CITY OF SAN BERNARDINO

UNIVERSITY HILLS

TRAFFIC IMPACT ANALYSIS (REVISED)

Prepared by:

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I. Introduction

The purpose of this revised report is to provide an assessment of the traffic impacts resulting from the development of the proposed University Hills project, and to identify the traffic mitigation measures necessary to maintain the established level of service standard for the elements of the impacted roadway system. The traffic issues related to the proposed land uses and development have been evaluated in the context of the California Environmental Quality Act.

The City of San Bernardino is the lead agency responsible for preparation of the traffic impact analysis, in accordance with the California Environmental Quality Act authorizing legislation. This report analyzes traffic impacts for the anticipated opening date with full occupancy of the development in Year 2011, at which time it will be generating traffic at its full potential, and for the Year 2030.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided in Appendix A.

A. Project Description

The proposed development is located north of Campus Parkway and east of Northpark Boulevard in the City of San Bernardino. A vicinity map showing the project location is provided on Figure 1.

The project site is proposed to be developed with 107 residential dwelling units (0-11.9 dwelling units/acre) and 873 residential dwelling units (12-20 dwelling units/acre. Figure 2 illustrates the site plan.

B. Study Area

Regional access to the project site is provided by the I-215 Freeway. Local access is provided by various roadways in the vicinity of the site. The east-west roadways which will be most affected by the project include Northpark Boulevard and Kendall Drive. North-south roadways expected to provide local access include Palm Avenue, Campus Parkway, University Parkway, Little Mountain Drive, and H Street.

A series of scoping discussions were conducted with the following agencies to define the desired analysis locations for each future analysis year:

- City of San Bernardino
- San Bernardino Associated Governments

In addition, staff from the Southern California Association of Governments has also been contacted to discuss the project and its associated travel patterns.

No analysis is required further than 5 miles from the project site. The roadway elements that must be analyzed are dependent on both the analysis year (project Opening Year or Year 2030) and project generated traffic volumes. The identification of the study area, and the intersections and highway segments requiring analysis, was based on an estimate of the two-way traffic volumes on the roadway segments near the project site. All arterial segments have been included in the analysis when the anticipated project volume equals or exceeds 50 two-way trips in the peak hours. The requirement is 100 two-way peak hour trips for freeways.

The project contributes traffic greater than the freeway threshold volume of 100 two-way peak hour trips to the I-215 Freeway. The project contributes traffic greater than the arterial link threshold volume of 50 two-way trips in the peak hours on intersections in the County of San Bernardino. This means that the City of San Bernardino must notify the California Department of Transportation and the County of San Bernardino. Each of these agencies must also be provided with a copy of the traffic impact analysis, once the document is accepted by the City of San Bernardino. (Note: The purpose of this notification is to allow the California Department of Transportation to identify opportunities to make improvements to intersections concurrent with adjacent development, at considerably less cost and disruption than would occur if it were done after-the-fact).

C. Analysis Methodology

The analysis of the traffic impacts from the proposed development and the assessment of the required mitigation measures were based on an evaluation of the existing and forecast traffic conditions in the vicinity of the site with and without the project. The following analysis years are considered in this report:

- Existing Conditions (2007)
- Project Opening Year Conditions (2011)
- Horizon Year Conditions (2030)

Existing intersection traffic conditions were established through morning and evening peak hour traffic counts obtained by Kunzman Associates from September 2007 and June 2008 (see Appendix B). Supplemental traffic data was available from the 2007 Traffic Volumes on California State Highways by the California Department of Transportation. The traffic counts available for the Little Mountain Drive/Northpark Boulevard intersection which was counted in June 2008 was when Cal State University San Bernardino was in

summer school and not during the school year. As a result, the June 2008 traffic counts were compared to the September 2007 traffic counts for the intersection when school was in session and were subsequently adjusted by a factor of 3.05 for the morning peak hour and 1.45 for the evening peak hour to represent traffic conditions for when the University was in session. The adjusted traffic counts can be found in Appendix B.

In addition, truck classification counts were conducted at the study area intersections. The existing percent of trucks was used in the conversion of trucks to Passenger Car Equivalent's.

Project traffic volumes for all future projections were estimated using the manual approach. Trip generation has been estimated based on the Institute of Transportation Engineers, Trip Generation, 7th Edition, 2003.

The distribution of the project traffic was based on the select zone evening peak period traffic distribution from the Year 2030 East Valley Traffic Model. The socio-economic data inputs to the Comprehensive Transportation Plan traffic model are representative of the planned project development intensity.

The average daily traffic volume forecasts have been determined using the growth increment approach on the East Valley Traffic Model Year 2000 and Year 2030 average daily traffic volume forecasts (see Appendix C). This difference defines the growth in traffic over the 30-year period. The incremental growth in average daily traffic volume has been factored to reflect the forecast growth between Year 2007 and Year 2030. For this purpose, linear growth between the Year 2000 base condition and the forecast Year 2030 condition was assumed. Since the increment between Year 2007 and Year 2030 is 23 years of the 30-year time frame, a factor of 0.77 (i.e., 23/30) was used.

The Year 2030 without project daily and peak hour directional roadway segment volume forecasts have been determined using the growth increment approach on the East Valley Traffic Model Year 2000 and Year 2030 peak hour volumes. The growth increment calculation worksheets are shown in Appendix C. Current peak hour intersection approach/departure data is a necessary input to this approach. The existing traffic count data serves as both the starting point for the refinement process, and also provides important insight into current travel patterns and the relationship between peak hour and daily traffic conditions. The initial turning movement proportions are estimated based upon the relationship of each approach leg's forecast traffic volume to the other legs forecast volumes at the intersection. The initial estimate of turning movement proportions is then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program Report 255. A linear programming algorithm is used to calculate individual turning movements that match the known directional

roadway segment volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

The Opening Year (2011) traffic volumes have been interpolated from the Year 2030 traffic volumes based upon a portion of the future growth increment.

Project traffic volumes were then added to the Year 2030 East Valley Traffic Model volumes. Quality control checks and forecast adjustments were performed as necessary to ensure that all future traffic volume forecasts reflect a minimum of 10% growth over existing traffic volumes. The result of this traffic forecasting procedure is a series of traffic volumes suitable for traffic operations analysis.

The technique used to assess the capacity needs of an intersection is known as the Intersection Delay Method (see Appendix D) based on the 2000 Highway Capacity Manual – Transportation Research Board Special Report 209. To calculate delay, the volume of traffic using the intersection is compared with the capacity of the intersection. Signalized intersections are considered deficient (Level of Service F) if the overall intersection critical volume to capacity ratio equals or exceeds 1.0, even if the level of service defined by the delay value is below the defined Level of Service standard. The volume to capacity ratio is defined as the critical volumes divided by the intersection capacity. A volume to capacity ratio greater than 1.0 implies an infinite queue.

The Level of Service analysis for signalized intersections has been performed using optimized signal timing. This analysis has included an assumed lost time of two seconds per phase. Signal timing optimization has considered pedestrian safety and signal coordination requirements. Appropriate time for pedestrian crossings have also been considered in the signalized intersection analysis. The following formula has been used to calculate the pedestrian minimum times for all Highway Capacity Manual runs:

[(Curb to curb distance) / (4 feet/second)] + 7 seconds.

For existing and Opening Year traffic conditions, saturation flow rates of 1,800 vehicles per hour of green for through and right turn lanes and 1,700 vehicles per lane for single left turn lanes, 1,600 vehicles per lane for dual left turn lanes and 1,500 vehicles per lane for triple left turn lanes have been assumed for the capacity analysis.

For Year 2030 traffic conditions, saturation flow rates of 1,900 vehicles per hour of green for through and right turn lanes and 1,800 vehicles per lane for single left turn lanes, 1,700 vehicles per lane for dual left turn lanes and

1,800 vehicles per lane for double right turn lanes have been assumed for the capacity analysis.

The peak hour traffic volumes have been adjusted to peak 15 minute volumes for analysis purposes using the existing observed peak 15 minute to peak hour factors for all scenarios analyzed. Where feasible improvements in accordance with the local jurisdiction's General Plan and which result in acceptable operations cannot be identified, the Year 2030 peak hour factor has been adjusted upwards to 0.95. This is to account for the effects of congestion on peak spreading. Peak spreading refers to the tendency of traffic to spread more evenly across time as congestion increases.

The traffic mitigation needs anticipated at the time of the project opening with full occupancy and for the Year 2030 were combined into a summary of mitigation requirements and costs. The mitigation cost responsibility for the proposed development was estimated based on the percent of the increase in traffic from the existing condition to the Year 2030 that was attributed to the project-generated traffic.

D. Definition of Deficiency and Significant Impact

The following definitions of deficiencies and significant impacts have been developed in accordance with the City of San Bernardino requirements.

1. Definition of Deficiency

   The definition of an intersection deficiency has been obtained from the City of San Bernardino General Plan. The General Plan states that peak hour intersection operations of Level of Service D or better are generally acceptable. Therefore, any intersection operating at Level of Service E to F will be considered deficient.

   For freeway facilities, the Congestion Management Program controls the definition of deficiency for purposes of this study. The Congestion Management Program definition of deficiency is based on maintaining a level of service standard of Level of Service E or better, except where an existing Level of Service F condition is identified in the Congestion Management Program document (San Bernardino County Congestion Management Program Table 2-1). A Congestion Management Program deficiency is, therefore, defined as any freeway segment operating or projected to operate at Level of Service F, unless the segment is identified explicitly in the Congestion Management Program document.

   The identification of a Congestion Management Program deficiency requires further analysis in satisfaction of Congestion Management Program requirements, including:

- Evaluation of the mitigation measures required to restore traffic operations to an acceptable level with respect to Congestion Management Program Level of Service standards.

- Calculation of the project share of new traffic on the impacted Congestion Management Program facility during peak hours of traffic.

- Estimation of the cost required to implement the improvements required to restore traffic operations to an acceptable level of service as described above.

This study incorporates each of these aspects for all locations where a Congestion Management Program deficiency is identified.

2. Definition of Significant Impact

The identification of significant impacts is a requirement of the California Environmental Quality Act. The City of San Bernardino General Plan and Circulation Element have been adopted in accordance with California Environmental Quality Act requirements, and any roadway improvements within the City of San Bernardino that are consistent with these documents are not considered a significant impact, so long as the project contributes its "fair share" funding for improvements.

A traffic impact is considered significant if the project both: i) contributes measurable traffic to and ii) substantially and adversely changes the level of service at any off-site location projected to experience deficient operations under foreseeable cumulative conditions, where feasible improvements consistent with the City of San Bernardino General Plan cannot be constructed.

Figure 1
Project Location Map

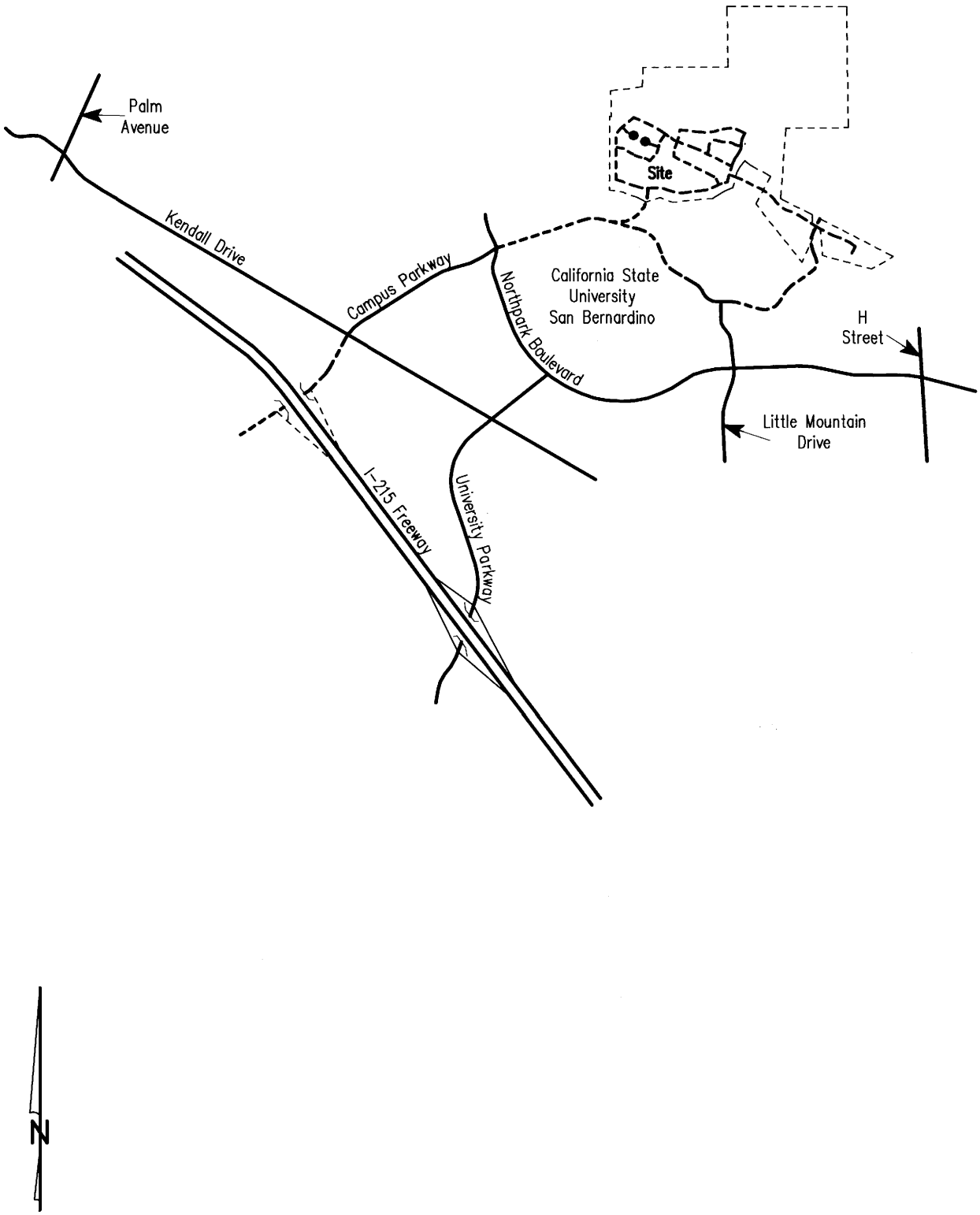

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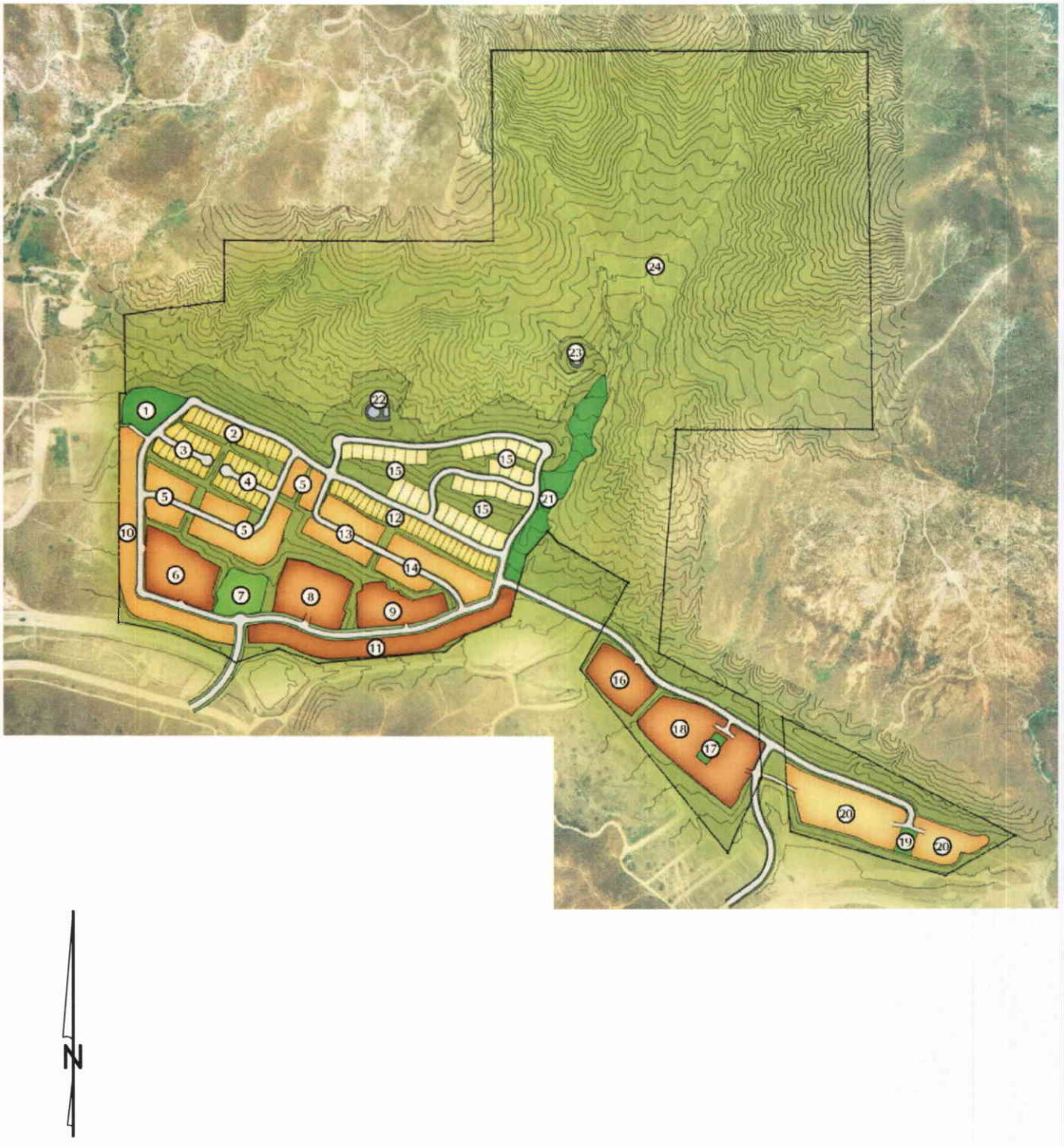
Figure 2
Site Plan



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II. Existing Conditions

A. Existing Roadway System

Figure 3 identifies the existing conditions for study area roadways. The number of through lanes for existing roadways and the existing intersection controls are identified.

Regional access to the project site is provided by the I-215 Freeway. Local access is provided by various roadways in the vicinity of the site. The east-west roadways which will be most affected by the project include Northpark Boulevard and Kendall Drive. North-south roadways expected to provide local access include Palm Avenue, Campus Parkway, University Parkway, Little Mountain Drive, and H Street.

Construction plans involving a half interchange for the proposed I-215 Freeway/Campus Parkway half interchange were obtained from the City of San Bernardino in the Preliminary Value Analysis Study Report for the I-215/University Parkway Interchange prepared by Value Management Strategies, Inc. in April 2008.

B. Existing Volumes

Figure 4 depicts the existing average daily traffic volumes. The existing average daily traffic volumes were obtained from the 2007 Traffic Volumes on California State Highways from the California Department of Transportation and factored from peak hour counts (see Appendix B) obtained by Kunzman Associates using the following formula for each intersection leg:

PM Peak Hour (Approach + Exit Volume) x 11.5 = Daily Leg Volume.

This is a conservative estimate and may over estimate the average daily traffic volumes.

Existing intersection traffic conditions were established through morning and evening peak hour traffic counts obtained by Kunzman Associates from September 2007 and June 2008 (see Appendix B) and shown on Figures 5 and 6, respectively. Explicit peak hour factors have been calculated using the data collected for this effort as well. The morning and evening peak hour traffic volumes were identified by counting the two-hour periods from 7:00 AM – 9:00 AM and 4:00 PM – 6:00 PM. The traffic counts available for the Little Mountain Drive/Northpark Boulevard intersection which was counted in June 2008 was when Cal State University San Bernardino was in summer school and not during the school year. As a result, the June 2008 traffic counts were

compared to the September 2007 traffic counts for the intersection when school was in session and were subsequently adjusted by a factor of 3.05 for the morning peak hour and 1.45 for the evening peak hour to represent traffic conditions for when the University was in session. The adjusted traffic counts can be found in Appendix B.

C. Existing Level of Service

The existing delay and Level of Service for intersections in the vicinity of the project are shown in Table 1. The study area intersections currently operate at acceptable Levels of Service during the peak hours for existing traffic conditions, except for the following study area intersection that operates at an unacceptable Levels of Service during the evening peak hour:

University Parkway (NS) at:
Northpark Boulevard (EW)

Existing delay worksheets are provided in Appendix D.

D. Planned Transportation Improvements and Relationship to General Plan

The City of San Bernardino General Plan Circulation Element is shown on Figure 7. The City of San Bernardino General Plan roadway cross-sections are illustrated on Figure 8.

The Year 2030 number of through travel lanes has been obtained from the East Valley Traffic Model and San Bernardino County Regional Transportation Improvement Program. No other committed sources of funding for additional improvements necessary to serve the increase in traffic are in place. The analyses contained in this report, therefore, assumed minimal additional improvements beyond those anticipated in the East Valley Traffic Model and San Bernardino County Regional Transportation Improvement Program.

Table 1

Existing Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:															
Kendall Drive (EW)	TS	1	2	1>	1	2	0	1	1	1	1	1	1	32.0-C	28.2-C
Campus Parkway (NS) at:															
Kendall Drive (EW)	TS	0	0	0	1	0	2>	1	2	0	0	2	1	16.0-B	14.3-B
Northpark Boulevard (NS) at:															
Campus Parkway (EW)	AWS	2	1	0	0	2	1	1	0	2	0	0	0	8.9-A	9.0-A
University Parkway (NS) at:															
Northpark Boulevard (EW)	TS	1	2	1>	1	2	0	1	2	1>>	1.5	1.5	0	54.9-D	68.3-E
Kendall Drive (EW)	TS	2	3	0	1	3	0	2	2	0	2	2	0	36.9-D	48.5-D
I-215 Freeway NB Ramps (EW)	TS	1	2	0	0	3	1	0	0	0	1	0	2	31.3-C	22.2-C
I-215 Freeway SB Ramps (EW)	TS	0	2	0	2	1	0	1	0	1	0	0	0	17.8-B	19.0-B
Little Mountain Drive (NS) at:															
Northpark Boulevard (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	34.6-C	31.3-C
H Street (NS) at:															
Northpark Boulevard (EW)	TS	1	1	0	1	1	0	1	2	0	1	2	1	14.5-B	15.7-B

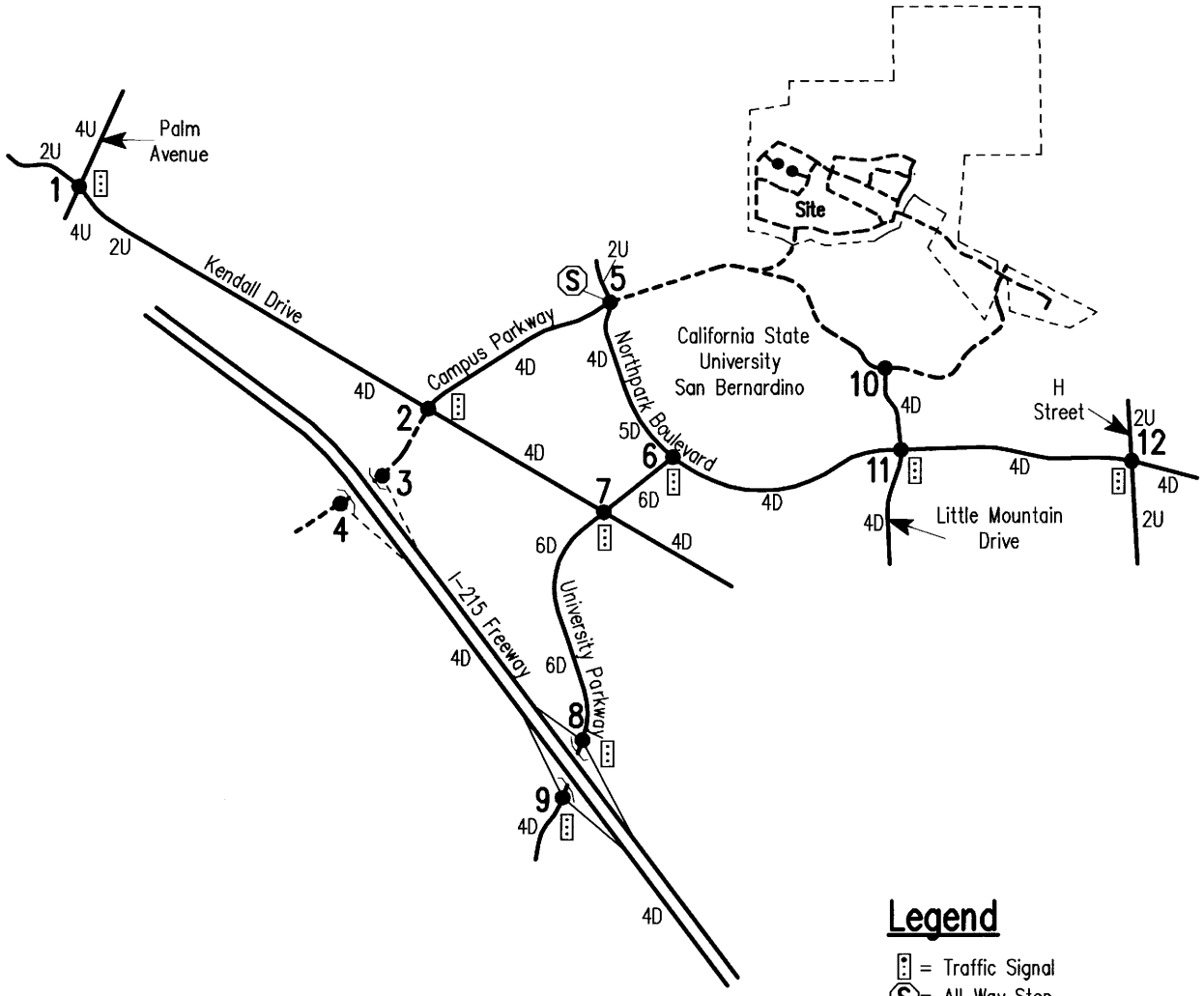
[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

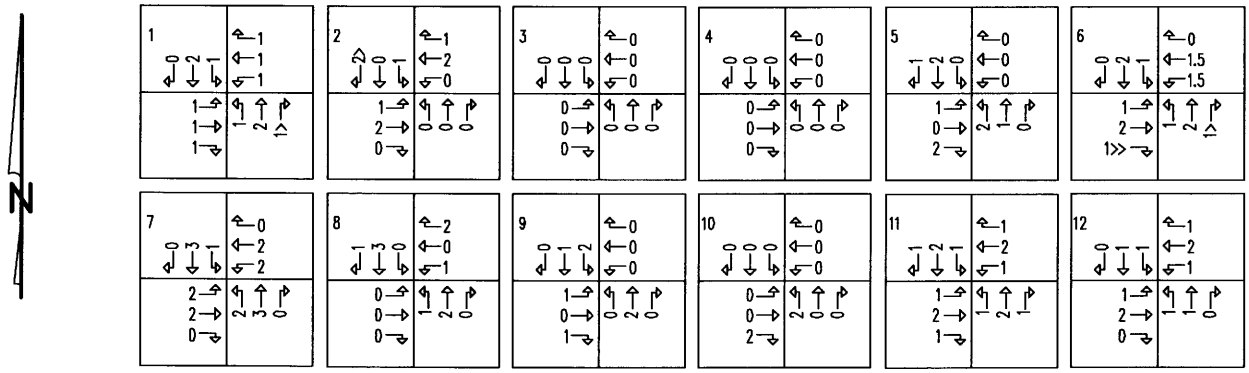
[3] TS = Traffic Signal; AWS = All Way Stop

Figure 3
Existing Through Travel Lanes and Intersection Controls



Legend

- = Traffic Signal
- (S) = All Way Stop
- STOP = Stop Sign
- 4 = Through Travel Lanes
- D = Divided
- U = Undivided
- > = Right Turn Overlap
- >> = Free Right Turn



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Intersection reference numbers are in upper left corner of turning movement boxes.

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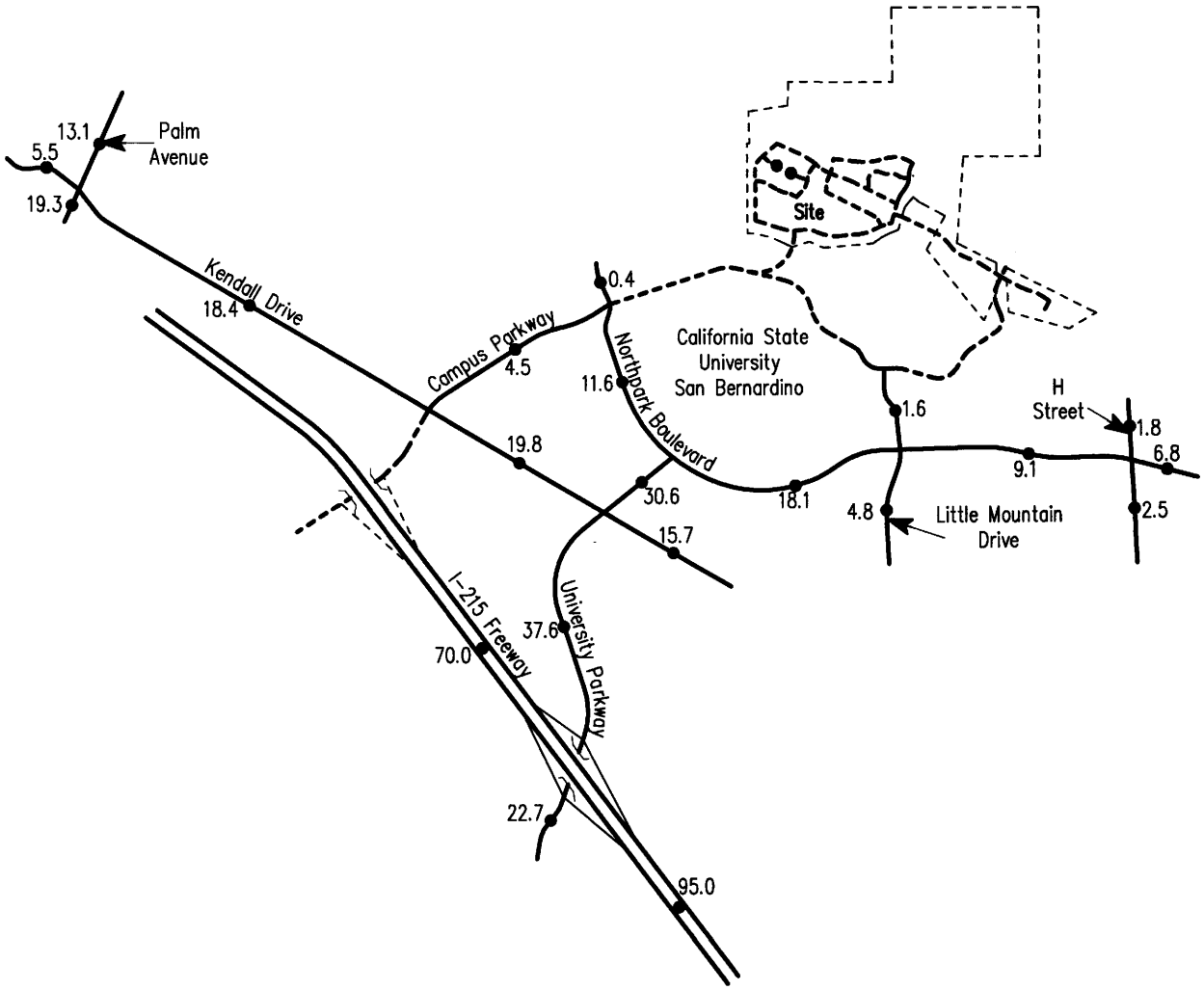
Figure 4
Existing Average Daily Traffic Volumes



Legend

22.7 = Vehicles Per Day (1000's)

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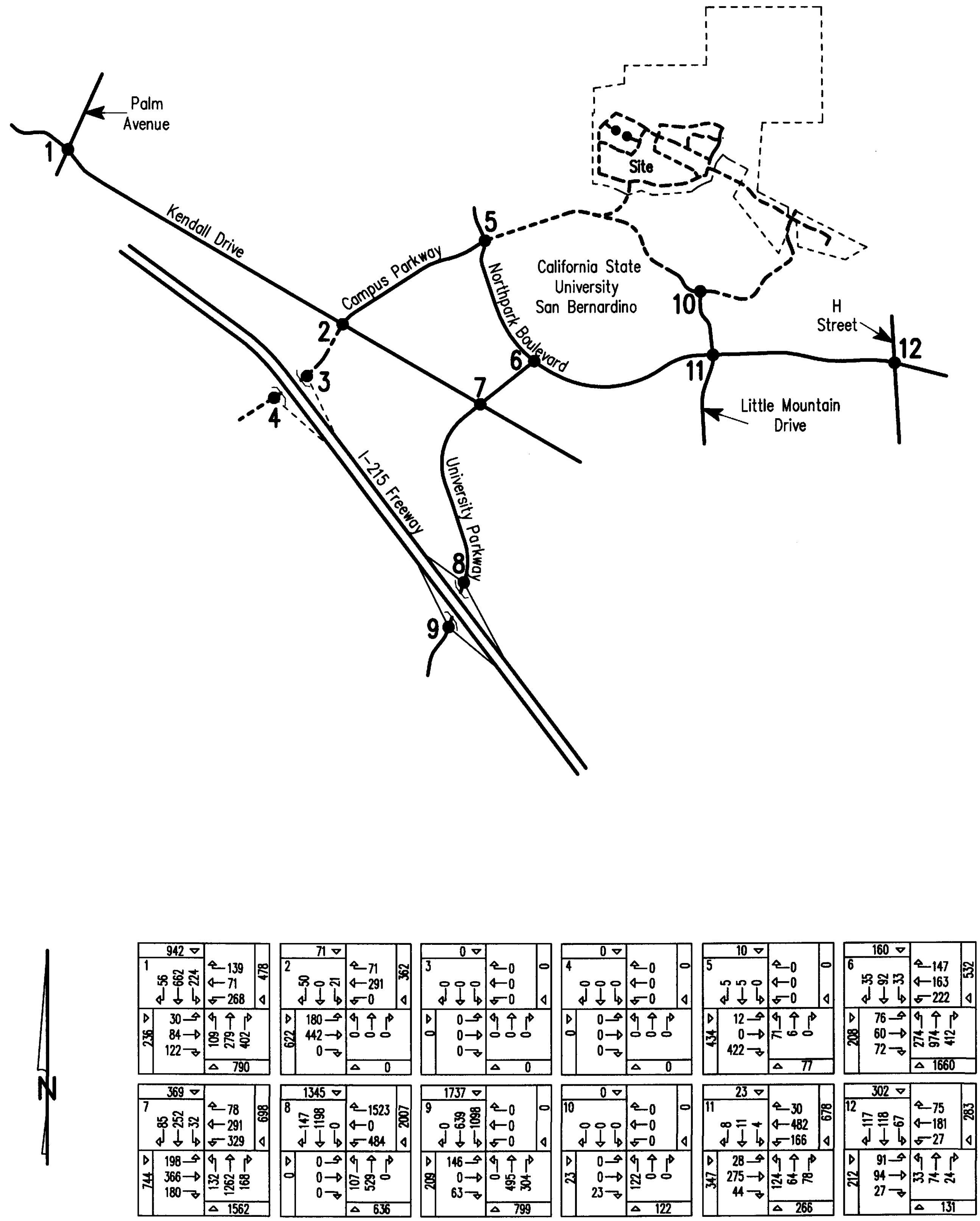
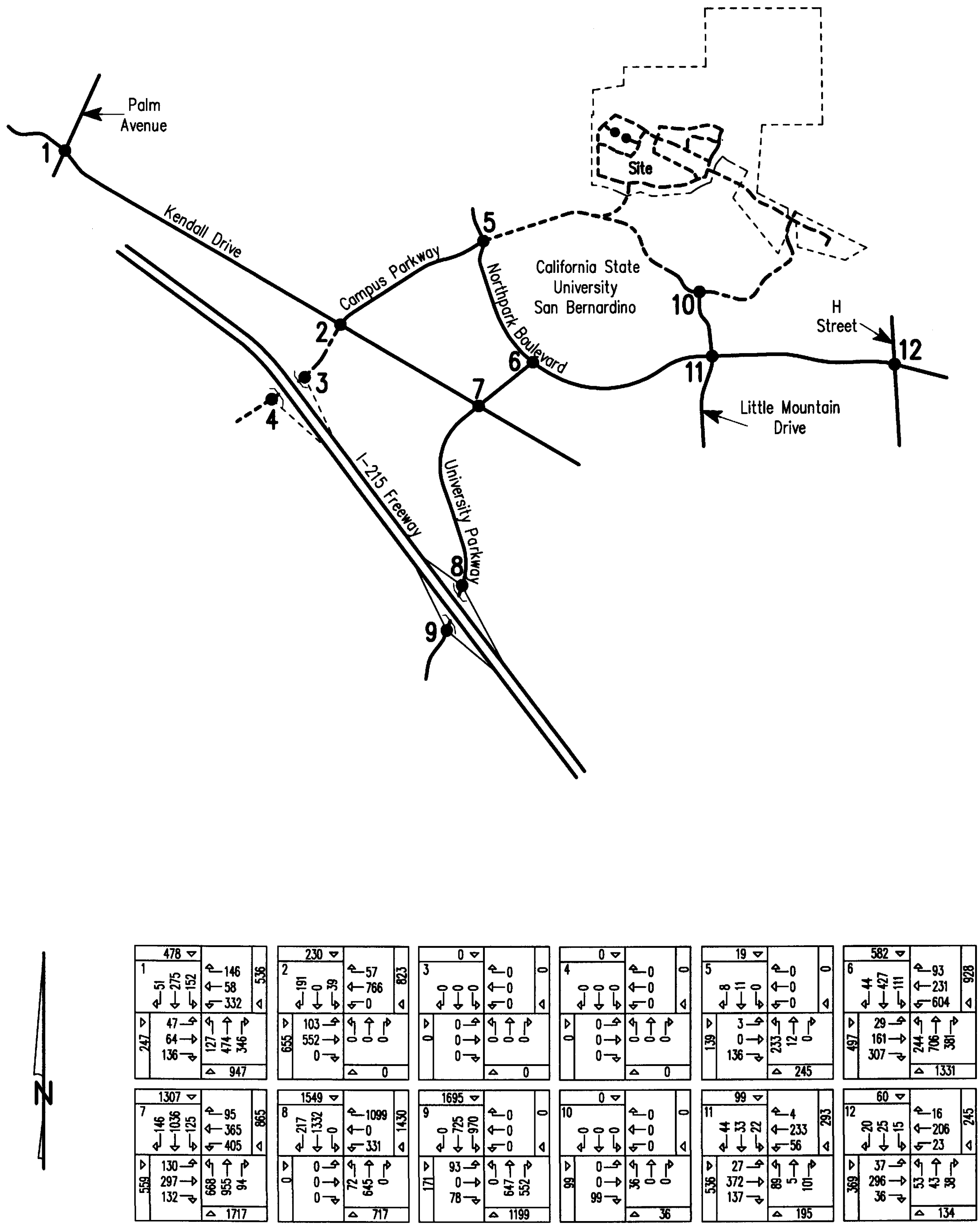
Figure 5
Existing Morning Peak Hour Intersection Turning Movement Volumes



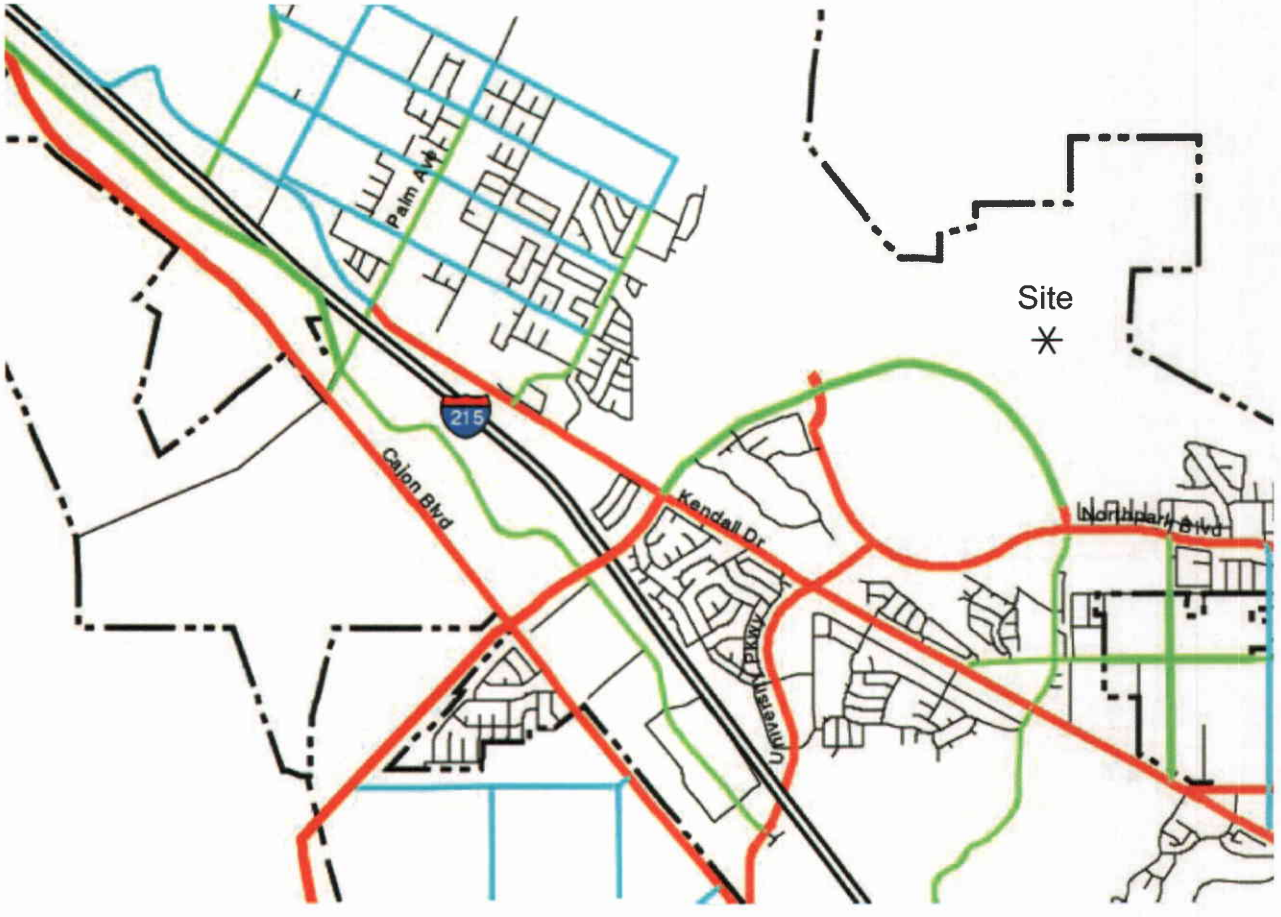
Kunzman Associates Intersection reference numbers are in upper left corner of turning movement boxes. 3516b/bbas

Figure 6
Existing Evening Peak Hour Intersection Turning Movement Volumes



Kunzman Associates Intersection reference numbers are in upper left corner of turning movement boxes. 3516b/bbas

Figure 7
City of San Bernardino General Plan Circulation Element



Kunzman Associates

Source: City of San Bernardino

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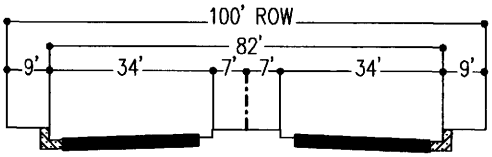
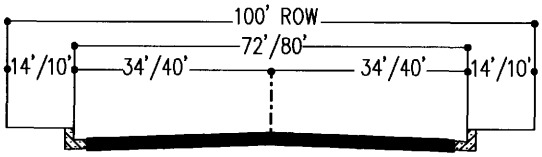
Figure 8
City of San Bernardino General Plan Roadway Cross-Sections

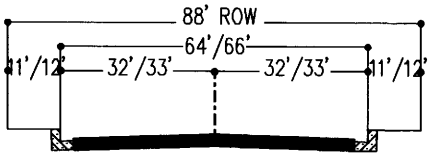
HIGHWAYS



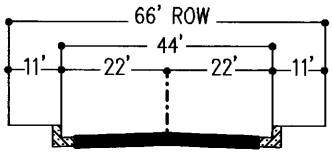
MAJOR DIVIDED HIGHWAY



MAJOR HIGHWAY

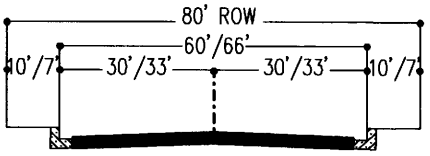


SECONDARY HIGHWAY



COUNTY SECONDARY HIGHWAY

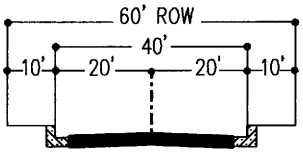
FOR USE ON EXISTING STREETS OF 88 FOOT DEDICATION NOT TO BE USED FOR NEW STREETS



SECONDARY HIGHWAY

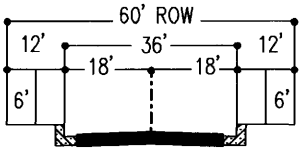
FOR USE ON EXISTING 80' FOOT STREETS OR WIDE LANE STREETS WHERE BETBACK LINES HAVE BEEN ESTABLISHED TO 80' FEET OVER LONG PERIOD OF TIME. NOT TO BE USED FOR NEW STREETS (86' CURB TO CURB MAYBE REQUIRED WHERE LIGHT PEDESTRAIN TRAFFIC IS ANTICIPATED)

LOCAL STREET



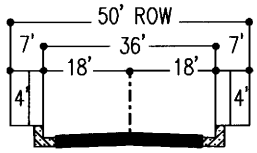
COLLECTOR STREET

FOR USE IN QUARTER MILE STREETS, SCHOOL, AND INDUSTRIAL AREAS.



CONTINUOUS STREET

IN COMMERCIAL AND MULTIPLE RESIDENTIAL AREAS A 40'-FOOT ROADWAY WITH 10'-FOOT PARKWAYS AND FULL WIDTH SIDEWALK SHALL BE REQUIRED.



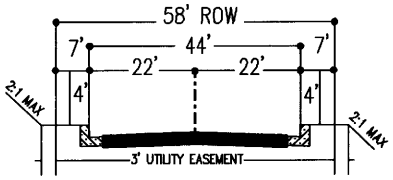
NONCONTINUOUS STREET

MAY INCLUDE CUL-DE-SAC LOOP STREETS AND SHORT CONNECTOR STREETS WHERE AN APPROVED INTERNAL PEDESTRIAN SYSTAM IS PROVIDED THE PARKWAY ON ONE SIDE MAYBE REDUCED TO 3' FEET.

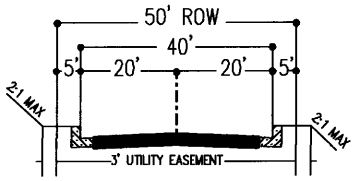
STANDARD STREET CONDITIONS

1. PRIVATE STREET DEVELOPMENT SHALL CONFORM TO THE STANDARD STREET DIMENSIONS SHOWN ON THIS SHEET.

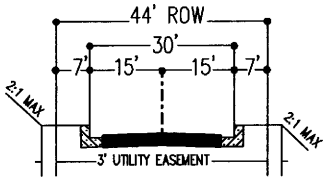
HILLSIDE STREETS



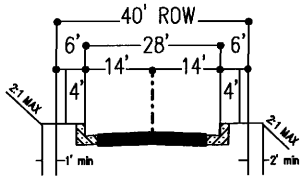
PRIMARY HILLSIDE COLLECTOR STREET



HILLSIDE COLLECTOR STREET

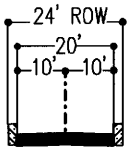


HILLSIDE STREET LOCAL



HILLSIDE STREET LIMITED

(PARKING ON ONE SIDE ONLY)



ACCESS ROADWAY CONDITIONAL

(LIMITED TO 4 DWELLING UNITS PRIVATE STREET ONLY)

(NO PARKING BOTH SIDES)

Kunzman Associates

Source: City of San Bernardino

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III. Project Traffic

A. Project Description

The project site is proposed to be developed with 107 residential dwelling units (0-11.9 dwelling units/acre) and 873 residential dwelling units (12-20 dwelling units/acre. The proposed project will have access to Campus Parkway and Little Mountain Drive.

B. Trip Generation

The traffic generated by the project is determined by multiplying an appropriate trip generation rate by the quantity of land use. Trip generation rates are predicated on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and our life styles remain similar to what we know today. A major change in these variables may affect trip generation rates.

Trip generation rates were determined for daily traffic and morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the proposed land uses. By multiplying the traffic generation rates by the land use quantities, the traffic volumes are determined.

Table 2 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers, Trip Generation, 7th Edition, 2003. The proposed development is projected to generate a total of approximately 6,140 daily vehicle trips, 464 of which will occur during the morning peak hour and 562 of which will occur during the evening peak hour.

C. Trip Distribution

The East Valley Traffic Model has been used to evaluate the regional distribution of project traffic. A select zone (trip distribution) analysis was performed using the East Valley Traffic Model with the assistance of the Southern California Association of Governments staff. The socio-economic data inputs to the East Valley Traffic Model are representative of the planned project development intensity. Figures 9 and 10 contain the directional distributions of the project traffic for the proposed land uses.

Construction plans involving a half interchange for the proposed I-215 Freeway/Campus Parkway half interchange were obtained from the City of San Bernardino in the Preliminary Value Analysis Study Report for the I-215/University Parkway Interchange prepared by Value Management Strategies, Inc. in April 2008.

The Opening Year (2011) traffic projections have not taken into account the proposed I-215 Freeway/Campus Parkway half interchange. Year 2030 traffic projections have taken into account the proposed I-215 Freeway/Campus Parkway half interchange.

D. Trip Assignment

Based on the identified traffic generation and distributions, project average daily traffic volumes have been calculated and shown on Figure 11. Morning and evening peak hour intersection turning movement volumes expected from the project are shown on Figures 12 and 13, respectively.

E. Traffic Contribution Test

No analysis is required further than 5 miles from the project site. The roadway elements that must be analyzed are dependent on both the analysis year (project Opening Year or Year 2030) and project generated traffic volumes. The identification of the study area, and the intersections and highway segments requiring analysis, was based on an estimate of the two-way traffic volumes on the roadway segments near the project site. All arterial segments have been included in the analysis when the anticipated project volume equals or exceeds 50 two-way trips in the peak hours. The requirement is 100 two-way peak hour trips for freeways. Figure 14 graphically depicts the project traffic contribution test volumes on all of the roadway segments adjacent to the potential intersection analysis locations until the project volume contribution has clearly dropped below the 50 trip threshold.

The project contributes traffic greater than the freeway threshold volume of 100 two-way peak hour trips to the I-215 Freeway. The project contributes traffic greater than the arterial link threshold volume of 50 two-way trips in the peak hours on intersections in the County of San Bernardino. This means that the City of San Bernardino must notify the California Department of Transportation and the County of San Bernardino. Each of these agencies must also be provided with a copy of the traffic impact analysis, once the document is accepted by the City of San Bernardino. (Note: The purpose of this notification is to allow the California Department of Transportation to identify opportunities to make improvements to intersections concurrent with adjacent development, at considerably less cost and disruption than would occur if it were done after-the-fact).

Table 2

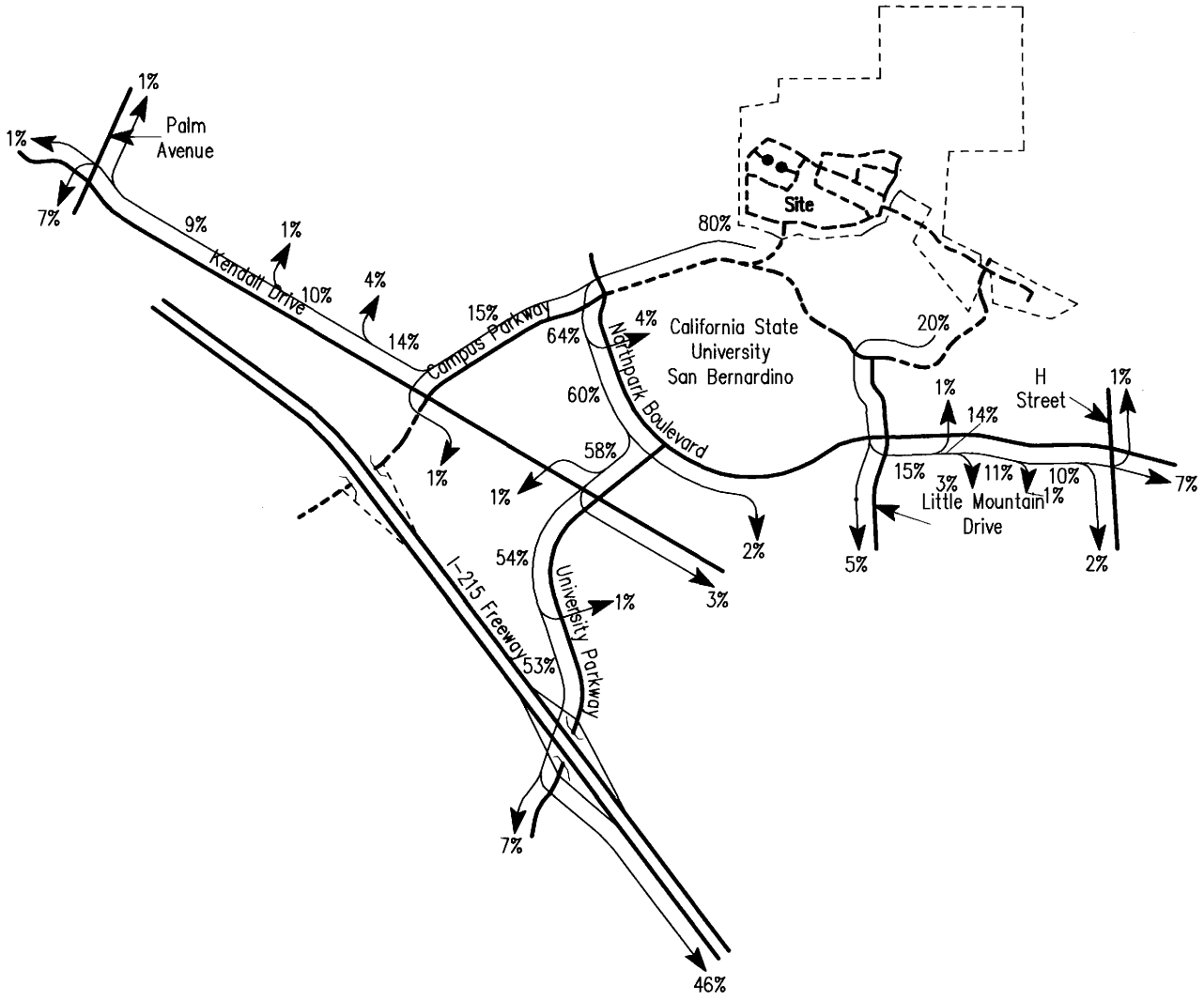
Project Traffic Generation[1]

Land Use	Quantity	Units[2]	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
Trip Generation Rates									
Residential - 0-11.9 DU/ACRE	107	DU	0.19	0.56	0.75	0.64	0.37	1.01	9.57
Residential - 12-20 DU/ACRE	873	DU	0.07	0.37	0.44	0.35	0.17	0.52	5.86
Trip Generation									
Residential - 0-11.9 DU/ACRE	107	DU	20	60	80	68	40	108	1,024
Residential - 12-20 DU/ACRE	873	DU	61	323	384	306	148	454	5,116
Total			81	383	464	374	188	562	6,140

[1] Source: Institute of Transportation Engineers, Trip Generation, 7th Edition, 2003, Land Use Categories 210 and 230.

