

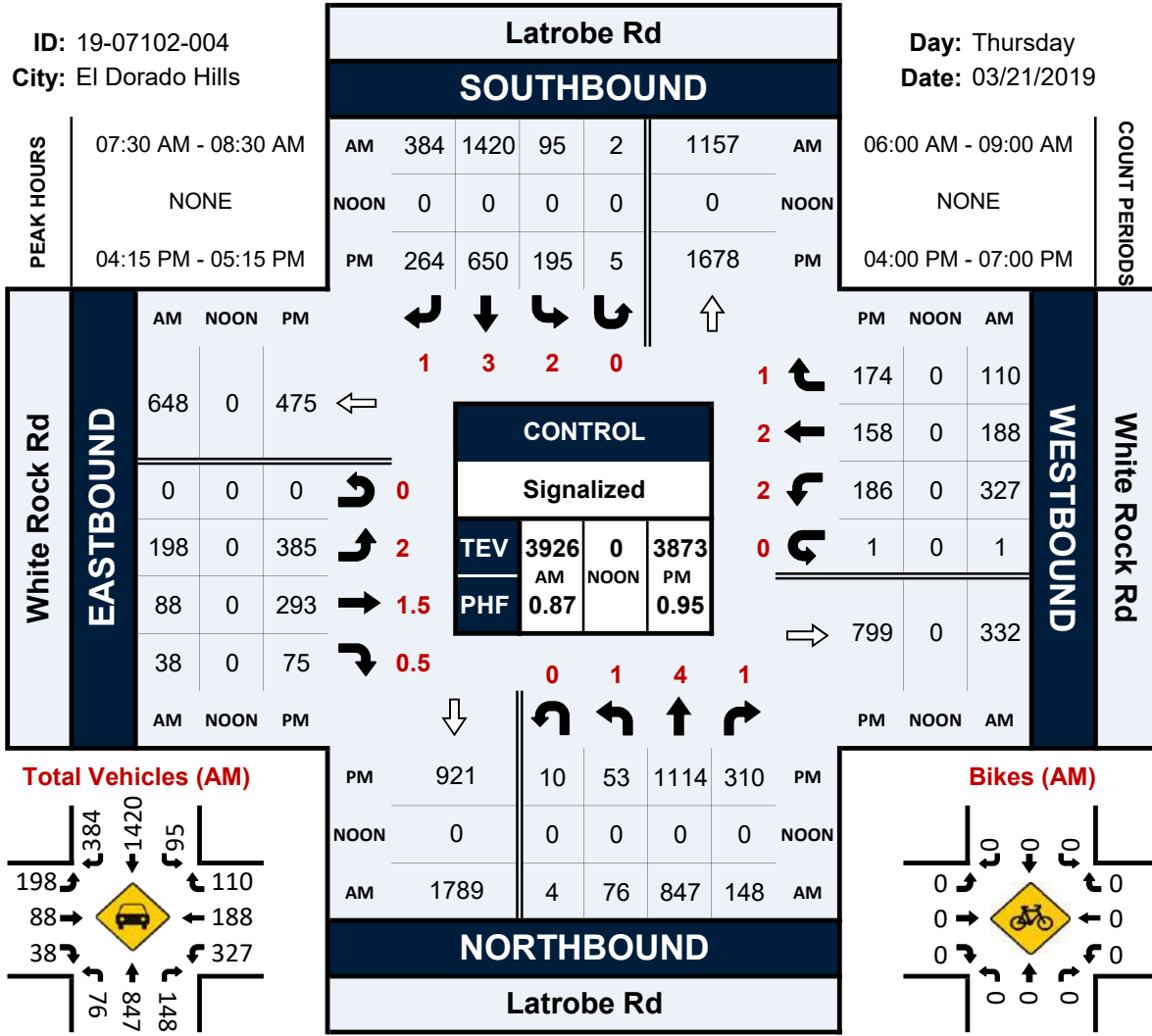
NS/EW Streets:	Latrobe Rd		Latrobe Rd		White Rock Rd		White Rock Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	1	2	0	0	0	0	4
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	1	1	0	0	0	0	0	0	2
8:30 AM	0	0	1	2	0	1	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB 1	WB 2	EB 2	WB 4	NB 0	SB 1	NB 0	SB 0	TOTAL 10
APPROACH %'s :	33.33%	66.67%	33.33%	66.67%	0.00%	100.00%			
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	1	1	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.250	0.250							0.250
		0.250							
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	0	0	0	1
4:30 PM	0	0	0	1	0	1	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	2	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	2	0	0	0	0	0	2
6:15 PM	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	1	0	0	0	0	1
6:45 PM	0	0	1	1	0	0	0	0	2
TOTAL VOLUMES :	EB 0	WB 0	EB 3	WB 6	NB 0	SB 1	NB 0	SB 0	TOTAL 10
APPROACH %'s :			33.33%	66.67%	0.00%	100.00%			
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	0	0	2	0	1	0	0	3
PEAK HR FACTOR :			0.500	0.500	0.250	0.250			0.375

Latrobe Rd & White Rock Rd

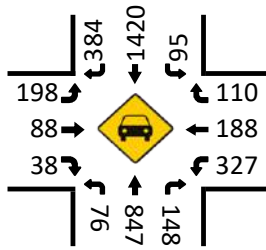
Peak Hour Turning Movement Count

ID: 19-07102-004
City: El Dorado Hills

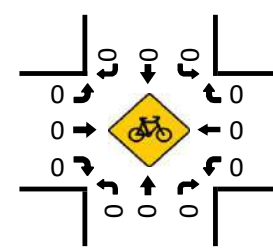
Day: Thursday
Date: 03/21/2019



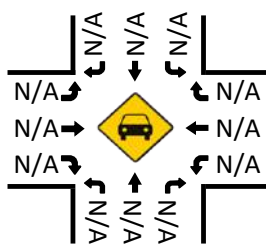
Total Vehicles (AM)



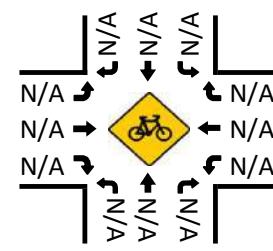
Bikes (AM)



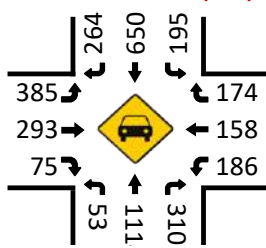
Total Vehicles (Noon)



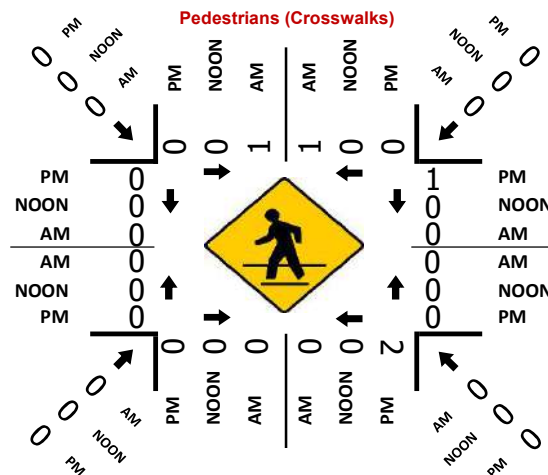
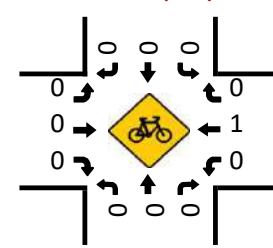
Bikes (NOON)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Latrobe Rd & Town Center Blvd
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-005
Date: 3/21/2019

Total

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Town Center Blvd				Town Center Blvd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	2	3	1	0	2	3	1	0	2	1.5	0.5	0	1	0.5	1.5	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	123	9	0	53	109	17	2	0	0	0	0	5	1	39	0	358
6:15 AM	4	100	16	0	58	154	17	1	1	0	1	0	10	3	33	0	398
6:30 AM	2	105	13	0	68	202	20	3	0	0	0	0	11	3	39	0	466
6:45 AM	0	135	16	0	58	309	23	0	2	0	0	0	14	2	61	0	620
7:00 AM	1	182	16	0	77	278	26	1	3	0	0	0	21	4	59	0	668
7:15 AM	6	169	26	0	86	339	41	2	0	0	0	0	17	2	54	0	742
7:30 AM	13	206	17	0	70	392	52	2	4	2	1	0	18	7	50	0	834
7:45 AM	10	272	28	1	125	613	83	1	4	1	3	0	15	6	50	0	1212
8:00 AM	11	294	43	1	129	421	62	9	1	1	1	0	20	7	75	0	1075
8:15 AM	9	225	19	0	126	365	63	0	2	5	1	0	26	7	75	0	923
8:30 AM	9	208	22	0	130	303	79	1	7	3	0	0	14	6	81	0	863
8:45 AM	8	233	28	0	169	335	60	1	4	3	1	0	15	5	75	0	937
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	2.83%	87.29%	9.81%	0.08%	20.76%	69.02%	9.81%	0.42%	54.90%	29.41%	15.69%	0.00%	20.00%	5.70%	74.30%	0.00%	9096
PEAK HR:	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL:	39	999	112	2	510	1702	287	11	14	10	5	0	75	26	281	0	4073
PEAK HR FACTOR:	0.886	0.849	0.651	0.500	0.981	0.694	0.864	0.306	0.500	0.500	0.417	0.000	0.721	0.929	0.867	0.000	0.840
	0.825				0.763				0.725				0.884				

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Town Center Blvd				Town Center Blvd				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	2	3	1	0	2	3	1	0	2	1.5	0.5	0	1	0.5	1.5	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	3	433	25	0	142	259	2	4	47	6	9	0	23	1	140	1	1095
4:15 PM	1	313	31	1	125	255	7	2	50	8	11	0	9	2	170	0	985
4:30 PM	3	420	44	1	120	223	11	2	80	8	23	0	28	3	123	0	1089
4:45 PM	3	376	29	0	135	254	5	4	61	8	20	0	20	1	139	1	1056
5:00 PM	0	392	39	0	106	236	8	0	76	8	14	0	13	1	164	2	1059
5:15 PM	1	381	20	0	125	240	3	1	55	1	11	0	17	1	176	2	1034
5:30 PM	1	312	45	1	102	213	3	2	43	9	12	0	16	0	132	1	892
5:45 PM	3	283	29	0	127	227	2	3	23	3	5	0	15	1	153	0	874
6:00 PM	0	309	36	2	116	223	5	3	28	2	5	0	11	0	151	0	891
6:15 PM	0	225	17	0	111	229	2	3	17	1	4	0	16	1	120	0	746
6:30 PM	0	218	21	2	100	187	2	3	17	3	2	0	7	0	113	0	675
6:45 PM	1	205	16	0	124	168	2	2	6	3	0	0	7	0	110	0	644
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0.38%	91.16%	8.30%	0.17%	33.89%	64.19%	1.23%	0.69%	74.08%	8.84%	17.08%	0.00%	9.62%	0.58%	89.42%	0.37%	11040
PEAK HR:	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL:	7	1569	132	1	486	953	27	7	272	25	68	0	78	6	602	5	4238
PEAK HR FACTOR:	0.583	0.934	0.750	0.250	0.900	0.938	0.614	0.438	0.850	0.781	0.739	0.000	0.696	0.500	0.855	0.625	0.973
	0.913				0.925				0.822				0.881				

National Data & Surveying Services Intersection Turning Movement Count

Location: Latrobe Rd & Town Center Blvd
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-005
Date: 3/21/2019

Bikes

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Town Center Blvd				Town Center Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	1 NR	0 NU	2 SL	3 ST	1 SR	0 SU	2 EL	1.5 ET	0.5 ER	0 EU	1 WL	0.5 WT	1.5 WR	0 WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0.00%	100.00%	0.00%	0.00%													
PEAK HR :	07:45 AM - 08:45 AM																
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

NS/EW Streets:	Latrobe Rd				Latrobe Rd				Town Center Blvd				Town Center Blvd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2 NL	3 NT	1 NR	0 NU	2 SL	3 ST	1 SR	0 SU	2 EL	1.5 ET	0.5 ER	0 EU	1 WL	0.5 WT	1.5 WR	0 WU	
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:30 PM - 05:30 PM																
PEAK HR VOL :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375
			0.250			0.500											

National Data & Surveying Services **Intersection Turning Movement Count**

Location: Latrobe Rd & Town Center Blvd
City: El Dorado Hills

Project ID: 19-07102-005
Date: 3/21/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Latrobe Rd		Latrobe Rd		Town Center Blvd		Town Center Blvd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	1	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	1	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	1	0	0	0	0	0	1
8:00 AM	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	1	0	1	0	0	2
8:30 AM	0	0	0	1	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	1	4	0	2	0	0	7
			20.00%	80.00%	0.00%	100.00%			
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	0	1	3	0	1	0	0	5
PEAK HR FACTOR :			0.250	0.750		0.250			0.625
			1.000		0.250				

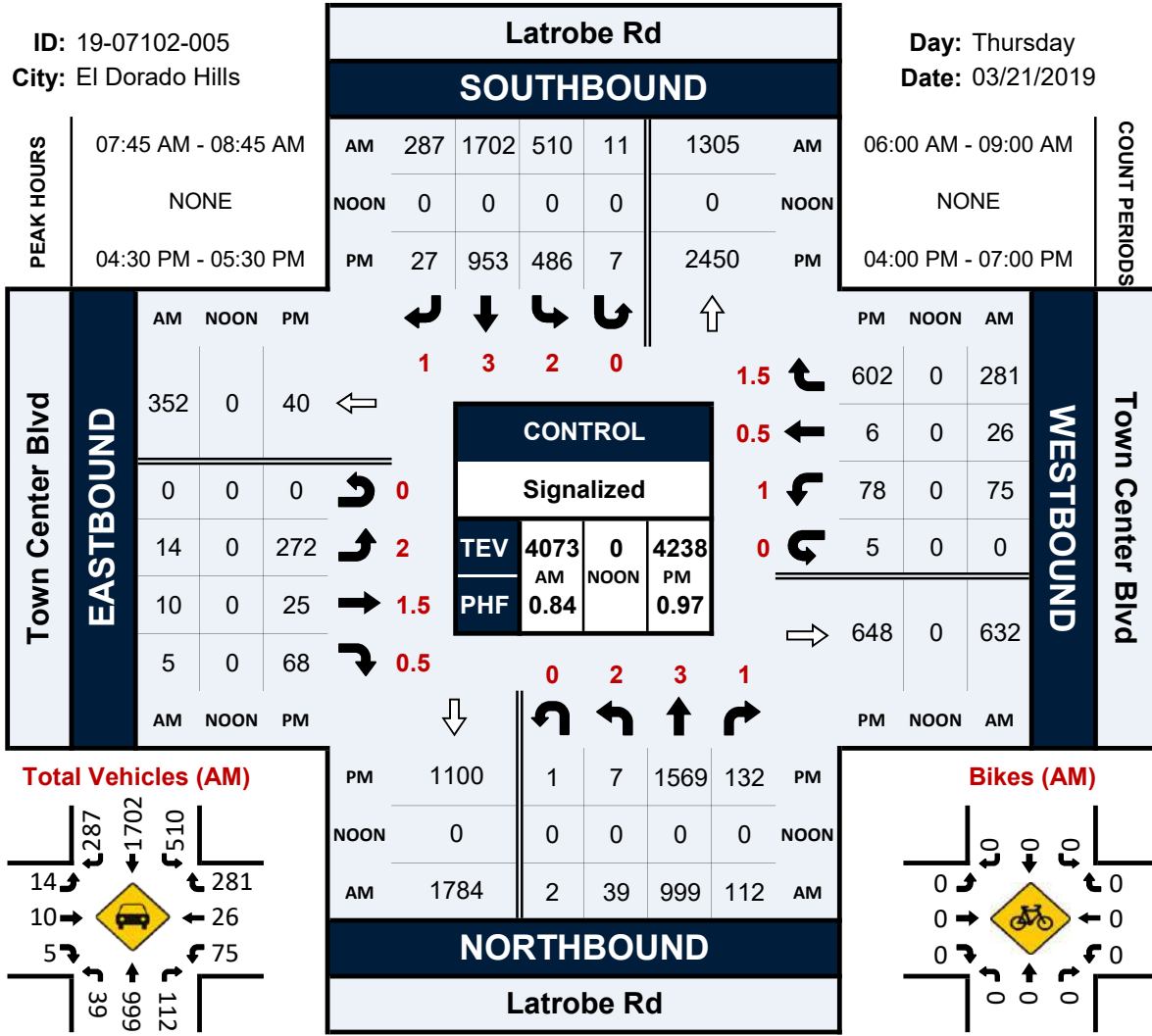
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	2	0	0	0	0	2
4:30 PM	0	0	1	0	0	1	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	1	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	1	0	0	1	0	2
6:15 PM	0	0	0	0	0	0	0	1	1
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	3	4	0	1	1	1	10
			42.86%	57.14%	0.00%	100.00%	50.00%	50.00%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	2	1	0	1	0	0	4
PEAK HR FACTOR :			0.500	0.250		0.250			0.500
			0.375		0.250				

Latrobe Rd & Town Center Blvd

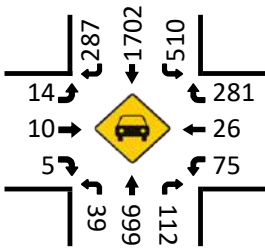
Peak Hour Turning Movement Count

ID: 19-07102-005
City: El Dorado Hills

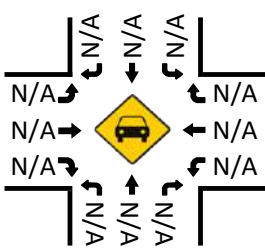
Day: Thursday
Date: 03/21/2019



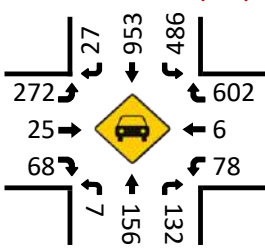
Total Vehicles (AM)



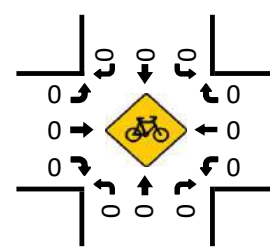
Total Vehicles (Noon)



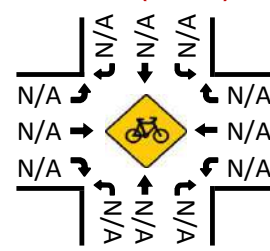
Total Vehicles (PM)



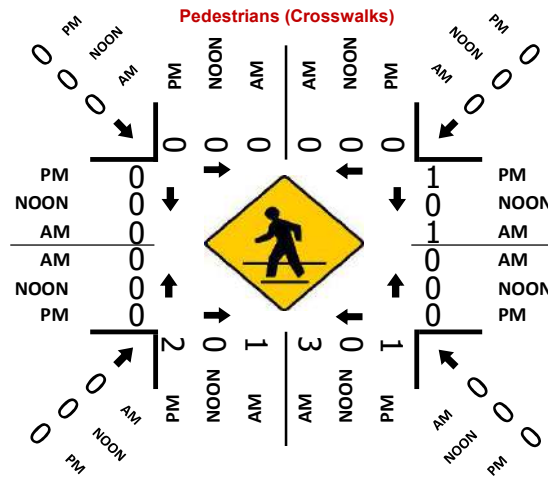
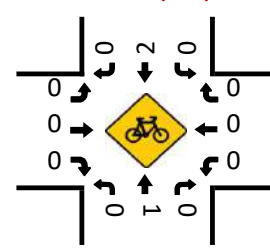
Bikes (AM)



Bikes (NOON)



Bikes (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: El Dorado Hills Blvd/Latrobe Rd & US-50 EB Ramps
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-006
Date: 3/21/2019

Total

NS/EW Streets:	El Dorado Hills Blvd/Latrobe Rd				El Dorado Hills Blvd/Latrobe Rd				US-50 EB Ramps				US-50 EB Ramps				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	3	1	0	1	4	0	0	0	0	2	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	154	18	0	9	72	0	0	0	0	127	0	0	0	16	0	396
6:15 AM	0	115	12	0	12	112	0	0	0	0	116	0	0	0	24	0	391
6:30 AM	0	129	25	0	25	118	0	0	0	0	167	0	0	0	53	0	517
6:45 AM	0	167	21	0	20	144	0	1	0	0	238	0	0	0	42	0	633
7:00 AM	0	202	42	0	26	143	0	0	0	0	259	0	0	0	62	0	734
7:15 AM	0	195	32	0	43	234	0	0	0	0	220	0	0	0	74	0	798
7:30 AM	0	230	37	0	64	268	0	1	0	0	276	0	0	0	71	0	947
7:45 AM	0	257	69	0	71	454	0	0	0	0	366	0	0	0	87	0	1304
8:00 AM	0	306	69	1	52	304	0	0	0	0	306	0	0	0	77	0	1115
8:15 AM	0	247	48	0	22	246	0	0	0	0	286	0	0	0	53	0	902
8:30 AM	0	270	39	0	41	218	0	0	0	0	284	0	0	0	74	0	926
8:45 AM	0	270	50	0	44	247	0	0	0	0	303	0	0	0	87	0	1001
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	2542	462	1	429	2560	0	2	0	0	2948	0	0	0	720	0	9664
	0.00%	84.59%	15.37%	0.03%	14.34%	85.59%	0.00%	0.07%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR:	07:30 AM - 08:30 AM																
PEAK HR VOL:	0	1040	223	1	209	1272	0	1	0	0	1234	0	0	0	288	0	4268
PEAK HR FACTOR:	0.000	0.850	0.808	0.250	0.736	0.700	0.000	0.250	0.000	0.000	0.843	0.000	0.000	0.000	0.828	0.000	0.818
			0.840			0.706					0.843				0.828		

NS/EW Streets:	El Dorado Hills Blvd/Latrobe Rd				El Dorado Hills Blvd/Latrobe Rd				US-50 EB Ramps				US-50 EB Ramps				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	3	1	0	1	4	0	0	0	0	2	0	0	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	495	110	0	49	161	0	0	0	0	219	0	0	0	175	0	1209
4:15 PM	0	444	114	0	40	199	0	0	0	0	195	0	0	0	162	0	1154
4:30 PM	0	481	117	0	55	173	0	0	0	0	196	0	0	0	179	0	1201
4:45 PM	0	497	105	0	50	181	0	0	0	0	205	0	0	0	184	0	1222
5:00 PM	0	492	126	0	50	162	0	0	0	0	177	0	0	0	188	0	1195
5:15 PM	0	484	131	0	43	162	0	0	0	0	215	0	0	0	205	0	1240
5:30 PM	0	398	96	0	56	152	0	0	0	0	181	0	0	0	164	0	1047
5:45 PM	0	371	94	0	49	158	0	0	0	0	188	0	0	0	201	0	1061
6:00 PM	0	385	86	0	56	133	0	0	0	0	200	0	0	0	153	0	1013
6:15 PM	0	307	81	0	50	176	0	0	0	0	179	0	0	0	169	0	962
6:30 PM	0	274	62	0	52	125	0	0	0	0	149	0	0	0	122	0	784
6:45 PM	0	268	67	0	37	144	0	0	0	0	164	0	0	0	121	0	801
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	0	4896	1189	0	587	1926	0	0	0	0	2268	0	0	0	2023	0	12889
	0.00%	80.46%	19.54%	0.00%	23.36%	76.64%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR:	04:30 PM - 05:30 PM																
PEAK HR VOL:	0	1954	479	0	198	678	0	0	0	0	793	0	0	0	756	0	4858
PEAK HR FACTOR:	0.000	0.983	0.914	0.000	0.900	0.936	0.000	0.000	0.000	0.000	0.922	0.000	0.000	0.000	0.922	0.000	0.979
			0.984			0.948					0.922				0.922		

National Data & Surveying Services Intersection Turning Movement Count

Location: El Dorado Hills Blvd/Latrobe Rd & US-50 EB Ramps
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-006
Date: 3/21/2019

Bikes

NS/EW Streets:	El Dorado Hills Blvd/Latrobe Rd				El Dorado Hills Blvd/Latrobe Rd				US-50 EB Ramps				US-50 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	3	1	0	1	4	0	0	0	0	2	0	0	0	1	0	1
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0

NS/EW Streets:	El Dorado Hills Blvd/Latrobe Rd				El Dorado Hills Blvd/Latrobe Rd				US-50 EB Ramps				US-50 EB Ramps				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	3	1	0	1	4	0	0	0	0	2	0	0	0	1	0	5
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375

National Data & Surveying Services Intersection Turning Movement Count

Location: El Dorado Hills Blvd/Latrobe Rd & US-50 EB Ramps
City: El Dorado Hills

Project ID: Saturday
Date: 1/0/1900

19-07102-006
 3/21/2019

Pedestrians (Crosswalks)

NS/EW Streets:	El Dorado Hills Blvd/Latrobe Rd		El Dorado Hills Blvd/Latrobe Rd		US-50 EB Ramps		US-50 EB Ramps		CUTOUT (NE/SW)		TOTAL
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		DNENB	DNWSB	
	EB	WB	EB	WB	NB	SB	NB	SB			
6:00 AM	0	0	0	0	0	2	0	0	0	3	5
6:15 AM	0	0	0	0	0	1	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	1	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	1	0	2
8:15 AM	0	0	0	0	1	1	0	0	1	1	4
8:30 AM	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	1	0	2
TOTAL VOLUMES :	0	0	0	0	3	5	0	0	3	5	16
APPROACH %'s :					37.50%	62.50%	0.00%	0.00%	37.50%	62.50%	
PEAK HR :	07:30 AM - 08:30 AM				2	2	0	0	2	2	8
PEAK HR VOL :	0	0	0	0	0.500	0.500	0	0	0.500	0.500	0.500
PEAK HR FACTOR :					0.500				0.500		

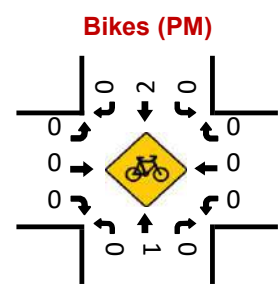
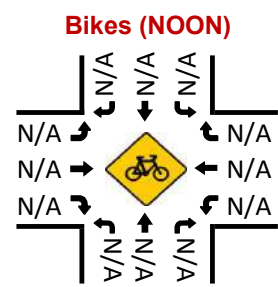
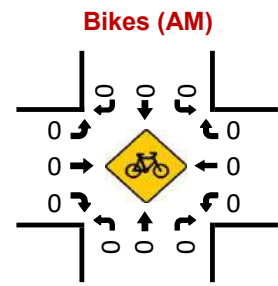
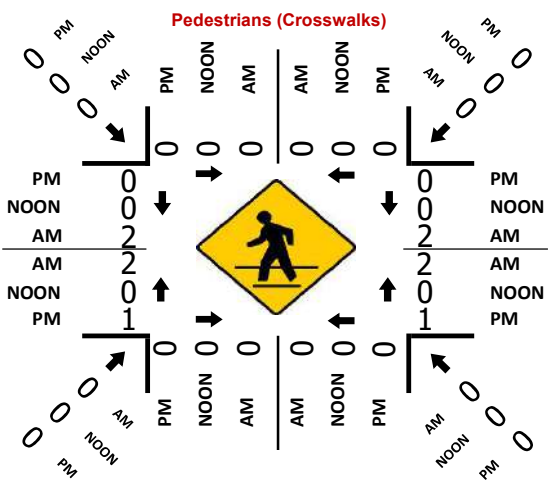
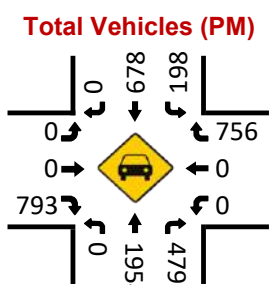
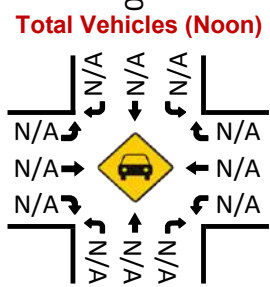
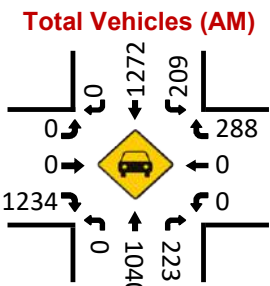
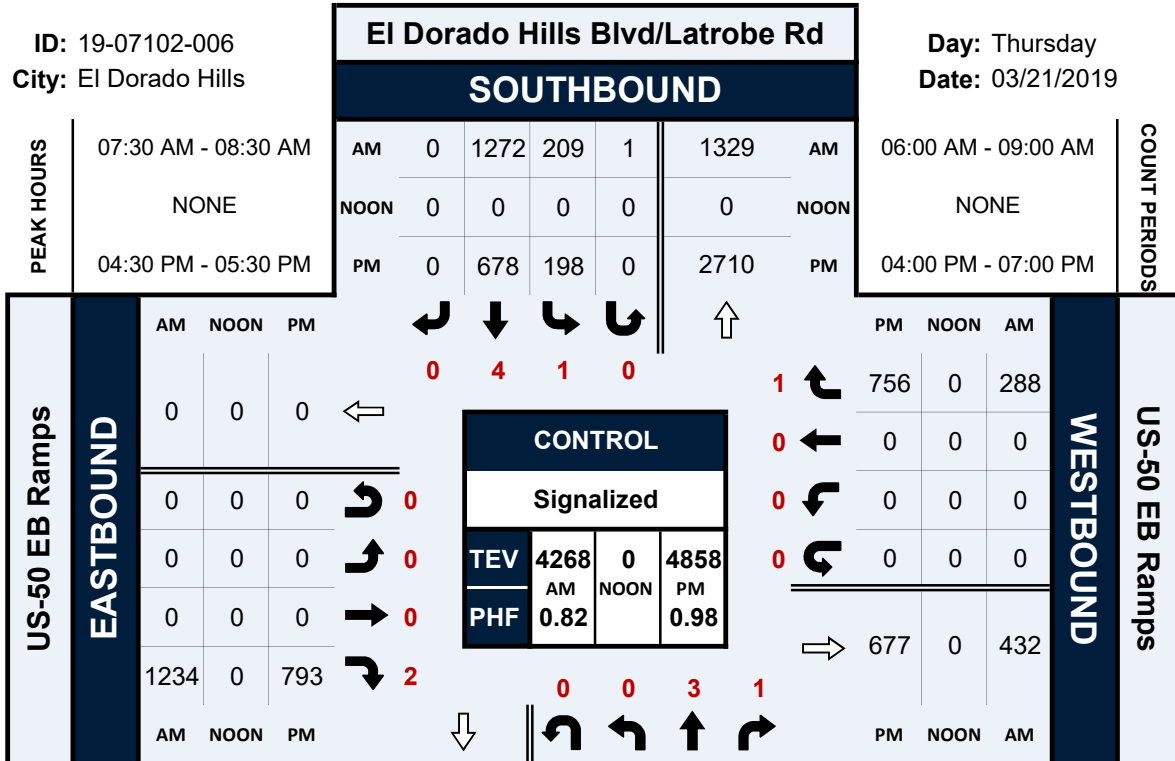
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		CUTOUT (NE/SW)		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	DNENB	DNWSB	
4:00 PM	0	0	0	0	0	1	0	0	0	1	2
4:15 PM	0	0	0	0	1	3	0	0	1	3	8
4:30 PM	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	1	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	1	2	0	0	1	2	6
5:45 PM	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	3	6	0	0	3	6	18
APPROACH %'s :					33.33%	66.67%	0.00%	0.00%	33.33%	66.67%	
PEAK HR :	04:30 PM - 05:30 PM				1	0	0	0	1	0	2
PEAK HR VOL :	0	0	0	0	0.250	0	0	0	0.250	0	0.250
PEAK HR FACTOR :					0.250				0.250		

El Dorado Hills Blvd/Latrobe Rd & US-50 EB Ramps

Peak Hour Turning Movement Count

ID: 19-07102-006
City: El Dorado Hills

Day: Thursday
Date: 03/21/2019



National Data & Surveying Services Intersection Turning Movement Count

Location: El Dorado Hills Blvd/Latrobe Rd & US-50 WB Ramps/Saratoga Way
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-007
Date: 3/21/2019

Total

NS/EW Streets:	El Dorado Hills Blvd/Latrobe Rd				El Dorado Hills Blvd/Latrobe Rd				US-50 WB Ramps/Saratoga Way				US-50 WB Ramps/Saratoga Way				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	2	2.5	0.5	0	1	3	1	0	1.5	0.5	1	0	1.5	1	0.5	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	123	36	6	0	6	46	92	0	6	5	28	0	7	11	3	0	369
6:15 AM	72	37	22	0	6	68	118	0	9	12	52	0	13	17	1	0	427
6:30 AM	98	56	24	2	4	82	126	0	20	13	49	0	12	24	2	0	512
6:45 AM	88	102	18	0	7	83	134	0	27	14	62	0	14	19	4	0	572
7:00 AM	138	108	29	0	7	98	151	0	17	15	56	0	13	21	5	0	658
7:15 AM	112	138	34	0	6	184	164	0	19	19	84	0	20	18	3	0	801
7:30 AM	121	134	38	0	10	200	191	0	41	16	114	0	29	20	11	0	925
7:45 AM	157	145	28	0	7	269	167	0	40	22	192	0	33	12	6	0	1078
8:00 AM	188	171	36	1	15	233	165	0	46	17	98	0	19	15	7	0	1011
8:15 AM	136	123	27	0	12	171	152	0	29	12	78	0	27	19	13	0	799
8:30 AM	154	170	33	1	5	169	137	0	32	14	58	0	22	18	8	0	821
8:45 AM	120	196	24	1	12	211	165	0	44	21	56	0	31	16	12	0	909
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	46.41%	43.61%	9.82%	0.15%	2.64%	49.39%	47.97%	0.00%	22.96%	12.53%	64.51%	0.00%	45.71%	40.00%	14.29%	0.00%	8882
PEAK HR:	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL:	578	588	136	1	38	886	687	0	146	74	488	0	101	65	27	0	3815
PEAK HR FACTOR:	0.769	0.860	0.895	0.250	0.633	0.823	0.899	0.000	0.793	0.841	0.635	0.000	0.765	0.813	0.614	0.000	0.885
	0.823				0.909				0.697				0.804				

NS/EW Streets:	El Dorado Hills Blvd/Latrobe Rd				El Dorado Hills Blvd/Latrobe Rd				US-50 WB Ramps/Saratoga Way				US-50 WB Ramps/Saratoga Way				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	2	2.5	0.5	0	1	3	1	0	1.5	0.5	1	0	1.5	1	0.5	0	TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	247	306	84	1	19	158	83	0	31	15	31	0	39	25	15	0	1054
4:15 PM	263	275	86	0	7	119	73	0	24	17	40	0	60	29	20	0	1013
4:30 PM	277	313	83	0	16	155	61	1	25	18	33	1	46	9	11	0	1049
4:45 PM	247	325	81	0	17	131	72	0	30	10	47	0	49	24	20	0	1053
5:00 PM	309	309	76	0	4	112	64	0	26	11	35	0	50	21	24	0	1041
5:15 PM	268	341	90	0	15	136	84	0	40	29	44	0	42	25	14	0	1128
5:30 PM	235	250	73	0	16	117	79	0	21	15	32	0	49	27	18	0	932
5:45 PM	183	315	87	1	21	115	85	0	25	16	40	0	42	21	20	0	971
6:00 PM	173	288	68	1	15	135	99	0	28	12	26	0	42	19	28	0	934
6:15 PM	166	219	65	2	9	140	60	0	27	11	24	0	44	9	21	0	797
6:30 PM	138	222	60	1	20	114	80	0	24	6	18	0	55	14	19	0	771
6:45 PM	130	214	37	1	16	109	56	0	10	7	15	0	46	12	11	0	664
TOTAL VOLUMES:	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s:	38.15%	33.77%	8.90%	0.10%	6.70%	58.97%	34.29%	0.04%	36.00%	19.33%	44.56%	0.12%	55.29%	23.04%	21.67%	0.00%	11407
PEAK HR:	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL:	1101	1288	330	0	52	534	281	1	121	68	159	1	187	79	69	0	4271
PEAK HR FACTOR:	0.891	0.944	0.917	0.000	0.765	0.861	0.836	0.250	0.756	0.586	0.846	0.250	0.935	0.790	0.719	0.000	0.947
	0.972				0.923				0.772				0.882				

National Data & Surveying Services Intersection Turning Movement Count

Location: El Dorado Hills Blvd/Latrobe Rd & US-50 WB Ramps/Saratoga Way
City: El Dorado Hills
Control: Signalized

Project ID: 19-07102-007
Date: 3/21/2019

Bikes

NS/EW Streets:	El Dorado Hills Blvd/Latrobe Rd				El Dorado Hills Blvd/Latrobe Rd				US-50 WB Ramps/Saratoga Way				US-50 WB Ramps/Saratoga Way				TOTAL
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2.5	0.5	0	1	3	1	0	1.5	0.5	1	0	1.5	1	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR :	07:15 AM - 08:15 AM																
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	2	2.5	0.5	0	1	3	1	0	1.5	0.5	1	0	1.5	1	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0	0	0	0	0	0	0	0	5
PEAK HR :	04:30 PM - 05:30 PM																
PEAK HR VOL :	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375

National Data & Surveying Services **Intersection Turning** Movement Count

Location: El Dorado Hills Blvd/Latrobe Rd & US-50 WB Ramps/Saratoga Way **Project ID:** 19-07102-007
City: El Dorado Hills **Date:** 3/21/2019

Pedestrians (Crosswalks)

NS/EW Streets:	El Dorado Hills Blvd/Latrobe Rd		El Dorado Hills Blvd/Latrobe Rd		US-50 WB Ramps/Saratoga Way		US-50 WB Ramps/Saratoga Way		TOTAL
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	
6:00 AM	0	0	0	0	0	2	0	0	2
6:15 AM	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	1	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	1	4	0	0	5
APPROACH %'s :					20.00%	80.00%			
PEAK HR :	07:15 AM - 08:15 AM				0	1	0	0	TOTAL 1
PEAK HR VOL :	0	0	0	0	0	0.250	0	0	0.250
PEAK HR FACTOR :					0.250				

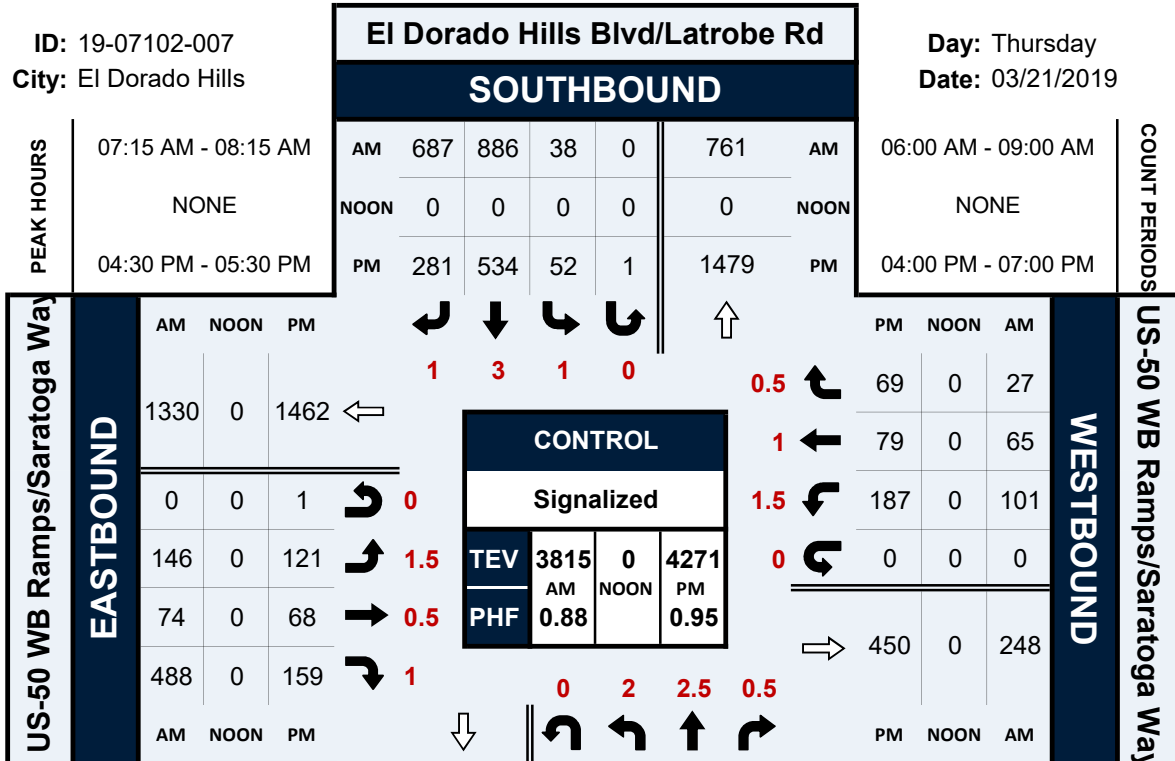
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	1	0	0	1
4:15 PM	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	2	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	1	1
6:30 PM	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	0	0	0	0	0	4	0	1	5
APPROACH %'s :					0.00%	100.00%	0.00%	100.00%	
PEAK HR :	04:30 PM - 05:30 PM				0	2	0	0	TOTAL 2
PEAK HR VOL :	0	0	0	0	0	0.250	0	0	0.250
PEAK HR FACTOR :					0.250				