[2] DU = Dwelling Units

Figure 9
Opening Year (2011) Project Traffic Distribution



Legend

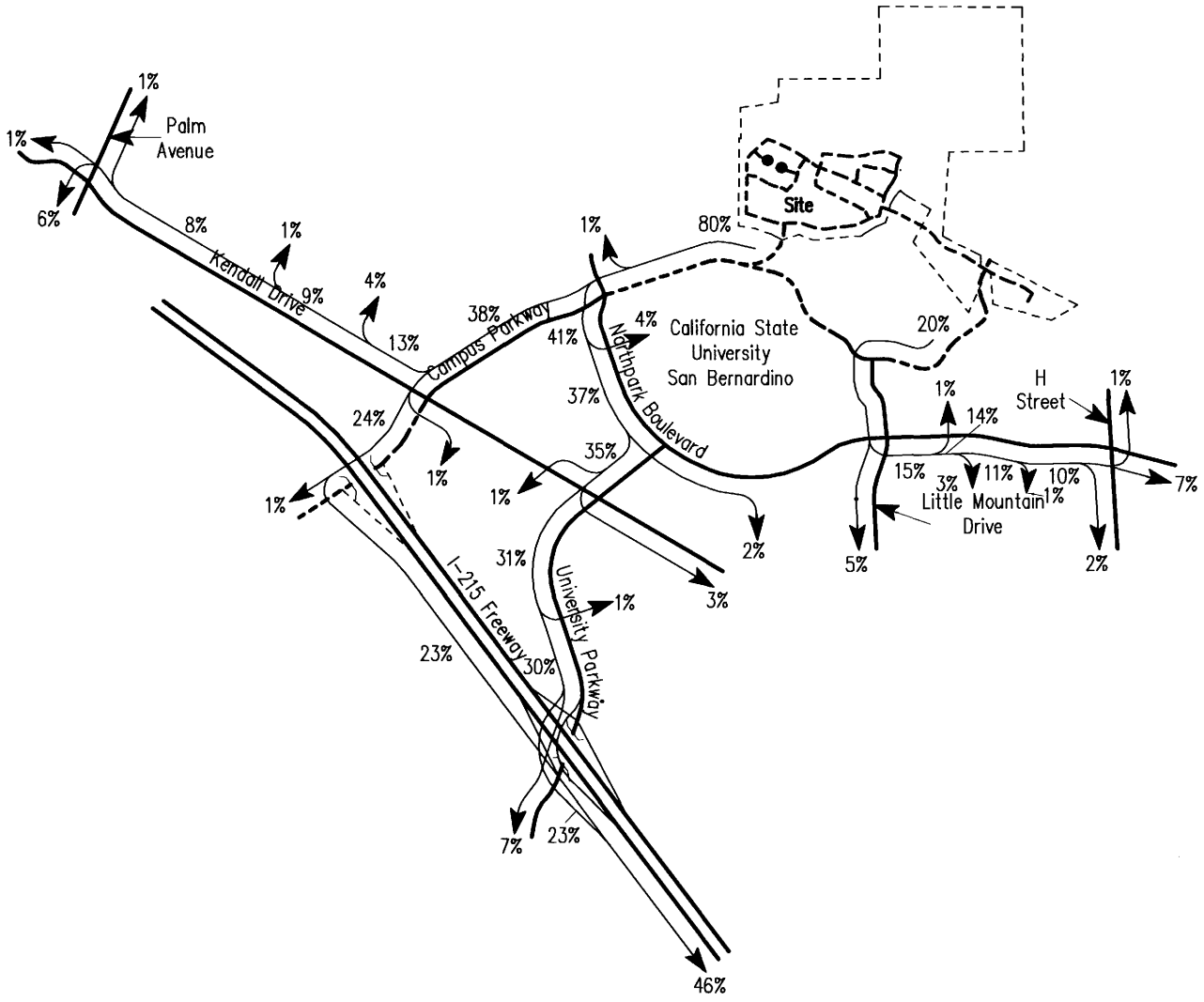
10% = Percent To/From Project

N

Kunzman Associates

3516b/9

Figure 10
Year 2030 Project Traffic Distribution



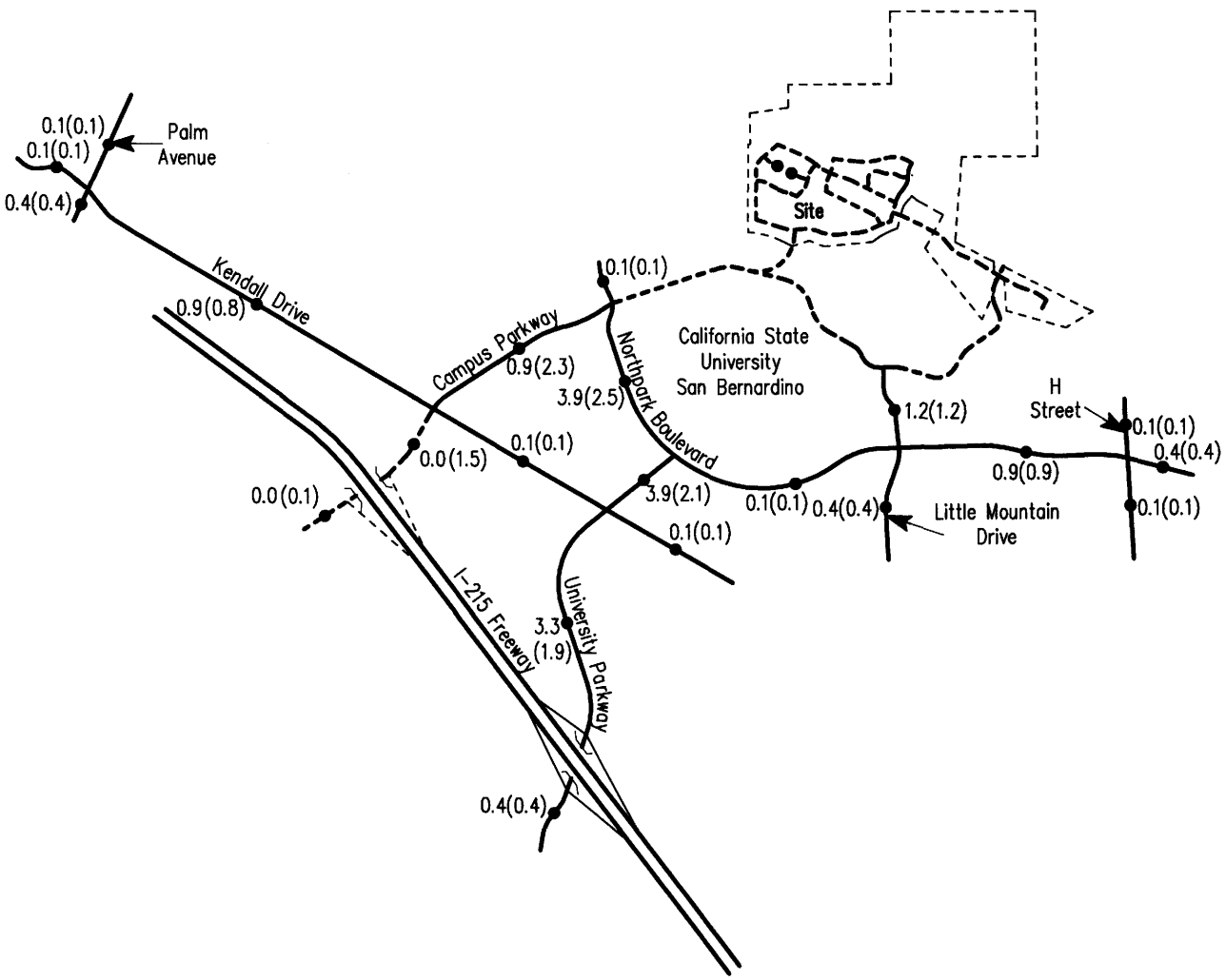
Legend

10% = Percent To/From Project

Kunzman Associates

3516b/10

Figure 11
Project Average Daily Traffic Volumes



Legend

0.4 = Vehicles Per Day (1000's)
3.9(1.9) = Opening Year (2011) (Year 2030)

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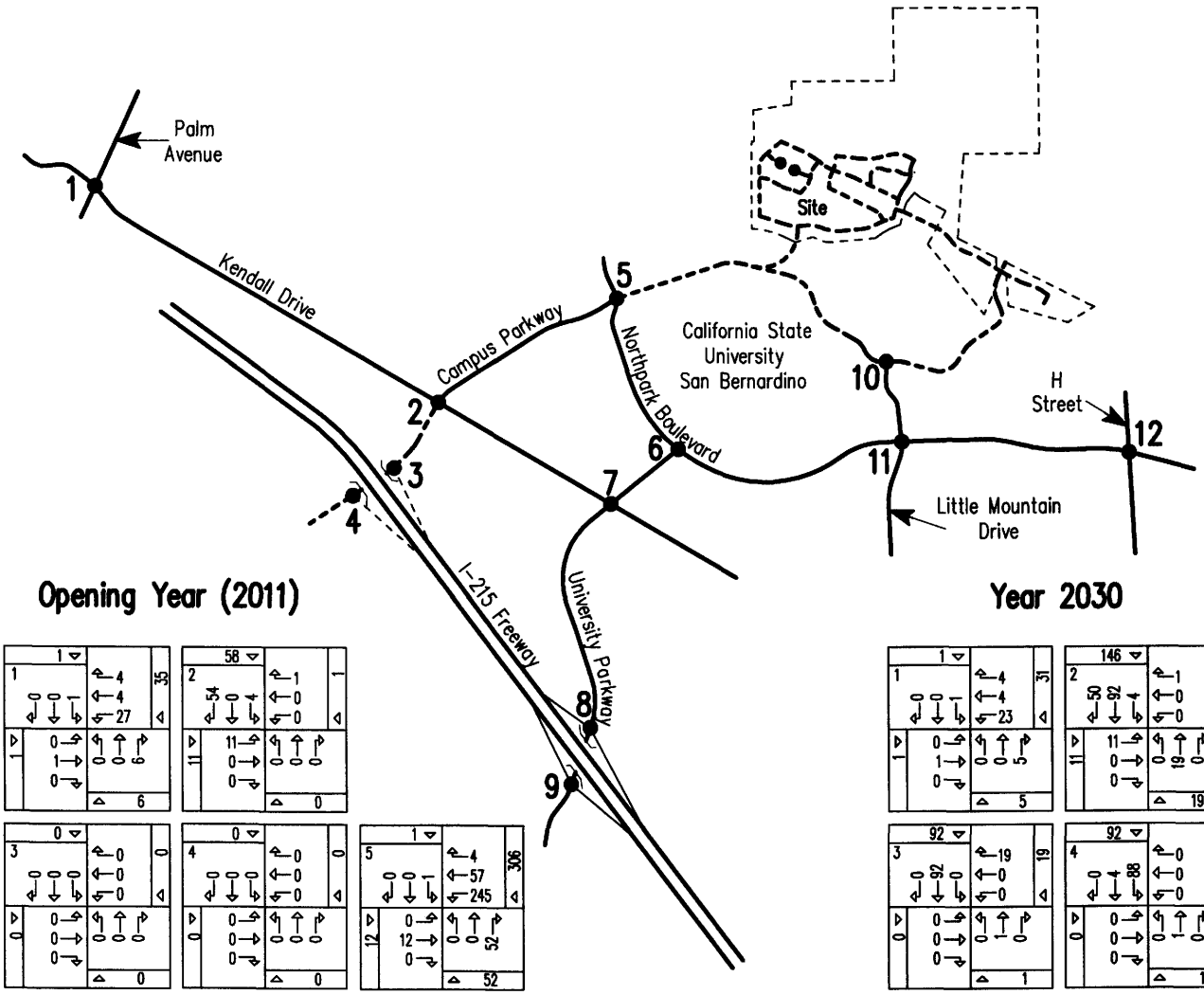
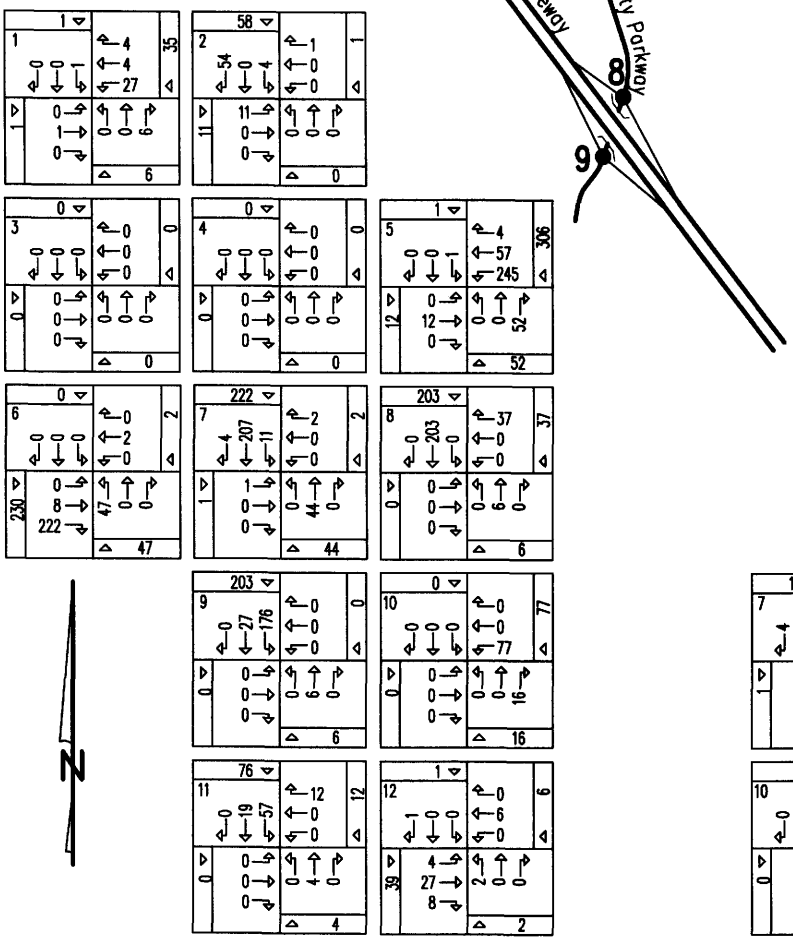
3516b/11

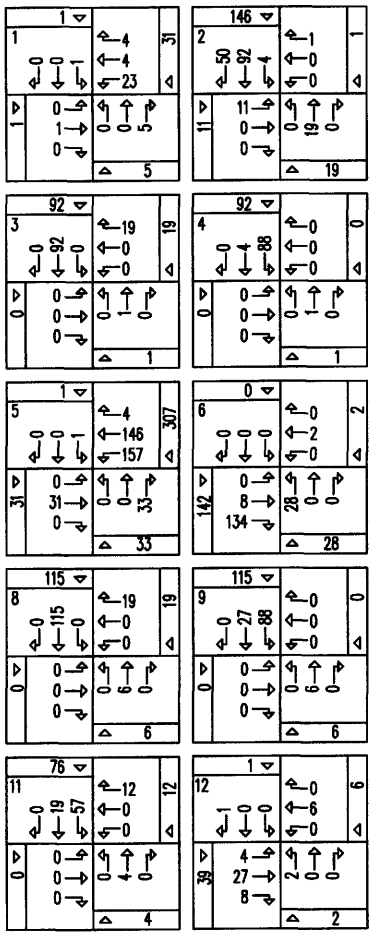
Figure 12
Project Morning Peak Hour Intersection Turning Movement Volumes



Opening Year (2011)



Year 2030



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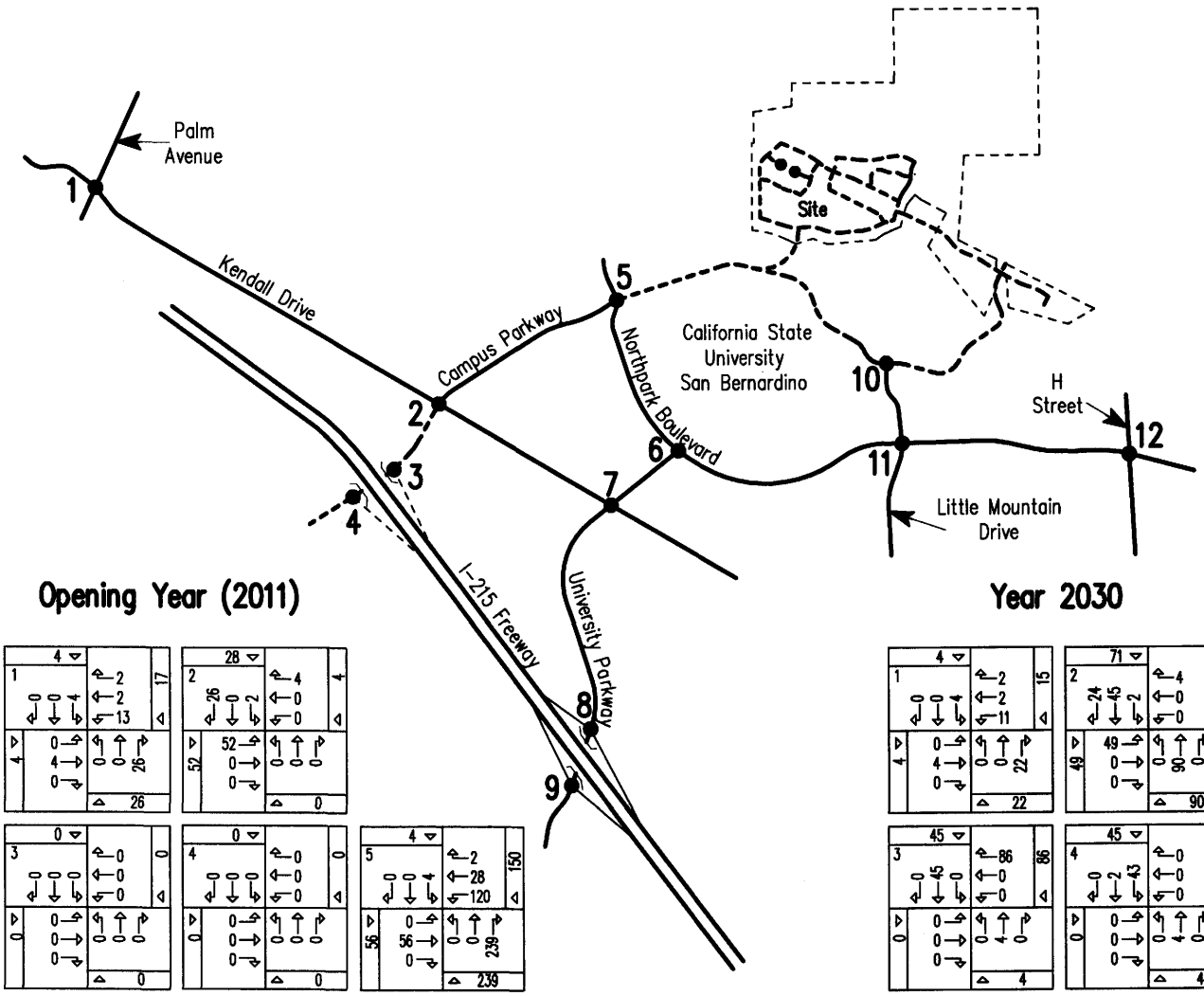
Intersection reference numbers are in upper left corner of turning movement boxes.

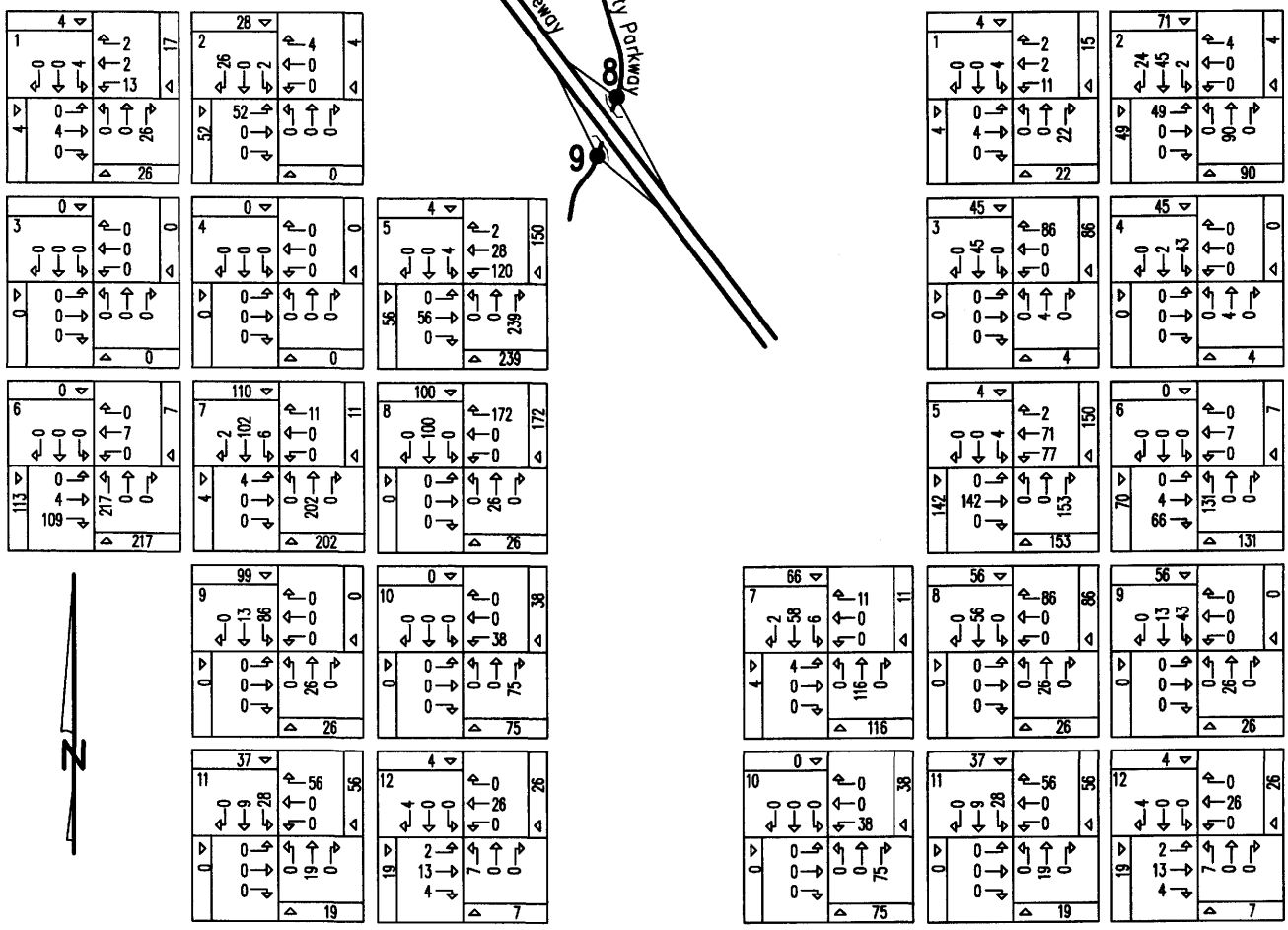
3516b/bbas

Figure 13
Project Evening Peak Hour Intersection Turning Movement Volumes



Opening Year (2011)

Year 2030

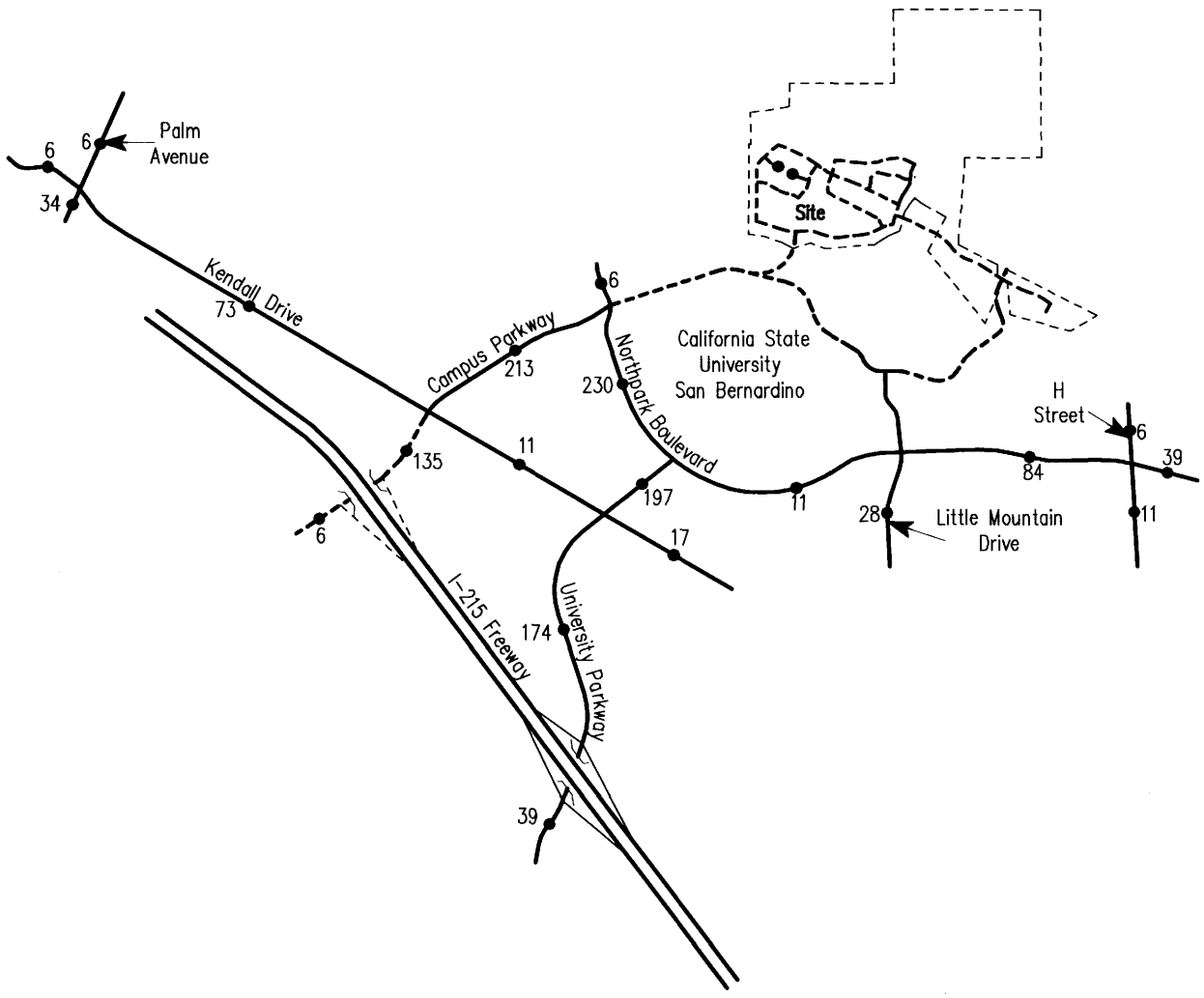


Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

3516b/bbas

Figure 14
Project Traffic Contribution Test Volumes



Legend

39 = Project Evening Peak Hour Volumes

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3516b/14

IV. Future Conditions

A. Future Volumes

As described within Section I.C, the Year 2030 average daily traffic volume forecasts with the project are developed using a growth increment process based on volumes predicted by the East Valley Traffic Model Year 2000 and Year 2030 traffic models. The growth increment for Year 2030 on each roadway segment is the increase in East Valley Traffic Model volumes from existing Year 2007 to Year 2030. The final Year 2030 roadway segment volume used for analysis purposes is then determined by adding the Year 2030 growth increment volume to the existing counted volume.

The Opening Year (2011) traffic projections have been interpolated between Year 2030 traffic volumes and existing traffic volumes utilizing a portion of the growth increment (see Section I.C). For Opening Year (2011) Without Project traffic conditions the intersection of Northpark Boulevard/Campus Parkway has been manually adjusted to account for the eastern leg of the intersection not being built without the proposed project at the request of the City of San Bernardino staff.

1. Opening Year (2011) Without Project

   The average daily traffic volumes for Opening Year (2011) without project traffic conditions have been determined as described above using the growth interpolation process (see Section I.C). Opening Year (2011) without project average daily traffic volumes are shown on Figure 15.

2. Opening Year (2011) With Project

   The average daily traffic volumes for Opening Year (2011) with project traffic conditions have been determined as described above using the volume addition process (see Section I.C). Opening Year (2011) with project average daily traffic volumes are shown on Figure 16.

3. Year 2030 Without Project

   The average daily traffic volumes for Year 2030 without project traffic conditions have been determined as described above using the growth increment process (see Section I.C). Year 2030 without project average daily traffic volumes are shown on Figure 17.

4. Year 2030 With Project

The average daily traffic volumes for Year 2030 with project traffic conditions have been determined as described above using the volume addition process (see Section I.C). Year 2030 with project average daily traffic volumes are shown on Figure 18.

B. Future Level of Service

1. Opening Year (2011) Without Project

The Opening Year (2011) delay and Level of Service for the study area roadway network without the proposed project are shown in Table 3. Table 3 shows delay values based on the geometrics at the study area intersections, without improvements. Opening Year (2011) without project delay calculation worksheets are provided in Appendix D. Opening Year (2011) without project morning and evening peak hour intersection turning movement volumes are shown on Figures 19 and 20, respectively.

For Opening Year (2011) without project traffic conditions, the following study area intersection is projected to operate at unacceptable Levels of Service during the peak hours, without improvements:

University Parkway (NS) at:
Northpark Boulevard (EW)

2. Opening Year (2011) With Project

The Opening Year (2011) delay and Level of Service for the study area roadway network with the proposed project are shown in Table 4. Table 4 shows delay values based on the geometrics at the study area intersections, without improvements. Opening Year (2011) with project delay calculation worksheets are provided in Appendix D. Opening Year (2011) with project morning and evening peak hour intersection turning movement volumes are shown on Figures 21 and 22, respectively.

For Opening Year (2011) with project traffic conditions, the following study area intersections are projected to operate at unacceptable Levels of Service during the peak hours, without improvements:

University Parkway (NS) at:
Northpark Boulevard (EW)
I-215 Freeway NB Ramps (EW)

The Opening Year (2011) delay and Level of Service for the study area roadway network with the proposed project and with improvements are shown in Table 5. Improvements presented in Table 5 include both funded improvements (see Section II.D) and any additional improvements needed to achieve acceptable Levels of Service during the peak hours. Opening Year (2011) with project (with improvements) delay calculation worksheets are provided in Appendix D. As shown in Table 5, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours for Opening Year (2011) with project traffic conditions.

3. Year 2030 Without Project

The Year 2030 delay and Level of Service for the study area roadway network without the proposed project are shown in Table 6. Table 6 shows delay values based on the geometrics at the study area intersections, without improvements. Year 2030 without project delay calculation worksheets are provided in Appendix D. Year 2030 without project morning and evening peak hour intersection turning movement volumes are shown on Figures 23 and 24, respectively.

For Year 2030 without project traffic conditions, the following study area intersections are projected to operate at unacceptable Levels of Service during the peak hours, without improvements:

University Parkway (NS) at:
- Northpark Boulevard (EW)
- Kendall Drive (EW)
- I-215 Freeway SB Ramps (EW)

4. Year 2030 With Project

The Year 2030 delay and Level of Service for the study area roadway network with the proposed project are shown in Table 7. Table 7 shows delay values based on the geometrics at the study area intersections, without improvements. Year 2030 with project delay calculation worksheets are provided in Appendix D. Year 2030 with project morning and evening peak hour intersection turning movement volumes are shown on Figures 25 and 26, respectively.

For Year 2030 with project traffic conditions, the following study area intersections are projected to operate at unacceptable Levels of Service during the peak hours, without improvements:

University Parkway (NS) at:
- Northpark Boulevard (EW)

Kendall Drive (EW)
I-215 Freeway SB Ramps (EW)

The Year 2030 delay and Level of Service for the study area roadway network with the proposed project and with improvements are shown in Table 8. Improvements presented in Table 8 include both funded improvements (see Section II.D) and any additional improvements needed to achieve acceptable Levels of Service during the peak hours. Year 2030 with project (with improvements) delay calculation worksheets are provided in Appendix D. As shown in Table 8, the study area intersections are projected to operate at acceptable Levels of during the peak hours for Year 2030 with project traffic conditions.

C. Future Traffic Signal Warrant Analysis

A traffic signal is projected to be warranted at the following study area intersection for Opening Year (2011) with project traffic conditions (see Appendix E):

Northpark Boulevard (NS) at:
Campus Parkway (EW)

D. Freeway Evaluation

An analysis of Horizon Year (2030) freeway level of service is required for all freeway segments that carry 100 or more project trips in the peak hour. The freeway peak hour volume forecasts have been developed using the peak period East Valley Traffic Model data directly, as discussed with the San Bernardino Associated Governments. The project contributes traffic greater than the Congestion Management Program freeway threshold of 100 two-way trips to the I-215 Freeway.

Tables 9 and 10 present the analysis for the Year 2030 morning and evening peak hour without project and with project traffic conditions, respectively. A total of 6 freeway segments are projected to operate at an unacceptable Level of Service for Year 2030 with project traffic conditions during the morning and evening peak hour. The northbound and southbound I-215 Freeway are expected to experience peak hour deficiencies.

The improvements needed to provide Level of Service E or better operations during the peak hour of traffic have been determined. High occupancy vehicle lanes were used, if possible, to provide Level of Service E or better. Otherwise, a general use lane was added. General use lanes have an assumed capacity of 2,300 vehicles per hour, while high occupancy vehicle lanes have an assumed capacity of 1,600 vehicles per hour. The freeway mainline segment volume to capacity ratios have been recalculated, along

with the resulting Levels of Service. Tables 11 and 12 summarize the required freeway mainline improvements and the resulting Levels of Service for the morning and evening peak hours.

Table 3

Opening Year (2011) Without Project Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:															
Kendall Drive (EW)	TS	1	2	1>	1	2	0	1	1	1	1	1	1	32.5-C	29.5-C
Campus Parkway (NS) at:															
Kendall Drive (EW)	TS	0	0	0	1	0	2>	1	2	0	0	2	1	16.1-B	14.9-B
Northpark Boulevard (NS) at:															
Campus Parkway (EW)	AWS	2	1	0	0	2	1	1	0	2	0	0	0	9.0-A	8.9-A
University Parkway (NS) at:															
Northpark Boulevard (EW)	TS	1	2	1>	1	2	0	1	2	1>>	1.5	1.5	0	61.5-E	79.4-E
Kendall Drive (EW)	TS	2	3	0	1	3	0	2	2	0	2	2	0	39.4-D	48.5-D
I-215 Freeway NB Ramps (EW)	TS	1	2	0	0	3	1	0	0	0	1	0	2	38.7-D	26.0-C
I-215 Freeway SB Ramps (EW)	TS	0	2	0	2	1	0	1	0	1	0	0	0	20.3-C	23.7-C
Little Mountain Drive (NS) at:															
Northpark Boulevard (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	34.6-C	31.6-C
H Street (NS) at:															
Northpark Boulevard (EW)	TS	1	1	0	1	1	0	1	2	0	1	2	1	14.6-B	15.8-B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; 1 = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; AWS = All Way Stop

Table 4

Opening Year (2011) With Project Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:															
Kendall Drive (EW)	TS	1	2	1>	1	2	0	1	1	1	1	1	1	33.6-C	29.9-C
Campus Parkway (NS) at:															
Kendall Drive (EW)	TS	0	0	0	1	0	2>	1	2	0	0	2	1	16.2-B	16.4-B
Northpark Boulevard (NS) at:															
Campus Parkway (EW)	AWS	2	1	0	0	2	1	1	0	2	0	0	0	13.0-B	12.9-B
University Parkway (NS) at:															
Northpark Boulevard (EW)	TS	1	2	1>	1	2	0	1	2	1>>	1.5	1.5	0	74.7-E	99.9-F[4]
Kendall Drive (EW)	TS	2	3	0	1	3	0	2	2	0	2	2	0	39.8-D	50.5-D
I-215 Freeway NB Ramps (EW)	TS	1	2	0	0	3	1	0	0	0	1	0	2	99.9-F	35.5-D
I-215 Freeway SB Ramps (EW)	TS	0	2	0	2	1	0	1	0	1	0	0	0	26.4-C	29.3-C
Little Mountain Drive (NS) at:															
Northpark Boulevard (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	35.4-D	31.8-C
H Street (NS) at:															
Northpark Boulevard (EW)	TS	1	1	0	1	1	0	1	2	0	1	2	1	14.7-B	15.9-B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; 1 = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; AWS = All Way Stop

[4] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Table 5

Opening Year (2011) With Project Intersection Delay and Level of Service With Improvements

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:															
Kendall Drive (EW)	TS	1	2	1>	1	2	0	1	1	1	1	1	1	33.6-C	29.9-C
Campus Parkway (NS) at:															
Kendall Drive (EW)	TS	0	0	0	1	0	2>	1	2	0	0	2	1	16.2-B	16.4-B
Northpark Boulevard (NS) at:															
Campus Parkway (EW)	**TS**	2	1	0	**1**	2	1	0.5	0.5	2	**1**	**1**	0	9.4-A	9.9-A
University Parkway (NS) at:															
Northpark Boulevard (EW)	TS	**2**	2	1>	1	2	0	1	2	**1>**	**3**	1	**1**	31.6-C	48.1-D
Kendall Drive (EW)	TS	2	3	0	1	3	0	2	2	0	2	2	0	39.8-D	50.5-D
I-215 Freeway NB Ramps (EW)	TS	**2**	2	0	0	3	1	0	0	0	1	0	2	49.4-D	35.4-D
I-215 Freeway SB Ramps (EW)	TS	0	2	0	2	1	0	1	0	1	0	0	0	26.4-C	29.3-C
Little Mountain Drive (NS) at:															
Project Access (EW)	**CSS**	**1**	0	**1**	0	0	0	0	**1**	**1**	**1**	**1**	0	10.1-B	8.7-A
Northpark Boulevard (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	35.4-D	31.8-C
H Street (NS) at:															
Northpark Boulevard (EW)	TS	1	1	0	1	1	0	1	2	0	1	2	1	14.7-B	15.9-B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; **1** = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop

Table 6

Year 2030 Without Project Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:															
Kendall Drive (EW)	TS	1	2	1>	1	2	0	1	1	1	1	1	1	31.4-C	33.6-C
Campus Parkway (NS) at:															
Kendall Drive (EW)	TS	0	**1**	0	1	**1**	1>	1	2	0	**1**	2	1	15.4-B	16.8-B
I-215 Freeway NB Ramp (EW)	**CSS**	0	**1**	0	0	**1**	0	0	0	0	**1**	0	**1**	9.7-A	10.8-B
I-215 Freeway SB Ramp (EW)	**CSS**	0	**1**	0	**1**	**1**	0	0	0	0	0	0	0	7.8-A	7.8-A
Northpark Boulevard (NS) at:															
Campus Parkway (EW)	AWS	2	1	0	0	2	1	1	0	2	0	0	0	9.5-A	10.1-B
University Parkway (NS) at:															
Northpark Boulevard (EW)	TS	1	2	1>	1	2	0	1	2	1>>	1.5	1.5	0	58.9-E	63.0-E
Kendall Drive (EW)	TS	2	3	0	1	3	0	2	2	0	2	2	0	39.0-D	68.1-E
I-215 Freeway NB Ramps (EW)	TS	1	2	0	0	3	1	0	0	0	1	0	2	29.8-C	19.7-B
I-215 Freeway SB Ramps (EW)	TS	0	2	0	2	1	0	1	0	1	0	0	0	20.0-C	99.9-F[4]
Little Mountain Drive (NS) at:															
Northpark Boulevard (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	33.2-C	27.8-C
H Street (NS) at:															
Northpark Boulevard (EW)	TS	1	1	0	1	1	0	1	2	0	1	2	1	14.6-B	15.5-B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; **1** = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

[4] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Table 7

Year 2030 With Project Intersection Delay and Level of Service

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:															
Kendall Drive (EW)	TS	1	2	1>	1	2	0	1	1	1	1	1	1	32.1-C	34.2-C
Campus Parkway (NS) at:															
Kendall Drive (EW)	TS	0	**1**	0	1	**1**	1>	1	2	0	**1**	2	1	15.8-B	18.2-B
I-215 Freeway NB Ramp (EW)	**CSS**	0	**1**	0	0	**1**	0	0	0	0	**1**	0	**1**	10.0-A	11.8-B
I-215 Freeway SB Ramp (EW)	**CSS**	0	**1**	0	**1**	**1**	0	0	0	0	0	0	0	8.0-A	7.9-A
Northpark Boulevard (NS) at:															
Campus Parkway (EW)	AWS	2	1	0	0	2	1	1	0	2	0	0	0	18.4-C	15.3-C
University Parkway (NS) at:															
Northpark Boulevard (EW)	TS	1	2	1>	1	2	0	1	2	1>>	1.5	1.5	0	65.9-E	99.0-F
Kendall Drive (EW)	TS	2	3	0	1	3	0	2	2	0	2	2	0	39.3-D	72.8-E
I-215 Freeway NB Ramps (EW)	TS	1	2	0	0	3	1	0	0	0	1	0	2	32.3-C	21.6-C
I-215 Freeway SB Ramps (EW)	TS	0	2	0	2	1	0	1	0	1	0	0	0	21.7-C	99.9-F[4]
Little Mountain Drive (NS) at:															
Northpark Boulevard (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	33.9-C	29.0-C
H Street (NS) at:															
Northpark Boulevard (EW)	TS	1	1	0	1	1	0	1	2	0	1	2	1	14.8-B	15.6-B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; **1** = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop

[4] 99.9-F = Delay High, Intersection Unstable, Level of Service F.

Table 8

Year 2030 With Project Intersection Delay and Level of Service With Improvements

Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Peak Hour Delay-LOS[2]	
		Northbound			Southbound			Eastbound			Westbound				
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Palm Avenue (NS) at:															
Kendall Drive (EW)	TS	1	2	1>	1	2	0	1	1	1	1	1	1	32.1-C	34.2-C
Campus Parkway (NS) at:															
Kendall Drive (EW)	TS	0	**1**	0	1	**1**	1>	1	2	0	**1**	2	1	15.8-B	18.2-B
I-215 Freeway NB Ramp (EW)	**CSS**	0	**1**	0	0	**1**	0	0	0	0	**1**	0	**1**	10.0-A	11.8-B
I-215 Freeway SB Ramp (EW)	**CSS**	0	**1**	0	**1**	**1**	0	0	0	0	0	0	0	8.0-A	7.9-A
Northpark Boulevard (NS) at:															
Campus Parkway (EW)	**TS**	2	1	0	**1**	1	1	0.5	0.5	2	**1**	**1**	0	6.5-A	8.5-A
University Parkway (NS) at:															
Northpark Boulevard (EW)	TS	**2**	2	1>	1	2	0	1	2	1**>**	**3**	1	**1**	31.2-C	37.7-D
Kendall Drive (EW)	TS	2	3	**1**	1	3	**1**	2	2	**1**	2	2	0	35.8-D	54.9-D
I-215 Freeway NB Ramps (EW)	TS	1	2	0	0	3	1	0	0	0	1	0	2	32.3-C	21.6-C
I-215 Freeway SB Ramps (EW)	TS	0	2	**1**	2	1	0	1	0	1	0	0	0	19.7-B	30.3-C
Little Mountain Drive (NS) at:															
Project Access (EW)	**CSS**	**1**	0	**1**	0	0	0	0	**1**	**1**	**1**	**1**	0	10.3-B	8.7-A
Northpark Boulevard (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	33.9-C	29.0-C
H Street (NS) at:															
Northpark Boulevard (EW)	TS	1	1	0	1	1	0	1	2	0	1	2	1	14.8-B	15.6-B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right Turn Overlap; >> = Free Right Turn; **1** = Improvement

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.9.0215 (2008). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal; CSS = Cross Street Stop

Table 9

Year 2030 Freeway Mainline Morning Peak Hour Operations Analysis

Freeway	Segment Limits	Lanes		Capacity	Project Trips	Year 2030 W/O Project			Year 2030 W/Project		
		Gen. Use	HOV			Trips	Vol/ Cap	LOS	Trips	Vol/ Cap	LOS
I-215 NB	Baseline Road to 16th Street	3	0	6,900	21	5,253	0.76	C	5,274	0.76	C
	16th Street to Massachusetts Avenue	2	0	4,600	21	4,960	1.08	F	4,981	1.08	F
	Massachusetts Avenue to Highland Avenue	2	0	4,600	21	4,859	1.06	F	4,880	1.06	F
	Highland Avenue to Mount Vernon Avenue	2	0	4,600	21	4,522	0.98	E	4,543	0.99	E
	Mount Vernon Avenue to SR-30 Freeway	2	0	4,600	23	3,617	0.79	D	3,640	0.79	D
	SR-30 Freeway to University Parkway	3	0	6,900	38	5,419	0.79	D	5,457	0.79	D
	University Parkway to Campus Parkway	2	0	4,600	19	4,861	1.06	F	4,879	1.06	F
I-215 SB	Campus Parkway to University Parkway	2	0	4,600	88	8,162	1.77	F	8,250	1.79	F
	University Parkway to SR-30 Freeway	2	0	4,600	180	10,313	2.24	F	10,493	2.28	F
	SR-30 Freeway to Mount Vernon Avenue	2	0	4,600	107	7,751	1.68	F	7,858	1.71	F
	Mount Vernon Avenue to Highland Avenue	2	0	4,600	100	9,922	2.16	F	10,021	2.18	F
	Highland Avenue to Massachusetts Avenue	2	0	4,600	100	10,465	2.27	F	10,564	2.30	F
	Massachusetts Avenue to 16th Street	2	0	4,600	100	10,295	2.24	F	10,395	2.26	F
	16th Street to Baseline Road	3	0	6,900	100	10,384	1.50	F	10,484	1.52	F

Table 10

Year 2030 Freeway Mainline Evening Peak Hour Operations Analysis

Freeway	Segment Limits	Lanes		Capacity	Project Trips	Year 2030 W/O Project			Year 2030 W/Project		
		Gen. Use	HOV			Trips	Vol/ Cap	LOS	Trips	Vol/ Cap	LOS
I-215 NB	Baseline Road to 16th Street	3	0	6,900	97	9,517	1.38	F	9,614	1.39	F
	16th Street to Massachusetts Avenue	2	0	4,600	97	10,490	2.28	F	10,587	2.30	F
	Massachusetts Avenue to Highland Avenue	2	0	4,600	97	10,444	2.27	F	10,541	2.29	F
	Highland Avenue to Mount Vernon Avenue	2	0	4,600	97	9,244	2.01	F	9,341	2.03	F
	Mount Vernon Avenue to SR-30 Freeway	2	0	4,600	105	7,380	1.60	F	7,485	1.63	F
	SR-30 Freeway to University Parkway	3	0	6,900	176	10,476	1.52	F	10,652	1.54	F
	University Parkway to Campus Parkway	2	0	4,600	86	9,381	2.04	F	9,467	2.06	F
I-215 SB	Campus Parkway to University Parkway	2	0	4,600	43	6,052	1.32	F	6,095	1.32	F
	University Parkway to SR-30 Freeway	2	0	4,600	88	7,059	1.53	F	7,147	1.55	F
	SR-30 Freeway to Mount Vernon Avenue	2	0	4,600	53	5,169	1.12	F	5,222	1.14	F
	Mount Vernon Avenue to Highland Avenue	2	0	4,600	49	6,590	1.43	F	6,639	1.44	F
	Highland Avenue to Massachusetts Avenue	2	0	4,600	49	6,944	1.51	F	6,993	1.52	F
	Massachusetts Avenue to 16th Street	2	0	4,600	49	6,933	1.51	F	6,982	1.52	F
	16th Street to Baseline Road	3	0	6,900	49	6,360	0.92	D	6,409	0.93	D

Table 11

Year 2030 Freeway Mainline Morning Peak Hour
Operations Analysis With Improvements

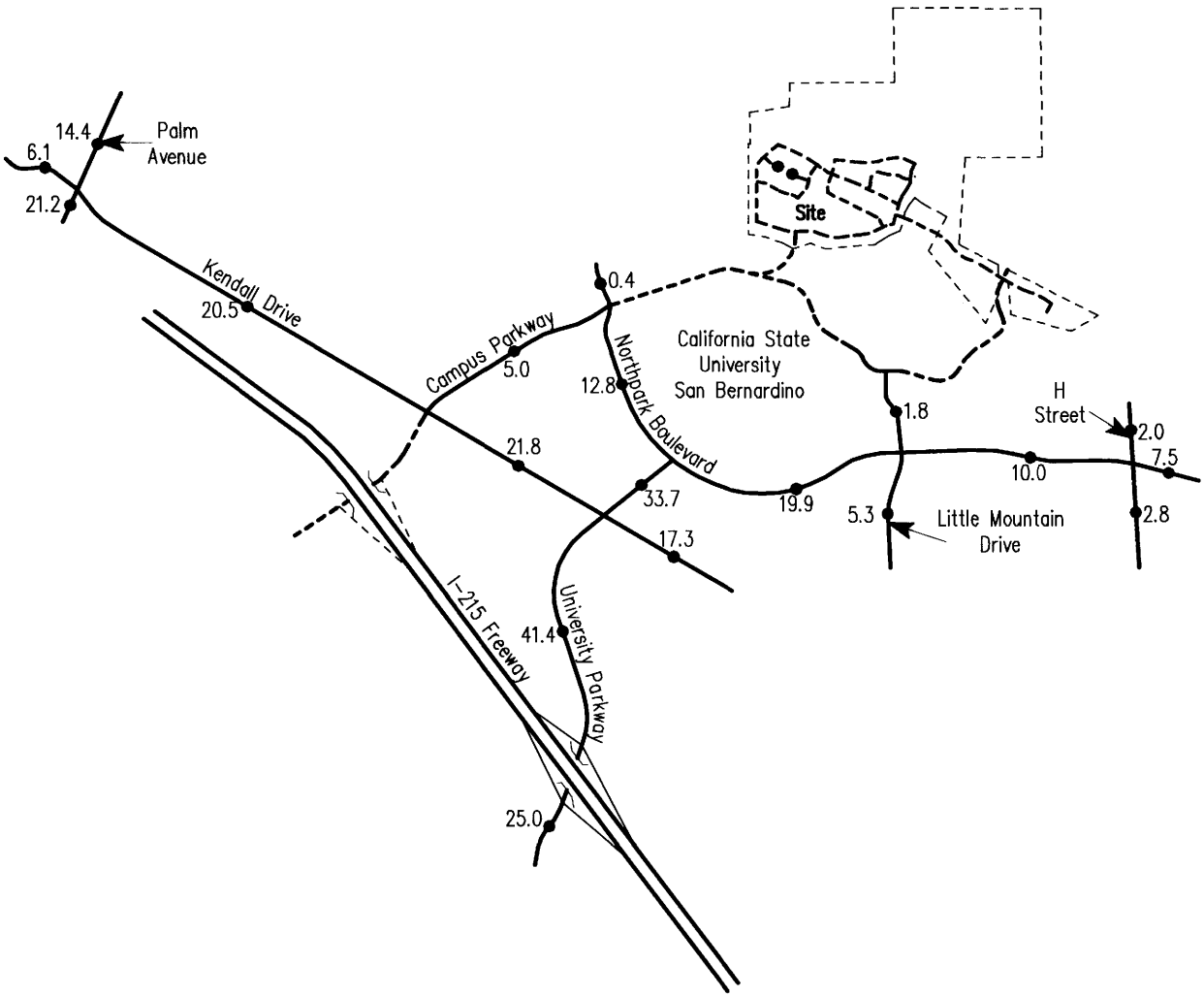
Freeway	Segment Limits	Improvement (Lanes Added)		Improved			
		General	HOV	Capacity	Trips	Vol/ Cap	LOS
I-215 NB	Baseline Road to 16th Street	1	1	10,800	5,274	0.49	B
	16th Street to Massachusetts Avenue	2	1	10,800	4,981	0.46	B
	Massachusetts Avenue to Highland Avenue	2	1	10,800	4,880	0.45	B
	Highland Avenue to Mount Vernon Avenue	2	1	10,800	4,543	0.42	B
	Mount Vernon Avenue to SR-30 Freeway	1	1	8,500	3,640	0.43	B
	SR-30 Freeway to University Parkway	1	1	10,800	5,457	0.51	B
	University Parkway to Campus Parkway	2	1	10,800	4,879	0.45	B
I-215 SB	Campus Parkway to University Parkway	2	1	10,800	8,250	0.76	C
	University Parkway to SR-30 Freeway	2	1	10,800	10,493	0.97	E
	SR-30 Freeway to Mount Vernon Avenue	1	1	8,500	7,858	0.92	D
	Mount Vernon Avenue to Highland Avenue	2	1	10,800	10,021	0.93	D
	Highland Avenue to Massachusetts Avenue	2	1	10,800	10,564	0.98	E
	Massachusetts Avenue to 16th Street	2	1	10,800	10,395	0.96	E
	16th Street to Baseline Road	1	1	10,800	10,484	0.97	E

Table 12

Year 2030 Freeway Mainline Evening Peak Hour
Operations Analysis With Improvements

Freeway	Segment Limits	Improvement (Lanes Added)		Improved			
		General	HOV	Capacity	Trips	Vol/ Cap	LOS
I-215 NB	Baseline Road to 16th Street	1	1	10,800	9,614	0.89	D
	16th Street to Massachusetts Avenue	2	1	10,800	10,587	0.98	E
	Massachusetts Avenue to Highland Avenue	2	1	10,800	10,541	0.98	E
	Highland Avenue to Mount Vernon Avenue	2	1	10,800	9,341	0.86	D
	Mount Vernon Avenue to SR-30 Freeway	1	1	8,500	7,485	0.88	D
	SR-30 Freeway to University Parkway	1	1	10,800	10,652	0.99	E
	University Parkway to Campus Parkway	2	1	10,800	9,467	0.88	D
I-215 SB	Campus Parkway to University Parkway	2	1	10,800	6,095	0.56	C
	University Parkway to SR-30 Freeway	2	1	10,800	7,147	0.66	C
	SR-30 Freeway to Mount Vernon Avenue	1	1	8,500	5,222	0.61	C
	Mount Vernon Avenue to Highland Avenue	2	1	10,800	6,639	0.61	C
	Highland Avenue to Massachusetts Avenue	2	1	10,800	6,993	0.65	C
	Massachusetts Avenue to 16th Street	2	1	10,800	6,982	0.65	C
	16th Street to Baseline Road	1	0	9,200	6,409	0.70	C

Figure 15
Opening Year (2011) Without Project Average Daily Traffic Volumes



Legend

25.0 = Vehicles Per Day (1000's)

N

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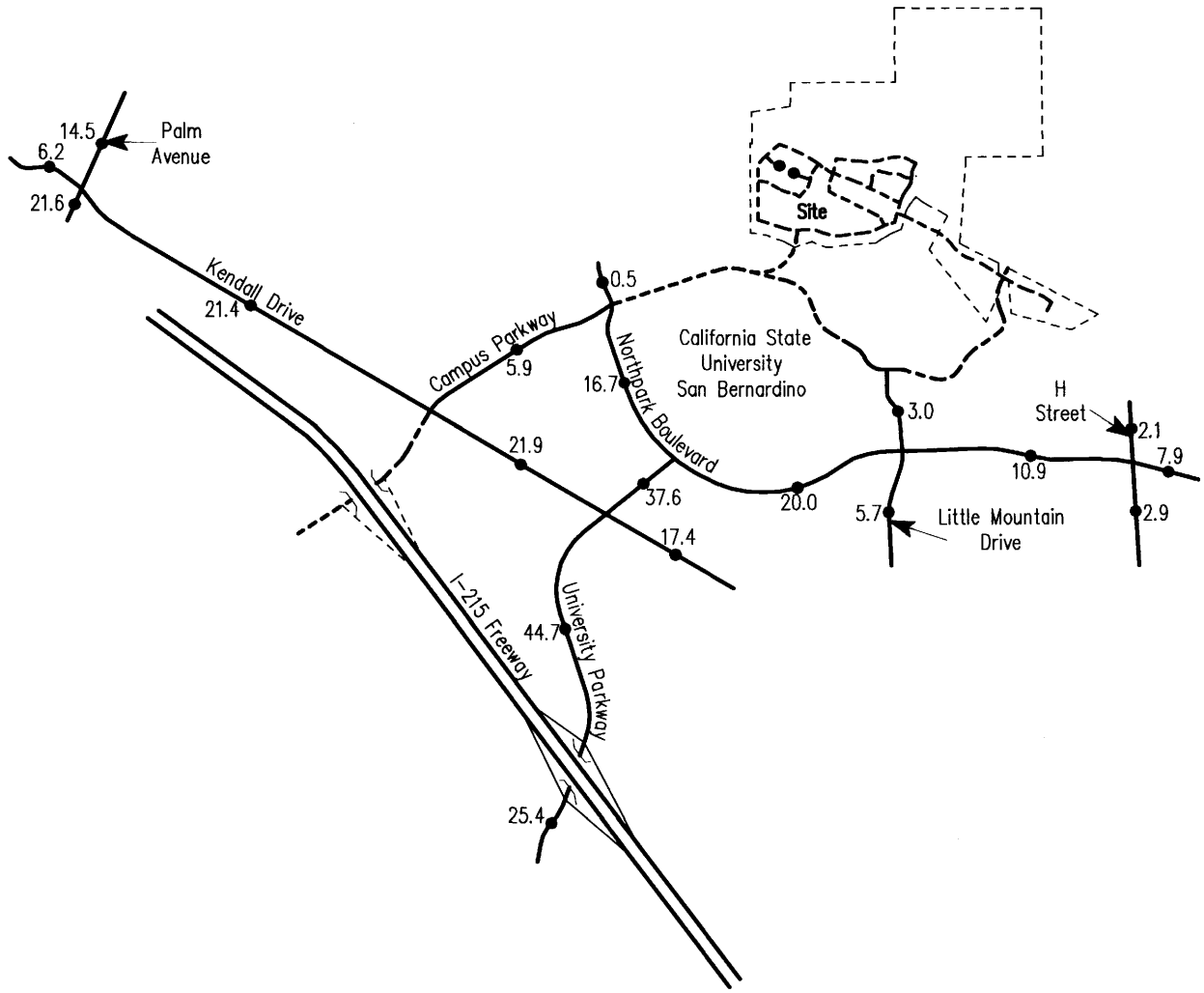
3516b/15

Figure 16
Opening Year (2011) With Project Average Daily Traffic Volumes



Legend

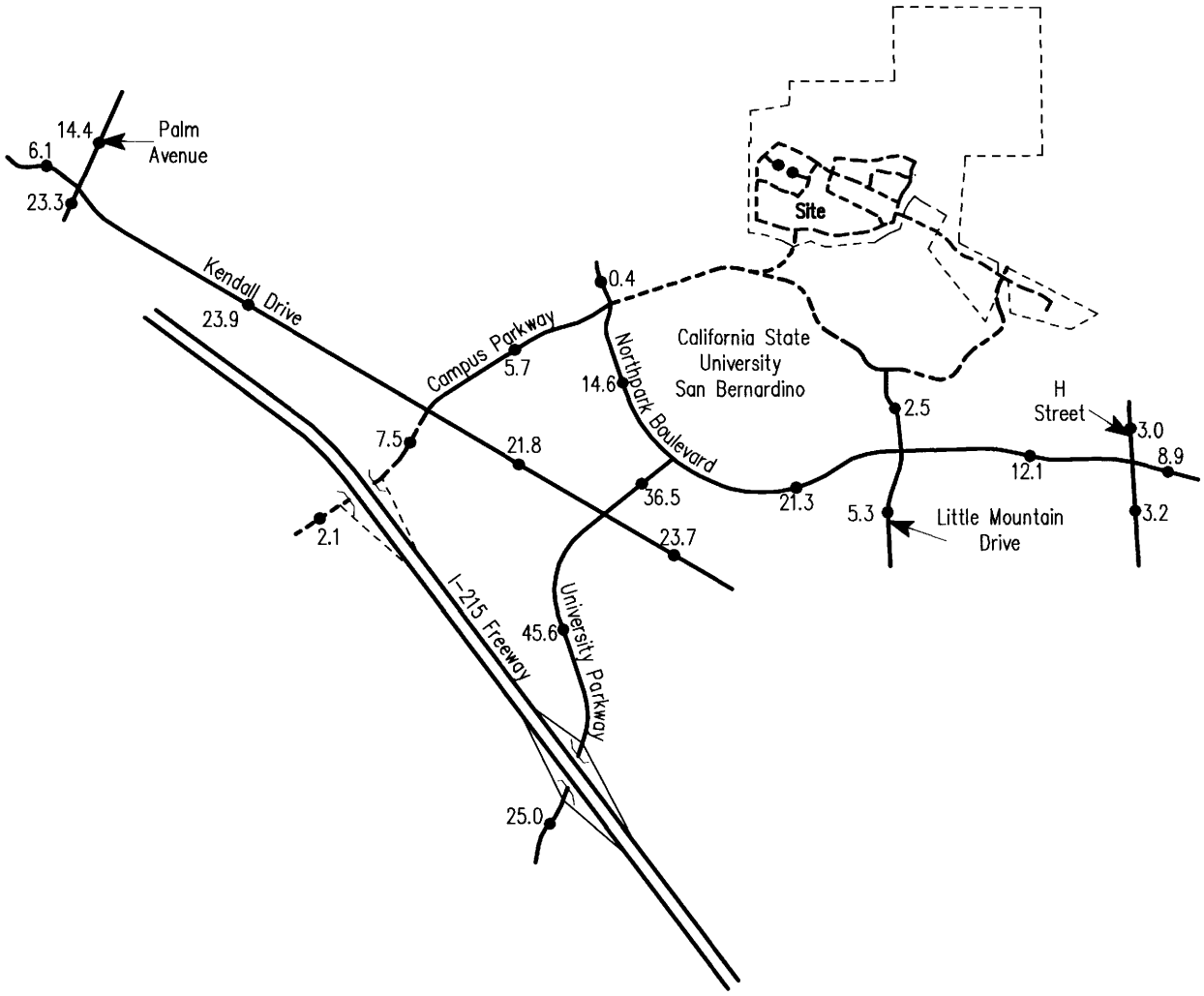
25.4 = Vehicles Per Day (1000's)

N

Kunzman Associates

3516b/16

Figure 17
Year 2030 Without Project Average Daily Traffic Volumes



Legend

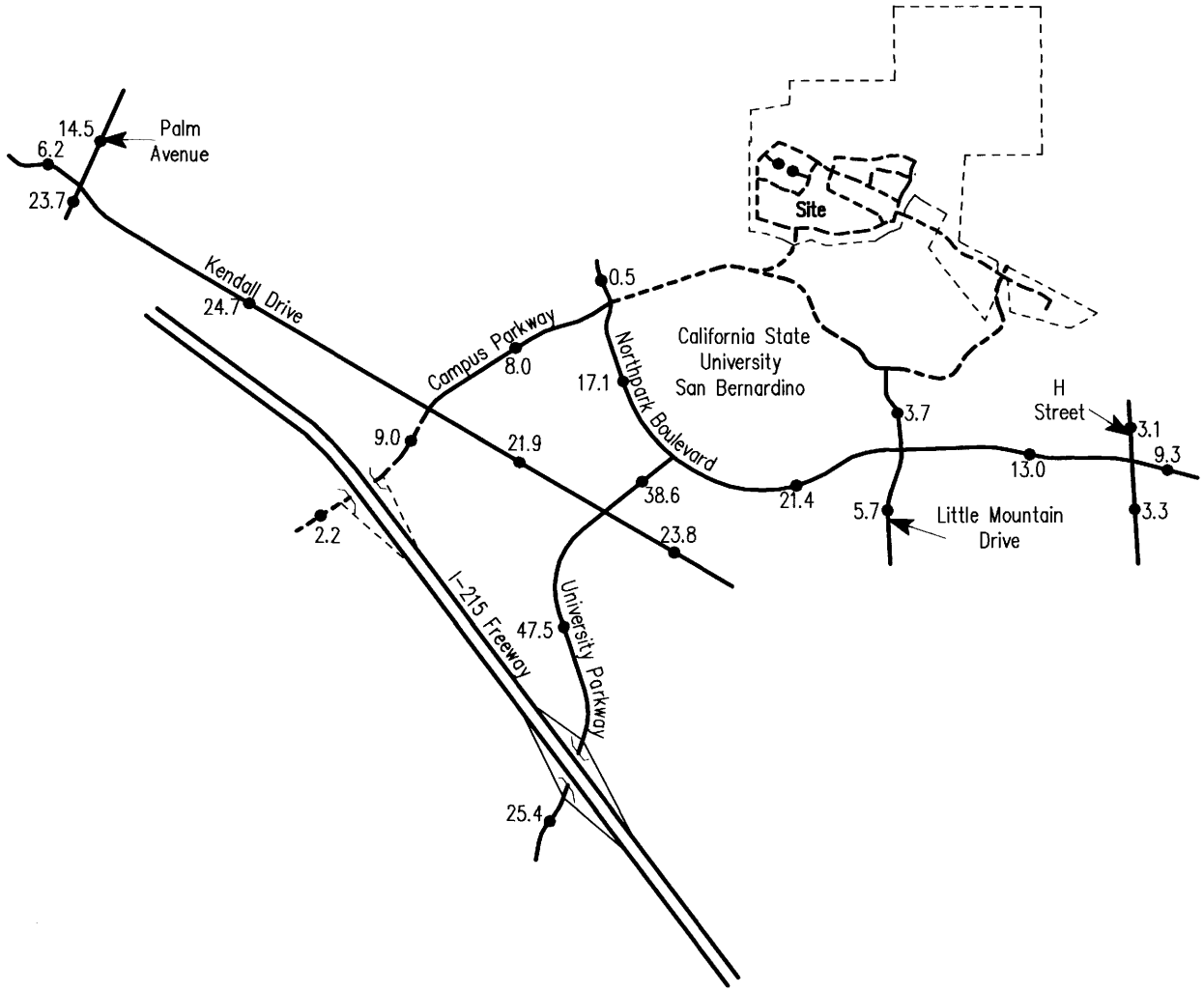
25.0 = Vehicles Per Day (1000's)

N

Kunzman Associates

3516b/17

Figure 18
Year 2030 With Project Average Daily Traffic Volumes



Legend

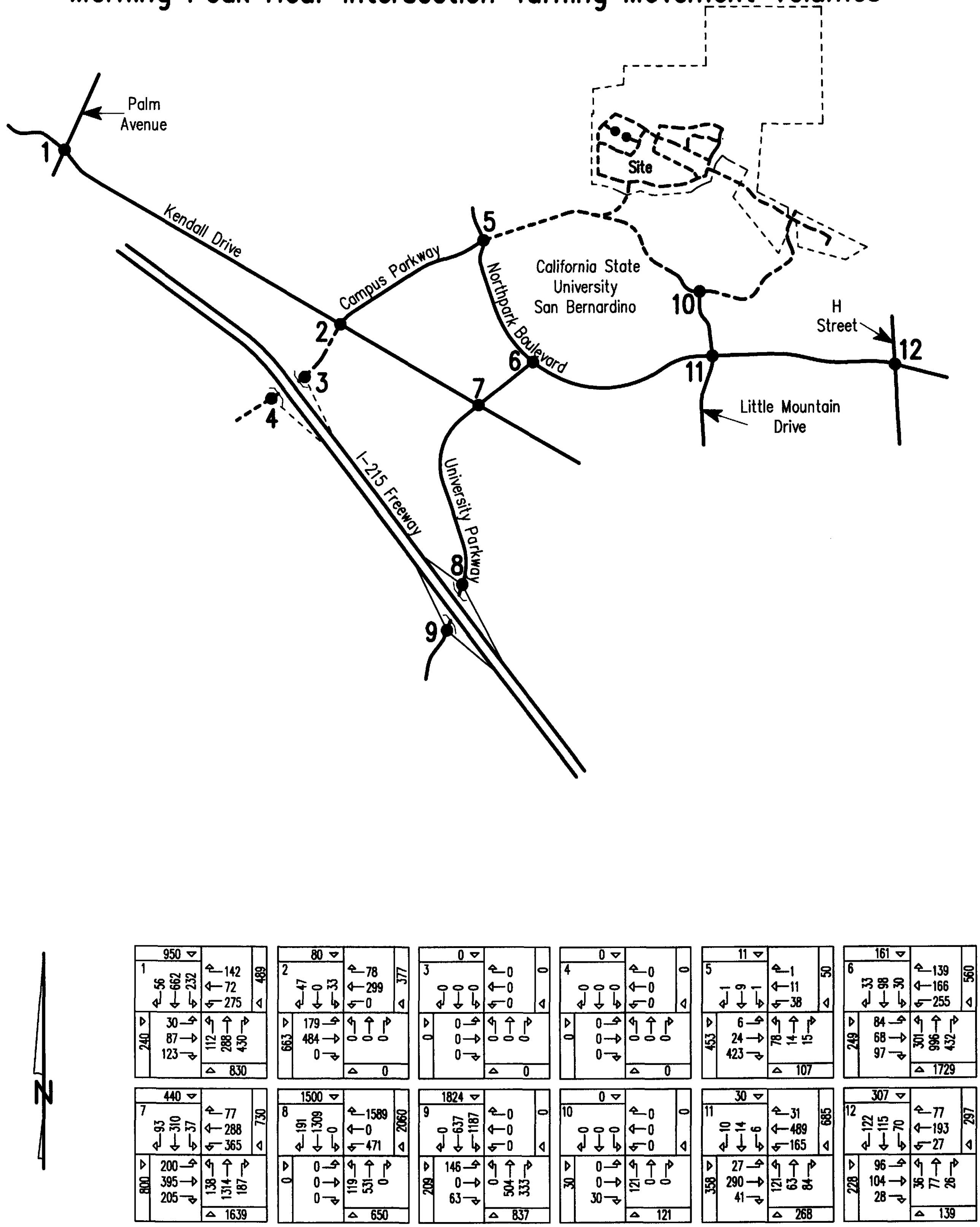
25.4 = Vehicles Per Day (1000's)

N

Kunzman Associates

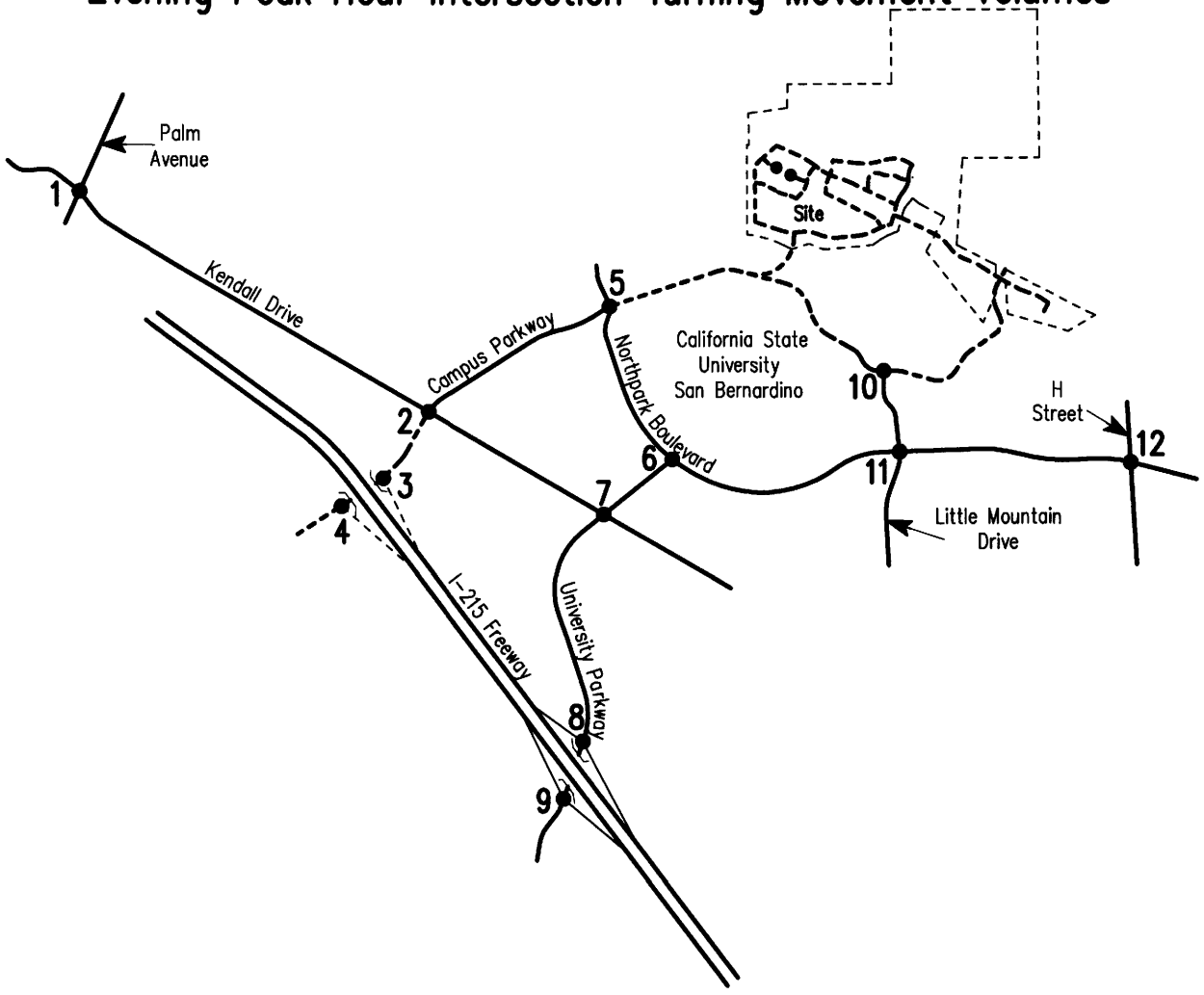
3516b/18

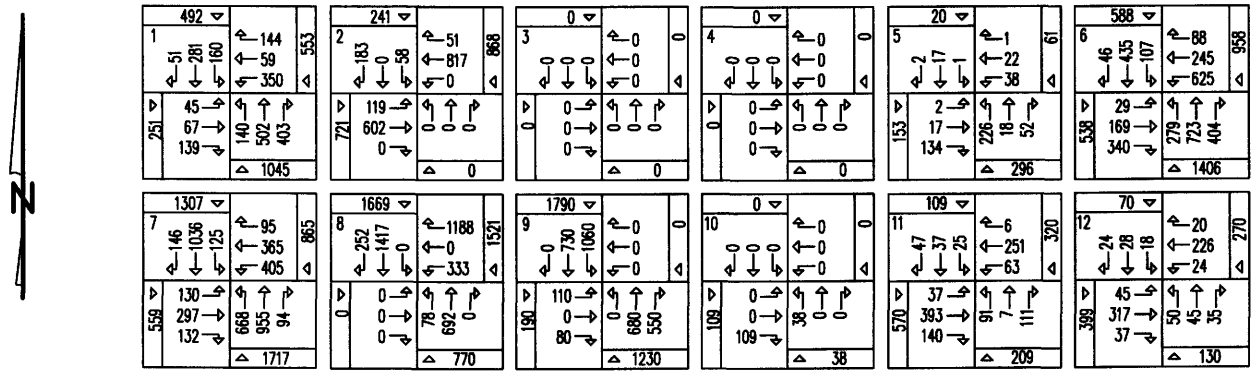
Figure 19
Opening Year (2011) Without Project
Morning Peak Hour Intersection Turning Movement Volumes



Kunzman Associates Intersection reference numbers are in upper left corner of turning movement boxes. 3516b/bbas

Figure 20
Opening Year (2011) Without Project
Evening Peak Hour Intersection Turning Movement Volumes



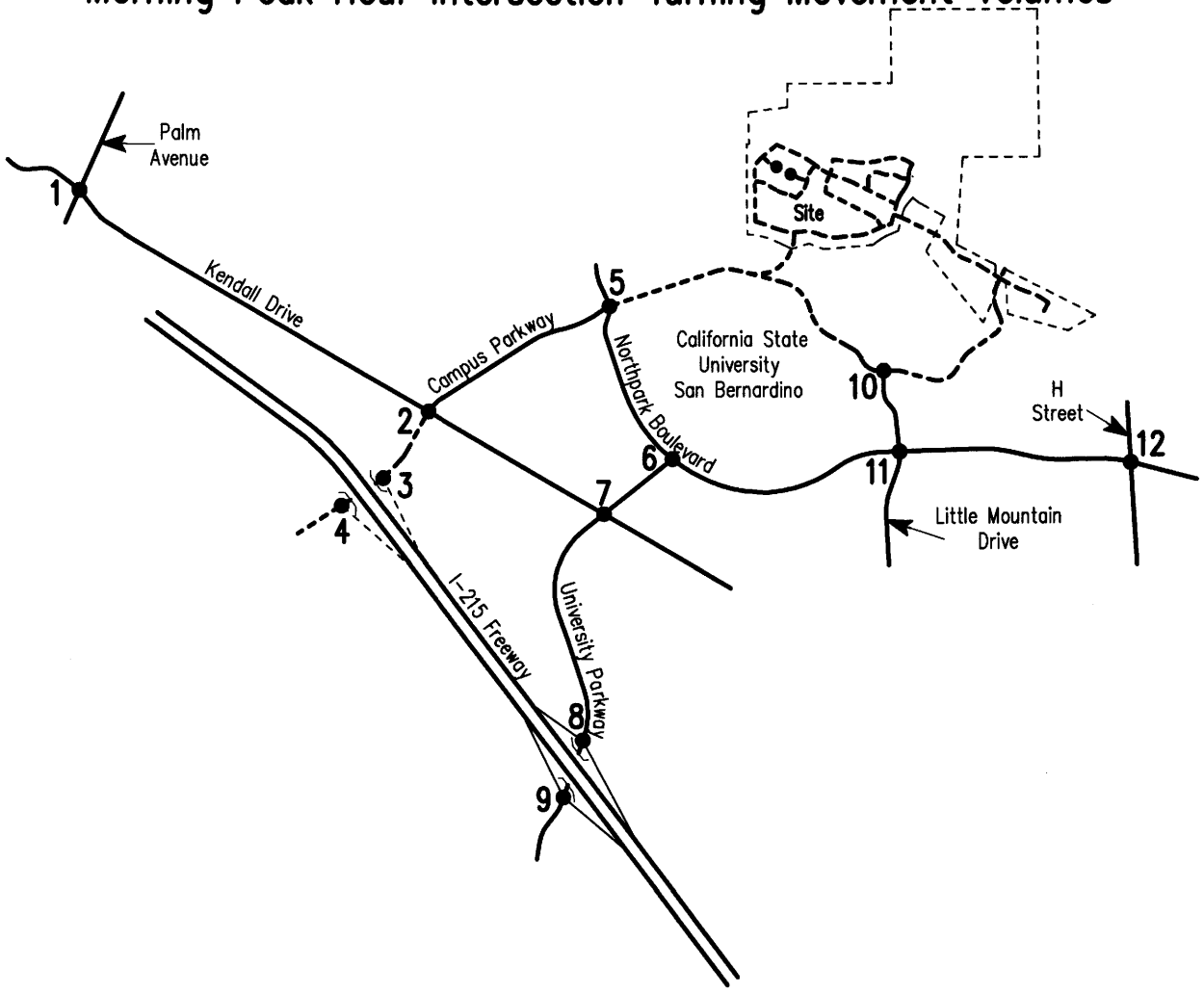


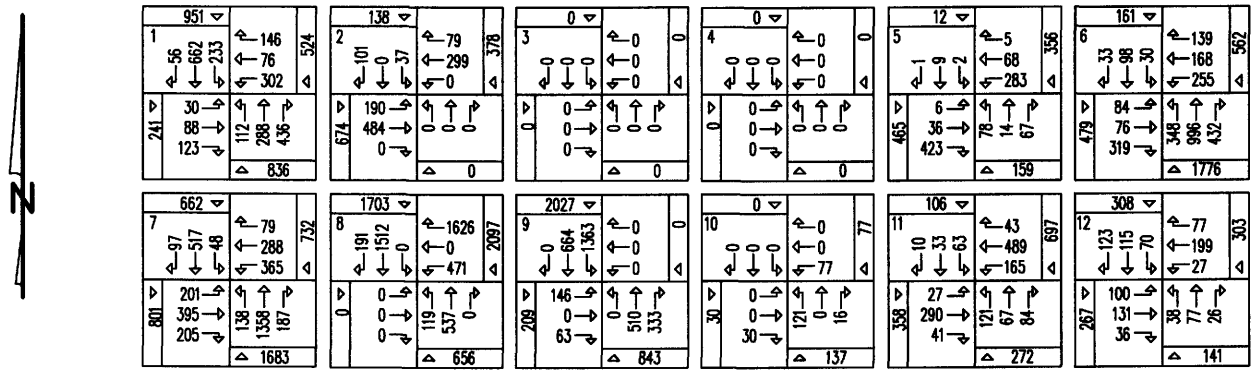
Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

3516b/bbas

Figure 21
Opening Year (2011) With Project
Morning Peak Hour Intersection Turning Movement Volumes



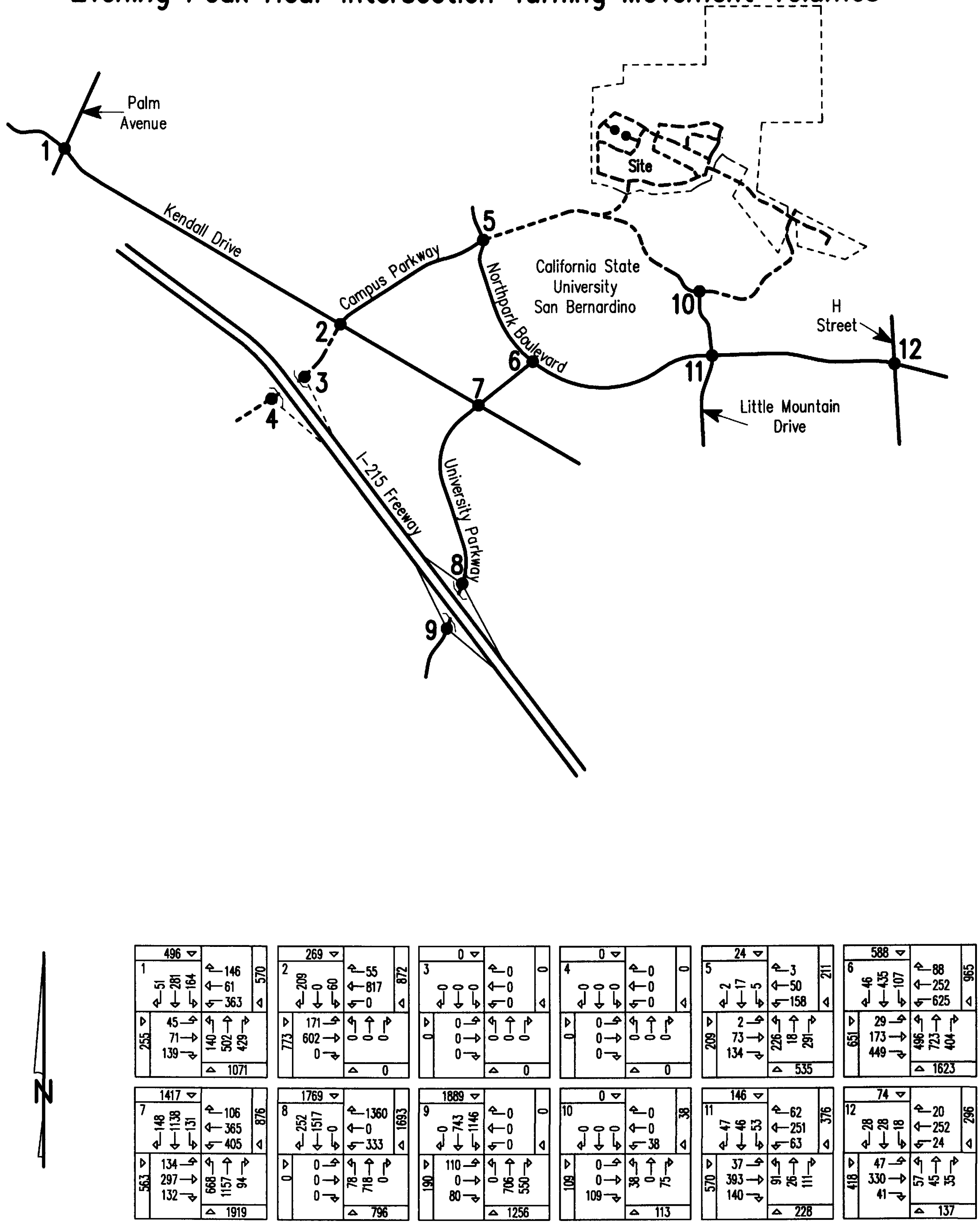


Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

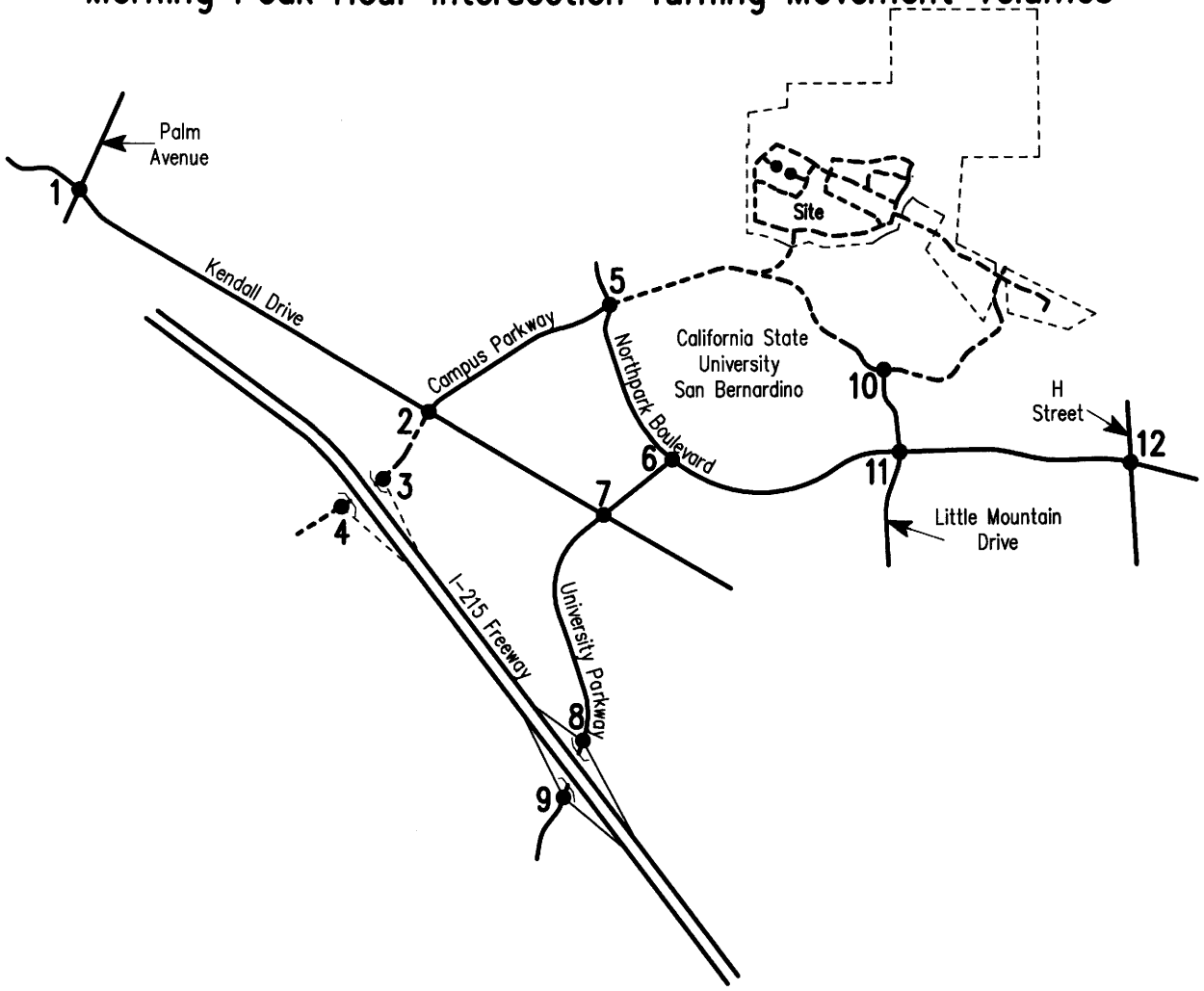
3516b/bbas

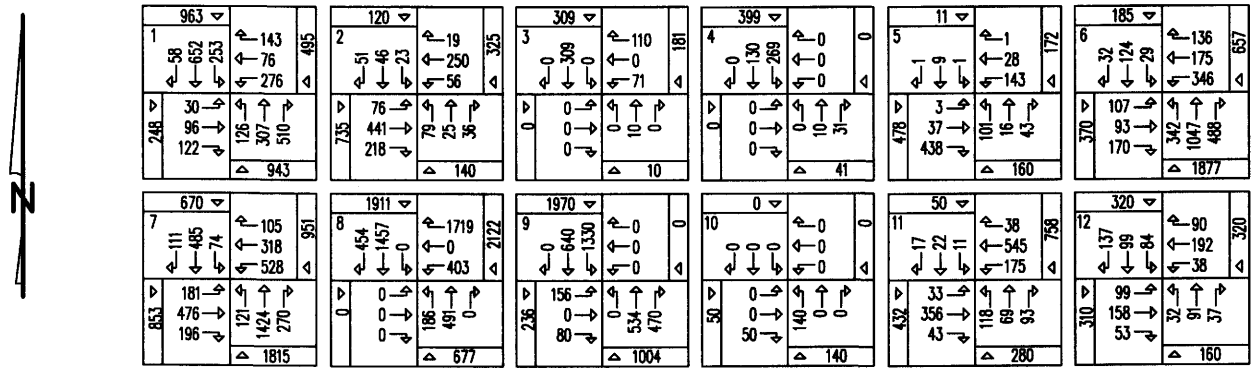
Figure 22
Opening Year (2011) With Project
Evening Peak Hour Intersection Turning Movement Volumes



Kunzman Associates Intersection reference numbers are in upper left corner of turning movement boxes. 3516b/bbas

Figure 23
Year 2030 Without Project
Morning Peak Hour Intersection Turning Movement Volumes



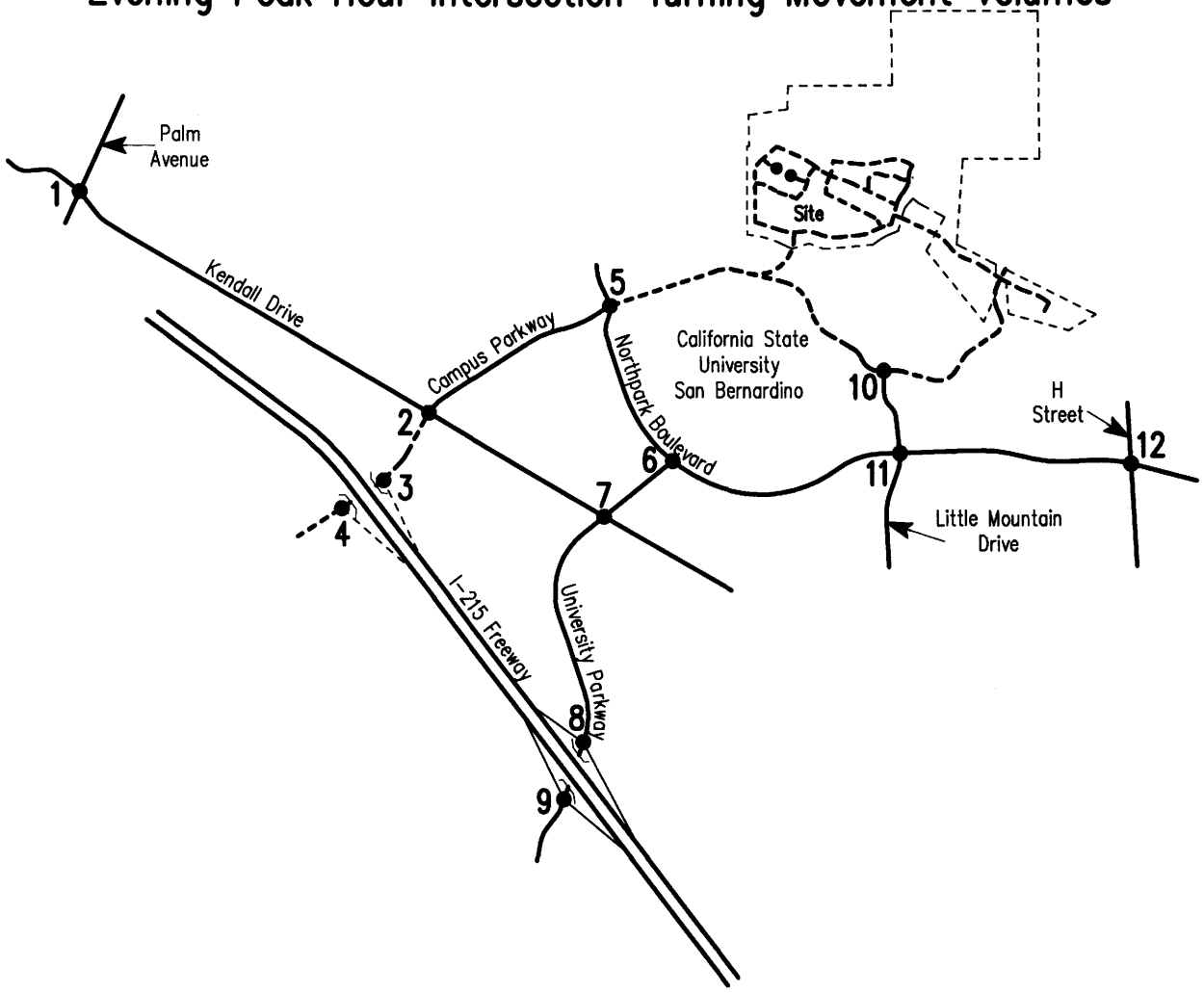


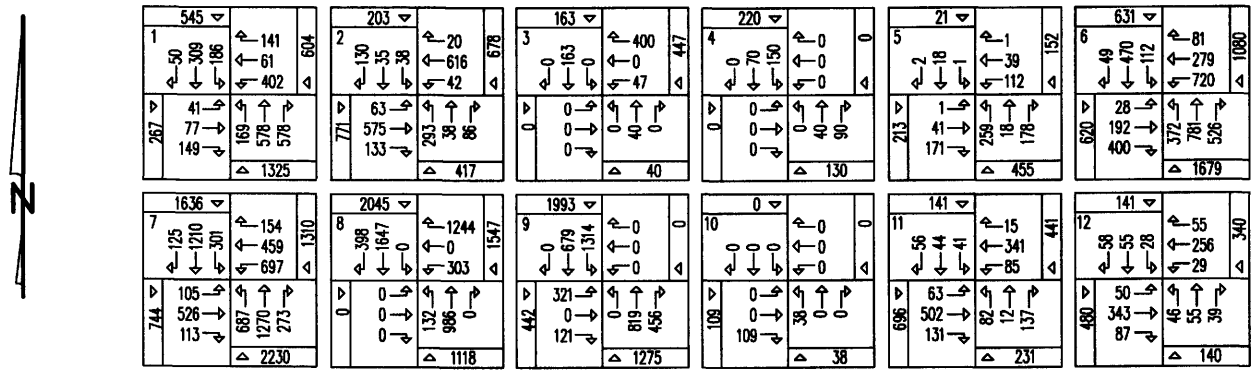
Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

3516b/bbas

Figure 24
Year 2030 Without Project
Evening Peak Hour Intersection Turning Movement Volumes



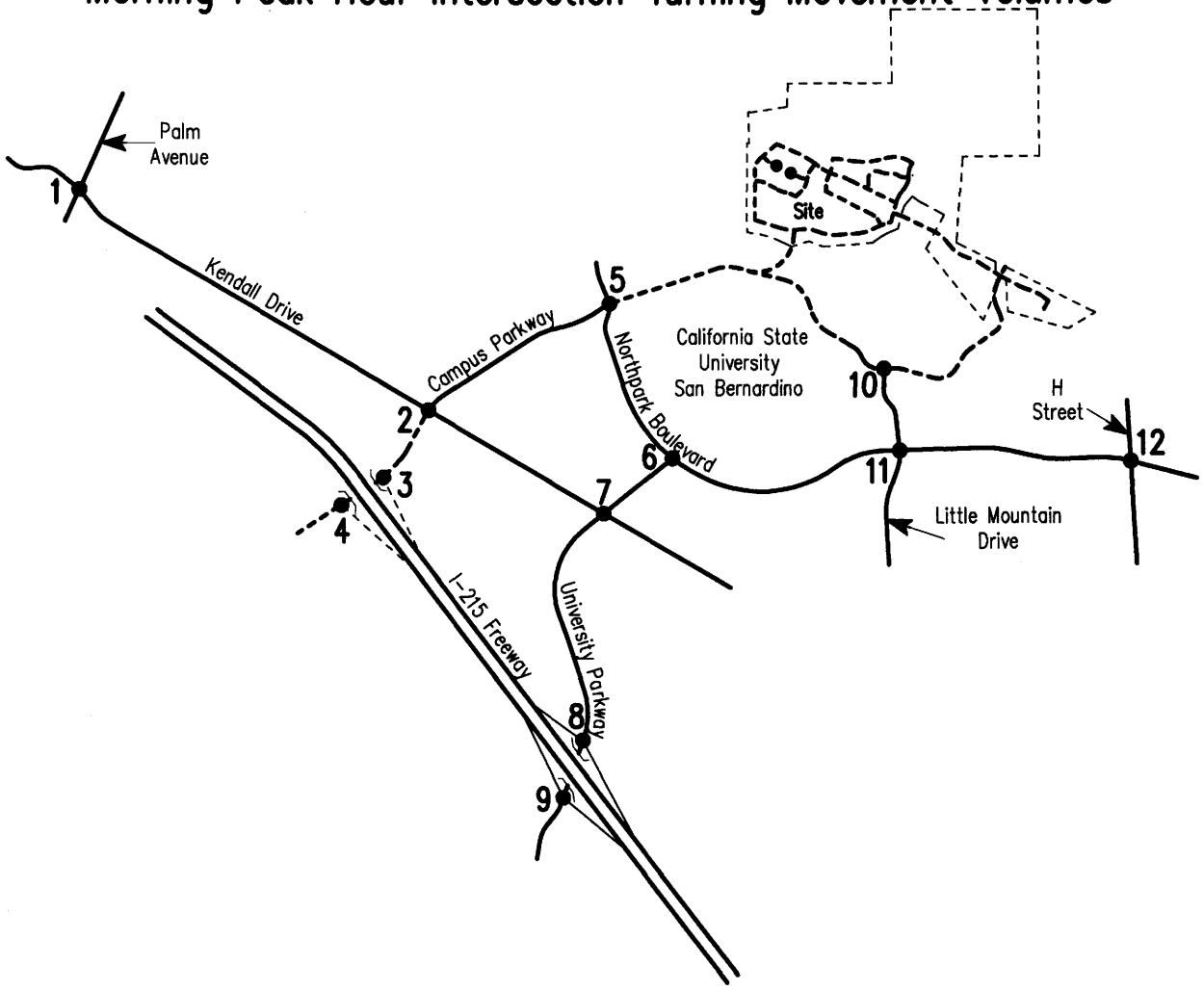


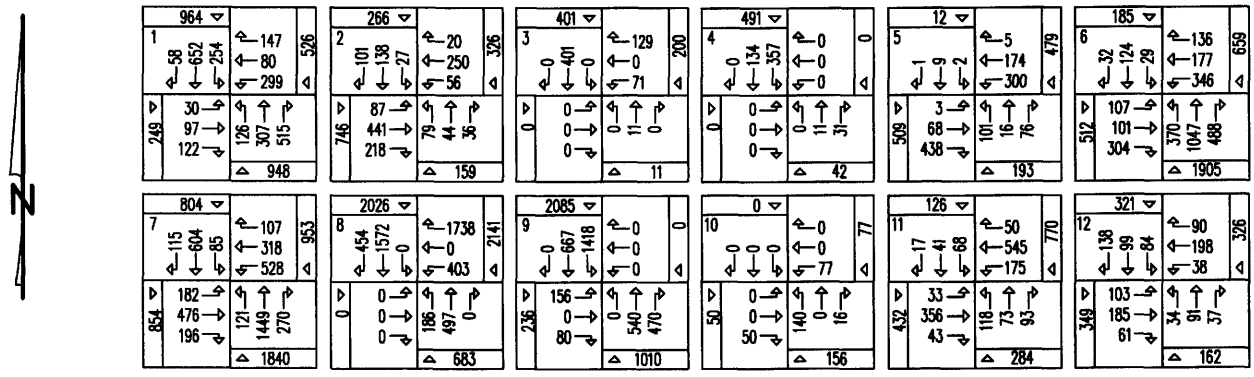
Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

3516b/bbas

Figure 25
Year 2030 With Project
Morning Peak Hour Intersection Turning Movement Volumes



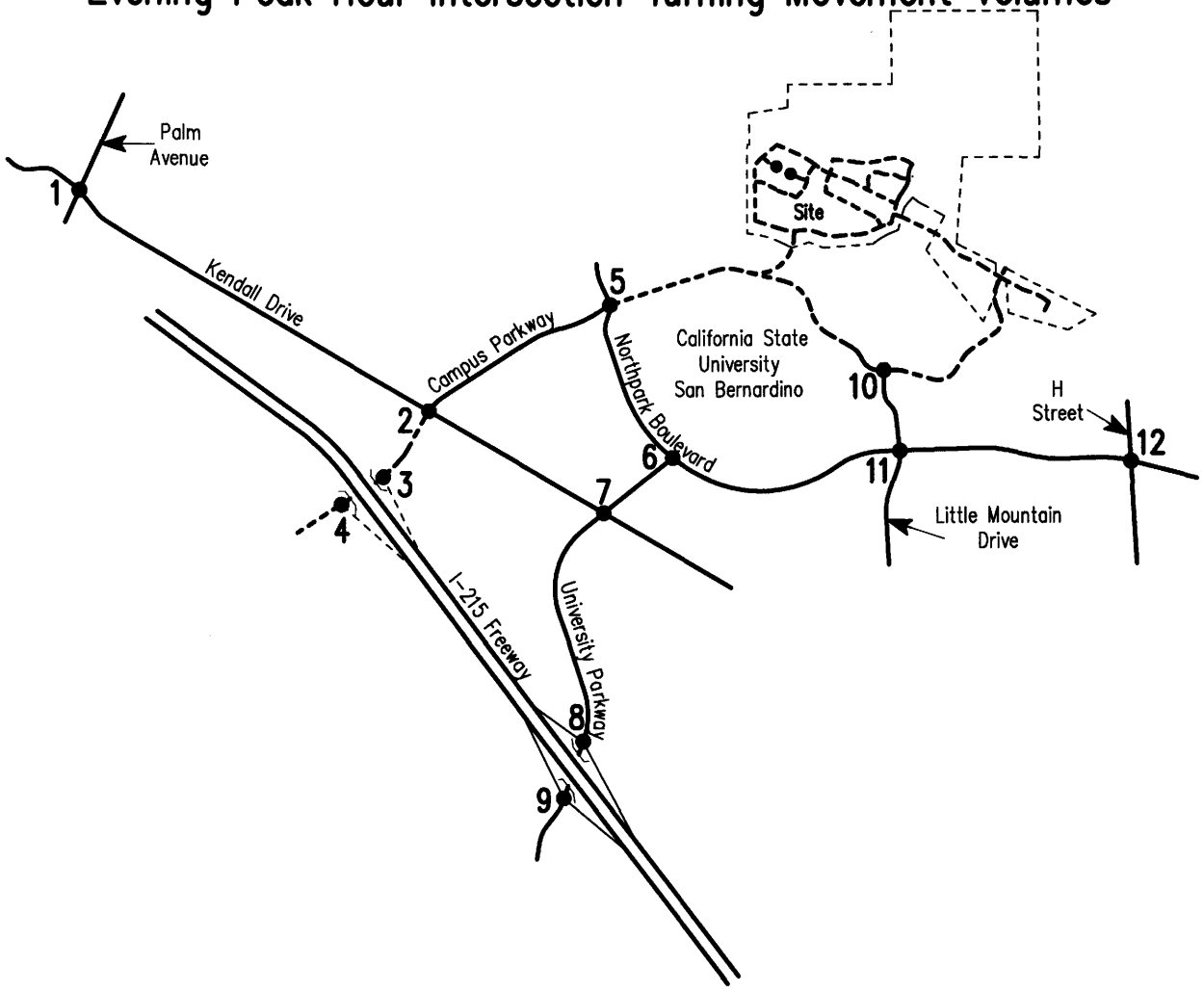


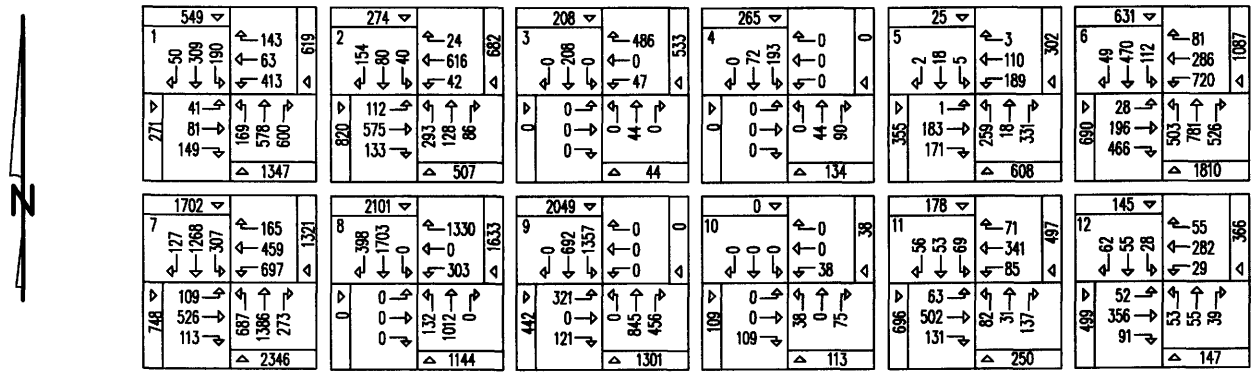
Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

3516b/bbas

Figure 26
Year 2030 With Project
Evening Peak Hour Intersection Turning Movement Volumes





Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

3516b/bbas

V. Project Mitigation and Cost Summary

A. Required Improvements and Costs

Improvements that will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for Opening Year (2011) and Year 2030 traffic conditions. The improvements were determined through the operations analysis of Section IV.

The approximate costs for the Year 2030 improvements have generally been estimated using cost guidelines in the 2005 Congestion Management Program Handbook (see Appendix F). A unit cost of $250,000 for installation of a traffic signal has been substituted for the somewhat lower value cited in the Congestion Management Program materials. For adding a through lane, a unit cost of $289,720 has been assumed. The needed improvements and resulting costs are summarized in Table 13 for the study area intersections.

Table 14 summarizes the freeway segment needed improvements. For the arterial roadway system, some of the improvements identified in Sections II and IV are already funded. For instance, if the East Valley Traffic Model indicated that a roadway is funded to be a six lane divided facility, three through lanes and a single left turn lane were assumed to be constructed as part of the funded improvements. Therefore, no cost is shown in Table 14 for already funded improvements. The total cost of needed and unfunded study area intersection improvements is $11,679,160.

B. Project Contribution and Fair Share Costs

The project fair share contributions have also been calculated for Year 2030 improvement locations. The project share of cost has been based on the proportion of project peak hour traffic contributed to the improvement location relative to the total new peak hour Year 2030 traffic volume.

Table 15 presents a summary of improvement cost and project cost shares at each of the Year 2030 intersection improvement locations. The intersection fair share cost calculations are based on the evening peak hour traffic volumes. As shown in Table 15, the project's fair share of identified study area intersection costs is $2,361,919.

Tables 16 and 17 summarize the needed morning and evening peak hour freeway mainline improvement costs and project fair share cost contribution estimates for each freeway mainline segment that will require improvements. As shown in Tables 16 and 17, the project's fair share of the morning and evening peak hours of freeway improvement costs is $1,685,546. The overall calculated project fair share contribution is $4,047,465.

The dollar figures are rough order of magnitude estimates only. They are intended only for the discussion purposes of this traffic impact analysis, and do not imply any legal responsibility or formula for contributions or mitigation.

As mitigation for the potential traffic impacts, the proposed project shall contribute on a fair share basis, through an adopted traffic impact fee program, in the implementation of the recommended intersection lane improvements or freeway improvements, or in the implementation of additional capacity on parallel routes to offset potential impacts to intersections and freeway segments.

Table 13

Summary of Intersection Improvements and Costs

Intersection	Improvement	Total Cost
Campus Parkway (NS) at:		
Kendall Drive (EW)	Construct NB Through Lane	$ 289,720
	Construct SB Through Lane	$ 289,720
	Construct WB Left Turn Lane	$ 50,000
	Subtotal	$ 629,440
I-215 Freeway NB Ramp (EW)	Construct Interchange	$ 5,000,000
I-215 Freeway SB Ramp (EW)	Construct Interchange	$ 5,000,000
Northpark Boulevard (NS) at:		
Campus Parkway (EW)	Construct SB Left Turn Lane[1]	$ 50,000
	Construct WB Left Turn Lane[1]	$ 50,000
	Construct WB Through Lane[1]	$ 289,720
	Install Traffic Signal[1]	$ 250,000
	Subtotal	$ 639,720
University Parkway (NS) at:		
Northpark Boulevard (EW)	Construct NB Left Turn Lane[1]	$ 50,000
	Install EB Right Turn Overlap[1]	$ 10,000
	Construct Two WB Left Turn Lanes[1]	$ 100,000
	Construct WB Right Turn Lane[1]	$ 50,000
	Subtotal	$ 210,000
Kendall Drive (EW)	Construct NB Right Turn Lane	$ 50,000
	Construct SB Right Turn Lane	$ 50,000
	Construct EB Right Turn Lane	$ 50,000
	Subtotal	$ 150,000
I-215 Freeway SB Ramps (EW)	Construct NB Right Turn Lane	$ 50,000
Total		$ 11,679,160

[1] Needed for Opening Year (2011) traffic conditions.

Table 14

Summary of Freeway Mainline Peak Hour Improvements and Costs

Freeway	Segment Limits	Segment Length (Miles)	Improvement (Lanes Added)		Cost Per Mile		Total Cost
			General	HOV	General	HOV	
I-215 NB	Baseline Road to 16th Street	0.52	1	1	$2,400,000	$2,200,000	$ 2,392,000
	16th Street to Massachusetts Avenue	0.43	2	1	$2,400,000	$2,200,000	$ 3,010,000
	Massachusetts Avenue to Highland Avenue	0.33	2	1	$2,400,000	$2,200,000	$ 2,310,000
	Highland Avenue to Mount Vernon Avenue	0.36	2	1	$2,400,000	$2,200,000	$ 2,520,000
	Mount Vernon Avenue to SR-30 Freeway	0.33	1	1	$2,400,000	$2,200,000	$ 1,518,000
	SR-30 Freeway to University Parkway	1.58	1	1	$2,400,000	$2,200,000	$ 7,268,000
	University Parkway to Campus Parkway	1.15	2	1	$2,400,000	$2,200,000	$ 8,050,000
I-215 SB	Campus Parkway to University Parkway	1.15	2	1	$2,400,000	$2,200,000	$ 8,050,000
	University Parkway to SR-30 Freeway	1.58	2	1	$2,400,000	$2,200,000	$ 11,060,000
	SR-30 Freeway to Mount Vernon Avenue	0.33	1	1	$2,400,000	$2,200,000	$ 1,518,000
	Mount Vernon Avenue to Highland Avenue	0.36	2	1	$2,400,000	$2,200,000	$ 2,520,000
	Highland Avenue to Massachusetts Avenue	0.33	2	1	$2,400,000	$2,200,000	$ 2,310,000
	Massachusetts Avenue to 16th Street	0.43	2	1	$2,400,000	$2,200,000	$ 3,010,000
	16th Street to Baseline Road	0.52	1	1	$2,400,000	$2,200,000	$ 2,392,000
Total							$ 57,928,000

Table 15

Project Fair Share Intersection Traffic Contribution

Intersection	Total Cost	Existing Traffic	Year 2030 With Project Traffic	Project Traffic	Total New Traffic	Project % of New Traffic	Project Cost Share
Campus Parkway (NS) at:							
Kendall Drive (EW)	$ 629,440	1,708	2,283	214	575	37.2%	$ 234,261
I-215 Freeway NB Ramp (EW)	$ 5,000,000	-	785	135	785	17.2%	$ 859,873
I-215 Freeway SB Ramp (EW)	$ 5,000,000	-	533	93	533	17.4%	$ 872,420
Northpark Boulevard (NS) at:							
Campus Parkway (EW)	$ 639,720	403	1,290	447	887	50.4%	$ 322,384
University Parkway (NS) at:							
Northpark Boulevard (EW)	$ 210,000	3,338	4,218	208	880	23.6%	$ 49,636
Kendall Drive (EW)	$ 150,000	4,448	6,117	197	1,669	11.8%	$ 17,705
I-215 Freeway SB Ramps (EW)	$ 50,000	3,065	3,792	82	727	11.3%	$ 5,640
Total	$ 11,679,160						$ 2,361,919

Table 16

Project Fair Share Freeway Mainline Morning Peak Hour Traffic Contribution

Freeway	Segment Limits	Existing Traffic	2030 With Project Traffic	Project Traffic	Total New Traffic	Project % of New Traffic	Improvement Cost	Project Cost Share	
I-215 NB	Baseline Road to 16th Street	4,913	5,274	21	361	5.8%	$ 2,392,000	$ 139,440	[1]
	16th Street to Massachusetts Avenue	2,958	4,981	21	2,023	1.0%	$ 3,010,000	$ 31,336	
	Massachusetts Avenue to Highland Avenue	2,883	4,880	21	1,997	1.1%	$ 2,310,000	$ 24,357	
	Highland Avenue to Mount Vernon Avenue	2,731	4,543	21	1,813	1.2%	$ 2,520,000	$ 29,280	
	Mount Vernon Avenue to SR-30 Freeway	2,617	3,640	23	1,023	2.2%	$ 1,518,000	$ 33,660	
	SR-30 Freeway to University Parkway	3,604	5,457	38	1,853	2.1%	$ 7,268,000	$ 149,312	
	University Parkway to Campus Parkway	2,655	4,879	19	2,224	0.8%	$ 8,050,000	$ 67,436	
I-215 SB	Campus Parkway to University Parkway	4,651	8,250	88	3,599	2.4%	$ 8,050,000	$ 197,025	[1]
	University Parkway to SR-30 Freeway	6,313	10,493	180	4,180	4.3%	$ 11,060,000	$ 476,264	[1]
	SR-30 Freeway to Mount Vernon Avenue	4,585	7,858	107	3,273	3.3%	$ 1,518,000	$ 49,737	[1]
	Mount Vernon Avenue to Highland Avenue	4,785	10,021	100	5,237	1.9%	$ 2,520,000	$ 47,920	[1]
	Highland Avenue to Massachusetts Avenue	5,051	10,564	100	5,514	1.8%	$ 2,310,000	$ 41,719	[1]
	Massachusetts Avenue to 16th Street	5,183	10,395	100	5,212	1.9%	$ 3,010,000	$ 57,511	[1]
	16th Street to Baseline Road	8,607	10,484	100	1,877	5.3%	$ 2,392,000	$ 126,899	[1]
Total								$ 1,471,896	

[1] Project cost share higher than evening peak hour.

Table 17

Project Fair Share Freeway Mainline Evening Peak Hour Traffic Contribution

Freeway	Segment Limits	Existing Traffic	2030 With Project Traffic	Project Traffic	Total New Traffic	Project % of New Traffic	Improvement Cost	Project Cost Share
I-215 NB	Baseline Road to 16th Street	7,432	9,614	97	2,182	4.5%	$ 2,392,000	$ 106,583
	16th Street to Massachusetts Avenue	4,476	10,587	97	6,111	1.6%	$ 3,010,000	$ 47,896 [1]
	Massachusetts Avenue to Highland Avenue	4,361	10,541	97	6,181	1.6%	$ 2,310,000	$ 36,344 [1]
	Highland Avenue to Mount Vernon Avenue	4,131	9,341	97	5,210	1.9%	$ 2,520,000	$ 47,036 [1]
	Mount Vernon Avenue to SR-30 Freeway	3,959	7,485	105	3,526	3.0%	$ 1,518,000	$ 45,086 [1]
	SR-30 Freeway to University Parkway	5,451	10,652	176	5,201	3.4%	$ 7,268,000	$ 245,636 [1]
	University Parkway to Campus Parkway	4,016	9,467	86	5,451	1.6%	$ 8,050,000	$ 127,033 [1]
I-215 SB	Campus Parkway to University Parkway	2,957	6,095	43	3,138	1.4%	$ 8,050,000	$ 110,934
	University Parkway to SR-30 Freeway	4,013	7,147	88	3,134	2.8%	$ 11,060,000	$ 311,789
	SR-30 Freeway to Mount Vernon Avenue	2,914	5,222	53	2,307	2.3%	$ 1,518,000	$ 34,633
	Mount Vernon Avenue to Highland Avenue	3,041	6,639	49	3,598	1.4%	$ 2,520,000	$ 34,233
	Highland Avenue to Massachusetts Avenue	3,210	6,993	49	3,783	1.3%	$ 2,310,000	$ 29,848
	Massachusetts Avenue to 16th Street	3,295	6,982	49	3,687	1.3%	$ 3,010,000	$ 39,908
	16th Street to Baseline Road	5,471	6,409	49	938	5.2%	$ 2,392,000	$ 124,613
Total								$ 1,177,051

[1] Project cost share higher than morning peak hour.

VI. Conclusions and Recommendations

A. Summary

The traffic issues related to the proposed land use and development have been evaluated in the context of the California Environmental Quality Act.

The City of San Bernardino is the lead agency responsible for preparation of the traffic impact analysis, in accordance with the California Environmental Quality Act authorizing legislation. This report analyzes traffic impacts for the anticipated opening date with full occupancy of the development in Year 2011, at which time it will be generating traffic at its full potential, and for the Year 2030.

A series of scoping discussions were conducted with the following agencies to define the desired analysis locations for each future analysis year:

- City of San Bernardino
- San Bernardino Associated Governments

In addition, staff from the Southern California Association of Governments has also been contacted to discuss the project and its associated travel patterns.

The roadway elements that must be analyzed are dependent on both the analysis year (project Opening Year or Year 2030) and project generated traffic volumes. The identification of the study area, and the intersections and highway segments requiring analysis, was based on an estimate of the two-way traffic volumes on the roadway segments near the project site. All arterial segments have been included in the analysis when the anticipated project volume equals or exceeds 50 two-way trips in the peak hours. The requirement is 100 two-way peak hour trips for freeways.

The project contributes traffic greater than the freeway threshold volume of 100 two-way peak hour trips to the I-215 Freeway. The project contributes traffic greater than the arterial link threshold volume of 50 two-way trips in the peak hours on intersections in the County of San Bernardino. This means that the City of San Bernardino must notify the California Department of Transportation and the County of San Bernardino. Each of these agencies must also be provided with a copy of the traffic impact analysis, once the document is accepted by the City of San Bernardino. (Note: The purpose of this notification is to allow the California Department of Transportation to identify opportunities to make improvements to intersections concurrent with adjacent development, at considerably less cost and disruption than would occur if it were done after-the-fact).

Based upon discussions with San Bernardino Associated Governments staff, the average daily traffic volume forecasts have been determined using the growth increment approach on the East Valley Traffic Model Year 2000 and Year 2030 average daily traffic volume forecasts (see Appendix C). This difference defines the growth in traffic over the 30-year period. The incremental growth in average daily traffic volume has been factored to reflect the forecast growth between Year 2007 and Year 2030. For this purpose, linear growth between the Year 2000 base condition and the forecast Year 2030 condition was assumed. Since the increment between Year 2007 and Year 2030 is 23 years of the 30-year time frame, a factor of 0.77 (i.e., 23/30) was used.

The Year 2030 without project daily and peak hour directional roadway segment volume forecasts have been determined using the growth increment approach on the East Valley Traffic Model Year 2000 and Year 2030 peak hour volumes. The growth increment calculation worksheets are shown in Appendix C. Current peak hour intersection approach/departure data is a necessary input to this approach. The existing traffic count data serves as both the starting point for the refinement process, and also provides important insight into current travel patterns and the relationship between peak hour and daily traffic conditions. The initial turning movement proportions are estimated based upon the relationship of each approach leg's forecast traffic volume to the other legs forecast volumes at the intersection. The initial estimate of turning movement proportions is then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program Report 255. A linear programming algorithm is used to calculate individual turning movements that match the known directional roadway segment volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

Project traffic volumes were then added to the Year 2030 East Valley Traffic Model volumes. Quality control checks and forecast adjustments were performed as necessary to ensure that all future traffic volume forecasts reflect a minimum of 10% growth over existing traffic volumes. The result of this traffic forecasting procedure is a series of traffic volumes suitable for traffic operations analysis.