El Dorado Hills Blvd/Latrobe Rd & US-50 WB Ramps/Saratoga Way

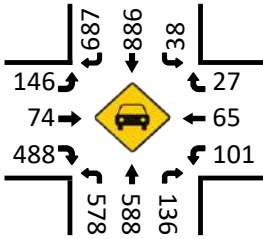
Peak Hour Turning Movement Count

ID: 19-07102-007
City: El Dorado Hills

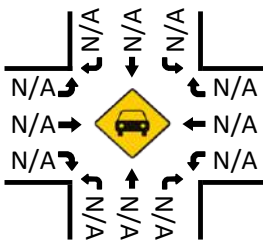
Day: Thursday
Date: 03/21/2019



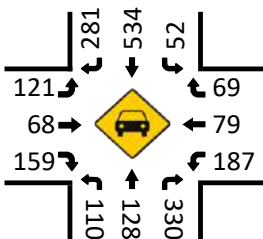
Total Vehicles (AM)



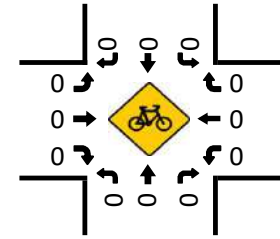
Total Vehicles (Noon)



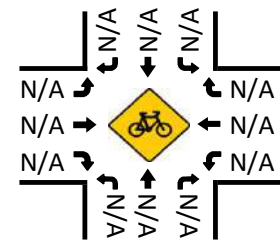
Total Vehicles (PM)



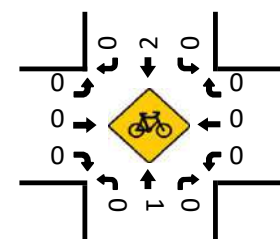
Bikes (AM)



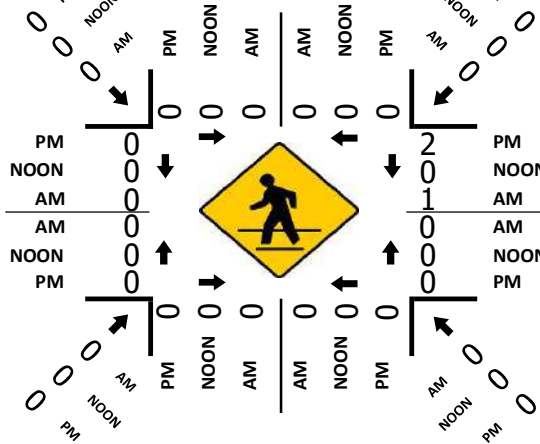
Bikes (NOON)



Bikes (PM)



Pedestrians (Crosswalks)



VOLUME

Latrobe Rd N/O Project Access Rd(El Dorado Irrigation Dwy)

Day: Thursday
Date: 3/21/2019City: El Dorado Hills
Project #: CA19_7103_001

DAILY TOTALS					NB	SB	EB	WB	Total		
					10,545	10,897	0	0	21,442		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	17	11			28	12:00	176	158			334
00:15	10	6			16	12:15	164	156			320
00:30	8	10			18	12:30	138	149			287
00:45	5	40	5	32	10	12:45	144	622	189	652	333
01:00	3	8			11	13:00	130	163			293
01:15	12	9			21	13:15	137	142			279
01:30	3	2			5	13:30	147	148			295
01:45	2	20	3	22	5	13:45	136	550	168	621	304
02:00	7	8			15	14:00	145	171			316
02:15	8	3			11	14:15	183	182			365
02:30	3	10			13	14:30	272	172			444
02:45	5	23	5	26	10	14:45	238	838	197	722	435
03:00	20	1			21	15:00	264	222			486
03:15	4	1			5	15:15	265	251			516
03:30	6	5			11	15:30	333	214			547
03:45	8	38	9	16	17	15:45	261	1123	210	897	471
04:00	14	6			20	16:00	273	225			498
04:15	10	10			20	16:15	235	197			432
04:30	21	8			29	16:30	273	141			414
04:45	21	66	25	49	46	16:45	218	999	214	777	432
05:00	34	37			71	17:00	264	167			431
05:15	40	43			83	17:15	232	227			459
05:30	42	79			121	17:30	204	179			383
05:45	57	173	171	330	228	17:45	169	869	163	736	332
06:00	126	141			267	18:00	174	152			326
06:15	98	124			222	18:15	114	154			268
06:30	96	133			229	18:30	142	156			298
06:45	127	447	201	599	328	18:45	132	562	139	601	271
07:00	150	206			356	19:00	116	114			230
07:15	170	206			376	19:15	102	104			206
07:30	169	286			455	19:30	72	118			190
07:45	299	788	415	1113	714	19:45	48	338	107	443	155
08:00	304	265			569	20:00	59	87			146
08:15	181	220			401	20:15	47	75			122
08:30	175	208			383	20:30	40	65			105
08:45	172	832	182	875	354	20:45	25	171	87	314	112
09:00	135	179			314	21:00	41	85			126
09:15	139	143			282	21:15	30	62			92
09:30	161	107			268	21:30	20	52			72
09:45	127	562	130	559	257	21:45	30	121	41	240	71
10:00	145	113			258	22:00	18	42			60
10:15	129	114			243	22:15	32	34			66
10:30	136	127			263	22:30	19	37			56
10:45	139	549	131	485	270	22:45	11	80	19	132	30
11:00	159	131			290	23:00	9	20			29
11:15	158	136			294	23:15	8	21			29
11:30	197	155			352	23:30	5	30			35
11:45	192	706	144	566	336	23:45	6	28	19	90	25
TOTALS	4244	4672			8916	TOTALS	6301	6225			12526
SPLIT %	47.6%	52.4%			41.6%	SPLIT %	50.3%	49.7%			58.4%

DAILY TOTALS					NB	SB	EB	WB	Total		
					10,545	10,897	0	0	21,442		
AM Peak Hour	07:45	07:30			07:30	PM Peak Hour	15:15	15:15		15:15	
AM Pk Volume	959	1186			2139	PM Pk Volume	1132	900		2032	
Pk Hr Factor	0.789	0.714			0.749	Pk Hr Factor	0.850	0.896		0.929	
7 - 9 Volume	1620	1988	0	0	3608	4 - 6 Volume	1868	1513	0	0	3381
7 - 9 Peak Hour	07:45	07:30			07:30	4 - 6 Peak Hour	16:00	16:45			16:00
7 - 9 Pk Volume	959	1186	0	0	2139	4 - 6 Pk Volume	999	787	0	0	1776
Pk Hr Factor	0.789	0.714	0.000	0.000	0.749	Pk Hr Factor	0.915	0.867	0.000	0.000	0.892

VOLUME

Latrobe Rd S/O White Rock Rd

Day: Thursday
Date: 3/21/2019

City: El Dorado Hills
Project #: CA19_7103_002

DAILY TOTALS					NB	SB	EB	WB	Total		
					14,071	14,346	0	0	28,417		
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00	19	9			28	12:00	300	224			524
00:15	11	5			16	12:15	262	224			486
00:30	8	10			18	12:30	221	229			450
00:45	5	43	8	32	13	12:45	199	982	248	925	447
01:00	6	8			14	13:00	191	238			429
01:15	13	9			22	13:15	192	230			422
01:30	4	2			6	13:30	192	215			407
01:45	2	25	5	24	7	13:45	213	788	237	920	450
02:00	6	7			13	14:00	207	228			435
02:15	8	5			13	14:15	237	238			475
02:30	4	9			13	14:30	315	228			543
02:45	6	24	5	26	11	14:45	315	1074	293	987	608
03:00	21	1			22	15:00	349	327			676
03:15	4	1			5	15:15	372	315			687
03:30	6	5			11	15:30	476	270			746
03:45	8	39	9	16	17	15:45	340	1537	281	1193	621
04:00	14	7			21	16:00	412	255			667
04:15	8	12			20	16:15	332	240			572
04:30	23	6			29	16:30	430	195			625
04:45	21	66	35	60	56	16:45	323	1497	227	917	550
05:00	32	47			79	17:00	425	222			647
05:15	41	52			93	17:15	327	237			564
05:30	46	87			133	17:30	300	191			491
05:45	54	173	201	387	255	17:45	258	1310	181	831	439
06:00	129	140			269	18:00	227	185			412
06:15	97	153			250	18:15	182	192			374
06:30	110	186			296	18:30	199	159			358
06:45	131	467	307	786	438	18:45	175	783	157	693	332
07:00	179	268			447	19:00	145	127			272
07:15	183	299			482	19:15	123	113			236
07:30	181	379			560	19:30	113	129			242
07:45	301	844	522	1468	823	19:45	68	449	117	486	185
08:00	343	422			765	20:00	77	96			173
08:15	231	351			582	20:15	71	89			160
08:30	201	281			482	20:30	71	79			150
08:45	206	981	307	1361	513	20:45	39	258	88	352	127
09:00	156	263			419	21:00	56	88			144
09:15	180	227			407	21:15	40	68			108
09:30	187	191			378	21:30	26	61			87
09:45	181	704	178	859	359	21:45	36	158	41	258	77
10:00	178	188			366	22:00	25	43			68
10:15	169	162			331	22:15	33	36			69
10:30	203	189			392	22:30	18	36			54
10:45	199	749	187	726	386	22:45	20	96	25	140	45
11:00	223	202			425	23:00	13	21			34
11:15	245	203			448	23:15	8	21			29
11:30	245	208			453	23:30	8	31			39
11:45	274	987	196	809	470	23:45	8	37	17	90	25
TOTALS	5102	6554			11656	TOTALS	8969	7792			16761
SPLIT %	43.8%	56.2%			41.0%	SPLIT %	53.5%	46.5%			59.0%

DAILY TOTALS					NB	SB	EB	WB	Total
					14,071	14,346	0	0	28,417
AM Peak Hour	11:30	07:30			07:30	PM Peak Hour	15:15	14:45	15:00
AM Pk Volume	1081	1674			2730	PM Pk Volume	1600	1205	2730
Pk Hr Factor	0.901	0.802			0.829	Pk Hr Factor	0.840	0.921	0.915
7 - 9 Volume	1825	2829	0	0	4654	4 - 6 Volume	2807	1748	0
7 - 9 Peak Hour	07:45	07:30			07:30	4 - 6 Peak Hour	16:15	16:00	16:00
7 - 9 Pk Volume	1076	1674	0	0	2730	4 - 6 Pk Volume	1510	917	0
Pk Hr Factor	0.784	0.802	0.000	0.000	0.829	Pk Hr Factor	0.878	0.899	0.000

APPENDIX B
LOS & Queuing Worksheets

HCM 6th TWSC
1: Latrobe Road & Project Access

Existing Conditions
Timing Plan: AM PEAK

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	994	0	3	1265
Future Vol, veh/h	0	2	994	0	3	1265
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	230	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	1274	0	4	1622

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2093	637	0	0	1274
Stage 1	1274	-	-	-	-
Stage 2	819	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	45	420	-	-	541
Stage 1	226	-	-	-	-
Stage 2	394	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	45	420	-	-	541
Mov Cap-2 Maneuver	45	-	-	-	-
Stage 1	224	-	-	-	-
Stage 2	394	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	420	541
HCM Lane V/C Ratio	-	-	0.006	0.007
HCM Control Delay (s)	-	-	13.6	11.7
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th Signalized Intersection Summary
2: Latrobe Road & Suncast Lane

Existing Conditions
Timing Plan: AM PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Volume (veh/h)	31	5	19	977	1263	138	
Future Volume (veh/h)	31	5	19	977	1263	138	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	40	6	24	1253	1619	177	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	89	79	52	2497	1859	201	
Arrive On Green	0.05	0.05	0.03	0.70	0.57	0.57	
Sat Flow, veh/h	1781	1585	1781	3647	3329	349	
Grp Volume(v), veh/h	40	6	24	1253	879	917	
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1808	
Q Serve(g_s), s	0.9	0.1	0.5	6.5	16.9	17.7	
Cycle Q Clear(g_c), s	0.9	0.1	0.5	6.5	16.9	17.7	
Prop In Lane	1.00	1.00	1.00			0.19	
Lane Grp Cap(c), veh/h	89	79	52	2497	1021	1039	
V/C Ratio(X)	0.45	0.08	0.46	0.50	0.86	0.88	
Avail Cap(c_a), veh/h	1102	980	749	3956	1978	2012	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	18.7	18.3	19.3	2.8	7.2	7.4	
Incr Delay (d2), s/veh	3.5	0.4	2.3	0.2	0.9	1.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.2	0.1	1.6	1.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.2	18.7	21.7	3.0	8.1	8.4	
LnGrp LOS	C	B	C	A	A	A	
Approach Vol, veh/h	46			1277	1796		
Approach Delay, s/veh	21.7			3.3	8.3		
Approach LOS	C			A	A		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		34.4			5.2	29.2	6.0
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0
Max Green Setting (Gmax), s		45.0			17.0	45.0	25.0
Max Q Clear Time (g_c+I1), s		8.5			2.5	19.7	2.9
Green Ext Time (p_c), s		14.7			0.0	3.5	0.1
Intersection Summary							
HCM 6th Ctrl Delay			6.5				
HCM 6th LOS			A				

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	6857	6930	6945	6932	6993	7058	6964
Vehs Exited	6825	6881	6904	6893	6931	7027	6934
Starting Vehs	334	362	372	343	335	323	362
Ending Vehs	366	411	413	382	397	354	392
Denied Entry Before	21	4	2	10	19	2	4
Denied Entry After	216	303	246	211	243	270	272
Travel Distance (mi)	7312	7347	7368	7443	7287	7495	7457
Travel Time (hr)	520.1	565.7	543.4	512.4	552.0	555.6	602.9
Total Delay (hr)	334.8	379.2	356.6	324.3	366.8	366.6	414.7
Total Stops	11534	12179	11544	12052	11668	12077	12026
Fuel Used (gal)	338.1	348.8	343.7	340.4	344.3	353.2	362.0

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	6896	6882	7038	6949
Vehs Exited	6920	6864	6960	6916
Starting Vehs	370	359	345	350
Ending Vehs	346	377	423	385
Denied Entry Before	11	9	27	10
Denied Entry After	211	203	181	234
Travel Distance (mi)	7315	7262	7387	7367
Travel Time (hr)	518.1	501.2	540.8	541.2
Total Delay (hr)	332.7	316.7	353.1	354.6
Total Stops	11789	11358	12636	11881
Fuel Used (gal)	339.2	333.0	345.4	344.8

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1613	1672	1622	1580	1708	1680	1671
Vehs Exited	1589	1664	1668	1550	1633	1635	1649
Starting Vehs	334	362	372	343	335	323	362
Ending Vehs	358	370	326	373	410	368	384
Denied Entry Before	21	4	2	10	19	2	4
Denied Entry After	69	48	73	5	72	45	64
Travel Distance (mi)	1717	1757	1758	1707	1757	1761	1808
Travel Time (hr)	100.0	104.0	99.8	87.6	106.0	94.7	105.2
Total Delay (hr)	56.4	59.2	55.1	44.5	61.2	50.2	59.4
Total Stops	2587	3004	2684	2412	2849	2665	2726
Fuel Used (gal)	74.9	77.1	75.6	71.4	77.7	75.0	78.6

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1661	1627	1687	1652
Vehs Exited	1648	1612	1647	1629
Starting Vehs	370	359	345	350
Ending Vehs	383	374	385	374
Denied Entry Before	11	9	27	10
Denied Entry After	38	19	56	48
Travel Distance (mi)	1798	1733	1788	1758
Travel Time (hr)	101.2	94.5	107.5	100.1
Total Delay (hr)	55.7	50.3	62.0	55.4
Total Stops	2885	2728	2844	2734
Fuel Used (gal)	76.5	73.5	78.3	75.9

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1982	1975	2001	2024	2041	2027	1935
Vehs Exited	1891	1848	1850	1891	1963	1960	1873
Starting Vehs	358	370	326	373	410	368	384
Ending Vehs	449	497	477	506	488	435	446
Denied Entry Before	69	48	73	5	72	45	64
Denied Entry After	139	166	179	112	184	192	240
Travel Distance (mi)	1983	1990	1964	2058	2060	2097	1997
Travel Time (hr)	132.5	139.2	137.3	127.5	144.6	142.3	148.9
Total Delay (hr)	82.2	88.8	87.8	75.9	92.6	89.8	98.7
Total Stops	3239	3363	3174	3444	3253	3404	3284
Fuel Used (gal)	89.3	90.6	89.6	91.0	94.7	95.2	94.4

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1961	1958	2057	1997
Vehs Exited	1894	1888	1907	1896
Starting Vehs	383	374	385	374
Ending Vehs	450	444	535	471
Denied Entry Before	38	19	56	48
Denied Entry After	176	134	131	165
Travel Distance (mi)	1983	1944	2038	2011
Travel Time (hr)	134.7	128.9	143.7	138.0
Total Delay (hr)	84.9	79.4	92.1	87.2
Total Stops	3250	3200	3728	3331
Fuel Used (gal)	91.0	87.6	94.1	91.7

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1641	1655	1638	1706	1667	1652	1677
Vehs Exited	1732	1765	1708	1767	1801	1666	1696
Starting Vehs	449	497	477	506	488	435	446
Ending Vehs	358	387	407	445	354	421	427
Denied Entry Before	139	166	179	112	184	192	240
Denied Entry After	195	207	188	146	216	236	251
Travel Distance (mi)	1853	1828	1799	1867	1843	1791	1830
Travel Time (hr)	146.5	156.5	145.9	147.5	153.6	153.6	170.9
Total Delay (hr)	99.7	110.1	100.0	100.0	106.8	108.3	124.7
Total Stops	3003	2986	2754	3382	2859	3045	3046
Fuel Used (gal)	88.9	90.7	87.1	89.9	89.2	89.6	94.1

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1600	1659	1668	1658
Vehs Exited	1696	1699	1786	1732
Starting Vehs	450	444	535	471
Ending Vehs	354	404	417	395
Denied Entry Before	176	134	131	165
Denied Entry After	186	158	134	191
Travel Distance (mi)	1743	1822	1820	1820
Travel Time (hr)	141.4	137.5	143.7	149.7
Total Delay (hr)	96.9	91.2	97.5	103.5
Total Stops	2808	2740	3099	2976
Fuel Used (gal)	84.8	86.1	88.1	88.8

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1621	1628	1684	1622	1577	1699	1681
Vehs Exited	1613	1604	1678	1685	1534	1766	1716
Starting Vehs	358	387	407	445	354	421	427
Ending Vehs	366	411	413	382	397	354	392
Denied Entry Before	195	207	188	146	216	236	251
Denied Entry After	216	303	246	211	243	270	272
Travel Distance (mi)	1759	1772	1847	1811	1628	1846	1822
Travel Time (hr)	141.1	165.9	160.4	149.8	147.9	165.0	178.0
Total Delay (hr)	96.4	121.1	113.7	103.9	106.2	118.3	131.9
Total Stops	2705	2826	2932	2814	2707	2963	2970
Fuel Used (gal)	84.9	90.5	91.4	88.0	82.6	93.4	94.9

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1674	1638	1626	1645
Vehs Exited	1682	1665	1620	1657
Starting Vehs	354	404	417	395
Ending Vehs	346	377	423	385
Denied Entry Before	186	158	134	191
Denied Entry After	211	203	181	234
Travel Distance (mi)	1791	1762	1740	1778
Travel Time (hr)	140.8	140.3	145.9	153.5
Total Delay (hr)	95.2	95.8	101.5	108.4
Total Stops	2846	2690	2965	2844
Fuel Used (gal)	86.9	85.8	85.0	88.3

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	1.9	0.1	0.0	0.2	0.1	0.1	0.4	2.7	0.0	0.1	8.7	2.9
Total Del/Veh (s)	53.5	47.2	35.9	69.4	59.9	16.7	63.3	9.0	5.6	79.0	22.9	23.5
Stop Delay (hr)	1.7	0.0	0.0	0.2	0.1	0.1	0.4	0.8	0.0	0.1	2.3	0.8
Stop Del/Veh (s)	49.3	41.2	33.3	67.6	57.3	16.0	59.9	2.8	1.7	69.6	6.0	6.7
Total Stops	106	3	3	10	6	14	22	184	1	6	402	157
Stop/Veh	0.85	0.75	0.75	1.00	0.86	1.00	0.88	0.17	0.20	1.00	0.30	0.36
Vehicles Entered	121	4	4	10	7	14	23	1056	4	6	1345	430
Vehicles Exited	122	4	4	10	7	14	24	1055	5	6	1349	430
Hourly Exit Rate	122	4	4	10	7	14	24	1055	5	6	1349	430
Input Volume	124	4	4	10	8	13	25	1049	5	6	1448	456
% of Volume	99	94	94	95	93	110	95	101	95	96	93	94
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	17.1
Total Del/Veh (s)	20.1
Stop Delay (hr)	6.6
Stop Del/Veh (s)	7.8
Total Stops	914
Stop/Veh	0.30
Vehicles Entered	3024
Vehicles Exited	3030
Hourly Exit Rate	3030
Input Volume	3152
% of Volume	96
Denied Entry Before	0
Denied Entry After	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.2	0.2	3.2	0.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	3.3	1.2	0.1	8.4	2.5	0.2	1.4	4.6	0.2	1.6	17.0	1.2
Total Del/Veh (s)	57.1	45.0	11.6	89.2	44.6	7.3	60.8	17.9	3.9	60.0	43.5	11.3
Stop Delay (hr)	3.0	1.0	0.1	7.6	2.0	0.2	1.4	3.4	0.1	1.4	10.0	0.5
Stop Del/Veh (s)	51.3	37.3	9.9	81.2	36.5	5.3	57.9	13.2	2.9	50.0	25.6	5.3
Total Stops	199	73	30	435	163	86	80	431	78	100	1108	192
Stop/Veh	0.95	0.78	0.79	1.28	0.82	0.77	0.95	0.47	0.48	1.02	0.79	0.51
Vehicles Entered	207	92	38	332	196	110	82	917	161	95	1379	367
Vehicles Exited	206	93	38	330	195	110	82	922	161	97	1391	369
Hourly Exit Rate	206	93	38	330	195	110	82	922	161	97	1391	369
Input Volume	206	91	40	342	195	114	85	918	157	100	1503	398
% of Volume	100	102	94	96	100	96	96	100	103	97	93	93
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	All
Denied Delay (hr)	0.6
Denied Del/Veh (s)	0.6
Total Delay (hr)	41.7
Total Del/Veh (s)	37.2
Stop Delay (hr)	30.7
Stop Del/Veh (s)	27.4
Total Stops	2975
Stop/Veh	0.74
Vehicles Entered	3976
Vehicles Exited	3994
Hourly Exit Rate	3994
Input Volume	4150
% of Volume	96
Denied Entry Before	0
Denied Entry After	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	4.0	3.4	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.3	0.0	1.8	0.5	2.0	1.2	8.2	0.3	11.6	8.7	0.6
Total Del/Veh (s)	81.9	90.4	14.0	76.7	73.5	24.8	102.0	27.6	9.3	79.2	17.5	7.4
Stop Delay (hr)	0.3	0.3	0.0	1.7	0.5	1.9	1.2	5.1	0.2	9.8	3.6	0.2
Stop Del/Veh (s)	79.8	86.7	13.6	72.5	68.7	23.3	96.9	17.1	7.0	66.8	7.3	2.7
Total Stops	14	11	7	78	22	265	42	477	55	481	549	86
Stop/Veh	0.93	0.92	1.00	0.91	0.85	0.89	0.95	0.44	0.45	0.91	0.31	0.30
Vehicles Entered	15	12	7	84	25	295	44	1063	122	514	1781	283
Vehicles Exited	15	12	7	85	25	293	44	1057	121	512	1770	282
Hourly Exit Rate	15	12	7	85	25	293	44	1057	121	512	1770	282
Input Volume	15	10	5	85	27	294	44	1066	120	546	1931	301
% of Volume	102	114	133	100	92	99	100	99	101	94	92	94
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	35.8
Total Del/Veh (s)	30.0
Stop Delay (hr)	24.9
Stop Del/Veh (s)	20.9
Total Stops	2087
Stop/Veh	0.49
Vehicles Entered	4245
Vehicles Exited	4223
Hourly Exit Rate	4223
Input Volume	4444
% of Volume	95
Denied Entry Before	0
Denied Entry After	0

6: Latrobe Road & US-50 EB Ramps Performance by movement

Movement	EBR	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	130.7	0.0	0.0	0.0	0.0	0.0	130.7
Denied Del/Veh (s)	338.4	0.3	0.0	0.1	0.0	0.0	99.9
Total Delay (hr)	22.2	0.2	3.4	0.7	4.4	26.8	57.8
Total Del/Veh (s)	67.7	2.8	10.7	10.3	69.9	66.2	45.7
Stop Delay (hr)	18.7	0.0	1.0	0.1	3.7	20.2	43.8
Stop Del/Veh (s)	57.2	0.0	3.1	2.1	58.6	49.9	34.6
Total Stops	864	0	244	56	270	1577	3011
Stop/Veh	0.73	0.00	0.21	0.22	1.19	1.08	0.66
Vehicles Entered	1156	300	1126	249	222	1422	4475
Vehicles Exited	1157	300	1120	249	221	1420	4467
Hourly Exit Rate	1157	300	1120	249	221	1420	4467
Input Volume	1370	304	1140	245	222	1407	4688
% of Volume	84	99	98	102	100	101	95
Denied Entry Before	10	0	0	0	0	0	10
Denied Entry After	234	0	0	0	0	0	234

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5
Denied Del/Veh (s)	0.1	0.2	0.4	1.5	0.1	0.1	0.0	0.0	0.0	2.2	0.9	2.6
Total Delay (hr)	1.9	0.9	0.7	2.5	1.7	0.1	33.4	3.2	0.4	0.7	6.5	2.9
Total Del/Veh (s)	44.7	43.1	5.1	81.8	84.5	11.4	190.7	17.1	10.2	66.4	24.0	15.0
Stop Delay (hr)	1.7	0.8	0.0	2.4	1.6	0.1	31.0	1.8	0.2	0.6	4.3	1.6
Stop Del/Veh (s)	40.3	36.0	0.0	77.4	78.9	10.5	177.2	9.7	4.3	60.9	15.7	8.0
Total Stops	124	58	0	121	83	24	853	285	76	38	533	351
Stop/Veh	0.80	0.74	0.00	1.10	1.17	0.89	1.35	0.42	0.51	1.00	0.54	0.50
Vehicles Entered	151	77	526	108	69	26	606	667	146	38	976	704
Vehicles Exited	151	77	526	107	69	27	574	669	147	38	976	706
Hourly Exit Rate	151	77	526	107	69	27	574	669	147	38	976	706
Input Volume	150	76	526	107	67	28	627	670	148	39	959	708
% of Volume	100	101	100	100	103	97	92	100	100	97	102	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	All
Denied Delay (hr)	0.9
Denied Del/Veh (s)	0.8
Total Delay (hr)	55.0
Total Del/Veh (s)	47.8
Stop Delay (hr)	46.0
Stop Del/Veh (s)	40.0
Total Stops	2546
Stop/Veh	0.61
Vehicles Entered	4094
Vehicles Exited	4067
Hourly Exit Rate	4067
Input Volume	4104
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

Total Zone Performance

Denied Delay (hr)	132.3
Denied Del/Veh (s)	78.9
Total Delay (hr)	207.3
Total Del/Veh (s)	1700.3
Stop Delay (hr)	152.0
Stop Del/Veh (s)	1246.6
Total Stops	11533
Stop/Veh	26.27
Vehicles Entered	5804
Vehicles Exited	129
Hourly Exit Rate	129
Input Volume	20537
% of Volume	1
Denied Entry Before	10
Denied Entry After	234

HCM 6th TWSC
1: Latrobe Road & Project Access

Existing Conditions
Timing Plan: PM PEAK

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	1039	0	2	776
Future Vol, veh/h	0	4	1039	0	2	776
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	230	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	1208	0	2	902

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1663	604	0	0	1208
Stage 1	1208	-	-	-	-
Stage 2	455	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	88	441	-	-	573
Stage 1	246	-	-	-	-
Stage 2	606	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	88	441	-	-	573
Mov Cap-2 Maneuver	88	-	-	-	-
Stage 1	245	-	-	-	-
Stage 2	606	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	441	573
HCM Lane V/C Ratio	-	-	0.011	0.004
HCM Control Delay (s)	-	-	13.3	11.3
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th Signalized Intersection Summary
2: Latrobe Road & Suncast Lane

Existing Conditions
Timing Plan: PM PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Volume (veh/h)	147	19	6	1037	759	76	
Future Volume (veh/h)	147	19	6	1037	759	76	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	171	22	7	1206	883	88	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	244	217	17	2155	1613	161	
Arrive On Green	0.14	0.14	0.01	0.61	0.49	0.49	
Sat Flow, veh/h	1781	1585	1781	3647	3357	325	
Grp Volume(v), veh/h	171	22	7	1206	481	490	
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1812	
Q Serve(g_s), s	3.6	0.5	0.2	7.9	7.3	7.3	
Cycle Q Clear(g_c), s	3.6	0.5	0.2	7.9	7.3	7.3	
Prop In Lane	1.00	1.00	1.00			0.18	
Lane Grp Cap(c), veh/h	244	217	17	2155	878	896	
V/C Ratio(X)	0.70	0.10	0.42	0.56	0.55	0.55	
Avail Cap(c_a), veh/h	1144	1018	778	4107	2053	2094	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	16.0	14.7	19.2	4.6	6.8	6.8	
Incr Delay (d2), s/veh	3.7	0.2	6.1	0.3	0.8	0.7	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.5	0.2	0.1	0.3	1.1	1.2	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	19.7	14.9	25.3	4.9	7.6	7.6	
LnGrp LOS	B	B	C	A	A	A	
Approach Vol, veh/h	193			1213	971		
Approach Delay, s/veh	19.2			5.0	7.6		
Approach LOS	B			A	A		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		29.6			4.4	25.2	9.3
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0
Max Green Setting (Gmax), s		45.0			17.0	45.0	25.0
Max Q Clear Time (g_c+I1), s		9.9			2.2	9.3	5.6
Green Ext Time (p_c), s		13.7			0.0	9.4	0.5
Intersection Summary							
HCM 6th Ctrl Delay			7.2				
HCM 6th LOS			A				

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	3:50	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	7120	7129	7173	7224	7084	7208	7102
Vehs Exited	7065	7026	7026	7033	7022	7153	7054
Starting Vehs	352	340	338	300	384	360	345
Ending Vehs	407	443	485	491	446	415	393
Denied Entry Before	1	2	2	1	2	6	1
Denied Entry After	8	39	10	1	78	36	66
Travel Distance (mi)	6748	6899	6817	6894	6887	6950	6798
Travel Time (hr)	418.8	443.0	415.9	449.6	462.5	457.7	435.9
Total Delay (hr)	241.0	262.5	236.4	268.6	282.3	275.0	256.8
Total Stops	14044	13953	14006	14573	13692	14098	13823
Fuel Used (gal)	301.0	311.1	303.0	311.5	314.0	317.5	307.1

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	7146	7333	7108	7158
Vehs Exited	7077	7144	7137	7073
Starting Vehs	378	344	393	353
Ending Vehs	447	533	364	439
Denied Entry Before	3	3	0	1
Denied Entry After	40	26	5	30
Travel Distance (mi)	6939	7005	6772	6871
Travel Time (hr)	424.0	479.7	430.3	441.7
Total Delay (hr)	242.5	295.9	251.2	261.2
Total Stops	13626	15199	13821	14086
Fuel Used (gal)	308.1	322.7	307.1	310.3

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	10	2	3	4	5	6
Vehs Entered	1925	1937	1910	1943	1873	1867	1950
Vehs Exited	1814	1808	1854	1801	1811	1808	1827
Starting Vehs	352	340	338	300	384	360	345
Ending Vehs	463	469	394	442	446	419	468
Denied Entry Before	1	2	2	1	2	6	1
Denied Entry After	7	5	1	2	21	30	1
Travel Distance (mi)	1736	1788	1785	1814	1784	1776	1836
Travel Time (hr)	104.5	104.5	102.5	100.1	104.2	109.2	107.3
Total Delay (hr)	58.8	57.8	55.7	52.9	58.1	62.8	59.3
Total Stops	3586	3560	3534	3482	3220	3401	3725
Fuel Used (gal)	77.1	77.8	77.5	77.7	77.6	78.5	79.8

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	7	8	9	Avg
Vehs Entered	1878	1902	1970	1915
Vehs Exited	1864	1745	1861	1820
Starting Vehs	378	344	393	353
Ending Vehs	392	501	502	445
Denied Entry Before	3	3	0	1
Denied Entry After	3	4	29	9
Travel Distance (mi)	1828	1746	1841	1794
Travel Time (hr)	103.3	96.2	118.7	105.0
Total Delay (hr)	55.9	50.6	70.4	58.2
Total Stops	3497	3360	3906	3531
Fuel Used (gal)	78.6	74.7	83.0	78.2

Interval #2 Information

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1717	1704	1735	1801	1754	1793	1703
Vehs Exited	1761	1760	1712	1787	1779	1775	1768
Starting Vehs	463	469	394	442	446	419	468
Ending Vehs	419	413	417	456	421	437	403
Denied Entry Before	7	5	1	2	21	30	1
Denied Entry After	1	17	2	13	26	23	23
Travel Distance (mi)	1677	1698	1629	1710	1692	1735	1673
Travel Time (hr)	102.4	101.4	97.8	114.0	112.1	113.9	108.3
Total Delay (hr)	58.4	57.0	54.6	68.8	67.3	68.3	64.5
Total Stops	3352	3339	3405	3792	3469	3570	3698
Fuel Used (gal)	74.2	75.8	72.5	77.9	76.8	79.4	76.3

Interval #2 Information

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1750	1811	1701	1747
Vehs Exited	1765	1868	1813	1779
Starting Vehs	392	501	502	445
Ending Vehs	377	444	390	413
Denied Entry Before	3	4	29	9
Denied Entry After	17	25	26	16
Travel Distance (mi)	1705	1787	1696	1700
Travel Time (hr)	104.1	118.3	110.1	108.3
Total Delay (hr)	59.4	71.4	65.4	63.5
Total Stops	3406	4009	3356	3541
Fuel Used (gal)	76.2	81.4	77.6	76.8

Interval #3 Information

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1751	1740	1763	1742	1756	1805	1723
Vehs Exited	1771	1710	1753	1715	1731	1791	1753
Starting Vehs	419	413	417	456	421	437	403
Ending Vehs	399	443	427	483	446	451	373
Denied Entry Before	1	17	2	13	26	23	23
Denied Entry After	0	35	3	2	64	12	48
Travel Distance (mi)	1723	1730	1721	1711	1726	1745	1675
Travel Time (hr)	110.8	116.3	105.3	118.7	117.3	119.1	110.7
Total Delay (hr)	65.3	71.2	60.0	74.0	72.1	72.9	66.5
Total Stops	3738	3469	3520	3617	3384	3559	3191
Fuel Used (gal)	77.2	78.9	76.1	79.3	79.2	81.0	77.0

Interval #3 Information

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1768	1783	1719	1754
Vehs Exited	1742	1729	1729	1742
Starting Vehs	377	444	390	413
Ending Vehs	403	498	380	425
Denied Entry Before	17	25	26	16
Denied Entry After	8	31	0	19
Travel Distance (mi)	1712	1742	1643	1713
Travel Time (hr)	106.7	126.8	104.7	113.6
Total Delay (hr)	61.8	81.2	61.2	68.6
Total Stops	3416	3867	3358	3510
Fuel Used (gal)	76.7	81.5	75.1	78.2

Interval #4 Information

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1727	1748	1765	1738	1701	1743	1726
Vehs Exited	1719	1748	1707	1730	1701	1779	1706
Starting Vehs	399	443	427	483	446	451	373
Ending Vehs	407	443	485	491	446	415	393
Denied Entry Before	0	35	3	2	64	12	48
Denied Entry After	8	39	10	1	78	36	66
Travel Distance (mi)	1612	1684	1682	1659	1685	1693	1614
Travel Time (hr)	101.1	120.8	110.3	116.7	128.9	115.6	109.6
Total Delay (hr)	58.4	76.5	66.1	72.8	84.8	70.9	66.5
Total Stops	3368	3585	3547	3682	3619	3568	3209
Fuel Used (gal)	72.5	78.7	76.9	76.6	80.3	78.6	74.1

Interval #4 Information

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1750	1837	1718	1742
Vehs Exited	1706	1802	1734	1732
Starting Vehs	403	498	380	425
Ending Vehs	447	533	364	439
Denied Entry Before	8	31	0	19
Denied Entry After	40	26	5	30
Travel Distance (mi)	1694	1730	1592	1664
Travel Time (hr)	109.9	138.4	96.8	114.8
Total Delay (hr)	65.4	92.7	54.2	70.8
Total Stops	3307	3963	3201	3509
Fuel Used (gal)	76.7	85.2	71.4	77.1

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.3	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	6.7	0.1	0.2	0.1	0.1	0.1	0.2	6.1	0.0	0.4	3.2	0.3
Total Del/Veh (s)	66.6	74.4	68.4	81.1	77.7	28.2	89.0	18.0	13.6	83.7	13.7	10.3
Stop Delay (hr)	6.0	0.1	0.2	0.1	0.1	0.1	0.2	2.5	0.0	0.4	1.4	0.1
Stop Del/Veh (s)	59.4	64.9	62.0	79.4	75.7	27.6	83.1	7.5	5.6	79.6	6.2	4.9
Total Stops	359	6	10	5	4	8	8	354	3	17	219	27
Stop/Veh	0.99	1.00	0.91	0.83	1.00	1.00	0.89	0.29	0.33	0.94	0.26	0.28
Vehicles Entered	360	6	11	6	4	8	8	1203	9	18	819	96
Vehicles Exited	356	6	11	5	4	8	8	1210	9	17	826	97
Hourly Exit Rate	356	6	11	5	4	8	8	1210	9	17	826	97
Input Volume	350	6	12	6	4	7	10	1214	8	18	853	98
% of Volume	102	96	88	80	94	110	78	100	109	92	97	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	17.6
Total Del/Veh (s)	24.5
Stop Delay (hr)	11.3
Stop Del/Veh (s)	15.7
Total Stops	1020
Stop/Veh	0.39
Vehicles Entered	2548
Vehicles Exited	2557
Hourly Exit Rate	2557
Input Volume	2588
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.3	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.0	0.3	0.3	3.4	0.2	3.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	7.1	3.2	0.5	2.7	1.9	0.5	0.9	11.0	0.8	2.9	5.2	0.6
Total Del/Veh (s)	63.4	38.4	22.8	50.6	41.9	11.0	53.7	32.8	9.6	53.6	29.3	7.7
Stop Delay (hr)	6.2	2.4	0.4	2.4	1.6	0.5	0.9	8.5	0.6	2.6	3.4	0.3
Stop Del/Veh (s)	54.9	28.5	18.9	45.3	34.9	9.1	50.6	25.4	7.5	47.8	19.4	4.6
Total Stops	388	210	60	186	122	142	58	804	192	171	370	153
Stop/Veh	0.96	0.70	0.76	0.96	0.75	0.79	0.92	0.67	0.64	0.87	0.58	0.59
Vehicles Entered	395	295	78	189	161	179	62	1195	298	192	623	258
Vehicles Exited	389	297	78	189	161	179	62	1188	298	192	626	257
Hourly Exit Rate	389	297	78	189	161	179	62	1188	298	192	626	257
Input Volume	395	297	78	194	160	179	62	1188	306	200	654	266
% of Volume	98	100	100	97	101	100	100	100	97	96	96	97
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	All
Denied Delay (hr)	0.7
Denied Del/Veh (s)	0.7
Total Delay (hr)	37.4
Total Del/Veh (s)	33.8
Stop Delay (hr)	29.8
Stop Del/Veh (s)	27.0
Total Stops	2856
Stop/Veh	0.72
Vehicles Entered	3925
Vehicles Exited	3916
Hourly Exit Rate	3916
Input Volume	3980
% of Volume	98
Denied Entry Before	0
Denied Entry After	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.3	3.5	3.0	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	5.6	0.4	0.2	1.4	0.1	7.9	0.2	61.1	0.6	9.0	5.0	0.0
Total Del/Veh (s)	73.9	59.2	8.8	62.4	62.5	46.1	105.7	134.8	16.8	66.1	19.6	3.3
Stop Delay (hr)	5.2	0.4	0.2	1.3	0.1	7.5	0.2	46.8	0.4	7.7	3.2	0.0
Stop Del/Veh (s)	68.3	55.8	8.2	57.4	57.3	44.0	90.6	103.1	12.1	56.9	12.6	1.7
Total Stops	284	22	59	85	5	537	10	2117	97	412	356	11
Stop/Veh	1.03	0.81	0.80	1.06	0.83	0.87	1.25	1.30	0.74	0.84	0.39	0.38
Vehicles Entered	267	26	73	79	6	608	7	1588	129	476	916	29
Vehicles Exited	269	27	73	79	6	605	7	1545	130	474	916	29
Hourly Exit Rate	269	27	73	79	6	605	7	1545	130	474	916	29
Input Volume	274	25	70	85	6	607	8	1591	133	496	960	27
% of Volume	98	107	105	93	100	100	88	97	98	96	95	106
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	91.6
Total Del/Veh (s)	76.9
Stop Delay (hr)	73.1
Stop Del/Veh (s)	61.3
Total Stops	3995
Stop/Veh	0.93
Vehicles Entered	4204
Vehicles Exited	4160
Hourly Exit Rate	4160
Input Volume	4282
% of Volume	97
Denied Entry Before	0
Denied Entry After	0