B. Existing Conditions

Regional access to the project site is provided by the I-215 Freeway. Local access is provided by various roadways in the vicinity of the site. The east-west roadways which will be most affected by the project include Northpark Boulevard and Kendall Drive. North-south roadways expected to provide

local access include Palm Avenue, Campus Parkway, University Parkway, Little Mountain Drive, and H Street.

The study area intersections currently operate at acceptable Levels of Service during the peak hours for existing traffic conditions, except for the following study area intersection that operates at an unacceptable Level of Service during the evening peak hour:

University Parkway (NS) at:
Northpark Boulevard (EW)

C. Project Traffic

Project traffic volumes for all future projections were estimated using the manual approach. Trip generation has been estimated based on the Institute of Transportation Engineers.

The distribution of the project traffic was based on the select zone evening peak period traffic distribution from the Year 2030 East Valley Traffic Model. The socio-economic data inputs to the East Valley Traffic Model are representative of the planned project development intensity.

Construction plans involving a half interchange for the proposed I-215 Freeway/Campus Parkway half interchange were obtained from the City of San Bernardino in the Preliminary Value Analysis Study Report for the I-215/University Parkway Interchange prepared by Value Management Strategies, Inc. in April 2008.

The Opening Year (2011) traffic projections have not taken into account the proposed I-215 Freeway/Campus Parkway half interchange. Year 2030 traffic projections have taken into account the proposed I-215 Freeway/Campus Parkway half interchange.

The proposed development is projected to generate a total of approximately 6,140 daily vehicle trips, 464 of which will occur during the morning peak hour and 562 of which will occur during the evening peak hour.

D. Future Conditions

An Opening Year (2011) analysis and Year 2030 analysis are included in this report. Opening Year (2011) traffic operations analysis has been completed for the morning and evening peak hour and are shown in Tables 3 through 5. Morning and evening peak hour traffic operations analysis are summarized in Tables 6 through 8 for the Year 2030.

For Opening Year (2011) without project traffic conditions, the following study area intersection is projected to operate at unacceptable Levels of Service during the peak hours, without improvements:

University Parkway (NS) at:
Northpark Boulevard (EW)

For Opening Year (2011) with project traffic conditions, the following study area intersections are projected to operate at unacceptable Levels of Service during the peak hours, without improvements:

University Parkway (NS) at:
Northpark Boulevard (EW)
I-215 Freeway NB Ramps (EW)

The Opening Year (2011) delay and Level of Service for the study area roadway network with the proposed project and with improvements are shown in Table 5. Improvements presented in Table 5 include both funded improvements (see Section II.D) and any additional improvements needed to achieve acceptable Levels of Service during the peak hours. Opening Year (2011) with project (with improvements) delay calculation worksheets are provided in Appendix D. As shown in Table 5, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours for Opening Year (2011) with project traffic conditions.

A traffic signal is projected to be warranted at the following study area intersection for Opening Year (2011) with project traffic conditions (see Appendix E):

Northpark Boulevard (NS) at:
Campus Parkway (EW)

For Year 2030 without project traffic conditions, the following study area intersections are projected to operate at unacceptable Levels of Service during the peak hours, without improvements:

University Parkway (NS) at:
Northpark Boulevard (EW)
Kendall Drive (EW)
I-215 Freeway SB Ramps (EW)

For Year 2030 with project traffic conditions, the following study area intersections are projected to operate at unacceptable Levels of Service during the peak hours, without improvements:

University Parkway (NS) at:
Northpark Boulevard (EW)
Kendall Drive (EW)
I-215 Freeway SB Ramps (EW)

The Year 2030 delay and Level of Service for the study area roadway network with the proposed project and with improvements are shown in Table 8. Improvements presented in Table 8 include both funded improvements (see Section II.D) and any additional improvements needed to achieve acceptable Levels of Service D during the peak hours. Year 2030 with project (with improvements) delay calculation worksheets are provided in Appendix D. As shown in Table 8, the study area intersections are projected to operate at acceptable Levels of Service during the peak hours for Year 2030 with project traffic conditions.

E. Cost Summary

Improvements that will eliminate all anticipated roadway operational deficiencies throughout the study area have been identified for Opening Year (2011) and Year 2030 traffic conditions. The improvements were determined through the operations analysis of Section IV.

The total cost of needed and unfunded study area intersection improvements is $11,679,160. Table 15 presents a summary of improvement cost and project cost shares at each of the Year 2030 intersection improvement locations. The intersection fair share cost calculations are based on the evening peak hour traffic volumes. As shown in Table 15, the project's fair share of identified study area intersection costs is $2,361,919.

Tables 16 and 17 summarize the needed morning and evening peak hour freeway mainline improvement costs and project fair share cost contribution estimates for each freeway mainline segment that will require improvements. As shown in Tables 16 and 17, the project's fair share of the morning and evening peak hours of freeway improvement costs is $1,685,546. The overall calculated project fair share contribution is $4,047,465.

The dollar figures are rough order of magnitude estimates only. They are intended only for the discussion purposes of this traffic impact analysis, and do not imply any legal responsibility or formula for contributions or mitigation.

As mitigation for the potential traffic impacts, the proposed project shall contribute on a fair share basis, through an adopted traffic impact fee program, in the implementation of the recommended intersection lane improvements or freeway improvements, or in the implementation of additional capacity on parallel routes to offset potential impacts to intersections and freeway segments.

F. Recommendations

The recommendations in this section address on-site improvements, off-site improvements and the phasing of all necessary study area transportation improvements.

1. On-Site Improvements

   On-site improvements and improvements adjacent to the site will be required in conjunction with the proposed development to ensure adequate circulation within the project itself (see Figure 27).

   Sufficient on-site parking shall be provided to meet City of San Bernardino parking code requirements.

   Sight distance at each project access should be reviewed with respect to California Department of Transportation/City of San Bernardino standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.

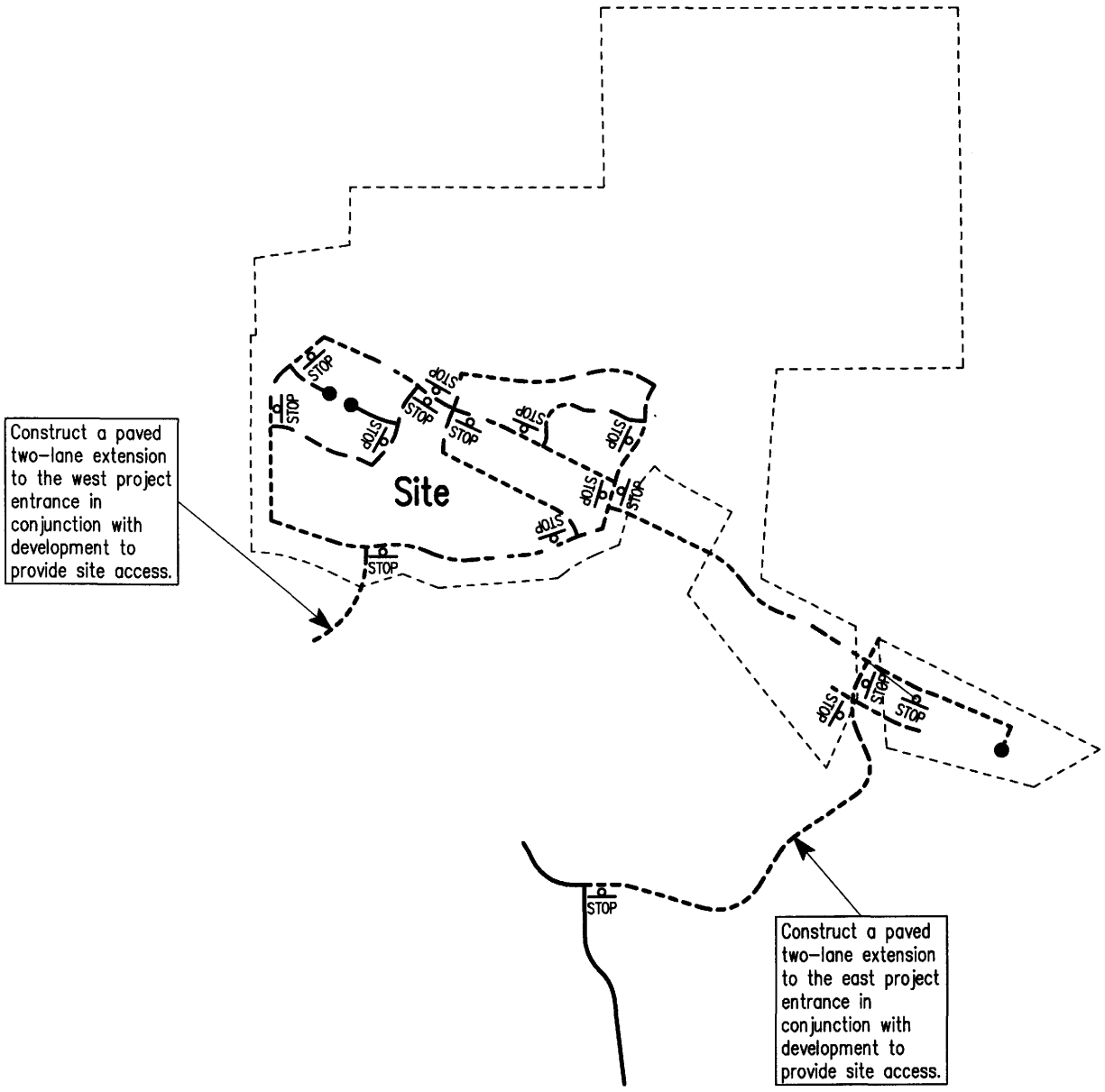
   On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

2. Off-Site Improvements

   The necessary off-site improvement recommendations were described in previous sections of this report. The project should contribute towards the cost of necessary study area improvements on a fair share or "pro-rata" basis.

   As is the case for any roadway design, the City of San Bernardino should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

Figure 27
Circulation Recommendations



Sufficient on-site parking shall be provided to meet City of San Bernardino parking code requirements.

Sight distance at each project access should be reviewed with respect to California Department of Transportation/City of San Bernardino standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

As is the case for any roadway design, the City of San Bernardino should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

N

Legend

STOP= Stop Sign

Kunzman Associates

3516b/27

Appendices

Appendix A – Glossary of Transportation Terms

Appendix B – Traffic Count Worksheets

Appendix C – Future Growth Increment Calculation Worksheets

Appendix D – Explanation and Calculation of Intersection Delay

Appendix E – Traffic Signal Warrant Worksheets

Appendix F – Preliminary Construction Cost Estimates for Congestion Management Program

APPENDIX A

Glossary of Transportation Terms

GLOSSARY OF TRANSPORTATION TERMS

COMMON ABBREVIATIONS

AC:	Acres
ADT:	Average Daily Traffic
Caltrans:	California Department of Transportation
DU:	Dwelling Unit
ICU:	Intersection Capacity Utilization
LOS:	Level of Service
TSF:	Thousand Square Feet
V/C:	Volume/Capacity
VMT:	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The total volume during a year divided by the number of days in a year. Usually only weekdays are included.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A constriction along a travelway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CYCLE LENGTH: The time period in seconds required for one complete signal cycle.

CUL-DE-SAC STREET: A local street open at one end only, and with special provisions for turning around.

DAILY CAPACITY: The daily volume of traffic that will result in a volume during the peak hour equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

ORIGIN-DESTINATION SURVEY: A survey to determine the point of origin and the point of destination for a given vehicle trip.

PASSENGER CAR EQUIVALENTS (PCE): One car is one Passenger Car Equivalent. A truck is equal to 2 or 3 Passenger Car Equivalents in that a truck requires longer to start, goes slower, and accelerates slower. Loaded trucks have a higher Passenger Car Equivalent than empty trucks.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through a signalized intersection.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination; i.e. each trip has two trip-ends. A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quality of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B

Traffic Count Worksheets

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-001Class

Location: Palm Ave. & Kendall Dr. City: San Bernardino Date: 09/27/2007 Day: THURSDAY

	LANES:	1	2	0	1	2	0	1	1	1	1	1	1
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	15	39	63	30	162	16	5	8	25	73	15	18
	2-axle	1	15	1	2				2	1	2	1	
	3-axle			1									
	4-axle												
	5-axle +												
7:15	CARS	32	82	97	51	178	17	5	18	39	71	18	39
	2-axle	1	1	2	4	2	1			3	2	3	
	3-axle									1			
	4-axle												
	5-axle +	1											
7:30	CARS	26	82	119	63	185	12	2	24	24	62	12	52
	2-axle		2	2	2	1		2	1		1		2
	3-axle			1							1		
	4-axle												
	5-axle +												
7:45	CARS	24	57	94	53	147	15	9	16	23	59	18	24
	2-axle		1	3	2	2					2	1	
	3-axle										1		
	4-axle												
	5-axle +									1			
8:00	CARS	21	49	75	42	138	10	11	23	26	57	15	21
	2-axle	1	2	3	2	3			1		5	1	
	3-axle					1							
	4-axle												
	5-axle +												
8:15	CARS	20	41	65	38	129	13	10	20	24	60	11	25
	2-axle	2	1	3	1	1	1		2	3	1	1	1
	3-axle												
	4-axle												
	5-axle +			1									
8:30	CARS	23	39	70	34	117	11	7	15	28	55	9	20
	2-axle	3	1	4	3	1		1	1	2	4	2	
	3-axle										1		
	4-axle												
	5-axle +												
8:45	CARS	18	42	60	26	123	8	6	10	19	52	7	18
	2-axle	1	2	2	1	2			1	1	2		1
	3-axle										1		
	4-axle												
	5-axle +										1		

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	179	431	643	337	1179	102	55	134	208	489	105	217
2-axle	9	25	20	17	12	2	3	8	10	19	9	4
3-axle	0	0	2	0	1	0	0	0	1	4	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	1	0	1	0	0	0	0	0	1	1	0	0
TOTALS	189	456	666	354	1192	104	58	142	220	513	114	221
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	106	276	396	219	657	55	29	83	117	261	68	138
PEAK HR. FACTOR:		0.838			0.885			0.867			0.878	

CONTROL: Signalized

15 45 Start Time -15 MINUTES

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-001Class

Location: Palm Ave. & Kendall Dr. City: San Bernardino Date: 09/27/2007 Day: THURSDAY

		LANES:	1	2	0	1	2	0	1	1	1	1	1	1
			NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS		21	104	61	31	70	8	9	9	27	87	16	37
	2-axle			2	1	1	1				1			1
	3-axle													
	4-axle													
	5-axle +										1	1		
16:15	CARS		38	100	60	35	75	12	5	18	30	86	10	40
	2-axle			1			2					1		
	3-axle													
	4-axle													
	5-axle +													
16:30	CARS		32	109	92	36	62	8	6	10	32	89	9	39
	2-axle									1		1		
	3-axle					1								
	4-axle													
	5-axle +													
16:45	CARS		30	123	86	41	71	14	11	14	32	84	15	35
	2-axle				1									1
	3-axle													
	4-axle													
	5-axle +													
17:00	CARS		33	126	84	38	74	16	15	20	36	79	14	36
	2-axle		1	2	1		1		1		1			
	3-axle													
	4-axle													
	5-axle +													
17:15	CARS		29	113	81	33	63	13	12	18	31	75	16	34
	2-axle		1			1	2		1		1	2	1	
	3-axle										1		1	
	4-axle													
	5-axle +													
17:30	CARS		25	104	82	37	59	9	8	19	25	67	14	31
	2-axle			1	1	1		1		1	1	2		
	3-axle													
	4-axle													
	5-axle +													
17:45	CARS		22	97	70	29	54	11	7	12	23	61	12	33
	2-axle			1	1	1	1					2		
	3-axle						1							
	4-axle													
	5-axle +													

MOVEMENT TOTALS

CARS	230	876	616	280	528	91	73	120	236	628	106	285
2-axle	2	7	5	4	7	1	2	2	4	8	1	2
3-axle	0	0	0	1	1	0	0	0	1	0	1	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	1	1	0	0
TOTALS	232	883	621	285	536	92	75	122	242	637	108	287
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 1630 PM

PEAK VOLUMES =	126	473	345	150	273	51	46	63	134	330	56	145
PEAK HR. FACTOR:		0.955			0.919			0.832			0.962	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-002Class

Location: Campus Pkwy & Kendall Dr. City: San Bernardino Date: 09/25/2007 Day: TUESDAY

		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
LANES:		0	0	0	1	0	2	1	2	0	0	2	1
7:00	CARS	0	0	0	2	0	4	10	68	0	0	49	13
	2-axle								4			4	
	3-axle								2				
	4-axle												
	5-axle +												
7:15	CARS	0	0	0	2	0	3	25	75	0	0	56	17
	2-axle							1	6			3	1
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	0	0	0	4	0	10	54	86	0	0	58	37
	2-axle						1		3			2	1
	3-axle								2			1	
	4-axle												
	5-axle +												
7:45	CARS	0	0	0	6	0	15	95	88	0	0	63	50
	2-axle							1	5			5	
	3-axle											1	
	4-axle												
	5-axle +												
8:00	CARS	0	0	0	4	0	8	19	104	0	0	67	8
	2-axle								7			4	
	3-axle				1								
	4-axle												
	5-axle +												
8:15	CARS	0	0	0	4	0	8	21	97	0	0	62	7
	2-axle								4			4	
	3-axle												
	4-axle												
	5-axle +								1				
8:30	CARS	0	0	0	5	0	19	43	115	0	0	68	6
	2-axle								7			5	
	3-axle											1	
	4-axle												
	5-axle +												
8:45	CARS	0	0	0	2	0	15	67	113	0	0	76	10
	2-axle								3			2	
	3-axle											1	
	4-axle												
	5-axle +											1	

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	0	0	0	29	0	82	334	746	0	0	499	148
2-axle	0	0	0	0	0	1	2	39	0	0	29	2
3-axle	0	0	0	1	0	0	0	4	0	0	4	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	1	0	0	1	0
TOTALS	0	0	0	30	0	83	336	790	0	0	533	150
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	0	0	0	20	0	50	179	428	0	0	280	71
PEAK HR. FACTOR:		0.000			0.729			0.803			0.737	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-002Class

Location: Campus Pkwy & Kendall Dr. City: San Bernardino Date: 09/25/2007 Day: TUESDAY

		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
LANES:		0	0	0	1	0	2	1	2	0	0	2	1
16:00	CARS	0	0	0	6	0	51	17	116	0	0	165	7
	2-axle							1	1			1	
	3-axle												
	4-axle												
	5-axle +											1	
16:15	CARS	0	0	0	9	0	47	21	129	0	0	179	11
	2-axle								1			1	1
	3-axle												
	4-axle												
	5-axle +												
16:30	CARS	0	0	0	12	0	50	27	135	0	0	188	15
	2-axle						1		2			1	
	3-axle								1				
	4-axle												
	5-axle +												
16:45	CARS	0	0	0	11	0	44	30	144	0	0	200	17
	2-axle								2			1	
	3-axle											1	
	4-axle												
	5-axle +												
17:00	CARS	0	0	0	7	0	48	25	131	0	0	192	12
	2-axle								2				
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	0	0	0	5	0	40	27	129	0	0	166	8
	2-axle											1	
	3-axle												1
	4-axle												
	5-axle +												
17:30	CARS	0	0	0	9	0	47	24	136	0	0	178	10
	2-axle								2				
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	0	0	0	11	0	60	16	125	0	0	197	15
	2-axle								1			1	
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	0	0	0	70	0	387	187	1045	0	0	1465	95
2-axle	0	0	0	0	0	1	1	11	0	0	6	1
3-axle	0	0	0	0	0	0	0	1	0	0	1	1
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	1	0
TOTALS	0	0	0	70	0	388	188	1057	0	0	1473	97

PM Peak Hr Begins at: 1615 PM

PEAK VOLUMES =	0	0	0	39	0	190	103	547	0	0	763	56
PEAK HR. FACTOR:		0.000			0.909			0.923			0.935	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-003Class

Location: Northpark Blvd & Campus Pkwy City: San Bernardino Date: 09/25/2007 Day: TUESDAY

LANES:

		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	2	0	26	0	0	0	0	2	3	8	2	0
	2-axle	1											
	3-axle												
	4-axle												
	5-axle +												
7:15	CARS	1	0	47	0	0	0	0	1	2	11	3	0
	2-axle			1					1			1	
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	2	0	96	0	0	0	0	0	0	19	0	0
	2-axle	2		1							1		
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	2	0	170	0	0	0	0	1	2	22	1	0
	2-axle	1		2									
	3-axle			1									
	4-axle												
	5-axle +												
8:00	CARS	1	0	99	0	0	0	0	0	1	17	0	0
	2-axle	1		1					1				
	3-axle												
	4-axle												
	5-axle +												
8:15	CARS	2	0	33	0	0	0	0	1	2	15	1	0
	2-axle	1		2								1	
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	0	0	57	0	0	0	0	0	2	24	2	0
	2-axle										1	1	
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	1	0	68	0	0	0	0	2	1	21	0	0
	2-axle			1							1	1	
	3-axle												
	4-axle												
	5-axle +									1			

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	11	0	596	0	0	0	0	7	13	137	9	0
2-axle	6	0	8	0	0	0	0	2	0	3	4	0
3-axle	0	0	1	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	1	0	0	0
TOTALS	17	0	605	0	0	0	0	9	14	140	13	0
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	10	0	418	0	0	0	0	4	5	70	5	0
PEAK HR. FACTOR:		0.608			0.000			0.563			0.815	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-003Class

Location: Northpark Blvd & Campus Pkwy City: San Bernardino Date: 09/25/2007 Day: TUESDAY

LANES:

		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	1	0	21	0	0	0	0	2	1	61	2	0
	2-axle			1									
	3-axle												
	4-axle												
	5-axle +												
16:15	CARS	1	0	35	0	0	0	0	1	3	42	1	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
16:30	CARS	2	0	45	0	0	0	0	2	2	49	2	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
16:45	CARS	1	0	43	0	0	0	0	1	4	45	4	0
	2-axle										1		
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	1	0	40	0	0	0	0	3	1	51	3	0
	2-axle			1									
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	1	0	37	0	0	0	0	2	2	47	3	0
	2-axle										1		
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	1	0	31	0	0	0	0	2	1	59	2	0
	2-axle										1		
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	0	0	26	0	0	0	0	4	4	73	4	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	8	0	278	0	0	0	0	17	18	427	21	0
2-axle	0	0	2	0	0	0	0	0	0	3	0	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	8	0	280	0	0	0	0	17	18	430	21	0
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 1700 PM

PEAK VOLUMES =	3	0	135	0	0	0	0	11	8	232	12	0
PEAK HR. FACTOR:		0.821			0.000			0.594			0.792	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-004Class

Location: Northpark Blvd & University Pkwy City: San Bernardino Date: 09/25/2007 Day: TUESDAY

	LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	29	69	41	3	11	13	11	3	16	45	7	9
	2-axle	1	1			1			1		1		1
	3-axle								1				
	4-axle												
	5-axle +												
7:15	CARS	41	193	58	5	15	11	19	5	19	49	27	18
	2-axle	1	2	1	1	1				1		1	2
	3-axle											1	
	4-axle												
	5-axle +									1			
7:30	CARS	67	279	97	9	29	6	28	15	13	69	54	47
	2-axle	2	1	1		2			2	1			
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	71	286	107	9	21	10	17	22	15	61	41	59
	2-axle	1	1		1	1	1					1	1
	3-axle												
	4-axle												
	5-axle +									1			
8:00	CARS	86	208	145	7	18	6	12	13	11	43	34	18
	2-axle	2	1	1		2			1	1		1	
	3-axle												
	4-axle												
	5-axle +									1			
8:15	CARS	34	99	78	6	15	4	1	6	9	49	20	10
	2-axle		2	1	1					1		1	
	3-axle												
	4-axle												
	5-axle +									3			
8:30	CARS	58	123	83	2	10	4	3	8	13	56	31	13
	2-axle	1	3			2	1		2	2	1	2	1
	3-axle												
	4-axle												
	5-axle +									3			
8:45	CARS	46	108	59	6	12	1	1	16	16	69	25	12
	2-axle	1	2		1	6			1	2	1		
	3-axle	1										1	
	4-axle												
	5-axle +	2											

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	432	1365	668	47	131	55	92	88	112	441	239	186
2-axle	9	13	4	4	15	2	0	7	8	3	6	5
3-axle	1	0	0	0	0	0	0	1	0	0	2	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	2	0	0	0	0	0	0	0	9	0	0	0
TOTALS	444	1378	672	51	146	57	92	96	129	444	247	191
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	271	971	410	32	89	34	76	58	64	222	160	145
PEAK HR. FACTOR:		0.886			0.842			0.839			0.775	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-004Class

Location: Northpark Blvd & University Pkwy City: San Bernardino Date: 09/25/2007 Day: TUESDAY

LANES:

		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	69	168	127	29	147	119	12	41	79	159	14	10
	2-axle		3	1	1	2			1	1		1	1
	3-axle												
	4-axle												
	5-axle +	1								1			
16:15	CARS	54	146	89	15	124	22	8	32	72	138	15	9
	2-axle		2			1					1	1	
	3-axle												
	4-axle												
	5-axle +	2											
16:30	CARS	37	137	75	21	103	11	8	27	65	124	12	13
	2-axle		1	1		2			2			2	
	3-axle												
	4-axle												
	5-axle +												
16:45	CARS	34	127	81	17	87	13	5	30	73	127	18	20
	2-axle		2		1	1			1	1			
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	29	121	99	24	90	9	7	35	69	123	23	15
	2-axle		1		1	1					1	1	
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	50	154	134	19	76	6	2	43	42	115	29	19
	2-axle		2		1	1							
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	88	208	79	35	104	16	10	32	81	141	53	31
	2-axle		1		1					1		1	
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	77	214	69	27	151	13	10	51	110	223	121	28
	2-axle		2		1	2				1		1	
	3-axle									1			
	4-axle												
	5-axle +												

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	438	1275	753	187	882	209	62	291	591	1150	285	145
2-axle	0	14	2	6	10	0	0	4	4	2	7	1
3-axle	0	0	0	0	0	0	0	0	1	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	3	0	0	0	0	0	0	0	1	0	0	0
TOTALS	441	1289	755	193	892	209	62	295	597	1152	292	146
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 1700 PM

PEAK VOLUMES =	244	703	381	109	425	44	29	161	305	603	229	93
PEAK HR. FACTOR:		0.883			0.745			0.715			0.620	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-005Class

Location: University Pkwy & Kendall Dr City: San Bernardino Date: 09/25/2007 Day: TUESDAY

	LANES:	2	3	0	1	3	0	2	2	0	2	2	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	20	123	27	2	56	18	16	42	43	57	42	6
	2-axle		2			2					1		
	3-axle												
	4-axle												
	5-axle +										1		
7:15	CARS	22	237	30	8	55	15	58	104	47	80	42	12
	2-axle	1	2	1	1			1	2		1	2	
	3-axle		1										
	4-axle												
	5-axle +										1	1	
7:30	CARS	30	386	45	8	66	35	77	120	54	89	77	20
	2-axle		1		1	1			1		3	2	
	3-axle		2								2		
	4-axle												
	5-axle +										1		
7:45	CARS	29	327	34	5	73	23	48	67	38	73	82	33
	2-axle	3	2	1	1	2	1	1	2	1	2	2	
	3-axle	1	2	1							1		
	4-axle												
	5-axle +					1					2	1	
8:00	CARS	38	291	39	5	41	10	12	59	36	55	68	13
	2-axle	3	2	1	1	2			3	2	2	1	
	3-axle			2					2		1	1	
	4-axle												
	5-axle +			3		2						1	
8:15	CARS	34	217	36	8	60	13	9	60	41	58	57	8
	2-axle	1	2	3	2	2		1	2	1	2	4	
	3-axle					1			1		1		
	4-axle		1										
	5-axle +		2	3		1					1	1	
8:30	CARS	37	260	38	7	58	12	13	46	37	62	44	13
	2-axle	2	3	2	2	2		1	2	2	2		1
	3-axle		1			1	1		1		2		
	4-axle												
	5-axle +		3	2		2							
8:45	CARS	28	207	28	10	68	23	19	52	33	59	50	19
	2-axle	2	3	1	2	1		2	2	1	4	2	1
	3-axle		1						1		2		1
	4-axle												
	5-axle +		2			2							

MOVEMENT TOTALS

CARS	238	2048	277	53	477	149	252	550	329	533	462	124
2-axle	12	17	9	10	12	1	6	14	7	17	13	2
3-axle	1	7	3	0	2	1	0	5	0	9	1	1
4-axle	0	1	0	0	0	0	0	0	0	0	0	0
5-axle +	0	7	8	0	8	0	0	0	0	6	4	0
TOTALS	251	2080	297	63	499	151	258	569	336	565	480	127
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	127	1253	157	30	243	84	197	360	178	313	280	78
PEAK HR. FACTOR:		0.828			0.804			0.729			0.856	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-005Class

Location: University Pkwy & Kendall Dr City: San Bernardino Date: 09/25/2007 Day: TUESDAY

	LANES:	2	3	0	1	3	0	2	2	0	2	2	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	137	308	22	26	311	30	41	64	24	100	84	12
	2-axle		1	1	1	1	1		2	3		2	1
	3-axle		1										
	4-axle												
	5-axle +												
16:15	CARS	163	241	15	31	257	36	32	69	27	96	90	24
	2-axle		1			2			1	2		2	1
	3-axle									1			
	4-axle												
	5-axle +									1			
16:30	CARS	176	200	33	29	235	40	29	73	36	104	92	29
	2-axle	1	2	1	1	1			2	1	1	2	1
	3-axle		1										
	4-axle												
	5-axle +												
16:45	CARS	187	193	18	36	224	38	26	78	31	102	87	25
	2-axle	1	2	2		2			2		1	2	
	3-axle	1						1	1				
	4-axle												
	5-axle +												
17:00	CARS	194	205	24	40	205	44	30	65	35	104	94	21
	2-axle		2	1		2		1	1	1	1	1	1
	3-axle												
	4-axle												
	5-axle +					1							
17:15	CARS	118	285	18	35	198	33	39	59	40	93	86	18
	2-axle		2		1	1			2	1		1	
	3-axle									1			
	4-axle												
	5-axle +												
17:30	CARS	99	303	17	31	264	37	42	61	36	89	79	22
	2-axle	1	2	2		2			2			2	
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	101	311	20	29	399	31	40	56	29	81	81	14
	2-axle		2	1		1			2	1		2	
	3-axle											1	
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	1175	2046	167	257	2093	289	279	525	258	769	693	165
2-axle	3	14	8	3	12	1	1	14	9	3	14	4
3-axle	1	2	0	0	0	0	1	1	2	0	1	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	1	0	0	0	1	0	0	0
TOTALS	1179	2062	175	260	2106	290	281	540	270	772	708	169
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 1600 PM

PEAK VOLUMES =	666	950	92	124	1033	145	129	292	126	404	361	93
PEAK HR. FACTOR:		0.909			0.880			0.970			0.937	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-006Class

Location: University Pkwy & I-215 NB Ramps City: San Bernardino Date: 09/25/2007 Day: TUESDAY

	LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	15	104	0	0	313	27	0	0	0	53	0	214
	2-axle	2	3			7					2		6
	3-axle					5							1
	4-axle												
	5-axle +	6				2					5		2
7:15	CARS	9	151	0	0	333	38	0	0	0	77	0	362
	2-axle	1	2			3	2				8		7
	3-axle		1			2					2		2
	4-axle												
	5-axle +	7				4					7		6
7:30	CARS	8	131	0	0	348	36	0	0	0	105	0	443
	2-axle		4			7	1				2		6
	3-axle	2	2			5					1		1
	4-axle												
	5-axle +	5				2					4		2
7:45	CARS	7	101	0	0	218	33	0	0	0	104	0	306
	2-axle	2	4			6					4		4
	3-axle	1	2			2					2		1
	4-axle												
	5-axle +	5				4					6		2
8:00	CARS	6	103	0	0	204	31	0	0	0	90	0	332
	2-axle	2	2			6	3				2		4
	3-axle		3			4					4		2
	4-axle												
	5-axle +	4	3			2					5		2
8:15	CARS	9	115	0	0	201	29	0	0	0	87	0	345
	2-axle	2	2			4					3		5
	3-axle		2			2					2		
	4-axle					1					1		
	5-axle +	6	4			3					3		2
8:30	CARS	5	130	0	0	211	25	0	0	0	79	0	362
	2-axle	1	2			4	3				7		6
	3-axle		1			2					2		2
	4-axle												
	5-axle +	4	6			6					3		1
8:45	CARS	8	138	0	0	232	30	0	0	0	93	0	321
	2-axle	2	4			10	2				7		10
	3-axle		2			2							
	4-axle		1										
	5-axle +	5				4					3		2

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	67	973	0	0	2060	249	0	0	0	688	0	2685
2-axle	12	23	0	0	47	11	0	0	0	35	0	48
3-axle	3	13	0	0	24	0	0	0	0	13	0	9
4-axle	0	1	0	0	1	0	0	0	0	1	0	0
5-axle +	42	13	0	0	27	0	0	0	0	36	0	19
TOTALS	124	1023	0	0	2159	260	0	0	0	773	0	2761
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	59	509	0	0	1150	144	0	0	0	423	0	1482
PEAK HR. FACTOR:		0.830			0.811			0.000			0.844	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-006Class

Location: University Pkwy & I-215 NB Ramps City: San Bernardino Date: 09/25/2007 Day: TUESDAY

LANES:

		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	16	181	0	0	413	77	0	0	0	112	1	290
	2-axle		2			4					4		1
	3-axle		1			2					2		
	4-axle												
	5-axle +					1					1		
16:15	CARS	17	153	0	0	311	45	0	0	0	61	2	273
	2-axle		3			2					4		2
	3-axle												
	4-axle												
	5-axle +										2		5
16:30	CARS	18	147	0	0	262	47	0	0	0	52	0	258
	2-axle		3			3					2		3
	3-axle										3		
	4-axle												
	5-axle +					1					2		
16:45	CARS	21	145	0	0	319	48	0	0	0	51	0	249
	2-axle		2			2					5		1
	3-axle		1								2		
	4-axle												
	5-axle +										1		1
17:00	CARS	22	163	0	0	348	52	0	0	0	77	0	257
	2-axle	2	4			3	1				6		3
	3-axle										4		
	4-axle												
	5-axle +										1		2
17:15	CARS	11	179	0	0	337	41	0	0	0	68	0	236
	2-axle		5			2					2		3
	3-axle										2		
	4-axle												
	5-axle +												
17:30	CARS	13	176	0	0	346	49	0	0	0	64	0	229
	2-axle		2			4	1				3		1
	3-axle										2		2
	4-axle												
	5-axle +		1										
17:45	CARS	16	190	0	0	324	52	0	0	0	58	0	240
	2-axle		3			2	2				2		2
	3-axle					1					4		
	4-axle												
	5-axle +					1					1		

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	134	1334	0	0	2660	411	0	0	0	543	3	2032
2-axle	2	24	0	0	22	4	0	0	0	28	0	16
3-axle	0	2	0	0	3	0	0	0	0	19	0	2
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	1	0	0	3	0	0	0	0	8	0	8
TOTALS	136	1361	0	0	2688	415	0	0	0	598	3	2058
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 1600 PM

PEAK VOLUMES =	72	638	0	0	1320	217	0	0	0	304	3	1083
PEAK HR. FACTOR:		0.888			0.773			0.000			0.845	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-007Class

Location: University Pkwy & I-215 SB Ramps City: San Bernardino Date: 09/25/2007 Day: TUESDAY

LANES:

		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	0	96	53	259	101	0	29	0	5	0	0	0
	2-axle		4	2	2	6		1		1			
	3-axle			1	1	4							
	4-axle												
	5-axle +		4	2	1	5		2					
7:15	CARS	0	131	57	275	121	0	35	0	7	0	0	0
	2-axle		2	4	3	7		1		1			
	3-axle		1	2	2	2							
	4-axle												
	5-axle +				4	7		1		1			
7:30	CARS	0	115	64	298	160	0	29	0	11	0	0	0
	2-axle		2	5	2	8		2		3			
	3-axle		4		1	4							
	4-axle												
	5-axle +		4	4	2	4		1					
7:45	CARS	0	81	70	203	129	0	30	0	14	0	0	0
	2-axle		2	5	5	6		3		2			
	3-axle		4	3	2	2							
	4-axle												
	5-axle +		5	2	4	5				4			
8:00	CARS	0	68	65	174	115	0	32	0	13	0	0	0
	2-axle		2	2	4	4		2		1			
	3-axle		3	2	2	4							
	4-axle												
	5-axle +		6	2	4	3		1		6			
8:15	CARS	0	79	62	179	114	0	35	0	11	0	0	0
	2-axle		3	3	3	4		1		2			
	3-axle		2	3	2	2							
	4-axle					2							
	5-axle +		7	2	4	2		3		4			
8:30	CARS	0	99	60	172	113	0	34	0	10	0	0	0
	2-axle		2	2	4	6		1		2			
	3-axle		1	4	2	2		1					
	4-axle					1							
	5-axle +		8	1	4	3		2		4			
8:45	CARS	0	100	56	184	132	0	54	0	22	0	0	0
	2-axle		4	3	9	8		2		2			
	3-axle		2	1		2							
	4-axle												
	5-axle +		3	3	3	4		2		6			

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	0	769	487	1744	985	0	278	0	93	0	0	0
2-axle	0	21	26	32	49	0	13	0	14	0	0	0
3-axle	0	17	16	12	22	0	1	0	0	0	0	0
4-axle	0	0	0	0	3	0	0	0	0	0	0	0
5-axle +	0	37	16	26	33	0	12	0	25	0	0	0
TOTALS	0	844	545	1814	1092	0	304	0	132	0	0	0
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	0	455	274	1064	571	0	134	0	49	0	0	0
PEAK HR. FACTOR:		0.920			0.853			0.863			0.000	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-007Class

Location: University Pkwy & I-215 SB Ramps City: San Bernardino Date: 09/25/2007 Day: TUESDAY

	LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	0	169	121	261	254	0	26	0	20	0	0	0
	2-axle		2	2	4	1		1		1			
	3-axle		1		2	1							
	4-axle												
	5-axle +			2									
16:15	CARS	0	160	133	229	189	0	19	0	17	0	0	0
	2-axle		3	3	4	2							
	3-axle												
	4-axle												
	5-axle +			1									
16:30	CARS	0	152	140	218	132	0	21	0	23	0	0	0
	2-axle		2	1	2	2		1					
	3-axle			2									
	4-axle												
	5-axle +												
16:45	CARS	0	148	127	234	134	0	24	0	15	0	0	0
	2-axle		2	2	4	3				1			
	3-axle		1			1							
	4-axle												
	5-axle +			2	1								
17:00	CARS	0	153	129	251	165	0	28	0	13	0	0	0
	2-axle		4	2	5	5		2					
	3-axle												
	4-axle												
	5-axle +			2	1								
17:15	CARS	0	173	79	190	193	0	25	0	22	0	0	0
	2-axle		4	2	4	3		1					
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	0	143	86	180	211	0	34	1	20	0	0	0
	2-axle		2	2	4	2							
	3-axle				2								
	4-axle												
	5-axle +		1	1	1								
17:45	CARS	0	176	60	144	219	0	27	0	20	0	0	0
	2-axle		3	1	3	2							
	3-axle				3								
	4-axle												
	5-axle +			1	1								

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	0	1274	875	1707	1497	0	204	1	150	0	0	0
2-axle	0	22	15	30	20	0	5	0	2	0	0	0
3-axle	0	2	2	7	2	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	1	9	4	0	0	0	0	0	0	0	0
TOTALS	0	1299	901	1748	1519	0	209	1	152	0	0	0
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 1600 PM

PEAK VOLUMES =	0	640	536	959	719	0	92	0	77	0	0	0
PEAK HR. FACTOR:		0.980			0.802			0.880			0.000	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-008Class

Location: Little Mountain Dr & Northpark Blvd City: San Bernardino Date: 09/25/2007 Day: TUESDAY

	LANES:	1	0	1	0	0	0	1	2	0	1	2	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	8	0	11	0	0	0	1	33	10	18	38	0
	2-axle	1							1			2	
	3-axle												
	4-axle												
	5-axle +										1		
7:15	CARS	17	0	38	0	0	0	0	99	12	27	58	0
	2-axle			1					1	1		1	
	3-axle			1									
	4-axle												
	5-axle +												
7:30	CARS	49	0	82	0	0	0	3	76	9	22	189	0
	2-axle							1	2			2	
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	63	0	22	0	0	0	2	34	8	14	101	0
	2-axle	2		1				2	1		1	1	
	3-axle												
	4-axle												
	5-axle +												
8:00	CARS	34	0	26	0	0	0	4	49	11	15	58	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +												
8:15	CARS	39	0	21	0	0	0	4	31	13	16	47	0
	2-axle	1		1					1		1	2	
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	52	0	16	0	0	0	5	37	15	20	45	0
	2-axle								1			1	
	3-axle								1				
	4-axle												
	5-axle +												
8:45	CARS	47	0	11	0	0	0	3	30	17	17	54	0
	2-axle								1	1		1	
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	309	0	227	0	0	0	22	389	95	149	590	0
2-axle	4	0	3	0	0	0	3	8	2	2	10	0
3-axle	0	0	1	0	0	0	0	1	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	1	0	0
TOTALS	313	0	231	0	0	0	25	398	97	152	600	0
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	165	0	171	0	0	0	12	262	41	79	410	0
PEAK HR. FACTOR:		0.641			0.000			0.697			0.574	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-008Class

Location: Little Mountain Dr & Northpark Blvd City: San Bernardino Date: 09/25/2007 Day: TUESDAY

	LANES:	1	0	1	0	0	0	1	2	0	1	2	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	16	0	14	0	0	0	2	99	52	15	44	0
	2-axle								1				
	3-axle												
	4-axle												
	5-axle +												
16:15	CARS	8	0	20	0	0	0	3	66	22	6	42	0
	2-axle	1											
	3-axle												
	4-axle												
	5-axle +												
16:30	CARS	15	0	30	0	0	0	3	44	16	11	49	0
	2-axle											2	
	3-axle												
	4-axle												
	5-axle +												
16:45	CARS	16	0	27	0	0	0	0	40	25	11	41	0
	2-axle		1						1		1	1	
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	21	0	31	0	0	0	1	68	29	12	52	0
	2-axle										1	2	
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	25	0	33	0	0	0	2	75	44	9	59	0
	2-axle			1					2			1	
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	39	0	26	0	0	0	2	70	26	13	76	0
	2-axle								1	1	1	1	
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	45	0	21	0	0	0	1	67	23	8	91	0
	2-axle								1			2	
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	185	0	202	0	0	0	14	529	237	85	454	0
2-axle	1	1	1	0	0	0	0	6	1	3	9	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	186	1	203	0	0	0	14	535	238	88	463	0
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 1700 PM

PEAK VOLUMES =	130	0	112	0	0	0	6	284	123	44	284	0
PEAK HR. FACTOR:		0.917			0.000			0.839			0.812	

CONTROL: Signalized

NATIONAL DATA AND SURVEYING SERVICES

Axle Count

Project # 08-3180-001Class

Location: Little Mountain Dr & Northpark Blvc City: San Bernardino Date: 06/26/2008 Day: THURSDAY

	LANES:	1	2	0	1	2	1	1	2	0	1	2	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	5	4	5	0	1	0	2	12	3	11	35	1
	2-axle								2	1		1	
	3-axle												
	4-axle												
	5-axle +												
7:15	CARS	8	6	7	0	0	0	1	15	5	15	40	2
	2-axle			1					1				
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	16	9	3	0	1	1	7	17	4	12	39	2
	2-axle	1							2			2	
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	7	6	8	0	2	0	0	21	2	13	38	4
	2-axle			1					4	1			
	3-axle												
	4-axle												
	5-axle +												
8:00	CARS	7	0	5	0	0	1	1	25	2	14	33	2
	2-axle	1							1			2	
	3-axle											1	
	4-axle												
	5-axle +												
8:15	CARS	4	1	6	0	1	1	2	24	6	10	30	3
	2-axle								2	1			
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	6	4	4	0	2	0	7	27	6	5	37	3
	2-axle									2		1	
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	5	2	3	1	2	1	3	22	5	4	33	2
	2-axle	1							1			2	
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	58	32	41	1	9	4	23	163	33	84	285	19
2-axle	3	0	2	0	0	0	0	13	5	0	8	0
3-axle	0	0	0	0	0	0	0	0	0	0	1	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	61	32	43	1	9	4	23	176	38	84	294	19
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	40	21	25	0	3	2	9	86	14	54	155	10
PEAK HR. FACTOR:		0.741			0.625			0.908			0.961	

CONTROL: Signalized

NATIONAL DATA AND SURVEYING SERVICES

Axle Count

Project # 08-3180-001Class

Location: Little Mountain Dr & Northpark Blvc City: San Bernardino Date: 06/26/2008 Day: THURSDAY

	LANES:	1	2	0	1	2	1	1	2	0	1	2	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	11	5	11	1	3	3	2	49	16	7	31	0
	2-axle	1										2	
	3-axle												
	4-axle												
	5-axle +						1						
16:15	CARS	18	1	14	5	5	7	4	62	20	5	45	2
	2-axle								1	1		1	
	3-axle												
	4-axle												
	5-axle +							1					
16:30	CARS	17	1	19	8	10	8	5	56	28	9	39	1
	2-axle	1							1			2	
	3-axle												
	4-axle												
	5-axle +												
16:45	CARS	13	1	15	2	4	9	3	58	27	9	37	0
	2-axle												
	3-axle												
	4-axle												
	5-axle +						1						
17:00	CARS	14	0	15	1	3	5	4	74	17	11	44	1
	2-axle	1									1	1	
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	15	2	20	4	5	6	6	67	22	8	36	1
	2-axle								1				
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	13	0	13	3	3	4	3	56	21	6	33	1
	2-axle								2			1	
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	10	1	10	1	3	5	3	51	13	4	28	0
	2-axle								1			1	
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	111	11	117	25	36	47	30	473	164	59	293	6
2-axle	3	0	0	0	0	0	0	6	1	1	8	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	2	1	0	0	0	0	0
TOTALS	114	11	117	25	36	49	31	479	165	60	301	6
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 1630 PM

PEAK VOLUMES =	61	4	69	15	22	29	18	257	94	38	159	3
PEAK HR. FACTOR:		0.882			0.635			0.961			0.862	

CONTROL: Signalized

ADJUSTED

NATIONAL DATA AND SURVEYING SERVICES

Axle Count

Project # 08-3180-001Class

Location: Little Mountain Dr & Northpark Blvc City: San Bernardino Date: 06/26/2008 Day: THURSDAY

	LANES:	1	2	0	1	2	1	1	2	0	1	2	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	15	12	15	1	3	1	6	37	6	34	107	3
	2-axle								6	3		3	
	3-axle												
	4-axle												
	5-axle +												
7:15	CARS	24	18	21	1	1	1	3	46	15	46	122	6
	2-axle			3					3				
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	49	27	9	1	3	3	21	52	12	37	119	6
	2-axle	3							6			6	
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	21	18	24	1	6	1	1	65	6	40	116	12
	2-axle			3					12	3			
	3-axle												
	4-axle												
	5-axle +												
8:00	CARS	21	1	15	1	1	3	3	76	6	43	101	6
	2-axle	3							3			6	
	3-axle											3	
	4-axle												
	5-axle +												
8:15	CARS	12	3	18	1	3	3	6	73	18	31	92	6
	2-axle								6	3			
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	18	12	12	1	6	1	21	82	18	15	113	6
	2-axle									6		3	
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	15	6	9	3	6	3	9	67	15	12	101	6
	2-axle	3							3			6	
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	175	97	123	10	29	16	70	498	96	258	871	51
2-axle	9	0	6	0	0	0	0	39	15	0	24	0
3-axle	0	0	0	0	0	0	0	0	0	0	3	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	184	97	129	10	29	16	70	537	111	258	898	51
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	121	64	75	4	11	8	28	263	42	166	473	30
PEAK HR. FACTOR:		0.739			0.719			0.915			0.961	

CONTROL: Signalized

15 45 Start Time -15 MINUTES

ADJUSTED

NATIONAL DATA AND SURVEYING SERVICES

Axle Count

Project # 08-3180-001Class

Location: Little Mountain Dr & Northpark Blvc City: San Bernardino Date: 06/26/2008 Day: THURSDAY

	LANES:	1	2	0	1	2	1	1	2	0	1	2	0
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	16	7	16	1	4	4	3	71	23	10	45	1
	2-axle	1										3	
	3-axle												
	4-axle												
	5-axle +						1						
16:15	CARS	26	1	20	7	7	10	6	90	29	7	65	3
	2-axle								1	1		1	
	3-axle												
	4-axle												
	5-axle +							1					
16:30	CARS	25	1	28	12	15	12	7	81	41	13	57	1
	2-axle	1							1			3	
	3-axle												
	4-axle												
	5-axle +												
16:45	CARS	19	1	22	3	6	13	5	84	39	13	54	1
	2-axle												
	3-axle												
	4-axle												
	5-axle +						1						
17:00	CARS	20	0	22	1	5	7	6	107	25	16	64	1
	2-axle	1									1	1	
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	22	3	29	6	7	9	9	97	32	12	52	1
	2-axle								1				
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	19	1	19	4	4	6	4	81	30	9	48	1
	2-axle								3			1	
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	15	1	15	1	4	7	4	74	19	6	41	1
	2-axle								1			1	
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

CARS	162	15	171	35	52	68	44	685	238	86	426	10
2-axle	3	0	0	0	0	0	0	7	1	1	10	0
3-axle	0	0	0	0	0	0	0	0	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	2	1	0	0	0	0	0
TOTALS	165	15	171	35	52	70	45	692	239	87	436	10
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 1630 PM

PEAK VOLUMES =	88	5	101	22	33	42	27	371	137	55	231	4
PEAK HR. FACTOR:		0.882			0.622			0.962			0.873	

CONTROL: Signalized

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-009Class

Location: H St & Northpark Blvd. City: San Bernardino Date: 09/27/2007 Day: THURSDAY

	LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00	CARS	5	4	3	3	5	9	8	15	6	5	31	4
	2-axle						1			1			
	3-axle												
	4-axle												
	5-axle +												
7:15	CARS	6	5	5	5	9	9	9	22	8	9	36	3
	2-axle	1	1				1		2			1	
	3-axle												
	4-axle												
	5-axle +												
7:30	CARS	12	8	6	9	12	14	14	25	11	7	39	6
	2-axle	1							1	1			
	3-axle												
	4-axle												
	5-axle +												
7:45	CARS	15	7	8	11	17	18	17	21	12	8	45	9
	2-axle	1	1						2			2	
	3-axle												
	4-axle												
	5-axle +												
8:00	CARS	11	11	6	15	25	16	22	24	10	7	42	12
	2-axle		1						2		1	1	
	3-axle								2				
	4-axle												
	5-axle +												
8:15	CARS	8	20	10	18	31	24	33	18	7	6	36	29
	2-axle		1	1		1			1			3	
	3-axle												
	4-axle												
	5-axle +												
8:30	CARS	4	23	2	17	27	49	22	25	5	6	40	24
	2-axle				1		2		1	1		2	
	3-axle												
	4-axle												
	5-axle +												
8:45	CARS	10	17	4	15	30	25	14	17	3	6	52	10
	2-axle					2						1	
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	71	95	44	93	156	164	139	167	62	54	321	97
2-axle	3	4	1	1	3	4	0	9	3	1	10	0
3-axle	0	0	0	0	0	0	0	2	0	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	74	99	45	94	159	168	139	178	65	55	331	97
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	33	73	23	66	116	116	91	90	26	26	177	75
PEAK HR. FACTOR:		0.806			0.776			0.863			0.939	

CONTROL: Signalized

15 45 Start Time -15 MINUTES

NATIONAL DATA & SURVEYING SERVICES

Axle Count

Project # 07-3280-009Class

Location: H St & Northpark Blvd. City: San Bernardino Date: 09/27/2007 Day: THURSDAY

	LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
16:00	CARS	7	6	10	6	9	6	5	68	8	3	46	4
	2-axle	1	1			2			1	1		1	
	3-axle									1			
	4-axle												
	5-axle +												
16:15	CARS	9	9	9	7	7	5	9	70	6	4	41	3
	2-axle		2						2	1		1	
	3-axle												
	4-axle												
	5-axle +												
16:30	CARS	7	12	11	5	7	8	13	66	7	6	45	7
	2-axle		1						1	1			
	3-axle												
	4-axle												
	5-axle +												
16:45	CARS	13	11	13	5	5	7	10	78	6	7	47	6
	2-axle		1						1		1	1	
	3-axle												
	4-axle												
	5-axle +												
17:00	CARS	18	10	9	4	4	3	7	74	5	5	42	4
	2-axle					1			1				
	3-axle												
	4-axle												
	5-axle +												
17:15	CARS	12	9	8	2	8	5	9	72	12	5	60	3
	2-axle		1										
	3-axle												
	4-axle												
	5-axle +												
17:30	CARS	10	10	8	4	5	5	11	69	13	4	54	3
	2-axle					1						1	
	3-axle												
	4-axle												
	5-axle +												
17:45	CARS	11	8	5	3	3	6	7	67	10	7	49	1
	2-axle				1				1				
	3-axle												
	4-axle												
	5-axle +												

MOVEMENT TOTALS

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
CARS	87	75	73	36	48	45	71	564	67	41	384	31
2-axle	1	6	0	1	4	0	0	7	3	1	4	0
3-axle	0	0	0	0	0	0	0	0	1	0	0	0
4-axle	0	0	0	0	0	0	0	0	0	0	0	0
5-axle +	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	88	81	73	37	52	45	71	571	71	42	388	31
	NL	*NT*	*NR*	*SL*	*ST*	*SR*	*EL*	*ET*	*ER*	*WL*	*WT*	*WR*

PM Peak Hr Begins at: 1645 PM

PEAK VOLUMES =	53	42	38	15	24	20	37	295	36	22	205	16
PEAK HR. FACTOR:		0.875			0.868			0.968			0.893	

CONTROL: Signalized

APPENDIX C

Future Growth Increment Calculation Worksheets

INTERSECTION	LEG	EVTM 2000 ADT	EXISTING 2007 ADT	EVTM 2030 ADT	NEW 2030 ADT[1]	OPENING 2011 ADT[1]
Palm Avenue (NS) / Kendall Drive (EW)	North	3,803	**13,100**	5,241	14,400	14,400
	South	6,451	**19,300**	11,693	23,300	21,200
	East	4,650	**12,500**	7,761	14,900	13,800
	West	411	**5,500**	741	6,100	6,100
Campus Parkway (NS) / Kendall Drive (EW)	North	-	**4,500**	1,628	5,700	5,000
	South	-	-	9,765	7,500	1,300
	East	16,603	**16,200**	13,409	17,800	17,800
	West	16,825	**18,400**	24,043	23,900	20,200
Campus Parkway (NS) / I-215 Freeway NB Ramp (EW)	North	-	-	9,765	7,500	1,300
	South	-	-	5,538	4,200	700
	East	-	-	5,950	4,600	800
	West	-	-	-	-	-
Campus Parkway (NS) / I-215 Freeway SB Ramp (EW)	North	-	-	5,538	4,200	700
	South	-	-	2,735	2,100	400
	East	-	-	4,768	3,700	600
	West	-	-	-	-	-
Northpark Boulevard (NS) / Campus Parkway (EW)	North	2,545	**400**	1,576	400	400
	South	2,545	**4,500**	6,186	7,300	5,000
	East	-	-	6,431	4,900	900
	West	-	**4,300**	1,628	5,500	4,700
University Parkway (NS) / Northpark Boulevard (EW)	North	-	**16,100**	-	17,700	17,700
	South	6,068	**30,600**	13,756	36,500	33,700
	East	3,380	**18,100**	7,525	21,300	19,900
	West	2,998	**11,600**	6,969	14,600	12,800
University Parkway (NS) / Kendall Drive (EW)	North	6,068	**28,500**	13,756	34,400	31,400
	South	24,014	**37,600**	32,178	43,900	41,400
	East	13,792	**15,700**	24,179	23,700	17,300
	West	18,296	**19,800**	15,153	21,800	21,800
University Parkway (NS) / I-215 Freeway NB Ramps (EW)	North	31,668	**37,500**	42,275	45,600	41,300
	South	21,955	**26,800**	26,165	30,000	29,500
	East	13,120	**16,000**	14,344	17,600	17,600
	West	431	**3,300**	4,901	6,700	3,900
University Parkway (NS) / I-215 Freeway SB Ramps (EW)	North	21,955	**27,700**	26,165	30,900	30,500
	South	12,394	**22,700**	11,678	25,000	25,000
	East	14,929	**17,200**	18,476	19,900	18,900
	West	542	**1,900**	2,458	3,400	2,200
Little Mountain Drive (NS) / Northpark Boulevard (EW)	North	-	**1,600**	1,136	2,500	1,800
	South	238	**4,800**	783	5,300	5,300
	East	2,195	**9,100**	6,139	12,100	10,000
	West	1,967	**10,400**	4,708	12,500	11,400
H Street (NS) / Northpark Boulevard (EW)	North	2,512	**1,800**	4,117	3,000	2,000
	South	2,116	**2,500**	3,088	3,200	2,800
	East	2,057	**6,800**	4,783	8,900	7,500
	West	1,382	**7,400**	4,432	9,700	8,100

[1] Adjusted for minimum 10% growth over existing ADT volumes.

PALM AVENUE (NS) / KENDALL DRIVE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

			54	648	209		
			<	v	>		
	27	^				^	136
	81	>				<	63
	112	v				v	249
			<	^	>		
			103	270	385		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

				911	433		
				v	^		
	220	<	IN =	2337	<		448
	220	>	OUT =	2337	>		675
				v	^		
				1009	758		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				2	14	15	
			<	v	>		
	3	^				^	3
	3	>				<	8
	10	v				v	19
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2.0 4+: 3.0				6	9	17	

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

				56	662	224	
			<	v	>		
	30	^				^	139
	84	>				<	71
	122	v				v	268
			<	^	>		
				109	279	402	

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				531	**148**		
				v	^		
	30	<	IN =	1460	<		**531**
	16	>	OUT =	1460	>		**387**
				v	^		
				895	**382**		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				32	**29**		
				v	^		
	0	<	IN =	629	<		**456**
	0	>	OUT =	631	>		**122**
				v	^		
				486	**141**		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.38**
PHF FOR TRUCKS: **0.333**

				212	64		
				v	^		
	11	<	IN =	764	<		354
	6	>	OUT =	765	>		188
				v	^		
				502	192		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				728	**250**		
				v	^		
	95	<	IN =	2479	<		**598**
	32	>	OUT =	2480	>		**936**
				v	^		
				1199	**1121**		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				33	**30**		
				v	^		
	5	<	IN =	223	<		**40**
	14	>	OUT =	228	>		**119**
				v	^		
				74	**136**		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

				288	105		
				v	^		
	38	<	IN =	1016	<		241
	17	>	OUT =	1018	>		395
				v	^		
				480	471		

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: **2025**
FACTOR = **1.25**

				75	42		
				v	^		
	27	<			<		-148
	12	>			>		207
				v	^		
				-56	279		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

				90	40		
				v	^		
	30	<	IN =	440	<		50
	20	>	OUT =	280	>		210
				v	^		
				0	280		

PRORATED GROWTH (PCE'S): 2007 TO 2030
23 YEARS

				70	30		
				v	^		
	20	<			<		40
	20	>			>		160
				v	^		
				0	210		

NEW PROJECTED VOLUMES (PCE'S): 2030

				1010	480		
				v	^		
	260	<			<		520
	260	>			>		870
				v	^		
				1050	1000		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

			51	270	148		
			<	v	>		
	44	^				^	144
	62	>				<	54
	131	v				v	327
			<	^	>		
			124	471	343		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

				469	659		
				v	^		
	229	<	IN =	2169	<		525
	237	>	OUT =	2169	>		553
				v	^		
				728	938		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				0	5	4	
			<	v	>		
	3	^				^	2
	2	>				<	4
	5	v				v	5
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2 4+: 3.0				3	3	3	

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

				51	275	152	
			<	v	>		
	47	^				^	146
	64	>				<	58
	136	v				v	332
			<	^	>		
				127	474	346	

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				401	**907**		
				v	^		
	87	<	IN =	2799	<		**591**
	63	>	OUT =	2799	>		**1149**
				v	^		
				656	**1744**		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				21	**5**		
				v	^		
	0	<	IN =	822	<		**363**
	0	>	OUT =	818	>		**429**
				v	^		
				384	**438**		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.28**
PHF FOR TRUCKS: **0.25**

				118	255		
				v	^		
	24	<	IN =	989	<		256
	18	>	OUT =	988	>		429
				v	^		
				280	598		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				624	**1198**		
				v	^		
	135	<	IN =	6083	<		**952**
	86	>	OUT =	6083	>		**3416**
				v	^		
				1334	**4421**		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				168	**121**		
				v	^		
	116	<	IN =	826	<		**351**
	7	>	OUT =	830	>		**202**
				v	^		
				391	**300**		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

				217	366		
				v	^		
	67	<	IN =	1910	<		354
	26	>	OUT =	1911	>		1007
				v	^		
				471	1313		

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2025
FACTOR = 1.25

				108	118		
				v	^		
	50	<			<		97
	9	>			>		564
				v	^		
				192	706		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

				110	120		
				v	^		
	50	<	IN =	940	<		100
	20	>	OUT =	920	>		560
				v	^		
				190	710		

PRORATED GROWTH (PCE'S): 2007 TO 2030
23 YEARS

				80	90		
				v	^		
	40	<			<		80
	20	>			>		430
				v	^		
				150	540		

NEW PROJECTED VOLUMES (PCE'S): 2030

				560	760		
				v	^		
	280	<			<		620
	270	>			>		990
				v	^		
				890	1490		

PALM AVENUE (NS) / KENDALL DRIVE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH	LEFT	109	SOUTH LEG		NORTH	LEFT	127	SOUTH LEG	
BOUND	THRU	279	IN ...	830	BOUND	THRU	474	IN ...	1,040
	RIGHT	402	OUT ...	1,060		RIGHT	346	OUT ...	770
SOUTH	LEFT	224	NORTH LEG		SOUTH	LEFT	152	NORTH LEG	
BOUND	THRU	662	IN ...	950	BOUND	THRU	275	IN ...	490
	RIGHT	56	OUT ...	460		RIGHT	51	OUT ...	690
EAST	LEFT	30	WEST LEG		EAST	LEFT	47	WEST LEG	
BOUND	THRU	84	IN ...	240	BOUND	THRU	64	IN ...	250
	RIGHT	122	OUT ...	240		RIGHT	136	OUT ...	250
WEST	LEFT	268	EAST LEG		WEST	LEFT	332	EAST LEG	
BOUND	THRU	71	IN ...	490	BOUND	THRU	58	IN ...	550
	RIGHT	139	OUT ...	750		RIGHT	146	OUT ...	630

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	109	112	NORTH LEG	NORTH	LEFT	127	140	NORTH LEG
BOUND	THRU	279	288	RATIO 9.8%	BOUND	THRU	474	502	RATIO 8.2%
	RIGHT	402	430	ADT 14,400		RIGHT	346	403	ADT 14,400
SOUTH	LEFT	224	232	SOUTH LEG	SOUTH	LEFT	152	160	SOUTH LEG
BOUND	THRU	662	662	RATIO 8.9%	BOUND	THRU	275	281	RATIO 8.6%
	RIGHT	56	56	ADT 21,200		RIGHT	51	51	ADT 21,200
EAST	LEFT	30	30	EAST LEG	EAST	LEFT	47	45	EAST LEG
BOUND	THRU	84	87	RATIO 9.0%	BOUND	THRU	64	67	RATIO 8.6%
	RIGHT	122	123	ADT 13,800		RIGHT	136	139	ADT 13,800
WEST	LEFT	268	275	WEST LEG	WEST	LEFT	332	350	WEST LEG
BOUND	THRU	71	72	RATIO 7.9%	BOUND	THRU	58	59	RATIO 8.2%
	RIGHT	139	142	ADT 6,100		RIGHT	146	144	ADT 6,100

PALM AVENUE (NS) / KENDALL DRIVE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	**109**	SOUTH LEG		NORTH	LEFT	**127**	SOUTH LEG	
BOUND	THRU	**279**	IN ...	**990**	BOUND	THRU	**474**	IN ...	**1,340**
	RIGHT	**402**	OUT ...	**1,050**		RIGHT	**346**	OUT ...	**860**
SOUTH	LEFT	**224**	NORTH LEG		SOUTH	LEFT	**152**	NORTH LEG	
BOUND	THRU	**662**	IN ...	**1,010**	BOUND	THRU	**275**	IN ...	**550**
	RIGHT	**56**	OUT ...	**480**		RIGHT	**51**	OUT ...	**760**
EAST	LEFT	**30**	WEST LEG		EAST	LEFT	**47**	WEST LEG	
BOUND	THRU	**84**	IN ...	**260**	BOUND	THRU	**64**	IN ...	**270**
	RIGHT	**122**	OUT ...	**260**		RIGHT	**136**	OUT ...	**280**
WEST	LEFT	**268**	EAST LEG		WEST	LEFT	**332**	EAST LEG	
BOUND	THRU	**71**	IN ...	**520**	BOUND	THRU	**58**	IN ...	**610**
	RIGHT	**139**	OUT ...	**860**		RIGHT	**146**	OUT ...	**840**

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**109**	**126**	NORTH LEG	NORTH	LEFT	**127**	**169**	NORTH LEG
BOUND	THRU	**279**	**307**	RATIO **10.0%**	BOUND	THRU	**474**	**578**	RATIO **9.1%**
	RIGHT	**402**	**510**	ADT 14,400		RIGHT	**346**	**578**	ADT 14,400
SOUTH	LEFT	**224**	**253**	SOUTH LEG	SOUTH	LEFT	**152**	**186**	SOUTH LEG
BOUND	THRU	**662**	**652**	RATIO **8.6%**	BOUND	THRU	**275**	**309**	RATIO **9.4%**
	RIGHT	**56**	**58**	ADT 23,300		RIGHT	**51**	**50**	ADT 23,300
EAST	LEFT	**30**	**30**	EAST LEG	EAST	LEFT	**47**	**41**	EAST LEG
BOUND	THRU	**84**	**96**	RATIO **9.1%**	BOUND	THRU	**64**	**77**	RATIO **9.7%**
	RIGHT	**122**	**122**	ADT 14,900		RIGHT	**136**	**149**	ADT 14,900
WEST	LEFT	**268**	**276**	WEST LEG	WEST	LEFT	**332**	**402**	WEST LEG
BOUND	THRU	**71**	**76**	RATIO **8.3%**	BOUND	THRU	**58**	**61**	RATIO **9.0%**
	RIGHT	**139**	**143**	ADT 6,100		RIGHT	**146**	**141**	ADT 6,100

CAMPUS PARKWAY (NS) / KENDALL DRIVE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

				<	50	v	0	>	19	
178	^								^	71
404	>								<	260
0	v								v	0
				<	0	^	0	>	0	

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

					69	v	249	^	
310	<		IN	=	982	<			331
582	>		OUT	=	982	>			423
					v		^		
					0		0		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				<	0	v	0	>	2	
2	^								^	0
38	>								<	31
0	v								v	0
				<	0	^	0	>	0	

PCE FACTORS BY AXLE:

2: **1.5** 3: **2.0** 4+: **3.0**

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

				<	50	v	0	>	21	
180	^								^	71
442	>								<	291
0	v								v	0
				<	0	^	0	>	0	

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					0	v	**0**	^	
954	<		IN	=	2897	<			**954**
1943	>		OUT	=	2897	>			**1943**
					v		^		
					0		**0**		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					0	v	**0**	^	
440	<		IN	=	560	<			**440**
120	>		OUT	=	560	>			**120**
					v		0		
					0		**0**		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.38**

PHF FOR TRUCKS: **0.333**

					0	v	0	^	
509	<		IN	=	1287	<			509
778	>		OUT	=	1287	>			778
					v		^		
					0		0		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					169	v	**211**	^	
996	<		IN	=	4122	<			**838**
2984	>		OUT	=	4122	>			**2885**
					v		^		
					30		**131**		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					18	v	**4**	^	
54	<		IN	=	213	<			**41**
154	>		OUT	=	208	>			**150**
					v		^		
					0		**0**		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					70	v	82	^	
396	<		IN	=	1637	<			332
1185	>		OUT	=	1636	>			1146
					v		^		
					11		50		

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: **2025**

FACTOR = **1.25**

					72	v	82	^	
-145	<								-210
410	>								370
					v		^		
					11		50		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					70	v	80	^	
30	<		IN	=	570	<			40
410	>		OUT	=	490	>			370
					v		^		
					10		50		

PRORATED GROWTH (PCE'S): 2007 TO 2030

23 YEARS

					50	v	60	^	
20	<								30
310	>								280
					v		^		
					10		40		

NEW PROJECTED VOLUMES (PCE'S): 2030

					120	v	310	^	
360	<								390
930	>								740
					v		^		
					10		40		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

				<	189	v	0	>	39	
103	^								^	55
539	>								<	759
0	v								v	0
				<	0	^	0	>	0	

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

					228	v	158	^	
948	<		IN	=	1684	<			814
642	>		OUT	=	1684	>			578
					v		^		
					0		0		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				<	2	v	0	>	0	
0	^								^	2
13	>								<	7
0	v								v	0
				<	0	^	0	>	0	

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

				<	191	v	0	>	39	
103	^								^	57
552	>								<	766
0	v								v	0
				<	0	^	0	>	0	

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					0	v	**0**	^	
2988	<		IN	=	5582	<			**2988**
2594	>		OUT	=	5582	>			**2594**
					v		^		
					0		**0**		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					0	v	**0**	^	
347	<		IN	=	768	<			**347**
421	>		OUT	=	768	>			**421**
					v		^		
					0		**0**		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.28**

PHF FOR TRUCKS: **0.25**

					0	v	0	^	
923	<		IN	=	1755	<			923
832	>		OUT	=	1755	>			832
					v		^		
					0		0		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					378	v	**371**	^	
3947	<		IN	=	9353	<			**3739**
5120	>		OUT	=	9353	>			**4828**
					v		^		
					207		**116**		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					15	v	**30**	^	
341	<		IN	=	548	<			**328**
205	>		OUT	=	545	>			**174**
					v		^		
					0		**0**		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					110	v	111	^	
1190	<		IN	=	2756	<			1129
1485	>		OUT	=	2755	>			1395
					v		^		
					58		32		

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2025

FACTOR = 1.25

					111	v	113	^	
267	<								204
640	>								548
					v		^		
					58		32		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					110	v	110	^	
270	<		IN	=	980	<			200
640	>		OUT	=	990	>			550
					v		^		
					60		30		

PRORATED GROWTH (PCE'S): 2007 TO 2030

23 YEARS

					80	v	80	^	
210	<								150
490	>								420
					v		^		
					50		20		

NEW PROJECTED VOLUMES (PCE'S): 2030

					310	v	240	^	
1170	<								970
1150	>								1010
					v		^		
					50		20		

CAMPUS PARKWAY (NS) / KENDALL DRIVE (EW)

STARTING POINT TURNING MOVEMENT DERIVATION (BASE YEAR VOLUMES) AT LOCATIONS WITHOUT EXISTING COUNTS

MORNING PEAK HOUR	EVENING PEAK HOUR
NORTHBOUND APPROACH:	NORTHBOUND APPROACH:
NL< = NL / (NL + 2* NT + NR)	NL< = NL / (NL + 2* NT + NR)
= 360 / 360 + 2* 310 + 740	= 1170 / 1170 + 2* 240 + 1010
= 0.21	= 0.44
NT^ = 2* NT / (NL + 2* NT + NR)	NT^ = 2* NT / (NL + 2* NT + NR)
= 2* 310 / 360 + 2* 310 + 740	= 2* 240 / 1170 + 2* 240 + 1010
= 0.36	= 0.18
NR> = NR / (NL + 2* NT + NR)	NR> = NR / (NL + 2* NT + NR)
= 740 / 360 + 2* 310 + 740	= 1010 / 1170 + 2* 240 + 1010
= 0.43	= 0.38
SOUTHBOUND APPROACH:	SOUTHBOUND APPROACH:
SL> = SL / (SL + 2* ST + SR)	SL> = SL / (SL + 2* ST + SR)
= 740 / 740 + 2* 10 + 360	= 1010 / 1010 + 2* 50 + 1170
= 0.66	= 0.44
STv = 2* ST / (SL + 2* ST + SR)	STv = 2* ST / (SL + 2* ST + SR)
= 2* 10 / 740 + 2* 10 + 360	= 2* 50 / 1010 + 2* 50 + 1170
= 0.02	= 0.04
SR< = SR / (SL + 2* ST + SR)	SR< = SR / (SL + 2* ST + SR)
= 360 / 740 + 2* 10 + 360	= 1170 / 1010 + 2* 50 + 1170
= 0.32	= 0.51
EASTBOUND APPROACH:	EASTBOUND APPROACH:
EL^ = EL / (EL + 2* ET + ER)	EL^ = EL / (EL + 2* ET + ER)
= 310 / 310 + 2* 740 + 10	= 240 / 240 + 2* 1010 + 50
= 0.17	= 0.10
ET> = 2* ET / (EL + 2* ET + ER)	ET> = 2* ET / (EL + 2* ET + ER)
= 2* 740 / 310 + 2* 740 + 10	= 2* 1010 / 240 + 2* 1010 + 50
= 0.82	= 0.87
ERv = ER / (EL + 2* ET + ER)	ERv = ER / (EL + 2* ET + ER)
= 10 / 310 + 2* 740 + 10	= 50 / 240 + 2* 1010 + 50
= 0.01	= 0.02
WESTBOUND APPROACH:	WESTBOUND APPROACH:
WLv = WL / (WL + 2* WT + WR)	WLv = WL / (WL + 2* WT + WR)
= 10 / 10 + 2* 360 + 310	= 50 / 50 + 2* 1170 + 240
= 0.01	= 0.02
WT< = 2* WT / (WL + 2* WT + WR)	WT< = 2* WT / (WL + 2* WT + WR)
= 2* 360 / 10 + 2* 360 + 310	= 2* 1170 / 50 + 2* 1170 + 240
= 0.69	= 0.89
WR^ = WR / (WL + 2* WT + WR)	WR^ = WR / (WL + 2* WT + WR)
= 310 / 10 + 2* 360 + 310	= 240 / 50 + 2* 1170 + 240
= 0.30	= 0.09
ESTIMATED PERCENTAGES	ESTIMATED PERCENTAGES
32% 2% 66%	51% 4% 44%
< v >	< v >
17% ^ 1.00 ^ 30%	10% ^ 1.00 ^ 9%
82% > 1.00 1.00 > 69%	87% > 1.00 1.00 > 89%
1% v 1.00 v 1%	2% v 1.00 v 2%
< v >	< v >
21% 36% 43%	44% 18% 38%

CAMPUS PARKWAY (NS) / KENDALL DRIVE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH	LEFT	21	SOUTH LEG		NORTH	LEFT	44	SOUTH LEG	
BOUND	THRU	36	IN ...	10	BOUND	THRU	18	IN ...	0
	RIGHT	43	OUT ...	0		RIGHT	38	OUT ...	10
SOUTH	LEFT	66	NORTH LEG		SOUTH	LEFT	44	NORTH LEG	
BOUND	THRU	2	IN ...	80	BOUND	THRU	4	IN ...	240
	RIGHT	32	OUT ...	260		RIGHT	51	OUT ...	170
EAST	LEFT	17	WEST LEG		EAST	LEFT	10	WEST LEG	
BOUND	THRU	82	IN ...	670	BOUND	THRU	87	IN ...	750
	RIGHT	1	OUT ...	350		RIGHT	2	OUT ...	1,000
WEST	LEFT	1	EAST LEG		WEST	LEFT	2	EAST LEG	
BOUND	THRU	69	IN ...	370	BOUND	THRU	89	IN ...	850
	RIGHT	30	OUT ...	520		RIGHT	9	OUT ...	660

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	21	0	NORTH LEG	NORTH	LEFT	44	0	NORTH LEG
BOUND	THRU	36	0	RATIO 6.7%	BOUND	THRU	18	0	RATIO 8.2%
	RIGHT	43	0	ADT 5,000		RIGHT	38	0	ADT 5,000
SOUTH	LEFT	66	33	SOUTH LEG	SOUTH	LEFT	44	58	SOUTH LEG
BOUND	THRU	2	0	RATIO 0.0%	BOUND	THRU	4	0	RATIO 0.0%
	RIGHT	32	47	ADT 100		RIGHT	51	183	ADT 100
EAST	LEFT	17	179	EAST LEG	EAST	LEFT	10	119	EAST LEG
BOUND	THRU	82	484	RATIO 5.0%	BOUND	THRU	87	602	RATIO 8.6%
	RIGHT	1	0	ADT 17,800		RIGHT	2	0	ADT 17,800
WEST	LEFT	1	0	WEST LEG	WEST	LEFT	2	0	WEST LEG
BOUND	THRU	69	299	RATIO 4.9%	BOUND	THRU	89	817	RATIO 8.4%
	RIGHT	30	78	ADT 20,500		RIGHT	9	51	ADT 20,500

CAMPUS PARKWAY (NS) / KENDALL DRIVE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	34	SOUTH LEG		NORTH	LEFT	53	SOUTH LEG	
BOUND	THRU	21	IN ...	150	BOUND	THRU	12	IN ...	470
	RIGHT	45	OUT ...	320		RIGHT	35	OUT ...	210
SOUTH	LEFT	33	NORTH LEG		SOUTH	LEFT	32	NORTH LEG	
BOUND	THRU	42	IN ...	130	BOUND	THRU	19	IN ...	230
	RIGHT	25	OUT ...	120		RIGHT	48	OUT ...	120
EAST	LEFT	8	WEST LEG		EAST	LEFT	7	WEST LEG	
BOUND	THRU	69	IN ...	800	BOUND	THRU	81	IN ...	880
	RIGHT	22	OUT ...	380		RIGHT	12	OUT ...	1,040
WEST	LEFT	27	EAST LEG		WEST	LEFT	9	EAST LEG	
BOUND	THRU	63	IN ...	350	BOUND	THRU	86	IN ...	760
	RIGHT	10	OUT ...	500		RIGHT	5	OUT ...	700

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	34	79	NORTH LEG	NORTH	LEFT	53	293	NORTH LEG
BOUND	THRU	21	25	RATIO 4.2%	BOUND	THRU	12	38	RATIO 5.7%
	RIGHT	45	36	ADT 5,700		RIGHT	35	86	ADT 5,700
SOUTH	LEFT	33	23	SOUTH LEG	SOUTH	LEFT	32	38	SOUTH LEG
BOUND	THRU	42	46	RATIO 6.1%	BOUND	THRU	19	35	RATIO 8.4%
	RIGHT	25	51	ADT 7,500		RIGHT	48	130	ADT 7,500
EAST	LEFT	8	76	EAST LEG	EAST	LEFT	7	63	EAST LEG
BOUND	THRU	69	441	RATIO 4.6%	BOUND	THRU	81	575	RATIO 7.7%
	RIGHT	22	218	ADT 17,800		RIGHT	12	133	ADT 17,800
WEST	LEFT	27	56	WEST LEG	WEST	LEFT	9	42	WEST LEG
BOUND	THRU	63	250	RATIO 4.7%	BOUND	THRU	86	616	RATIO 7.6%
	RIGHT	10	19	ADT 23,900		RIGHT	5	20	ADT 23,900

CAMPUS PARKWAY (NS) / I-215 FREEWAY NB RAMP (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

			0	0	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			0	0	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

0	0	0	

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

			0	0	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				1055	402			
				v	^			
		0	<	IN =	1696	<	611	
		0	>	OUT =	1696	>	0	
				v	^			
				1294	30			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				401	153			
				v	^			
		0	<	IN =	644	<	232	
		0	>	OUT =	644	>	0	
				v	^			
				492	11			

RAW GROWTH (PCE 2000 TO 2030

CONVERSION OF TRUCKS T 2025

FACTOR = 1.25

				401	153			
				v	^			
		0	<			<	232	
		0	>			>	0	
				v	^			
				492	11			

ADJUSTED GROWTH (PCE'S 2000 TO 2030

10 MINIMUM GROWTH %

				400	150			
				v	^			
		0	<	IN =	640	<	230	
		0	>	OUT =	640	>	0	
				v	^			
				490	10			

PRORATED GROWTH (PCE' 2007 TO 2030

23 YEARS

				310	120			
				v	^			
		0	<			<	180	
		0	>			>	0	
				v	^			
				380	10			

NEW PROJECTED VOLUME: 2030

				310	120			
				v	^			
		0	<			<	180	
		0	>			>	0	
				v	^			
				380	10			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

			0	0	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			0	0	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

0	0	0	

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

			0	0	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				778	2075			
				v	^			
		0	<	IN =	3054	<	2091	
		0	>	OUT =	3054	>	0	
				v	^			
				979	184			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				0	0			
				v	^			
		0	<	IN =	0	<	0	
		0	>	OUT =	0	>	0	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				218	581			
				v	^			
		0	<	IN =	855	<	585	
		0	>	OUT =	855	>	0	
				v	^			
				274	52			

RAW GROWTH (PCE 2000 TO 2030

CONVERSION OF TRUCKS T 2025

FACTOR = 1.25

				218	581			
				v	^			
		0	<			<	585	
		0	>			>	0	
				v	^			
				274	52			

ADJUSTED GROWTH (PCE'S 2000 TO 2030

10 MINIMUM GROWTH %

				220	580			
				v	^			
		0	<	IN =	860	<	590	
		0	>	OUT =	850	>	0	
				v	^			
				270	50			

PRORATED GROWTH (PCE' 2007 TO 2030

23 YEARS

				170	440			
				v	^			
		0	<			<	450	
		0	>			>	0	
				v	^			
				210	40			

NEW PROJECTED VOLUME: 2030

				170	440			
				v	^			
		0	<			<	450	
		0	>			>	0	
				v	^			
				210	40			

CAMPUS PARKWAY (NS) / I-215 FREEWAY NB RAMP (EW)

STARTING POINT TURNING MOVEMENT DERIVATION (BASE YEAR VOLUMES) AT LOCATIONS WITHOUT EXISTING COUNTS

MORNING PEAK HOUR

NORTHBOUND APPROACH:

NL< = NL / (NL + 2* NT + NR)
= 0 / 0 + 2* 120 + 0
= 0.00

NT^ = 2* NT / (NL + 2* NT + NR)
= 2* 120 / 0 + 2* 120 + 0
= 1.00

NR> = NR / (NL + 2* NT + NR)
= 0 / 0 + 2* 120 + 0
= 0.00

SOUTHBOUND APPROACH:

SL> = SL / (SL + 2* ST + SR)
= 0 / 0 + 2* 380 + 0
= 0.00

STv = 2* ST / (SL + 2* ST + SR)
= 2* 380 / 0 + 2* 380 + 0
= 1.00

SR< = SR / (SL + 2* ST + SR)
= 0 / 0 + 2* 380 + 0
= 0.00

EASTBOUND APPROACH:

EL^ = EL / (EL + 2* ET + ER)
= 120 / 120 + 2* 0 + 380
= 0.24

ET> = 2* ET / (EL + 2* ET + ER)
= 2* 0 / 120 + 2* 0 + 380
= 0.00

ERv = ER / (EL + 2* ET + ER)
= 380 / 120 + 2* 0 + 380
= 0.76

WESTBOUND APPROACH:

WLv = WL / (WL + 2* WT + WR)
= 380 / 380 + 2* 0 + 120
= 0.76

WT< = 2* WT / (WL + 2* WT + WR)
= 2* 0 / 380 + 2* 0 + 120
= 0.00

WR^ = WR / (WL + 2* WT + WR)
= 120 / 380 + 2* 0 + 120
= 0.24

ESTIMATED PERCENTAGES

		0%	###	0%		
		<	v	>		
24%	^		1.00		^	24%
0%	>	1.00		1.00	>	0%
76%	v		1.00		v	76%
		<	v	>		
		0%	###	0%		

EVENING PEAK HOUR

NORTHBOUND APPROACH:

NL< = NL / (NL + 2* NT + NR)
= 0 / 0 + 2* 440 + 0
= 0.00

NT^ = 2* NT / (NL + 2* NT + NR)
= 2* 440 / 0 + 2* 440 + 0
= 1.00

NR> = NR / (NL + 2* NT + NR)
= 0 / 0 + 2* 440 + 0
= 0.00

SOUTHBOUND APPROACH:

SL> = SL / (SL + 2* ST + SR)
= 0 / 0 + 2* 210 + 0
= 0.00

STv = 2* ST / (SL + 2* ST + SR)
= 2* 210 / 0 + 2* 210 + 0
= 1.00

SR< = SR / (SL + 2* ST + SR)
= 0 / 0 + 2* 210 + 0
= 0.00

EASTBOUND APPROACH:

EL^ = EL / (EL + 2* ET + ER)
= 440 / 440 + 2* 0 + 210
= 0.68

ET> = 2* ET / (EL + 2* ET + ER)
= 2* 0 / 440 + 2* 0 + 210
= 0.00

ERv = ER / (EL + 2* ET + ER)
= 210 / 440 + 2* 0 + 210
= 0.32

WESTBOUND APPROACH:

WLv = WL / (WL + 2* WT + WR)
= 210 / 210 + 2* 0 + 440
= 0.32

WT< = 2* WT / (WL + 2* WT + WR)
= 2* 0 / 210 + 2* 0 + 440
= 0.00

WR^ = WR / (WL + 2* WT + WR)
= 440 / 210 + 2* 0 + 440
= 0.68

ESTIMATED PERCENTAGES

		0%	###	0%		
		<	v	>		
68%	^		1.00		^	68%
0%	>	1.00		1.00	>	0%
32%	v		1.00		v	32%
		<	v	>		
		0%	###	0%		

CAMPUS PARKWAY (NS) / I-215 FREEWAY NB RAMP (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	0	SOUTH LEG		NORTH	LEFT	0	SOUTH LEG	
BOUND	THRU	100	IN ...	10	BOUND	THRU	100	IN ...	40
	RIGHT	0	OUT ...	380		RIGHT	0	OUT ...	210
SOUTH	LEFT	0	NORTH LEG		SOUTH	LEFT	0	NORTH LEG	
BOUND	THRU	100	IN ...	310	BOUND	THRU	100	IN ...	170
	RIGHT	0	OUT ...	120		RIGHT	0	OUT ...	440
EAST	LEFT	24	WEST LEG		EAST	LEFT	68	WEST LEG	
BOUND	THRU	0	IN ...	0	BOUND	THRU	0	IN ...	0
	RIGHT	76	OUT ...	0		RIGHT	32	OUT ...	0
WEST	LEFT	76	EAST LEG		WEST	LEFT	32	EAST LEG	
BOUND	THRU	0	IN ...	180	BOUND	THRU	0	IN ...	450
	RIGHT	24	OUT ...	0		RIGHT	68	OUT ...	0

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	0	0	NORTH LEG	NORTH	LEFT	0	0	NORTH LEG
BOUND	THRU	100	10	RATIO 5.7%	BOUND	THRU	100	40	RATIO 8.0%
	RIGHT	0	0	ADT 7,500		RIGHT	0	0	ADT 7,500
SOUTH	LEFT	0	0	SOUTH LEG	SOUTH	LEFT	0	0	SOUTH LEG
BOUND	THRU	100	309	RATIO 9.3%	BOUND	THRU	100	163	RATIO 5.9%
	RIGHT	0	0	ADT 4,200		RIGHT	0	0	ADT 4,200
EAST	LEFT	24	0	EAST LEG	EAST	LEFT	68	0	EAST LEG
BOUND	THRU	0	0	RATIO 3.9%	BOUND	THRU	0	0	RATIO 9.7%
	RIGHT	76	0	ADT 4,600		RIGHT	32	0	ADT 4,600
WEST	LEFT	76	71	WEST LEG	WEST	LEFT	32	47	WEST LEG
BOUND	THRU	0	0	RATIO #DIV/0!	BOUND	THRU	0	0	RATIO #DIV/0!
	RIGHT	24	110	ADT 0		RIGHT	68	400	ADT 0

CAMPUS PARKWAY (NS) / I-215 FREEWAY SB RAMP (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2006

			0	0	0				
			<	v	>				
0	^					^	0		
0	>					<	0		
0	v					v	0		
			<	^	>				
			0	0	0				

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2006

				0	0				
				v	^				
0	<		IN =	0	<	0			
0	>		OUT =	0	>	0			
				v	^				
				0	0				

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			0	0	0				
			<	v	>				
0	^					^	0		
0	>					<	0		
0	v					v	0		
PCE FACTORS BY AXLE:			<	^	>				
2: 1.5 3: 2.0 4+: 3.0			0	0	0				

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2006

			0	0	0				
			<	v	>				
0	^					^	0		
0	>					<	0		
0	v					v	0		
			<	^	>				
			0	0	0				

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				0	0				
				v	^				
0	<		IN =	0	<	0			
0	>		OUT =	0	>	0			
				v	^				
				0	0				

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				0	0				
				v	^				
0	<		IN =	0	<	0			
0	>		OUT =	0	>	0			
				v	^				
				0	0				

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

				0	0				
				v	^				
0	<		IN =	0	<	0			
0	>		OUT =	0	>	0			
				v	^				
				0	0				

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				1294	30				
				v	^				
0	<		IN =	1434	<	0			
0	>		OUT =	1434	>	996			
				v	^				
				408	140				

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				0	0				
				v	^				
0	<		IN =	0	<	0			
0	>		OUT =	0	>	0			
				v	^				
				0	0				

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

				492	11				
				v	^				
0	<		IN =	545	<	0			
0	>		OUT =	545	>	378			
				v	^				
				155	53				

RAW GROWTH (PCE 2000 TO 2030
CONVERSION OF TRUCKS T 2025
FACTOR = 1.25

				492	11				
				v	^				
0	<				<	0			
0	>				>	378			
				v	^				
				155	53				

ADJUSTED GROWTH (PCE'S 2000 TO 2030
10 MINIMUM GROWTH %

				490	10				
				v	^				
0	<		IN =	540	<	0			
0	>		OUT =	550	>	380			
				v	^				
				160	50				

PRORATED GROWTH (PCE' 2006 TO 2030
24 YEARS

				390	10				
				v	^				
0	<				<	0			
0	>				>	300			
				v	^				
				130	40				

NEW PROJECTED VOLUME 2030

				390	10				
				v	^				
0	<				<	0			
0	>				>	300			
				v	^				
				130	40				

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2006

			0	0	0				
			<	v	>				
0	^					^	0		
0	>					<	0		
0	v					v	0		
			<	^	>				
			0	0	0				

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2006

				0	0				
				v	^				
0	<		IN =	0	<	0			
0	>		OUT =	0	>	0			
				v	^				
				0	0				

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			0	0	0				
			<	v	>				
0	^					^	0		
0	>					<	0		
0	v					v	0		
PCE FACTORS BY AXLE:			<	^	>				
2: 1.5 3: 2 4+: 3.0			0	0	0				

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2006

			0	0	0				
			<	v	>				
0	^					^	0		
0	>					<	0		
0	v					v	0		
			<	^	>				
			0	0	0				

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				0	0				
				v	^				
0	<		IN =	0	<	0			
0	>		OUT =	0	>	0			
				v	^				
				0	0				

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				0	0				
				v	^				
0	<		IN =	0	<	0			
0	>		OUT =	0	>	0			
				v	^				
				0	0				

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

				0	0				
				v	^				
0	<		IN =	0	<	0			
0	>		OUT =	0	>	0			
				v	^				
				0	0				

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				978	184				
				v	^				
0	<		IN =	1551	<	0			
0	>		OUT =	1552	>	1063			
				v	^				
				305	572				

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				0	0				
				v	^				
0	<		IN =	0	<	0			
0	>		OUT =	0	>	0			
				v	^				
				0	0				

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

				274	52				
				v	^				
0	<		IN =	434	<	0			
0	>		OUT =	435	>	298			
				v	^				
				85	160				

RAW GROWTH (PCE 2000 TO 2030
CONVERSION OF TRUCKS T 2025
FACTOR = 1.25

				274	52				
				v	^				
0	<				<	0			
0	>				>	298			
				v	^				
				85	160				

ADJUSTED GROWTH (PCE'S 2000 TO 2030
10 MINIMUM GROWTH %

				270	50				
				v	^				
0	<		IN =	430	<	0			
0	>		OUT =	440	>	300			
				v	^				
				90	160				

PRORATED GROWTH (PCE' 2006 TO 2030
24 YEARS

				220	40				
				v	^				
0	<				<	0			
0	>				>	240			
				v	^				
				70	130				

NEW PROJECTED VOLUME 2030

				220	40				
				v	^				
0	<				<	0			
0	>				>	240			
				v	^				
				70	130				

CAMPUS PARKWAY (NS) / I-215 FREEWAY SB RAMP (EW)

STARTING POINT TURNING MOVEMENT DERIVATION (BASE YEAR VOLUMES) AT LOCATIONS WITHOUT EXISTING COUNTS

MORNING PEAK HOUR

NORTHBOUND APPROACH:

NL< = NL / (NL + 2* NT + NR)
= 0 / 0 + 2* 10 + 300
= 0.00

NT^ = 2* NT / (NL + 2* NT + NR)
= 2* 10 / 0 + 2* 10 + 300
= 0.06

NR> = NR / (NL + 2* NT + NR)
= 300 / 0 + 2* 10 + 300
= 0.94

SOUTHBOUND APPROACH:

SL> = SL / (SL + 2* ST + SR)
= 300 / 300 + 2* 130 + 0
= 0.54

STv = 2* ST / (SL + 2* ST + SR)
= 2* 130 / 300 + 2* 130 + 0
= 0.46

SR< = SR / (SL + 2* ST + SR)
= 0 / 300 + 2* 130 + 0
= 0.00

EASTBOUND APPROACH:

EL^ = EL / (EL + 2* ET + ER)
= 10 / 10 + 2* 300 + 130
= 0.01

ET> = 2* ET / (EL + 2* ET + ER)
= 2* 300 / 10 + 2* 300 + 130
= 0.81

ERv = ER / (EL + 2* ET + ER)
= 130 / 10 + 2* 300 + 130
= 0.18

WESTBOUND APPROACH:

WLv = WL / (WL + 2* WT + WR)
= 130 / 130 + 2* 0 + 10
= 0.93

WT< = 2* WT / (WL + 2* WT + WR)
= 2* 0 / 130 + 2* 0 + 10
= 0.00

WR^ = WR / (WL + 2* WT + WR)
= 10 / 130 + 2* 0 + 10
= 0.07

ESTIMATED PERCENTAGES

		0% <	46% v	54% >	
1% ^			1.00		^ 7%
81% >	1.00			1.00 >	0%
18% v			1.00		v 93%
		<	v	>	
		0%	6%	94%	

EVENING PEAK HOUR

NORTHBOUND APPROACH:

NL< = NL / (NL + 2* NT + NR)
= 0 / 0 + 2* 40 + 240
= 0.00

NT^ = 2* NT / (NL + 2* NT + NR)
= 2* 40 / 0 + 2* 40 + 240
= 0.25

NR> = NR / (NL + 2* NT + NR)
= 240 / 0 + 2* 40 + 240
= 0.75

SOUTHBOUND APPROACH:

SL> = SL / (SL + 2* ST + SR)
= 240 / 240 + 2* 70 + 0
= 0.63

STv = 2* ST / (SL + 2* ST + SR)
= 2* 70 / 240 + 2* 70 + 0
= 0.37

SR< = SR / (SL + 2* ST + SR)
= 0 / 240 + 2* 70 + 0
= 0.00

EASTBOUND APPROACH:

EL^ = EL / (EL + 2* ET + ER)
= 40 / 40 + 2* 240 + 70
= 0.07

ET> = 2* ET / (EL + 2* ET + ER)
= 2* 240 / 40 + 2* 240 + 70
= 0.81

ERv = ER / (EL + 2* ET + ER)
= 70 / 40 + 2* 240 + 70
= 0.12

WESTBOUND APPROACH:

WLv = WL / (WL + 2* WT + WR)
= 70 / 70 + 2* 0 + 40
= 0.64

WT< = 2* WT / (WL + 2* WT + WR)
= 2* 0 / 70 + 2* 0 + 40
= 0.00

WR^ = WR / (WL + 2* WT + WR)
= 40 / 70 + 2* 0 + 40
= 0.36

ESTIMATED PERCENTAGES

		0% <	37% v	63% >	
7% ^			1.00		^ 36%
81% >	1.00			1.00 >	0%
12% v			1.00		v 64%
		<	v	>	
		0%	25%	75%	

CAMPUS PARKWAY (NS) / I-215 FREEWAY SB RAMP (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	0	SOUTH LEG		NORTH	LEFT	0	SOUTH LEG	
BOUND	THRU	6	IN ...	40	BOUND	THRU	25	IN ...	130
	RIGHT	94	OUT ...	130		RIGHT	75	OUT ...	70
SOUTH	LEFT	54	NORTH LEG		SOUTH	LEFT	63	NORTH LEG	
BOUND	THRU	46	IN ...	390	BOUND	THRU	37	IN ...	220
	RIGHT	0	OUT ...	10		RIGHT	0	OUT ...	40
EAST	LEFT	1	WEST LEG		EAST	LEFT	7	WEST LEG	
BOUND	THRU	81	IN ...	0	BOUND	THRU	81	IN ...	0
	RIGHT	18	OUT ...	0		RIGHT	12	OUT ...	0
WEST	LEFT	93	EAST LEG		WEST	LEFT	64	EAST LEG	
BOUND	THRU	0	IN ...	0	BOUND	THRU	0	IN ...	0
	RIGHT	7	OUT ...	300		RIGHT	36	OUT ...	240

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	0	0	NORTH LEG	NORTH	LEFT	0	0	NORTH LEG
BOUND	THRU	6	10	RATIO 9.7%	BOUND	THRU	25	40	RATIO 6.2%
	RIGHT	94	31	ADT 4,200		RIGHT	75	90	ADT 4,200
SOUTH	LEFT	54	269	SOUTH LEG	SOUTH	LEFT	63	150	SOUTH LEG
BOUND	THRU	46	130	RATIO 8.1%	BOUND	THRU	37	70	RATIO 9.5%
	RIGHT	0	0	ADT 2,100		RIGHT	0	0	ADT 2,100
EAST	LEFT	1	0	EAST LEG	EAST	LEFT	7	0	EAST LEG
BOUND	THRU	81	0	RATIO 8.1%	BOUND	THRU	81	0	RATIO 6.5%
	RIGHT	18	0	ADT 3,700		RIGHT	12	0	ADT 3,700
WEST	LEFT	93	0	WEST LEG	WEST	LEFT	64	0	WEST LEG
BOUND	THRU	0	0	RATIO #DIV/0!	BOUND	THRU	0	0	RATIO #DIV/0!
	RIGHT	7	0	ADT 0		RIGHT	36	0	ADT 0

NORTHPARK BOULEVARD (NS) / CAMPUS PARKWAY (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2007

			5	2	0	
			<	v	>	
	6	^			^	0
	0	>			<	0
	412	v			v	0
			<	^	>	
			69	4	0	

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2007

				7	10	
				v	^	
	74	<	IN =	498	<	0
	418	>	OUT =	498	>	0
				v	^	
				414	73	

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			0	3	0	
			<	v	>	
	6	^			^	0
	0	>			<	0
	10	v			v	0
			<	^	>	

PCE FACTORS BY AXLE:
2: **1.5** 3: **2.0** 4+: **3.0**

			2	2	0	

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):
2007

			5	5	0	
			<	v	>	
	12	^			^	0
	0	>			<	0
	422	v			v	0
			<	^	>	
			71	6	0	

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2000

				125	**371**	
				v	^	
	0	<	IN =	496	<	0
	0	>	OUT =	496	>	0
				v	^	
				125	**371**	

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2000

				16	**12**	
				v	^	
	0	<	IN =	28	<	0
	0	>	OUT =	28	>	0
				v	^	
				16	**12**	

EXISTING PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: **0.38**
PHF FOR TRUCKS: **0.333**

				53	145	
				v	^	
	0	<	IN =	198	<	0
	0	>	OUT =	198	>	0
				v	^	
				53	145	

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2030

				73	**310**	
				v	^	
	169	<	IN =	2154	<	**1016**
	211	>	OUT =	2154	>	**784**
				v	^	
				891	**854**	

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2020

				31	**24**	
				v	^	
	18	<	IN =	124	<	**35**
	4	>	OUT =	124	>	**34**
				v	^	
				48	**54**	

FUTURE PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

				38	126	
				v	^	
	70	<	IN =	860	<	398
	82	>	OUT =	860	>	309
				v	^	
				355	343	

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: **2025**
FACTOR = **1.25**

				-14	-18	
				v	^	
	72	<			<	401
	82	>			>	312
				v	^	
				304	201	

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

				0	0	
				v	^	
	70	<	IN =	680	<	400
	80	>	OUT =	680	>	310
				v	^	
				300	200	

PRORATED GROWTH (PCE'S): 2007 TO 2030
23 YEARS

				0	0	
				v	^	
	50	<			<	310
	60	>			>	240
				v	^	
				230	150	

NEW PROJECTED VOLUMES (PCE'S): 2030

				10	20	
				v	^	
	130	<			<	310
	490	>			>	240
				v	^	
				660	230	

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2007

			8	11	0	
			<	v	>	
	3	^			^	0
	0	>			<	0
	134	v			v	0
			<	^	>	
			230	12	0	

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2007

				19	15	
				v	^	
	238	<	IN =	398	<	0
	137	>	OUT =	398	>	0
				v	^	
				145	242	

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			0	0	0	
			<	v	>	
	0	^			^	0
	0	>			<	0
	2	v			v	0
			<	^	>	

PCE FACTORS BY AXLE:
2: 1.5 3: 2 4+: 3.0

			3	0	0	

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):
2007

			8	11	0	
			<	v	>	
	3	^			^	0
	0	>			<	0
	136	v			v	0
			<	^	>	
			233	12	0	

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2000

				558	**295**	
				v	^	
	0	<	IN =	853	<	**0**
	0	>	OUT =	853	>	**0**
				v	^	
				558	**295**	

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2000

				24	**24**	
				v	^	
	0	<	IN =	48	<	**0**
	0	>	OUT =	48	>	**0**
				v	^	
				24	**24**	

EXISTING PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: **0.28**
PHF FOR TRUCKS: **0.25**

				162	89	
				v	^	
	0	<	IN =	251	<	0
	0	>	OUT =	251	>	0
				v	^	
				162	89	

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2030

				397	**144**	
				v	^	
	378	<	IN =	3747	<	**1500**
	371	>	OUT =	3747	>	**1766**
				v	^	
				1459	**1479**	

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2020

				34	**36**	
				v	^	
	15	<	IN =	183	<	**56**
	30	>	OUT =	183	>	**57**
				v	^	
				75	**63**	

FUTURE PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

				120	49	
				v	^	
	110	<	IN =	1095	<	434
	111	>	OUT =	1095	>	509
				v	^	
				427	430	

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2025
FACTOR = 1.25

				-42	-39	
				v	^	
	111	<			<	438
	113	>			>	512
				v	^	
				268	344	

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

				0	0	
				v	^	
	110	<	IN =	890	<	440
	110	>	OUT =	890	>	510
				v	^	
				270	340	

PRORATED GROWTH (PCE'S): 2007 TO 2030
23 YEARS

				0	0	
				v	^	
	80	<			<	340
	80	>			>	390
				v	^	
				210	260	

NEW PROJECTED VOLUMES (PCE'S): 2030

				20	20	
				v	^	
	320	<			<	340
	220	>			>	390
				v	^	
				360	510	

NORTHPARK BOULEVARD (NS) / CAMPUS PARKWAY (EW)

STARTING POINT TURNING MOVEMENT DERIVATION (BASE YEAR VOLUMES) AT LOCATIONS WITHOUT EXISTING COUNTS

MORNING PEAK HOUR

NORTHBOUND APPROACH:

NL< = NL / (NL + 2* NT + NR)
= 130 / 130 + 2* 20 + 240
= 0.32

NT^ = 2* NT / (NL + 2* NT + NR)
= 2* 20 / 130 + 2* 20 + 240
= 0.10

NR> = NR / (NL + 2* NT + NR)
= 240 / 130 + 2* 20 + 240
= 0.59

SOUTHBOUND APPROACH:

SL> = SL / (SL + 2* ST + SR)
= 240 / 240 + 2* 660 + 130
= 0.14

STv = 2* ST / (SL + 2* ST + SR)
= 2* 660 / 240 + 2* 660 + 130
= 0.78

SR< = SR / (SL + 2* ST + SR)
= 130 / 240 + 2* 660 + 130
= 0.08

EASTBOUND APPROACH:

EL^ = EL / (EL + 2* ET + ER)
= 20 / 20 + 2* 240 + 660
= 0.02

ET> = 2* ET / (EL + 2* ET + ER)
= 2* 240 / 20 + 2* 240 + 660
= 0.41

ERv = ER / (EL + 2* ET + ER)
= 660 / 20 + 2* 240 + 660
= 0.57

WESTBOUND APPROACH:

WLv = WL / (WL + 2* WT + WR)
= 660 / 660 + 2* 130 + 20
= 0.70

WT< = 2* WT / (WL + 2* WT + WR)
= 2* 130 / 660 + 2* 130 + 20
= 0.28

WR^ = WR / (WL + 2* WT + WR)
= 20 / 660 + 2* 130 + 20
= 0.02

ESTIMATED PERCENTAGES

		8% <	78% v	14% >
2% ^			1.00	^ 2%
41% >	1.00		1.00	> 28%
57% v			1.00	v 70%
		< 32%	v 10%	> 59%

EVENING PEAK HOUR

NORTHBOUND APPROACH:

NL< = NL / (NL + 2* NT + NR)
= 320 / 320 + 2* 20 + 390
= 0.43

NT^ = 2* NT / (NL + 2* NT + NR)
= 2* 20 / 320 + 2* 20 + 390
= 0.05

NR> = NR / (NL + 2* NT + NR)
= 390 / 320 + 2* 20 + 390
= 0.52

SOUTHBOUND APPROACH:

SL> = SL / (SL + 2* ST + SR)
= 390 / 390 + 2* 360 + 320
= 0.27

STv = 2* ST / (SL + 2* ST + SR)
= 2* 360 / 390 + 2* 360 + 320
= 0.50

SR< = SR / (SL + 2* ST + SR)
= 320 / 390 + 2* 360 + 320
= 0.22

EASTBOUND APPROACH:

EL^ = EL / (EL + 2* ET + ER)
= 20 / 20 + 2* 390 + 360
= 0.02

ET> = 2* ET / (EL + 2* ET + ER)
= 2* 390 / 20 + 2* 390 + 360
= 0.67

ERv = ER / (EL + 2* ET + ER)
= 360 / 20 + 2* 390 + 360
= 0.31

WESTBOUND APPROACH:

WLv = WL / (WL + 2* WT + WR)
= 360 / 360 + 2* 320 + 20
= 0.35

WT< = 2* WT / (WL + 2* WT + WR)
= 2* 320 / 360 + 2* 320 + 20
= 0.63

WR^ = WR / (WL + 2* WT + WR)
= 20 / 360 + 2* 320 + 20
= 0.02

ESTIMATED PERCENTAGES

		22% <	50% v	27% >
2% ^			1.00	^ 2%
67% >	1.00		1.00	> 63%
31% v			1.00	v 35%
		< 43%	v 5%	> 52%

NORTHPARK BOULEVARD (NS) / CAMPUS PARKWAY (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH	LEFT	32	SOUTH LEG		NORTH	LEFT	43	SOUTH LEG	
BOUND	THRU	10	IN ...	110	BOUND	THRU	5	IN ...	300
	RIGHT	59	OUT ...	470		RIGHT	52	OUT ...	190
SOUTH	LEFT	14	NORTH LEG		SOUTH	LEFT	27	NORTH LEG	
BOUND	THRU	78	IN ...	10	BOUND	THRU	50	IN ...	20
	RIGHT	8	OUT ...	20		RIGHT	22	OUT ...	20
EAST	LEFT	2	WEST LEG		EAST	LEFT	2	WEST LEG	
BOUND	THRU	41	IN ...	450	BOUND	THRU	67	IN ...	150
	RIGHT	57	OUT ...	90		RIGHT	31	OUT ...	250
WEST	LEFT	70	EAST LEG		WEST	LEFT	35	EAST LEG	
BOUND	THRU	28	IN ...	50	BOUND	THRU	63	IN ...	60
	RIGHT	2	OUT ...	40		RIGHT	2	OUT ...	70

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	32	78	NORTH LEG	NORTH	LEFT	43	226	NORTH LEG
BOUND	THRU	10	14	RATIO 7.5%	BOUND	THRU	5	18	RATIO 10.1%
	RIGHT	59	15	ADT 400		RIGHT	52	52	ADT 400
SOUTH	LEFT	14	0	SOUTH LEG	SOUTH	LEFT	27	1	SOUTH LEG
BOUND	THRU	78	9	RATIO 10.7%	BOUND	THRU	50	17	RATIO 9.0%
	RIGHT	8	1	ADT 5,400		RIGHT	22	2	ADT 5,400
EAST	LEFT	2	6	EAST LEG	EAST	LEFT	2	2	EAST LEG
BOUND	THRU	41	24	RATIO 6.4%	BOUND	THRU	67	17	RATIO 9.3%
	RIGHT	57	423	ADT 1,400		RIGHT	31	134	ADT 1,400
WEST	LEFT	70	38	WEST LEG	WEST	LEFT	35	38	WEST LEG
BOUND	THRU	28	11	RATIO 11.5%	BOUND	THRU	63	22	RATIO 8.6%
	RIGHT	2	0	ADT 4,700		RIGHT	2	0	ADT 4,700

NORTHPARK BOULEVARD (NS) / CAMPUS PARKWAY (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	52	SOUTH LEG		NORTH	LEFT	54	SOUTH LEG	
BOUND	THRU	16	IN ...	160	BOUND	THRU	7	IN ...	460
	RIGHT	32	OUT ...	590		RIGHT	39	OUT ...	300
SOUTH	LEFT	6	NORTH LEG		SOUTH	LEFT	20	NORTH LEG	
BOUND	THRU	85	IN ...	10	BOUND	THRU	54	IN ...	20
	RIGHT	9	OUT ...	20		RIGHT	27	OUT ...	20
EAST	LEFT	3	WEST LEG		EAST	LEFT	3	WEST LEG	
BOUND	THRU	21	IN ...	470	BOUND	THRU	58	IN ...	210
	RIGHT	77	OUT ...	130		RIGHT	39	OUT ...	300
WEST	LEFT	68	EAST LEG		WEST	LEFT	33	EAST LEG	
BOUND	THRU	30	IN ...	170	BOUND	THRU	65	IN ...	150
	RIGHT	2	OUT ...	80		RIGHT	2	OUT ...	220

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	52	101	NORTH LEG	NORTH	LEFT	54	259	NORTH LEG
BOUND	THRU	16	16	RATIO 7.5%	BOUND	THRU	7	18	RATIO 10.1%
	RIGHT	32	43	ADT 400		RIGHT	39	178	ADT 400
SOUTH	LEFT	6	0	SOUTH LEG	SOUTH	LEFT	20	1	SOUTH LEG
BOUND	THRU	85	9	RATIO 10.3%	BOUND	THRU	54	18	RATIO 10.3%
	RIGHT	9	0	ADT 7,300		RIGHT	27	2	ADT 7,300
EAST	LEFT	3	3	EAST LEG	EAST	LEFT	3	1	EAST LEG
BOUND	THRU	21	37	RATIO 5.2%	BOUND	THRU	58	41	RATIO 7.6%
	RIGHT	77	438	ADT 4,900		RIGHT	39	171	ADT 4,900
WEST	LEFT	68	143	WEST LEG	WEST	LEFT	33	112	WEST LEG
BOUND	THRU	30	28	RATIO 11.1%	BOUND	THRU	65	39	RATIO 9.3%
	RIGHT	2	1	ADT 5,500		RIGHT	2	1	ADT 5,500

UNIVERSITY PARKWAY (NS) / NORTHPARK BOULEVARD (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

			33	83	30		
			<	v	>		
		76 ^				^	142
		55 >				<	156
		58 v				v	222
			<	^	>		
			265	966	407		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

				146	1184		
				v	^		
		454 <	IN =		2493 <		520
		189 >	OUT =		2493 >		492
				v	^		
				363	1638		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			2	9	3		
			<	v	>		
		0 ^				^	5
		5 >				<	7
		14 v				v	0
			<	^	>		
			9	8	5		

PCE FACTORS BY AXLE:

2: **1.5** 3: **2.0** 4+: **3.0**

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

			35	92	33		
			<	v	>		
		76 ^				^	147
		60 >				<	163
		72 v				v	222
			<	^	>		
			274	974	412		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				0	**0**		
				v	^		
		448 <	IN =		1104 <		**385**
		147 >	OUT =		1104 >		**153**
				v	^		
				503	**572**		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				0	**0**		
				v	^		
		14 <	IN =		107 <		**53**
		19 >	OUT =		107 >		**21**
				v	^		
				72	**35**		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.38**

PHF FOR TRUCKS: **0.333**

				0	0		
				v	^		
		175 <	IN =		455 <		164
		62 >	OUT =		455 >		65
				v	^		
				215	229		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				0	**0**		
				v	^		
		983 <	IN =		3021 <		**704**
		922 >	OUT =		3022 >		**475**
				v	^		
				1564	**1395**		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				0	**0**		
				v	^		
		86 <	IN =		290 <		**78**
		79 >	OUT =		290 >		**49**
				v	^		
				155	**133**		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				0	0		
				v	^		
		402 <	IN =		1245 <		293
		377 >	OUT =		1245 >		197
				v	^		
				646	574		

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: **2025**

FACTOR = **1.25**

				0	0		
				v	^		
		233 <			<		132
		319 >			>		134
				v	^		
				438	354		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

				20	120		
				v	^		
		230 <	IN =		820 <		130
		320 >	OUT =		920 >		130
				v	^		
				440	350		

PRORATED GROWTH (PCE'S): 2007 TO 2030

23 YEARS

				20	90		
				v	^		
		180 <			<		100
		250 >			>		100
				v	^		
				340	270		

NEW PROJECTED VOLUMES (PCE'S): 2030

				180	1290		
				v	^		
		650 <			<		630
		460 >			>		610
				v	^		
				730	1930		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

			44	421	105		
			<	v	>		
		29 ^				^	93
		161 >				<	226
		302 v				v	602
			<	^	>		
			244	697	381		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

				570	819		
				v	^		
		514 <	IN =		3305 <		921
		492 >	OUT =		3305 >		647
				v	^		
				1325	1322		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			0	6	6		
			<	v	>		
		0 ^				^	0
		0 >				<	5
		5 v				v	2
			<	^	>		
			0	9	0		

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

			44	427	111		
			<	v	>		
		29 ^				^	93
		161 >				<	231
		307 v				v	604
			<	^	>		
			244	706	381		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				0	**0**		
				v	^		
		351 <	IN =		2134 <		**422**
		660 >	OUT =		2133 >		**751**
				v	^		
				1031	**1052**		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				0	**0**		
				v	^		
		24 <	IN =		199 <		**71**
		26 >	OUT =		199 >		**79**
				v	^		
				96	**102**		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.28**

PHF FOR TRUCKS: **0.25**

				0	0		
				v	^		
		104 <	IN =		647 <		136
		191 >	OUT =		647 >		230
				v	^		
				313	320		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				0	**0**		
				v	^		
		1599 <	IN =		5778 <		**1087**
		1592 >	OUT =		5779 >		**1646**
				v	^		
				2534	**3098**		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				0	**0**		
				v	^		
		93 <	IN =		352 <		**82**
		109 >	OUT =		356 >		**72**
				v	^		
				191	**161**		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				0	0		
				v	^		
		471 <	IN =		1706 <		325
		473 >	OUT =		1707 >		479
				v	^		
				757	908		

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2025

FACTOR = 1.25

				0	0		
				v	^		
		371 <			<		190
		287 >			>		248
				v	^		
				451	592		

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

				60	80		
				v	^		
		370 <	IN =		1130 <		190
		290 >	OUT =		1150 >		250
				v	^		
				450	590		

PRORATED GROWTH (PCE'S): 2007 TO 2030

23 YEARS

				50	60		
				v	^		
		280 <			<		150
		220 >			>		190
				v	^		
				350	450		

NEW PROJECTED VOLUMES (PCE'S): 2030

				630	890		
				v	^		
		800 <			<		1080
		720 >			>		840
				v	^		
				1690	1780		

UNIVERSITY PARKWAY (NS) / NORTHPARK BOULEVARD (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH	LEFT	274	SOUTH LEG		NORTH	LEFT	244	SOUTH LEG	
BOUND	THRU	974	IN ...	1,730	BOUND	THRU	706	IN ...	1,410
	RIGHT	412	OUT ...	450		RIGHT	381	OUT ...	1,400
SOUTH	LEFT	33	NORTH LEG		SOUTH	LEFT	111	NORTH LEG	
BOUND	THRU	92	IN ...	160	BOUND	THRU	427	IN ...	590
	RIGHT	35	OUT ...	1,220		RIGHT	44	OUT ...	840
EAST	LEFT	76	WEST LEG		EAST	LEFT	29	WEST LEG	
BOUND	THRU	60	IN ...	250	BOUND	THRU	161	IN ...	540
	RIGHT	72	OUT ...	500		RIGHT	307	OUT ...	570
WEST	LEFT	222	EAST LEG		WEST	LEFT	604	EAST LEG	
BOUND	THRU	163	IN ...	560	BOUND	THRU	231	IN ...	960
	RIGHT	147	OUT ...	530		RIGHT	93	OUT ...	680