6: Latrobe Road & US-50 EB Ramps Performance by movement

Movement	EBR	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	15.2	0.2	0.0	0.0	0.0	0.0	15.3
Denied Del/Veh (s)	68.9	0.8	0.0	0.0	0.0	0.0	11.4
Total Delay (hr)	19.3	1.2	9.6	2.6	3.1	4.1	39.9
Total Del/Veh (s)	88.9	5.6	17.8	19.8	53.8	21.8	29.6
Stop Delay (hr)	19.0	0.0	2.0	0.4	2.6	1.8	25.8
Stop Del/Veh (s)	87.7	0.1	3.7	2.9	44.5	9.7	19.1
Total Stops	552	8	635	170	186	518	2069
Stop/Veh	0.71	0.01	0.33	0.35	0.89	0.76	0.43
Vehicles Entered	763	763	1932	476	205	681	4820
Vehicles Exited	753	762	1929	474	203	670	4791
Hourly Exit Rate	753	762	1929	474	203	670	4791
Input Volume	798	760	1979	484	199	688	4908
% of Volume	94	100	97	98	102	97	98
Denied Entry Before	1	0	0	0	0	0	1
Denied Entry After	30	0	0	0	0	0	30

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Denied Del/Veh (s)	0.1	0.2	0.2	2.2	0.2	0.2	0.0	0.0	0.0	2.9	0.5	2.9
Total Delay (hr)	1.1	0.7	0.1	2.8	1.2	0.2	16.4	9.1	1.8	1.1	9.5	1.2
Total Del/Veh (s)	34.5	33.4	3.1	52.4	50.9	11.8	52.4	25.3	19.7	73.3	63.5	14.8
Stop Delay (hr)	1.0	0.6	0.0	2.6	1.1	0.2	12.3	4.1	0.6	0.9	7.8	0.9
Stop Del/Veh (s)	31.0	27.1	0.0	48.4	45.9	10.5	39.4	11.4	6.5	65.4	52.3	11.7
Total Stops	93	53	0	193	82	65	1238	850	249	63	600	184
Stop/Veh	0.79	0.72	0.00	0.99	0.99	0.87	1.10	0.66	0.76	1.21	1.12	0.63
Vehicles Entered	117	74	165	190	80	74	1107	1275	325	50	523	289
Vehicles Exited	116	74	164	194	82	74	1096	1272	323	51	528	290
Hourly Exit Rate	116	74	164	194	82	74	1096	1272	323	51	528	290
Input Volume	124	69	160	188	80	70	1116	1305	334	54	539	285
% of Volume	94	107	102	103	102	106	98	97	97	95	98	102
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.4
Total Delay (hr)	45.2
Total Del/Veh (s)	37.6
Stop Delay (hr)	32.2
Stop Del/Veh (s)	26.7
Total Stops	3670
Stop/Veh	0.85
Vehicles Entered	4269
Vehicles Exited	4264
Hourly Exit Rate	4264
Input Volume	4323
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

Total Zone Performance

Denied Delay (hr)	16.8
Denied Del/Veh (s)	10.2
Total Delay (hr)	231.7
Total Del/Veh (s)	1926.7
Stop Delay (hr)	172.1
Stop Del/Veh (s)	1430.9
Total Stops	13610
Stop/Veh	31.43
Vehicles Entered	5908
Vehicles Exited	71
Hourly Exit Rate	71
Input Volume	20081
% of Volume	0
Denied Entry Before	1
Denied Entry After	30

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	21	994	2	22	1265
Future Vol, veh/h	2	21	994	2	22	1265
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	230	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	27	1274	3	28	1622

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2143	639	0	0	1277
Stage 1	1276	-	-	-	-
Stage 2	867	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	42	419	-	-	540
Stage 1	226	-	-	-	-
Stage 2	372	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	40	419	-	-	540
Mov Cap-2 Maneuver	40	-	-	-	-
Stage 1	214	-	-	-	-
Stage 2	372	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.9	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	230	540
HCM Lane V/C Ratio	-	-	0.128	0.052
HCM Control Delay (s)	-	-	22.9	12
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.4	0.2

HCM 6th Signalized Intersection Summary
2: Latrobe Road & Suncast Lane

Existing Plus Project
Timing Plan: AM PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Volume (veh/h)	31	5	19	996	1282	138	
Future Volume (veh/h)	31	5	19	996	1282	138	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	40	6	24	1277	1644	177	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	89	79	52	2513	1882	200	
Arrive On Green	0.05	0.05	0.03	0.71	0.58	0.58	
Sat Flow, veh/h	1781	1585	1781	3647	3335	344	
Grp Volume(v), veh/h	40	6	24	1277	891	930	
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1808	
Q Serve(g_s), s	0.9	0.1	0.5	6.8	17.3	18.3	
Cycle Q Clear(g_c), s	0.9	0.1	0.5	6.8	17.3	18.3	
Prop In Lane	1.00	1.00	1.00			0.19	
Lane Grp Cap(c), veh/h	89	79	52	2513	1032	1050	
V/C Ratio(X)	0.45	0.08	0.46	0.51	0.86	0.89	
Avail Cap(c_a), veh/h	1083	964	737	3890	1945	1979	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	19.0	18.6	19.6	2.8	7.3	7.4	
Incr Delay (d2), s/veh	3.6	0.4	2.4	0.2	0.9	1.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.2	0.1	1.7	1.8	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.6	19.0	22.0	3.0	8.1	8.5	
LnGrp LOS	C	B	C	A	A	A	
Approach Vol, veh/h	46			1301	1821		
Approach Delay, s/veh	22.1			3.3	8.3		
Approach LOS	C			A	A		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		35.1			5.2	29.9	6.0
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0
Max Green Setting (Gmax), s		45.0			17.0	45.0	25.0
Max Q Clear Time (g_c+I1), s		8.8			2.5	20.3	2.9
Green Ext Time (p_c), s		15.1			0.0	3.6	0.1
Intersection Summary							
HCM 6th Ctrl Delay			6.5				
HCM 6th LOS			A				

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	6955	6915	7105	6905	7088	6991	6930
Vehs Exited	6859	6860	7088	6878	6982	6943	6739
Starting Vehs	322	379	361	339	319	358	349
Ending Vehs	418	434	378	366	425	406	540
Denied Entry Before	42	15	22	20	8	30	6
Denied Entry After	202	248	219	276	209	189	309
Travel Distance (mi)	7334	7421	7517	7294	7506	7481	7343
Travel Time (hr)	537.7	551.5	568.1	556.5	535.3	547.0	611.6
Total Delay (hr)	351.9	363.8	377.4	371.8	345.2	357.7	425.6
Total Stops	11795	12323	12240	11393	12302	12271	12670
Fuel Used (gal)	342.8	348.6	356.5	347.1	348.0	351.4	359.0

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	7000	7048	7110	7002
Vehs Exited	6921	7006	7078	6937
Starting Vehs	320	364	350	344
Ending Vehs	399	406	382	413
Denied Entry Before	7	3	19	15
Denied Entry After	145	190	277	226
Travel Distance (mi)	7432	7531	7584	7444
Travel Time (hr)	498.3	519.6	580.4	550.6
Total Delay (hr)	310.8	329.4	389.0	362.3
Total Stops	12635	12236	12166	12199
Fuel Used (gal)	339.7	346.5	360.1	350.0

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1656	1672	1762	1679	1675	1707	1685
Vehs Exited	1590	1635	1718	1653	1610	1677	1639
Starting Vehs	322	379	361	339	319	358	349
Ending Vehs	388	416	405	365	384	388	395
Denied Entry Before	42	15	22	20	8	30	6
Denied Entry After	56	27	74	55	41	38	43
Travel Distance (mi)	1770	1829	1862	1777	1767	1856	1758
Travel Time (hr)	102.4	104.7	113.5	103.5	95.6	108.0	100.6
Total Delay (hr)	57.7	58.7	66.1	58.5	50.8	61.1	55.6
Total Stops	2861	3005	3008	2742	2626	2956	2796
Fuel Used (gal)	76.6	79.4	82.3	77.6	74.6	80.9	75.2

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1668	1630	1711	1682
Vehs Exited	1599	1640	1693	1643
Starting Vehs	320	364	350	344
Ending Vehs	389	354	368	388
Denied Entry Before	7	3	19	15
Denied Entry After	20	1	57	41
Travel Distance (mi)	1664	1759	1787	1783
Travel Time (hr)	96.7	92.5	105.3	102.3
Total Delay (hr)	54.1	47.9	60.0	57.0
Total Stops	2823	2742	2746	2827
Fuel Used (gal)	73.3	74.8	77.9	77.3

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1945	1932	1972	1997	2081	1970	1943
Vehs Exited	1857	1892	1930	1926	1959	1887	1859
Starting Vehs	388	416	405	365	384	388	395
Ending Vehs	476	456	447	436	506	471	479
Denied Entry Before	56	27	74	55	41	38	43
Denied Entry After	160	129	182	221	152	179	215
Travel Distance (mi)	1964	2008	1973	1991	2091	2023	1988
Travel Time (hr)	134.7	134.8	147.7	141.6	139.4	143.4	150.0
Total Delay (hr)	85.4	84.0	97.7	91.2	86.8	92.6	99.9
Total Stops	3098	3349	3340	3323	3651	3365	3669
Fuel Used (gal)	89.4	90.4	92.9	92.7	94.7	94.4	93.6

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2060	2042	2007	1993
Vehs Exited	1933	1913	1939	1909
Starting Vehs	389	354	368	388
Ending Vehs	516	483	436	467
Denied Entry Before	20	1	57	41
Denied Entry After	83	143	183	164
Travel Distance (mi)	2083	2021	2050	2019
Travel Time (hr)	137.1	133.9	144.6	140.7
Total Delay (hr)	84.9	82.8	92.9	89.8
Total Stops	3806	3384	3457	3442
Fuel Used (gal)	94.8	91.8	94.1	92.9

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1684	1647	1707	1633	1717	1651	1678
Vehs Exited	1752	1717	1716	1690	1804	1728	1714
Starting Vehs	476	456	447	436	506	471	479
Ending Vehs	408	386	438	379	419	394	443
Denied Entry Before	160	129	182	221	152	179	215
Denied Entry After	166	172	200	223	173	158	246
Travel Distance (mi)	1830	1804	1795	1785	1915	1809	1846
Travel Time (hr)	152.5	143.7	149.3	151.5	150.7	143.4	169.9
Total Delay (hr)	106.0	97.9	103.6	106.1	102.3	97.6	123.2
Total Stops	3183	2821	2927	2680	3178	2883	3030
Fuel Used (gal)	90.3	86.2	88.4	88.3	92.0	88.1	94.6

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1664	1679	1689	1673
Vehs Exited	1782	1783	1701	1739
Starting Vehs	516	483	436	467
Ending Vehs	398	379	424	403
Denied Entry Before	83	143	183	164
Denied Entry After	114	161	240	184
Travel Distance (mi)	1938	1888	1878	1849
Travel Time (hr)	134.1	145.0	159.8	150.0
Total Delay (hr)	85.5	97.2	112.5	103.2
Total Stops	3199	3107	3089	3008
Fuel Used (gal)	89.3	90.4	93.3	90.1

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1670	1664	1664	1596	1615	1663	1624
Vehs Exited	1660	1616	1724	1609	1609	1651	1527
Starting Vehs	408	386	438	379	419	394	443
Ending Vehs	418	434	378	366	425	406	540
Denied Entry Before	166	172	200	223	173	158	246
Denied Entry After	202	248	219	276	209	189	309
Travel Distance (mi)	1771	1780	1886	1742	1733	1794	1750
Travel Time (hr)	148.1	168.3	157.6	159.9	149.6	152.2	191.0
Total Delay (hr)	102.8	123.2	110.0	116.0	105.3	106.4	146.8
Total Stops	2653	3148	2965	2648	2847	3067	3175
Fuel Used (gal)	86.5	92.5	92.9	88.5	86.7	88.1	95.5

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1608	1697	1703	1651
Vehs Exited	1607	1670	1745	1641
Starting Vehs	398	379	424	403
Ending Vehs	399	406	382	413
Denied Entry Before	114	161	240	184
Denied Entry After	145	190	277	226
Travel Distance (mi)	1748	1864	1869	1794
Travel Time (hr)	130.5	148.1	170.8	157.6
Total Delay (hr)	86.3	101.5	123.6	112.2
Total Stops	2807	3003	2874	2920
Fuel Used (gal)	82.3	89.6	94.8	89.7

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.3	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	1.9	0.1	0.1	0.2	0.1	0.1	0.4	2.8	0.0	0.1	9.5	3.1
Total Del/Veh (s)	54.3	58.7	38.4	62.4	70.7	24.0	64.6	9.4	6.4	76.7	24.8	25.8
Stop Delay (hr)	1.8	0.1	0.0	0.2	0.1	0.1	0.4	0.9	0.0	0.1	2.7	0.9
Stop Del/Veh (s)	50.1	52.1	35.5	60.5	68.3	23.0	60.7	2.8	2.1	65.0	6.9	7.8
Total Stops	109	3	5	11	6	13	23	198	1	6	445	167
Stop/Veh	0.86	0.75	1.00	0.92	0.86	0.93	0.92	0.18	0.17	1.00	0.32	0.38
Vehicles Entered	123	4	5	12	6	13	24	1074	6	6	1372	428
Vehicles Exited	125	4	5	11	7	14	25	1072	6	6	1365	426
Hourly Exit Rate	125	4	5	11	7	14	25	1072	6	6	1365	426
Input Volume	124	4	5	12	8	13	26	1067	6	6	1465	456
% of Volume	101	94	95	96	93	110	95	100	96	96	93	93
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	18.5
Total Del/Veh (s)	21.5
Stop Delay (hr)	7.3
Stop Del/Veh (s)	8.4
Total Stops	987
Stop/Veh	0.32
Vehicles Entered	3073
Vehicles Exited	3066
Hourly Exit Rate	3066
Input Volume	3192
% of Volume	96
Denied Entry Before	0
Denied Entry After	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.2	0.2	3.2	0.3	3.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	3.4	1.2	0.1	8.2	2.4	0.2	1.6	4.6	0.2	1.6	17.8	1.3
Total Del/Veh (s)	57.7	46.5	12.5	85.6	42.9	6.8	59.7	17.9	3.7	62.3	45.0	12.1
Stop Delay (hr)	3.0	1.0	0.1	7.5	1.9	0.1	1.5	3.4	0.1	1.4	10.8	0.6
Stop Del/Veh (s)	51.9	38.7	10.7	77.6	34.8	4.8	56.6	13.1	2.7	52.1	27.2	6.1
Total Stops	200	76	32	435	157	89	88	438	76	98	1136	198
Stop/Veh	0.95	0.80	0.80	1.26	0.79	0.80	0.94	0.47	0.47	1.04	0.80	0.53
Vehicles Entered	207	92	39	339	195	111	92	925	162	92	1401	366
Vehicles Exited	206	93	39	337	195	111	92	928	162	92	1407	368
Hourly Exit Rate	206	93	39	337	195	111	92	928	162	92	1407	368
Input Volume	206	91	42	346	195	114	87	929	161	100	1517	398
% of Volume	100	102	94	98	100	97	105	100	101	92	93	92
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	1	0	0	0	0	0	0	0	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	All
Denied Delay (hr)	0.6
Denied Del/Veh (s)	0.6
Total Delay (hr)	42.6
Total Del/Veh (s)	37.6
Stop Delay (hr)	31.5
Stop Del/Veh (s)	27.8
Total Stops	3023
Stop/Veh	0.74
Vehicles Entered	4021
Vehicles Exited	4030
Hourly Exit Rate	4030
Input Volume	4185
% of Volume	96
Denied Entry Before	0
Denied Entry After	1

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	4.4	3.4	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.3	0.0	1.9	0.6	2.2	1.2	8.4	0.3	11.5	8.8	0.5
Total Del/Veh (s)	85.5	86.8	15.8	77.7	77.0	25.9	98.2	27.9	8.5	78.8	17.5	6.7
Stop Delay (hr)	0.3	0.3	0.0	1.8	0.5	2.0	1.1	5.2	0.2	9.7	3.6	0.2
Stop Del/Veh (s)	83.4	83.4	15.6	73.5	71.7	24.4	93.1	17.2	6.3	66.6	7.2	2.3
Total Stops	12	10	4	85	23	271	42	488	50	469	551	82
Stop/Veh	0.92	0.91	1.00	0.96	0.88	0.90	0.98	0.45	0.43	0.90	0.30	0.30
Vehicles Entered	13	10	4	88	26	297	42	1078	115	508	1792	276
Vehicles Exited	13	11	4	88	26	298	42	1073	115	509	1786	275
Hourly Exit Rate	13	11	4	88	26	298	42	1073	115	509	1786	275
Input Volume	15	10	5	85	27	294	45	1075	120	546	1945	301
% of Volume	88	105	76	104	95	101	93	100	95	93	92	91
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	35.9
Total Del/Veh (s)	30.0
Stop Delay (hr)	24.9
Stop Del/Veh (s)	20.9
Total Stops	2087
Stop/Veh	0.49
Vehicles Entered	4249
Vehicles Exited	4240
Hourly Exit Rate	4240
Input Volume	4468
% of Volume	95
Denied Entry Before	0
Denied Entry After	0

6: Latrobe Road & US-50 EB Ramps Performance by movement

Movement	EBR	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	126.4	0.0	0.0	0.0	0.0	0.0	126.4
Denied Del/Veh (s)	329.1	0.3	0.0	0.1	0.0	0.0	96.2
Total Delay (hr)	22.1	0.3	4.4	0.8	4.5	26.7	58.8
Total Del/Veh (s)	67.4	2.9	13.7	11.6	70.7	65.9	46.1
Stop Delay (hr)	18.8	0.0	1.8	0.2	3.8	20.1	44.8
Stop Del/Veh (s)	57.5	0.1	5.7	3.1	59.3	49.6	35.1
Total Stops	861	2	290	58	274	1574	3059
Stop/Veh	0.73	0.01	0.25	0.23	1.20	1.08	0.67
Vehicles Entered	1158	308	1141	252	224	1422	4505
Vehicles Exited	1156	309	1134	251	223	1420	4493
Hourly Exit Rate	1156	309	1134	251	223	1420	4493
Input Volume	1376	304	1144	249	222	1416	4710
% of Volume	84	102	99	101	101	100	95
Denied Entry Before	15	0	0	0	0	0	15
Denied Entry After	225	0	0	0	0	0	225

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5
Denied Del/Veh (s)	0.1	0.2	0.4	1.4	0.1	0.1	0.0	0.0	0.0	2.3	0.8	2.5
Total Delay (hr)	1.9	0.9	0.8	2.4	1.5	0.1	41.2	3.4	0.5	0.7	6.5	3.1
Total Del/Veh (s)	44.7	44.2	5.2	79.3	82.5	11.5	230.1	17.9	10.8	64.4	24.5	15.5
Stop Delay (hr)	1.7	0.8	0.0	2.3	1.4	0.1	38.7	1.9	0.2	0.6	4.3	1.6
Stop Del/Veh (s)	40.4	37.2	0.0	75.1	77.1	10.7	215.8	10.1	4.5	58.7	16.0	8.3
Total Stops	124	59	1	118	74	28	931	304	77	37	535	359
Stop/Veh	0.82	0.77	0.00	1.07	1.16	0.93	1.44	0.45	0.51	1.00	0.55	0.50
Vehicles Entered	149	76	536	107	63	30	621	673	149	36	962	710
Vehicles Exited	149	75	537	107	63	30	574	675	149	37	962	711
Hourly Exit Rate	149	75	537	107	63	30	574	675	149	37	962	711
Input Volume	150	76	532	107	67	28	629	673	148	39	961	708
% of Volume	99	98	101	100	94	108	91	100	101	94	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	All
Denied Delay (hr)	0.9
Denied Del/Veh (s)	0.8
Total Delay (hr)	62.9
Total Del/Veh (s)	54.5
Stop Delay (hr)	53.6
Stop Del/Veh (s)	46.3
Total Stops	2647
Stop/Veh	0.64
Vehicles Entered	4112
Vehicles Exited	4069
Hourly Exit Rate	4069
Input Volume	4118
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

Total Zone Performance

Denied Delay (hr)	128.1
Denied Del/Veh (s)	76.3
Total Delay (hr)	218.7
Total Del/Veh (s)	1719.1
Stop Delay (hr)	162.0
Stop Del/Veh (s)	1273.3
Total Stops	11803
Stop/Veh	25.77
Vehicles Entered	5821
Vehicles Exited	123
Hourly Exit Rate	123
Input Volume	20673
% of Volume	1
Denied Entry Before	15
Denied Entry After	226

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	23	1039	2	21	776
Future Vol, veh/h	2	23	1039	2	21	776
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	230	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	27	1208	2	24	902

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1708	605	0	0	1210
Stage 1	1209	-	-	-	-
Stage 2	499	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	82	441	-	-	572
Stage 1	245	-	-	-	-
Stage 2	575	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	79	441	-	-	572
Mov Cap-2 Maneuver	79	-	-	-	-
Stage 1	235	-	-	-	-
Stage 2	575	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.2	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	323	572
HCM Lane V/C Ratio	-	-	0.09	0.043
HCM Control Delay (s)	-	-	17.2	11.6
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.3	0.1

HCM 6th Signalized Intersection Summary
2: Latrobe Road & Suncast Lane

Existing Plus Project
Timing Plan: PM PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Volume (veh/h)	147	19	6	1056	778	76	
Future Volume (veh/h)	147	19	6	1056	778	76	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	171	22	7	1228	905	88	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	243	216	17	2171	1637	159	
Arrive On Green	0.14	0.14	0.01	0.61	0.50	0.50	
Sat Flow, veh/h	1781	1585	1781	3647	3365	318	
Grp Volume(v), veh/h	171	22	7	1228	491	502	
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1813	
Q Serve(g_s), s	3.6	0.5	0.2	8.1	7.6	7.6	
Cycle Q Clear(g_c), s	3.6	0.5	0.2	8.1	7.6	7.6	
Prop In Lane	1.00	1.00	1.00			0.18	
Lane Grp Cap(c), veh/h	243	216	17	2171	889	907	
V/C Ratio(X)	0.70	0.10	0.42	0.57	0.55	0.55	
Avail Cap(c_a), veh/h	1125	1001	765	4039	2020	2061	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	16.3	15.0	19.5	4.6	6.8	6.8	
Incr Delay (d2), s/veh	3.7	0.2	6.1	0.3	0.8	0.8	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.5	0.2	0.1	0.4	1.2	1.2	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.0	15.2	25.6	4.9	7.6	7.6	
LnGrp LOS	C	B	C	A	A	A	
Approach Vol, veh/h				1235	993		
Approach Delay, s/veh				5.0	7.6		
Approach LOS		B		A	A		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		30.2			4.4	25.8	9.4
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0
Max Green Setting (Gmax), s		45.0			17.0	45.0	25.0
Max Q Clear Time (g_c+I1), s		10.1			2.2	9.6	5.6
Green Ext Time (p_c), s		14.0			0.0	9.6	0.5
Intersection Summary							
HCM 6th Ctrl Delay			7.2				
HCM 6th LOS			A				

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	3:50	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	7251	7180	7138	7282	7131	7307	7127
Vehs Exited	7180	7069	7055	7191	6940	7218	7018
Starting Vehs	352	325	372	332	313	324	379
Ending Vehs	423	436	455	423	504	413	488
Denied Entry Before	1	4	8	2	1	1	4
Denied Entry After	5	57	90	71	110	10	60
Travel Distance (mi)	6983	6978	6866	7081	6816	7049	6861
Travel Time (hr)	435.4	462.8	488.5	446.9	493.5	433.3	472.4
Total Delay (hr)	252.5	280.3	308.2	261.8	314.8	248.2	292.4
Total Stops	14569	14149	13782	13965	14186	14149	14174
Fuel Used (gal)	312.3	318.3	319.4	319.7	321.0	313.4	316.2

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	7174	7199	7210	7197
Vehs Exited	7115	7128	7118	7105
Starting Vehs	387	352	370	344
Ending Vehs	446	423	462	445
Denied Entry Before	1	0	1	1
Denied Entry After	3	63	5	46
Travel Distance (mi)	7042	6975	6988	6964
Travel Time (hr)	434.7	470.1	423.4	456.1
Total Delay (hr)	250.7	287.1	240.4	273.6
Total Stops	14411	14566	14205	14219
Fuel Used (gal)	313.8	320.4	310.9	316.5

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	10	2	3	4	5	6
Vehs Entered	1962	1975	1946	1932	1911	1940	1932
Vehs Exited	1833	1808	1859	1841	1782	1822	1829
Starting Vehs	352	325	372	332	313	324	379
Ending Vehs	481	492	459	423	442	442	482
Denied Entry Before	1	4	8	2	1	1	4
Denied Entry After	6	13	44	9	26	3	25
Travel Distance (mi)	1856	1869	1819	1882	1779	1792	1784
Travel Time (hr)	109.8	110.1	113.6	106.3	104.3	101.9	116.2
Total Delay (hr)	61.9	61.8	66.2	57.7	58.0	54.8	69.9
Total Stops	3697	3570	3449	3509	3468	3435	3584
Fuel Used (gal)	81.4	81.8	81.0	81.5	78.4	77.2	80.6

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	7	8	9	Avg
Vehs Entered	1906	1913	1931	1932
Vehs Exited	1828	1811	1797	1821
Starting Vehs	387	352	370	344
Ending Vehs	465	454	504	462
Denied Entry Before	1	0	1	1
Denied Entry After	1	13	1	13
Travel Distance (mi)	1836	1819	1811	1825
Travel Time (hr)	103.7	106.5	110.3	108.3
Total Delay (hr)	55.9	59.2	63.2	60.9
Total Stops	3675	3470	3766	3562
Fuel Used (gal)	79.2	79.9	80.5	80.1

Interval #2 Information

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1785	1738	1792	1800	1731	1741	1713
Vehs Exited	1827	1805	1817	1801	1738	1754	1757
Starting Vehs	481	492	459	423	442	442	482
Ending Vehs	439	425	434	422	435	429	438
Denied Entry Before	6	13	44	9	26	3	25
Denied Entry After	12	30	57	19	35	29	21
Travel Distance (mi)	1758	1755	1732	1710	1716	1706	1730
Travel Time (hr)	110.1	120.7	120.4	106.3	113.1	109.1	118.8
Total Delay (hr)	64.0	74.7	74.6	61.2	68.1	64.3	73.7
Total Stops	3662	3651	3551	3422	3507	3466	3630
Fuel Used (gal)	79.1	81.2	79.6	77.0	78.5	76.4	80.0

Interval #2 Information

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1815	1763	1735	1760
Vehs Exited	1832	1759	1819	1791
Starting Vehs	465	454	504	462
Ending Vehs	448	458	420	435
Denied Entry Before	1	13	1	13
Denied Entry After	6	34	1	24
Travel Distance (mi)	1773	1710	1715	1730
Travel Time (hr)	109.9	119.5	106.0	113.4
Total Delay (hr)	63.6	74.7	60.9	68.0
Total Stops	3704	3779	3618	3600
Fuel Used (gal)	79.4	79.3	76.5	78.7

Interval #3 Information

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1755	1719	1714	1805	1738	1790	1713
Vehs Exited	1787	1726	1726	1804	1706	1801	1756
Starting Vehs	439	425	434	422	435	429	438
Ending Vehs	407	418	422	423	467	418	395
Denied Entry Before	12	30	57	19	35	29	21
Denied Entry After	1	46	75	53	80	13	45
Travel Distance (mi)	1705	1699	1664	1781	1708	1757	1652
Travel Time (hr)	111.9	113.9	119.7	116.5	128.1	113.9	115.1
Total Delay (hr)	66.9	69.4	75.5	70.0	83.7	67.4	71.3
Total Stops	3685	3494	3355	3546	3517	3597	3352
Fuel Used (gal)	77.8	78.3	77.7	81.8	81.0	79.8	76.3

Interval #3 Information

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1719	1766	1715	1742
Vehs Exited	1747	1771	1724	1756
Starting Vehs	448	458	420	435
Ending Vehs	420	453	411	419
Denied Entry Before	6	34	1	24
Denied Entry After	2	14	3	32
Travel Distance (mi)	1724	1741	1683	1711
Travel Time (hr)	110.7	121.6	100.9	115.2
Total Delay (hr)	65.5	75.7	56.6	70.2
Total Stops	3587	3727	3306	3514
Fuel Used (gal)	77.3	80.8	75.5	78.6

Interval #4 Information

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1749	1748	1686	1745	1751	1836	1769
Vehs Exited	1733	1730	1653	1745	1714	1841	1676
Starting Vehs	407	418	422	423	467	418	395
Ending Vehs	423	436	455	423	504	413	488
Denied Entry Before	1	46	75	53	80	13	45
Denied Entry After	5	57	90	71	110	10	60
Travel Distance (mi)	1664	1656	1650	1708	1614	1794	1695
Travel Time (hr)	103.6	118.1	134.9	117.8	147.9	108.5	122.2
Total Delay (hr)	59.8	74.4	91.9	72.9	105.0	61.6	77.6
Total Stops	3525	3434	3427	3488	3694	3651	3608
Fuel Used (gal)	74.0	77.0	81.0	79.4	83.2	80.0	79.2

Interval #4 Information

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1734	1757	1829	1758
Vehs Exited	1708	1787	1778	1735
Starting Vehs	420	453	411	419
Ending Vehs	446	423	462	445
Denied Entry Before	2	14	3	32
Denied Entry After	3	63	5	46
Travel Distance (mi)	1709	1705	1779	1697
Travel Time (hr)	110.3	122.5	106.1	119.2
Total Delay (hr)	65.7	77.5	59.7	74.6
Total Stops	3445	3590	3515	3536
Fuel Used (gal)	77.9	80.4	78.4	79.1

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	0.4	0.3	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	6.5	0.1	0.3	0.2	0.1	0.1	0.3	6.4	0.0	0.4	3.3	0.3
Total Del/Veh (s)	66.4	74.2	61.2	79.2	74.3	28.3	96.6	18.4	18.2	85.0	13.9	10.9
Stop Delay (hr)	5.8	0.1	0.2	0.2	0.1	0.1	0.3	2.6	0.0	0.4	1.5	0.1
Stop Del/Veh (s)	59.1	65.3	54.9	77.5	71.9	27.6	89.8	7.6	8.8	80.9	6.5	5.4
Total Stops	353	5	14	7	3	8	11	371	3	18	220	27
Stop/Veh	0.99	1.00	0.93	0.88	1.00	1.00	1.00	0.30	0.33	0.95	0.26	0.27
Vehicles Entered	352	5	15	7	3	8	11	1227	9	18	842	98
Vehicles Exited	348	5	15	8	3	8	11	1229	9	19	849	98
Hourly Exit Rate	348	5	15	8	3	8	11	1229	9	19	849	98
Input Volume	350	6	14	7	4	7	12	1231	9	18	870	98
% of Volume	100	80	111	110	71	110	96	100	97	103	98	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	18.0
Total Del/Veh (s)	24.6
Stop Delay (hr)	11.5
Stop Del/Veh (s)	15.7
Total Stops	1040
Stop/Veh	0.39
Vehicles Entered	2595
Vehicles Exited	2602
Hourly Exit Rate	2602
Input Volume	2626
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.3	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.1	0.3	0.3	3.4	0.3	3.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	6.5	3.2	0.5	2.9	1.8	0.4	0.9	10.8	0.8	2.8	5.5	0.6
Total Del/Veh (s)	59.8	39.0	21.3	51.7	40.0	8.9	53.1	31.9	9.7	51.7	30.4	8.6
Stop Delay (hr)	5.6	2.4	0.4	2.6	1.5	0.3	0.9	8.3	0.6	2.5	3.6	0.4
Stop Del/Veh (s)	51.5	29.3	17.3	46.2	33.1	7.1	49.9	24.5	7.5	45.3	20.1	5.2
Total Stops	372	206	61	195	124	137	57	811	194	175	382	159
Stop/Veh	0.94	0.70	0.74	0.98	0.75	0.79	0.92	0.67	0.64	0.88	0.59	0.59
Vehicles Entered	386	289	81	195	163	172	61	1207	304	195	637	264
Vehicles Exited	378	289	81	194	164	172	61	1204	303	196	639	264
Hourly Exit Rate	378	289	81	194	164	172	61	1204	303	196	639	264
Input Volume	395	297	80	198	160	179	63	1203	309	200	666	266
% of Volume	96	97	101	98	102	96	97	100	98	98	96	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	All
Denied Delay (hr)	0.7
Denied Del/Veh (s)	0.7
Total Delay (hr)	36.8
Total Del/Veh (s)	33.1
Stop Delay (hr)	29.1
Stop Del/Veh (s)	26.2
Total Stops	2873
Stop/Veh	0.72
Vehicles Entered	3954
Vehicles Exited	3945
Hourly Exit Rate	3945
Input Volume	4016
% of Volume	98
Denied Entry Before	0
Denied Entry After	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.3	3.5	3.1	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	5.7	0.4	0.2	1.4	0.1	8.4	0.3	60.6	0.5	9.1	5.4	0.0
Total Del/Veh (s)	73.8	55.6	8.9	61.6	64.4	47.6	111.5	134.2	15.0	67.4	20.4	3.6
Stop Delay (hr)	5.3	0.4	0.2	1.3	0.1	8.0	0.2	46.2	0.4	7.8	3.5	0.0
Stop Del/Veh (s)	68.1	52.3	8.4	56.6	59.0	45.5	97.7	102.3	10.4	58.1	13.1	1.9
Total Stops	291	21	58	87	4	553	12	2083	91	409	380	11
Stop/Veh	1.04	0.81	0.83	1.07	0.80	0.87	1.33	1.28	0.70	0.85	0.40	0.39
Vehicles Entered	273	25	70	80	5	624	8	1583	128	471	940	28
Vehicles Exited	273	25	70	79	5	621	8	1548	128	471	942	28
Hourly Exit Rate	273	25	70	79	5	621	8	1548	128	471	942	28
Input Volume	274	25	70	86	6	607	8	1604	133	496	970	27
% of Volume	100	99	99	92	83	102	100	97	96	95	97	103
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	92.1
Total Del/Veh (s)	76.8
Stop Delay (hr)	73.3
Stop Del/Veh (s)	61.1
Total Stops	4000
Stop/Veh	0.93
Vehicles Entered	4235
Vehicles Exited	4198
Hourly Exit Rate	4198
Input Volume	4306
% of Volume	98
Denied Entry Before	0
Denied Entry After	0

6: Latrobe Road & US-50 EB Ramps Performance by movement

Movement	EBR	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	22.6	0.2	0.0	0.0	0.0	0.0	22.8
Denied Del/Veh (s)	102.4	0.8	0.0	0.0	0.0	0.0	16.8
Total Delay (hr)	20.4	1.2	9.7	2.5	3.1	4.3	41.2
Total Del/Veh (s)	95.5	5.5	17.6	19.2	54.4	22.0	30.3
Stop Delay (hr)	20.3	0.0	1.9	0.3	2.5	1.9	27.0
Stop Del/Veh (s)	95.0	0.1	3.5	2.6	45.2	9.6	19.9
Total Stops	506	9	644	159	181	541	2040
Stop/Veh	0.66	0.01	0.33	0.34	0.90	0.76	0.42
Vehicles Entered	750	750	1964	470	198	706	4838
Vehicles Exited	744	750	1960	467	197	697	4815
Hourly Exit Rate	744	750	1960	467	197	697	4815
Input Volume	799	760	1986	488	199	697	4930
% of Volume	93	99	99	96	99	100	98
Denied Entry Before	1	0	0	0	0	0	1
Denied Entry After	46	0	0	0	0	0	46

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3
Denied Del/Veh (s)	0.1	0.2	0.2	2.2	0.1	0.2	0.0	0.0	0.0	3.7	1.2	3.6
Total Delay (hr)	1.2	0.6	0.1	2.9	1.2	0.2	18.2	9.2	1.8	1.0	10.1	1.2
Total Del/Veh (s)	35.0	32.3	2.9	53.4	51.6	11.8	57.9	25.5	19.9	71.2	65.6	14.7
Stop Delay (hr)	1.1	0.5	0.0	2.7	1.1	0.2	13.9	4.2	0.6	0.9	8.4	0.9
Stop Del/Veh (s)	31.5	26.0	0.0	49.4	46.5	10.6	44.1	11.6	6.8	63.7	54.6	11.5
Total Stops	97	50	0	192	82	62	1304	852	248	59	615	180
Stop/Veh	0.79	0.72	0.00	0.98	1.00	0.89	1.15	0.65	0.76	1.13	1.11	0.62
Vehicles Entered	123	68	166	191	80	69	1117	1283	325	51	544	289
Vehicles Exited	122	68	166	195	82	69	1105	1279	322	52	544	289
Hourly Exit Rate	122	68	166	195	82	69	1105	1279	322	52	544	289
Input Volume	124	69	165	188	80	70	1122	1307	334	54	542	285
% of Volume	99	99	100	103	102	99	99	98	96	97	100	101
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	All
Denied Delay (hr)	0.7
Denied Del/Veh (s)	0.6
Total Delay (hr)	47.9
Total Del/Veh (s)	39.4
Stop Delay (hr)	34.5
Stop Del/Veh (s)	28.4
Total Stops	3741
Stop/Veh	0.86
Vehicles Entered	4306
Vehicles Exited	4293
Hourly Exit Rate	4293
Input Volume	4339
% of Volume	99
Denied Entry Before	0
Denied Entry After	0

Total Zone Performance

Denied Delay (hr)	24.5
Denied Del/Veh (s)	14.8
Total Delay (hr)	236.0
Total Del/Veh (s)	1913.2
Stop Delay (hr)	175.5
Stop Del/Veh (s)	1422.9
Total Stops	13694
Stop/Veh	30.84
Vehicles Entered	5909
Vehicles Exited	75
Hourly Exit Rate	75
Input Volume	20217
% of Volume	0
Denied Entry Before	1
Denied Entry After	46

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	2	1190	0	3	1370
Future Vol, veh/h	0	2	1190	0	3	1370
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	230	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	1253	0	3	1442

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1980	627	0	0	1253
Stage 1	1253	-	-	-	-
Stage 2	727	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	54	426	-	-	551
Stage 1	232	-	-	-	-
Stage 2	439	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	54	426	-	-	551
Mov Cap-2 Maneuver	54	-	-	-	-
Stage 1	231	-	-	-	-
Stage 2	439	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	426	551
HCM Lane V/C Ratio	-	-	0.005	0.006
HCM Control Delay (s)	-	-	13.5	11.6
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th Signalized Intersection Summary

2: Latrobe Road & Suncast Lane

2040
Timing Plan: AM PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Volume (veh/h)	70	10	20	1170	1370	280	
Future Volume (veh/h)	70	10	20	1170	1370	280	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	74	11	21	1232	1442	295	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	138	123	47	2356	2267	463	
Arrive On Green	0.08	0.08	0.03	0.66	0.53	0.53	
Sat Flow, veh/h	1781	1585	1781	3647	4419	868	
Grp Volume(v), veh/h	74	11	21	1232	1154	583	
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1702	1714	
Q Serve(g_s), s	1.5	0.2	0.4	6.9	9.2	9.3	
Cycle Q Clear(g_c), s	1.5	0.2	0.4	6.9	9.2	9.3	
Prop In Lane	1.00	1.00	1.00			0.51	
Lane Grp Cap(c), veh/h	138	123	47	2356	1815	914	
V/C Ratio(X)	0.54	0.09	0.45	0.52	0.64	0.64	
Avail Cap(c_a), veh/h	878	781	323	6637	5386	2712	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	17.1	16.5	18.5	3.3	6.4	6.4	
Incr Delay (d2), s/veh	3.2	0.3	2.5	0.3	0.1	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.2	0.1	0.9	0.9	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.3	16.8	21.0	3.6	6.5	6.6	
LnGrp LOS	C	B	C	A	A	A	
Approach Vol, veh/h	85			1253	1737		
Approach Delay, s/veh	19.9			3.9	6.5		
Approach LOS	B			A	A		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		31.6			5.0	26.6	7.0
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0
Max Green Setting (Gmax), s		72.0			7.0	61.0	19.0
Max Q Clear Time (g_c+I1), s		8.9			2.4	11.3	3.5
Green Ext Time (p_c), s		16.7			0.0	3.8	0.2
Intersection Summary							
HCM 6th Ctrl Delay			5.8				
HCM 6th LOS			A				

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	8133	7944	8010	7885	8057	8027	8089
Vehs Exited	8124	7890	7973	7871	8050	8005	8067
Starting Vehs	451	428	406	424	409	404	426
Ending Vehs	460	482	443	438	416	426	448
Denied Entry Before	99	83	113	92	75	98	77
Denied Entry After	895	996	947	1008	948	953	970
Travel Distance (mi)	8064	7975	8130	7867	8085	7942	8255
Travel Time (hr)	959.0	951.0	966.6	1035.0	968.6	996.1	998.0
Total Delay (hr)	750.5	745.4	757.6	832.1	760.5	790.6	785.8
Total Stops	14756	14270	14494	14254	14741	14707	15124
Fuel Used (gal)	465.8	459.2	468.7	475.2	467.4	469.3	478.7

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	8056	7924	8118	8024
Vehs Exited	8057	8008	8137	8019
Starting Vehs	414	469	470	430
Ending Vehs	413	385	451	434
Denied Entry Before	45	81	102	84
Denied Entry After	924	851	952	944
Travel Distance (mi)	8040	8092	8130	8058
Travel Time (hr)	943.6	910.0	1035.1	976.3
Total Delay (hr)	735.7	701.3	825.1	768.5
Total Stops	14790	14352	15247	14669
Fuel Used (gal)	460.2	454.5	485.5	468.4

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2034	2002	2039	1937	2015	1990	1961
Vehs Exited	2057	1959	1998	1944	1961	1937	1942
Starting Vehs	451	428	406	424	409	404	426
Ending Vehs	428	471	447	417	463	457	445
Denied Entry Before	99	83	113	92	75	98	77
Denied Entry After	282	191	249	376	260	321	263
Travel Distance (mi)	2043	1930	2034	1935	2018	1923	2000
Travel Time (hr)	161.7	140.1	157.1	166.5	159.6	162.5	155.7
Total Delay (hr)	108.9	89.7	104.7	116.6	107.7	112.9	104.3
Total Stops	3607	3436	3727	3422	3685	3516	3594
Fuel Used (gal)	99.3	90.2	97.7	96.7	98.3	95.2	96.5

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2056	1949	2066	2003
Vehs Exited	2002	1930	2080	1979
Starting Vehs	414	469	470	430
Ending Vehs	468	488	456	450
Denied Entry Before	45	81	102	84
Denied Entry After	247	269	343	278
Travel Distance (mi)	1935	1970	2104	1989
Travel Time (hr)	147.8	154.7	183.4	158.9
Total Delay (hr)	97.2	103.9	129.2	107.5
Total Stops	3596	3700	4019	3627
Fuel Used (gal)	92.4	95.4	106.3	96.8

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2029	1986	2051	1986	2086	2094	2026
Vehs Exited	1987	2032	2011	1948	2066	2070	2024
Starting Vehs	428	471	447	417	463	457	445
Ending Vehs	470	425	487	455	483	481	447
Denied Entry Before	282	191	249	376	260	321	263
Denied Entry After	502	511	507	629	485	528	563
Travel Distance (mi)	2044	2021	2102	1950	2045	2093	2096
Travel Time (hr)	210.4	199.7	214.6	231.9	212.8	226.3	220.2
Total Delay (hr)	157.9	147.6	160.8	181.7	159.8	172.3	166.7
Total Stops	3682	3586	3725	3464	3854	3821	3788
Fuel Used (gal)	110.6	106.4	112.9	112.8	110.3	115.7	114.6

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2033	2039	2079	2039
Vehs Exited	2037	2055	2105	2031
Starting Vehs	468	488	456	450
Ending Vehs	464	472	430	456
Denied Entry Before	247	269	343	278
Denied Entry After	529	462	606	531
Travel Distance (mi)	2055	2089	2063	2056
Travel Time (hr)	218.5	207.0	236.2	217.8
Total Delay (hr)	165.6	153.5	182.8	164.9
Total Stops	3913	3564	3983	3733
Fuel Used (gal)	112.3	111.1	117.4	112.4

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2030	1981	1953	1994	2016	1959	2095
Vehs Exited	2025	1947	1980	1997	2014	1943	2054
Starting Vehs	470	425	487	455	483	481	447
Ending Vehs	475	459	460	452	485	497	488
Denied Entry Before	502	511	507	629	485	528	563
Denied Entry After	698	773	717	832	743	746	760
Travel Distance (mi)	1949	2015	2007	2011	2025	1958	2119
Travel Time (hr)	268.3	274.7	270.7	295.6	273.2	275.2	287.3
Total Delay (hr)	217.5	223.0	219.2	243.8	221.2	224.4	232.7
Total Stops	3765	3551	3454	3748	3638	3667	3908
Fuel Used (gal)	121.0	124.5	122.7	128.2	124.0	122.8	129.2

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1962	2003	1967	1994
Vehs Exited	1997	2001	1949	1987
Starting Vehs	464	472	430	456
Ending Vehs	429	474	448	464
Denied Entry Before	529	462	606	531
Denied Entry After	698	618	780	736
Travel Distance (mi)	2010	2044	1951	2009
Travel Time (hr)	262.9	252.8	283.7	274.4
Total Delay (hr)	211.1	200.0	233.3	222.6
Total Stops	3598	3707	3459	3649
Fuel Used (gal)	121.8	120.2	123.8	123.8

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2040	1975	1967	1968	1940	1984	2007
Vehs Exited	2055	1952	1984	1982	2009	2055	2047
Starting Vehs	475	459	460	452	485	497	488
Ending Vehs	460	482	443	438	416	426	448
Denied Entry Before	698	773	717	832	743	746	760
Denied Entry After	895	996	947	1008	948	953	970
Travel Distance (mi)	2028	2008	1987	1971	1996	1967	2040
Travel Time (hr)	318.6	336.6	324.3	340.9	323.1	332.2	334.8
Total Delay (hr)	266.2	285.1	273.0	290.1	271.7	280.9	282.1
Total Stops	3702	3697	3588	3620	3564	3703	3834
Fuel Used (gal)	134.9	138.1	135.5	137.5	134.7	135.7	138.4

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2005	1933	2006	1983
Vehs Exited	2021	2022	2003	2014
Starting Vehs	429	474	448	464
Ending Vehs	413	385	451	434
Denied Entry Before	698	618	780	736
Denied Entry After	924	851	952	944
Travel Distance (mi)	2040	1990	2012	2004
Travel Time (hr)	314.4	295.5	331.8	325.2
Total Delay (hr)	261.8	244.0	279.9	273.5
Total Stops	3683	3381	3786	3656
Fuel Used (gal)	133.7	127.9	137.9	135.4

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.4	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	4.0	0.2	0.1	0.2	0.2	0.2	0.8	4.2	0.0	0.2	8.3	5.2
Total Del/Veh (s)	52.1	59.5	43.0	68.6	63.6	25.4	61.6	12.5	10.6	65.3	21.5	29.0
Stop Delay (hr)	3.5	0.2	0.1	0.2	0.2	0.1	0.7	1.8	0.0	0.2	3.3	1.9
Stop Del/Veh (s)	46.3	51.4	38.4	66.3	60.8	24.4	57.5	5.4	5.8	60.7	8.6	10.6
Total Stops	244	10	8	10	10	21	41	331	3	8	505	310
Stop/Veh	0.89	0.91	0.89	0.91	0.91	0.95	0.91	0.27	0.27	0.89	0.36	0.48
Vehicles Entered	267	11	9	10	11	22	44	1205	11	9	1370	634
Vehicles Exited	271	11	9	11	11	22	43	1197	11	8	1354	633
Hourly Exit Rate	271	11	9	11	11	22	43	1197	11	8	1354	633
Input Volume	264	10	10	10	10	20	40	1206	10	10	1672	760
% of Volume	103	107	88	107	107	109	106	99	107	78	81	83
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	23.5
Total Del/Veh (s)	23.1
Stop Delay (hr)	12.2
Stop Del/Veh (s)	12.0
Total Stops	1501
Stop/Veh	0.41
Vehicles Entered	3603
Vehicles Exited	3581
Hourly Exit Rate	3581
Input Volume	4024
% of Volume	89
Denied Entry Before	0
Denied Entry After	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.0	0.0	91.9	33.9	15.6	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.4	0.2	0.2	419.0	417.0	422.6	0.0	0.0	0.0	0.1	0.0	0.1
Total Delay (hr)	3.2	2.2	0.4	28.3	3.1	0.3	7.8	6.6	1.0	1.7	13.3	1.7
Total Del/Veh (s)	56.3	46.9	22.6	156.6	49.0	9.5	220.6	24.8	8.9	57.0	36.5	18.4
Stop Delay (hr)	2.8	1.8	0.3	25.3	2.6	0.2	7.7	5.1	0.7	1.5	8.3	0.8
Stop Del/Veh (s)	50.5	38.1	19.6	140.0	41.2	7.3	217.9	19.0	6.1	51.1	22.7	8.3
Total Stops	187	132	50	1106	180	74	137	530	244	100	849	208
Stop/Veh	0.92	0.79	0.78	1.70	0.79	0.73	1.08	0.55	0.58	0.92	0.65	0.62
Vehicles Entered	198	164	63	622	224	102	122	952	417	106	1290	334
Vehicles Exited	200	164	63	622	225	102	114	952	419	106	1305	336
Hourly Exit Rate	200	164	63	622	225	102	114	952	419	106	1305	336
Input Volume	203	162	61	790	294	122	122	953	416	132	1570	395
% of Volume	99	101	104	79	77	84	94	100	101	80	83	85
Denied Entry Before	0	0	0	8	3	1	0	0	0	0	0	0
Denied Entry After	0	0	0	168	69	31	0	0	0	0	0	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	All
Denied Delay (hr)	141.7
Denied Del/Veh (s)	104.9
Total Delay (hr)	69.6
Total Del/Veh (s)	53.5
Stop Delay (hr)	57.1
Stop Del/Veh (s)	43.9
Total Stops	3797
Stop/Veh	0.81
Vehicles Entered	4594
Vehicles Exited	4608
Hourly Exit Rate	4608
Input Volume	5218
% of Volume	88
Denied Entry Before	12
Denied Entry After	268

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	4.1	3.4	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.5	0.1	2.0	0.7	2.6	1.3	11.4	0.6	12.8	8.5	0.6
Total Del/Veh (s)	79.5	83.5	18.3	79.9	81.2	29.2	89.9	40.0	14.1	64.7	18.7	7.3
Stop Delay (hr)	0.5	0.5	0.1	1.9	0.7	2.4	1.2	7.6	0.5	10.2	3.6	0.2
Stop Del/Veh (s)	77.0	79.8	17.8	74.7	75.1	26.6	84.6	26.7	11.1	51.2	8.0	2.4
Total Stops	20	20	10	89	30	302	48	583	84	551	547	96
Stop/Veh	0.91	0.91	0.91	0.98	0.94	0.95	0.92	0.57	0.53	0.77	0.34	0.31
Vehicles Entered	22	22	11	90	31	315	51	1014	158	696	1606	307
Vehicles Exited	22	22	11	90	31	315	50	997	158	695	1589	305
Hourly Exit Rate	22	22	11	90	31	315	50	997	158	695	1589	305
Input Volume	20	20	10	91	30	314	51	1034	162	861	1956	375
% of Volume	109	109	107	99	102	100	99	96	98	81	81	81
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	41.6
Total Del/Veh (s)	34.2
Stop Delay (hr)	29.2
Stop Del/Veh (s)	24.0
Total Stops	2380
Stop/Veh	0.54
Vehicles Entered	4323
Vehicles Exited	4285
Hourly Exit Rate	4285
Input Volume	4925
% of Volume	87
Denied Entry Before	0
Denied Entry After	0

6: Latrobe Road & US-50 EB Ramps Performance by movement

Movement	EBR	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	372.3	0.0	0.0	0.0	0.0	0.0	372.4
Denied Del/Veh (s)	752.6	0.4	0.0	0.0	0.0	0.0	254.3
Total Delay (hr)	22.2	0.4	3.4	0.6	4.2	26.1	56.8
Total Del/Veh (s)	70.7	3.3	11.0	8.6	61.4	61.1	43.8
Stop Delay (hr)	19.0	0.0	1.4	0.2	3.3	18.6	42.5
Stop Del/Veh (s)	60.5	0.0	4.6	2.6	48.5	43.7	32.7
Total Stops	771	0	316	64	308	1611	3070
Stop/Veh	0.68	0.00	0.29	0.26	1.25	1.05	0.66
Vehicles Entered	1105	407	1094	240	242	1507	4595
Vehicles Exited	1103	409	1097	243	242	1506	4600
Hourly Exit Rate	1103	409	1097	243	242	1506	4600
Input Volume	1692	405	1125	243	243	1500	5209
% of Volume	65	101	97	100	99	100	88
Denied Entry Before	72	0	0	0	0	0	72
Denied Entry After	676	0	0	0	0	0	676

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
Denied Del/Veh (s)	0.1	0.2	0.4	3.8	0.5	0.2	0.0	0.0	0.0	2.4	1.1	1.5
Total Delay (hr)	2.4	1.2	0.7	2.2	1.4	0.0	10.0	5.3	0.5	0.9	13.1	7.8
Total Del/Veh (s)	49.0	47.8	5.0	73.0	72.4	4.3	58.8	24.8	13.0	63.5	41.8	34.4
Stop Delay (hr)	2.2	1.0	0.0	2.1	1.3	0.0	8.2	3.3	0.3	0.8	9.0	5.1
Stop Del/Veh (s)	44.2	40.2	0.0	69.4	67.7	3.9	48.3	15.8	6.0	55.7	28.9	22.8
Total Stops	151	67	1	105	70	38	658	486	99	58	917	795
Stop/Veh	0.86	0.77	0.00	0.95	0.99	0.93	1.07	0.64	0.65	1.16	0.82	0.98
Vehicles Entered	171	85	522	108	70	41	600	754	151	48	1115	802
Vehicles Exited	171	85	522	108	70	41	604	757	151	49	1119	804
Hourly Exit Rate	171	85	522	108	70	41	604	757	151	49	1119	804
Input Volume	182	81	517	112	71	40	618	760	152	51	1114	800
% of Volume	94	105	101	97	99	101	98	100	99	97	100	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	All
Denied Delay (hr)	0.9
Denied Del/Veh (s)	0.7
Total Delay (hr)	45.5
Total Del/Veh (s)	36.2
Stop Delay (hr)	33.4
Stop Del/Veh (s)	26.6
Total Stops	3445
Stop/Veh	0.76
Vehicles Entered	4467
Vehicles Exited	4481
Hourly Exit Rate	4481
Input Volume	4499
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

Total Zone Performance

Denied Delay (hr)	515.2
Denied Del/Veh (s)	241.7
Total Delay (hr)	237.0
Total Del/Veh (s)	2204.3
Stop Delay (hr)	174.5
Stop Del/Veh (s)	1623.2
Total Stops	14193
Stop/Veh	36.67
Vehicles Entered	6730
Vehicles Exited	35
Hourly Exit Rate	35
Input Volume	23875
% of Volume	0
Denied Entry Before	84
Denied Entry After	944

Intersection						
Int Delay, s/veh	0					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	TT		TT		TT	TT
Traffic Vol, veh/h	0	4	1320	0	2	850
Future Vol, veh/h	0	4	1320	0	2	850
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	230	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	1389	0	2	895

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1841	695	0	0	1389
Stage 1	1389	-	-	-	-
Stage 2	452	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	67	385	-	-	489
Stage 1	196	-	-	-	-
Stage 2	608	-	-	-	-
Platoon blocked, %					
Mov Cap-1 Maneuver	67	385	-	-	489
Mov Cap-2 Maneuver	67	-	-	-	-
Stage 1	195	-	-	-	-
Stage 2	608	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	385	489
HCM Lane V/C Ratio	-	-	0.011	0.004
HCM Control Delay (s)	-	-	14.5	12.4
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th Signalized Intersection Summary
 2: Latrobe Road & Suncastr Lane

2040
 Timing Plan: PM PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Volume (veh/h)	330	50	10	1310	790	150	
Future Volume (veh/h)	330	50	10	1310	790	150	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	347	53	11	1379	832	158	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	426	379	25	2100	2196	414	
Arrive On Green	0.24	0.24	0.01	0.59	0.51	0.51	
Sat Flow, veh/h	1781	1585	1781	3647	4482	814	
Grp Volume(v), veh/h	347	53	11	1379	655	335	
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1702	1724	
Q Serve(g_s), s	10.8	1.5	0.4	15.2	6.9	7.0	
Cycle Q Clear(g_c), s	10.8	1.5	0.4	15.2	6.9	7.0	
Prop In Lane	1.00	1.00	1.00			0.47	
Lane Grp Cap(c), veh/h	426	379	25	2100	1732	877	
V/C Ratio(X)	0.82	0.14	0.44	0.66	0.38	0.38	
Avail Cap(c_a), veh/h	1030	917	152	3446	2780	1408	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.1	17.6	28.7	8.0	8.8	8.8	
Incr Delay (d2), s/veh	3.9	0.2	4.5	0.5	0.2	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	4.7	0.6	0.2	3.2	1.7	1.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	25.0	17.8	33.3	8.5	9.0	9.2	
LnGrp LOS	C	B	C	A	A	A	
Approach Vol, veh/h	400			1390	990		
Approach Delay, s/veh	24.0			8.7	9.0		
Approach LOS	C			A	A		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		40.7			4.8	35.9	18.0
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0
Max Green Setting (Gmax), s		57.0			5.0	48.0	34.0
Max Q Clear Time (g_c+I1), s		17.2			2.4	9.0	12.8
Green Ext Time (p_c), s		17.5			0.0	10.0	1.2
Intersection Summary							
HCM 6th Ctrl Delay			11.0				
HCM 6th LOS			B				

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	3:50	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	9006	9007	9006	9096	9236	9168	8984
Vehs Exited	8763	8765	8810	8830	8983	8998	8797
Starting Vehs	522	473	502	489	551	499	472
Ending Vehs	765	715	698	755	804	669	659
Denied Entry Before	17	13	29	16	13	6	27
Denied Entry After	600	623	511	488	562	490	641
Travel Distance (mi)	8036	8103	8076	8236	8247	8280	8113
Travel Time (hr)	985.2	940.5	921.1	840.2	969.7	832.0	903.4
Total Delay (hr)	771.5	725.4	706.4	621.7	751.0	612.2	688.1
Total Stops	20278	19382	20010	19706	21285	19583	19627
Fuel Used (gal)	469.5	462.0	458.4	443.8	471.7	443.3	453.2

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	9008	9099	9141	9072
Vehs Exited	8855	8799	8929	8853
Starting Vehs	550	505	507	501
Ending Vehs	703	805	719	726
Denied Entry Before	23	27	2	15
Denied Entry After	556	433	550	544
Travel Distance (mi)	8059	8274	8286	8171
Travel Time (hr)	1015.9	883.6	955.2	924.7
Total Delay (hr)	801.4	664.8	735.3	707.8
Total Stops	20516	20954	21013	20237
Fuel Used (gal)	478.2	455.9	470.3	460.6

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2433	2431	2370	2447	2406	2377	2384
Vehs Exited	2224	2159	2256	2269	2264	2291	2236
Starting Vehs	522	473	502	489	551	499	472
Ending Vehs	731	745	616	667	693	585	620
Denied Entry Before	17	13	29	16	13	6	27
Denied Entry After	158	113	107	76	151	92	119
Travel Distance (mi)	2123	2090	2094	2155	2099	2058	2068
Travel Time (hr)	175.9	167.3	156.8	161.1	174.5	150.4	162.6
Total Delay (hr)	119.9	112.3	101.2	104.2	118.8	95.6	107.5
Total Stops	5186	4862	4613	5047	5095	4640	4756
Fuel Used (gal)	105.1	101.6	100.0	102.7	103.3	97.5	99.9

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2356	2365	2440	2399
Vehs Exited	2189	2197	2188	2226
Starting Vehs	550	505	507	501
Ending Vehs	717	673	759	681
Denied Entry Before	23	27	2	15
Denied Entry After	183	76	129	120
Travel Distance (mi)	2033	2088	2138	2095
Travel Time (hr)	181.0	165.7	176.7	167.2
Total Delay (hr)	127.1	110.7	120.3	111.8
Total Stops	4993	5094	5131	4942
Fuel Used (gal)	103.9	102.3	105.6	102.2

Interval #2 Information

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2165	2144	2237	2282	2382	2238	2185
Vehs Exited	2242	2277	2161	2269	2307	2254	2185
Starting Vehs	731	745	616	667	693	585	620
Ending Vehs	654	612	692	680	768	569	620
Denied Entry Before	158	113	107	76	151	92	119
Denied Entry After	316	294	291	121	234	219	280
Travel Distance (mi)	1976	2025	1994	2066	2117	2118	2055
Travel Time (hr)	232.4	217.7	206.1	183.8	223.4	191.3	202.8
Total Delay (hr)	179.5	163.7	153.6	128.9	167.4	135.3	148.6
Total Stops	5239	4923	4897	4965	5542	4835	4951
Fuel Used (gal)	112.8	111.1	107.5	105.5	115.3	108.3	108.7

Interval #2 Information

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2298	2199	2263	2239
Vehs Exited	2241	2214	2290	2245
Starting Vehs	717	673	759	681
Ending Vehs	774	658	732	678
Denied Entry Before	183	76	129	120
Denied Entry After	327	191	243	250
Travel Distance (mi)	2090	2044	2055	2054
Travel Time (hr)	254.9	198.6	223.8	213.5
Total Delay (hr)	199.1	144.3	169.1	159.0
Total Stops	5385	5263	5248	5124
Fuel Used (gal)	122.2	107.7	112.8	111.2

Interval #3 Information

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2195	2247	2208	2208	2241	2233	2209
Vehs Exited	2137	2180	2164	2203	2237	2220	2181
Starting Vehs	654	612	692	680	768	569	620
Ending Vehs	712	679	736	685	772	582	648
Denied Entry Before	316	294	291	121	234	219	280
Denied Entry After	451	450	398	277	363	351	412
Travel Distance (mi)	1968	2015	1987	2053	2034	2045	2005
Travel Time (hr)	266.8	255.2	258.1	219.3	264.5	219.1	245.4
Total Delay (hr)	214.7	201.6	205.0	164.7	210.4	165.0	192.1
Total Stops	4901	4754	5088	4799	5361	4725	4913
Fuel Used (gal)	120.5	120.1	120.9	112.7	122.1	112.6	117.4

Interval #3 Information

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2141	2179	2250	2209
Vehs Exited	2216	2144	2236	2191
Starting Vehs	774	658	732	678
Ending Vehs	699	693	746	690
Denied Entry Before	327	191	243	250
Denied Entry After	456	330	371	385
Travel Distance (mi)	1968	1988	2064	2013
Travel Time (hr)	280.7	233.2	254.9	249.7
Total Delay (hr)	228.2	180.4	199.7	196.2
Total Stops	5171	4848	5210	4977
Fuel Used (gal)	123.8	114.6	121.5	118.6

Interval #4 Information

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2213	2185	2191	2159	2207	2320	2206
Vehs Exited	2160	2149	2229	2089	2175	2233	2195
Starting Vehs	712	679	736	685	772	582	648
Ending Vehs	765	715	698	755	804	669	659
Denied Entry Before	451	450	398	277	363	351	412
Denied Entry After	600	623	511	488	562	490	641
Travel Distance (mi)	1969	1974	2001	1962	1996	2059	1985
Travel Time (hr)	310.2	300.2	300.1	276.0	307.3	271.1	292.6
Total Delay (hr)	257.4	247.7	246.6	223.9	254.4	216.3	239.8
Total Stops	4952	4843	5412	4895	5287	5383	5007
Fuel Used (gal)	131.1	129.1	130.0	122.9	130.9	124.9	127.2

Interval #4 Information

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2213	2356	2188	2224
Vehs Exited	2209	2244	2215	2188
Starting Vehs	699	693	746	690
Ending Vehs	703	805	719	726
Denied Entry Before	456	330	371	385
Denied Entry After	556	433	550	544
Travel Distance (mi)	1968	2154	2029	2010
Travel Time (hr)	299.4	286.1	299.8	294.3
Total Delay (hr)	247.1	229.5	246.2	240.9
Total Stops	4967	5749	5424	5191
Fuel Used (gal)	128.3	131.3	130.4	128.6

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	126.9	3.4	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	618.9	635.7	619.6	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	24.7	0.7	1.4	0.2	0.2	0.1	2.0	18.1	0.3	0.4	5.5	2.1
Total Del/Veh (s)	178.0	206.4	176.7	80.8	72.0	41.1	75.9	41.1	57.3	79.9	24.4	22.5
Stop Delay (hr)	22.4	0.6	1.3	0.2	0.2	0.1	1.8	11.2	0.3	0.4	3.5	1.3
Stop Del/Veh (s)	161.4	187.3	160.6	78.8	69.4	40.3	68.2	25.3	42.9	76.7	15.6	13.7
Total Stops	644	16	38	10	10	10	87	879	15	18	358	164
Stop/Veh	1.29	1.33	1.31	0.91	0.91	0.91	0.90	0.55	0.71	0.90	0.44	0.49
Vehicles Entered	481	12	28	10	10	10	94	1562	21	19	802	331
Vehicles Exited	473	12	28	11	11	11	95	1532	20	20	793	327
Hourly Exit Rate	473	12	28	11	11	11	95	1532	20	20	793	327
Input Volume	719	20	40	10	10	10	91	1560	20	20	882	365
% of Volume	66	59	69	107	107	107	104	98	99	99	90	90
Denied Entry Before	14	0	1	0	0	0	0	0	0	0	0	0
Denied Entry After	257	7	14	0	0	0	0	0	0	0	0	0

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	All
Denied Delay (hr)	137.5
Denied Del/Veh (s)	135.3
Total Delay (hr)	56.0
Total Del/Veh (s)	58.4
Stop Delay (hr)	43.4
Stop Del/Veh (s)	45.3
Total Stops	2249
Stop/Veh	0.65
Vehicles Entered	3380
Vehicles Exited	3333
Hourly Exit Rate	3333
Input Volume	3749
% of Volume	89
Denied Entry Before	15
Denied Entry After	278

4: Latrobe Road & White Rock Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	2.7	4.0	0.6	43.8	26.1	23.2	0.2	3.6	3.4	0.3	0.6	0.1
Denied Del/Veh (s)	24.6	22.5	22.0	334.4	328.8	337.3	10.2	11.2	16.2	4.7	3.4	2.1
Total Delay (hr)	42.8	16.1	2.1	30.9	3.7	0.7	1.3	11.3	14.7	32.7	5.4	0.9
Total Del/Veh (s)	384.3	90.9	77.6	276.1	55.2	11.7	68.4	34.8	68.6	423.3	29.6	12.7
Stop Delay (hr)	40.7	12.1	1.7	29.4	3.1	0.5	1.3	8.7	11.9	31.9	3.8	0.5
Stop Del/Veh (s)	365.6	68.3	63.6	262.2	46.9	8.5	65.2	26.9	55.4	413.2	21.0	7.7
Total Stops	672	778	105	673	181	125	64	742	639	400	350	129
Stop/Veh	1.68	1.22	1.06	1.67	0.76	0.62	0.91	0.64	0.83	1.44	0.53	0.52
Vehicles Entered	381	617	96	382	233	199	68	1155	756	265	650	246
Vehicles Exited	346	621	96	368	234	200	69	1154	753	226	649	244
Hourly Exit Rate	346	621	96	368	234	200	69	1154	753	226	649	244
Input Volume	395	628	101	466	294	253	81	1327	912	274	658	243
% of Volume	88	99	95	79	80	79	85	87	83	83	99	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	9	15	3	90	53	49	1	9	7	1	2	1

4: Latrobe Road & White Rock Road Performance by movement

Movement	All
Denied Delay (hr)	108.8
Denied Del/Veh (s)	74.1
Total Delay (hr)	162.5
Total Del/Veh (s)	113.1
Stop Delay (hr)	145.6
Stop Del/Veh (s)	101.4
Total Stops	4858
Stop/Veh	0.94
Vehicles Entered	5048
Vehicles Exited	4960
Hourly Exit Rate	4960
Input Volume	5633
% of Volume	88
Denied Entry Before	0
Denied Entry After	240

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.4	3.3	5.4	2.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	10.0	0.7	0.3	2.7	0.3	11.7	0.2	28.5	0.6	13.6	5.2	0.0
Total Del/Veh (s)	97.8	61.0	13.8	102.1	113.3	65.9	101.9	65.5	12.7	75.1	19.2	3.2
Stop Delay (hr)	9.2	0.7	0.3	2.6	0.3	11.3	0.2	19.2	0.5	11.4	3.2	0.0
Stop Del/Veh (s)	90.6	57.2	13.0	96.5	109.0	63.7	93.1	44.0	9.9	62.9	11.9	1.7
Total Stops	452	36	76	124	9	656	9	1287	99	576	367	19
Stop/Veh	1.23	0.84	0.84	1.29	1.00	1.02	1.12	0.82	0.60	0.88	0.38	0.41
Vehicles Entered	358	42	90	94	9	627	8	1528	164	636	960	45
Vehicles Exited	356	42	89	91	9	627	8	1524	163	637	967	45
Hourly Exit Rate	356	42	89	91	9	627	8	1524	163	637	967	45
Input Volume	365	40	91	91	10	628	10	1773	192	658	973	40
% of Volume	98	104	98	100	88	100	78	86	85	97	99	111
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	4	0	0	0	0	0	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.8
Denied Del/Veh (s)	0.6
Total Delay (hr)	73.9
Total Del/Veh (s)	57.1
Stop Delay (hr)	58.8
Stop Del/Veh (s)	45.5
Total Stops	3710
Stop/Veh	0.80
Vehicles Entered	4561
Vehicles Exited	4558
Hourly Exit Rate	4558
Input Volume	4874
% of Volume	94
Denied Entry Before	0
Denied Entry After	4

6: Latrobe Road & US-50 EB Ramps Performance by movement

Movement	EBR	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.2	0.2	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	0.7	0.8	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	7.1	1.2	6.0	1.2	3.4	7.5	26.4
Total Del/Veh (s)	30.6	5.7	10.4	9.8	53.4	32.2	18.2
Stop Delay (hr)	4.9	0.0	1.5	0.3	2.7	4.6	14.1
Stop Del/Veh (s)	21.3	0.0	2.6	2.1	43.1	19.9	9.7
Total Stops	676	8	438	99	220	621	2062
Stop/Veh	0.81	0.01	0.21	0.23	0.96	0.74	0.40
Vehicles Entered	823	778	2076	432	222	830	5161
Vehicles Exited	818	778	2075	432	219	825	5147
Hourly Exit Rate	818	778	2075	432	219	825	5147
Input Volume	821	780	2270	496	233	852	5453
% of Volume	100	100	91	87	94	97	94
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.7	5.2	3.4
Denied Del/Veh (s)	0.1	0.2	0.2	4.1	1.2	0.6	0.0	0.0	0.0	32.0	26.1	25.6
Total Delay (hr)	2.3	1.4	0.1	3.6	2.0	0.1	21.0	8.7	1.4	2.8	20.0	4.5
Total Del/Veh (s)	65.1	70.7	3.0	68.1	89.5	5.0	64.3	22.4	15.9	125.1	99.1	34.9
Stop Delay (hr)	2.2	1.2	0.0	3.4	1.9	0.1	15.9	4.4	0.5	2.6	17.2	3.6
Stop Del/Veh (s)	60.2	62.3	0.0	64.1	84.9	4.4	48.6	11.3	5.9	114.8	85.3	27.6
Total Stops	130	66	0	197	79	65	1484	889	236	123	963	519
Stop/Veh	1.01	0.94	0.00	1.03	0.96	0.90	1.26	0.63	0.74	1.52	1.33	1.11
Vehicles Entered	128	68	158	189	79	71	1155	1382	315	78	707	464
Vehicles Exited	127	69	158	187	79	71	1144	1380	314	78	706	466
Hourly Exit Rate	127	69	158	187	79	71	1144	1380	314	78	706	466
Input Volume	132	71	162	192	81	71	1236	1470	344	81	730	466
% of Volume	96	97	98	97	98	100	93	94	91	96	97	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	1	13	8

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	All
Denied Delay (hr)	9.6
Denied Del/Veh (s)	7.1
Total Delay (hr)	68.1
Total Del/Veh (s)	50.3
Stop Delay (hr)	53.0
Stop Del/Veh (s)	39.1
Total Stops	4751
Stop/Veh	0.97
Vehicles Entered	4794
Vehicles Exited	4779
Hourly Exit Rate	4779
Input Volume	5036
% of Volume	95
Denied Entry Before	0
Denied Entry After	22

Total Zone Performance

Denied Delay (hr)	256.9
Denied Del/Veh (s)	117.8
Total Delay (hr)	386.8
Total Del/Veh (s)	2408.9
Stop Delay (hr)	314.9
Stop Del/Veh (s)	1961.1
Total Stops	17630
Stop/Veh	30.50
Vehicles Entered	7304
Vehicles Exited	5
Hourly Exit Rate	5
Input Volume	24745
% of Volume	0
Denied Entry Before	15
Denied Entry After	544

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	21	1190	2	22	1370
Future Vol, veh/h	2	21	1190	2	22	1370
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	230	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	22	1253	2	23	1442

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	2021	628	0	0	1255
Stage 1	1254	-	-	-	-
Stage 2	767	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	50	426	-	-	550
Stage 1	232	-	-	-	-
Stage 2	419	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	48	426	-	-	550
Mov Cap-2 Maneuver	48	-	-	-	-
Stage 1	222	-	-	-	-
Stage 2	419	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.7	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	253	550
HCM Lane V/C Ratio	-	-	0.096	0.042
HCM Control Delay (s)	-	-	20.7	11.8
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.3	0.1

HCM 6th Signalized Intersection Summary
2: Latrobe Road & Suncast Lane

2040 plus Project
Timing Plan: AM PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Volume (veh/h)	70	10	20	1189	1389	280	
Future Volume (veh/h)	70	10	20	1189	1389	280	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	74	11	21	1252	1462	295	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	137	122	46	2374	2302	463	
Arrive On Green	0.08	0.08	0.03	0.67	0.54	0.54	
Sat Flow, veh/h	1781	1585	1781	3647	4431	858	
Grp Volume(v), veh/h	74	11	21	1252	1167	590	
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1702	1716	
Q Serve(g_s), s	1.6	0.3	0.5	7.1	9.4	9.5	
Cycle Q Clear(g_c), s	1.6	0.3	0.5	7.1	9.4	9.5	
Prop In Lane	1.00	1.00	1.00			0.50	
Lane Grp Cap(c), veh/h	137	122	46	2374	1839	927	
V/C Ratio(X)	0.54	0.09	0.45	0.53	0.63	0.64	
Avail Cap(c_a), veh/h	863	768	318	6521	5292	2668	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	17.4	16.8	18.8	3.3	6.3	6.3	
Incr Delay (d2), s/veh	3.3	0.3	2.5	0.3	0.1	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.2	0.1	0.9	1.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.7	17.1	21.4	3.6	6.4	6.6	
LnGrp LOS	C	B	C	A	A	A	
Approach Vol, veh/h	85			1273	1757		
Approach Delay, s/veh	20.3			3.9	6.5		
Approach LOS	C			A	A		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		32.2			5.0	27.2	7.0
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0
Max Green Setting (Gmax), s		72.0			7.0	61.0	19.0
Max Q Clear Time (g_c+I1), s		9.1			2.5	11.5	3.6
Green Ext Time (p_c), s		17.1			0.0	3.9	0.2
Intersection Summary							
HCM 6th Ctrl Delay			5.8				
HCM 6th LOS			A				

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	6:50	6:50	6:50	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	8024	8189	8172	8061	8077	8035	8174
Vehs Exited	8031	8187	8173	7979	8023	8043	8179
Starting Vehs	478	463	439	396	445	443	443
Ending Vehs	471	465	438	478	499	435	438
Denied Entry Before	103	91	102	108	98	102	90
Denied Entry After	998	821	957	963	983	964	887
Travel Distance (mi)	8095	8276	8234	8095	8144	8073	8235
Travel Time (hr)	976.4	932.2	1014.1	996.0	1018.7	997.1	968.6
Total Delay (hr)	767.5	718.8	802.1	787.9	808.5	789.0	756.6
Total Stops	14458	15309	15006	14750	14918	15159	15549
Fuel Used (gal)	468.4	464.9	482.0	473.1	480.2	473.6	473.5

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	6:50	6:50	6:50	6:50
End Time	8:00	8:00	8:00	8:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	7941	7973	8027	8066
Vehs Exited	7898	7968	8091	8056
Starting Vehs	414	452	452	439
Ending Vehs	457	457	388	445
Denied Entry Before	107	76	97	96
Denied Entry After	975	909	888	933
Travel Distance (mi)	7980	8038	8139	8131
Travel Time (hr)	965.4	978.4	959.7	980.7
Total Delay (hr)	759.1	771.3	749.0	771.0
Total Stops	14345	14433	14712	14865
Fuel Used (gal)	464.8	468.1	466.4	471.5

Interval #0 Information Seeding

Start Time	6:50
End Time	7:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1986	2086	2031	2033	1941	1978	2069
Vehs Exited	2043	2054	2013	1976	1931	1971	2015
Starting Vehs	478	463	439	396	445	443	443
Ending Vehs	421	495	457	453	455	450	497
Denied Entry Before	103	91	102	108	98	102	90
Denied Entry After	272	266	334	297	273	243	274
Travel Distance (mi)	2022	2119	2059	2003	1943	1968	2067
Travel Time (hr)	155.5	162.6	166.3	163.6	157.7	158.4	162.4
Total Delay (hr)	103.2	108.3	113.4	112.0	107.3	107.8	109.4
Total Stops	3567	4016	3524	3593	3417	3834	3777
Fuel Used (gal)	97.6	101.9	100.5	98.6	94.9	96.1	100.5

Interval #1 Information Recording

Start Time	7:00
End Time	7:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2002	1976	1975	2007
Vehs Exited	1936	1969	2002	1992
Starting Vehs	414	452	452	439
Ending Vehs	480	459	425	458
Denied Entry Before	107	76	97	96
Denied Entry After	230	279	289	276
Travel Distance (mi)	2011	2005	2046	2024
Travel Time (hr)	159.6	153.2	160.3	160.0
Total Delay (hr)	107.7	101.6	107.8	107.9
Total Stops	3743	3422	3603	3646
Fuel Used (gal)	97.6	96.6	98.6	98.3

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2039	2050	2064	2036	2073	2032	2104
Vehs Exited	2002	2081	2026	2040	2063	2014	2081
Starting Vehs	421	495	457	453	455	450	497
Ending Vehs	458	464	495	449	465	468	520
Denied Entry Before	272	266	334	297	273	243	274
Denied Entry After	504	438	569	534	536	555	520
Travel Distance (mi)	1997	2066	2048	2047	2071	2105	2100
Travel Time (hr)	213.3	213.1	229.0	221.4	225.6	221.7	229.6
Total Delay (hr)	161.5	159.6	176.4	168.8	172.1	167.7	175.6
Total Stops	3549	3929	3801	3764	3760	3831	4223
Fuel Used (gal)	109.2	111.5	114.6	112.6	114.2	114.8	116.9

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2078	2017	2074	2054
Vehs Exited	2093	2018	2031	2046
Starting Vehs	480	459	425	458
Ending Vehs	465	458	468	465
Denied Entry Before	230	279	289	276
Denied Entry After	512	559	525	524
Travel Distance (mi)	2052	2051	2031	2057
Travel Time (hr)	214.0	226.0	218.5	221.2
Total Delay (hr)	160.8	173.4	165.8	168.2
Total Stops	3831	3672	3584	3793
Fuel Used (gal)	112.2	113.7	111.8	113.2

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1993	2063	2035	1983	2043	1972	1986
Vehs Exited	1981	2047	2050	2004	2040	1973	2047
Starting Vehs	458	464	495	449	465	468	520
Ending Vehs	470	480	480	428	468	467	459
Denied Entry Before	504	438	569	534	536	555	520
Denied Entry After	743	634	767	771	807	791	685
Travel Distance (mi)	2061	2076	2053	2046	2039	1948	2023
Travel Time (hr)	275.4	257.4	287.1	281.0	290.5	277.8	267.3
Total Delay (hr)	222.6	203.8	234.4	228.4	237.7	227.3	214.7
Total Stops	3745	3760	3938	3591	3971	3691	3858
Fuel Used (gal)	124.7	121.8	128.1	125.6	128.3	122.9	122.5