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	274	301	NORTH LEG	NORTH	LEFT	244	279	NORTH LEG
BOUND	THRU	974	996	RATIO 7.8%	BOUND	THRU	706	723	RATIO 8.1%
	RIGHT	412	432	ADT 17,700		RIGHT	381	404	ADT 17,700
SOUTH	LEFT	33	30	SOUTH LEG	SOUTH	LEFT	111	107	SOUTH LEG
BOUND	THRU	92	98	RATIO 6.5%	BOUND	THRU	427	435	RATIO 8.3%
	RIGHT	35	33	ADT 33,700		RIGHT	44	46	ADT 33,700
EAST	LEFT	76	84	EAST LEG	EAST	LEFT	29	29	EAST LEG
BOUND	THRU	60	68	RATIO 5.5%	BOUND	THRU	161	169	RATIO 8.2%
	RIGHT	72	97	ADT 19,900		RIGHT	307	340	ADT 19,900
WEST	LEFT	222	255	WEST LEG	WEST	LEFT	604	625	WEST LEG
BOUND	THRU	163	166	RATIO 5.9%	BOUND	THRU	231	245	RATIO 8.7%
	RIGHT	147	139	ADT 12,800		RIGHT	93	88	ADT 12,800

UNIVERSITY PARKWAY (NS) / NORTHPARK BOULEVARD (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	274	SOUTH LEG		NORTH	LEFT	244	SOUTH LEG	
BOUND	THRU	974	IN ...	1,830	BOUND	THRU	706	IN ...	1,680
	RIGHT	412	OUT ...	640		RIGHT	381	OUT ...	1,590
SOUTH	LEFT	33	NORTH LEG		SOUTH	LEFT	111	NORTH LEG	
BOUND	THRU	92	IN ...	180	BOUND	THRU	427	IN ...	630
	RIGHT	35	OUT ...	1,290		RIGHT	44	OUT ...	890
EAST	LEFT	76	WEST LEG		EAST	LEFT	29	WEST LEG	
BOUND	THRU	60	IN ...	360	BOUND	THRU	161	IN ...	620
	RIGHT	72	OUT ...	550		RIGHT	307	OUT ...	700
WEST	LEFT	222	EAST LEG		WEST	LEFT	604	EAST LEG	
BOUND	THRU	163	IN ...	640	BOUND	THRU	231	IN ...	1,080
	RIGHT	147	OUT ...	610		RIGHT	93	OUT ...	830

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	274	342	NORTH LEG	NORTH	LEFT	244	372	NORTH LEG
BOUND	THRU	974	1,047	RATIO 8.3%	BOUND	THRU	706	781	RATIO 8.6%
	RIGHT	412	488	ADT 17,700		RIGHT	381	526	ADT 17,700
SOUTH	LEFT	33	29	SOUTH LEG	SOUTH	LEFT	111	112	SOUTH LEG
BOUND	THRU	92	124	RATIO 6.9%	BOUND	THRU	427	470	RATIO 9.0%
	RIGHT	35	32	ADT 36,500		RIGHT	44	49	ADT 36,500
EAST	LEFT	76	107	EAST LEG	EAST	LEFT	29	28	EAST LEG
BOUND	THRU	60	93	RATIO 6.0%	BOUND	THRU	161	192	RATIO 9.0%
	RIGHT	72	170	ADT 21,300		RIGHT	307	400	ADT 21,300
WEST	LEFT	222	346	WEST LEG	WEST	LEFT	604	720	WEST LEG
BOUND	THRU	163	175	RATIO 6.3%	BOUND	THRU	231	279	RATIO 9.0%
	RIGHT	147	136	ADT 14,600		RIGHT	93	81	ADT 14,600

UNIVERSITY PARKWAY (NS) / KENDALL DRIVE (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2007

		83	235	26	
		<	v	>	
195 ^					^ 78
350 >					< 269
175 v					v 297
		<	^	>	
		119	1241	148	

EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2007

	344 v	1514 ^	
471 <	IN =	3216 <	644
720 >	OUT =	3216 >	524
	v 707	^ 1508	

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

		2	17	6	
		<	v	>	
3 ^					^ 0
16 >					< 22
5 v					v 32
		<	^	>	
		13	21	20	

PCE FACTORS BY AXLE: 2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES): 2007

		85	252	32	
		<	v	>	
198 ^					^ 78
366 >					< 291
180 v					v 329
		<	^	>	
		132	1262	168	

EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000

	503 v	572 ^	
963 <	IN =	5354 <	1320
2269 >	OUT =	5354 >	961
	v 2858	^ 1262	

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000

	72 v	35 ^	
431 <	IN =	569 <	361
117 >	OUT =	568 >	92
	v 10	^ 19	

EXISTING PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

	215 v	229 ^	
509 <	IN =	2224 <	622
901 >	OUT =	2224 >	396
	v 1089	^ 486	

FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030

	1564 v	1395 ^	
856 <	IN =	9001 <	2051
3174 >	OUT =	9001 >	1825
	v 4925	^ 2212	

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020

	158 v	135 ^	
38 <	IN =	591 <	116
147 >	OUT =	599 >	128
	v 297	^ 170	

FUTURE PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

	647 v	575 ^	
338 <	IN =	3617 <	818
1255 >	OUT =	3620 >	736
	v 1970	^ 897	

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2025
FACTOR = 1.25

	439 v	354 ^	
-204 <		<	176
356 >		>	344
	v 905	^ 424	

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

	440 v	350 ^	
50 <	IN =	1400 <	180
360 >	OUT =	1640 >	340
	v 900	^ 420	

PRORATED GROWTH (PCE'S): 2007 TO 2030
23 YEARS

	340 v	270 ^	
40 <		<	140
280 >		>	260
	v 690	^ 320	

NEW PROJECTED VOLUMES (PCE'S): 2030

	710 v	1810 ^	
550 <		<	840
1020 >		>	830
	v 1450	^ 1880	

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS): 2007

		144	1027	122	
		<	v	>	
128 ^					^ 90
284 >					< 353
118 v					v 402
		<	^	>	
		663	942	88	

EXISTING PEAK HOUR COUNT YEAR (AUTOS): 2007

	1293 v	1160 ^	
1160 <	IN =	4361 <	845
530 >	OUT =	4361 >	494
	v 1547	^ 1693	

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

		2	9	3	
		<	v	>	
2 ^					^ 5
13 >					< 12
14 v					v 3
		<	^	>	
		5	13	6	

PCE FACTORS BY AXLE: 2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES): 2007

		146	1036	125	
		<	v	>	
130 ^					^ 95
297 >					< 365
132 v					v 405
		<	^	>	
		668	955	94	

EXISTING PEAK PERIOD MODEL YEAR (AUTO): 2000

	1031 v	1052 ^	
3445 <	IN =	10431 <	1971
2774 >	OUT =	10432 >	2677
	v 3258	^ 4655	

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2000

	96 v	102 ^	
332 <	IN =	772 <	248
409 >	OUT =	774 >	326
	v 14	^ 19	

EXISTING PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

	313 v	320 ^	
1048 <	IN =	3114 <	614
879 >	OUT =	3114 >	831
	v 916	^ 1308	

FUTURE PEAK PERIOD MODEL YEAR (AUTO): 2030

	2534 v	3099 ^	
4088 <	IN =	18433 <	3584
4924 >	OUT =	18433 >	5298
	v 5948	^ 7391	

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S): 2020

	195 v	168 ^	
316 <	IN =	860 <	249
168 >	OUT =	861 >	146
	v 231	^ 248	

FUTURE PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

	758 v	910 ^	
1224 <	IN =	5376 <	1066
1421 >	OUT =	5376 >	1520
	v 1723	^ 2131	

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2025
FACTOR = 1.25

	452 v	594 ^	
175 <		<	452
527 >		>	678
	v 821	^ 838	

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

	450 v	590 ^	
180 <	IN =	2270 <	450
530 >	OUT =	2270 >	680
	v 820	^ 840	

PRORATED GROWTH (PCE'S): 2007 TO 2030
23 YEARS

	350 v	450 ^	
140 <		<	350
410 >		>	520
	v 630	^ 640	

NEW PROJECTED VOLUMES (PCE'S): 2030

	1660 v	1630 ^	
1320 <		<	1220
970 >		>	1040
	v 2200	^ 2360	

UNIVERSITY PARKWAY (NS) / KENDALL DRIVE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH BOUND	LEFT	132	SOUTH LEG		NORTH BOUND	LEFT	668	SOUTH LEG	
	THRU	1,262	IN ...	1,640		THRU	955	IN ...	1,830
	RIGHT	168	OUT ...	880		RIGHT	94	OUT ...	1,680
SOUTH BOUND	LEFT	32	NORTH LEG		SOUTH BOUND	LEFT	125	NORTH LEG	
	THRU	252	IN ...	440		THRU	1,036	IN ...	1,370
	RIGHT	85	OUT ...	1,590		RIGHT	146	OUT ...	1,260
EAST BOUND	LEFT	198	WEST LEG		EAST BOUND	LEFT	130	WEST LEG	
	THRU	366	IN ...	800		THRU	297	IN ...	630
	RIGHT	180	OUT ...	520		RIGHT	132	OUT ...	1,200
WEST BOUND	LEFT	329	EAST LEG		WEST BOUND	LEFT	405	EAST LEG	
	THRU	291	IN ...	730		THRU	365	IN ...	930
	RIGHT	78	OUT ...	620		RIGHT	95	OUT ...	610

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH BOUND	LEFT	132	138	NORTH LEG	NORTH BOUND	LEFT	668	686	NORTH LEG
	THRU	1,262	1,314	RATIO 6.5%		THRU	955	1,024	RATIO 8.4%
	RIGHT	168	187	ADT 31,400		RIGHT	94	115	ADT 31,400
SOUTH BOUND	LEFT	32	37	SOUTH LEG	SOUTH BOUND	LEFT	125	143	SOUTH LEG
	THRU	252	310	RATIO 6.1%		THRU	1,036	1,084	RATIO 8.5%
	RIGHT	85	93	ADT 41,400		RIGHT	146	140	ADT 41,400
EAST BOUND	LEFT	198	200	EAST LEG	EAST BOUND	LEFT	130	134	EAST LEG
	THRU	366	395	RATIO 7.8%		THRU	297	351	RATIO 8.9%
	RIGHT	180	205	ADT 17,300		RIGHT	132	143	ADT 17,300
WEST BOUND	LEFT	329	365	WEST LEG	WEST BOUND	LEFT	405	453	WEST LEG
	THRU	291	288	RATIO 6.1%		THRU	365	374	RATIO 8.4%
	RIGHT	78	77	ADT 21,800		RIGHT	95	102	ADT 21,800

UNIVERSITY PARKWAY (NS) / KENDALL DRIVE (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	132	SOUTH LEG		NORTH	LEFT	668	SOUTH LEG	
BOUND	THRU	1,262	IN ...	1,680	BOUND	THRU	955	IN ...	2,130
	RIGHT	168	OUT ...	1,210		RIGHT	94	OUT ...	2,020
SOUTH	LEFT	32	NORTH LEG		SOUTH	LEFT	125	NORTH LEG	
BOUND	THRU	252	IN ...	620	BOUND	THRU	1,036	IN ...	1,560
	RIGHT	85	OUT ...	1,710		RIGHT	146	OUT ...	1,530
EAST	LEFT	198	WEST LEG		EAST	LEFT	130	WEST LEG	
BOUND	THRU	366	IN ...	790	BOUND	THRU	297	IN ...	710
	RIGHT	180	OUT ...	550		RIGHT	132	OUT ...	1,270
WEST	LEFT	329	EAST LEG		WEST	LEFT	405	EAST LEG	
BOUND	THRU	291	IN ...	880	BOUND	THRU	365	IN ...	1,250
	RIGHT	78	OUT ...	820		RIGHT	95	OUT ...	1,100

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	132	121	NORTH LEG	NORTH	LEFT	668	687	NORTH LEG
BOUND	THRU	1,262	1,424	RATIO 6.9%	BOUND	THRU	955	1,270	RATIO 9.2%
	RIGHT	168	270	ADT 34,400		RIGHT	94	273	ADT 34,400
SOUTH	LEFT	32	74	SOUTH LEG	SOUTH	LEFT	125	301	SOUTH LEG
BOUND	THRU	252	485	RATIO 6.9%	BOUND	THRU	1,036	1,210	RATIO 9.7%
	RIGHT	85	111	ADT 43,900		RIGHT	146	125	ADT 43,900
EAST	LEFT	198	181	EAST LEG	EAST	LEFT	130	105	EAST LEG
BOUND	THRU	366	476	RATIO 7.5%	BOUND	THRU	297	526	RATIO 10.2%
	RIGHT	180	196	ADT 23,700		RIGHT	132	113	ADT 23,700
WEST	LEFT	329	528	WEST LEG	WEST	LEFT	405	697	WEST LEG
BOUND	THRU	291	318	RATIO 6.4%	BOUND	THRU	365	459	RATIO 9.2%
	RIGHT	78	105	ADT 21,800		RIGHT	95	154	ADT 21,800

UNIVERSITY PARKWAY (NS) / I-215 FREEWAY NB RAMPS (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2007

		138	1103	0	
		<	v	>	
0	^			^	1443
0	>			<	0
0	v			v	376
		<	^	>	
		30	486	0	

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2007

			1241	1929	
			v	^	
168	<	IN =	3576	<	1819
0	>	OUT =	3576	>	0
			v	^	
			1479	516	

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

		9	96	0	
		<	v	>	
0	^			^	80
0	>			<	0
0	v			v	108
		<	^	>	
		77	43	0	

PCE FACTORS BY AXLE:
2: **1.5** 3: **2.0** 4+: **3.0**

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):
2007

		147	1198	0	
		<	v	>	
0	^			^	1523
0	>			<	0
0	v			v	484
		<	^	>	
		107	629	0	

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2000

			3819	**1563**	
			v	^	
30	<	IN =	5911	<	**1580**
0	>	OUT =	5910	>	**0**
			v	^	
			4317	**512**	

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2000

			38	**36**	
			v	^	
63	<	IN =	128	<	**35**
0	>	OUT =	127	>	**0**
			v	^	
			28	**55**	

EXISTING PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: **0.38**
PHF FOR TRUCKS: **0.333**

			1464	606	
			v	^	
32	<	IN =	2289	<	612
0	>	OUT =	2288	>	0
			v	^	
			1650	213	

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2030

			6369	**2497**	
			v	^	
1112	<	IN =	9333	<	**2260**
0	>	OUT =	9333	>	**0**
			v	^	
			5724	**704**	

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2020

			329	**188**	
			v	^	
148	<	IN =	720	<	**301**
0	>	OUT =	722	>	**0**
			v	^	
			386	**90**	

FUTURE PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

			2530	1011	
			v	^	
472	<	IN =	3786	<	969
0	>	OUT =	3787	>	0
			v	^	
			2304	297	

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: **2025**
FACTOR = **1.25**

			1090	418	
			v	^	
447	<			<	369
0	>			>	0
			v	^	
			694	88	

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

			1090	420	
			v	^	
450	<	IN =	1660	<	370
0	>	OUT =	1660	>	0
			v	^	
			680	90	

PRORATED GROWTH (PCE'S): 2007 TO 2030
23 YEARS

			840	320	
			v	^	
360	<			<	280
0	>			>	0
			v	^	
			520	70	

NEW PROJECTED VOLUMES (PCE'S): 2030

			2190	2370	
			v	^	
600	<			<	2290
0	>			>	0
			v	^	
			2200	710	

OPENING YEAR GROWTH: 2007 TO **2011**
4 YEARS

			160	60	
			v	^	
60	<			<	50
0	>			>	0
			v	^	
			90	10	

INITIAL OPENING YEAR VOLUMES:
2011

			1500	2110	
			v	^	
310	<	IN =	4210	<	2060
0	>	OUT =	4190	>	0
			v	^	
			1770	660	

BALANCED OPENING YEAR VOLUMES:
2011

			1500	2120	
			v	^	
310	<	IN =	4210	<	2060
0	>	OUT =	4210	>	0
			v	^	
			1780	660	

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2007

		217	1306	0	
		<	v	>	
0	^			^	1070
0	>			<	0
0	v			v	276
		<	^	>	
		72	626	0	

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2007

			1522	1696	
			v	^	
289	<	IN =	3566	<	1346
0	>	OUT =	3566	>	0
			v	^	
			1681	698	

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

		0	27	0	
		<	v	>	
0	^			^	29
0	>			<	0
0	v			v	66
		<	^	>	
		0	19	0	

PCE FACTORS BY AXLE:
2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):
2007

		217	1332	0	
		<	v	>	
0	^			^	1099
0	>			<	0
0	v			v	331
		<	^	>	
		72	646	0	

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2000

			4131	**6156**	
			v	^	
64	<	IN =	10713	<	**4978**
0	>	OUT =	10713	>	**0**
			v	^	
			4493	**1604**	

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2000

			41	**47**	
			v	^	
65	<	IN =	135	<	**30**
0	>	OUT =	137	>	**0**
			v	^	
			25	**64**	

EXISTING PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: **0.28**
PHF FOR TRUCKS: **0.25**

			1167	1736	
			v	^	
34	<	IN =	3033	<	1401
0	>	OUT =	3034	>	0
			v	^	
			1264	466	

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2030

			7098	**9543**	
			v	^	
1182	<	IN =	17256	<	**7267**
0	>	OUT =	17256	>	**0**
			v	^	
			6531	**2891**	

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2020

			271	**278**	
			v	^	
58	<	IN =	642	<	**233**
0	>	OUT =	638	>	**0**
			v	^	
			302	**138**	

FUTURE PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

			2055	2742	
			v	^	
345	<	IN =	4992	<	2093
0	>	OUT =	4991	>	0
			v	^	
			1904	844	

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2025
FACTOR = 1.25

			903	1021	
			v	^	
311	<			<	704
0	>			>	0
			v	^	
			657	383	

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

			900	1020	
			v	^	
310	<	IN =	1980	<	700
0	>	OUT =	1990	>	0
			v	^	
			660	380	

PRORATED GROWTH (PCE'S): 2007 TO 2030
23 YEARS

			690	780	
			v	^	
240	<			<	540
0	>			>	0
			v	^	
			610	290	

NEW PROJECTED VOLUMES (PCE'S): 2030

			2240	2520	
			v	^	
530	<			<	1970
0	>			>	0
			v	^	
			2170	1010	

OPENING YEAR GROWTH: 2007 TO 2011
4 YEARS

			120	140	
			v	^	
40	<			<	90
0	>			>	0
			v	^	
			90	50	

INITIAL OPENING YEAR VOLUMES:
2011

			1670	1880	
			v	^	
330	<	IN =	3960	<	1620
0	>	OUT =	3960	>	0
			v	^	
			1750	770	

BALANCED OPENING YEAR VOLUMES:
2011

			1670	1880	
			v	^	
330	<	IN =	3960	<	1620
0	>	OUT =	3960	>	0
			v	^	
			1750	770	

UNIVERSITY PARKWAY (NS) / I-215 FREEWAY NB RAMPS (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH	LEFT	107	SOUTH LEG		NORTH	LEFT	72	SOUTH LEG	
BOUND	THRU	529	IN ...	650	BOUND	THRU	645	IN ...	770
	RIGHT	0	OUT ...	1,780		RIGHT	0	OUT ...	1,750
SOUTH	LEFT	0	NORTH LEG		SOUTH	LEFT	0	NORTH LEG	
BOUND	THRU	1,198	IN ...	1,500	BOUND	THRU	1,332	IN ...	1,670
	RIGHT	147	OUT ...	2,120		RIGHT	217	OUT ...	1,880
EAST	LEFT	0	WEST LEG		EAST	LEFT	0	WEST LEG	
BOUND	THRU	0	IN ...	0	BOUND	THRU	0	IN ...	0
	RIGHT	0	OUT ...	310		RIGHT	0	OUT ...	330
WEST	LEFT	484	EAST LEG		WEST	LEFT	331	EAST LEG	
BOUND	THRU	0	IN ...	2,060	BOUND	THRU	0	IN ...	1,520
	RIGHT	1,523	OUT ...	0		RIGHT	1,099	OUT ...	0

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	107	119	NORTH LEG	NORTH	LEFT	72	78	NORTH LEG
BOUND	THRU	529	531	RATIO 8.8%	BOUND	THRU	645	692	RATIO 8.6%
	RIGHT	0	0	ADT 41,300		RIGHT	0	0	ADT 41,300
SOUTH	LEFT	0	0	SOUTH LEG	SOUTH	LEFT	0	0	SOUTH LEG
BOUND	THRU	1,198	1,309	RATIO 8.2%	BOUND	THRU	1,332	1,417	RATIO 8.5%
	RIGHT	147	191	ADT 29,500		RIGHT	217	252	ADT 29,500
EAST	LEFT	0	0	EAST LEG	EAST	LEFT	0	0	EAST LEG
BOUND	THRU	0	0	RATIO 11.7%	BOUND	THRU	0	0	RATIO 8.6%
	RIGHT	0	0	ADT 17,600		RIGHT	0	0	ADT 17,600
WEST	LEFT	484	471	WEST LEG	WEST	LEFT	331	333	WEST LEG
BOUND	THRU	0	0	RATIO 7.9%	BOUND	THRU	0	0	RATIO 8.5%
	RIGHT	1,523	1,589	ADT 3,900		RIGHT	1,099	1,188	ADT 3,900

UNIVERSITY PARKWAY (NS) / I-215 FREEWAY NB RAMPS (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	**107**	SOUTH LEG		NORTH	LEFT	**72**	SOUTH LEG	
BOUND	THRU	**529**	IN ...	**690**	BOUND	THRU	**645**	IN ...	**1,120**
	RIGHT	**0**	OUT ...	**1,860**		RIGHT	**0**	OUT ...	**1,950**
SOUTH	LEFT	**0**	NORTH LEG		SOUTH	LEFT	**0**	NORTH LEG	
BOUND	THRU	**1,198**	IN ...	**1,950**	BOUND	THRU	**1,332**	IN ...	**2,060**
	RIGHT	**147**	OUT ...	**2,210**		RIGHT	**217**	OUT ...	**2,230**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**640**		RIGHT	**0**	OUT ...	**530**
WEST	LEFT	**484**	EAST LEG		WEST	LEFT	**331**	EAST LEG	
BOUND	THRU	**0**	IN ...	**2,160**	BOUND	THRU	**0**	IN ...	**1,550**
	RIGHT	**1,523**	OUT ...	**0**		RIGHT	**1,099**	OUT ...	**0**

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**107**	**186**	NORTH LEG	NORTH	LEFT	**72**	**132**	NORTH LEG
BOUND	THRU	**529**	**491**	RATIO **9.0%**	BOUND	THRU	**645**	**986**	RATIO **9.4%**
	RIGHT	**0**	**0**	ADT 45,600		RIGHT	**0**	**0**	ADT 45,600
SOUTH	LEFT	**0**	**0**	SOUTH LEG	SOUTH	LEFT	**0**	**0**	SOUTH LEG
BOUND	THRU	**1,198**	**1,457**	RATIO **8.5%**	BOUND	THRU	**1,332**	**1,647**	RATIO **10.2%**
	RIGHT	**147**	**454**	ADT 30,000		RIGHT	**217**	**398**	ADT 30,000
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**0**	**0**	RATIO **12.1%**	BOUND	THRU	**0**	**0**	RATIO **8.8%**
	RIGHT	**0**	**0**	ADT 17,600		RIGHT	**0**	**0**	ADT 17,600
WEST	LEFT	**484**	**403**	WEST LEG	WEST	LEFT	**331**	**303**	WEST LEG
BOUND	THRU	**0**	**0**	RATIO **9.6%**	BOUND	THRU	**0**	**0**	RATIO **7.9%**
	RIGHT	**1,523**	**1,719**	ADT 6,700		RIGHT	**1,099**	**1,244**	ADT 6,700

UNIVERSITY PARKWAY (NS) / I-215 FREEWAY SB RAMPS (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2007

				0	511	1036			
			<		v		>		
		123	^				^		0
		0	>				<		0
		37	v				v		0
			<		^		>		
				0	423	244			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2007

					1646	646			
					v	^			
		0	<	IN =		2373	<		0
		160	>	OUT =		2373	>		1279
					v	^			
					648	667			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				0	128	63			
			<		v		>		
		23	^				^		0
		0	>				<		0
		26	v				v		0

PCE FACTORS BY AXLE:
2: **1.5** 3: **2.0** 4+: **3.0**

			<		^		>		
				0	72	60			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):
2007

				0	639	1098			
			<		v		>		
		146	^				^		0
		0	>				<		0
		63	v				v		0
			<		^		>		
				0	495	304			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2000

					4317	**512**			
					v	^			
		0	<	IN =		6142	<		**0**
		42	>	OUT =		6142	>		**3341**
					v	^			
					1289	**783**			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2000

					28	**55**			
					v	^			
		0	<	IN =		139	<		**0**
		63	>	OUT =		139	>		**23**
					v	^			
					61	**48**			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: **0.38**
PHF FOR TRUCKS: **0.333**

					1660	213			
					v	^			
		0	<	IN =		2000	<		0
		37	>	OUT =		2000	>		1277
					v	^			
					510	314			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2030

					5724	**704**			
					v	^			
		0	<	IN =		7170	<		**0**
		91	>	OUT =		7170	>		**5284**
					v	^			
					1182	**1355**			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2020

					386	**90**			
					v	^			
		0	<	IN =		636	<		**0**
		20	>	OUT =		636	>		**325**
					v	^			
					221	**230**			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

					2304	297			
					v	^			
		0	<	IN =		2936	<		0
		41	>	OUT =		2936	>		2116
					v	^			
					623	591			

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: **2025**
FACTOR = **1.25**

					684	88			
					v	^			
		0	<				<		0
		1	>				>		864
					v	^			
					26	293			

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

					680	90			
					v	^			
		0	<	IN =		990	<		0
		20	>	OUT =		980	>		860
					v	^			
					30	290			

PRORATED GROWTH (PCE'S): 2007 TO 2030
23 YEARS

					520	70			
					v	^			
		0	<				<		0
		20	>				>		660
					v	^			
					20	220			

NEW PROJECTED VOLUMES (PCE'S): 2030

					2260	710			
					v	^			
		0	<				<		0
		230	>				>		2060
					v	^			
					720	1020			

OPENING YEAR GROWTH: 2007 TO **2011**
4 YEARS

					90	10			
					v	^			
		0	<				<		0
		0	>				>		110
					v	^			
					0	40			

INITIAL OPENING YEAR VOLUMES:
2011

					1830	660			
					v	^			
		0	<	IN =		2880	<		0
		210	>	OUT =		2860	>		1510
					v	^			
					700	840			

BALANCED OPENING YEAR VOLUMES:
2011

					1830	650			
					v	^			
		0	<	IN =		2880	<		0
		210	>	OUT =		2870	>		1520
					v	^			
					700	840			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):
2007

				0	709	942			
			<		v		>		
		90	^				^		0
		0	>				<		0
		75	v				v		0
			<		^		>		
				0	629	521			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):
2007

					1651	719			
					v	^			
		0	<	IN =		2966	<		0
		166	>	OUT =		2966	>		1463
					v	^			
					784	1160			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				0	16	28			
			<		v		>		
		3	^				^		0
		0	>				<		0
		3	v				v		0

PCE FACTORS BY AXLE:
2: 1.5 3: 2 4+: 3.0

			<		^		>		
				0	18	31			

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):
2007

				0	726	970			
			<		v		>		
		93	^				^		0
		0	>				<		0
		78	v				v		0
			<		^		>		
				0	647	552			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):
2000

					4493	**1604**			
					v	^			
		0	<	IN =		7264	<		**0**
		117	>	OUT =		7264	>		**4088**
					v	^			
					1572	**2654**			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2000

					25	**64**			
					v	^			
		0	<	IN =		138	<		**0**
		65	>	OUT =		141	>		**27**
					v	^			
					50	**48**			

EXISTING PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: **0.28**
PHF FOR TRUCKS: **0.25**

					1264	466			
					v	^			
		0	<	IN =		2068	<		0
		49	>	OUT =		2069	>		1161
					v	^			
					453	755			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):
2030

					6531	**2891**			
					v	^			
		0	<	IN =		10593	<		**0**
		766	>	OUT =		10593	>		**6012**
					v	^			
					1690	**3296**			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):
2020

					302	**138**			
					v	^			
		0	<	IN =		546	<		**0**
		47	>	OUT =		547	>		**296**
					v	^			
					113	**196**			

FUTURE PEAK HOUR MODEL YEAR (PCE'S):
PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

					1904	844			
					v	^			
		0	<	IN =		3102	<		0
		226	>	OUT =		3103	>		1767
					v	^			
					601	972			

RAW GROWTH (PCE'S): 2000 TO 2030
CONVERSION OF TRUCKS TO: 2025
FACTOR = 1.25

					667	383			
					v	^			
		0	<				<		0
		176	>				>		623
					v	^			
					63	226			

ADJUSTED GROWTH (PCE'S): 2000 TO 2030
10 MINIMUM GROWTH %

					660	380			
					v	^			
		0	<	IN =		1070	<		0
		180	>	OUT =		1060	>		620
					v	^			
					60	230			

PRORATED GROWTH (PCE'S): 2007 TO 2030
23 YEARS

					510	290			
					v	^			
		0	<				<		0
		140	>				>		480
					v	^			
					40	180			

NEW PROJECTED VOLUMES (PCE'S): 2030

					2210	1030			
					v	^			
		0	<				<		0
		310	>				>		2000
					v	^			
					840	1380			

OPENING YEAR GROWTH: 2007 TO 2011
4 YEARS

					90	50			
					v	^			
		0	<				<		0
		20	>				>		80
					v	^			
					10	30			

INITIAL OPENING YEAR VOLUMES:
2011

					1790	790			
					v	^			
		0	<	IN =		3210	<		0
		190	>	OUT =		3200	>		1600
					v	^			
					810	1230			

BALANCED OPENING YEAR VOLUMES:
2011

					1790	790			
					v	^			
		0	<	IN =		3210	<		0
		190	>	OUT =		3210	>		1610
					v	^			
					810	1230			

UNIVERSITY PARKWAY (NS) / I-215 FREEWAY SB RAMPS (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH BOUND	LEFT	0	SOUTH LEG		NORTH BOUND	LEFT	0	SOUTH LEG	
	THRU	495	IN ...	840		THRU	647	IN ...	1,230
	RIGHT	304	OUT ...	700		RIGHT	552	OUT ...	810
SOUTH BOUND	LEFT	1,098	NORTH LEG		SOUTH BOUND	LEFT	970	NORTH LEG	
	THRU	639	IN ...	1,830		THRU	725	IN ...	1,790
	RIGHT	0	OUT ...	650		RIGHT	0	OUT ...	790
EAST BOUND	LEFT	146	WEST LEG		EAST BOUND	LEFT	93	WEST LEG	
	THRU	0	IN ...	210		THRU	0	IN ...	190
	RIGHT	63	OUT ...	0		RIGHT	78	OUT ...	0
WEST BOUND	LEFT	0	EAST LEG		WEST BOUND	LEFT	0	EAST LEG	
	THRU	0	IN ...	0		THRU	0	IN ...	0
	RIGHT	0	OUT ...	1,520		RIGHT	0	OUT ...	1,610

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH BOUND	LEFT	0	0	NORTH LEG	NORTH BOUND	LEFT	0	0	NORTH LEG
	THRU	495	504	RATIO 8.1%		THRU	647	680	RATIO 8.5%
	RIGHT	304	333	ADT 30,500		RIGHT	552	550	ADT 30,500
SOUTH BOUND	LEFT	1,098	1,187	SOUTH LEG	SOUTH BOUND	LEFT	970	1,060	SOUTH LEG
	THRU	639	637	RATIO 6.1%		THRU	725	730	RATIO 8.2%
	RIGHT	0	0	ADT 25,000		RIGHT	0	0	ADT 25,000
EAST BOUND	LEFT	146	146	EAST LEG	EAST BOUND	LEFT	93	110	EAST LEG
	THRU	0	0	RATIO 8.0%		THRU	0	0	RATIO 8.5%
	RIGHT	63	63	ADT 18,900		RIGHT	78	80	ADT 18,900
WEST BOUND	LEFT	0	0	WEST LEG	WEST BOUND	LEFT	0	0	WEST LEG
	THRU	0	0	RATIO 10.0%		THRU	0	0	RATIO 9.0%
	RIGHT	0	0	ADT 2,100		RIGHT	0	0	ADT 2,100

UNIVERSITY PARKWAY (NS) / I-215 FREEWAY SB RAMPS (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**495**	IN ...	**980**	BOUND	THRU	**647**	IN ...	**1,270**
	RIGHT	**304**	OUT ...	**720**		RIGHT	**552**	OUT ...	**800**
SOUTH	LEFT	**1,098**	NORTH LEG		SOUTH	LEFT	**970**	NORTH LEG	
BOUND	THRU	**639**	IN ...	**1,920**	BOUND	THRU	**725**	IN ...	**1,990**
	RIGHT	**0**	OUT ...	**690**		RIGHT	**0**	OUT ...	**1,140**
EAST	LEFT	**146**	WEST LEG		EAST	LEFT	**93**	WEST LEG	
BOUND	THRU	**0**	IN ...	**230**	BOUND	THRU	**0**	IN ...	**440**
	RIGHT	**63**	OUT ...	**0**		RIGHT	**78**	OUT ...	**0**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**1,800**		RIGHT	**0**	OUT ...	**1,770**

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG
BOUND	THRU	**495**	**534**	RATIO **8.6%**	BOUND	THRU	**647**	**819**	RATIO **10.1%**
	RIGHT	**304**	**470**	ADT 30,900		RIGHT	**552**	**456**	ADT 30,900
SOUTH	LEFT	**1,098**	**1,330**	SOUTH LEG	SOUTH	LEFT	**970**	**1,314**	SOUTH LEG
BOUND	THRU	**639**	**640**	RATIO **6.9%**	BOUND	THRU	**725**	**679**	RATIO **8.3%**
	RIGHT	**0**	**0**	ADT 25,000		RIGHT	**0**	**0**	ADT 25,000
EAST	LEFT	**146**	**156**	EAST LEG	EAST	LEFT	**93**	**321**	EAST LEG
BOUND	THRU	**0**	**0**	RATIO **7.2%**	BOUND	THRU	**0**	**0**	RATIO **7.1%**
	RIGHT	**63**	**80**	ADT 25,000		RIGHT	**78**	**121**	ADT 25,000
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG
BOUND	THRU	**0**	**0**	RATIO **6.9%**	BOUND	THRU	**0**	**0**	RATIO **13.0%**
	RIGHT	**0**	**0**	ADT 3,400		RIGHT	**0**	**0**	ADT 3,400

LITTLE MOUNTAIN DRIVE (NS) / NORTHPARK BOULEVARD (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

			8	11	4		
			<	v	>		
	28	^			^	30	
	239	>			<	458	
	39	v			v	166	
			<	^	>		
			115	64	69		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

				23	122		
				v	^		
	581	<	IN =	1231	<	654	
	306	>	OUT =	1231	>	312	
				v	^		
				216	248		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			0	0	0		
			<	v	>		
	0	^			^	0	
	36	>			<	24	
	5	v			v	0	
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2.0 4+: 3.0			9	0	9		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

			8	11	4		
			<	v	>		
	28	^			^	30	
	275	>			<	482	
	44	v			v	166	
			<	^	>		
			124	64	78		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				0	0		
				v	^		
	247	<	IN =	370	<	270	
	86	>	OUT =	370	>	98	
				v	^		
				25	14		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				0	0		
				v	^		
	40	<	IN =	52	<	40	
	12	>	OUT =	52	>	12	
				v	^		
				0	0		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

				0	0		
				v	^		
	107	<	IN =	158	<	116	
	37	>	OUT =	158	>	41	
				v	^		
				10	5		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				96	52		
				v	^		
	443	<	IN =	985	<	525	
	313	>	OUT =	985	>	419	
				v	^		
				71	51		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				0	0		
				v	^		
	70	<	IN =	113	<	70	
	43	>	OUT =	116	>	42	
				v	^		
				4	0		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38
PHF FOR TRUCKS: 0.333

				36	20		
				v	^		
	192	<	IN =	412	<	223	
	133	>	OUT =	413	>	173	
				v	^		
				28	19		

RAW GROWTH (PCE 2000 TO 2030
CONVERSION OF TRUCKS T 2025
FACTOR = 1.25

				36	20		
				v	^		
	87	<			<	109	
	99	>			>	134	
				v	^		
				19	14		

ADJUSTED GROWTH (PCE'S 2000 TO 2030
10 MINIMUM GROWTH %

				40	20		
				v	^		
	90	<	IN =	260	<	110	
	100	>	OUT =	260	>	130	
				v	^		
				20	10		

PRORATED GROWTH (PCE' 2007 TO 2030
23 YEARS

				30	20		
				v	^		
	70	<			<	80	
	80	>			>	100	
				v	^		
				20	10		

NEW PROJECTED VOLUME 2030

				50	140		
				v	^		
	680	<			<	760	
	430	>			>	460	
				v	^		
				240	280		

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

			41	33	22		
			<	v	>		
	27	^			^	4	
	369	>			<	227	
	137	v			v	54	
			<	^	>		
			86	5	101		

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

				96	36		
				v	^		
	354	<	IN =	1106	<	285	
	533	>	OUT =	1106	>	492	
				v	^		
				224	192		

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

			3	0	0		
			<	v	>		
	0	^			^	0	
	3	>			<	6	
	0	v			v	2	
PCE FACTORS BY AXLE:			<	^	>		
2: 1.5 3: 2 4+: 3.0			3	0	0		

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

			44	33	22		
			<	v	>		
	27	^			^	4	
	372	>			<	233	
	137	v			v	56	
			<	^	>		
			89	5	101		

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

				0	0		
				v	^		
	244	<	IN =	786	<	274	
	463	>	OUT =	786	>	512	
				v	^		
				30	49		

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

				0	0		
				v	^		
	56	<	IN =	113	<	56	
	57	>	OUT =	113	>	57	
				v	^		
				0	0		

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

				0	0		
				v	^		
	82	<	IN =	248	<	91	
	144	>	OUT =	248	>	158	
				v	^		
				8	14		

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

				195	213		
				v	^		
	734	<	IN =	2492	<	978	
	1136	>	OUT =	2492	>	1375	
				v	^		
				170	183		

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

				0	0		
				v	^		
	69	<	IN =	136	<	69	
	67	>	OUT =	141	>	64	
				v	^		
				8	0		

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28
PHF FOR TRUCKS: 0.25

				55	60		
				v	^		
	223	<	IN =	732	<	291	
	335	>	OUT =	733	>	401	
				v	^		
				50	51		

RAW GROWTH (PCE 2000 TO 2030
CONVERSION OF TRUCKS T 2025
FACTOR = 1.25

				55	60		
				v	^		
	141	<			<	201	
	192	>			>	244	
				v	^		
				42	38		

ADJUSTED GROWTH (PCE'S 2000 TO 2030
10 MINIMUM GROWTH %

				50	60		
				v	^		
	140	<	IN =	480	<	200	
	190	>	OUT =	480	>	240	
				v	^		
				40	40		

PRORATED GROWTH (PCE' 2007 TO 2030
23 YEARS

				40	50		
				v	^		
	110	<			<	150	
	150	>			>	180	
				v	^		
				30	30		

NEW PROJECTED VOLUME 2030

				140	90		
				v	^		
	480	<			<	440	
	690	>			>	680	
				v	^		
				260	230		

LITTLE MOUNTAIN DRIVE (NS) / NORTHPARK BOULEVARD (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH BOUND	LEFT	124	SOUTH LEG IN ...	270	NORTH BOUND	LEFT	89	SOUTH LEG IN ...	210
	THRU	64				THRU	5		
	RIGHT	78	OUT ...	220		RIGHT	101	OUT ...	240
SOUTH BOUND	LEFT	4	NORTH LEG IN ...	30	SOUTH BOUND	LEFT	22	NORTH LEG IN ...	110
	THRU	11				THRU	33		
	RIGHT	8	OUT ...	120		RIGHT	44	OUT ...	50
EAST BOUND	LEFT	28	WEST LEG IN ...	360	EAST BOUND	LEFT	27	WEST LEG IN ...	570
	THRU	275				THRU	372		
	RIGHT	44	OUT ...	620		RIGHT	137	OUT ...	390
WEST BOUND	LEFT	166	EAST LEG IN ...	690	WEST BOUND	LEFT	56	EAST LEG IN ...	320
	THRU	482				THRU	233		
	RIGHT	30	OUT ...	380		RIGHT	4	OUT ...	530

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH BOUND	LEFT	124	121	NORTH LEG	NORTH BOUND	LEFT	89	91	NORTH LEG
	THRU	64	63	RATIO 0.5%		THRU	5	7	RATIO 0.5%
	RIGHT	78	84	ADT 31,400		RIGHT	101	111	ADT 31,400
SOUTH BOUND	LEFT	4	6	SOUTH LEG	SOUTH BOUND	LEFT	22	25	SOUTH LEG
	THRU	11	14	RATIO 1.2%		THRU	33	37	RATIO 1.1%
	RIGHT	8	10	ADT 41,400		RIGHT	44	47	ADT 41,400
EAST BOUND	LEFT	28	27	EAST LEG	EAST BOUND	LEFT	27	37	EAST LEG
	THRU	275	290	RATIO 6.2%		THRU	372	393	RATIO 4.9%
	RIGHT	44	41	ADT 17,300		RIGHT	137	140	ADT 17,300
WEST BOUND	LEFT	166	165	WEST LEG	WEST BOUND	LEFT	56	63	WEST LEG
	THRU	482	489	RATIO 4.5%		THRU	233	251	RATIO 4.4%
	RIGHT	30	31	ADT 21,800		RIGHT	4	6	ADT 21,800

LITTLE MOUNTAIN DRIVE (NS) / NORTHPARK BOULEVARD (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	**124**	SOUTH LEG		NORTH	LEFT	**89**	SOUTH LEG	
BOUND	THRU	**64**	IN ...	**280**	BOUND	THRU	**5**	IN ...	**230**
	RIGHT	**78**	OUT ...	**240**		RIGHT	**101**	OUT ...	**260**
SOUTH	LEFT	**4**	NORTH LEG		SOUTH	LEFT	**22**	NORTH LEG	
BOUND	THRU	**11**	IN ...	**50**	BOUND	THRU	**33**	IN ...	**140**
	RIGHT	**8**	OUT ...	**140**		RIGHT	**44**	OUT ...	**90**
EAST	LEFT	**28**	WEST LEG		EAST	LEFT	**27**	WEST LEG	
BOUND	THRU	**275**	IN ...	**430**	BOUND	THRU	**372**	IN ...	**690**
	RIGHT	**44**	OUT ...	**680**		RIGHT	**137**	OUT ...	**480**
WEST	LEFT	**166**	EAST LEG		WEST	LEFT	**56**	EAST LEG	
BOUND	THRU	**482**	IN ...	**760**	BOUND	THRU	**233**	IN ...	**440**
	RIGHT	**30**	OUT ...	**460**		RIGHT	**4**	OUT ...	**680**

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**124**	**118**	NORTH LEG	NORTH	LEFT	**89**	**82**	NORTH LEG
BOUND	THRU	**64**	**69**	RATIO **7.6%**	BOUND	THRU	**5**	**12**	RATIO **9.2%**
	RIGHT	**78**	**93**	ADT 2,500		RIGHT	**101**	**137**	ADT 2,500
SOUTH	LEFT	**4**	**11**	SOUTH LEG	SOUTH	LEFT	**22**	**41**	SOUTH LEG
BOUND	THRU	**11**	**22**	RATIO **9.8%**	BOUND	THRU	**33**	**44**	RATIO **9.3%**
	RIGHT	**8**	**17**	ADT 5,300		RIGHT	**44**	**56**	ADT 5,300
EAST	LEFT	**28**	**33**	EAST LEG	EAST	LEFT	**27**	**63**	EAST LEG
BOUND	THRU	**275**	**356**	RATIO **10.1%**	BOUND	THRU	**372**	**502**	RATIO **9.3%**
	RIGHT	**44**	**43**	ADT 12,100		RIGHT	**137**	**131**	ADT 12,100
WEST	LEFT	**166**	**175**	WEST LEG	WEST	LEFT	**56**	**85**	WEST LEG
BOUND	THRU	**482**	**545**	RATIO **8.9%**	BOUND	THRU	**233**	**341**	RATIO **9.4%**
	RIGHT	**30**	**38**	ADT 12,500		RIGHT	**4**	**15**	ADT 12,500

H STREET (NS) / NORTHPARK BOULEVARD (EW)

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

				<	114	v	113	>	65	
			91	^				^		75
			84	>				<		170
			25	v				v		25
				<	33	^	71	>	22	

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

					292	237				
					v	^				
			317	<	IN	=	888	<		270
			200	>	OUT	=	888	>		171
					v	^				
					163	126				

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				<	3	v	5	>	2	
			0	^				^		0
			10	>				<		11
			2	v				v		2
				<	0	^	3	>	2	

PCE FACTORS BY AXLE:

2: **1.5** 3: **2.0** 4+: **3.0**

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

				<	117	v	118	>	67	
			91	^				^		75
			94	>				<		181
			27	v				v		27
				<	33	^	74	>	24	

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					317	**119**				
					v	^				
			125	<	IN	=	651	<		**134**
			106	>	OUT	=	651	>		**156**
					v	^				
					251	**94**				

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					14	**11**				
					v	^				
			19	<	IN	=	35	<		**10**
			0	>	OUT	=	33	>		**0**
					v	^				
					3	**11**				

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.38**

PHF FOR TRUCKS: **0.333**

					125	49				
					v	^				
			54	<	IN	=	259	<		54
			40	>	OUT	=	258	>		59
					v	^				
					96	39				

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					421	**314**				
					v	^				
			428	<	IN	=	1483	<		**458**
			401	>	OUT	=	1484	>		**403**
					v	^				
					339	**202**				

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					17	**17**				
					v	^				
			44	<	IN	=	74	<		**24**
			12	>	OUT	=	72	>		**5**
					v	^				
					6	**21**				

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

					166	125				
					v	^				
			177	<	IN	=	588	<		182
			156	>	OUT	=	588	>		155
					v	^				
					131	84				

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: **2025**

FACTOR = **1.25**

					41	77				
					v	^				
			126	<				<		129
			117	>				>		96
					v	^				
					35	45				

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					40	80				
					v	^				
			130	<	IN	=	340	<		130
			120	>	OUT	=	340	>		100
					v	^				
					30	50				

PRORATED GROWTH (PCE'S): 2007 TO 2030

23 YEARS

					30	60				
					v	^				
			100	<				<		100
			90	>				>		80
					v	^				
					20	40				

NEW PROJECTED VOLUMES (PCE'S): 2030

					330	300				
					v	^				
			430	<				<		380
			300	>				>		270
					v	^				
					190	170				

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2007

				<	20	v	22	>	15	
			37	^				^		16
			293	>				<		203
			36	v				v		21
				<	53	^	40	>	38	

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2007

					57	93				
					v	^				
			276	<	IN	=	794	<		240
			366	>	OUT	=	794	>		346
					v	^				
					79	131				

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCE'S):

				<	0	v	3	>	0	
			0	^				^		0
			3	>				<		3
			0	v				v		2
				<	0	^	3	>	0	

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCES):

2007

				<	20	v	25	>	15	
			37	^				^		16
			296	>				<		206
			36	v				v		23
				<	53	^	43	>	38	

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2000

					363	**518**				
					v	^				
			277	<	IN	=	1418	<		**381**
			298	>	OUT	=	1417	>		**348**
					v	^				
					274	**376**				

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2000

					24	**14**				
					v	^				
			34	<	IN	=	76	<		**17**
			31	>	OUT	=	71	>		**19**
					v	^				
					4	**4**				

EXISTING PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: **0.28**

PHF FOR TRUCKS: **0.25**

					108	149				
					v	^				
			86	<	IN	=	416	<		111
			91	>	OUT	=	415	>		102
					v	^				
					78	106				

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2030

					655	**744**				
					v	^				
			860	<	IN	=	3091	<		**900**
			1074	>	OUT	=	3091	>		**955**
					v	^				
					532	**462**				

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCE'S):

2020

					19	**21**				
					v	^				
			27	<	IN	=	76	<		**18**
			23	>	OUT	=	77	>		**13**
					v	^				
					16	**16**				

FUTURE PEAK HOUR MODEL YEAR (PCE'S):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

					188	214				
					v	^				
			248	<	IN	=	884	<		257
			306	>	OUT	=	885	>		271
					v	^				
					153	133				

RAW GROWTH (PCE'S): 2000 TO 2030

CONVERSION OF TRUCKS TO: 2025

FACTOR = 1.25

					80	65				
					v	^				
			161	<				<		146
			215	>				>		168
					v	^				
					76	28				

ADJUSTED GROWTH (PCE'S): 2000 TO 2030

10 MINIMUM GROWTH %

					80	70				
					v	^				
			160	<	IN	=	470	<		150
			210	>	OUT	=	480	>		170
					v	^				
					80	30				

PRORATED GROWTH (PCE'S): 2007 TO 2030

23 YEARS

					60	50				
					v	^				
			120	<				<		120
			160	>				>		130
					v	^				
					60	20				

NEW PROJECTED VOLUMES (PCE'S): 2030

					120	150				
					v	^				
			400	<				<		370
			530	>				>		480
					v	^				
					140	150				

H STREET (NS) / NORTHPARK BOULEVARD (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	OPENING YEAR TOTAL
NORTH BOUND	LEFT	33	SOUTH LEG		NORTH BOUND	LEFT	53	SOUTH LEG	
	THRU	74	IN ...	140		THRU	43	IN ...	130
	RIGHT	24	OUT ...	170		RIGHT	38	OUT ...	90
SOUTH BOUND	LEFT	67	NORTH LEG		SOUTH BOUND	LEFT	15	NORTH LEG	
	THRU	118	IN ...	310		THRU	25	IN ...	70
	RIGHT	117	OUT ...	250		RIGHT	20	OUT ...	110
EAST BOUND	LEFT	91	WEST LEG		EAST BOUND	LEFT	37	WEST LEG	
	THRU	94	IN ...	230		THRU	296	IN ...	400
	RIGHT	27	OUT ...	350		RIGHT	36	OUT ...	300
WEST BOUND	LEFT	27	EAST LEG		WEST BOUND	LEFT	23	EAST LEG	
	THRU	181	IN ...	300		THRU	206	IN ...	270
	RIGHT	75	OUT ...	200		RIGHT	16	OUT ...	370

OPENING YEAR (2011) TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	OPENING YEAR FORECAST	PEAK - DAILY RELATIONSHIP
NORTH BOUND	LEFT	33	36	NORTH LEG	NORTH BOUND	LEFT	53	50	NORTH LEG
	THRU	74	77	RATIO 27.8%		THRU	43	45	RATIO 9.0%
	RIGHT	24	26	ADT 2,000		RIGHT	38	35	ADT 2,000
SOUTH BOUND	LEFT	67	70	SOUTH LEG	SOUTH BOUND	LEFT	15	18	SOUTH LEG
	THRU	118	115	RATIO 11.0%		THRU	25	28	RATIO 7.9%
	RIGHT	117	122	ADT 2,800		RIGHT	20	24	ADT 2,800
EAST BOUND	LEFT	91	96	EAST LEG	EAST BOUND	LEFT	37	45	EAST LEG
	THRU	94	104	RATIO 6.6%		THRU	296	317	RATIO 8.5%
	RIGHT	27	28	ADT 7,500		RIGHT	36	37	ADT 7,500
WEST BOUND	LEFT	27	27	WEST LEG	WEST BOUND	LEFT	23	24	WEST LEG
	THRU	181	193	RATIO 7.1%		THRU	206	226	RATIO 8.6%
	RIGHT	75	77	ADT 8,100		RIGHT	16	20	ADT 8,100

H STREET (NS) / NORTHPARK BOULEVARD (EW)

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2030 TOTAL
NORTH	LEFT	**24**	SOUTH LEG		NORTH	LEFT	**36**	SOUTH LEG	
BOUND	THRU	**69**	IN ...	**160**	BOUND	THRU	**43**	IN ...	**140**
	RIGHT	**27**	OUT ...	**190**		RIGHT	**38**	OUT ...	**170**
SOUTH	LEFT	**70**	NORTH LEG		SOUTH	LEFT	**18**	NORTH LEG	
BOUND	THRU	**96**	IN ...	**320**	BOUND	THRU	**34**	IN ...	**140**
	RIGHT	**119**	OUT ...	**280**		RIGHT	**31**	OUT ...	**160**
EAST	LEFT	**74**	WEST LEG		EAST	LEFT	**29**	WEST LEG	
BOUND	THRU	**113**	IN ...	**310**	BOUND	THRU	**245**	IN ...	**480**
	RIGHT	**44**	OUT ...	**360**		RIGHT	**59**	OUT ...	**360**
WEST	LEFT	**30**	EAST LEG		WEST	LEFT	**22**	EAST LEG	
BOUND	THRU	**135**	IN ...	**320**	BOUND	THRU	**168**	IN ...	**340**
	RIGHT	**63**	OUT ...	**280**		RIGHT	**36**	OUT ...	**410**

YEAR 2030 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2030 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**24**	**32**	NORTH LEG	NORTH	LEFT	**36**	**46**	NORTH LEG
BOUND	THRU	**69**	**91**	RATIO **20.0%**	BOUND	THRU	**43**	**55**	RATIO **10.0%**
	RIGHT	**27**	**37**	ADT 3,000		RIGHT	**38**	**39**	ADT 3,000
SOUTH	LEFT	**70**	**84**	SOUTH LEG	SOUTH	LEFT	**18**	**28**	SOUTH LEG
BOUND	THRU	**96**	**99**	RATIO **10.9%**	BOUND	THRU	**34**	**55**	RATIO **9.7%**
	RIGHT	**119**	**137**	ADT 3,200		RIGHT	**31**	**58**	ADT 3,200
EAST	LEFT	**74**	**99**	EAST LEG	EAST	LEFT	**29**	**50**	EAST LEG
BOUND	THRU	**113**	**158**	RATIO **6.7%**	BOUND	THRU	**245**	**343**	RATIO **8.4%**
	RIGHT	**44**	**53**	ADT 8,900		RIGHT	**59**	**87**	ADT 8,900
WEST	LEFT	**30**	**38**	WEST LEG	WEST	LEFT	**22**	**29**	WEST LEG
BOUND	THRU	**135**	**192**	RATIO **6.9%**	BOUND	THRU	**168**	**256**	RATIO **8.7%**
	RIGHT	**63**	**90**	ADT 9,700		RIGHT	**36**	**55**	ADT 9,700

APPENDIX D

Explanation and Calculation of Intersection Delay

EXPLANATION AND CALCULATION OF INTERSECTION LEVEL OF SERVICE USING DELAY METHODOLOGY

The levels of service at the unsignalized and signalized intersections are calculated using the delay methodology in the 2000 Highway Capacity Manual. This methodology views an intersection as consisting of several lane groups. A lane group is a set of lanes serving a movement. If there are two northbound left turn lanes, then the lane group serving the northbound left turn movement has two lanes. Similarly, there may be three lanes in the lane group serving the northbound through movement, one lane in the lane group serving the northbound right turn movement, and so forth. It is also possible for one lane to serve two lane groups. A shared lane might result in there being 1.5 lanes in the northbound left turn lane group and 2.5 lanes in the northbound through lane group.

For each lane group, there is a capacity. That capacity is calculated by multiplying the number of lanes in the lane group times a theoretical maximum lane capacity per lane time's 12 adjustment factors.

Each of the 12 adjustment factors has a value of approximately 1.00. A value less than 1.00 is generally assigned when a less than desirable condition occurs.

The 12 adjustment factors are as follows:

1. Peak hour factor (to account for peaking within the peak hour)
2. Lane utilization factor (to account for not all lanes loading equally)
3. Lane width
4. Percent of heavy trucks
5. Approach grade
6. Parking

7. Bus stops at intersections

8. Area type (CBD or other)

9. Right turns

10. Left turns

11. Pedestrian activity

12. Signal progression

The maximum theoretical lane capacity and the 12 adjustment factors for it are all unknowns for which approximate estimates have been recommended in the 2000 Highway Capacity Manual. For the most part, the recommended values are not based on statistical analysis but rather on educated estimates. However, it is possible to use the delay method and get reasonable results as will be discussed below.

Once the lane group volume is known and the lane group capacity is known, a volume to capacity ratio can be calculated for the lane group.

With a volume to capacity ratio calculated, average delay per vehicle in a lane group can be estimated. The average delay per vehicle in a lane group is calculated using a complex formula provided by the 2000 Highway Capacity Manual, which can be simplified and described as follows:

Delay per vehicle in a lane group is a function of the following:

1. Cycle length

2. Amount of red time faced by a lane group

3. Amount of yellow time for that lane group

4. The volume to capacity ratio of the lane group

The average delay per vehicle for each lane group is calculated, and eventually an overall average delay for all vehicles entering the intersection is calculated. This average delay per vehicle is then used to

judge Level of Service. The Level of Services are defined in the table that follows this discussion.

Experience has shown that when a maximum lane capacity of 1,900 vehicles per hour is used (as recommended in the 2000 Highway Capacity Manual), little or no yellow time penalty is used, and none of the 12 penalty factors are applied, calculated delay is realistic. The delay calculation for instance assumes that yellow time is totally unused. Yet experience shows that most of the yellow time is used.

An idiosyncrasy of the delay methodology is that it is possible to add traffic to an intersection and reduce the average total delay per vehicle. If the average total delay is 30 seconds per vehicle for all vehicles traveling through an intersection, and traffic is added to a movement that has an average total delay of 15 seconds per vehicle, then the overall average total delay is reduced.

The delay calculation for a lane group is based on a concept that the delay is a function of the amount of unused capacity available. As the volume approaches capacity and there is no more unused capacity available, then the delay rapidly increases. Delay is not proportional to volume, but rather increases rapidly as the unused capacity approaches zero.

Because delay is not linearly related to volumes, the delay does not reflect how close an intersection is to overloading. If an intersection is operating at Level of Service C and has an average total delay of 18 seconds per vehicle, you know very little as to what percent the traffic can increase before Level of Service E is reached.

LEVEL OF SERVICE DESCRIPTION[1]

Level of Service	Description	Average Total Delay Per Vehicle (Seconds)	
		Signalized	Unsignalized
A	Level of Service A occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	0 to 10.00	0 to 10.00
B	Level of Service B generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of average total delay.	10.01 to 20.00	10.01 to 15.00
C	Level of Service C generally results when there is fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.	20.01 to 35.00	15.01 to 25.00
D	Level of Service D generally results in noticeable congestion. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	35.01 to 55.00	25.01 to 35.00
E	Level of Service E is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high volume to capacity ratios. Individual cycle failures are frequent occurrences.	55.01 to 80.00	35.01 to 50.00
F	Level of Service F is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high volume to capacity ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	80.01 and up	50.01 and up

[1] Source: Highway Capacity Manual Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 2000.