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1870	1992	1989	1988
Vehs Exited	1940	1993	2033	2012
Starting Vehs	465	458	468	465
Ending Vehs	395	457	424	450
Denied Entry Before	512	559	525	524
Denied Entry After	752	721	698	734
Travel Distance (mi)	1970	1956	2073	2025
Travel Time (hr)	266.3	274.5	270.7	274.8
Total Delay (hr)	215.4	223.7	217.1	222.5
Total Stops	3374	3548	3873	3737
Fuel Used (gal)	120.7	121.7	125.1	124.1

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2006	1990	2042	2009	2020	2053	2015
Vehs Exited	2005	2005	2084	1959	1989	2085	2036
Starting Vehs	470	480	480	428	468	467	459
Ending Vehs	471	465	438	478	499	435	438
Denied Entry Before	743	634	767	771	807	791	685
Denied Entry After	998	821	957	963	983	964	887
Travel Distance (mi)	2016	2016	2075	1999	2091	2052	2045
Travel Time (hr)	332.2	299.2	331.7	330.0	344.8	339.2	309.2
Total Delay (hr)	280.3	247.1	278.0	278.7	291.3	286.2	256.9
Total Stops	3597	3604	3743	3802	3770	3803	3691
Fuel Used (gal)	136.9	129.7	138.7	136.2	142.8	139.8	133.6

Interval #4 Information

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1991	1988	1989	2007
Vehs Exited	1929	1988	2025	2011
Starting Vehs	395	457	424	450
Ending Vehs	457	457	388	445
Denied Entry Before	752	721	698	734
Denied Entry After	975	909	888	933
Travel Distance (mi)	1947	2026	1989	2026
Travel Time (hr)	325.5	324.7	310.2	324.7
Total Delay (hr)	275.2	272.6	258.2	272.5
Total Stops	3397	3791	3652	3682
Fuel Used (gal)	134.3	136.2	130.9	135.9

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.4	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	4.0	0.2	0.1	0.2	0.2	0.2	0.7	4.3	0.0	0.2	8.2	5.0
Total Del/Veh (s)	53.1	58.6	37.8	60.6	64.2	25.8	62.4	12.4	10.1	74.7	21.2	28.3
Stop Delay (hr)	3.6	0.1	0.1	0.2	0.2	0.1	0.6	1.8	0.0	0.2	3.3	1.8
Stop Del/Veh (s)	47.3	51.0	33.4	58.7	61.6	24.8	58.0	5.3	5.1	70.2	8.5	10.3
Total Stops	248	8	9	9	12	20	36	332	3	9	515	309
Stop/Veh	0.91	0.80	0.82	0.90	0.92	0.95	0.90	0.27	0.27	1.00	0.37	0.48
Vehicles Entered	267	10	10	9	13	21	40	1232	11	9	1376	629
Vehicles Exited	271	10	11	10	13	21	39	1221	11	9	1370	625
Hourly Exit Rate	271	10	11	10	13	21	39	1221	11	9	1370	625
Input Volume	264	10	11	11	10	20	42	1223	11	10	1689	760
% of Volume	103	98	98	89	127	104	94	100	98	88	81	82
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	23.3
Total Del/Veh (s)	22.8
Stop Delay (hr)	12.2
Stop Del/Veh (s)	11.9
Total Stops	1510
Stop/Veh	0.41
Vehicles Entered	3627
Vehicles Exited	3611
Hourly Exit Rate	3611
Input Volume	4062
% of Volume	89
Denied Entry Before	0
Denied Entry After	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.0	0.0	84.0	31.6	13.4	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.4	0.2	0.2	385.8	379.4	382.6	0.0	0.0	0.0	0.1	0.0	0.1
Total Delay (hr)	3.1	2.2	0.4	28.5	3.3	0.3	7.9	6.7	1.2	1.8	14.0	1.9
Total Del/Veh (s)	54.1	46.6	25.0	156.7	48.7	9.7	218.6	24.9	9.7	57.9	38.1	19.9
Stop Delay (hr)	2.7	1.8	0.4	25.4	2.7	0.2	7.8	5.1	0.8	1.6	8.7	0.9
Stop Del/Veh (s)	48.3	37.8	21.8	140.1	40.6	7.6	215.6	19.1	6.7	51.8	23.8	9.4
Total Stops	188	134	50	1125	196	74	147	538	259	102	888	219
Stop/Veh	0.93	0.79	0.81	1.72	0.81	0.73	1.13	0.55	0.60	0.93	0.67	0.63
Vehicles Entered	199	165	60	627	237	101	126	962	426	107	1307	344
Vehicles Exited	198	167	61	622	237	101	118	960	429	109	1309	344
Hourly Exit Rate	198	167	61	622	237	101	118	960	429	109	1309	344
Input Volume	203	162	62	793	294	122	124	964	420	132	1584	395
% of Volume	98	103	99	78	81	83	96	100	102	83	83	87
Denied Entry Before	0	0	0	10	4	2	0	0	0	0	0	0
Denied Entry After	0	0	0	157	63	25	0	0	0	0	0	0

4: Latrobe Road & White Rock Road Performance by movement

Movement	All
Denied Delay (hr)	129.2
Denied Del/Veh (s)	94.8
Total Delay (hr)	71.1
Total Del/Veh (s)	54.1
Stop Delay (hr)	58.2
Stop Del/Veh (s)	44.2
Total Stops	3920
Stop/Veh	0.83
Vehicles Entered	4661
Vehicles Exited	4655
Hourly Exit Rate	4655
Input Volume	5252
% of Volume	89
Denied Entry Before	16
Denied Entry After	245

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	3.9	3.4	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	0.5	0.1	2.1	0.8	2.5	1.3	12.0	0.7	12.8	8.6	0.6
Total Del/Veh (s)	74.1	85.5	19.4	81.1	85.3	28.9	92.5	41.2	14.9	65.0	18.8	7.3
Stop Delay (hr)	0.4	0.5	0.1	1.9	0.7	2.3	1.2	8.1	0.5	10.2	3.7	0.2
Stop Del/Veh (s)	71.8	81.6	19.1	76.1	79.1	26.3	87.0	28.0	11.9	51.5	8.0	2.4
Total Stops	17	20	11	92	32	302	48	592	85	550	542	93
Stop/Veh	0.94	0.95	0.85	1.00	0.94	0.96	0.94	0.57	0.52	0.77	0.33	0.30
Vehicles Entered	18	21	13	90	34	309	50	1018	160	692	1622	309
Vehicles Exited	17	21	12	91	34	310	50	1023	160	693	1616	309
Hourly Exit Rate	17	21	12	91	34	310	50	1023	160	693	1616	309
Input Volume	20	20	10	91	30	314	52	1043	163	861	1970	375
% of Volume	84	104	117	100	111	99	97	98	98	80	82	82
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	42.3
Total Del/Veh (s)	34.5
Stop Delay (hr)	29.8
Stop Del/Veh (s)	24.3
Total Stops	2384
Stop/Veh	0.54
Vehicles Entered	4336
Vehicles Exited	4336
Hourly Exit Rate	4336
Input Volume	4950
% of Volume	88
Denied Entry Before	0
Denied Entry After	0

6: Latrobe Road & US-50 EB Ramps Performance by movement

Movement	EBR	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	383.2	0.0	0.0	0.0	0.0	0.0	383.2
Denied Del/Veh (s)	774.0	0.4	0.0	0.0	0.0	0.0	260.0
Total Delay (hr)	22.1	0.4	3.6	0.6	4.2	26.4	57.3
Total Del/Veh (s)	71.2	3.3	11.5	8.7	62.2	60.7	43.9
Stop Delay (hr)	18.9	0.0	1.5	0.2	3.4	18.8	42.7
Stop Del/Veh (s)	60.9	0.0	4.8	2.4	49.3	43.3	32.8
Total Stops	734	0	324	62	304	1617	3041
Stop/Veh	0.66	0.00	0.29	0.25	1.24	1.04	0.65
Vehicles Entered	1094	403	1107	243	240	1530	4617
Vehicles Exited	1091	403	1103	243	240	1532	4612
Hourly Exit Rate	1091	403	1103	243	240	1532	4612
Input Volume	1697	405	1130	247	243	1508	5231
% of Volume	64	99	98	98	99	102	88
Denied Entry Before	80	0	0	0	0	0	80
Denied Entry After	688	0	0	0	0	0	688

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3
Denied Del/Veh (s)	0.1	0.3	0.4	3.8	0.5	0.1	0.0	0.0	0.0	2.4	1.0	1.3
Total Delay (hr)	2.6	1.0	0.8	2.4	1.4	0.0	10.4	5.3	0.6	1.0	13.9	7.9
Total Del/Veh (s)	48.9	44.8	5.1	76.0	70.6	4.3	60.6	25.4	13.2	65.1	43.8	35.7
Stop Delay (hr)	2.3	0.8	0.0	2.3	1.3	0.0	8.6	3.4	0.3	0.9	9.7	5.3
Stop Del/Veh (s)	44.0	37.1	0.0	72.4	65.9	4.0	49.9	16.2	6.3	56.6	30.8	23.9
Total Stops	163	62	1	112	70	38	681	481	100	66	963	798
Stop/Veh	0.86	0.78	0.00	0.97	0.99	0.93	1.10	0.64	0.65	1.20	0.85	1.00
Vehicles Entered	185	77	527	113	70	41	609	743	154	54	1129	792
Vehicles Exited	185	76	527	113	69	40	610	743	154	53	1130	792
Hourly Exit Rate	185	76	527	113	69	40	610	743	154	53	1130	792
Input Volume	182	81	523	112	71	40	620	763	152	51	1116	800
% of Volume	102	94	101	101	97	99	98	97	101	104	101	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	All
Denied Delay (hr)	0.8
Denied Del/Veh (s)	0.7
Total Delay (hr)	47.3
Total Del/Veh (s)	37.5
Stop Delay (hr)	34.9
Stop Del/Veh (s)	27.7
Total Stops	3535
Stop/Veh	0.78
Vehicles Entered	4494
Vehicles Exited	4492
Hourly Exit Rate	4492
Input Volume	4512
% of Volume	100
Denied Entry Before	0
Denied Entry After	0

Total Zone Performance

Denied Delay (hr)	513.5
Denied Del/Veh (s)	240.6
Total Delay (hr)	241.3
Total Del/Veh (s)	2182.5
Stop Delay (hr)	177.9
Stop Del/Veh (s)	1608.8
Total Stops	14390
Stop/Veh	36.16
Vehicles Entered	6751
Vehicles Exited	36
Hourly Exit Rate	36
Input Volume	24007
% of Volume	0
Denied Entry Before	96
Denied Entry After	933

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑↓		↔	↑↑
Traffic Vol, veh/h	2	23	1320	2	21	850
Future Vol, veh/h	2	23	1320	2	21	850
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	230	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	24	1389	2	22	895

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1882	696	0	0	1391
Stage 1	1390	-	-	-	-
Stage 2	492	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	63	384	-	-	488
Stage 1	196	-	-	-	-
Stage 2	580	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	60	384	-	-	488
Mov Cap-2 Maneuver	60	-	-	-	-
Stage 1	187	-	-	-	-
Stage 2	580	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.9	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	268	488
HCM Lane V/C Ratio	-	-	0.098	0.045
HCM Control Delay (s)	-	-	19.9	12.7
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	0.3	0.1

HCM 6th Signalized Intersection Summary
2: Latrobe Road & Suncast Lane

2040 plus Project
Timing Plan: PM PEAK



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Volume (veh/h)	330	50	10	1329	809	150	
Future Volume (veh/h)	330	50	10	1329	809	150	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	
Adj Flow Rate, veh/h	347	53	11	1399	852	158	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	424	378	25	2112	2224	410	
Arrive On Green	0.24	0.24	0.01	0.59	0.51	0.51	
Sat Flow, veh/h	1781	1585	1781	3647	4500	799	
Grp Volume(v), veh/h	347	53	11	1399	668	342	
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1702	1727	
Q Serve(g_s), s	11.0	1.6	0.4	15.7	7.1	7.2	
Cycle Q Clear(g_c), s	11.0	1.6	0.4	15.7	7.1	7.2	
Prop In Lane	1.00	1.00	1.00			0.46	
Lane Grp Cap(c), veh/h	424	378	25	2112	1748	886	
V/C Ratio(X)	0.82	0.14	0.44	0.66	0.38	0.39	
Avail Cap(c_a), veh/h	1014	902	149	3392	2736	1388	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.5	17.9	29.2	8.1	8.8	8.8	
Incr Delay (d2), s/veh	3.9	0.2	4.5	0.5	0.2	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	4.8	0.6	0.2	3.3	1.7	1.8	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	25.5	18.1	33.7	8.6	9.0	9.2	
LnGrp LOS	C	B	C	A	A	A	
Approach Vol, veh/h	400			1410	1010		
Approach Delay, s/veh	24.5			8.8	9.1		
Approach LOS	C			A	A		
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		41.5			4.8	36.7	18.2
Change Period (Y+Rc), s		6.0			4.0	6.0	4.0
Max Green Setting (Gmax), s		57.0			5.0	48.0	34.0
Max Q Clear Time (g_c+I1), s		17.7			2.4	9.2	13.0
Green Ext Time (p_c), s		17.8			0.0	10.3	1.2
Intersection Summary							
HCM 6th Ctrl Delay			11.1				
HCM 6th LOS			B				

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	3:50	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	9156	9196	9071	9277	9158	9213	9152
Vehs Exited	8998	9029	8915	9076	8976	8917	8866
Starting Vehs	528	516	575	523	537	482	503
Ending Vehs	686	683	731	724	719	778	789
Denied Entry Before	24	18	27	23	20	24	5
Denied Entry After	436	544	668	423	580	453	661
Travel Distance (mi)	8191	8310	8167	8381	8398	8334	8244
Travel Time (hr)	877.4	884.3	1000.3	885.1	901.1	888.5	976.0
Total Delay (hr)	659.7	663.2	782.9	662.5	678.9	667.8	758.1
Total Stops	21101	20097	21032	20857	20424	21329	20975
Fuel Used (gal)	451.8	457.5	478.2	457.5	461.3	458.2	474.6

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	9174	9078	9167	9161
Vehs Exited	8974	8755	8913	8939
Starting Vehs	525	503	530	524
Ending Vehs	725	826	784	745
Denied Entry Before	25	7	24	16
Denied Entry After	564	489	511	531
Travel Distance (mi)	8300	8173	8240	8274
Travel Time (hr)	926.8	938.0	987.7	926.5
Total Delay (hr)	706.5	721.4	768.9	707.0
Total Stops	20267	20336	20700	20714
Fuel Used (gal)	464.1	462.8	477.7	464.4

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2445	2425	2421	2424	2412	2400	2428
Vehs Exited	2287	2250	2296	2280	2259	2170	2256
Starting Vehs	528	516	575	523	537	482	503
Ending Vehs	686	691	700	667	690	712	675
Denied Entry Before	24	18	27	23	20	24	5
Denied Entry After	76	101	121	144	69	85	131
Travel Distance (mi)	2056	2114	2105	2088	2106	2116	2180
Travel Time (hr)	159.9	166.5	190.6	171.4	165.6	166.8	169.9
Total Delay (hr)	104.5	110.4	134.5	115.9	109.7	111.1	112.7
Total Stops	5133	5119	5388	4837	5283	5174	5012
Fuel Used (gal)	99.5	103.2	108.0	102.8	102.7	103.4	105.2

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2464	2352	2350	2410
Vehs Exited	2250	2191	2218	2245
Starting Vehs	525	503	530	524
Ending Vehs	739	664	662	683
Denied Entry Before	25	7	24	16
Denied Entry After	129	120	220	118
Travel Distance (mi)	2166	2061	2072	2106
Travel Time (hr)	173.7	158.2	182.3	170.5
Total Delay (hr)	116.4	103.6	127.4	114.6
Total Stops	5027	4857	4899	5073
Fuel Used (gal)	105.5	99.6	104.6	103.5

Interval #2 Information

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2223	2272	2267	2344	2282	2283	2273
Vehs Exited	2208	2310	2240	2304	2293	2259	2309
Starting Vehs	686	691	700	667	690	712	675
Ending Vehs	701	653	727	707	679	736	639
Denied Entry Before	76	101	121	144	69	85	131
Denied Entry After	263	179	239	178	206	159	240
Travel Distance (mi)	2041	2132	2085	2136	2138	2060	2058
Travel Time (hr)	203.3	205.8	222.2	208.0	194.1	201.4	217.0
Total Delay (hr)	149.3	149.2	166.9	151.2	137.4	146.5	161.9
Total Stops	5105	5250	5119	5159	4974	5312	5530
Fuel Used (gal)	109.6	112.6	114.3	112.4	109.1	109.0	111.5

Interval #2 Information

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2235	2266	2285	2271
Vehs Exited	2308	2228	2211	2267
Starting Vehs	739	664	662	683
Ending Vehs	666	702	736	692
Denied Entry Before	129	120	220	118
Denied Entry After	247	271	304	227
Travel Distance (mi)	2100	2065	2072	2089
Travel Time (hr)	213.9	215.8	238.5	212.0
Total Delay (hr)	158.1	161.1	183.6	156.5
Total Stops	5143	4981	5305	5189
Fuel Used (gal)	112.5	110.9	117.8	112.0

Interval #3 Information

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2294	2343	2231	2300	2257	2346	2290
Vehs Exited	2266	2293	2206	2282	2215	2297	2122
Starting Vehs	701	653	727	707	679	736	639
Ending Vehs	729	703	752	725	721	785	807
Denied Entry Before	263	179	239	178	206	159	240
Denied Entry After	275	305	392	258	363	249	400
Travel Distance (mi)	2038	2085	2003	2101	2070	2128	2038
Travel Time (hr)	240.9	237.8	265.6	235.6	244.5	239.3	263.3
Total Delay (hr)	186.7	182.3	212.0	179.9	189.8	183.1	209.9
Total Stops	5465	5048	5411	5556	5016	5751	5329
Fuel Used (gal)	117.6	118.2	122.4	118.2	119.0	119.7	122.5

Interval #3 Information

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2284	2216	2200	2271
Vehs Exited	2283	2203	2268	2241
Starting Vehs	666	702	736	692
Ending Vehs	667	715	668	727
Denied Entry Before	247	271	304	227
Denied Entry After	385	389	439	343
Travel Distance (mi)	2064	2027	2033	2059
Travel Time (hr)	238.6	263.8	266.6	249.6
Total Delay (hr)	183.5	209.8	212.4	194.9
Total Stops	5054	5157	5112	5285
Fuel Used (gal)	117.3	122.7	123.6	120.1

Interval #4 Information

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2194	2156	2152	2209	2207	2184	2161
Vehs Exited	2237	2176	2173	2210	2209	2191	2179
Starting Vehs	729	703	752	725	721	785	807
Ending Vehs	686	683	731	724	719	778	789
Denied Entry Before	275	305	392	258	363	249	400
Denied Entry After	436	544	668	423	580	453	661
Travel Distance (mi)	2056	1980	1973	2056	2083	2030	1968
Travel Time (hr)	273.3	274.2	321.9	270.0	296.9	281.0	325.8
Total Delay (hr)	219.2	221.3	269.5	215.5	241.9	227.1	273.5
Total Stops	5398	4680	5114	5305	5151	5092	5104
Fuel Used (gal)	125.0	123.4	133.5	124.0	130.5	126.1	135.3

Interval #4 Information

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2191	2244	2332	2200
Vehs Exited	2133	2133	2216	2185
Starting Vehs	667	715	668	727
Ending Vehs	725	826	784	745
Denied Entry Before	385	389	439	343
Denied Entry After	564	489	511	531
Travel Distance (mi)	1970	2019	2064	2020
Travel Time (hr)	300.6	300.1	300.3	294.4
Total Delay (hr)	248.4	246.9	245.6	240.9
Total Stops	5043	5341	5384	5161
Fuel Used (gal)	128.8	129.7	131.7	128.8

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	121.8	3.6	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	597.3	617.7	605.6	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	24.3	0.7	1.5	0.2	0.2	0.1	2.0	17.3	0.3	0.4	6.0	2.2
Total Del/Veh (s)	173.1	175.8	166.7	81.7	78.0	46.1	75.5	38.8	53.5	81.9	25.8	24.1
Stop Delay (hr)	21.9	0.7	1.4	0.2	0.2	0.1	1.8	10.4	0.2	0.4	3.8	1.4
Stop Del/Veh (s)	156.1	157.2	150.8	79.6	75.2	45.1	67.9	23.3	38.7	78.6	16.4	14.8
Total Stops	649	17	42	10	8	9	86	848	14	18	378	167
Stop/Veh	1.28	1.13	1.27	1.00	1.00	1.00	0.89	0.53	0.67	0.95	0.45	0.50
Vehicles Entered	489	14	31	10	8	9	94	1577	20	18	820	330
Vehicles Exited	480	14	32	10	8	9	95	1553	20	19	817	328
Hourly Exit Rate	480	14	32	10	8	9	95	1553	20	19	817	328
Input Volume	719	20	42	11	10	10	92	1578	21	20	899	365
% of Volume	67	69	77	89	78	88	103	98	94	94	91	90
Denied Entry Before	14	1	1	0	0	0	0	0	0	0	0	0
Denied Entry After	245	7	15	0	0	0	0	0	0	0	0	0

3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr Performance by movement

Movement	All
Denied Delay (hr)	133.1
Denied Del/Veh (s)	130.0
Total Delay (hr)	55.4
Total Del/Veh (s)	57.1
Stop Delay (hr)	42.5
Stop Del/Veh (s)	43.8
Total Stops	2246
Stop/Veh	0.64
Vehicles Entered	3420
Vehicles Exited	3385
Hourly Exit Rate	3385
Input Volume	3788
% of Volume	89
Denied Entry Before	16
Denied Entry After	267

4: Latrobe Road & White Rock Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	3.0	4.8	0.8	33.6	21.0	17.8	0.1	2.0	2.3	0.4	0.5	0.2
Denied Del/Veh (s)	28.3	27.1	26.0	259.2	263.0	249.0	5.4	6.1	10.9	5.1	2.8	2.5
Total Delay (hr)	43.6	16.1	2.3	30.3	3.7	0.8	1.4	11.9	14.5	35.2	5.7	0.8
Total Del/Veh (s)	403.4	90.6	78.2	268.5	55.7	13.2	69.2	35.6	67.8	443.4	30.9	11.9
Stop Delay (hr)	41.6	11.9	1.9	28.7	3.2	0.6	1.4	9.3	11.7	34.4	4.1	0.5
Stop Del/Veh (s)	384.9	67.4	63.5	254.7	47.0	9.8	65.9	27.7	54.5	433.0	21.9	7.0
Total Stops	660	798	110	678	190	133	68	781	636	417	365	124
Stop/Veh	1.70	1.25	1.03	1.67	0.79	0.61	0.91	0.65	0.82	1.46	0.55	0.52
Vehicles Entered	372	623	105	388	238	217	73	1196	756	272	662	238
Vehicles Exited	327	609	103	374	237	218	74	1193	754	228	658	237
Hourly Exit Rate	327	609	103	374	237	218	74	1193	754	228	658	237
Input Volume	395	628	103	470	294	253	82	1340	915	274	670	243
% of Volume	83	97	100	80	81	86	90	89	82	83	98	97
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	11	16	3	78	49	40	0	4	4	1	2	1

4: Latrobe Road & White Rock Road Performance by movement

Movement	All
Denied Delay (hr)	86.4
Denied Del/Veh (s)	58.2
Total Delay (hr)	166.5
Total Del/Veh (s)	114.1
Stop Delay (hr)	149.2
Stop Del/Veh (s)	102.3
Total Stops	4960
Stop/Veh	0.94
Vehicles Entered	5140
Vehicles Exited	5012
Hourly Exit Rate	5012
Input Volume	5668
% of Volume	88
Denied Entry Before	0
Denied Entry After	209

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.2	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	0.4	3.2	7.6	5.6	7.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	10.8	0.7	0.4	2.6	0.3	11.4	0.2	30.3	0.6	14.4	5.4	0.0
Total Del/Veh (s)	104.1	63.8	14.3	105.2	118.0	65.5	103.8	68.3	13.2	77.9	19.4	3.2
Stop Delay (hr)	10.0	0.7	0.4	2.5	0.3	11.0	0.2	20.4	0.5	12.1	3.4	0.0
Stop Del/Veh (s)	96.5	60.1	13.5	99.2	112.9	63.2	96.3	45.8	10.4	65.4	12.2	1.7
Total Stops	478	33	78	117	9	645	8	1333	103	586	369	15
Stop/Veh	1.28	0.82	0.83	1.31	1.12	1.03	1.00	0.83	0.60	0.88	0.37	0.37
Vehicles Entered	364	39	94	87	8	611	7	1560	170	644	981	41
Vehicles Exited	367	40	92	86	8	609	8	1556	170	644	980	40
Hourly Exit Rate	367	40	92	86	8	609	8	1556	170	644	980	40
Input Volume	365	40	92	92	10	628	10	1786	192	658	982	40
% of Volume	101	99	100	93	78	97	78	87	88	98	100	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	1	0	10	0	0	0	0	0	0

5: Latrobe Road & Town Center Boulevard Performance by movement

Movement	All
Denied Delay (hr)	1.6
Denied Del/Veh (s)	1.2
Total Delay (hr)	77.1
Total Del/Veh (s)	59.0
Stop Delay (hr)	61.2
Stop Del/Veh (s)	46.8
Total Stops	3774
Stop/Veh	0.80
Vehicles Entered	4606
Vehicles Exited	4600
Hourly Exit Rate	4600
Input Volume	4898
% of Volume	94
Denied Entry Before	0
Denied Entry After	11

6: Latrobe Road & US-50 EB Ramps Performance by movement

Movement	EBR	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.2	0.2	0.0	0.0	0.0	0.0	0.4
Denied Del/Veh (s)	1.0	0.8	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	7.7	1.2	6.1	1.3	3.4	7.7	27.4
Total Del/Veh (s)	33.5	5.7	10.5	10.4	54.0	31.8	18.8
Stop Delay (hr)	5.6	0.0	1.5	0.3	2.8	4.7	14.9
Stop Del/Veh (s)	24.2	0.1	2.6	2.2	43.6	19.5	10.2
Total Stops	678	12	458	107	229	640	2124
Stop/Veh	0.82	0.02	0.22	0.24	1.00	0.74	0.40
Vehicles Entered	818	778	2090	442	222	860	5210
Vehicles Exited	814	778	2084	442	221	854	5193
Hourly Exit Rate	814	778	2084	442	221	854	5193
Input Volume	822	780	2278	502	233	860	5475
% of Volume	99	100	91	88	95	99	95
Denied Entry Before	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	1.4	11.7	7.4
Denied Del/Veh (s)	0.1	0.2	0.2	3.7	0.8	0.4	0.0	0.0	0.0	62.7	56.8	55.2
Total Delay (hr)	2.8	1.5	0.1	3.6	2.3	0.1	23.6	8.9	1.5	3.5	24.2	5.0
Total Del/Veh (s)	70.2	75.7	3.0	65.4	96.7	4.8	71.8	23.1	16.7	155.4	117.6	38.3
Stop Delay (hr)	2.5	1.3	0.0	3.4	2.2	0.1	18.1	4.5	0.6	3.3	21.2	4.0
Stop Del/Veh (s)	65.1	67.2	0.0	61.3	92.1	4.3	55.1	11.6	6.5	144.8	103.3	30.2
Total Stops	147	68	0	203	82	66	1540	893	255	126	1031	585
Stop/Veh	1.04	0.96	0.00	1.03	0.95	0.90	1.30	0.64	0.78	1.54	1.39	1.24
Vehicles Entered	140	70	168	195	82	73	1161	1376	325	79	718	464
Vehicles Exited	139	69	167	194	85	73	1153	1383	326	78	720	470
Hourly Exit Rate	139	69	167	194	85	73	1153	1383	326	78	720	470
Input Volume	132	71	167	192	81	71	1242	1472	344	81	732	466
% of Volume	106	97	100	101	105	103	93	94	95	96	98	101
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	3	24	17

7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way Performance by movement

Movement	All
Denied Delay (hr)	20.8
Denied Del/Veh (s)	15.3
Total Delay (hr)	77.2
Total Del/Veh (s)	56.2
Stop Delay (hr)	61.2
Stop Del/Veh (s)	44.6
Total Stops	4996
Stop/Veh	1.01
Vehicles Entered	4851
Vehicles Exited	4857
Hourly Exit Rate	4857
Input Volume	5053
% of Volume	96
Denied Entry Before	0
Denied Entry After	44

Total Zone Performance

Denied Delay (hr)	242.2
Denied Del/Veh (s)	110.2
Total Delay (hr)	403.6
Total Del/Veh (s)	2413.3
Stop Delay (hr)	329.0
Stop Del/Veh (s)	1967.7
Total Stops	18100
Stop/Veh	30.07
Vehicles Entered	7382
Vehicles Exited	4
Hourly Exit Rate	4
Input Volume	24882
% of Volume	0
Denied Entry Before	16
Denied Entry After	531

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	3:50	3:50	3:50	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70	70	70	70
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	9403	9407	9460	9436	9487	9481	9634
Vehs Exited	9360	9260	9385	9262	9335	9421	9511
Starting Vehs	508	480	555	476	504	577	553
Ending Vehs	551	627	630	650	656	637	676
Denied Entry Before	20	28	33	35	13	16	21
Denied Entry After	163	252	498	298	292	280	358
Travel Distance (mi)	8655	8585	8679	8594	8645	8661	8843
Travel Time (hr)	705.0	750.1	906.5	828.8	794.6	777.8	822.8
Total Delay (hr)	474.9	522.5	676.0	601.4	564.6	547.9	588.3
Total Stops	20452	19789	20717	20807	19941	20324	21091
Fuel Used (gal)	424.4	432.7	471.5	452.3	444.7	441.3	457.2

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	9479	9261	9499	9453
Vehs Exited	9338	9172	9293	9335
Starting Vehs	470	492	552	517
Ending Vehs	611	581	758	638
Denied Entry Before	14	27	33	22
Denied Entry After	205	270	357	295
Travel Distance (mi)	8577	8473	8677	8639
Travel Time (hr)	758.8	729.7	864.0	793.8
Total Delay (hr)	530.8	504.5	634.5	564.5
Total Stops	20022	18786	21137	20307
Fuel Used (gal)	435.5	424.8	462.3	444.7

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2507	2427	2492	2413	2410	2439	2475
Vehs Exited	2329	2293	2407	2245	2303	2331	2405
Starting Vehs	508	480	555	476	504	577	553
Ending Vehs	686	614	640	644	611	685	623
Denied Entry Before	20	28	33	35	13	16	21
Denied Entry After	50	122	138	115	141	101	93
Travel Distance (mi)	2244	2183	2255	2185	2194	2166	2211
Travel Time (hr)	162.3	162.7	180.9	164.4	169.8	164.3	162.3
Total Delay (hr)	102.8	105.1	121.1	107.1	111.8	106.9	103.4
Total Stops	5287	4992	5274	4825	5048	5051	5088
Fuel Used (gal)	105.3	103.9	109.5	104.9	105.3	103.5	104.6

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2419	2418	2498	2448
Vehs Exited	2289	2308	2353	2325
Starting Vehs	470	492	552	517
Ending Vehs	600	602	697	633
Denied Entry Before	14	27	33	22
Denied Entry After	77	68	99	99
Travel Distance (mi)	2113	2181	2235	2197
Travel Time (hr)	156.9	157.4	176.5	165.7
Total Delay (hr)	100.8	99.4	117.6	107.6
Total Stops	4888	5062	5174	5070
Fuel Used (gal)	100.6	102.5	109.0	104.9

Interval #2 Information

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2251	2333	2337	2294	2338	2310	2317
Vehs Exited	2322	2300	2330	2258	2334	2389	2326
Starting Vehs	686	614	640	644	611	685	623
Ending Vehs	615	647	647	680	615	606	614
Denied Entry Before	50	122	138	115	141	101	93
Denied Entry After	102	146	296	204	176	156	195
Travel Distance (mi)	2146	2183	2180	2059	2108	2198	2186
Travel Time (hr)	169.1	190.5	217.9	205.1	192.3	192.2	192.7
Total Delay (hr)	112.0	132.8	159.9	150.2	136.0	133.7	134.9
Total Stops	4958	5031	5366	5164	4895	5176	4915
Fuel Used (gal)	103.8	109.1	115.6	110.0	107.9	110.7	110.4

Interval #2 Information

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2444	2331	2346	2331
Vehs Exited	2359	2307	2355	2328
Starting Vehs	600	602	697	633
Ending Vehs	685	626	688	641
Denied Entry Before	77	68	99	99
Denied Entry After	193	160	188	180
Travel Distance (mi)	2163	2135	2220	2158
Travel Time (hr)	191.4	175.6	205.2	193.2
Total Delay (hr)	133.7	118.9	146.6	135.9
Total Stops	4974	4743	5349	5055
Fuel Used (gal)	109.0	104.6	114.3	109.6

Interval #3 Information

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2339	2340	2300	2399	2369	2369	2447
Vehs Exited	2378	2381	2308	2418	2368	2329	2398
Starting Vehs	615	647	647	680	615	606	614
Ending Vehs	576	606	639	661	616	646	663
Denied Entry Before	102	146	296	204	176	156	195
Denied Entry After	145	188	382	211	238	213	263
Travel Distance (mi)	2130	2123	2119	2209	2157	2154	2251
Travel Time (hr)	181.6	197.1	242.9	226.1	205.1	203.2	221.4
Total Delay (hr)	124.8	140.6	186.8	167.7	147.6	146.1	161.9
Total Stops	5192	4958	4969	5475	4971	5080	5363
Fuel Used (gal)	106.4	109.9	120.2	119.1	113.4	112.1	119.6

Interval #3 Information

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2356	2277	2303	2352
Vehs Exited	2448	2293	2292	2360
Starting Vehs	685	626	688	641
Ending Vehs	593	610	699	629
Denied Entry Before	193	160	188	180
Denied Entry After	175	208	269	227
Travel Distance (mi)	2196	2109	2080	2153
Travel Time (hr)	206.6	192.0	226.0	210.2
Total Delay (hr)	148.2	135.8	170.7	153.0
Total Stops	5164	4557	5165	5088
Fuel Used (gal)	115.2	108.7	115.6	114.0

Interval #4 Information

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	2306	2307	2331	2330	2370	2363	2395
Vehs Exited	2331	2286	2340	2341	2330	2372	2382
Starting Vehs	576	606	639	661	616	646	663
Ending Vehs	551	627	630	650	656	637	676
Denied Entry Before	145	188	382	211	238	213	263
Denied Entry After	163	252	498	298	292	280	358
Travel Distance (mi)	2135	2096	2125	2141	2186	2143	2195
Travel Time (hr)	191.9	199.8	264.8	233.2	227.4	218.3	246.4
Total Delay (hr)	135.3	144.1	208.2	176.4	169.2	161.4	188.1
Total Stops	5015	4808	5108	5343	5027	5017	5725
Fuel Used (gal)	108.9	109.8	126.2	118.2	118.1	115.1	122.7

Interval #4 Information

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	2260	2235	2352	2324
Vehs Exited	2242	2264	2293	2316
Starting Vehs	593	610	699	629
Ending Vehs	611	581	758	638
Denied Entry Before	175	208	269	227
Denied Entry After	205	270	357	295
Travel Distance (mi)	2106	2047	2142	2132
Travel Time (hr)	203.8	204.8	256.4	224.7
Total Delay (hr)	148.1	150.4	199.5	168.1
Total Stops	4996	4424	5449	5093
Fuel Used (gal)	110.8	108.9	123.4	116.2

4: Latrobe Road & White Rock Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.3	0.1	0.0	0.4	0.0	0.2	0.0	0.8	1.3	0.1	0.1	0.1
Denied Del/Veh (s)	2.7	0.4	0.5	2.9	0.5	2.9	1.4	2.3	5.4	1.4	0.8	1.5
Total Delay (hr)	8.5	12.8	1.8	7.4	3.4	0.7	3.1	17.6	12.4	31.4	7.7	0.7
Total Del/Veh (s)	76.3	70.9	60.9	55.9	39.2	10.2	148.6	51.7	53.4	402.8	41.4	10.5
Stop Delay (hr)	7.2	9.8	1.5	6.3	2.6	0.5	3.0	14.2	9.0	30.7	5.8	0.4
Stop Del/Veh (s)	64.5	54.6	50.4	47.5	31.0	7.6	144.6	41.8	38.8	392.8	31.2	5.3
Total Stops	430	573	99	480	215	144	77	1011	753	402	443	116
Stop/Veh	1.08	0.88	0.93	1.00	0.70	0.56	1.04	0.83	0.90	1.43	0.66	0.46
Vehicles Entered	387	626	103	465	300	256	72	1220	828	268	670	252
Vehicles Exited	388	637	104	466	304	257	72	1202	821	231	661	250
Hourly Exit Rate	388	637	104	466	304	257	72	1202	821	231	661	250
Input Volume	395	628	103	470	294	253	82	1340	915	274	670	243
% of Volume	98	101	101	99	103	101	88	90	90	84	99	103
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	2	2	1	1	1

4: Latrobe Road & White Rock Road Performance by movement

Movement	All
Denied Delay (hr)	3.4
Denied Del/Veh (s)	2.2
Total Delay (hr)	107.5
Total Del/Veh (s)	69.9
Stop Delay (hr)	91.1
Stop Del/Veh (s)	59.1
Total Stops	4743
Stop/Veh	0.86
Vehicles Entered	5447
Vehicles Exited	5393
Hourly Exit Rate	5393
Input Volume	5668
% of Volume	95
Denied Entry Before	0
Denied Entry After	7

Intersection: 1: Latrobe Road & Project Access

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	24	19
Average Queue (ft)	2	1
95th Queue (ft)	15	10
Link Distance (ft)	371	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	230	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Latrobe Road & Suncastr Lane

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	66	30	47	78	93	174	194
Average Queue (ft)	21	5	14	22	24	51	66
95th Queue (ft)	51	23	39	60	70	129	152
Link Distance (ft)	780		1790		1790	2305	2305
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	180		290				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	B13	B13	
Directions Served	L	LTR	LTR	L	T	TR	L	T	TR	T	T	
Maximum Queue (ft)	132	172	74	75	170	209	61	505	548	129	240	
Average Queue (ft)	27	85	27	23	67	88	8	193	236	5	7	
95th Queue (ft)	85	150	61	57	147	184	39	418	468	78	101	
Link Distance (ft)	673		262	2305		2305	2030		2030	466	466	
Upstream Blk Time (%)											0	0
Queuing Penalty (veh)											0	0
Storage Bay Dist (ft)	160			250			210					
Storage Blk Time (%)	0	1							6			
Queuing Penalty (veh)	0	1							0			

Intersection: 4: Latrobe Road & White Rock Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	TR	L	L	T	T	R	L	T	T
Maximum Queue (ft)	168	207	113	103	212	224	414	298	89	146	170	194
Average Queue (ft)	54	122	46	36	154	186	131	73	36	68	78	97
95th Queue (ft)	134	191	94	79	246	246	333	208	68	131	142	164
Link Distance (ft)			1416	1416			626	626			466	466
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	410	410			200	200			360	350		
Storage Blk Time (%)					2	15	0	0				
Queuing Penalty (veh)					2	14	0	0				

Intersection: 4: Latrobe Road & White Rock Road

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	T	R
Maximum Queue (ft)	230	134	84	57	294	494	509	446	268
Average Queue (ft)	121	56	33	12	72	280	304	190	48
95th Queue (ft)	200	117	66	40	239	467	497	419	174
Link Distance (ft)	466	466				1323	1323	1323	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			185	270	270			325	
Storage Blk Time (%)		0			0	10		0	0
Queuing Penalty (veh)		0			0	10		2	0

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	TR	L	TR	R	L	L	T	T	T
Maximum Queue (ft)	5	66	52	26	139	248	218	64	88	255	356	414
Average Queue (ft)	0	16	12	5	80	103	86	16	29	94	140	204
95th Queue (ft)	3	47	40	20	147	203	169	50	66	212	292	380
Link Distance (ft)		694	694			488	488			1323	1323	1323
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350			390	115			290	290			
Storage Blk Time (%)					11	10						
Queuing Penalty (veh)					19	8						

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	NB	SB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R
Maximum Queue (ft)	103	393	402	468	409	520	158
Average Queue (ft)	30	244	265	128	151	149	38
95th Queue (ft)	78	356	369	342	353	383	108
Link Distance (ft)	1323			881	881	881	881
Upstream Blk Time (%)				0		0	
Queuing Penalty (veh)				0		0	
Storage Bay Dist (ft)		400	400				
Storage Blk Time (%)		0	0	0			
Queuing Penalty (veh)		0	1	0			