Existing

University Hills
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Palm Avenue (NS) at Kendall Drive (EW)

Cycle (sec):	95	Critical Vol./Cap.(X):	0.611
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	32.0
Optimal Cycle: OPTIMIZED		Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	24	24	10	24	24
Lanes:	1 0 2	0	1	1 0 1	1	0	1 0 1	0	1	1 0 1	0	1
Volume Module:												
Base Vol:	109	279	402	224	662	56	30	84	122	268	71	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	109	279	402	224	662	56	30	84	122	268	71	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.89	0.89	0.89	0.87	0.87	0.87	0.88	0.88	0.88
PHF Volume:	130	333	480	253	748	63	35	97	141	305	81	158
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	333	480	253	748	63	35	97	141	305	81	158
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	130	333	480	253	748	63	35	97	141	305	81	158
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.84	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3319	281	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.08	0.09	0.27	0.15	0.23	0.23	0.02	0.05	0.08	0.18	0.04	0.09
Crit Moves:	****				****				****	****		
Green/Cycle:	0.11	0.23	0.48	0.18	0.31	0.31	0.15	0.25	0.25	0.25	0.35	0.35
Volume/Cap:	0.73	0.40	0.56	0.81	0.73	0.73	0.14	0.21	0.31	0.73	0.13	0.25
Delay/Veh:	55.0	31.1	18.3	52.3	31.6	31.6	35.5	28.3	29.2	39.0	20.9	22.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.0	31.1	18.3	52.3	31.6	31.6	35.5	28.3	29.2	39.0	20.9	22.0
LOS by Move:	D	C	B	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	6	4	10	10	12	12	1	2	3	10	2	3

Note: Queue reported is the number of cars per lane.

University Hills
Existing
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Palm Avenue (NS) at Kendall Drive (EW)

Cycle (sec):	80	Critical Vol./Cap.(X):	0.588
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	28.2
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	24	24	10	24	24
Lanes:	1 0 2	0	1	1 0 1	1	0	1 0 1	0	1	1 0 1	0	1
Volume Module:												
Base Vol:	127	474	346	152	275	51	47	64	136	332	58	146
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	127	474	346	152	275	51	47	64	136	332	58	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.92	0.92	0.92	0.83	0.83	0.83	0.96	0.96	0.96
PHF Volume:	133	496	362	165	299	55	56	77	163	345	60	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	496	362	165	299	55	56	77	163	345	60	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	133	496	362	165	299	55	56	77	163	345	60	152
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.69	0.31	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3037	563	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.08	0.14	0.20	0.10	0.10	0.10	0.03	0.04	0.09	0.20	0.03	0.08
Crit Moves:		****		****					****	****		
Green/Cycle:	0.13	0.23	0.48	0.13	0.23	0.23	0.16	0.30	0.30	0.25	0.39	0.39
Volume/Cap:	0.63	0.61	0.42	0.78	0.44	0.44	0.21	0.14	0.30	0.81	0.09	0.22
Delay/Veh:	39.0	29.3	14.1	50.5	27.0	27.0	29.4	20.6	21.9	39.5	15.5	16.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.0	29.3	14.1	50.5	27.0	27.0	29.4	20.6	21.9	39.5	15.5	16.5
LOS by Move:	D	C	B	D	C	C	C	C	C	D	B	B
HCM2kAvgQ:	4	6	6	6	4	4	1	1	3	11	1	3

Note: Queue reported is the number of cars per lane.

University Hills
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Campus Parkway (NS) at Kendall Drive

Cycle (sec):	80	Critical Vol./Cap.(X):	0.279
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	16.0
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	28	0	28	10	28	0	0	28	28
Lanes:	0 0	0	0 0	1 0	0	0 2	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	21	0	50	180	442	0	0	291	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	21	0	50	180	442	0	0	291	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.73	0.73	0.73	0.80	0.80	0.80	0.74	0.74	0.74
PHF Volume:	0	0	0	29	0	69	224	550	0	0	395	96
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	29	0	69	224	550	0	0	395	96
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	29	0	69	224	550	0	0	395	96
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	2.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	3600	1700	3600	0	0	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.02	0.13	0.15	0.00	0.00	0.11	0.05
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.35	0.00	0.57	0.23	0.57	0.00	0.00	0.35	0.35
Volume/Cap:	0.00	0.00	0.00	0.05	0.00	0.03	0.59	0.27	0.00	0.00	0.31	0.15
Delay/Veh:	0.0	0.0	0.0	17.2	0.0	7.4	30.0	8.6	0.0	0.0	19.1	18.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	17.2	0.0	7.4	30.0	8.6	0.0	0.0	19.1	18.0
LOS by Move:	A	A	A	B	A	A	C	A	A	A	B	B
HCM2kAvgQ:	0	0	0	0	0	0	6	3	0	0	4	2

Note: Queue reported is the number of cars per lane.

University Hills
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Campus Parkway (NS) at Kendall Drive

Cycle (sec):	80	Critical Vol./Cap.(X):	0.344
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	14.3
Optimal Cycle:	OPTIMIZED	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	28	0	28	10	28	0	0	28	28
Lanes:	0 0	0	0 0	1 0	0	0 2	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	39	0	191	103	552	0	0	766	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	39	0	191	103	552	0	0	766	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94
PHF Volume:	0	0	0	43	0	210	112	598	0	0	819	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	43	0	210	112	598	0	0	819	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	43	0	210	112	598	0	0	819	61
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	2.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	3600	1700	3600	0	0	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.06	0.07	0.17	0.00	0.00	0.23	0.03
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.35	0.00	0.48	0.13	0.58	0.00	0.00	0.45	0.45
Volume/Cap:	0.00	0.00	0.00	0.07	0.00	0.12	0.51	0.29	0.00	0.00	0.51	0.08
Delay/Veh:	0.0	0.0	0.0	17.4	0.0	11.6	34.5	8.7	0.0	0.0	16.2	12.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	17.4	0.0	11.6	34.5	8.7	0.0	0.0	16.2	12.7
LOS by Move:	A	A	A	B	A	B	C	A	A	A	B	B
HCM2kAvgQ:	0	0	0	1	0	1	3	4	0	0	8	1

Note: Queue reported is the number of cars per lane.

University Hills
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.336
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	8.9
Optimal Cycle:	0	Level Of Service:	A

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 1	0 0		0 0 2	0 1		1 0	0 0 2		0 0	0 0 0	
Volume Module:												
Base Vol:	71	6	0	0	5	5	12	0	422	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	71	6	0	0	5	5	12	0	422	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.80	0.80	0.80	0.74	0.74	0.74	0.73	0.73	0.73	1.00	1.00	1.00
PHF Volume:	88	7	0	0	7	7	16	0	579	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	7	0	0	7	7	16	0	579	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	7	0	0	7	7	16	0	579	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1080	583	0	0	1121	629	669	0	1723	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.08	0.01	xxxx	xxxx	0.01	0.01	0.02	xxxx	0.34	xxxx	xxxx	xxxx
Crit Moves:	****					****			****			
Delay/Veh:	9.5	8.5	0.0	0.0	8.7	8.0	8.2	0.0	8.9	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.5	8.5	0.0	0.0	8.7	8.0	8.2	0.0	8.9	0.0	0.0	0.0
LOS by Move:	A	A	*	*	A	A	A	*	A	*	*	*
ApproachDel:		9.4			8.4			8.8			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		9.4			8.4			8.8			xxxxxx	
LOS by Appr:		A			A			A			*	
AllWayAvgQ:	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0

****

Note: Queue reported is the number of cars per lane.

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University Hills
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

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Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.230
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.0
Optimal Cycle:	0	Level Of Service:	A

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 1	0 0		0 0 2	0 1		1 0 0	0 2		0 0 0	0 0	
Volume Module:												
Base Vol:	233	12	0	0	11	8	3	0	136	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	233	12	0	0	11	8	3	0	136	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.79	0.79	0.79	0.59	0.59	0.59	0.82	0.82	0.82	1.00	1.00	1.00
PHF Volume:	294	15	0	0	19	13	4	0	166	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	294	15	0	0	19	13	4	0	166	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	294	15	0	0	19	13	4	0	166	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1282	702	0	0	1227	698	591	0	1473	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.23	0.02	xxxx	xxxx	0.02	0.02	0.01	xxxx	0.11	xxxx	xxxx	xxxx
Crit Moves:	****					****			****			
Delay/Veh:	9.8	7.8	0.0	0.0	8.4	7.7	8.6	0.0	7.9	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.8	7.8	0.0	0.0	8.4	7.7	8.6	0.0	7.9	0.0	0.0	0.0
LOS by Move:	A	A	*	*	A	A	A	*	A	*	*	*
ApproachDel:		9.7			8.1			7.9			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		9.7			8.1			7.9			xxxxxx	
LOS by Appr:		A			A			A			*	
AllWayAvgQ:	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0

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Note: Queue reported is the number of cars per lane.

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University Hills
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Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.398
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 54.9
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Ignore			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	274	974	412	33	92	35	76	60	72	222	163	147
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	274	974	412	33	92	35	76	60	72	222	163	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.84	0.84	0.84	0.84	0.84	0.00	0.78	0.78	0.78
PHF Volume:	309	1099	465	39	109	42	91	72	0	286	210	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	309	1099	465	39	109	42	91	72	0	286	210	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	309	1099	465	39	109	42	91	72	0	286	210	190
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.45	0.55	1.00	2.00	1.00	1.29	0.90	0.81
Final Sat.:	1700	3600	1800	1700	2608	992	1700	3600	1800	2199	1615	1456
Capacity Analysis Module:												
Vol/Sat:	0.18	0.31	0.26	0.02	0.04	0.04	0.05	0.02	0.00	0.13	0.13	0.13
Crit Moves:	****				****			****			****	
Green/Cycle:	0.15	0.33	0.59	0.08	0.26	0.26	0.26	0.26	0.00	0.26	0.26	0.26
Volume/Cap:	1.18	0.92	0.44	0.28	0.16	0.16	0.20	0.08	0.00	0.50	0.50	0.50
Delay/Veh:	169.2	53.3	14.8	56.9	37.1	37.1	37.7	36.2	0.0	41.0	41.0	41.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	169.2	53.3	14.8	56.9	37.1	37.1	37.7	36.2	0.0	41.0	41.0	41.0
LOS by Move:	F	D	B	E	D	D	D	D	A	D	D	D
HCM2kAvgQ:	22	25	10	2	2	2	3	1	0	8	8	8

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.734
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 68.3
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Ignore			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	1 0 2	0	1	1 0 1	1	0	1 0 2	0	1	1 1 0	1	0
Volume Module:												
Base Vol:	244	706	381	111	427	44	29	161	307	604	231	93
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	244	706	381	111	427	44	29	161	307	604	231	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.75	0.75	0.75	0.72	0.72	0.00	0.62	0.62	0.62
PHF Volume:	276	800	431	149	573	59	41	225	0	974	373	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	276	800	431	149	573	59	41	225	0	974	373	150
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	276	800	431	149	573	59	41	225	0	974	373	150
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.81	0.19	1.00	2.00	1.00	1.99	0.72	0.29
Final Sat.:	1700	3600	1800	1700	3264	336	1700	3600	1800	3385	1295	521
Capacity Analysis Module:												
Vol/Sat:	0.16	0.22	0.24	0.09	0.18	0.18	0.02	0.06	0.00	0.29	0.29	0.29
Crit Moves:	****				****			****			****	
Green/Cycle:	0.15	0.31	0.57	0.10	0.26	0.26	0.26	0.26	0.00	0.27	0.27	0.27
Volume/Cap:	1.08	0.72	0.42	0.85	0.67	0.67	0.09	0.24	0.00	1.08	1.08	1.08
Delay/Veh:	135.9	42.3	15.8	87.5	44.9	44.9	36.4	37.9	0.0	98.2	98.2	98.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	135.9	42.3	15.8	87.5	44.9	44.9	36.4	37.9	0.0	98.2	98.2	98.2
LOS by Move:	F	D	B	F	D	D	D	D	A	F	F	F
HCM2kAvgQ:	18	15	9	9	12	12	1	4	0	30	30	30

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec): 105 Critical Vol./Cap.(X): 0.727
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 36.9
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		34		34		10		34		34	
Lanes:	2	0	2	1	0		1	0	2	1	0		2	0	1	1	0		2	0	1	1	0	
Volume Module:																								
Base Vol:	132		1262		168		32		252		85		198		366		180		329		291		78	
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	132		1262		168		32		252		85		198		366		180		329		291		78	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.83		0.83		0.83		0.80		0.80		0.80		0.73		0.73		0.73		0.86		0.86		0.86	
PHF Volume:	159		1524		203		40		313		106		272		502		247		384		340		91	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	159		1524		203		40		313		106		272		502		247		384		340		91	
PCE Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
MLF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
FinalVolume:	159		1524		203		40		313		106		272		502		247		384		340		91	
Saturation Flow Module:																								
Sat/Lane:	1800		1800		1800		1800		1800		1800		1800		1800		1800		1800		1800		1800	
Adjustment:	0.89		1.00		1.00		0.94		1.00		1.00		0.89		1.00		1.00		0.89		1.00		1.00	
Lanes:	2.00		2.65		0.35		1.00		2.24		0.76		2.00		1.34		0.66		2.00		1.58		0.42	
Final Sat.:	3200		4766		634		1700		4038		1362		3200		2413		1187		3200		2839		761	
Capacity Analysis Module:																								
Vol/Sat:	0.05		0.32		0.32		0.02		0.08		0.08		0.08		0.21		0.21		0.12		0.12		0.12	
Crit Moves:			****				****								****				****					
Green/Cycle:	0.12		0.37		0.37		0.10		0.34		0.34		0.10		0.32		0.32		0.14		0.36		0.36	
Volume/Cap:	0.41		0.87		0.87		0.25		0.23		0.23		0.81		0.64		0.64		0.87		0.34		0.34	
Delay/Veh:	43.3		35.5		35.5		44.8		24.8		24.8		59.6		31.5		31.5		61.4		24.8		24.8	
User DelAdj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
AdjDel/Veh:	43.3		35.5		35.5		44.8		24.8		24.8		59.6		31.5		31.5		61.4		24.8		24.8	
LOS by Move:	D		D		D		D		C		C		E		C		C		E		C		C	
HCM2kAvgQ:	3		20		20		1		3		3		7		11		11		10		5		5	

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec):	125	Critical Vol./Cap.(X):	0.787
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	48.5
Optimal Cycle:	OPTIMIZED	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	34	34	10	34	34
Lanes:	2 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	668	955	94	125	1036	146	130	297	132	405	365	95
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	668	955	94	125	1036	146	130	297	132	405	365	95
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.88	0.88	0.88	0.97	0.97	0.97	0.94	0.94	0.94
PHF Volume:	735	1051	103	142	1177	166	134	306	136	432	390	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	735	1051	103	142	1177	166	134	306	136	432	390	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	735	1051	103	142	1177	166	134	306	136	432	390	101
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.73	0.27	1.00	2.63	0.37	2.00	1.38	0.62	2.00	1.59	0.41
Final Sat.:	3200	4916	484	1700	4733	667	3200	2492	1108	3200	2857	743
Capacity Analysis Module:												
Vol/Sat:	0.23	0.21	0.21	0.08	0.25	0.25	0.04	0.12	0.12	0.14	0.14	0.14
Crit Moves:	****				****			****		****		
Green/Cycle:	0.25	0.38	0.38	0.14	0.27	0.27	0.10	0.27	0.27	0.15	0.32	0.32
Volume/Cap:	0.92	0.57	0.57	0.59	0.92	0.92	0.44	0.45	0.45	0.92	0.42	0.42
Delay/Veh:	62.1	31.2	31.2	54.4	54.6	54.6	54.4	38.1	38.1	76.8	33.4	33.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.1	31.2	31.2	54.4	54.6	54.6	54.4	38.1	38.1	76.8	33.4	33.4
LOS by Move:	E	C	C	D	D	D	D	D	D	E	C	C
HCM2kAvgQ:	19	12	12	6	21	21	3	7	7	13	7	7

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

Cycle (sec):	90	Critical Vol./Cap.(X):	0.911
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	31.3
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	107	529	0	0	1198	147	0	0	0	484	0	1523
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	107	529	0	0	1198	147	0	0	0	484	0	1523
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.81	0.81	0.81	1.00	1.00	1.00	0.84	0.84	0.84
PHF Volume:	129	637	0	0	1477	181	0	0	0	573	0	1805
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	129	637	0	0	1477	181	0	0	0	573	0	1805
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	129	637	0	0	1477	181	0	0	0	573	0	1805
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1700	3600	0	0	5400	1800	0	0	0	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.18	0.00	0.00	0.27	0.10	0.00	0.00	0.00	0.34	0.00	0.50
Crit Moves:	****				****							****
Green/Cycle:	0.11	0.40	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.53	0.00	0.53
Volume/Cap:	0.68	0.44	0.00	0.00	0.94	0.35	0.00	0.00	0.00	0.63	0.00	0.94
Delay/Veh:	48.3	19.8	0.0	0.0	42.9	25.6	0.0	0.0	0.0	16.4	0.0	29.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.3	19.8	0.0	0.0	42.9	25.6	0.0	0.0	0.0	16.4	0.0	29.8
LOS by Move:	D	B	A	A	D	C	A	A	A	B	A	C
HCM2kAvgQ:	5	7	0	0	18	4	0	0	0	12	0	29

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

Cycle (sec):	70	Critical Vol./Cap.(X):	0.796
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	22.2
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	72	645	0	0	1332	217	0	0	0	331	0	1099
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	72	645	0	0	1332	217	0	0	0	331	0	1099
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.77	0.77	0.77	1.00	1.00	1.00	0.85	0.85	0.85
PHF Volume:	81	726	0	0	1723	281	0	0	0	392	0	1301
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	726	0	0	1723	281	0	0	0	392	0	1301
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	81	726	0	0	1723	281	0	0	0	392	0	1301
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1700	3600	0	0	5400	1800	0	0	0	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.20	0.00	0.00	0.32	0.16	0.00	0.00	0.00	0.23	0.00	0.36
Crit Moves:	****				****							****
Green/Cycle:	0.14	0.50	0.00	0.00	0.36	0.36	0.00	0.00	0.00	0.41	0.00	0.41
Volume/Cap:	0.33	0.40	0.00	0.00	0.88	0.43	0.00	0.00	0.00	0.56	0.00	0.88
Delay/Veh:	27.8	10.9	0.0	0.0	26.0	17.3	0.0	0.0	0.0	16.9	0.0	25.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.8	10.9	0.0	0.0	26.0	17.3	0.0	0.0	0.0	16.9	0.0	25.7
LOS by Move:	C	B	A	A	C	B	A	A	A	B	A	C
HCM2kAvgQ:	2	5	0	0	15	5	0	0	0	7	0	17

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.826
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	17.8
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	1 0		2 0 1	0 0		1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	495	304	1098	639	0	146	0	63	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	495	304	1098	639	0	146	0	63	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.85	0.85	0.85	0.86	0.86	0.86	1.00	1.00	1.00
PHF Volume:	0	538	330	1287	749	0	169	0	73	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	538	330	1287	749	0	169	0	73	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	538	330	1287	749	0	169	0	73	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.24	0.76	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2230	1370	3200	1800	0	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.40	0.42	0.00	0.10	0.00	0.04	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.30	0.30	0.48	0.78	0.00	0.12	0.00	0.12	0.00	0.00	0.00
Volume/Cap:	0.00	0.80	0.80	0.84	0.53	0.00	0.84	0.00	0.34	0.00	0.00	0.00
Delay/Veh:	0.0	23.8	23.8	17.7	2.9	0.0	50.9	0.0	25.2	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	23.8	23.8	17.7	2.9	0.0	50.9	0.0	25.2	0.0	0.0	0.0
LOS by Move:	A	C	C	B	A	A	D	A	C	A	A	A
HCM2kAvgQ:	0	10	10	15	6	0	6	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

University Hills
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.867
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	19.0
Optimal Cycle:	OPTIMIZED	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0	1 1	0	2 0	1 0	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	647	552	970	725	0	93	0	78	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	647	552	970	725	0	93	0	78	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.80	0.80	0.80	0.88	0.88	0.88	1.00	1.00	1.00
PHF Volume:	0	660	563	1209	904	0	106	0	89	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	660	563	1209	904	0	106	0	89	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	660	563	1209	904	0	106	0	89	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.08	0.92	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	1943	1657	3200	1800	0	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.34	0.34	0.38	0.50	0.00	0.06	0.00	0.05	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.39	0.39	0.44	0.83	0.00	0.07	0.00	0.07	0.00	0.00	0.00
Volume/Cap:	0.00	0.87	0.87	0.87	0.61	0.00	0.87	0.00	0.69	0.00	0.00	0.00
Delay/Veh:	0.0	22.7	22.7	21.3	2.5	0.0	71.2	0.0	41.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	22.7	22.7	21.3	2.5	0.0	71.2	0.0	41.6	0.0	0.0	0.0
LOS by Move:	A	C	C	C	A	A	E	A	D	A	A	A
HCM2kAvgQ:	0	14	14	15	7	0	5	0	3	0	0	0

Note: Queue reported is the number of cars per lane.

University Hills
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Little Mountain Drive (NS) at Northpark Boulevard (EW)

Cycle (sec):	121	Critical Vol./Cap.(X):	0.991
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	34.6
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	124	64	78	4	11	8	28	275	44	166	482	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	124	64	78	4	11	8	28	275	44	166	482	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	124	64	78	4	11	8	28	275	44	166	482	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.74	0.74	0.74	0.72	0.72	0.72	0.92	0.92	0.92	0.96	0.96	0.96
PHF Volume:	168	87	106	6	15	11	31	301	48	173	502	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	168	87	106	6	15	11	31	301	48	173	502	31
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	168	87	106	6	15	11	31	301	48	173	502	31
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.06	0.00	0.00	0.01	0.00	0.08	0.03	0.00	0.14	0.02
Crit Moves:	****					****		****		****		
Green/Cycle:	0.23	0.34	0.34	0.12	0.23	0.23	0.12	0.23	0.23	0.24	0.35	0.35
Volume/Cap:	0.43	0.07	0.17	0.03	0.02	0.03	0.15	0.36	0.12	0.43	0.40	0.05
Delay/Veh:	40.3	26.9	28.0	46.8	35.9	36.0	47.6	39.3	36.8	39.7	30.2	26.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.3	26.9	28.0	46.8	35.9	36.0	47.6	39.3	36.8	39.7	30.2	26.3
LOS by Move:	D	C	C	D	D	D	D	D	D	D	C	C
HCM2kAvgQ:	6	1	3	0	0	0	1	5	1	6	7	1

Note: Queue reported is the number of cars per lane.

University Hills
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Little Mountain Drive (NS) at Northpark Boulevard (EW)

Cycle (sec): 121 Critical Vol./Cap.(X): 0.991
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 31.3
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	89	5	101	22	33	44	27	372	137	56	233	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	5	101	22	33	44	27	372	137	56	233	4
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	89	5	101	22	33	44	27	372	137	56	233	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.62	0.62	0.62	0.96	0.96	0.96	0.87	0.87	0.87
PHF Volume:	101	6	115	35	53	71	28	387	142	64	267	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	6	115	35	53	71	28	387	142	64	267	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	6	115	35	53	71	28	387	142	64	267	5
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.06	0.00	0.01	0.04	0.00	0.11	0.08	0.00	0.07	0.00
Crit Moves:	****					****		****		****		
Green/Cycle:	0.20	0.32	0.32	0.11	0.23	0.23	0.13	0.37	0.37	0.13	0.37	0.37
Volume/Cap:	0.29	0.00	0.20	0.18	0.06	0.17	0.13	0.29	0.21	0.29	0.20	0.01
Delay/Veh:	41.2	28.0	30.0	48.9	36.3	37.4	46.7	27.1	26.3	48.4	26.2	24.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.2	28.0	30.0	48.9	36.3	37.4	46.7	27.1	26.3	48.4	26.2	24.3
LOS by Move:	D	C	C	D	D	D	D	C	C	D	C	C
HCM2kAvgQ:	3	0	3	1	1	2	1	5	4	2	3	0

Note: Queue reported is the number of cars per lane.

University Hills
Existing
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 H Street (NS) at Northpark Boulevard (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.314
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	14.5
Optimal Cycle:	OPTIMIZED	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	10	18	18	10	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	33	74	24	67	118	117	91	94	27	27	181	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	74	24	67	118	117	91	94	27	27	181	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.78	0.78	0.78	0.86	0.86	0.86	0.94	0.94	0.94
PHF Volume:	41	92	30	86	152	151	105	109	31	29	193	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	92	30	86	152	151	105	109	31	29	193	80
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	92	30	86	152	151	105	109	31	29	193	80
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.76	0.24	1.00	0.50	0.50	1.00	1.55	0.45	1.00	2.00	1.00
Final Sat.:	1700	1359	441	1700	904	896	1700	2797	803	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.02	0.07	0.07	0.05	0.17	0.17	0.06	0.04	0.04	0.02	0.05	0.04
Crit Moves:					****		****				****	
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.16	0.29	0.29	0.16	0.29	0.29
Volume/Cap:	0.05	0.15	0.15	0.11	0.37	0.37	0.38	0.13	0.13	0.10	0.18	0.15
Delay/Veh:	9.6	10.1	10.1	9.9	11.5	11.5	24.1	16.3	16.3	22.4	16.6	16.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.6	10.1	10.1	9.9	11.5	11.5	24.1	16.3	16.3	22.4	16.6	16.5
LOS by Move:	A	B	B	A	B	B	C	B	B	C	B	B
HCM2kAvgQ:	0	1	1	1	4	4	2	1	1	1	1	1

Note: Queue reported is the number of cars per lane.

University Hills
Existing
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 H Street (NS) at Northpark Boulevard (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.179
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 15.7
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	10	18	18	10	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	53	43	38	15	25	20	37	296	36	23	206	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	53	43	38	15	25	20	37	296	36	23	206	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.87	0.87	0.87	0.97	0.97	0.97	0.89	0.89	0.89
PHF Volume:	61	49	43	17	29	23	38	306	37	26	231	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	61	49	43	17	29	23	38	306	37	26	231	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	61	49	43	17	29	23	38	306	37	26	231	18
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.53	0.47	1.00	0.56	0.44	1.00	1.78	0.22	1.00	2.00	1.00
Final Sat.:	1700	956	844	1700	1000	800	1700	3210	390	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.04	0.05	0.05	0.01	0.03	0.03	0.02	0.10	0.10	0.02	0.06	0.01
Crit Moves:		****						****		****		
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.16	0.29	0.29	0.16	0.29	0.29
Volume/Cap:	0.08	0.11	0.11	0.02	0.06	0.06	0.14	0.33	0.33	0.09	0.22	0.03
Delay/Veh:	9.7	9.9	9.9	9.4	9.6	9.6	22.5	17.4	17.4	22.3	16.8	15.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	9.9	9.9	9.4	9.6	9.6	22.5	17.4	17.4	22.3	16.8	15.8
LOS by Move:	A	A	A	A	A	A	C	B	B	C	B	B
HCM2kAvgQ:	1	1	1	0	1	1	1	3	3	1	2	0

Note: Queue reported is the number of cars per lane.

Opening Year (2011) Without Project - Without Improvements

University Hills
Opening Year (2011) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #1 Palm Avenue (NS) at Kendall Drive (EW)

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.563
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	32.5
Optimal Cycle: OPTIMIZED		Level Of Service:	C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	24	24	10	24	24
Lanes:	1 0 2	0	1	1 0 1	1	0	1 0 1	0	1	1 0 1	0	1
Volume Module:												
Base Vol:	112	288	430	232	662	56	30	87	123	275	72	142
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	288	430	232	662	56	30	87	123	275	72	142
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.89	0.89	0.89	0.87	0.87	0.87	0.88	0.88	0.88
PHF Volume:	134	344	513	262	748	63	35	100	142	313	82	162
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	344	513	262	748	63	35	100	142	313	82	162
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	134	344	513	262	748	63	35	100	142	313	82	162
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.84	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3319	281	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.08	0.10	0.29	0.15	0.23	0.23	0.02	0.06	0.08	0.18	0.05	0.09
Crit Moves:		****		****					****	****		
Green/Cycle:	0.13	0.20	0.44	0.20	0.27	0.27	0.15	0.27	0.27	0.24	0.36	0.36
Volume/Cap:	0.59	0.48	0.65	0.76	0.84	0.84	0.14	0.21	0.30	0.76	0.13	0.25
Delay/Veh:	40.9	32.3	21.4	43.4	37.4	37.4	33.5	25.8	26.6	39.8	19.5	20.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.9	32.3	21.4	43.4	37.4	37.4	33.5	25.8	26.6	39.8	19.5	20.5
LOS by Move:	D	C	C	D	D	D	C	C	C	D	B	C
HCM2kAvgQ:	5	5	12	9	13	13	1	2	3	10	2	3

****

Note: Queue reported is the number of cars per lane.

****

University Hills
Opening Year (2011) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Palm Avenue (NS) at Kendall Drive (EW)

Cycle (sec):	85	Critical Vol./Cap.(X):	0.613
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	29.5
Optimal Cycle: OPTIMIZED		Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	24	24	10	24	24
Lanes:	1 0 2	0 1		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	140	502	403	160	281	51	45	67	139	350	59	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	140	502	403	160	281	51	45	67	139	350	59	144
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.92	0.92	0.92	0.83	0.83	0.83	0.96	0.96	0.96
PHF Volume:	147	526	422	174	306	55	54	81	167	364	61	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	526	422	174	306	55	54	81	167	364	61	150
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	147	526	422	174	306	55	54	81	167	364	61	150
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.69	0.31	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3047	553	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.09	0.15	0.23	0.10	0.10	0.10	0.03	0.04	0.09	0.21	0.03	0.08
Crit Moves:		****		****					****	****		
Green/Cycle:	0.12	0.21	0.49	0.13	0.22	0.22	0.16	0.28	0.28	0.28	0.40	0.40
Volume/Cap:	0.70	0.69	0.48	0.77	0.45	0.45	0.19	0.16	0.33	0.77	0.09	0.21
Delay/Veh:	45.8	33.6	14.8	50.3	29.0	29.0	30.9	23.1	24.5	35.6	16.1	17.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.8	33.6	14.8	50.3	29.0	29.0	30.9	23.1	24.5	35.6	16.1	17.1
LOS by Move:	D	C	B	D	C	C	C	C	C	D	B	B
HCM2kAvgQ:	5	8	8	7	4	4	1	2	4	11	1	3

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #2 Campus Parkway (NS) at Kendall Drive

****

Cycle (sec):	85	Critical Vol./Cap.(X):	0.291	
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	16.1	
Optimal Cycle: OPTIMIZED		Level Of Service:	B	

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	28	0	28	10	28	0	0	28	28
Lanes:	0 0	0	0 0	1 0	0	0 2	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	33	0	47	179	484	0	0	299	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	33	0	47	179	484	0	0	299	78
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	33	0	47	179	484	0	0	299	78
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.73	0.73	0.73	0.80	0.80	0.80	0.74	0.74	0.74
PHF Volume:	0	0	0	45	0	64	223	603	0	0	406	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	45	0	64	223	603	0	0	406	106
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	45	0	64	223	603	0	0	406	106
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	2.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	3600	1700	3600	0	0	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.02	0.13	0.17	0.00	0.00	0.11	0.06
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.33	0.00	0.60	0.27	0.60	0.00	0.00	0.33	0.33
Volume/Cap:	0.00	0.00	0.00	0.08	0.00	0.03	0.48	0.28	0.00	0.00	0.34	0.18
Delay/Veh:	0.0	0.0	0.0	19.7	0.0	6.9	26.8	8.2	0.0	0.0	21.7	20.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	19.7	0.0	6.9	26.8	8.2	0.0	0.0	21.7	20.5
LOS by Move:	A	A	A	B	A	A	C	A	A	A	C	C
HCM2kAvgQ:	0	0	0	1	0	0	6	4	0	0	4	2

****

Note: Queue reported is the number of cars per lane.

****

University Hills
Opening Year (2011) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Campus Parkway (NS) at Kendall Drive

Cycle (sec):	85	Critical Vol./Cap.(X):	0.383
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	14.9
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	28	0	28	10	28	0	0	28	28
Lanes:	0 0	0	0 0	1 0	0	0 2	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	58	0	183	119	602	0	0	817	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	58	0	183	119	602	0	0	817	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94
PHF Volume:	0	0	0	64	0	201	129	652	0	0	874	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	64	0	201	129	652	0	0	874	55
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	64	0	201	129	652	0	0	874	55
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	2.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	3600	1700	3600	0	0	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.06	0.08	0.18	0.00	0.00	0.24	0.03
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.33	0.00	0.47	0.14	0.60	0.00	0.00	0.46	0.46
Volume/Cap:	0.00	0.00	0.00	0.11	0.00	0.12	0.53	0.30	0.00	0.00	0.53	0.07
Delay/Veh:	0.0	0.0	0.0	19.9	0.0	12.6	36.0	8.4	0.0	0.0	16.9	12.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	19.9	0.0	12.6	36.0	8.4	0.0	0.0	16.9	12.9
LOS by Move:	A	A	A	B	A	B	D	A	A	A	B	B
HCM2kAvgQ:	0	0	0	1	0	1	4	4	0	0	9	1

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.342
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	9.0
Optimal Cycle:	0	Level Of Service:	A

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 1	0 0		0 0 2	0 1		1 0 0	0 2		0 0 0	0 0	
Volume Module:												
Base Vol:	78	14	0	0	9	1	6	0	423	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	78	14	0	0	9	1	6	0	423	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.80	0.80	0.80	0.74	0.74	0.74	0.73	0.73	0.73	1.00	1.00	1.00
PHF Volume:	97	17	0	0	12	1	8	0	580	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	17	0	0	12	1	8	0	580	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	97	17	0	0	12	1	8	0	580	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1083	585	0	0	1114	623	661	0	1697	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.09	0.03	xxxx	xxxx	0.01	0.00	0.01	xxxx	0.34	xxxx	xxxx	xxxx
Crit Moves:	****				****				****			
Delay/Veh:	9.5	8.6	0.0	0.0	8.8	8.0	8.1	0.0	9.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.5	8.6	0.0	0.0	8.8	8.0	8.1	0.0	9.0	0.0	0.0	0.0
LOS by Move:	A	A	*	*	A	A	A	*	A	*	*	*
ApproachDel:		9.4			8.7			9.0		xxxxxx		
Delay Adj:		1.00			1.00			1.00		xxxxx		
ApprAdjDel:		9.4			8.7			9.0		xxxxxx		
LOS by Appr:		A			A			A		*		
AllWayAvgQ:	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0

****

Note: Queue reported is the number of cars per lane.

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University Hills
Opening Year (2011) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.222
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.9
Optimal Cycle: 0 Level Of Service: A

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0 1	0 0		0 0 2	0 1		1 0 0	0 2		0 0 0	0 0	
Volume Module:												
Base Vol:	226	18	0	0	17	2	2	0	134	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	226	18	0	0	17	2	2	0	134	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.79	0.79	0.79	0.59	0.59	0.59	0.82	0.82	0.82	1.00	1.00	1.00
PHF Volume:	285	23	0	0	29	3	2	0	163	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	285	23	0	0	29	3	2	0	163	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	285	23	0	0	29	3	2	0	163	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1283	703	0	0	1231	699	591	0	1474	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.22	0.03	xxxx	xxxx	0.02	0.00	0.00	xxxx	0.11	xxxx	xxxx	xxxx
Crit Moves:	****				****				****			
Delay/Veh:	9.7	7.9	0.0	0.0	8.4	7.6	8.6	0.0	7.9	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	7.9	0.0	0.0	8.4	7.6	8.6	0.0	7.9	0.0	0.0	0.0
LOS by Move:	A	A	*	*	A	A	A	*	A	*	*	*
ApproachDel:		9.6			8.3			7.9			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		9.6			8.3			7.9			xxxxxx	
LOS by Appr:		A			A			A			*	
AllWayAvgQ:	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0

****

Note: Queue reported is the number of cars per lane.

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University Hills
Opening Year (2011) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.429
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 61.5
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Ignore			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	1 0 2	0	1	1 0 1	1	0	1 0 2	0	1	1 1 0	1	0
Volume Module:												
Base Vol:	301	996	432	30	98	33	84	68	97	255	166	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	301	996	432	30	98	33	84	68	97	255	166	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.84	0.84	0.84	0.84	0.84	0.00	0.78	0.78	0.78
PHF Volume:	340	1124	488	36	116	39	100	81	0	329	214	179
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	340	1124	488	36	116	39	100	81	0	329	214	179
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	340	1124	488	36	116	39	100	81	0	329	214	179
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.50	0.50	1.00	2.00	1.00	1.41	0.87	0.72
Final Sat.:	1700	3600	1800	1700	2693	907	1700	3600	1800	2395	1559	1305
Capacity Analysis Module:												
Vol/Sat:	0.20	0.31	0.27	0.02	0.04	0.04	0.06	0.02	0.00	0.14	0.14	0.14
Crit Moves:	****				****			****			****	
Green/Cycle:	0.15	0.33	0.59	0.08	0.26	0.26	0.26	0.26	0.00	0.26	0.26	0.26
Volume/Cap:	1.30	0.94	0.46	0.26	0.17	0.17	0.23	0.09	0.00	0.53	0.53	0.53
Delay/Veh:	214.7	55.6	14.9	56.9	37.1	37.1	37.9	36.3	0.0	41.5	41.5	41.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	214.7	55.6	14.9	56.9	37.1	37.1	37.9	36.3	0.0	41.5	41.5	41.5
LOS by Move:	F	E	B	E	D	D	D	D	A	D	D	D
HCM2kAvgQ:	27	26	11	2	2	2	3	1	0	9	9	9

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) Without Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.776
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 79.4
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Ignore			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	1 0 2	0	1	1 0 1	1	0	1 0 2	0	1	1 1 0	1	0
Volume Module:												
Base Vol:	279	723	404	107	435	46	29	169	340	625	245	88
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	279	723	404	107	435	46	29	169	340	625	245	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.75	0.75	0.75	0.72	0.72	0.00	0.62	0.62	0.62
PHF Volume:	316	819	458	144	584	62	41	236	0	1008	395	142
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	316	819	458	144	584	62	41	236	0	1008	395	142
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	316	819	458	144	584	62	41	236	0	1008	395	142
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.81	0.19	1.00	2.00	1.00	2.00	0.74	0.26
Final Sat.:	1700	3600	1800	1700	3256	344	1700	3600	1800	3393	1330	478
Capacity Analysis Module:												
Vol/Sat:	0.19	0.23	0.25	0.08	0.18	0.18	0.02	0.07	0.00	0.30	0.30	0.30
Crit Moves:	****				****			****				****
Green/Cycle:	0.15	0.31	0.58	0.10	0.26	0.26	0.26	0.26	0.00	0.26	0.26	0.26
Volume/Cap:	1.21	0.72	0.44	0.83	0.69	0.69	0.09	0.25	0.00	1.14	1.14	1.14
Delay/Veh:	178.9	42.0	16.0	85.2	45.3	45.3	36.4	38.1	0.0	118.8	119	118.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	178.9	42.0	16.0	85.2	45.3	45.3	36.4	38.1	0.0	118.8	119	118.8
LOS by Move:	F	D	B	F	D	D	D	D	A	F	F	F
HCM2kAvgQ:	23	15	10	8	12	12	1	4	0	32	32	32

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) Without Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

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Intersection #7 University Parkway (NS) at Kendall Drive (EW)

****

Cycle (sec): 110 Critical Vol./Cap.(X): 0.781
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 39.4
Optimal Cycle: OPTIMIZED Level Of Service: D

****

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		34		34		10		34		34	
Lanes:	2	0	2	1	0		1	0	2	1	0		2	0	1	1	0		2	0	1	1	0	
Volume Module:																								
Base Vol:	138		1314		187		37		310		93		200		395		205		365		288		77	
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	138		1314		187		37		310		93		200		395		205		365		288		77	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.83		0.83		0.83		0.80		0.80		0.80		0.73		0.73		0.73		0.86		0.86		0.86	
PHF Volume:	167		1587		226		46		386		116		274		542		281		426		336		90	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	167		1587		226		46		386		116		274		542		281		426		336		90	
PCE Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
MLF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
FinalVolume:	167		1587		226		46		386		116		274		542		281		426		336		90	
Saturation Flow Module:																								
Sat/Lane:	1800		1800		1800		1800		1800		1800		1800		1800		1800		1800		1800		1800	
Adjustment:	0.89		1.00		1.00		0.94		1.00		1.00		0.89		1.00		1.00		0.89		1.00		1.00	
Lanes:	2.00		2.63		0.37		1.00		2.31		0.69		2.00		1.32		0.68		2.00		1.58		0.42	
Final Sat.:	3200		4727		673		1700		4154		1246		3200		2370		1230		3200		2841		759	
Capacity Analysis Module:																								
Vol/Sat:	0.05		0.34		0.34		0.03		0.09		0.09		0.09		0.23		0.23		0.13		0.12		0.12	
Crit Moves:			****				****								****				****					
Green/Cycle:	0.12		0.38		0.38		0.09		0.35		0.35		0.10		0.31		0.31		0.15		0.35		0.35	
Volume/Cap:	0.42		0.89		0.89		0.30		0.27		0.27		0.82		0.74		0.74		0.89		0.33		0.33	
Delay/Veh:	45.3		37.4		37.4		47.8		26.1		26.1		63.3		36.7		36.7		64.1		26.1		26.1	
User DelAdj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
AdjDel/Veh:	45.3		37.4		37.4		47.8		26.1		26.1		63.3		36.7		36.7		64.1		26.1		26.1	
LOS by Move:	D		D		D		D		C		C		E		D		D		E		C		C	
HCM2kAvgQ:	3		22		22		2		4		4		7		14		14		11		5		5	

****

Note: Queue reported is the number of cars per lane.

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Opening Year (2011) Without Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec): 125 Critical Vol./Cap.(X): 0.787
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 48.5
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	34	34	10	34	34
Lanes:	2 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	668	955	94	125	1036	146	130	297	132	405	365	95
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	668	955	94	125	1036	146	130	297	132	405	365	95
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.88	0.88	0.88	0.97	0.97	0.97	0.94	0.94	0.94
PHF Volume:	735	1051	103	142	1177	166	134	306	136	432	390	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	735	1051	103	142	1177	166	134	306	136	432	390	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	735	1051	103	142	1177	166	134	306	136	432	390	101
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.73	0.27	1.00	2.63	0.37	2.00	1.38	0.62	2.00	1.59	0.41
Final Sat.:	3200	4916	484	1700	4733	667	3200	2492	1108	3200	2857	743
Capacity Analysis Module:												
Vol/Sat:	0.23	0.21	0.21	0.08	0.25	0.25	0.04	0.12	0.12	0.14	0.14	0.14
Crit Moves:	****				****			****		****		
Green/Cycle:	0.25	0.38	0.38	0.14	0.27	0.27	0.10	0.27	0.27	0.15	0.32	0.32
Volume/Cap:	0.92	0.57	0.57	0.59	0.92	0.92	0.44	0.45	0.45	0.92	0.42	0.42
Delay/Veh:	62.1	31.2	31.2	54.4	54.6	54.6	54.4	38.1	38.1	76.8	33.4	33.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.1	31.2	31.2	54.4	54.6	54.6	54.4	38.1	38.1	76.8	33.4	33.4
LOS by Move:	E	C	C	D	D	D	D	D	D	E	C	C
HCM2kAvgQ:	19	12	12	6	21	21	3	7	7	13	7	7

Note: Queue reported is the number of cars per lane.

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Opening Year (2011) Without Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.964
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 38.7
Optimal Cycle: OPTIMIZED Level Of Service: D

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	119	531	0	0	1309	191	0	0	0	471	0	1589
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	119	531	0	0	1309	191	0	0	0	471	0	1589
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.81	0.81	0.81	1.00	1.00	1.00	0.84	0.84	0.84
PHF Volume:	143	640	0	0	1614	236	0	0	0	558	0	1883
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	640	0	0	1614	236	0	0	0	558	0	1883
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	143	640	0	0	1614	236	0	0	0	558	0	1883
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1700	3600	0	0	5400	1800	0	0	0	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.18	0.00	0.00	0.30	0.13	0.00	0.00	0.00	0.33	0.00	0.52
Crit Moves:	****				****							****
Green/Cycle:	0.10	0.41	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.53	0.00	0.53
Volume/Cap:	0.84	0.44	0.00	0.00	0.98	0.43	0.00	0.00	0.00	0.61	0.00	0.98
Delay/Veh:	74.2	21.7	0.0	0.0	51.6	28.3	0.0	0.0	0.0	17.4	0.0	38.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	74.2	21.7	0.0	0.0	51.6	28.3	0.0	0.0	0.0	17.4	0.0	38.4
LOS by Move:	E	C	A	A	D	C	A	A	A	B	A	D
HCM2kAvgQ:	7	7	0	0	22	6	0	0	0	13	0	35

****

Note: Queue reported is the number of cars per lane.

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University Hills
Opening Year (2011) Without Project
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

Cycle (sec):	80	Critical Vol./Cap.(X):	0.845
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	26.0
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	78	692	0	0	1417	252	0	0	0	333	0	1188
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	78	692	0	0	1417	252	0	0	0	333	0	1188
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.77	0.77	0.77	1.00	1.00	1.00	0.85	0.85	0.85
PHF Volume:	88	779	0	0	1833	326	0	0	0	394	0	1406
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	779	0	0	1833	326	0	0	0	394	0	1406
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	779	0	0	1833	326	0	0	0	394	0	1406
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1700	3600	0	0	5400	1800	0	0	0	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.22	0.00	0.00	0.34	0.18	0.00	0.00	0.00	0.23	0.00	0.39
Crit Moves:	****				****							****
Green/Cycle:	0.13	0.50	0.00	0.00	0.37	0.37	0.00	0.00	0.00	0.43	0.00	0.43
Volume/Cap:	0.41	0.44	0.00	0.00	0.91	0.49	0.00	0.00	0.00	0.54	0.00	0.91
Delay/Veh:	33.6	13.1	0.0	0.0	30.7	19.8	0.0	0.0	0.0	17.9	0.0	30.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.6	13.1	0.0	0.0	30.7	19.8	0.0	0.0	0.0	17.9	0.0	30.1
LOS by Move:	C	B	A	A	C	B	A	A	A	B	A	C
HCM2kAvgQ:	3	6	0	0	19	6	0	0	0	8	0	21

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.875
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	20.3
Optimal Cycle: OPTIMIZED		Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0	1 1	0	2 0	1 0	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	504	333	1187	637	0	146	0	63	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	504	333	1187	637	0	146	0	63	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.85	0.85	0.85	0.86	0.86	0.86	1.00	1.00	1.00
PHF Volume:	0	548	362	1392	747	0	169	0	73	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	548	362	1392	747	0	169	0	73	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	548	362	1392	747	0	169	0	73	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.20	0.80	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2168	1432	3200	1800	0	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.43	0.41	0.00	0.10	0.00	0.04	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.30	0.30	0.49	0.79	0.00	0.11	0.00	0.11	0.00	0.00	0.00
Volume/Cap:	0.00	0.84	0.84	0.89	0.53	0.00	0.89	0.00	0.36	0.00	0.00	0.00
Delay/Veh:	0.0	25.8	25.8	20.7	2.7	0.0	62.8	0.0	25.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	25.8	25.8	20.7	2.7	0.0	62.8	0.0	25.8	0.0	0.0	0.0
LOS by Move:	A	C	C	C	A	A	E	A	C	A	A	A
HCM2kAvgQ:	0	11	11	17	6	0	6	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

****

Cycle (sec):	60	Critical Vol./Cap.(X):	0.928
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	23.7
Optimal Cycle: OPTIMIZED		Level Of Service:	C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0	1 1	0	2 0	1 0	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	680	550	1060	730	0	110	0	80	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	680	550	1060	730	0	110	0	80	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.80	0.80	0.80	0.88	0.88	0.88	1.00	1.00	1.00
PHF Volume:	0	694	561	1322	910	0	125	0	91	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	694	561	1322	910	0	125	0	91	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	694	561	1322	910	0	125	0	91	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.11	0.89	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	1990	1610	3200	1800	0	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.35	0.35	0.41	0.51	0.00	0.07	0.00	0.05	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.38	0.38	0.45	0.82	0.00	0.08	0.00	0.08	0.00	0.00	0.00
Volume/Cap:	0.00	0.93	0.93	0.93	0.62	0.00	0.93	0.00	0.64	0.00	0.00	0.00
Delay/Veh:	0.0	29.2	29.2	26.5	2.7	0.0	83.4	0.0	36.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	29.2	29.2	26.5	2.7	0.0	83.4	0.0	36.0	0.0	0.0	0.0
LOS by Move:	A	C	C	C	A	A	F	A	D	A	A	A
HCM2kAvgQ:	0	16	16	18	7	0	6	0	3	0	0	0

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Note: Queue reported is the number of cars per lane.

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University Hills
Opening Year (2011) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #11 Little Mountain Drive (NS) at Northpark Boulevard (EW)

****

Cycle (sec): 121 Critical Vol./Cap.(X): 0.991
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 34.6
Optimal Cycle: OPTIMIZED Level Of Service: C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	121	63	84	6	14	10	27	290	41	165	489	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	63	84	6	14	10	27	290	41	165	489	31
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	63	84	6	14	10	27	290	41	165	489	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.74	0.74	0.74	0.72	0.72	0.72	0.92	0.92	0.92	0.96	0.96	0.96
PHF Volume:	164	85	114	8	19	14	30	317	45	172	509	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	85	114	8	19	14	30	317	45	172	509	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	164	85	114	8	19	14	30	317	45	172	509	32
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.06	0.00	0.01	0.01	0.00	0.09	0.02	0.00	0.14	0.02
Crit Moves:	****				****			****		****		
Green/Cycle:	0.23	0.34	0.34	0.12	0.23	0.23	0.12	0.23	0.23	0.24	0.35	0.35
Volume/Cap:	0.42	0.07	0.19	0.04	0.02	0.03	0.14	0.38	0.11	0.42	0.41	0.05
Delay/Veh:	40.4	27.0	28.3	47.0	35.9	36.1	47.5	39.5	36.8	39.4	30.2	26.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.4	27.0	28.3	47.0	35.9	36.1	47.5	39.5	36.8	39.4	30.2	26.2
LOS by Move:	D	C	C	D	D	D	D	D	D	D	C	C
HCM2kAvgQ:	6	1	3	0	0	0	1	5	1	6	7	1

****

Note: Queue reported is the number of cars per lane.

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University Hills
Opening Year (2011) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Little Mountain Drive (NS) at Northpark Boulevard (EW)

Cycle (sec): 121 Critical Vol./Cap.(X): 0.991
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 31.6
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	91	7	111	25	37	47	37	393	140	63	251	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	7	111	25	37	47	37	393	140	63	251	6
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	7	111	25	37	47	37	393	140	63	251	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.62	0.62	0.62	0.96	0.96	0.96	0.87	0.87	0.87
PHF Volume:	103	8	126	40	59	76	38	409	146	72	288	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	8	126	40	59	76	38	409	146	72	288	7
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	8	126	40	59	76	38	409	146	72	288	7
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.07	0.00	0.02	0.04	0.00	0.11	0.08	0.00	0.08	0.00
Crit Moves:	****					****		****		****		
Green/Cycle:	0.20	0.32	0.32	0.11	0.23	0.23	0.13	0.37	0.37	0.14	0.37	0.37
Volume/Cap:	0.31	0.01	0.22	0.21	0.07	0.18	0.17	0.31	0.22	0.31	0.21	0.01
Delay/Veh:	42.1	28.4	30.7	49.3	36.4	37.5	46.9	27.4	26.5	47.7	26.0	23.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.1	28.4	30.7	49.3	36.4	37.5	46.9	27.4	26.5	47.7	26.0	23.9
LOS by Move:	D	C	C	D	D	D	D	C	C	D	C	C
HCM2kAvgQ:	4	0	3	2	1	2	1	5	4	3	4	0

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 H Street (NS) at Northpark Boulevard (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.324
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	14.6
Optimal Cycle: OPTIMIZED		Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	10	18	18	10	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	36	77	26	70	115	122	96	104	28	27	193	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	77	26	70	115	122	96	104	28	27	193	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.78	0.78	0.78	0.86	0.86	0.86	0.94	0.94	0.94
PHF Volume:	45	96	32	90	148	157	111	121	32	29	206	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	96	32	90	148	157	111	121	32	29	206	82
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	96	32	90	148	157	111	121	32	29	206	82
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.75	0.25	1.00	0.49	0.51	1.00	1.58	0.42	1.00	2.00	1.00
Final Sat.:	1700	1346	454	1700	873	927	1700	2836	764	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.05	0.17	0.17	0.07	0.04	0.04	0.02	0.06	0.05
Crit Moves:					****		****				****	
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.16	0.29	0.29	0.16	0.29	0.29
Volume/Cap:	0.06	0.16	0.16	0.12	0.38	0.38	0.41	0.15	0.15	0.10	0.20	0.16
Delay/Veh:	9.6	10.1	10.1	9.9	11.5	11.5	24.3	16.4	16.4	22.4	16.7	16.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.6	10.1	10.1	9.9	11.5	11.5	24.3	16.4	16.4	22.4	16.7	16.5
LOS by Move:	A	B	B	A	B	B	C	B	B	C	B	B
HCM2kAvgQ:	1	1	1	1	4	4	2	1	1	1	2	1

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 H Street (NS) at Northpark Boulevard (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.186
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	15.8
Optimal Cycle:	OPTIMIZED	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	10	18	18	10	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	50	45	35	18	28	24	45	317	37	24	226	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	45	35	18	28	24	45	317	37	24	226	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.87	0.87	0.87	0.97	0.97	0.97	0.89	0.89	0.89
PHF Volume:	57	51	40	21	32	28	46	327	38	27	253	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	57	51	40	21	32	28	46	327	38	27	253	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	57	51	40	21	32	28	46	327	38	27	253	22
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.56	0.44	1.00	0.54	0.46	1.00	1.79	0.21	1.00	2.00	1.00
Final Sat.:	1700	1012	788	1700	969	831	1700	3224	376	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.03	0.05	0.05	0.01	0.03	0.03	0.03	0.10	0.10	0.02	0.07	0.01
Crit Moves:		****						****		****		
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.16	0.29	0.29	0.16	0.29	0.29
Volume/Cap:	0.07	0.11	0.11	0.03	0.07	0.07	0.17	0.35	0.35	0.10	0.24	0.04
Delay/Veh:	9.7	9.9	9.9	9.5	9.7	9.7	22.7	17.6	17.6	22.3	16.9	15.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	9.9	9.9	9.5	9.7	9.7	22.7	17.6	17.6	22.3	16.9	15.8
LOS by Move:	A	A	A	A	A	A	C	B	B	C	B	B
HCM2kAvgQ:	1	1	1	0	1	1	1	3	3	1	2	0

Note: Queue reported is the number of cars per lane.