Intersection: 6: Latrobe Road & US-50 EB Ramps

Movement	EB	EB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	T	T	T	R	L	T	T	T	T
Maximum Queue (ft)	616	608	152	189	333	229	253	634	696	786	482
Average Queue (ft)	587	578	30	56	98	47	135	335	310	296	203
95th Queue (ft)	606	603	100	150	246	153	229	500	501	548	364
Link Distance (ft)	564	564	881	881	881			985	985	985	985
Upstream Blk Time (%)	85	36						0	0	0	
Queuing Penalty (veh)	0	0						0	0	0	
Storage Bay Dist (ft)						250	600				
Storage Blk Time (%)					1	0					
Queuing Penalty (veh)					2	0					

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	TR	L	L	T	T	TR	L	T
Maximum Queue (ft)	162	142	172	216	183	765	772	576	559	216	180	358
Average Queue (ft)	83	56	58	126	52	478	489	167	159	75	41	223
95th Queue (ft)	149	116	143	195	138	880	890	565	486	157	111	318
Link Distance (ft)	562	562		361	361	985	985	985	985			584
Upstream Blk Time (%)						1	1	0	0			
Queuing Penalty (veh)						3	4	1	0			
Storage Bay Dist (ft)			200							200	220	
Storage Blk Time (%)			0	1				0	0			7
Queuing Penalty (veh)			0	0				2	0			3

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	329	376	277
Average Queue (ft)	158	116	169
95th Queue (ft)	271	281	281
Link Distance (ft)	584	584	
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			260
Storage Blk Time (%)		0	2
Queuing Penalty (veh)		0	7

Network Summary

Network wide Queuing Penalty: 81

Intersection: 1: Latrobe Road & Project Access

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	30	13
Average Queue (ft)	4	1
95th Queue (ft)	20	8
Link Distance (ft)	371	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	230	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Latrobe Road & Suncastr Lane

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	146	37	34	114	132	157	165
Average Queue (ft)	65	12	6	46	57	46	62
95th Queue (ft)	116	37	25	90	105	111	129
Link Distance (ft)	780		1790		1790	2305	2305
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	180		290				
Storage Blk Time (%)	0						
Queuing Penalty (veh)	0						

Intersection: 3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	185	471	64	69	328	383	108	303	330
Average Queue (ft)	153	252	19	11	135	178	23	100	122
95th Queue (ft)	235	395	51	47	280	344	77	241	271
Link Distance (ft)	673		262	2305		2305	2030		2030
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160	250			210				
Storage Blk Time (%)	3	37	2			2			
Queuing Penalty (veh)	6	66	0			0			

Intersection: 4: Latrobe Road & White Rock Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	TR	L	L	T	T	R	L	T	T
Maximum Queue (ft)	288	334	375	356	155	182	138	109	135	113	276	309
Average Queue (ft)	148	208	120	122	44	109	67	35	54	50	141	173
95th Queue (ft)	290	326	354	318	135	170	120	84	110	98	244	268
Link Distance (ft)			1416	1416			626	626			466	466
Upstream Blk Time (%)			0									0
Queuing Penalty (veh)			0									0
Storage Bay Dist (ft)	410	410			200	200			360	350		
Storage Blk Time (%)	0	3			0	0						0
Queuing Penalty (veh)	0	4			0	0						0

Intersection: 4: Latrobe Road & White Rock Road

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	T	R
Maximum Queue (ft)	346	261	188	112	117	221	240	164	115
Average Queue (ft)	206	110	74	47	52	93	110	32	18
95th Queue (ft)	305	218	148	97	102	193	212	109	63
Link Distance (ft)	466	466				1323	1323	1323	
Upstream Blk Time (%)	0								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)			185	270	270			325	
Storage Blk Time (%)		1	0						
Queuing Penalty (veh)		2	0						

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	TR	L	TR	R	L	L	T	T	T
Maximum Queue (ft)	285	344	66	72	140	353	360	8	234	1167	1261	1322
Average Queue (ft)	125	207	22	28	86	192	223	0	18	646	879	961
95th Queue (ft)	267	314	57	58	166	302	328	5	113	1114	1325	1373
Link Distance (ft)		694	694			488	488			1323	1323	1323
Upstream Blk Time (%)						0				0	0	2
Queuing Penalty (veh)						0				0	2	10
Storage Bay Dist (ft)	350			390	115			290	290			
Storage Blk Time (%)	0	0			4	33				26		
Queuing Penalty (veh)	0	1			13	28				2		

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	NB	SB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R
Maximum Queue (ft)	1114	301	322	245	219	461	43
Average Queue (ft)	285	197	217	110	119	128	8
95th Queue (ft)	1012	279	299	215	201	303	31
Link Distance (ft)	1323			881	881	881	881
Upstream Blk Time (%)	1					0	
Queuing Penalty (veh)	5					0	
Storage Bay Dist (ft)		400	400				
Storage Blk Time (%)			0	0			
Queuing Penalty (veh)			0	1			

Intersection: 6: Latrobe Road & US-50 EB Ramps

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	R	T	T	T	R	L	T	T	T	T
Maximum Queue (ft)	620	587	93	564	704	718	275	194	203	233	238	168
Average Queue (ft)	534	475	5	69	136	209	102	94	109	84	85	20
95th Queue (ft)	715	725	58	273	424	497	245	164	182	187	186	121
Link Distance (ft)	564	564	448	881	881	881			985	985	985	985
Upstream Blk Time (%)	66	13		0	0	0						0
Queuing Penalty (veh)	0	0		0	1	1						0
Storage Bay Dist (ft)							250	600				
Storage Blk Time (%)							2	0				
Queuing Penalty (veh)							11	1				

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	TR	L	L	T	T	TR	L	T
Maximum Queue (ft)	131	119	165	190	154	493	635	976	885	225	245	457
Average Queue (ft)	55	41	81	108	56	327	343	325	257	160	84	261
95th Queue (ft)	108	91	143	173	121	485	530	846	626	256	226	424
Link Distance (ft)	562	562		361	361	985	985	985	985			584
Upstream Blk Time (%)						0	1	0				0
Queuing Penalty (veh)						0	6	2				0
Storage Bay Dist (ft)			200							200	220	
Storage Blk Time (%)				0				4	1	0		26
Queuing Penalty (veh)				0				30	5	0		14

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	411	183	175
Average Queue (ft)	187	51	92
95th Queue (ft)	364	128	155
Link Distance (ft)	584	584	
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			260
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Network Summary

Network wide Queuing Penalty: 211

Intersection: 1: Latrobe Road & Project Access

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	50	43
Average Queue (ft)	18	11
95th Queue (ft)	45	35
Link Distance (ft)	371	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	230	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Latrobe Road & Suncastr Lane

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	60	30	45	82	85	152	181
Average Queue (ft)	20	5	15	22	23	55	70
95th Queue (ft)	48	24	38	61	63	128	153
Link Distance (ft)	780		1790		1790	2305	2305
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	180		290				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	B13	B13	
Directions Served	L	LTR	LTR	L	T	TR	L	T	TR	T	T	
Maximum Queue (ft)	155	190	78	72	189	234	76	537	581	220	272	
Average Queue (ft)	28	88	30	24	72	96	8	208	247	6	13	
95th Queue (ft)	91	152	68	60	158	194	45	441	496	96	136	
Link Distance (ft)	673		262	2305		2305	2030		2030	466	466	
Upstream Blk Time (%)											0	0
Queuing Penalty (veh)											0	0
Storage Bay Dist (ft)	160			250			210					
Storage Blk Time (%)	0	2							7			
Queuing Penalty (veh)	0	1							0			

Intersection: 4: Latrobe Road & White Rock Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	TR	L	L	T	T	R	L	T	T
Maximum Queue (ft)	171	205	125	118	212	224	352	256	87	170	180	200
Average Queue (ft)	57	124	46	37	159	187	121	65	36	74	78	101
95th Queue (ft)	143	192	94	84	239	242	300	175	65	139	149	171
Link Distance (ft)			1416	1416			626	626			466	466
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	410	410			200	200			360	350		
Storage Blk Time (%)					1	13	0	0				
Queuing Penalty (veh)					1	12	1	0				

Intersection: 4: Latrobe Road & White Rock Road

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	T	R
Maximum Queue (ft)	237	143	80	66	294	500	526	442	287
Average Queue (ft)	125	54	31	13	73	291	312	204	54
95th Queue (ft)	204	118	63	41	247	495	516	426	187
Link Distance (ft)	466	466				1323	1323	1323	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			185	270	270			325	
Storage Blk Time (%)		0			0	13		1	0
Queuing Penalty (veh)		0			0	13		4	0

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	TR	L	TR	R	L	L	T	T	T
Maximum Queue (ft)	11	56	40	24	140	260	219	60	70	281	402	498
Average Queue (ft)	1	14	10	3	87	106	85	16	28	97	148	215
95th Queue (ft)	7	43	32	16	151	210	169	47	62	218	309	406
Link Distance (ft)		694	694			488	488			1323	1323	1323
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350			390	115			290	290			
Storage Blk Time (%)					9	12				0		
Queuing Penalty (veh)					15	10				0		

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	NB	SB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R
Maximum Queue (ft)	98	388	389	422	438	625	151
Average Queue (ft)	27	237	256	126	153	158	36
95th Queue (ft)	73	347	353	339	376	427	96
Link Distance (ft)	1323			881	881	881	881
Upstream Blk Time (%)				0	0	0	
Queuing Penalty (veh)				0	0	0	
Storage Bay Dist (ft)		400	400				
Storage Blk Time (%)		0	0	0			
Queuing Penalty (veh)		0	1	0			

Intersection: 6: Latrobe Road & US-50 EB Ramps

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	R	T	T	T	R	L	T	T	T	T
Maximum Queue (ft)	616	601	12	209	258	351	244	245	735	912	874	678
Average Queue (ft)	586	578	2	36	68	117	48	134	338	323	303	211
95th Queue (ft)	605	601	23	173	218	303	150	210	545	587	583	432
Link Distance (ft)	564	564	448	881	881	881			985	985	985	985
Upstream Blk Time (%)	86	34		0	0	0			0	0	0	0
Queuing Penalty (veh)	0	0		0	1	2			0	0	0	0
Storage Bay Dist (ft)							250	600				
Storage Blk Time (%)							2	0				
Queuing Penalty (veh)							5	0				

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	TR	L	L	T	T	TR	L	T
Maximum Queue (ft)	154	147	164	211	170	844	864	638	532	196	212	346
Average Queue (ft)	80	58	53	118	49	568	578	193	184	74	45	222
95th Queue (ft)	139	119	135	192	128	944	958	646	585	149	125	318
Link Distance (ft)	562	562		361	361	985	985	985	985			584
Upstream Blk Time (%)						4	5	3	1			
Queuing Penalty (veh)						14	17	9	4			
Storage Bay Dist (ft)			200							200	220	
Storage Blk Time (%)			0	1					0	0		7
Queuing Penalty (veh)			0	0					1	0		3

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	307	411	284
Average Queue (ft)	152	115	169
95th Queue (ft)	268	278	281
Link Distance (ft)	584	584	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			260
Storage Blk Time (%)		0	3
Queuing Penalty (veh)		0	9

Network Summary

Network wide Queuing Penalty: 127

Intersection: 1: Latrobe Road & Project Access

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	48	47
Average Queue (ft)	19	11
95th Queue (ft)	46	35
Link Distance (ft)	371	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		230
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Latrobe Road & Suncastr Lane

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	149	38	38	112	130	129	175
Average Queue (ft)	70	13	6	48	60	45	63
95th Queue (ft)	125	38	26	94	111	107	133
Link Distance (ft)	780			1790	1790	2305	2305
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		180	290				
Storage Blk Time (%)	0						
Queuing Penalty (veh)	0						

Intersection: 3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	185	473	72	52	358	412	93	342	355
Average Queue (ft)	144	257	21	13	147	191	22	102	123
95th Queue (ft)	236	413	55	42	294	348	64	256	280
Link Distance (ft)		673	262		2305	2305		2030	2030
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	160			250			210		
Storage Blk Time (%)	3	35			1			2	
Queuing Penalty (veh)	6	62			0			0	

Intersection: 4: Latrobe Road & White Rock Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	TR	L	L	T	T	R	L	T	T
Maximum Queue (ft)	328	351	311	297	162	189	129	104	105	128	268	278
Average Queue (ft)	144	202	113	118	47	109	67	35	49	52	150	178
95th Queue (ft)	294	319	282	261	143	177	117	82	85	103	231	257
Link Distance (ft)			1416	1416			626	626			466	466
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	410	410			200	200			360	350		
Storage Blk Time (%)	0	2	0		0	0						
Queuing Penalty (veh)	0	3	0		0	0						

Intersection: 4: Latrobe Road & White Rock Road

Movement	NB	NB	NB	SB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	T	R
Maximum Queue (ft)	296	237	189	130	151	235	248	198	132
Average Queue (ft)	200	110	72	48	56	102	116	38	22
95th Queue (ft)	276	205	135	102	113	204	225	133	81
Link Distance (ft)	466	466				1323	1323	1323	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			185	270	270			325	
Storage Blk Time (%)		0	0			0			
Queuing Penalty (veh)		1	0			0			

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	TR	L	TR	R	L	L	T	T	T
Maximum Queue (ft)	288	339	69	72	140	332	374	13	263	1104	1208	1245
Average Queue (ft)	129	206	21	28	94	201	229	1	19	648	869	954
95th Queue (ft)	273	306	55	54	171	313	343	7	115	1098	1331	1368
Link Distance (ft)		694	694			488	488			1323	1323	1323
Upstream Blk Time (%)										0	0	2
Queuing Penalty (veh)										0	2	7
Storage Bay Dist (ft)	350			390	115			290	290			
Storage Blk Time (%)	0	0			3	37				27		
Queuing Penalty (veh)	0	0			10	32				2		

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	NB	SB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R
Maximum Queue (ft)	1012	319	334	222	228	326	44
Average Queue (ft)	255	197	215	112	128	135	8
95th Queue (ft)	913	283	299	203	213	263	31
Link Distance (ft)	1323			881	881	881	881
Upstream Blk Time (%)	0						0
Queuing Penalty (veh)	1						0
Storage Bay Dist (ft)		400	400				
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 6: Latrobe Road & US-50 EB Ramps

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	R	T	T	T	R	L	T	T	T	T
Maximum Queue (ft)	615	587	106	449	714	844	275	175	360	323	158	79
Average Queue (ft)	552	503	8	67	137	230	92	91	121	89	84	18
95th Queue (ft)	703	739	63	276	430	556	235	153	234	219	139	56
Link Distance (ft)	564	564	448	881	881	881			985	985	985	985
Upstream Blk Time (%)	75	18		0	0	0						
Queuing Penalty (veh)	0	0		0	0	1						
Storage Bay Dist (ft)							250	600				
Storage Blk Time (%)							3	0				
Queuing Penalty (veh)							13	1				

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	LT	L	LT	TR	L	L	T	T	TR	L	T
Maximum Queue (ft)	123	104	168	189	148	550	606	1059	1074	225	230	497
Average Queue (ft)	57	38	85	106	56	351	365	336	275	169	72	278
95th Queue (ft)	104	82	149	170	121	547	579	867	670	259	198	462
Link Distance (ft)	562	562		361	361	985	985	985	985			584
Upstream Blk Time (%)							0	1	0			3
Queuing Penalty (veh)							0	7	2			0
Storage Bay Dist (ft)			200							200	220	
Storage Blk Time (%)			0	0					4	1	0	27
Queuing Penalty (veh)			0	0					34	6	0	14

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	427	272	192
Average Queue (ft)	209	66	94
95th Queue (ft)	406	223	168
Link Distance (ft)	584	584	
Upstream Blk Time (%)	1	0	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			260
Storage Blk Time (%)		0	0
Queuing Penalty (veh)		0	0

Network Summary

Network wide Queuing Penalty: 205

Intersection: 1: Latrobe Road & Project Access

Movement	WB	SB	SB
Directions Served	LR	L	T
Maximum Queue (ft)	21	21	5
Average Queue (ft)	1	1	0
95th Queue (ft)	11	9	5
Link Distance (ft)	371		1209
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		230	
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Latrobe Road & Suncastr Lane

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	TR
Maximum Queue (ft)	104	31	60	97	126	183	206	138
Average Queue (ft)	44	7	17	34	45	55	73	35
95th Queue (ft)	80	27	47	75	98	137	164	87
Link Distance (ft)	776			534	534	2305	2305	2305
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		180	290					
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B13
Directions Served	L	LTR	LTR	L	T	T	TR	L	T	T	TR	T
Maximum Queue (ft)	185	327	111	104	160	187	266	41	386	505	596	46
Average Queue (ft)	95	173	38	40	66	80	130	9	146	197	277	2
95th Queue (ft)	208	284	87	92	132	160	237	31	298	388	509	47
Link Distance (ft)		661	250		2305	2305	2305		2030	2030	2030	466
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	160			250				210				
Storage Blk Time (%)	0	15							3			
Queuing Penalty (veh)	1	20							0			

Intersection: 3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr

Movement	B13
Directions Served	T
Maximum Queue (ft)	48
Average Queue (ft)	2
95th Queue (ft)	49
Link Distance (ft)	466
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Latrobe Road & White Rock Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	TR	L	L	T	T	R	L	T	T
Maximum Queue (ft)	177	217	144	137	212	225	676	608	102	331	350	301
Average Queue (ft)	51	121	73	68	209	224	646	269	39	203	152	128
95th Queue (ft)	134	192	129	124	219	227	664	606	79	376	394	242
Link Distance (ft)			1416	1416			626	626			466	466
Upstream Blk Time (%)							74	0			7	0
Queuing Penalty (veh)							0	0			24	0
Storage Bay Dist (ft)	410	410			200	200			360	350		
Storage Blk Time (%)					11	65	1	0		13	1	
Queuing Penalty (veh)					16	96	8	0		29	1	

Intersection: 4: Latrobe Road & White Rock Road

Movement	NB	NB	NB	B13	B13	B13	SB	SB	SB	SB	SB	SB
Directions Served	T	T	R	T	T	T	L	L	T	T	T	R
Maximum Queue (ft)	247	214	186	30	23	3	77	192	338	383	464	331
Average Queue (ft)	143	87	86	10	1	0	19	32	153	186	208	63
95th Queue (ft)	220	170	159	84	26	3	55	103	288	328	368	206
Link Distance (ft)	466	466		2030	2030	2030			1323	1323	1323	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)			185				270	270				325
Storage Blk Time (%)		0	0						1		1	0
Queuing Penalty (veh)		0	1						1		5	0

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	TR	L	TR	R	L	L	T	T	T
Maximum Queue (ft)	17	70	60	36	140	374	303	65	110	291	425	503
Average Queue (ft)	1	21	20	8	92	171	108	18	33	123	189	275
95th Queue (ft)	7	55	51	27	164	313	250	49	79	255	371	475
Link Distance (ft)		694	694			483	483			1323	1323	1323
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350			390	115			290	290			
Storage Blk Time (%)					11	26				0		
Queuing Penalty (veh)					20	24				0		

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	NB	SB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R
Maximum Queue (ft)	152	408	412	444	469	554	165
Average Queue (ft)	47	277	295	131	174	218	44
95th Queue (ft)	110	385	390	352	388	446	121
Link Distance (ft)	1323			877	877	877	877
Upstream Blk Time (%)							0
Queuing Penalty (veh)							0
Storage Bay Dist (ft)		400	400				
Storage Blk Time (%)		0	0	0			
Queuing Penalty (veh)		1	3	1			

Intersection: 6: Latrobe Road & US-50 EB Ramps

Movement	EB	EB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	T	T	T	T	R	L	T	T	T	T
Maximum Queue (ft)	621	606	158	179	204	201	145	301	903	882	922	896
Average Queue (ft)	585	575	37	57	64	76	41	160	371	335	335	233
95th Queue (ft)	605	628	115	141	162	171	101	263	619	670	695	550
Link Distance (ft)	564	564	877	877	877	877			978	978	978	978
Upstream Blk Time (%)	87	31							0	0	0	0
Queuing Penalty (veh)	0	0							0	0	1	0
Storage Bay Dist (ft)							250	600				
Storage Blk Time (%)									0			
Queuing Penalty (veh)									0			

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	LT	R	L	L	T	R	L	L	T	T	T
Maximum Queue (ft)	170	161	10	110	140	146	55	388	402	389	872	466
Average Queue (ft)	94	75	0	39	63	64	23	229	244	125	181	138
95th Queue (ft)	155	145	10	90	120	123	50	384	393	282	503	360
Link Distance (ft)	562	562	562				348	348	978	978	978	978
Upstream Blk Time (%)										0	0	0
Queuing Penalty (veh)										0	1	0
Storage Bay Dist (ft)				200	200							
Storage Blk Time (%)												0
Queuing Penalty (veh)												1

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	NB	SB	SB	SB	SB	SB
Directions Served	TR	L	T	T	TR	R
Maximum Queue (ft)	217	244	534	588	610	285
Average Queue (ft)	89	79	314	321	421	258
95th Queue (ft)	173	213	476	540	639	336
Link Distance (ft)			577	577	577	
Upstream Blk Time (%)			0	1	5	
Queuing Penalty (veh)			0	0	0	
Storage Bay Dist (ft)	200	220				260
Storage Blk Time (%)	0	0	25		24	1
Queuing Penalty (veh)	0	0	13		95	11

Network Summary

Network wide Queuing Penalty: 375

Intersection: 1: Latrobe Road & Project Access

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	32	16
Average Queue (ft)	4	1
95th Queue (ft)	21	9
Link Distance (ft)	371	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	230	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Latrobe Road & Suncastr Lane

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	TR
Maximum Queue (ft)	308	173	48	221	257	237	267	146
Average Queue (ft)	163	32	10	98	124	76	93	34
95th Queue (ft)	266	97	35	178	205	184	211	94
Link Distance (ft)	776			512	512	2305	2305	2305
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		180	290					
Storage Blk Time (%)	6	0		0				
Queuing Penalty (veh)	3	0		0				

Intersection: 3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	185	710	84	234	522	730	846	121	285	317	388
Average Queue (ft)	161	679	34	93	179	310	432	25	119	156	192
95th Queue (ft)	238	695	72	178	450	719	844	79	224	258	331
Link Distance (ft)		661	250		2305	2305	2305		2030	2030	2030
Upstream Blk Time (%)		78									
Queuing Penalty (veh)		0									
Storage Bay Dist (ft)	160			250				210			
Storage Blk Time (%)	5	74		0	0				1		
Queuing Penalty (veh)	20	265		0	0				0		

Intersection: 4: Latrobe Road & White Rock Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	TR	L	L	T	T	R	L	T	T
Maximum Queue (ft)	422	435	1324	1300	212	225	668	623	156	153	282	300
Average Queue (ft)	385	415	908	844	208	224	633	401	61	64	155	184
95th Queue (ft)	503	493	1644	1571	221	226	701	744	123	128	242	274
Link Distance (ft)			1416	1416			626	626			466	466
Upstream Blk Time (%)			19	4			77	0				
Queuing Penalty (veh)			0	0			0	0				
Storage Bay Dist (ft)	410	410			200	200			360	350		
Storage Blk Time (%)	3	59	3		13	80	1	0			0	
Queuing Penalty (veh)	10	184	12		20	118	5	0			0	

Intersection: 4: Latrobe Road & White Rock Road

Movement	NB	NB	NB	B13	B13	B13	SB	SB	SB	SB	SB	SB
Directions Served	T	T	R	T	T	T	L	L	T	T	T	R
Maximum Queue (ft)	484	567	210	1731	1996	2054	282	295	977	835	242	149
Average Queue (ft)	291	531	210	192	1022	1407	250	263	511	153	98	28
95th Queue (ft)	517	600	216	993	2242	2529	343	356	1249	549	203	97
Link Distance (ft)	466	466		2030	2030	2030			1323	1323	1323	
Upstream Blk Time (%)	0	47		0	0	4			3	0		
Queuing Penalty (veh)	1	267		0	1	27			10	0		
Storage Bay Dist (ft)			185				270	270				325
Storage Blk Time (%)		1	60				13	55	1			
Queuing Penalty (veh)		11	197				29	118	2			

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	TR	L	TR	R	L	L	T	T	T
Maximum Queue (ft)	354	488	107	103	140	477	442	10	148	603	925	953
Average Queue (ft)	221	300	36	37	116	334	278	0	14	308	448	551
95th Queue (ft)	381	460	83	81	186	501	452	6	86	514	755	834
Link Distance (ft)		694	694			483	483			1323	1323	1323
Upstream Blk Time (%)						7	2					0
Queuing Penalty (veh)						0	0					0
Storage Bay Dist (ft)	350			390	115			290	290			
Storage Blk Time (%)	0	8			8	68				10		
Queuing Penalty (veh)	1	14			26	62				1		

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	NB	SB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R
Maximum Queue (ft)	197	408	417	512	231	344	52
Average Queue (ft)	48	284	302	132	105	152	14
95th Queue (ft)	138	407	417	351	204	284	40
Link Distance (ft)	1323			877	877	877	877
Upstream Blk Time (%)						0	
Queuing Penalty (veh)						0	
Storage Bay Dist (ft)		400	400				
Storage Blk Time (%)		0	2				
Queuing Penalty (veh)		1	6				

Intersection: 6: Latrobe Road & US-50 EB Ramps

Movement	EB	EB	WB	NB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	R	R	R	T	T	T	T	R	L	T	T	T
Maximum Queue (ft)	553	466	80	178	203	247	224	196	192	411	244	172
Average Queue (ft)	310	180	6	38	66	82	95	60	107	174	86	90
95th Queue (ft)	511	434	42	114	152	186	186	135	168	297	150	149
Link Distance (ft)	564	564	436	877	877	877	877			978	978	978
Upstream Blk Time (%)	1											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)								250	600			
Storage Blk Time (%)							0	0				
Queuing Penalty (veh)							0	0				

Intersection: 6: Latrobe Road & US-50 EB Ramps

Movement	SB
Directions Served	T
Maximum Queue (ft)	77
Average Queue (ft)	22
95th Queue (ft)	60
Link Distance (ft)	978
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	NB
Directions Served	L	LT	L	L	T	R	L	L	T	T	T	TR
Maximum Queue (ft)	149	140	176	187	232	70	606	625	772	1050	1094	222
Average Queue (ft)	78	60	90	74	90	32	390	401	182	392	272	117
95th Queue (ft)	137	121	165	157	198	56	594	601	453	1017	797	204
Link Distance (ft)	562	562			348	348	978	978	978	978	978	
Upstream Blk Time (%)					1				0	2	1	
Queuing Penalty (veh)					0				0	12	5	
Storage Bay Dist (ft)			200	200								200
Storage Blk Time (%)			1	1	2						1	0
Queuing Penalty (veh)			1	1	4						4	1

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	SB	SB	SB	SB	SB
Directions Served	L	T	T	TR	R
Maximum Queue (ft)	245	610	587	507	282
Average Queue (ft)	172	485	428	290	172
95th Queue (ft)	328	700	682	535	307
Link Distance (ft)		577	577	577	
Upstream Blk Time (%)		31	7	1	
Queuing Penalty (veh)		0	0	0	
Storage Bay Dist (ft)	220				260
Storage Blk Time (%)	0	67		5	0
Queuing Penalty (veh)	0	54		11	1

Network Summary

Network wide Queuing Penalty: 1509

Intersection: 1: Latrobe Road & Project Access

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	46	41
Average Queue (ft)	18	10
95th Queue (ft)	45	33
Link Distance (ft)	371	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	230	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Latrobe Road & Suncastr Lane

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	TR
Maximum Queue (ft)	91	31	54	98	117	179	202	106
Average Queue (ft)	38	8	15	36	46	49	66	30
95th Queue (ft)	73	30	41	76	99	125	152	73
Link Distance (ft)	776			534	534	2305	2305	2305
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	180		290					
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB	B13
Directions Served	L	LTR	LTR	L	T	T	TR	L	T	T	TR	T
Maximum Queue (ft)	184	303	95	90	156	202	270	49	351	458	560	65
Average Queue (ft)	96	171	36	36	67	83	130	10	157	200	272	2
95th Queue (ft)	206	263	79	77	134	165	242	35	300	370	491	50
Link Distance (ft)		661	250		2305	2305	2305		2030	2030	2030	466
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	160			250				210				
Storage Blk Time (%)	1	16							3			
Queuing Penalty (veh)	1	21							0			

Intersection: 3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr

Movement	B13
Directions Served	T
Maximum Queue (ft)	44
Average Queue (ft)	2
95th Queue (ft)	45
Link Distance (ft)	466
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Latrobe Road & White Rock Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	TR	L	L	T	T	R	L	T	T
Maximum Queue (ft)	164	205	156	143	212	225	675	603	105	313	313	265
Average Queue (ft)	52	119	76	67	210	224	646	299	40	213	138	121
95th Queue (ft)	136	187	135	123	220	226	662	649	79	358	352	219
Link Distance (ft)			1416	1416			626	626			466	466
Upstream Blk Time (%)							75	0			4	0
Queuing Penalty (veh)							0	0			14	0
Storage Bay Dist (ft)	410	410			200	200			360	350		
Storage Blk Time (%)					12	65	1	0		9	1	
Queuing Penalty (veh)					17	95	7	0		20	1	

Intersection: 4: Latrobe Road & White Rock Road

Movement	NB	NB	NB	B13	SB	SB	SB	SB	SB	SB
Directions Served	T	T	R	T	L	L	T	T	T	R
Maximum Queue (ft)	245	256	203	18	78	191	348	390	437	350
Average Queue (ft)	146	93	91	2	19	34	159	194	214	84
95th Queue (ft)	228	185	167	19	54	107	306	345	378	258
Link Distance (ft)	466	466		2030			1323	1323	1323	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)			185		270	270				325
Storage Blk Time (%)		0	1			0	1		2	0
Queuing Penalty (veh)		0	1			0	2		8	0

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	TR	L	TR	R	L	L	T	T	T
Maximum Queue (ft)	11	73	69	34	140	409	314	70	99	300	429	530
Average Queue (ft)	0	17	20	9	92	171	103	18	35	129	205	294
95th Queue (ft)	6	53	54	28	160	319	240	50	76	257	382	497
Link Distance (ft)		694	694			483	483			1323	1323	1323
Upstream Blk Time (%)						0						
Queuing Penalty (veh)						0						
Storage Bay Dist (ft)	350			390	115			290	290			
Storage Blk Time (%)					9	25				0		
Queuing Penalty (veh)					17	23				0		

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	NB	SB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R
Maximum Queue (ft)	155	401	413	397	464	463	169
Average Queue (ft)	51	280	298	126	179	229	46
95th Queue (ft)	121	384	390	306	374	427	119
Link Distance (ft)	1323			877	877	877	877
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		400	400				
Storage Blk Time (%)		0	1				
Queuing Penalty (veh)		1	4				

Intersection: 6: Latrobe Road & US-50 EB Ramps

Movement	EB	EB	NB	NB	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	R	R	T	T	T	T	R	L	T	T	T	T
Maximum Queue (ft)	615	599	182	192	221	220	172	293	775	861	914	708
Average Queue (ft)	584	575	39	61	68	79	39	157	365	335	337	221
95th Queue (ft)	602	605	124	152	171	187	106	260	590	665	685	508
Link Distance (ft)	564	564	877	877	877	877			978	978	978	978
Upstream Blk Time (%)	87	29							0	0	0	0
Queuing Penalty (veh)	0	0							0	1	0	0
Storage Bay Dist (ft)							250	600				
Storage Blk Time (%)							0		0			
Queuing Penalty (veh)							0		0			

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	NB
Directions Served	L	LT	L	L	T	R	L	L	T	T	T	TR
Maximum Queue (ft)	179	162	142	156	152	58	384	384	326	640	386	216
Average Queue (ft)	100	73	42	71	63	23	239	254	126	162	126	93
95th Queue (ft)	162	139	100	134	126	50	378	384	260	395	274	179
Link Distance (ft)	562	562			348	348	978	978	978	978	978	
Upstream Blk Time (%)									0	0	0	
Queuing Penalty (veh)									0	0	0	
Storage Bay Dist (ft)			200	200								200
Storage Blk Time (%)			0	0	0						0	0
Queuing Penalty (veh)			0	0	0						2	0

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	SB	SB	SB	SB	SB
Directions Served	L	T	T	TR	R
Maximum Queue (ft)	245	534	596	601	285
Average Queue (ft)	92	334	322	424	262
95th Queue (ft)	237	502	550	625	326
Link Distance (ft)		577	577	577	
Upstream Blk Time (%)		0	1	5	
Queuing Penalty (veh)		0	0	0	
Storage Bay Dist (ft)	220				260
Storage Blk Time (%)	0	28		26	2
Queuing Penalty (veh)	0	14		104	13

Network Summary

Network wide Queuing Penalty: 367

Intersection: 1: Latrobe Road & Project Access

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	46	43
Average Queue (ft)	18	11
95th Queue (ft)	44	34
Link Distance (ft)	371	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	230	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Latrobe Road & Suncastr Lane

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	TR
Maximum Queue (ft)	293	189	44	227	251	242	270	137
Average Queue (ft)	163	37	10	105	134	80	97	33
95th Queue (ft)	254	123	34	192	222	183	208	88
Link Distance (ft)	776			512	512	2305	2305	2305
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		180	290					
Storage Blk Time (%)	6	0						
Queuing Penalty (veh)	3	0						

Intersection: 3: Latrobe Road & Golden Foothill Pkwy/Monte Verde Dr

Movement	EB	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (ft)	185	708	82	216	520	688	793	115	308	363	440
Average Queue (ft)	158	679	30	92	180	292	405	21	130	163	202
95th Queue (ft)	241	694	69	168	544	760	876	66	248	293	361
Link Distance (ft)		661	250		2305	2305	2305		2030	2030	2030
Upstream Blk Time (%)		76									
Queuing Penalty (veh)		0									
Storage Bay Dist (ft)	160			250				210			
Storage Blk Time (%)	3	73		0	1				1		
Queuing Penalty (veh)	15	261		1	1				0		

Intersection: 4: Latrobe Road & White Rock Road

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	TR	L	L	T	T	R	L	T	T
Maximum Queue (ft)	422	435	1386	1347	212	225	680	622	184	152	302	334
Average Queue (ft)	393	417	929	869	208	224	622	398	68	69	164	191
95th Queue (ft)	504	493	1621	1557	224	228	763	738	141	133	267	293
Link Distance (ft)			1416	1416			626	626			466	466
Upstream Blk Time (%)			21	4			74	0				
Queuing Penalty (veh)			0	0			0	0				
Storage Bay Dist (ft)	410	410			200	200			360	350		
Storage Blk Time (%)	3	65	3		13	79	1	0			0	
Queuing Penalty (veh)	8	202	10		19	116	2	0			0	

Intersection: 4: Latrobe Road & White Rock Road

Movement	NB	NB	NB	B13	B13	B13	SB	SB	SB	SB	SB	SB
Directions Served	T	T	R	T	T	T	L	L	T	T	T	R
Maximum Queue (ft)	467	560	210	1630	1907	1964	282	295	1135	971	300	129
Average Queue (ft)	275	532	210	203	941	1306	257	271	590	180	102	22
95th Queue (ft)	485	610	211	1043	2122	2412	338	353	1249	567	236	81
Link Distance (ft)	466	466		2030	2030	2030			1323	1323	1323	
Upstream Blk Time (%)	0	46		0	0	2			3	0		
Queuing Penalty (veh)	1	266		0	1	18			11	0		
Storage Bay Dist (ft)			185				270	270				325
Storage Blk Time (%)		1	60				15	65	1			
Queuing Penalty (veh)		9	200				34	144	2			

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	TR	L	TR	R	L	L	T	T	T
Maximum Queue (ft)	370	527	162	104	140	482	448	12	149	622	894	873
Average Queue (ft)	239	311	35	39	112	324	268	1	12	319	474	570
95th Queue (ft)	386	471	116	81	187	495	443	6	75	534	755	823
Link Distance (ft)		694	694			483	483			1323	1323	1323
Upstream Blk Time (%)		0	0			7	3					0
Queuing Penalty (veh)		0	0			0	0					0
Storage Bay Dist (ft)	350			390	115			290	290			
Storage Blk Time (%)	0	9			9	67				11		
Queuing Penalty (veh)	0	17			28	62				1		

Intersection: 5: Latrobe Road & Town Center Boulevard

Movement	NB	SB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	T	R
Maximum Queue (ft)	134	408	415	450	237	278	42
Average Queue (ft)	50	294	310	127	105	149	11
95th Queue (ft)	108	405	410	339	212	260	35
Link Distance (ft)	1323			877	877	877	877
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		400	400				
Storage Blk Time (%)		1	2	0			
Queuing Penalty (veh)		2	6	3			

Intersection: 6: Latrobe Road & US-50 EB Ramps

Movement	EB	EB	WB	NB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	R	R	R	T	T	T	T	R	L	T	T	T
Maximum Queue (ft)	576	496	144	165	206	233	241	206	187	428	470	479
Average Queue (ft)	330	205	7	46	68	82	97	66	110	181	100	114
95th Queue (ft)	554	482	61	120	157	182	192	147	170	322	301	327
Link Distance (ft)	564	564	436	877	877	877	877			978	978	978
Upstream Blk Time (%)	3	0										0
Queuing Penalty (veh)	0	0										0
Storage Bay Dist (ft)								250	600			
Storage Blk Time (%)							0	0				
Queuing Penalty (veh)							0	0				

Intersection: 6: Latrobe Road & US-50 EB Ramps

Movement	SB
Directions Served	T
Maximum Queue (ft)	173
Average Queue (ft)	26
95th Queue (ft)	124
Link Distance (ft)	978
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	NB	NB
Directions Served	L	LT	L	L	T	R	L	L	T	T	T	TR
Maximum Queue (ft)	161	150	172	175	226	66	657	678	819	1053	1075	224
Average Queue (ft)	87	71	93	77	93	31	421	430	210	363	269	123
95th Queue (ft)	148	136	159	159	200	56	655	666	548	952	781	207
Link Distance (ft)	562	562			348	348	978	978	978	978	978	
Upstream Blk Time (%)					1		0	0	0	1	0	
Queuing Penalty (veh)					0		0	0	1	9	3	
Storage Bay Dist (ft)			200	200								200
Storage Blk Time (%)			1	1	2						1	1
Queuing Penalty (veh)			1	0	4						6	3

Intersection: 7: Latrobe Road/El Dorado Hills Boulevard & US-50 WB Ramps/Saratoga Way

Movement	SB	SB	SB	SB	SB
Directions Served	L	T	T	TR	R
Maximum Queue (ft)	245	613	596	590	285
Average Queue (ft)	176	547	501	364	191
95th Queue (ft)	332	697	705	639	316
Link Distance (ft)		577	577	577	
Upstream Blk Time (%)		52	15	2	
Queuing Penalty (veh)		0	0	0	
Storage Bay Dist (ft)	220				260
Storage Blk Time (%)	0	77		9	1
Queuing Penalty (veh)	0	62		22	3

Network Summary

Network wide Queuing Penalty: 1556

APPENDIX C
Cumulative 2040 Data







163

1076
LATROBE RD
LATROBE RD
1375

672
WHITE ROCK RD
WHITE ROCK RD
180

754
WHITE ROCK RD
WHITE ROCK RD
353

919

434

919
WHITE ROCK RD
WHITE ROCK RD
434

380
184

99

63

625
E ROCK RD
ROCK RD
5

403

1424
LATROBE RD
LATROBE RD
1298

219
WHITE ROCK RD
WHITE ROCK RD
449

447
WHITE ROCK RD
WHITE ROCK RD
586

571

758

571
WHITE ROCK RD
WHITE ROCK RD
758

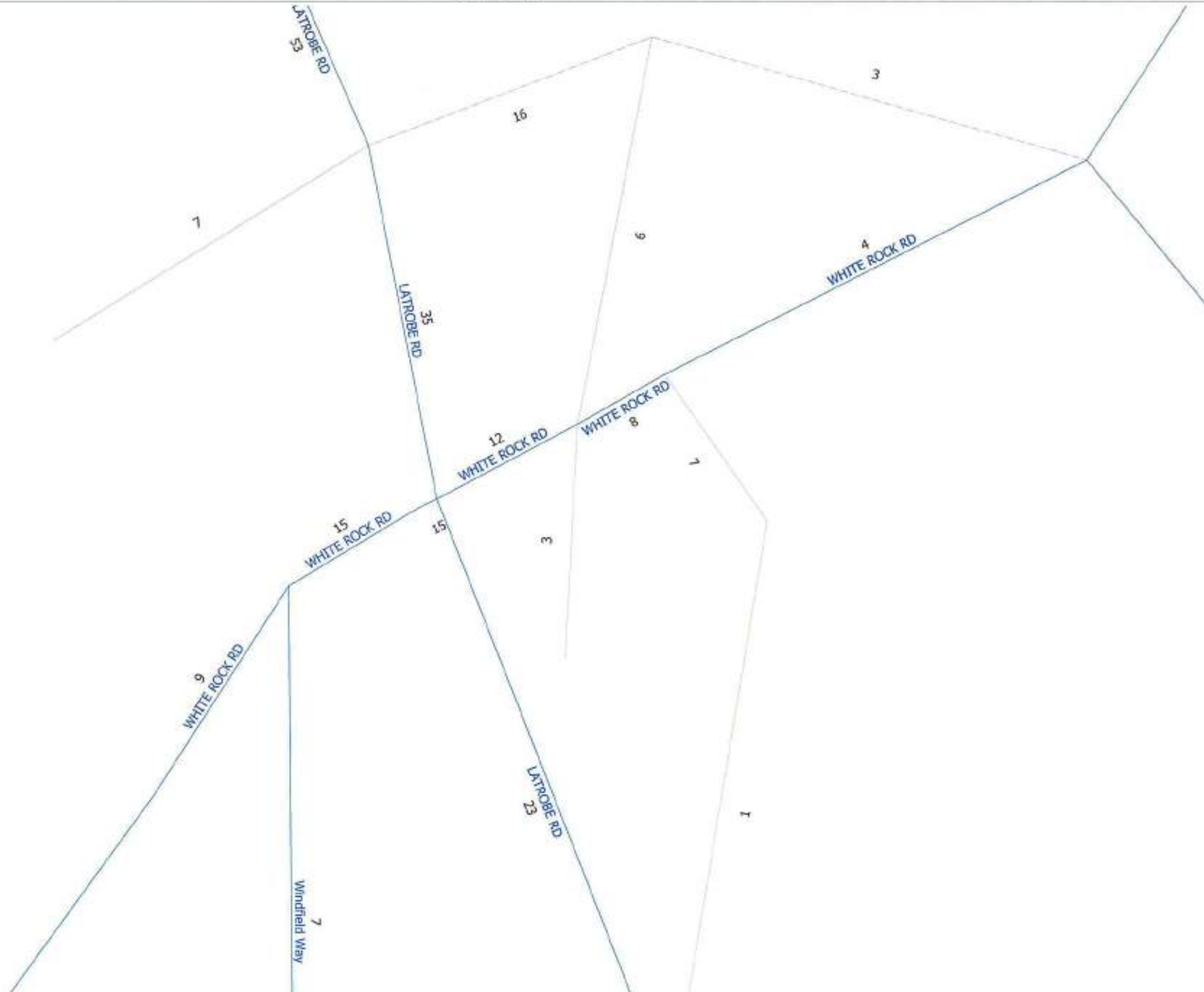
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361

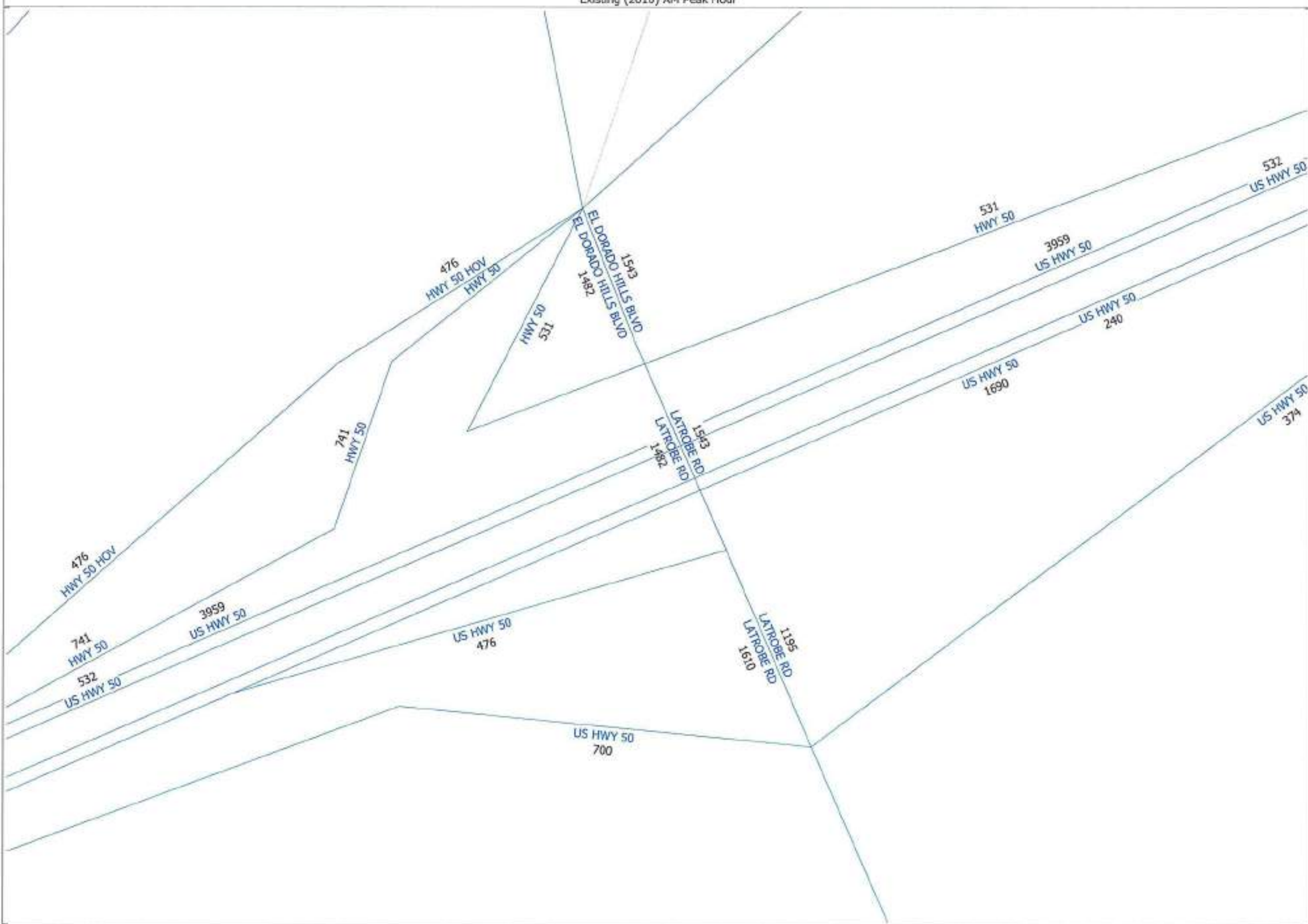
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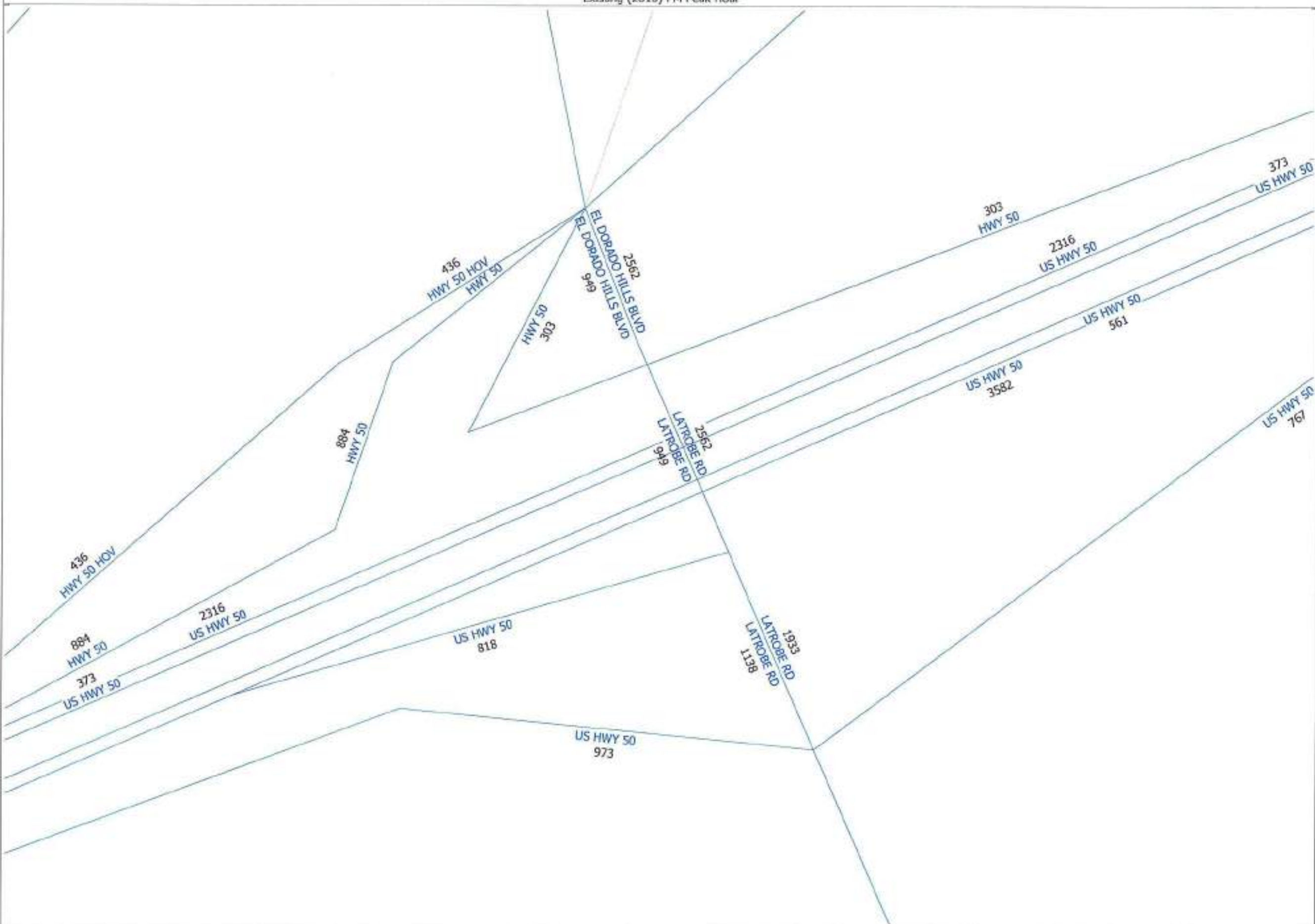
142

391
E ROCK RD
ROCK RD

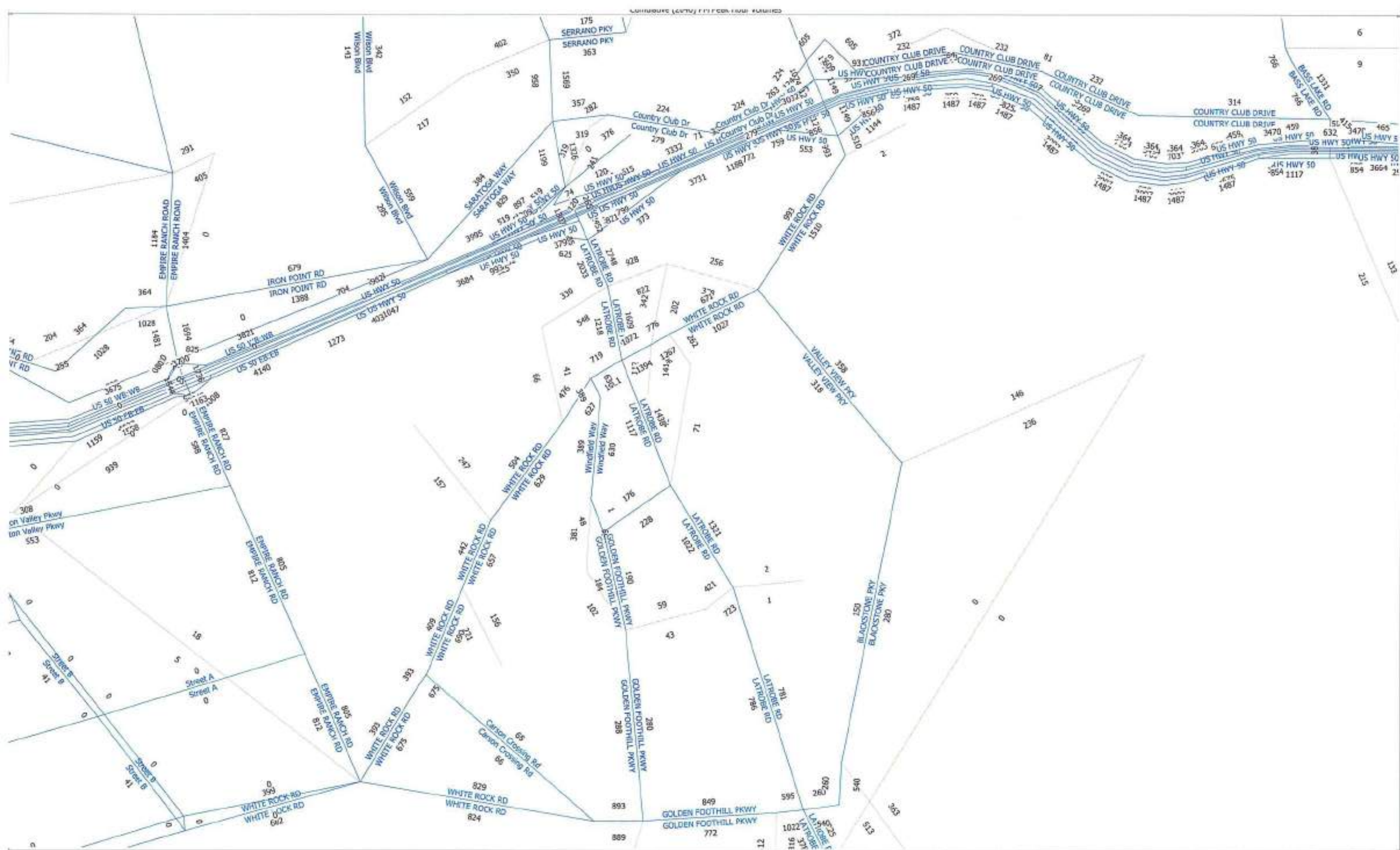
US hwy
12

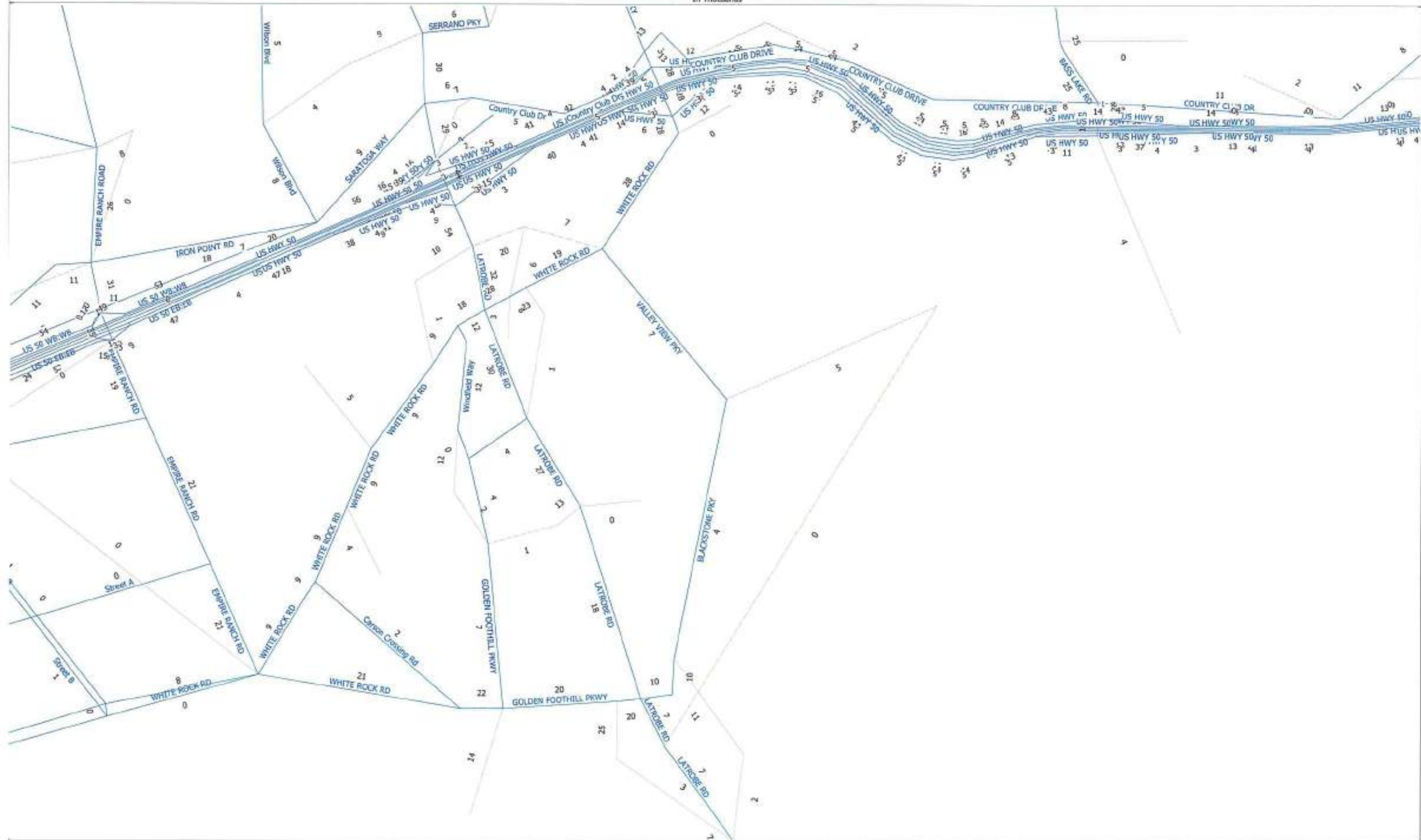


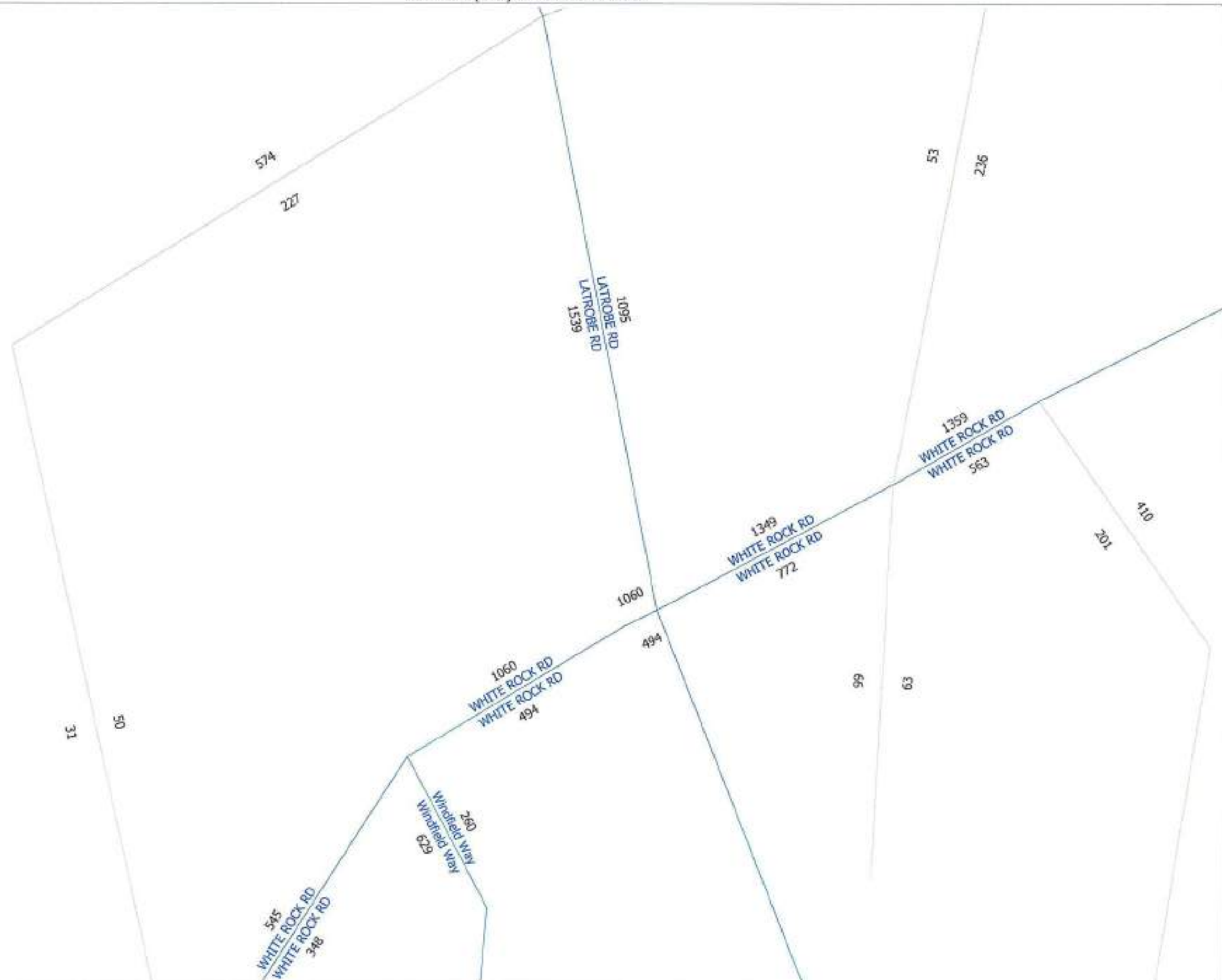


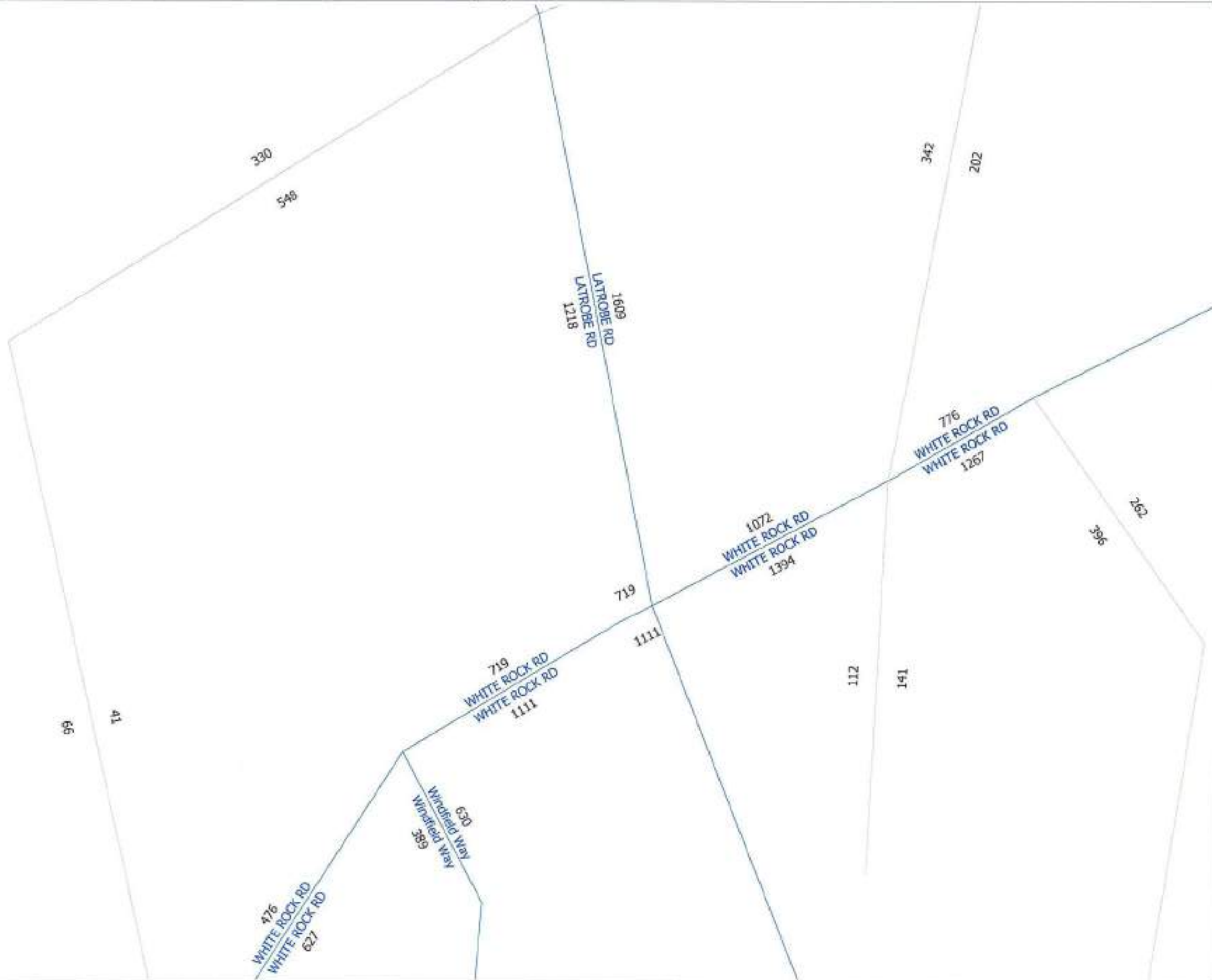




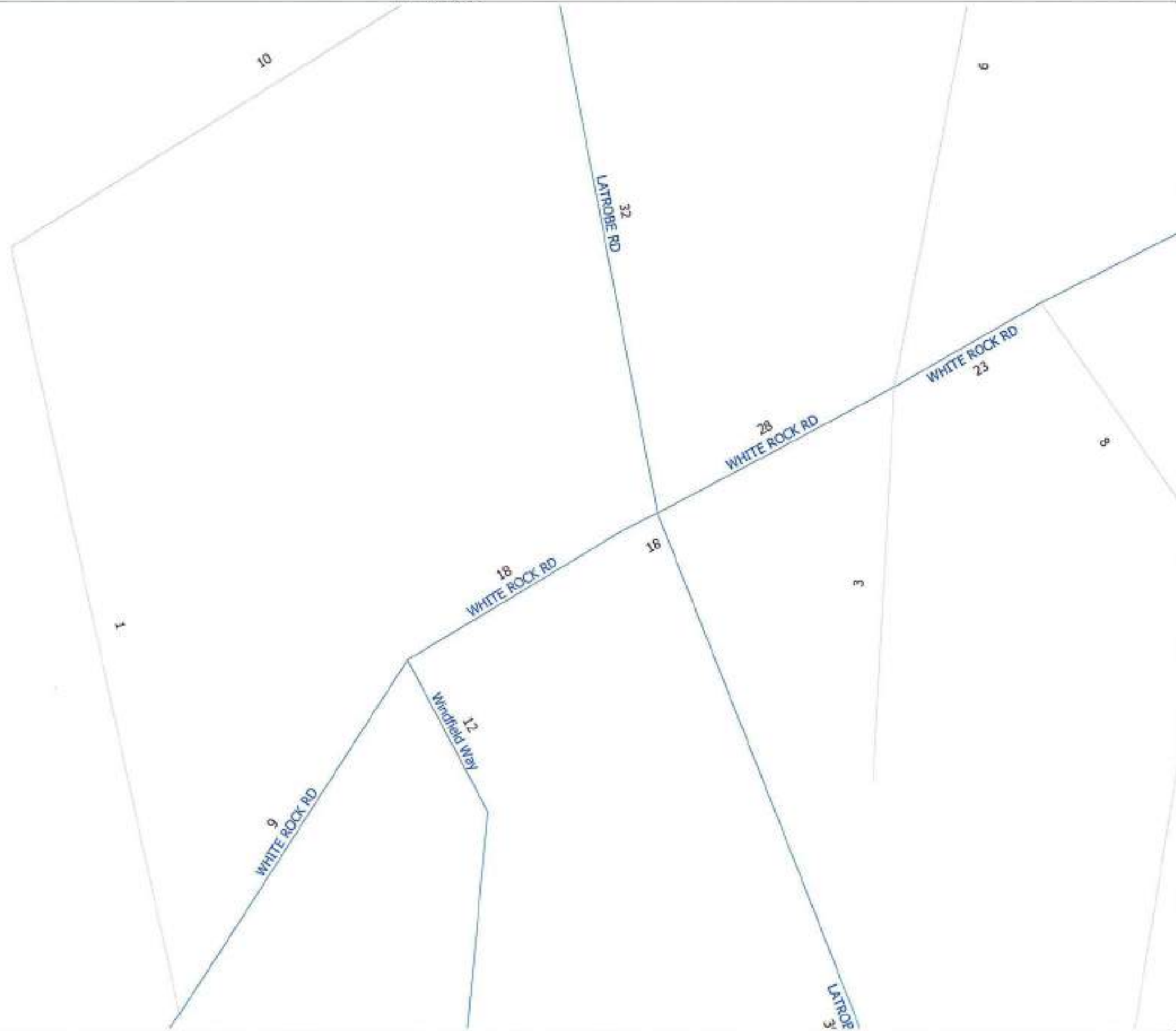




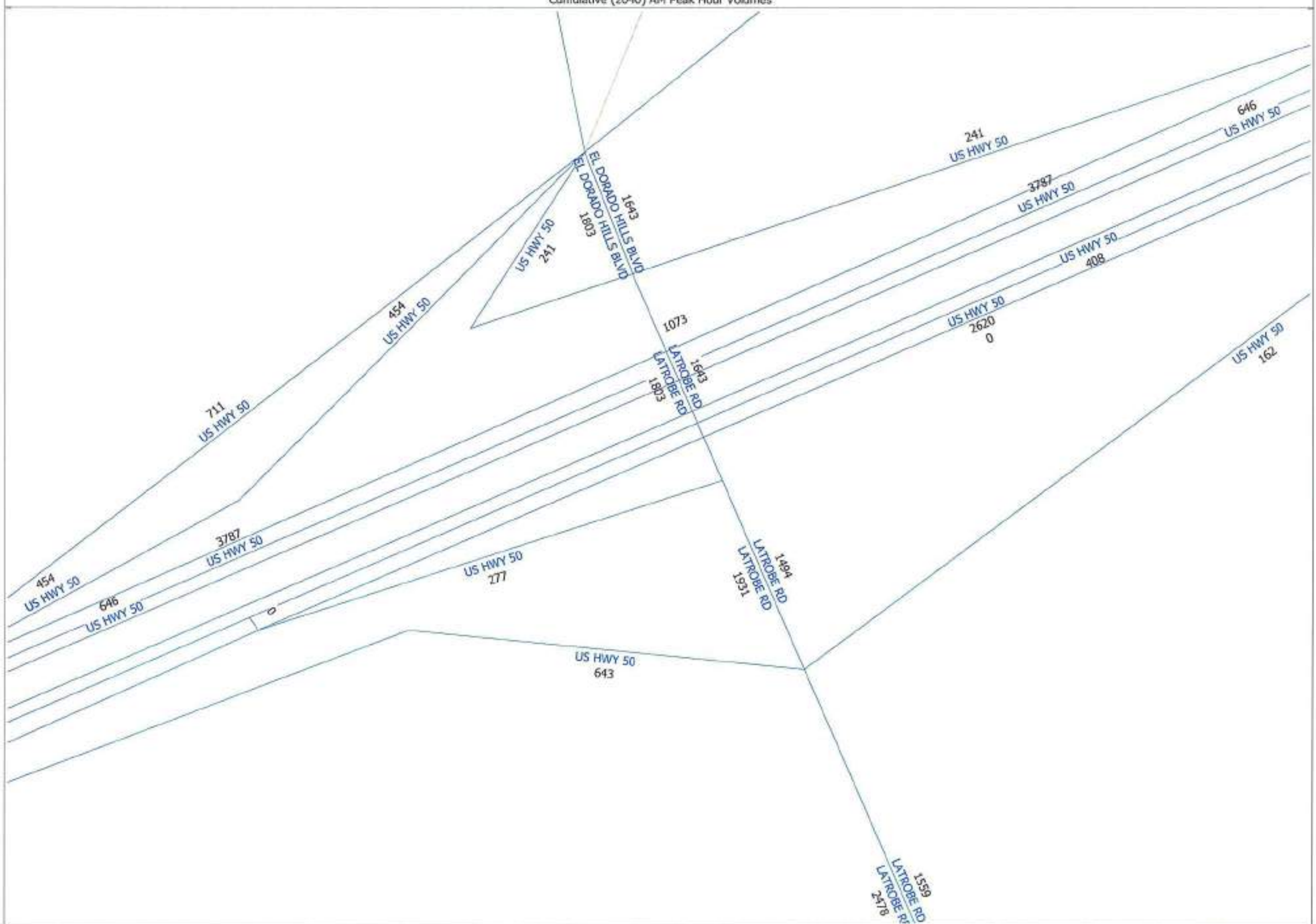


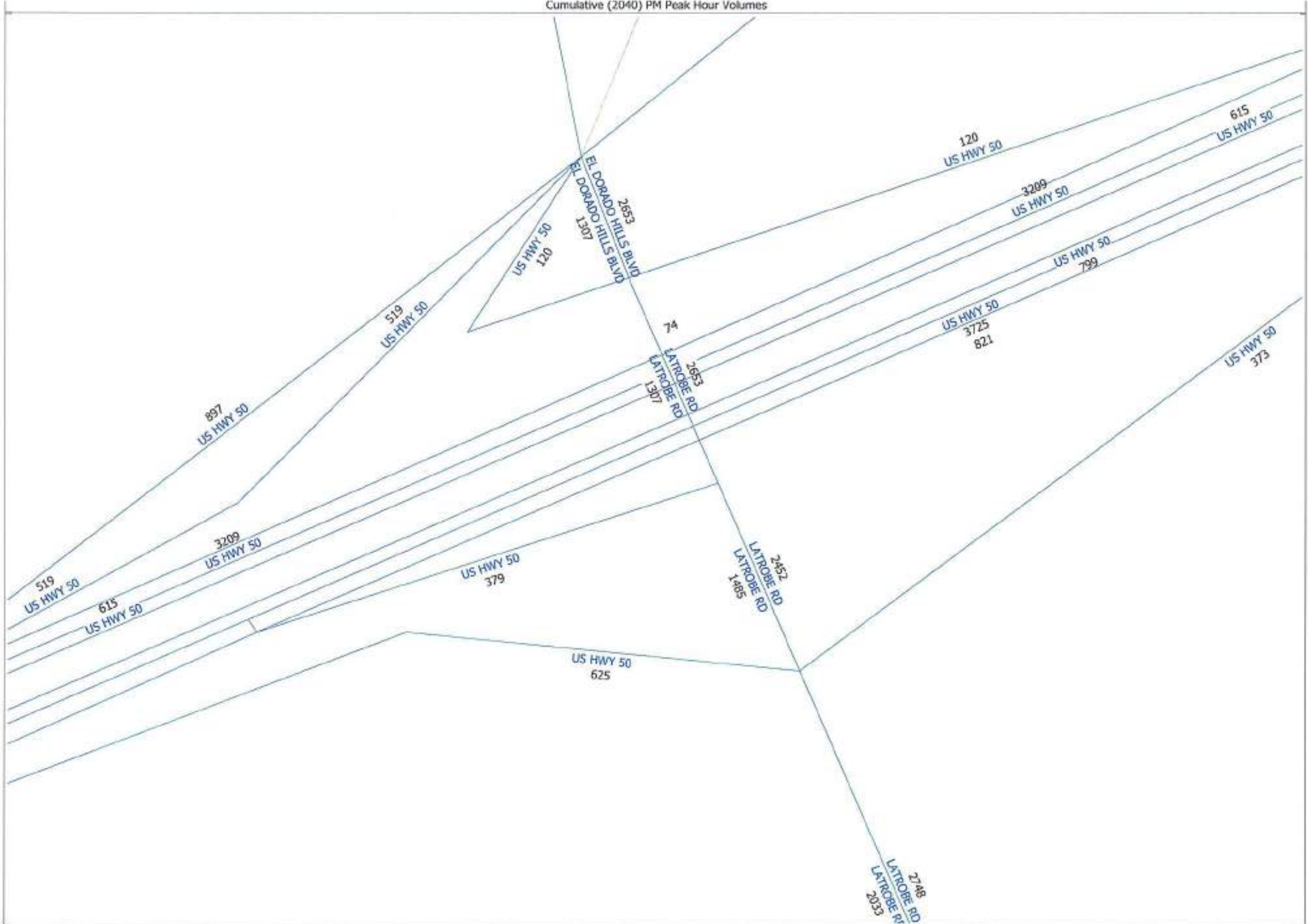


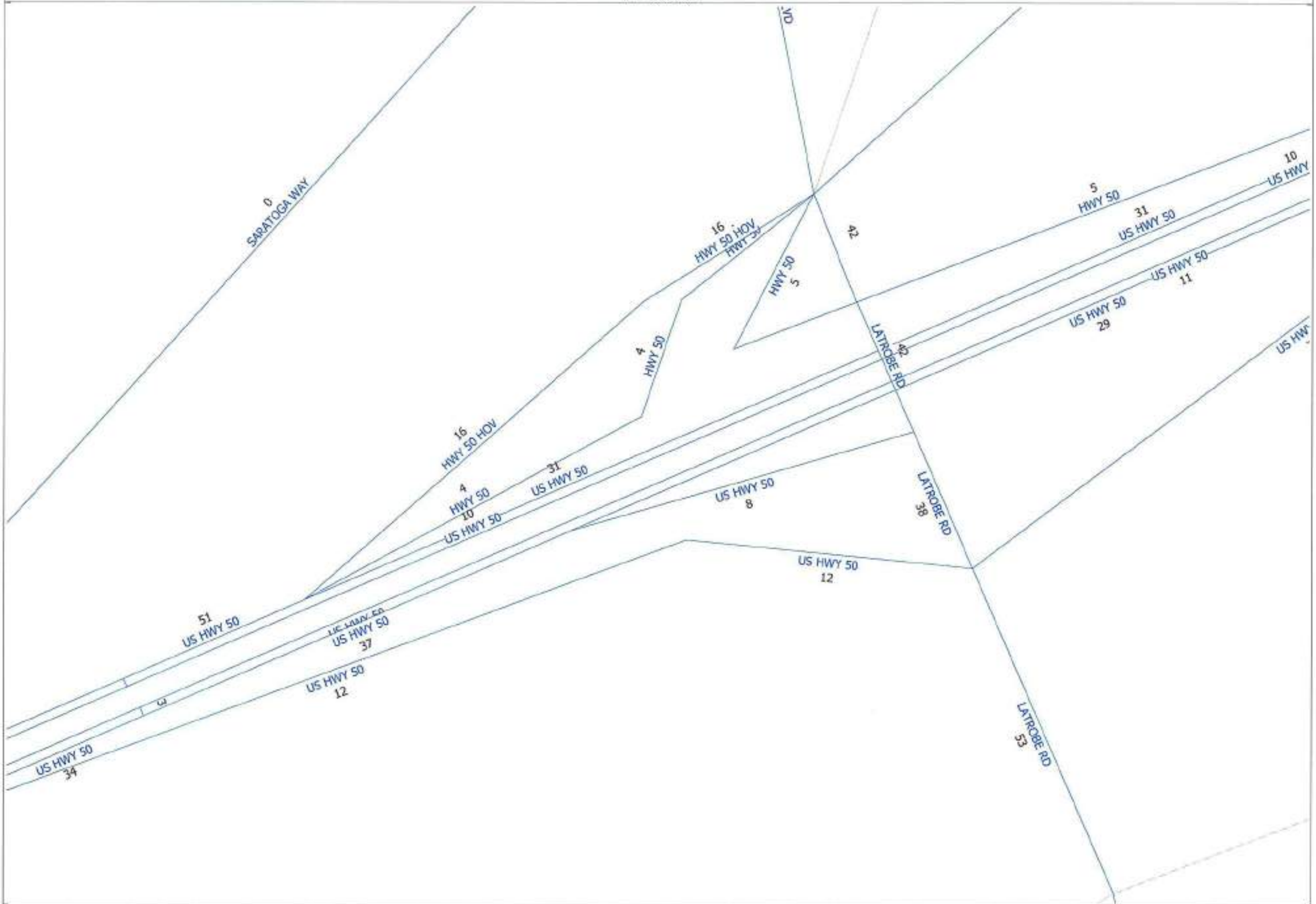
Cumulative (2040) ADT
In Thousands

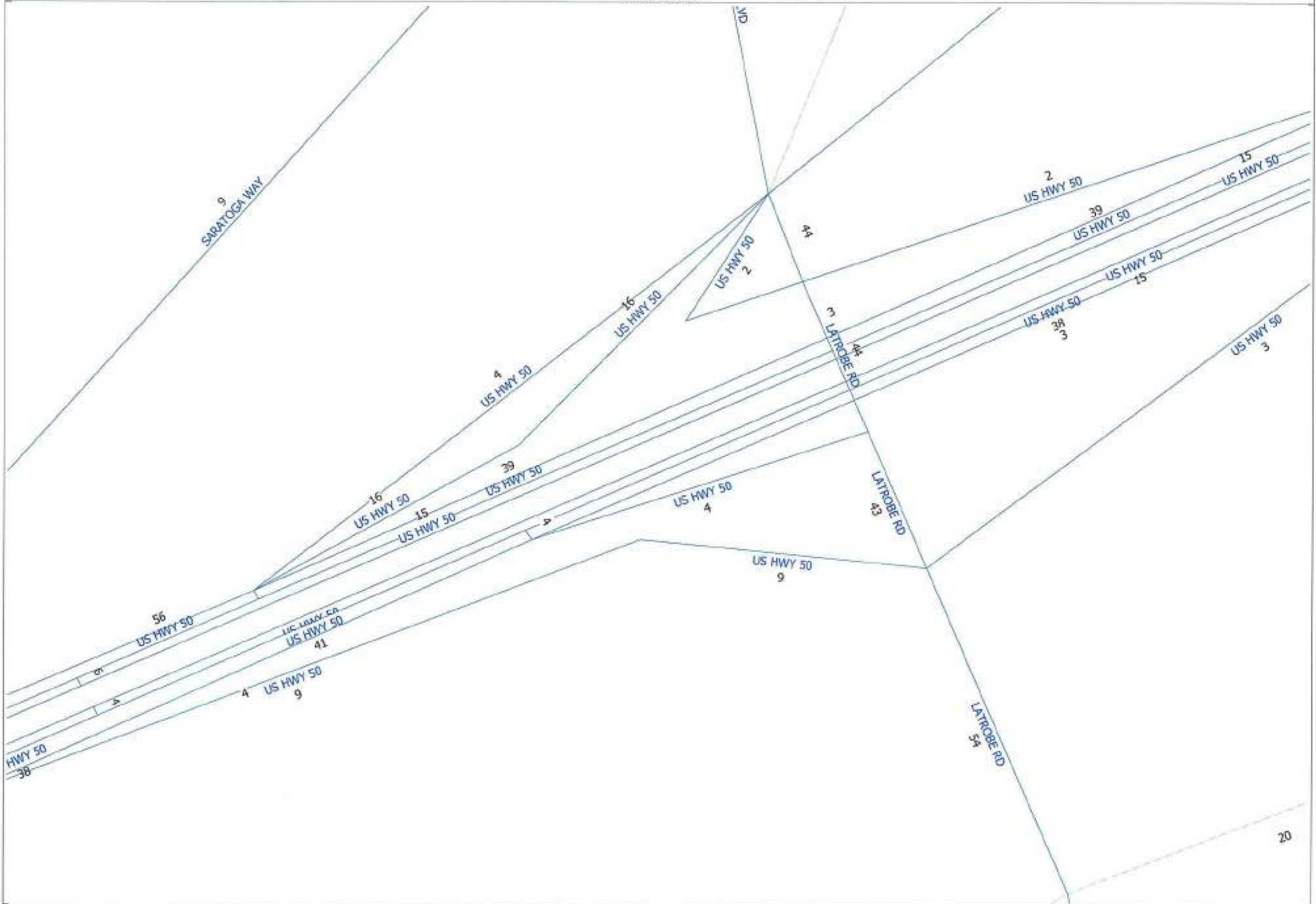


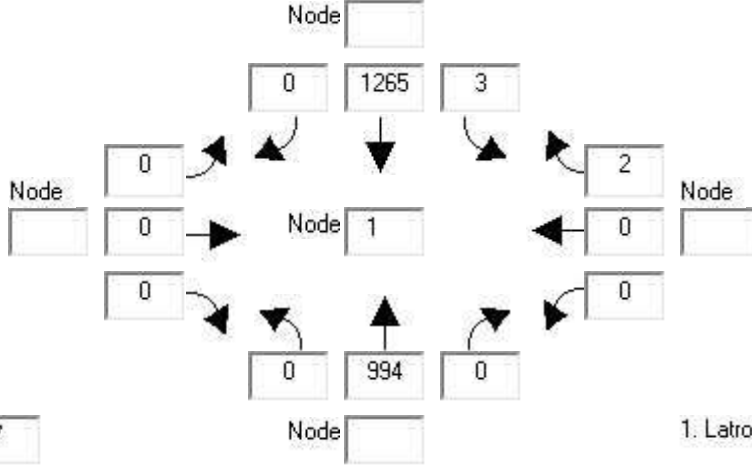
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May 15, 2019







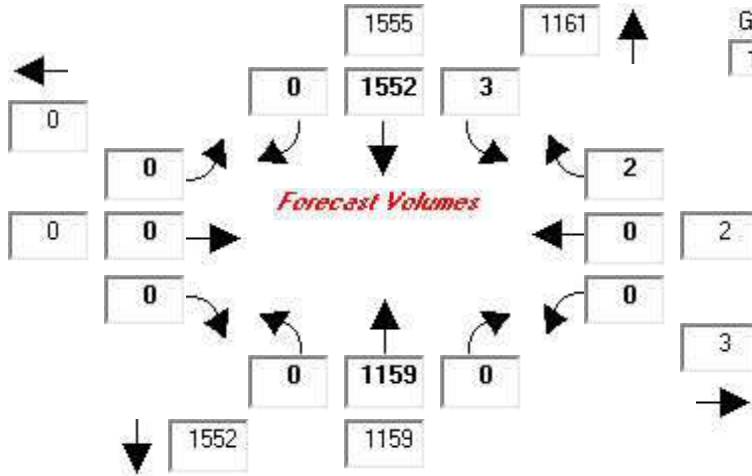




- Count data
- Turn %-ages

1 of 7

1. Latrobe Road/Project Access



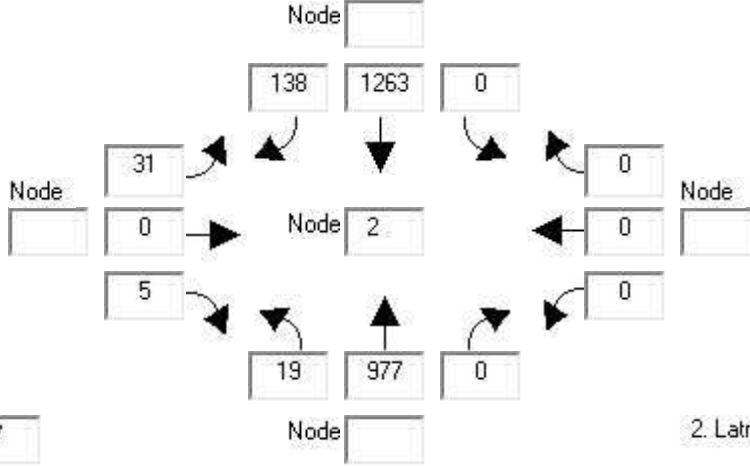
Goal	Actual
10	-0.2 % Convergence

3 Iterations

Use counts turns as floor

Convergence goal achieved.

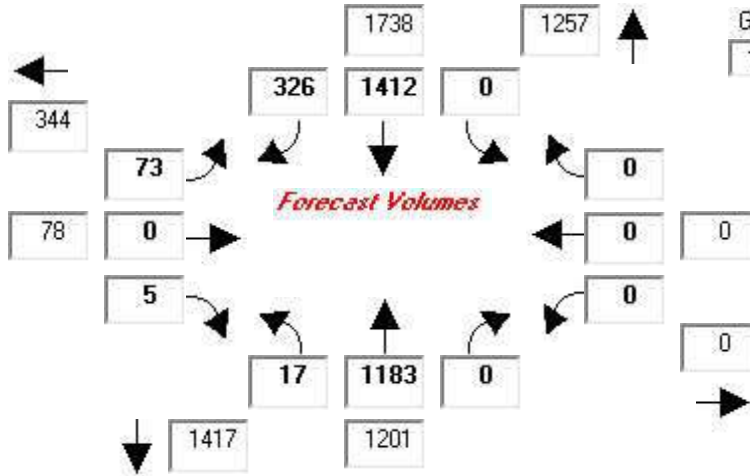
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- Count data
- Turn %-ages

2 of 7

2. Latrobe Road/Suncast Lane



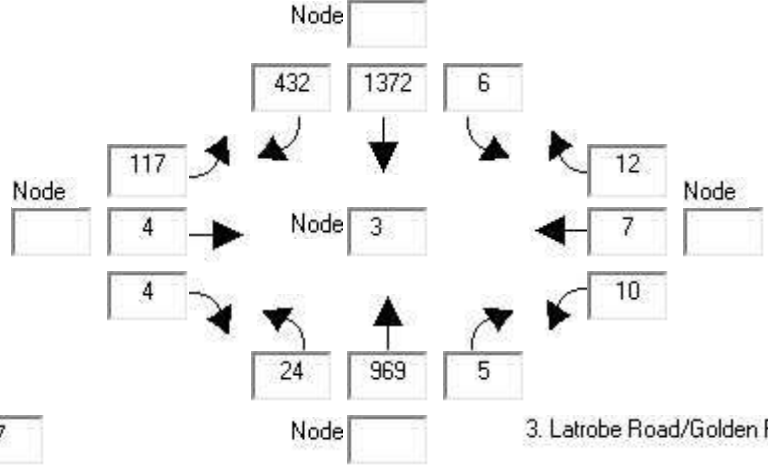
Goal	Actual
10	10.5 % Convergence

6 Iterations

Use counts turns as floor

Convergence goal achieved.

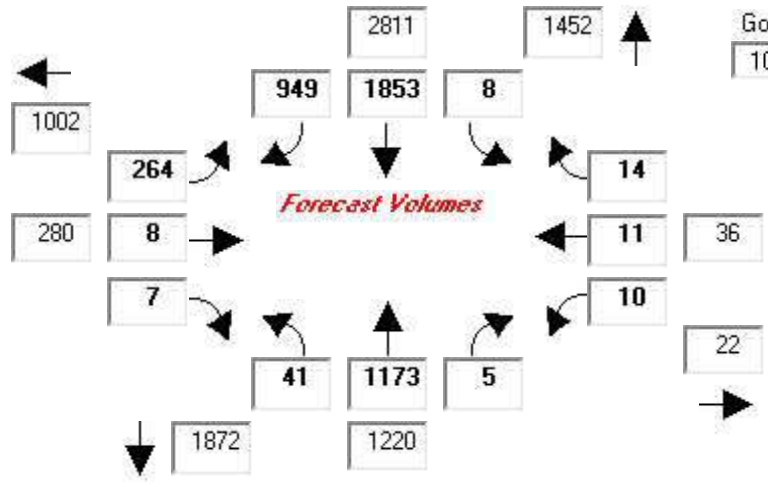
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- Count data
- Turn %-ages

3 of 7

3. Latrobe Road/Golden Foothill Parkway-Monte

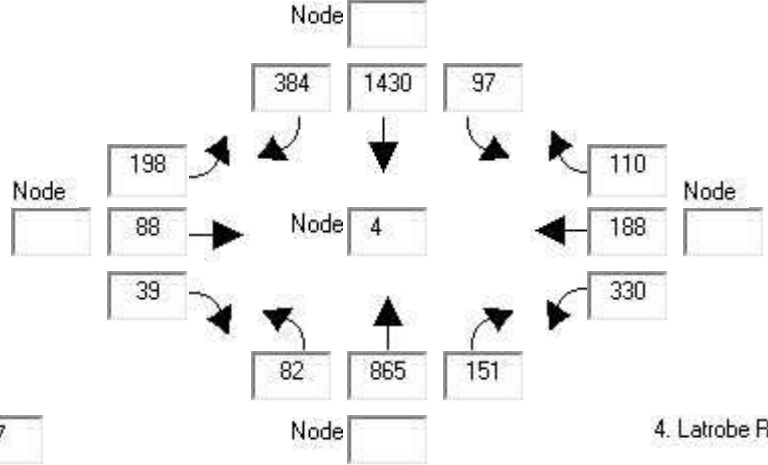


Goal	Actual
10	0.0 % Convergence
3	Iterations

Use counts turns as floor

Convergence goal achieved.

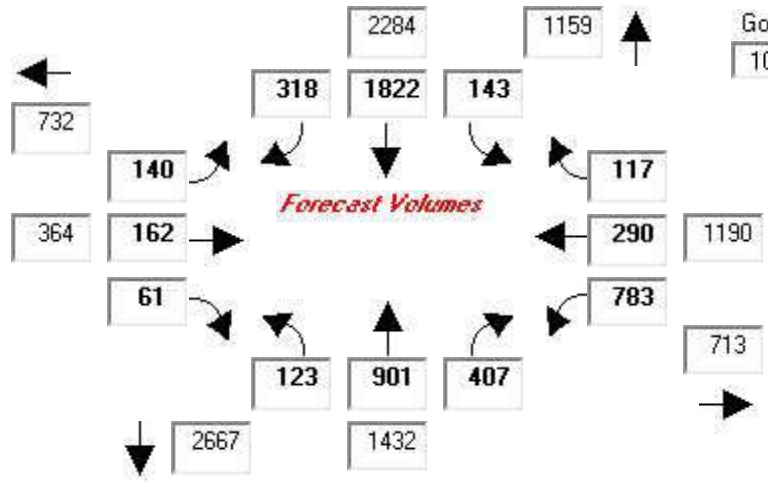
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- Count data
- Turn %-ages

4 of 7

4. Latrobe Road/White Rock Road

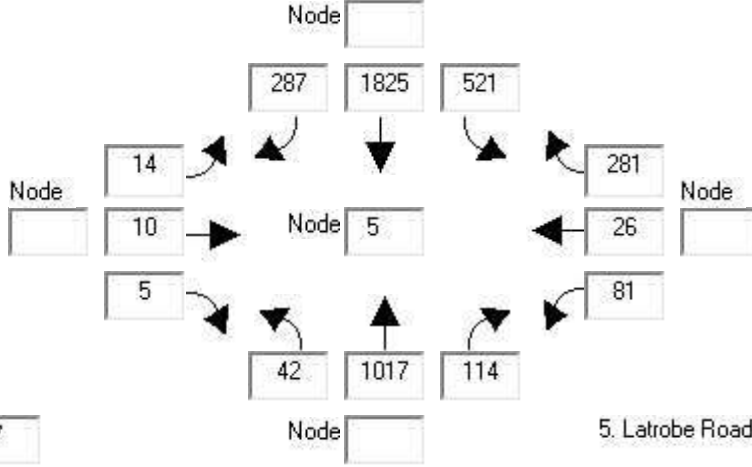


Goal	Actual
10	-2.2 % Convergence
4	Iterations

Use counts turns as floor

Convergence goal achieved.

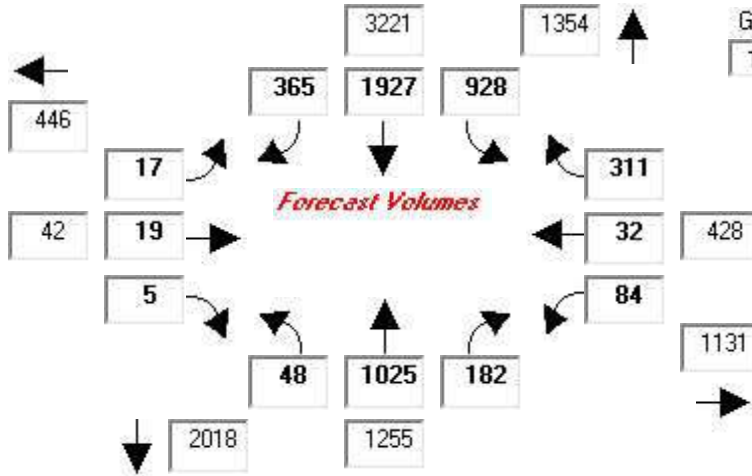
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- Count data
- Turn %-ages

5 of 7

5. Latrobe Road/Town Center Boulevard

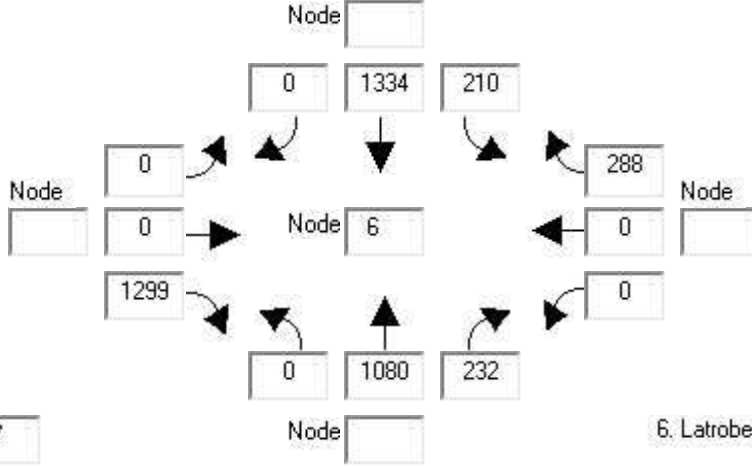


Goal	Actual
10	-0.1 % Convergence
3	Iterations

Use counts turns as floor

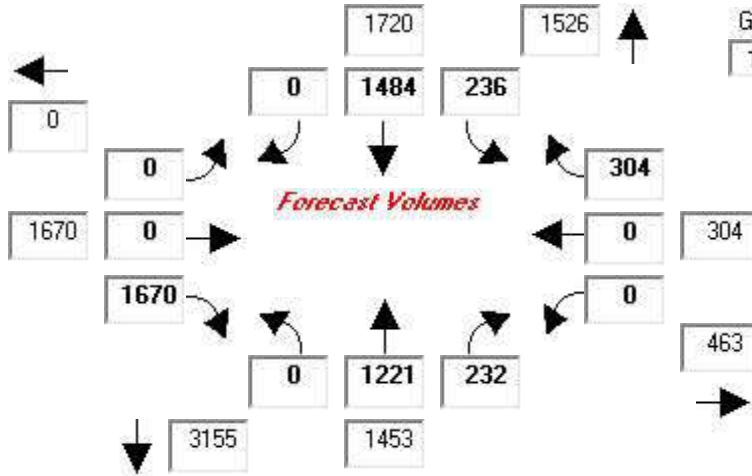
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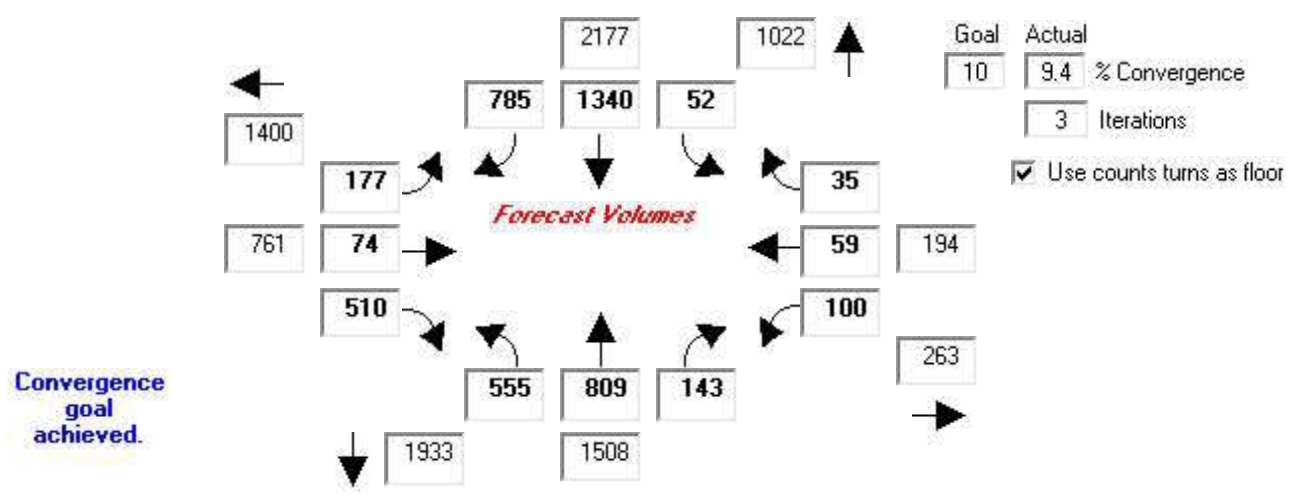
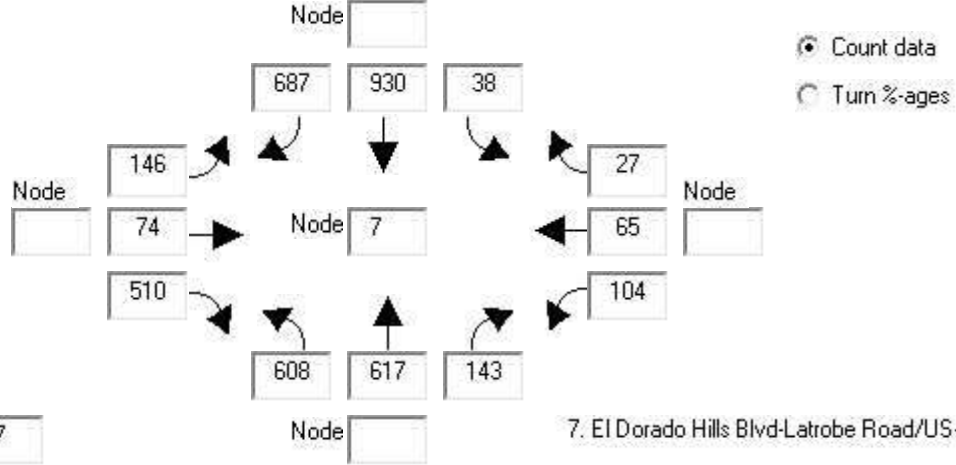
6 of 7

6. Latrobe Road/US-50 EB Ramps

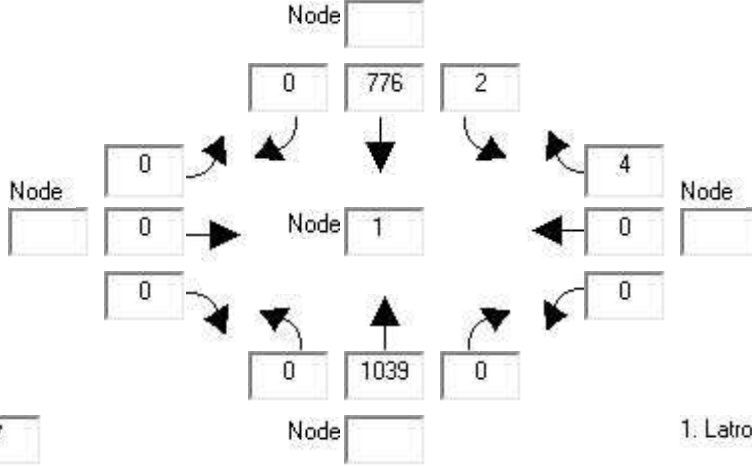


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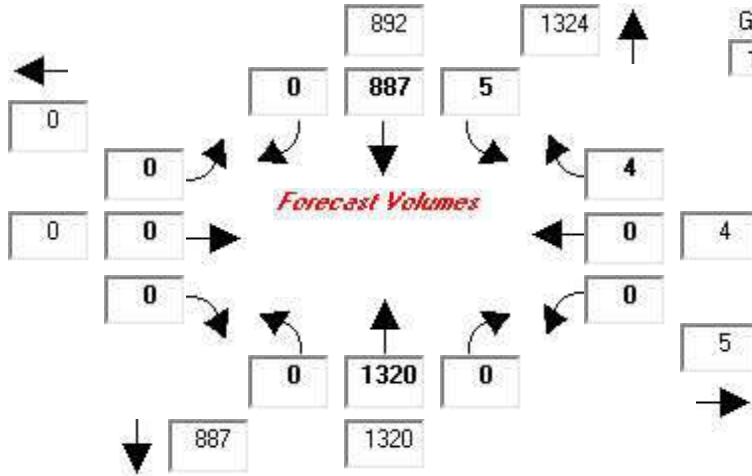
Input file name: P:\300.Environmental\8858 EID On Call Enviro\DUDEK WORK PRODUCTS\EID WWTP Ops relocation\Subs and



- Count data
- Turn %-ages

1 of 7

1. Latrobe Road/Project Access

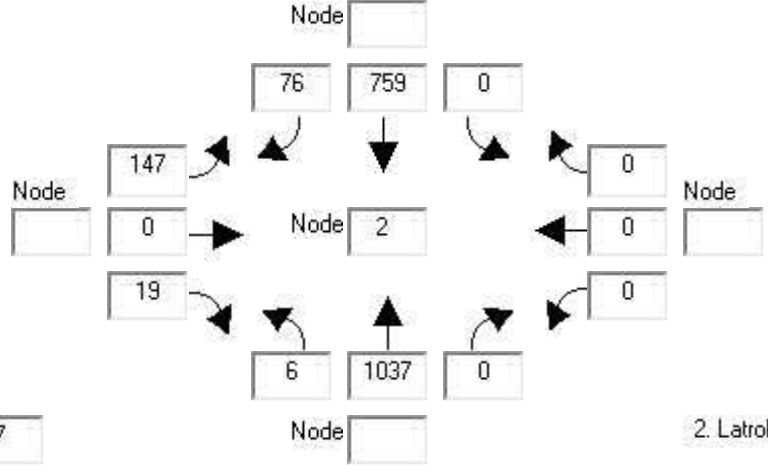


Goal	Actual
10	-0.3 % Convergence
	3 Iterations

Use counts turns as floor

Convergence goal achieved.

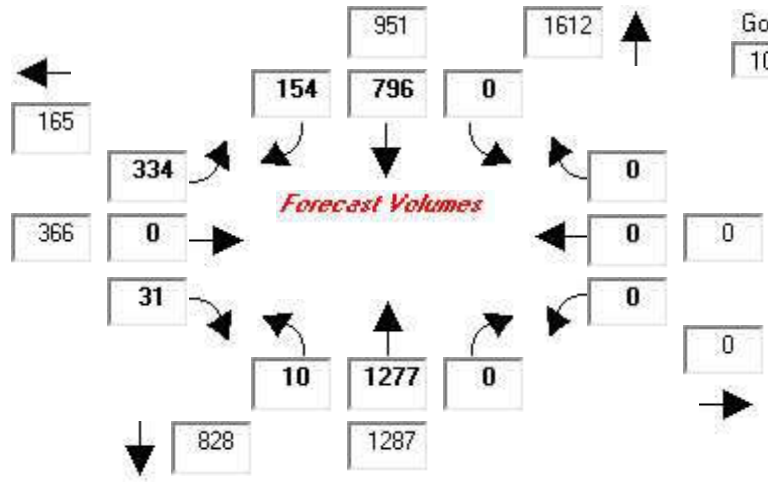
Input file name: P:\300.Environmental\8858 EID On Call Enviro\DUDEK WORK PRODUCTS\EID WWTP Ops relocation\Subs and



- Count data
- Turn %-ages

2 of 7

2. Latrobe Road/Suncast Lane

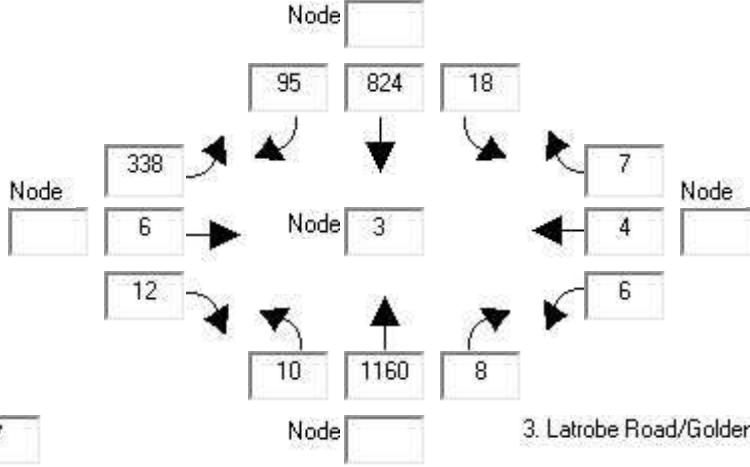


Goal	Actual	% Convergence
10	7.0	
3 Iterations		

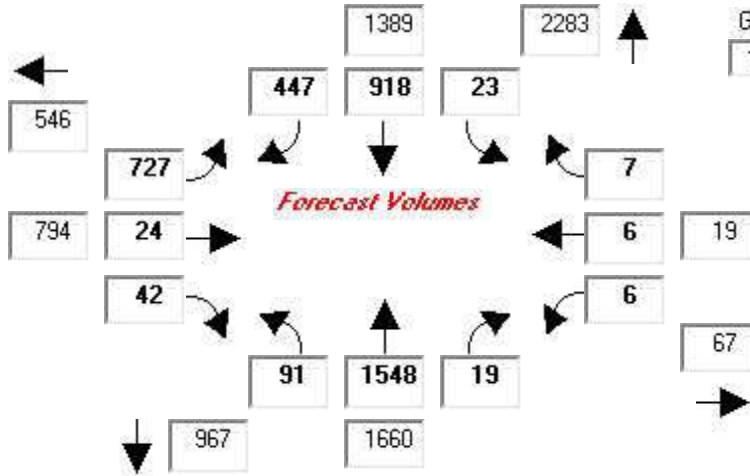
Use counts turns as floor

Convergence goal achieved.

Input file name: P:\300.Environmental\8858 EID On Call Enviro\DUDEK WORK PRODUCTS\EID WWTP Ops relocation\Subs and



- Count data
- Turn %-ages

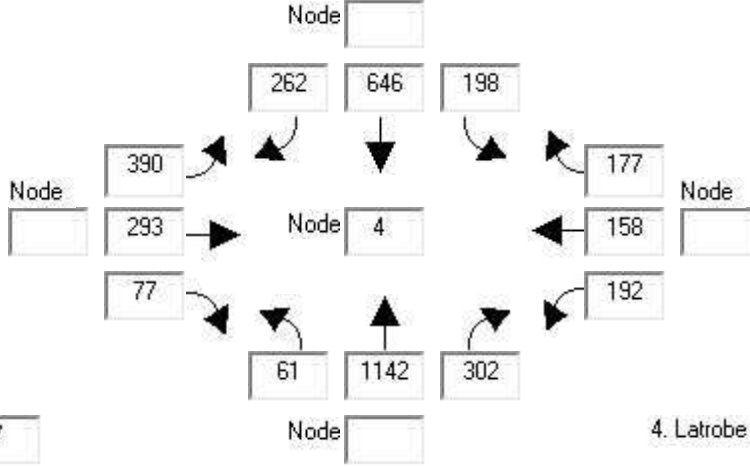


Goal	Actual
10	-2.9 % Convergence
7	Iterations

Use counts turns as floor

Convergence goal achieved.

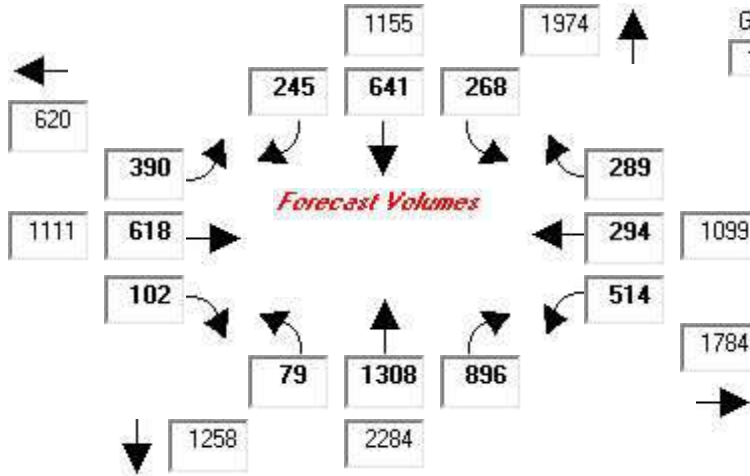
Input file name: P:\300.Environmental\8858 EID On Call Enviro\DUDEK WORK PRODUCTS\EID WWTP Ops relocation\Subs and



- Count data
- Turn %-ages

4 of 7

4. Latrobe Road/White Rock Road



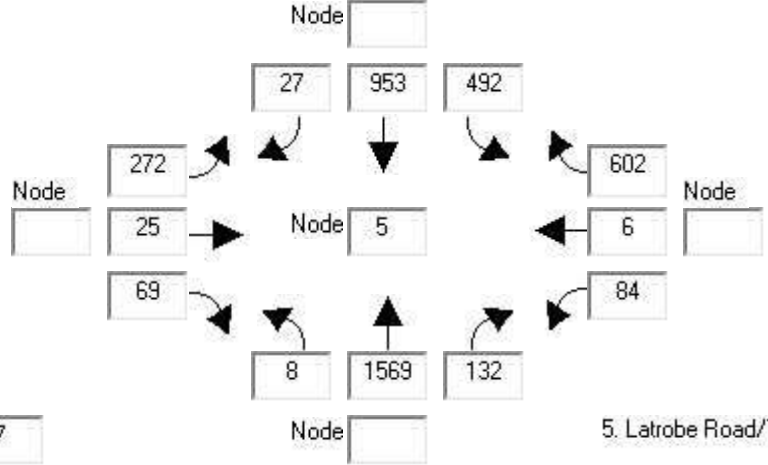
Goal 10 Actual 6.7 % Convergence

4 Iterations

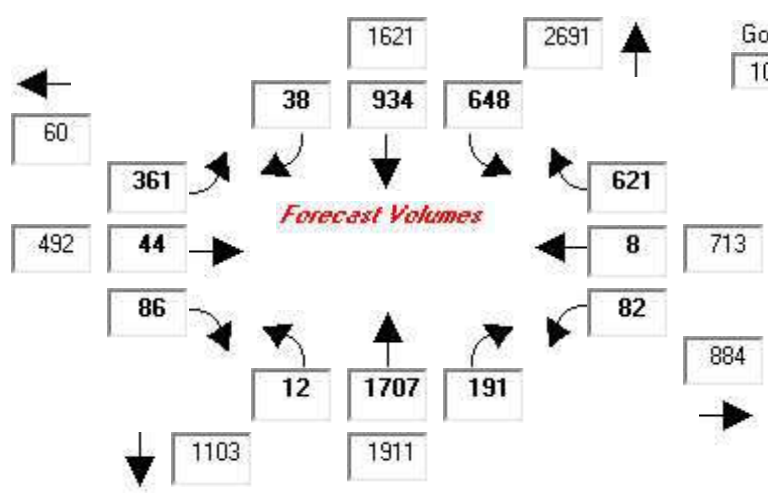
Use counts turns as floor

Convergence goal achieved.

Input file name: P:\300.Environmental\8858 EID On Call Enviro\DUDEK WORK PRODUCTS\EID WWTP Ops relocation\Subs and



- Count data
- Turn %-ages

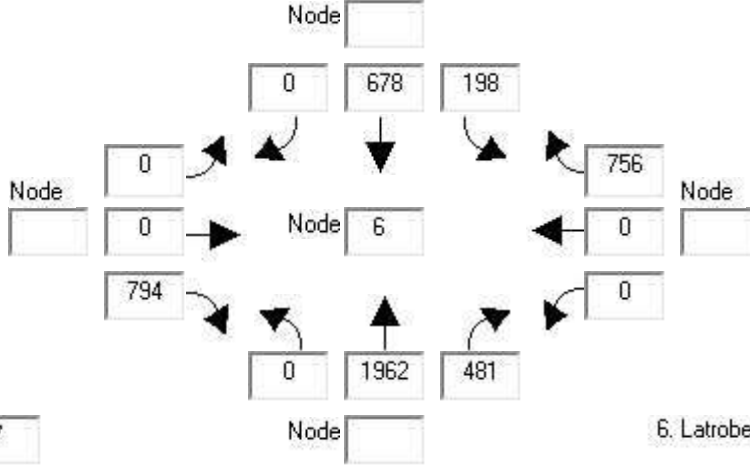


Goal	Actual
10	-1.3 % Convergence
3	Iterations

Use counts turns as floor

Convergence goal achieved.

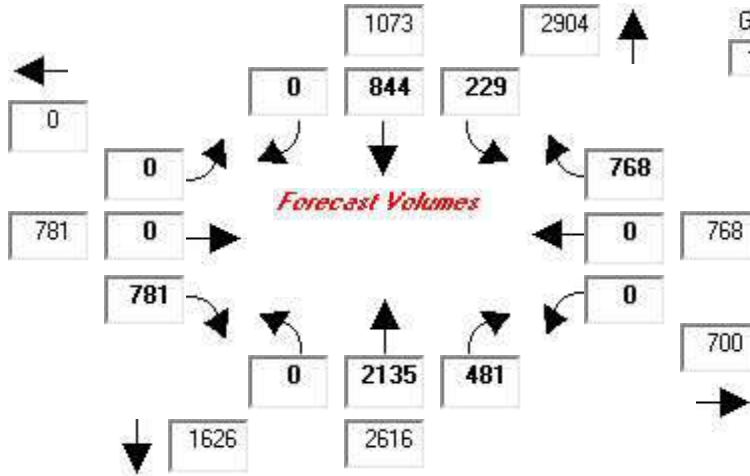
Input file name: P:\300.Environmental\8858 EID On Call Enviro\DUDEK WORK PRODUCTS\EID WWTP Ops relocation\Subs and



- Count data
- Turn %-ages

6 of 7

6. Latrobe Road/US-50 EB Ramps



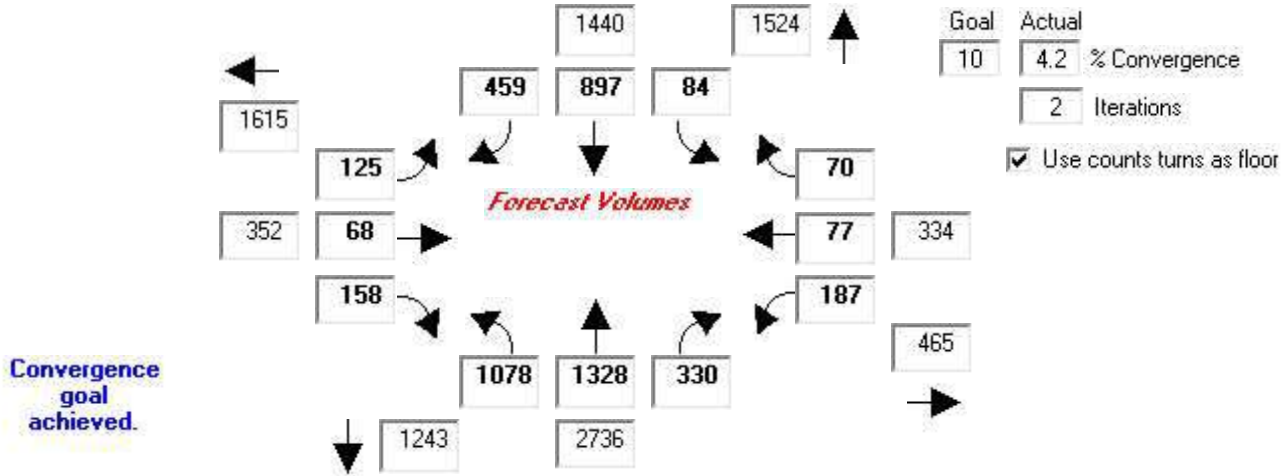
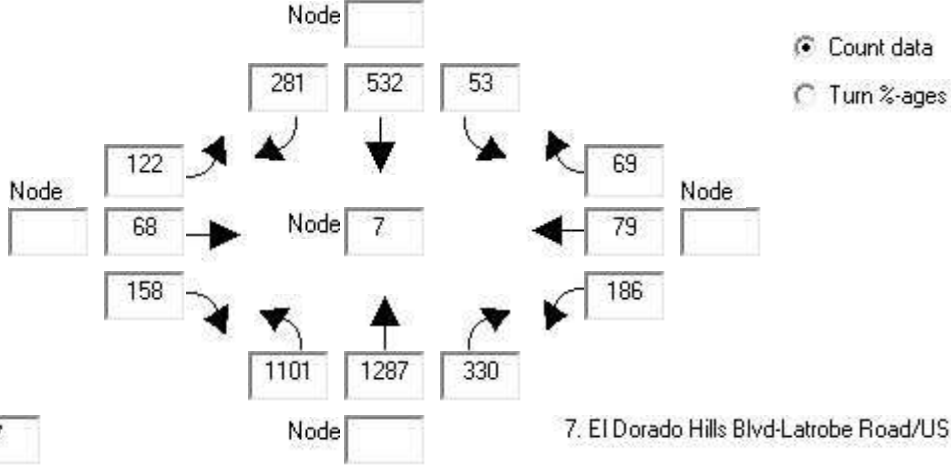
Goal Actual
10 1.6 % Convergence

2 Iterations

Use counts turns as floor

Convergence goal achieved.

Input file name: P:\300.Environmental\8858 EID On Call Enviro\DUDEK WORK PRODUCTS\EID WWTP Ops relocation\Subs and



Input file name: P:\300.Environmental\8858 EID On Call Enviro\DUDEK WORK PRODUCTS\EID WWTP Ops relocation\Subs and