Opening Year (2011) With Project - Without Improvements

University Hills
Opening Year (2011) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Palm Avenue (NS) at Kendall Drive (EW)

Cycle (sec):	95	Critical Vol./Cap.(X):	0.639
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	33.6
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	24	24	10	24	24
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	112	288	430	232	662	56	30	87	123	275	72	142
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	112	288	430	232	662	56	30	87	123	275	72	142
Added Vol:	0	0	6	1	0	0	0	1	0	27	4	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	288	436	233	662	56	30	88	123	302	76	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.89	0.89	0.89	0.87	0.87	0.87	0.88	0.88	0.88
PHF Volume:	134	344	520	263	748	63	35	101	142	344	87	166
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	134	344	520	263	748	63	35	101	142	344	87	166
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	134	344	520	263	748	63	35	101	142	344	87	166
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.84	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3319	281	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.08	0.10	0.29	0.15	0.23	0.23	0.02	0.06	0.08	0.20	0.05	0.09
Crit Moves:	****				****				****	****		
Green/Cycle:	0.11	0.22	0.48	0.18	0.29	0.29	0.15	0.25	0.25	0.26	0.36	0.36
Volume/Cap:	0.75	0.43	0.60	0.86	0.77	0.77	0.13	0.22	0.31	0.77	0.13	0.25
Delay/Veh:	57.1	32.4	19.0	59.3	34.0	34.0	35.1	28.4	29.2	40.0	20.2	21.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.1	32.4	19.0	59.3	34.0	34.0	35.1	28.4	29.2	40.0	20.2	21.3
LOS by Move:	E	C	B	E	C	C	D	C	C	D	C	C
HCM2kAvgQ:	6	5	11	11	13	13	1	2	3	12	2	3

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Palm Avenue (NS) at Kendall Drive (EW)

Cycle (sec):	85	Critical Vol./Cap.(X):	0.625
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	29.9
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	24	24	10	24	24
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	140	502	403	160	281	51	45	67	139	350	59	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	140	502	403	160	281	51	45	67	139	350	59	144
Added Vol:	0	0	26	4	0	0	0	4	0	13	2	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	140	502	429	164	281	51	45	71	139	363	61	146
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.92	0.92	0.92	0.83	0.83	0.83	0.96	0.96	0.96
PHF Volume:	147	526	449	178	306	55	54	85	167	377	63	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	526	449	178	306	55	54	85	167	377	63	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	147	526	449	178	306	55	54	85	167	377	63	152
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.69	0.31	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3600	1800	1700	3047	553	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.09	0.15	0.25	0.10	0.10	0.10	0.03	0.05	0.09	0.22	0.04	0.08
Crit Moves:		****		****					****	****		
Green/Cycle:	0.12	0.21	0.49	0.13	0.22	0.22	0.17	0.28	0.28	0.28	0.40	0.40
Volume/Cap:	0.70	0.69	0.51	0.79	0.45	0.45	0.19	0.17	0.33	0.79	0.09	0.21
Delay/Veh:	46.0	33.6	15.1	53.2	29.1	29.1	30.9	23.1	24.5	37.3	16.1	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.0	33.6	15.1	53.2	29.1	29.1	30.9	23.1	24.5	37.3	16.1	17.0
LOS by Move:	D	C	B	D	C	C	C	C	C	D	B	B
HCM2kAvgQ:	5	8	8	7	4	4	1	2	4	12	1	3

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Campus Parkway (NS) at Kendall Drive

Cycle (sec):	90	Critical Vol./Cap.(X):	0.302
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	16.2
Optimal Cycle:	OPTIMIZED	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	28	0	28	10	28	0	0	28	28
Lanes:	0 0	0	0 0	1 0	0	0 2	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	33	0	47	179	484	0	0	299	78
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	33	0	47	179	484	0	0	299	78
Added Vol:	0	0	0	4	0	54	11	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	37	0	101	190	484	0	0	299	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.73	0.73	0.73	0.80	0.80	0.80	0.74	0.74	0.74
PHF Volume:	0	0	0	51	0	139	237	603	0	0	406	107
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	51	0	139	237	603	0	0	406	107
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	51	0	139	237	603	0	0	406	107
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	2.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	3600	1700	3600	0	0	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.04	0.14	0.17	0.00	0.00	0.11	0.06
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.31	0.00	0.62	0.31	0.62	0.00	0.00	0.31	0.31
Volume/Cap:	0.00	0.00	0.00	0.10	0.00	0.06	0.45	0.27	0.00	0.00	0.36	0.19
Delay/Veh:	0.0	0.0	0.0	22.1	0.0	6.7	25.4	7.8	0.0	0.0	24.3	22.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	22.1	0.0	6.7	25.4	7.8	0.0	0.0	24.3	22.9
LOS by Move:	A	A	A	C	A	A	C	A	A	A	C	C
HCM2kAvgQ:	0	0	0	1	0	1	6	4	0	0	4	2

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Campus Parkway (NS) at Kendall Drive

Cycle (sec): 80 Critical Vol./Cap.(X): 0.422
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 16.4
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Permitted		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	28	0	28	10	28	0	0	28	28
Lanes:	0 0	0	0 0	1 0	0	0 2	1 0	2	0 0	0 0	2	0 1
Volume Module:												
Base Vol:	0	0	0	58	0	183	119	602	0	0	817	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	58	0	183	119	602	0	0	817	51
Added Vol:	0	0	0	2	0	26	52	0	0	0	0	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	60	0	209	171	602	0	0	817	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.91	0.91	0.91	0.92	0.92	0.92	0.94	0.94	0.94
PHF Volume:	0	0	0	66	0	230	185	652	0	0	874	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	66	0	230	185	652	0	0	874	59
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	66	0	230	185	652	0	0	874	59
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	2.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1700	0	3600	1700	3600	0	0	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.06	0.11	0.18	0.00	0.00	0.24	0.03
Crit Moves:				****			****				****	
Green/Cycle:	0.00	0.00	0.00	0.35	0.00	0.53	0.18	0.58	0.00	0.00	0.40	0.40
Volume/Cap:	0.00	0.00	0.00	0.11	0.00	0.12	0.61	0.32	0.00	0.00	0.61	0.08
Delay/Veh:	0.0	0.0	0.0	17.7	0.0	9.5	34.0	8.9	0.0	0.0	20.0	15.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	17.7	0.0	9.5	34.0	8.9	0.0	0.0	20.0	15.1
LOS by Move:	A	A	A	B	A	A	C	A	A	A	C	B
HCM2kAvgQ:	0	0	0	1	0	1	5	4	0	0	9	1

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.628
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	13.0
Optimal Cycle:	0	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	0 1	0	0 1	1 0	1	0 1	0 1	1	0 0	1! 0	0
Volume Module:												
Base Vol:	78	14	15	1	9	1	6	24	423	38	11	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	78	14	15	1	9	1	6	24	423	38	11	1
Added Vol:	0	0	52	1	0	0	0	12	0	245	57	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	14	67	2	9	1	6	36	423	283	68	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.80	0.80	0.80	0.74	0.74	0.74	0.73	0.73	0.73	0.95	0.95	0.95
PHF Volume:	97	17	83	3	12	1	8	49	580	298	72	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	17	83	3	12	1	8	49	580	298	72	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	97	17	83	3	12	1	8	49	580	298	72	5
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.17	0.83	0.36	1.64	1.00	0.14	0.86	2.00	0.80	0.19	0.01
Final Sat.:	887	89	424	149	680	456	88	528	1428	474	114	8
Capacity Analysis Module:												
Vol/Sat:	0.11	0.20	0.20	0.02	0.02	0.00	0.09	0.09	0.41	0.63	0.63	0.63
Crit Moves:		****		****					****	****		
Delay/Veh:	11.1	10.6	10.6	10.5	10.4	9.5	9.0	9.0	10.9	18.1	18.1	18.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.1	10.6	10.6	10.5	10.4	9.5	9.0	9.0	10.9	18.1	18.1	18.1
LOS by Move:	B	B	B	B	B	A	A	A	B	C	C	C
ApproachDel:		10.8			10.4			10.7			18.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.8			10.4			10.7			18.1	
LOS by Appr:		B			B			B			C	
AllWayAvgQ:	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.6	0.6	1.5	1.5	1.5

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

****

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.604
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 12.9
Optimal Cycle: 0 Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	0 1	0	0	1 1	0 1	0	1 0	1 1	0	0 1!	0 0
Volume Module:												
Base Vol:	226	18	52	1	17	2	2	17	134	38	22	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	226	18	52	1	17	2	2	17	134	38	22	1
Added Vol:	0	0	239	4	0	0	0	56	0	120	28	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	226	18	291	5	17	2	2	73	134	158	50	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.79	0.79	0.79	0.59	0.59	0.59	0.82	0.82	0.82	1.00	1.00	1.00
PHF Volume:	285	23	367	8	29	3	2	89	163	158	50	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	285	23	367	8	29	3	2	89	163	158	50	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	285	23	367	8	29	3	2	89	163	158	50	3
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.06	0.94	0.45	1.55	1.00	0.03	1.04	1.93	0.75	0.24	0.01
Final Sat.:	1065	38	609	197	682	488	15	544	1105	394	125	7
Capacity Analysis Module:												
Vol/Sat:	0.27	0.60	0.60	0.04	0.04	0.01	0.16	0.16	0.15	0.40	0.40	0.40
Crit Moves:		****		****			****			****		
Delay/Veh:	11.6	15.7	15.7	10.6	10.4	9.4	10.5	10.5	9.6	13.7	13.7	13.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.6	15.7	15.7	10.6	10.4	9.4	10.5	10.5	9.6	13.7	13.7	13.7
LOS by Move:	B	C	C	B	B	A	B	B	A	B	B	B
ApproachDel:		14.0			10.4			9.9			13.7	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		14.0			10.4			9.9			13.7	
LOS by Appr:		B			B			A			B	
AllWayAvgQ:	0.3	1.4	1.4	0.0	0.0	0.0	0.2	0.2	0.2	0.6	0.6	0.6

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Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.466
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 74.7
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Ignore			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	301	996	432	30	98	33	84	68	97	255	166	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	301	996	432	30	98	33	84	68	97	255	166	139
Added Vol:	47	0	0	0	0	0	0	8	222	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	348	996	432	30	98	33	84	76	319	255	168	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.84	0.84	0.84	0.84	0.84	0.00	0.78	0.78	0.78
PHF Volume:	393	1124	488	36	116	39	100	91	0	329	217	179
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	393	1124	488	36	116	39	100	91	0	329	217	179
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	393	1124	488	36	116	39	100	91	0	329	217	179
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.50	0.50	1.00	2.00	1.00	1.41	0.87	0.72
Final Sat.:	1700	3600	1800	1700	2693	907	1700	3600	1800	2386	1572	1301
Capacity Analysis Module:												
Vol/Sat:	0.23	0.31	0.27	0.02	0.04	0.04	0.06	0.03	0.00	0.14	0.14	0.14
Crit Moves:	****				****			****			****	
Green/Cycle:	0.15	0.33	0.59	0.08	0.26	0.26	0.26	0.26	0.00	0.26	0.26	0.26
Volume/Cap:	1.50	0.94	0.46	0.26	0.17	0.17	0.23	0.10	0.00	0.53	0.53	0.53
Delay/Veh:	299.8	55.6	14.9	56.9	37.1	37.1	37.9	36.4	0.0	41.5	41.5	41.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	299.8	55.6	14.9	56.9	37.1	37.1	37.9	36.4	0.0	41.5	41.5	41.5
LOS by Move:	F	E	B	E	D	D	D	D	A	D	D	D
HCM2kAvgQ:	35	26	11	2	2	2	3	1	0	9	9	9

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.934
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 157.4
Optimal Cycle: OPTIMIZED Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Ignore			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	279	723	404	107	435	46	29	169	340	625	245	88
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	279	723	404	107	435	46	29	169	340	625	245	88
Added Vol:	217	0	0	0	0	0	0	4	109	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	496	723	404	107	435	46	29	173	449	625	252	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.75	0.75	0.75	0.72	0.72	0.00	0.62	0.62	0.62
PHF Volume:	562	819	458	144	584	62	41	242	0	1008	406	142
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	562	819	458	144	584	62	41	242	0	1008	406	142
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	562	819	458	144	584	62	41	242	0	1008	406	142
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.81	0.19	1.00	2.00	1.00	1.99	0.75	0.26
Final Sat.:	1700	3600	1800	1700	3256	344	1700	3600	1800	3369	1358	474
Capacity Analysis Module:												
Vol/Sat:	0.33	0.23	0.25	0.08	0.18	0.18	0.02	0.07	0.00	0.30	0.30	0.30
Crit Moves:	****				****			****		****		
Green/Cycle:	0.22	0.36	0.56	0.12	0.26	0.26	0.26	0.26	0.00	0.20	0.20	0.20
Volume/Cap:	1.52	0.63	0.45	0.72	0.69	0.69	0.09	0.26	0.00	1.52	1.52	1.52
Delay/Veh:	296.4	35.2	17.2	67.5	45.3	45.3	36.4	38.1	0.0	289.3	289	289.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	296.4	35.2	17.2	67.5	45.3	45.3	36.4	38.1	0.0	289.3	289	289.3
LOS by Move:	F	D	B	E	D	D	D	D	A	F	F	F
HCM2kAvgQ:	49	14	11	7	12	12	1	4	0	45	45	45

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec):	110	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	39.8
Optimal Cycle:	OPTIMIZED	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	34	34	10	34	34
Lanes:	2 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	138	1314	187	37	310	93	200	395	205	365	288	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	138	1314	187	37	310	93	200	395	205	365	288	77
Added Vol:	0	44	0	11	207	4	1	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	138	1358	187	48	517	97	201	395	205	365	288	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.80	0.80	0.80	0.73	0.73	0.73	0.86	0.86	0.86
PHF Volume:	167	1640	226	60	643	121	276	542	281	426	336	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	167	1640	226	60	643	121	276	542	281	426	336	92
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	167	1640	226	60	643	121	276	542	281	426	336	92
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.64	0.36	1.00	2.53	0.47	2.00	1.32	0.68	2.00	1.57	0.43
Final Sat.:	3200	4746	654	1700	4547	853	3200	2370	1230	3200	2825	775
Capacity Analysis Module:												
Vol/Sat:	0.05	0.35	0.35	0.04	0.14	0.14	0.09	0.23	0.23	0.13	0.12	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.12	0.38	0.38	0.09	0.35	0.35	0.10	0.31	0.31	0.15	0.35	0.35
Volume/Cap:	0.42	0.91	0.91	0.39	0.41	0.41	0.83	0.74	0.74	0.91	0.34	0.34
Delay/Veh:	45.2	38.6	38.6	48.7	27.4	27.4	64.5	36.7	36.7	67.5	26.4	26.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.2	38.6	38.6	48.7	27.4	27.4	64.5	36.7	36.7	67.5	26.4	26.4
LOS by Move:	D	D	D	D	C	C	E	D	D	E	C	C
HCM2kAvgQ:	3	24	24	2	7	7	8	14	14	11	5	5

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.808
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 50.5
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	34	34	10	34	34
Lanes:	2 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	668	955	94	125	1036	146	130	297	132	405	365	95
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	668	955	94	125	1036	146	130	297	132	405	365	95
Added Vol:	0	202	0	6	102	2	4	0	0	0	0	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	668	1157	94	131	1138	148	134	297	132	405	365	106
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.88	0.88	0.88	0.97	0.97	0.97	0.94	0.94	0.94
PHF Volume:	735	1273	103	149	1293	168	138	306	136	432	390	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	735	1273	103	149	1293	168	138	306	136	432	390	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	735	1273	103	149	1293	168	138	306	136	432	390	113
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.77	0.23	1.00	2.65	0.35	2.00	1.38	0.62	2.00	1.55	0.45
Final Sat.:	3200	4994	406	1700	4779	621	3200	2492	1108	3200	2790	810
Capacity Analysis Module:												
Vol/Sat:	0.23	0.25	0.25	0.09	0.27	0.27	0.04	0.12	0.12	0.14	0.14	0.14
Crit Moves:	****				****			****		****		
Green/Cycle:	0.24	0.40	0.40	0.14	0.29	0.29	0.09	0.26	0.26	0.14	0.31	0.31
Volume/Cap:	0.94	0.64	0.64	0.64	0.94	0.94	0.47	0.47	0.47	0.94	0.45	0.45
Delay/Veh:	67.0	32.4	32.4	59.2	56.4	56.4	57.2	40.8	40.8	82.2	35.9	35.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	67.0	32.4	32.4	59.2	56.4	56.4	57.2	40.8	40.8	82.2	35.9	35.9
LOS by Move:	E	C	C	E	E	E	E	D	D	F	D	D
HCM2kAvgQ:	20	15	15	7	23	23	3	8	8	13	8	8

Note: Queue reported is the number of cars per lane.

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2000 HCM Operations Method (Future Volume Alternative)

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Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

****

Cycle (sec): 115 Critical Vol./Cap.(X): 1.018
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 51.4
Optimal Cycle: OPTIMIZED Level Of Service: D

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	119	531	0	0	1309	191	0	0	0	471	0	1589
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	119	531	0	0	1309	191	0	0	0	471	0	1589
Added Vol:	0	6	0	0	203	0	0	0	0	0	0	37
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	119	537	0	0	1512	191	0	0	0	471	0	1626
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.81	0.81	0.81	1.00	1.00	1.00	0.84	0.84	0.84
PHF Volume:	143	647	0	0	1864	236	0	0	0	558	0	1927
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	647	0	0	1864	236	0	0	0	558	0	1927
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	143	647	0	0	1864	236	0	0	0	558	0	1927
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1700	3600	0	0	5400	1800	0	0	0	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.18	0.00	0.00	0.35	0.13	0.00	0.00	0.00	0.33	0.00	0.54
Crit Moves:	****				****							****
Green/Cycle:	0.09	0.42	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.52	0.00	0.52
Volume/Cap:	0.97	0.42	0.00	0.00	1.02	0.39	0.00	0.00	0.00	0.63	0.00	1.02
Delay/Veh:	117.0	23.4	0.0	0.0	65.1	29.4	0.0	0.0	0.0	20.9	0.0	54.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	117.0	23.4	0.0	0.0	65.1	29.4	0.0	0.0	0.0	20.9	0.0	54.1
LOS by Move:	F	C	A	A	E	C	A	A	A	C	A	D
HCM2kAvgQ:	9	8	0	0	30	6	0	0	0	15	0	43

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Note: Queue reported is the number of cars per lane.

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University Hills
Opening Year (2011) With Project
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.917
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 35.5
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	78	692	0	0	1417	252	0	0	0	333	0	1188
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	78	692	0	0	1417	252	0	0	0	333	0	1188
Added Vol:	0	26	0	0	100	0	0	0	0	0	0	172
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	718	0	0	1517	252	0	0	0	333	0	1360
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.77	0.77	0.77	1.00	1.00	1.00	0.85	0.85	0.85
PHF Volume:	88	809	0	0	1962	326	0	0	0	394	0	1609
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	809	0	0	1962	326	0	0	0	394	0	1609
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	809	0	0	1962	326	0	0	0	394	0	1609
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1700	3600	0	0	5400	1800	0	0	0	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.22	0.00	0.00	0.36	0.18	0.00	0.00	0.00	0.23	0.00	0.45
Crit Moves:	****				****							****
Green/Cycle:	0.10	0.48	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.46	0.00	0.46
Volume/Cap:	0.52	0.47	0.00	0.00	0.96	0.48	0.00	0.00	0.00	0.50	0.00	0.96
Delay/Veh:	45.5	17.9	0.0	0.0	43.2	24.3	0.0	0.0	0.0	19.2	0.0	40.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.5	17.9	0.0	0.0	43.2	24.3	0.0	0.0	0.0	19.2	0.0	40.6
LOS by Move:	D	B	A	A	D	C	A	A	A	B	A	D
HCM2kAvgQ:	3	8	0	0	25	8	0	0	0	9	0	30

Note: Queue reported is the number of cars per lane.

University Hills
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

Cycle (sec):	65	Critical Vol./Cap.(X):	0.940
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	26.4
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	1 0		2 0 1	0 0		1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	504	333	1187	637	0	146	0	63	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	504	333	1187	637	0	146	0	63	0	0	0
Added Vol:	0	6	0	176	27	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	510	333	1363	664	0	146	0	63	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.85	0.85	0.85	0.86	0.86	0.86	1.00	1.00	1.00
PHF Volume:	0	554	362	1598	778	0	169	0	73	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	554	362	1598	778	0	169	0	73	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	554	362	1598	778	0	169	0	73	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.21	0.79	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2178	1422	3200	1800	0	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.50	0.43	0.00	0.10	0.00	0.04	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.28	0.28	0.53	0.80	0.00	0.10	0.00	0.10	0.00	0.00	0.00
Volume/Cap:	0.00	0.92	0.92	0.95	0.54	0.00	0.95	0.00	0.39	0.00	0.00	0.00
Delay/Veh:	0.0	35.9	35.9	26.6	2.6	0.0	81.5	0.0	28.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	35.9	35.9	26.6	2.6	0.0	81.5	0.0	28.5	0.0	0.0	0.0
LOS by Move:	A	D	D	C	A	A	F	A	C	A	A	A
HCM2kAvgQ:	0	13	13	23	6	0	7	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

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Cycle (sec): 70 Critical Vol./Cap.(X): 0.958
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 29.3
Optimal Cycle: OPTIMIZED Level Of Service: C

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	1 0		2 0 1	0 0		1 0	0 0	1	0 0 0	0 0	
Volume Module:												
Base Vol:	0	680	550	1060	730	0	110	0	80	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	680	550	1060	730	0	110	0	80	0	0	0
Added Vol:	0	26	0	86	13	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	706	550	1146	743	0	110	0	80	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.80	0.80	0.80	0.88	0.88	0.88	1.00	1.00	1.00
PHF Volume:	0	720	561	1429	926	0	125	0	91	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	720	561	1429	926	0	125	0	91	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	720	561	1429	926	0	125	0	91	0	0	0
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.00	1.12	0.88	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2024	1576	3200	1800	0	1700	0	1800	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.36	0.36	0.45	0.51	0.00	0.07	0.00	0.05	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.37	0.37	0.47	0.84	0.00	0.08	0.00	0.08	0.00	0.00	0.00
Volume/Cap:	0.00	0.96	0.96	0.96	0.61	0.00	0.96	0.00	0.66	0.00	0.00	0.00
Delay/Veh:	0.0	37.2	37.2	32.6	2.7	0.0	97.9	0.0	42.5	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	37.2	37.2	32.6	2.7	0.0	97.9	0.0	42.5	0.0	0.0	0.0
LOS by Move:	A	D	D	C	A	A	F	A	D	A	A	A
HCM2kAvgQ:	0	20	20	23	8	0	6	0	3	0	0	0

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Note: Queue reported is the number of cars per lane.

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University Hills
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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Little Mountain Drive (NS) at Northpark Boulevard (EW)

Cycle (sec): 121 Critical Vol./Cap.(X): 0.991
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 35.4
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	121	63	84	6	14	10	27	290	41	165	489	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	63	84	6	14	10	27	290	41	165	489	31
Added Vol:	0	4	0	57	19	0	0	0	0	0	0	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	67	84	63	33	10	27	290	41	165	489	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.74	0.74	0.74	0.72	0.72	0.72	0.92	0.92	0.92	0.96	0.96	0.96
PHF Volume:	164	91	114	88	46	14	30	317	45	172	509	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	164	91	114	88	46	14	30	317	45	172	509	45
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	164	91	114	88	46	14	30	317	45	172	509	45
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.03	0.06	0.00	0.01	0.01	0.00	0.09	0.02	0.00	0.14	0.02
Crit Moves:	****				****			****		****		
Green/Cycle:	0.23	0.34	0.34	0.12	0.23	0.23	0.12	0.23	0.23	0.24	0.35	0.35
Volume/Cap:	0.42	0.07	0.19	0.42	0.06	0.03	0.14	0.38	0.11	0.42	0.41	0.07
Delay/Veh:	40.4	27.1	28.3	50.6	36.2	36.1	47.5	39.5	36.8	39.4	30.2	26.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.4	27.1	28.3	50.6	36.2	36.1	47.5	39.5	36.8	39.4	30.2	26.4
LOS by Move:	D	C	C	D	D	D	D	D	D	D	C	C
HCM2kAvgQ:	6	1	3	4	1	0	1	5	1	6	7	1

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Little Mountain Drive (NS) at Northpark Boulevard (EW)

Cycle (sec):	121	Critical Vol./Cap.(X):	0.991
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	31.8
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	91	7	111	25	37	47	37	393	140	63	251	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	91	7	111	25	37	47	37	393	140	63	251	6
Added Vol:	0	19	0	28	9	0	0	0	0	0	0	56
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	26	111	53	46	47	37	393	140	63	251	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.62	0.62	0.62	0.96	0.96	0.96	0.87	0.87	0.87
PHF Volume:	103	29	126	85	74	76	38	409	146	72	288	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	29	126	85	74	76	38	409	146	72	288	71
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	29	126	85	74	76	38	409	146	72	288	71
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1700	3600	1800	1700	3600	1800	1700	3600	1800	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.07	0.00	0.02	0.04	0.00	0.11	0.08	0.00	0.08	0.04
Crit Moves:			****	****				****		****		
Green/Cycle:	0.11	0.24	0.24	0.17	0.30	0.30	0.14	0.38	0.38	0.14	0.39	0.39
Volume/Cap:	0.57	0.03	0.30	0.30	0.07	0.14	0.16	0.30	0.21	0.30	0.21	0.10
Delay/Veh:	55.6	35.6	38.3	44.5	30.4	31.1	46.2	26.0	25.1	47.0	24.6	23.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	55.6	35.6	38.3	44.5	30.4	31.1	46.2	26.0	25.1	47.0	24.6	23.6
LOS by Move:	E	D	D	D	C	C	D	C	C	D	C	C
HCM2kAvgQ:	5	0	4	3	1	2	1	5	4	3	3	2

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 H Street (NS) at Northpark Boulevard (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.329
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.7
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	10	18	18	10	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	36	77	26	70	115	122	96	104	28	27	193	77
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	36	77	26	70	115	122	96	104	28	27	193	77
Added Vol:	2	0	0	0	0	1	4	27	8	0	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	77	26	70	115	123	100	131	36	27	199	77
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.78	0.78	0.78	0.86	0.86	0.86	0.94	0.94	0.94
PHF Volume:	47	96	32	90	148	159	116	152	42	29	212	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	96	32	90	148	159	116	152	42	29	212	82
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	47	96	32	90	148	159	116	152	42	29	212	82
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.75	0.25	1.00	0.48	0.52	1.00	1.57	0.43	1.00	2.00	1.00
Final Sat.:	1700	1346	454	1700	870	930	1700	2824	776	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.07	0.05	0.17	0.17	0.07	0.05	0.05	0.02	0.06	0.05
Crit Moves:					****		****				****	
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.16	0.29	0.29	0.16	0.29	0.29
Volume/Cap:	0.06	0.16	0.16	0.12	0.38	0.38	0.42	0.19	0.19	0.10	0.20	0.16
Delay/Veh:	9.6	10.1	10.1	9.9	11.5	11.5	24.5	16.6	16.6	22.4	16.7	16.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.6	10.1	10.1	9.9	11.5	11.5	24.5	16.6	16.6	22.4	16.7	16.5
LOS by Move:	A	B	B	A	B	B	C	B	B	C	B	B
HCM2kAvgQ:	1	1	1	1	4	4	3	1	1	1	2	1

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #12 H Street (NS) at Northpark Boulevard (EW)

****

Cycle (sec): 60 Critical Vol./Cap.(X): 0.192
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: OPTIMIZED Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	10	18	18	10	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	50	45	35	18	28	24	45	317	37	24	226	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	45	35	18	28	24	45	317	37	24	226	20
Added Vol:	7	0	0	0	0	4	2	13	4	0	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	57	45	35	18	28	28	47	330	41	24	252	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.87	0.87	0.87	0.97	0.97	0.97	0.89	0.89	0.89
PHF Volume:	65	51	40	21	32	32	49	341	42	27	282	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	51	40	21	32	32	49	341	42	27	282	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	65	51	40	21	32	32	49	341	42	27	282	22
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.56	0.44	1.00	0.50	0.50	1.00	1.78	0.22	1.00	2.00	1.00
Final Sat.:	1700	1012	788	1700	900	900	1700	3202	398	1700	3600	1800
Capacity Analysis Module:												
Vol/Sat:	0.04	0.05	0.05	0.01	0.04	0.04	0.03	0.11	0.11	0.02	0.08	0.01
Crit Moves:		****						****		****		
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.16	0.29	0.29	0.16	0.29	0.29
Volume/Cap:	0.08	0.11	0.11	0.03	0.08	0.08	0.18	0.37	0.37	0.10	0.27	0.04
Delay/Veh:	9.7	9.9	9.9	9.5	9.7	9.7	22.8	17.7	17.7	22.3	17.1	15.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.7	9.9	9.9	9.5	9.7	9.7	22.8	17.7	17.7	22.3	17.1	15.8
LOS by Move:	A	A	A	A	A	A	C	B	B	C	B	B
HCM2kAvgQ:	1	1	1	0	1	1	1	3	3	1	2	0

****

Note: Queue reported is the number of cars per lane.

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Opening Year (2011) With Project - With Improvements

University Hills
Opening Year (2011) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec): 80 Critical Vol./Cap.(X): 0.243
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 9.4
Optimal Cycle: OPTIMIZED Level Of Service: A

****

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Permitted						Permitted						Permitted						Permitted					
Rights:	Include						Include						Include						Include					
Min. Green:	28		28		28		28		28		28		28		28		28		28		28		28	
Lanes:	2	0	0	1	0		1	0	1	0	1		0	1	0	0	2		1	0	0	1	0	
Volume Module:																								
Base Vol:	78		14		15		1		9		1		6		24		423		38		11		1	
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	78		14		15		1		9		1		6		24		423		38		11		1	
Added Vol:	0		0		52		1		0		0		0		12		0		245		57		4	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	78		14		67		2		9		1		6		36		423		283		68		5	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.80		0.80		0.80		0.74		0.74		0.74		0.73		0.73		0.73		0.95		0.95		0.95	
PHF Volume:	97		17		83		3		12		1		8		49		580		298		72		5	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
Reduced Vol:	97		17		83		3		12		1		8		49		580		298		72		5	
PCE Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
MLF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
FinalVolume:	97		17		83		3		12		1		8		49		580		298		72		5	
Saturation Flow Module:																								
Sat/Lane:	1800		1800		1800		1800		1800		1800		1800		1800		1800		1800		1800		1800	
Adjustment:	0.89		1.00		1.00		0.94		1.00		1.00		0.94		1.00		1.00		0.94		1.00		1.00	
Lanes:	2.00		0.17		0.83		1.00		1.00		1.00		0.15		0.85		2.00		1.00		0.93		0.07	
Final Sat.:	3200		311		1489		1700		1800		1800		255		1530		3600		1700		1677		123	
Capacity Analysis Module:																								
Vol/Sat:	0.03		0.06		0.06		0.00		0.01		0.00		0.03		0.03		0.16		0.18		0.04		0.04	
Crit Moves:			****																****					
Green/Cycle:	0.35		0.35		0.35		0.35		0.35		0.35		0.60		0.60		0.60		0.60		0.60		0.60	
Volume/Cap:	0.09		0.16		0.16		0.00		0.02		0.00		0.05		0.05		0.27		0.29		0.07		0.07	
Delay/Veh:	17.5		18.0		18.0		16.9		17.0		16.9		6.6		6.6		7.7		7.9		6.7		6.7	
User DelAdj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
AdjDel/Veh:	17.5		18.0		18.0		16.9		17.0		16.9		6.6		6.6		7.7		7.9		6.7		6.7	
LOS by Move:	B		B		B		B		B		B		A		A		A		A		A		A	
HCM2kAvgQ:	1		2		2		0		0		0		1		1		3		4		1		1	

****

Note: Queue reported is the number of cars per lane.

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University Hills
Opening Year (2011) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec): 60 Critical Vol./Cap.(X): 0.337
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 9.9
Optimal Cycle: OPTIMIZED Level Of Service: A

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	28	28	28	28	28	28
Lanes:	2 0	0 1	0	1 0	1 0	1	0 1	0 0	2	1 0	0 1	0
Volume Module:												
Base Vol:	226	18	52	1	17	2	2	17	134	38	22	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	226	18	52	1	17	2	2	17	134	38	22	1
Added Vol:	0	0	239	4	0	0	0	56	0	120	28	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	226	18	291	5	17	2	2	73	134	158	50	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.79	0.79	0.79	0.59	0.59	0.59	0.82	0.82	0.82	0.95	0.95	0.95
PHF Volume:	285	23	367	8	29	3	2	89	163	166	53	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	285	23	367	8	29	3	2	89	163	166	53	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	285	23	367	8	29	3	2	89	163	166	53	3
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	2.00	0.06	0.94	1.00	1.00	1.00	0.03	0.97	2.00	1.00	0.94	0.06
Final Sat.:	3200	105	1695	1700	1800	1800	48	1749	3600	1700	1698	102
Capacity Analysis Module:												
Vol/Sat:	0.09	0.22	0.22	0.00	0.02	0.00	0.05	0.05	0.05	0.10	0.03	0.03
Crit Moves:		****								****		
Green/Cycle:	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.19	0.46	0.46	0.01	0.03	0.00	0.11	0.11	0.10	0.21	0.07	0.07
Delay/Veh:	9.4	11.3	11.3	8.6	8.7	8.6	9.0	9.0	9.0	9.6	8.8	8.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.4	11.3	11.3	8.6	8.7	8.6	9.0	9.0	9.0	9.6	8.8	8.8
LOS by Move:	A	B	B	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	2	5	5	0	0	0	1	1	1	2	1	1

****

Note: Queue reported is the number of cars per lane.

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University Hills
Opening Year (2011) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 105 Critical Vol./Cap.(X): 0.374
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 31.6
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	2 0	2 0	1	1 0	1 1	0	1 0	2 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	301	996	432	30	98	33	84	68	97	255	166	139
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	301	996	432	30	98	33	84	68	97	255	166	139
Added Vol:	47	0	0	0	0	0	0	8	222	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	348	996	432	30	98	33	84	76	319	255	168	139
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.84	0.84	0.84	0.84	0.84	0.84	0.78	0.78	0.78
PHF Volume:	393	1124	488	36	116	39	100	91	380	329	217	179
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	393	1124	488	36	116	39	100	91	380	329	217	179
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	393	1124	488	36	116	39	100	91	380	329	217	179
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.83	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.50	0.50	1.00	2.00	1.00	3.00	1.00	1.00
Final Sat.:	3200	3600	1800	1700	2693	907	1700	3600	1800	4500	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.12	0.31	0.27	0.02	0.04	0.04	0.06	0.03	0.21	0.07	0.12	0.10
Crit Moves:	****				****		****				****	
Green/Cycle:	0.18	0.39	0.49	0.11	0.32	0.32	0.10	0.32	0.50	0.10	0.32	0.32
Volume/Cap:	0.68	0.80	0.56	0.18	0.13	0.13	0.62	0.08	0.42	0.77	0.37	0.31
Delay/Veh:	43.4	31.8	19.9	42.5	25.1	25.1	52.7	24.7	16.6	54.5	27.7	27.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.4	31.8	19.9	42.5	25.1	25.1	52.7	24.7	16.6	54.5	27.7	27.0
LOS by Move:	D	C	B	D	C	C	D	C	B	D	C	C
HCM2kAvgQ:	8	18	11	1	2	2	4	1	8	6	5	4

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.688
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 48.1
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	2 0	2 0	1	1 0	1 1	0	1 0	2 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	279	723	404	107	435	46	29	169	340	625	245	88
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	279	723	404	107	435	46	29	169	340	625	245	88
Added Vol:	217	0	0	0	0	0	0	4	109	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	496	723	404	107	435	46	29	173	449	625	252	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.75	0.75	0.75	0.72	0.72	0.72	0.62	0.62	0.62
PHF Volume:	562	819	458	144	584	62	41	242	628	1008	406	142
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	562	819	458	144	584	62	41	242	628	1008	406	142
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	562	819	458	144	584	62	41	242	628	1008	406	142
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.83	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.81	0.19	1.00	2.00	1.00	3.00	1.00	1.00
Final Sat.:	3200	3600	1800	1700	3256	344	1700	3600	1800	4500	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.18	0.23	0.25	0.08	0.18	0.18	0.02	0.07	0.35	0.22	0.23	0.08
Crit Moves:	****				****			****		****		
Green/Cycle:	0.18	0.34	0.57	0.11	0.26	0.26	0.11	0.26	0.44	0.23	0.38	0.38
Volume/Cap:	0.96	0.68	0.45	0.78	0.69	0.69	0.21	0.26	0.79	0.96	0.59	0.21
Delay/Veh:	80.5	38.7	16.5	75.3	45.3	45.3	53.0	38.1	36.0	68.5	33.4	27.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	80.5	38.7	16.5	75.3	45.3	45.3	53.0	38.1	36.0	68.5	33.4	27.1
LOS by Move:	F	D	B	E	D	D	D	D	D	E	C	C
HCM2kAvgQ:	17	15	10	8	12	12	2	4	23	21	13	4

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

Cycle (sec): 125 Critical Vol./Cap.(X): 0.972
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 49.4
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	2 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	119	531	0	0	1309	191	0	0	0	471	0	1589
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	119	531	0	0	1309	191	0	0	0	471	0	1589
Added Vol:	0	6	0	0	203	0	0	0	0	0	0	37
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	119	537	0	0	1512	191	0	0	0	471	0	1626
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.81	0.81	0.81	1.00	1.00	1.00	0.84	0.84	0.84
PHF Volume:	143	647	0	0	1864	236	0	0	0	558	0	1927
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	647	0	0	1864	236	0	0	0	558	0	1927
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	143	647	0	0	1864	236	0	0	0	558	0	1927
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	3200	3600	0	0	5400	1800	0	0	0	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.18	0.00	0.00	0.35	0.13	0.00	0.00	0.00	0.33	0.00	0.54
Crit Moves:	****				****							****
Green/Cycle:	0.08	0.42	0.00	0.00	0.34	0.34	0.00	0.00	0.00	0.53	0.00	0.53
Volume/Cap:	0.56	0.43	0.00	0.00	1.01	0.38	0.00	0.00	0.00	0.62	0.00	1.01
Delay/Veh:	58.2	25.7	0.0	0.0	64.5	31.5	0.0	0.0	0.0	21.9	0.0	52.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.2	25.7	0.0	0.0	64.5	31.5	0.0	0.0	0.0	21.9	0.0	52.4
LOS by Move:	E	C	A	A	E	C	A	A	A	C	A	D
HCM2kAvgQ:	4	9	0	0	31	7	0	0	0	16	0	45

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

Cycle (sec):	100	Critical Vol./Cap.(X):	0.891
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	35.4
Optimal Cycle:	OPTIMIZED	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	2 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	78	692	0	0	1417	252	0	0	0	333	0	1188
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	78	692	0	0	1417	252	0	0	0	333	0	1188
Added Vol:	0	26	0	0	100	0	0	0	0	0	0	172
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	78	718	0	0	1517	252	0	0	0	333	0	1360
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.89	0.89	0.89	0.77	0.77	0.77	1.00	1.00	1.00	0.85	0.85	0.85
PHF Volume:	88	809	0	0	1962	326	0	0	0	394	0	1609
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	88	809	0	0	1962	326	0	0	0	394	0	1609
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	88	809	0	0	1962	326	0	0	0	394	0	1609
Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.89	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	3200	3600	0	0	5400	1800	0	0	0	1700	0	3600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.22	0.00	0.00	0.36	0.18	0.00	0.00	0.00	0.23	0.00	0.45
Crit Moves:	****				****							****
Green/Cycle:	0.10	0.48	0.00	0.00	0.38	0.38	0.00	0.00	0.00	0.46	0.00	0.46
Volume/Cap:	0.27	0.47	0.00	0.00	0.96	0.48	0.00	0.00	0.00	0.50	0.00	0.96
Delay/Veh:	42.1	17.9	0.0	0.0	43.2	24.3	0.0	0.0	0.0	19.2	0.0	40.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.1	17.9	0.0	0.0	43.2	24.3	0.0	0.0	0.0	19.2	0.0	40.6
LOS by Move:	D	B	A	A	D	C	A	A	A	B	A	D
HCM2kAvgQ:	2	8	0	0	25	8	0	0	0	9	0	30

Note: Queue reported is the number of cars per lane.

University Hills
Opening Year (2011) With Project
Morning Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #10 Little Mountain Drive (NS) at Project Access (EW)

****

Average Delay (sec/veh): 7.9 Worst Case Level Of Service: B[10.1]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	1	0 1	1 0	1	0 0
Volume Module:												
Base Vol:	121	0	0	0	0	0	0	1	30	0	1	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	0	0	0	0	0	0	1	30	0	1	0
Added Vol:	0	0	16	0	0	0	0	0	0	77	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	0	16	0	0	0	0	1	30	77	1	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	127	0	17	0	0	0	0	1	32	81	1	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	127	0	17	0	0	0	0	1	32	81	1	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	164	xxxx	1	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	33	xxxx	xxxxx
Potent Cap.:	831	xxxx	1089	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1592	xxxx	xxxxx
Move Cap.:	799	xxxx	1089	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1592	xxxx	xxxxx
Volume/Cap:	0.16	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.05	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	10.4	xxxx	8.4	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
LOS by Move:	B	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	10.1			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

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Note: Queue reported is the number of cars per lane.

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University Hills
Opening Year (2011) With Project
Evening Peak Hour - With Improvements

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #10 Little Mountain Drive (NS) at Project Access (EW)

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: A[8.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0	0	0 1	0 0	0	0 0	0 0	1	0 1	1 0	1	0 0
Volume Module:												
Base Vol:	38	0	0	0	0	0	0	1	109	0	1	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	38	0	0	0	0	0	0	1	109	0	1	0
Added Vol:	0	0	75	0	0	0	0	0	0	38	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	0	75	0	0	0	0	1	109	38	1	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	38	0	75	0	0	0	0	1	109	38	1	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	38	0	75	0	0	0	0	1	109	38	1	0
Critical Gap Module:												
Critical Gp:	6.4	xxxx	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	78	xxxx	1	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	110	xxxx	xxxxx
Potent Cap.:	930	xxxx	1090	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1493	xxxx	xxxxx
Move Cap.:	912	xxxx	1090	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1493	xxxx	xxxxx
Volume/Cap:	0.04	xxxx	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	0.2	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	9.1	xxxx	8.5	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	A	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:		8.7			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		A			*			*			*	

Note: Queue reported is the number of cars per lane.

Year 2030 Without Project
- Without Improvements

University Hills
Year 2030 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Palm Avenue (NS) at Kendall Drive (EW)

Cycle (sec):	85	Critical Vol./Cap.(X):	0.510
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	31.4
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	24	24	10	24	24
Lanes:	1 0 2	0 1		1 0 1	1 0		1 0 1	0 1		1 0 1	0 1	
Volume Module:												
Base Vol:	126	307	510	253	652	58	30	96	122	276	76	143
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	126	307	510	253	652	58	30	96	122	276	76	143
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	133	323	537	266	686	61	32	101	128	291	80	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	323	537	266	686	61	32	101	128	291	80	151
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	133	323	537	266	686	61	32	101	128	291	80	151
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.84	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3490	310	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.09	0.28	0.15	0.20	0.20	0.02	0.05	0.07	0.16	0.04	0.08
Crit Moves:		****		****					****	****		
Green/Cycle:	0.15	0.21	0.43	0.20	0.26	0.26	0.15	0.28	0.28	0.21	0.35	0.35
Volume/Cap:	0.50	0.40	0.66	0.75	0.75	0.75	0.12	0.19	0.24	0.75	0.12	0.23
Delay/Veh:	40.2	30.4	21.1	45.8	33.9	33.9	32.5	23.9	24.5	43.9	18.0	19.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.2	30.4	21.1	45.8	33.9	33.9	32.5	23.9	24.5	43.9	18.0	19.1
LOS by Move:	D	C	C	D	C	C	C	C	C	D	B	B
HCM2kAvgQ:	4	4	11	9	10	10	1	2	2	9	1	2

Note: Queue reported is the number of cars per lane.

University Hills
Year 2030 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #1 Palm Avenue (NS) at Kendall Drive (EW)

****

Cycle (sec): 85 Critical Vol./Cap.(X): 0.647
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 33.6
Optimal Cycle: OPTIMIZED Level Of Service: C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	24	24	10	24	24
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	169	578	578	186	309	50	41	77	149	402	61	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	578	578	186	309	50	41	77	149	402	61	141
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	178	608	608	196	325	53	43	81	157	423	64	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	178	608	608	196	325	53	43	81	157	423	64	148
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	178	608	608	196	325	53	43	81	157	423	64	148
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.72	0.28	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3271	529	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.10	0.16	0.32	0.11	0.10	0.10	0.02	0.04	0.08	0.24	0.03	0.08
Crit Moves:		****		****					****	****		
Green/Cycle:	0.12	0.21	0.49	0.13	0.22	0.22	0.17	0.28	0.28	0.28	0.40	0.40
Volume/Cap:	0.81	0.76	0.65	0.84	0.45	0.45	0.14	0.15	0.29	0.84	0.08	0.20
Delay/Veh:	62.9	38.0	15.9	64.3	30.5	30.5	31.3	23.4	25.2	43.6	14.5	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.9	38.0	15.9	64.3	30.5	30.5	31.3	23.4	25.2	43.6	14.5	15.6
LOS by Move:	E	D	B	E	C	C	C	C	C	D	B	B
HCM2kAvgQ:	7	9	10	8	4	4	1	1	3	13	1	2

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Note: Queue reported is the number of cars per lane.

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University Hills
Year 2030 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #2 Campus Parkway (NS) at Kendall Drive

****

Cycle (sec): 90 Critical Vol./Cap.(X): 0.316
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 15.4
Optimal Cycle: OPTIMIZED Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	28	28	28	28	28	28	10	28	28	10	28	28
Lanes:	0 0	1! 0	0	1 0	1 0	1	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	79	25	36	23	46	51	76	441	218	56	250	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	25	36	23	46	51	76	441	218	56	250	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	83	26	38	24	48	54	80	464	229	59	263	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	26	38	24	48	54	80	464	229	59	263	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	83	26	38	24	48	54	80	464	229	59	263	20
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.58	0.17	0.25	1.00	1.00	1.00	1.00	1.34	0.66	1.00	2.00	1.00
Final Sat.:	1040	329	474	1800	1900	1900	1800	2543	1257	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.01	0.03	0.03	0.04	0.18	0.18	0.03	0.07	0.01
Crit Moves:		****						****		****		
Green/Cycle:	0.31	0.31	0.31	0.31	0.31	0.47	0.16	0.51	0.51	0.11	0.46	0.46
Volume/Cap:	0.26	0.26	0.26	0.04	0.08	0.06	0.27	0.36	0.36	0.29	0.15	0.02
Delay/Veh:	23.8	23.8	23.8	21.3	21.7	10.4	35.2	10.4	10.4	40.5	11.9	11.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	23.8	23.8	23.8	21.3	21.7	10.4	35.2	10.4	10.4	40.5	11.9	11.1
LOS by Move:	C	C	C	C	C	B	D	B	B	D	B	B
HCM2kAvgQ:	3	3	3	0	1	1	2	4	4	2	2	0

****

Note: Queue reported is the number of cars per lane.

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University Hills
Year 2030 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Campus Parkway (NS) at Kendall Drive

Cycle (sec): 70 Critical Vol./Cap.(X): 0.503
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 16.8
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	28	28	28	28	28	28	10	28	28	10	28	28
Lanes:	0 0	1! 0	0	1 0	1 0	1	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	293	38	86	38	35	130	63	575	133	42	616	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	293	38	86	38	35	130	63	575	133	42	616	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	308	40	91	40	37	137	66	605	140	44	648	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	308	40	91	40	37	137	66	605	140	44	648	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	308	40	91	40	37	137	66	605	140	44	648	21
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.71	0.09	0.20	1.00	1.00	1.00	1.00	1.62	0.38	1.00	2.00	1.00
Final Sat.:	1285	167	377	1800	1900	1900	1800	3086	714	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.24	0.02	0.02	0.07	0.04	0.20	0.20	0.02	0.17	0.01
Crit Moves:		****						****		****		
Green/Cycle:	0.39	0.39	0.39	0.39	0.39	0.53	0.14	0.39	0.39	0.14	0.39	0.39
Volume/Cap:	0.62	0.62	0.62	0.06	0.05	0.14	0.27	0.50	0.50	0.18	0.44	0.03
Delay/Veh:	20.0	20.0	20.0	12.6	12.6	6.5	30.3	16.4	16.4	28.9	15.6	12.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.0	20.0	20.0	12.6	12.6	6.5	30.3	16.4	16.4	28.9	15.6	12.4
LOS by Move:	C	C	C	B	B	A	C	B	B	C	B	B
HCM2kAvgQ:	8	8	8	0	0	1	2	6	6	1	5	0

Note: Queue reported is the number of cars per lane.

University Hills
Year 2030 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #3 Campus Parkway (NS) at I-215 Freeway NB Ramp (EW)

****

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: A[9.7]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	0 0		0 0 1	0 0		0 0 0	0 0		1 0	0 0 1	
Volume Module:												
Base Vol:	0	10	0	0	309	0	0	0	0	71	0	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	10	0	0	309	0	0	0	0	71	0	110
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	10	0	0	309	0	0	0	0	71	0	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	11	0	0	325	0	0	0	0	75	0	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	11	0	0	325	0	0	0	0	75	0	116
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	336	xxxx	11
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	664	xxxx	1076
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	664	xxxx	1076
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.11	xxxx	0.11
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	0.4
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.1	xxxx	8.7
LOS by Move:	*	*	*	*	*	*	*	*	*	B	*	A
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.7		
ApproachLOS:	*			*			*			A		

****

Note: Queue reported is the number of cars per lane.

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University Hills
Year 2030 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #3 Campus Parkway (NS) at I-215 Freeway NB Ramp (EW)

****

Average Delay (sec/veh): 7.4 Worst Case Level Of Service: B[10.8]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1	0 0		0 0 1	0 0		0 0 0	0 0		1 0	0 0	1
Volume Module:												
Base Vol:	0	40	0	0	163	0	0	0	0	47	0	400
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	40	0	0	163	0	0	0	0	47	0	400
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	40	0	0	163	0	0	0	0	47	0	400
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	42	0	0	172	0	0	0	0	49	0	421
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	42	0	0	172	0	0	0	0	49	0	421
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	214	xxxx	42
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	779	xxxx	1034
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	779	xxxx	1034
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	0.41
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	2.0
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	10.8
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	B
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			10.8		
ApproachLOS:	*			*			*			B		

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Note: Queue reported is the number of cars per lane.

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University Hills
Year 2030 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #4 Campus Parkway (NS) at I-15 Freeway SB Ramp (EW)

****

Average Delay (sec/veh): 4.8 Worst Case Level Of Service: A[7.8]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 0		
Volume Module:												
Base Vol:	0	10	31	269	130	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	10	31	269	130	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	10	31	269	130	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	11	33	283	137	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	11	33	283	137	0	0	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	43	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	1579	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	1579	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.18	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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Note: Queue reported is the number of cars per lane.

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University Hills
Year 2030 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #4 Campus Parkway (NS) at I-15 Freeway SB Ramp (EW)

****

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: A[7.8]

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 0		
Volume Module:												
Base Vol:	0	40	90	150	70	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	40	90	150	70	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	40	90	150	70	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	42	95	158	74	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	42	95	158	74	0	0	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	137	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	1460	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	1460	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.11	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

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Note: Queue reported is the number of cars per lane.

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University Hills
Year 2030 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

****

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.297
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 9.5
Optimal Cycle: 0 Level Of Service: A

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	0 1	0	0	1 1	0 1	0	1 0	1 1	0	0 1!	0 0
Volume Module:												
Base Vol:	101	16	43	1	9	1	3	37	438	143	28	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	16	43	1	9	1	3	37	438	143	28	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	106	17	45	1	9	1	3	39	461	151	29	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	17	45	1	9	1	3	39	461	151	29	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	106	17	45	1	9	1	3	39	461	151	29	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.27	0.73	0.20	1.80	1.00	0.07	0.93	2.00	0.83	0.16	0.01
Final Sat.:	1013	160	430	98	892	552	50	619	1553	515	101	4
Capacity Analysis Module:												
Vol/Sat:	0.10	0.11	0.11	0.01	0.01	0.00	0.06	0.06	0.30	0.29	0.29	0.29
Crit Moves:			****	****					****		****	
Delay/Veh:	10.1	9.0	9.0	9.4	9.3	8.5	8.3	8.3	9.1	10.9	10.9	10.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.1	9.0	9.0	9.4	9.3	8.5	8.3	8.3	9.1	10.9	10.9	10.9
LOS by Move:	B	A	A	A	A	A	A	A	A	B	B	B
ApproachDel:		9.7			9.3			9.0			10.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.7			9.3			9.0			10.9	
LOS by Appr:		A			A			A			B	
AllWayAvgQ:	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.4	0.4	0.4	0.4	0.4

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Note: Queue reported is the number of cars per lane.

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University Hills
Year 2030 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

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Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.300
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	10.1
Optimal Cycle:	0	Level Of Service:	B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	0 1	0	0 1	1 0	1	0 1	0 1	1	0 0	1! 0	0
Volume Module:												
Base Vol:	259	18	178	1	18	2	1	41	171	112	39	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	259	18	178	1	18	2	1	41	171	112	39	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	273	19	187	1	19	2	1	43	180	118	41	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	273	19	187	1	19	2	1	43	180	118	41	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	273	19	187	1	19	2	1	43	180	118	41	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.09	0.91	0.11	1.89	1.00	0.02	0.98	2.00	0.74	0.25	0.01
Final Sat.:	1128	63	624	52	947	555	14	560	1294	419	146	4
Capacity Analysis Module:												
Vol/Sat:	0.24	0.30	0.30	0.02	0.02	0.00	0.08	0.08	0.14	0.28	0.28	0.28
Crit Moves:		****		****					****		****	
Delay/Veh:	10.8	9.8	9.8	9.5	9.4	8.6	9.1	9.1	8.8	11.3	11.3	11.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.8	9.8	9.8	9.5	9.4	8.6	9.1	9.1	8.8	11.3	11.3	11.3
LOS by Move:	B	A	A	A	A	A	A	A	A	B	B	B
ApproachDel:		10.4			9.4			8.8			11.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.4			9.4			8.8			11.3	
LOS by Appr:		B			A			A			B	
AllWayAvgQ:	0.3	0.4	0.4	0.0	0.0	0.0	0.1	0.1	0.1	0.4	0.4	0.4

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Note: Queue reported is the number of cars per lane.

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University Hills
Year 2030 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.420
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 58.9
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Ignore			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	342	1047	488	29	124	32	107	93	170	346	175	136
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	342	1047	488	29	124	32	107	93	170	346	175	136
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	360	1102	514	31	131	34	113	98	0	364	184	143
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	360	1102	514	31	131	34	113	98	0	364	184	143
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	360	1102	514	31	131	34	113	98	0	364	184	143
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.59	0.41	1.00	2.00	1.00	1.62	0.78	0.60
Final Sat.:	1800	3800	1900	1800	3021	779	1800	3800	1900	2916	1475	1146
Capacity Analysis Module:												
Vol/Sat:	0.20	0.29	0.27	0.02	0.04	0.04	0.06	0.03	0.00	0.12	0.12	0.12
Crit Moves:	****				****			****			****	
Green/Cycle:	0.15	0.33	0.59	0.09	0.26	0.26	0.26	0.26	0.00	0.26	0.26	0.26
Volume/Cap:	1.30	0.88	0.46	0.19	0.17	0.17	0.24	0.10	0.00	0.48	0.48	0.48
Delay/Veh:	213.9	49.0	10.3	57.9	37.4	37.4	39.0	36.6	0.0	41.6	41.6	41.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	213.9	49.0	10.3	57.9	37.4	37.4	39.0	36.6	0.0	41.6	41.6	41.6
LOS by Move:	F	D	B	E	D	D	D	D	A	D	D	D
HCM2kAvgQ:	28	23	7	1	2	2	3	1	0	8	8	8

Note: Queue reported is the number of cars per lane.

University Hills
Year 2030 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

****

Cycle (sec): 130 Critical Vol./Cap.(X): 0.654
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 63.0
Optimal Cycle: OPTIMIZED Level Of Service: E

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Ignore			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	1 0 2	0 1		1 0 1	1 0		1 0 2	0 1		1 1 0	1 0	
Volume Module:												
Base Vol:	372	781	526	112	470	49	28	192	400	720	279	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	372	781	526	112	470	49	28	192	400	720	279	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	392	822	554	118	495	52	29	202	0	758	294	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	392	822	554	118	495	52	29	202	0	758	294	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	392	822	554	118	495	52	29	202	0	758	294	85
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.81	0.19	1.00	2.00	1.00	2.00	0.77	0.23
Final Sat.:	1800	3800	1900	1800	3441	359	1800	3800	1900	3600	1472	428
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.29	0.07	0.14	0.14	0.02	0.05	0.00	0.21	0.20	0.20
Crit Moves:	****				****			****			****	
Green/Cycle:	0.15	0.32	0.58	0.09	0.26	0.26	0.26	0.26	0.00	0.26	0.26	0.26
Volume/Cap:	1.41	0.67	0.50	0.69	0.55	0.55	0.06	0.20	0.00	0.80	0.76	0.76
Delay/Veh:	261.4	40.0	11.5	77.9	43.6	43.6	36.3	37.9	0.0	49.9	48.0	48.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	261.4	40.0	11.5	77.9	43.6	43.6	36.3	37.9	0.0	49.9	48.0	48.0
LOS by Move:	F	D	B	E	D	D	D	D	A	D	D	D
HCM2kAvgQ:	33	14	8	6	9	9	1	3	0	16	15	15

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Note: Queue reported is the number of cars per lane.

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University Hills
Year 2030 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec):	115	Critical Vol./Cap.(X):	0.758
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	39.0
Optimal Cycle:	OPTIMIZED	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	34	34	10	34	34
Lanes:	2 0	2 1	0	1 0	2 1	0	2 0	1 1	0	2 0	1 1	0
Volume Module:												
Base Vol:	121	1424	270	74	485	111	181	476	196	528	318	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	1424	270	74	485	111	181	476	196	528	318	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	127	1499	284	78	511	117	191	501	206	556	335	111
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	1499	284	78	511	117	191	501	206	556	335	111
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	127	1499	284	78	511	117	191	501	206	556	335	111
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.52	0.48	1.00	2.44	0.56	2.00	1.42	0.58	2.00	1.50	0.50
Final Sat.:	3400	4791	909	1800	4638	1062	3400	2692	1108	3400	2857	943
Capacity Analysis Module:												
Vol/Sat:	0.04	0.31	0.31	0.04	0.11	0.11	0.06	0.19	0.19	0.16	0.12	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.12	0.36	0.36	0.09	0.33	0.33	0.11	0.30	0.30	0.19	0.37	0.37
Volume/Cap:	0.32	0.87	0.87	0.50	0.33	0.33	0.51	0.63	0.63	0.87	0.31	0.31
Delay/Veh:	48.6	37.4	37.4	61.0	28.4	28.4	53.2	37.3	37.3	60.3	24.1	24.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.6	37.4	37.4	61.0	28.4	28.4	53.2	37.3	37.3	60.3	24.1	24.1
LOS by Move:	D	D	D	E	C	C	D	D	D	E	C	C
HCM2kAvgQ:	2	22	22	3	5	5	4	11	11	13	5	5

Note: Queue reported is the number of cars per lane.

University Hills
Year 2030 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.910
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 68.1
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		34		34		10		34		34	
Lanes:	2	0	2	1	0		1	0	2	1	0		2	0	1	1	0		2	0	1	1	0	
Volume Module:																								
Base Vol:	687	1270		273			301	1210		125			105	526		113			697	459		154		
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
Initial Bse:	687	1270		273			301	1210		125			105	526		113			697	459		154		
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
PHF Adj:	0.95	0.95		0.95			0.95	0.95		0.95			0.95	0.95		0.95			0.95	0.95		0.95		
PHF Volume:	723	1337		287			317	1274		132			111	554		119			734	483		162		
Reduct Vol:	0	0		0			0	0		0			0	0		0			0	0		0		
Reduced Vol:	723	1337		287			317	1274		132			111	554		119			734	483		162		
PCE Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
MLF Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
FinalVolume:	723	1337		287			317	1274		132			111	554		119			734	483		162		
Saturation Flow Module:																								
Sat/Lane:	1900	1900		1900			1900	1900		1900			1900	1900		1900			1900	1900		1900		
Adjustment:	0.89	1.00		1.00			0.95	1.00		1.00			0.89	1.00		1.00			0.89	1.00		1.00		
Lanes:	2.00	2.47		0.53			1.00	2.72		0.28			2.00	1.65		0.35			2.00	1.50		0.50		
Final Sat.:	3400	4692		1008			1800	5166		534			3400	3128		672			3400	2845		955		
Capacity Analysis Module:																								
Vol/Sat:	0.21	0.28		0.28			0.18	0.25		0.25			0.03	0.18		0.18			0.22	0.17		0.17		
Crit Moves:		****					****							****					****					
Green/Cycle:	0.21	0.29		0.29			0.18	0.25		0.25			0.11	0.26		0.26			0.22	0.37		0.37		
Volume/Cap:	1.00	1.00		1.00			1.00	1.00		1.00			0.30	0.68		0.68			1.00	0.46		0.46		
Delay/Veh:	83.5	68.6		68.6			104.0	71.9		71.9			55.5	46.8		46.8			84.1	30.0		30.0		
User DelAdj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00			1.00	1.00		1.00		
AdjDel/Veh:	83.5	68.6		68.6			104.0	71.9		71.9			55.5	46.8		46.8			84.1	30.0		30.0		
LOS by Move:	F	E		E			F	E		E			E	D		D			F	C		C		
HCM2kAvgQ:	22	28		28			19	24		24			2	12		12			22	8		8		

Note: Queue reported is the number of cars per lane.

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Year 2030 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

****

Cycle (sec): 80 Critical Vol./Cap.(X): 0.923
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 29.8
Optimal Cycle: OPTIMIZED Level Of Service: C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	186	491	0	0	1457	454	0	0	0	403	0	1719
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	186	491	0	0	1457	454	0	0	0	403	0	1719
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	196	517	0	0	1534	478	0	0	0	424	0	1809
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	517	0	0	1534	478	0	0	0	424	0	1809
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	196	517	0	0	1534	478	0	0	0	424	0	1809
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1800	3800	0	0	5700	1900	0	0	0	1800	0	3800
Capacity Analysis Module:												
Vol/Sat:	0.11	0.14	0.00	0.00	0.27	0.25	0.00	0.00	0.00	0.24	0.00	0.48
Crit Moves:	****				****							****
Green/Cycle:	0.13	0.41	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.51	0.00	0.51
Volume/Cap:	0.87	0.33	0.00	0.00	0.93	0.87	0.00	0.00	0.00	0.46	0.00	0.93
Delay/Veh:	68.3	14.5	0.0	0.0	38.5	44.0	0.0	0.0	0.0	11.0	0.0	23.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	68.3	14.5	0.0	0.0	38.5	44.0	0.0	0.0	0.0	11.0	0.0	23.3
LOS by Move:	E	B	A	A	D	D	A	A	A	B	A	C
HCM2kAvgQ:	8	4	0	0	17	14	0	0	0	5	0	25

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Note: Queue reported is the number of cars per lane.

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University Hills
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

****

Cycle (sec): 65 Critical Vol./Cap.(X): 0.800
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 19.7
Optimal Cycle: OPTIMIZED Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	132	986	0	0	1647	398	0	0	0	303	0	1244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	132	986	0	0	1647	398	0	0	0	303	0	1244
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	139	1038	0	0	1734	419	0	0	0	319	0	1309
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	1038	0	0	1734	419	0	0	0	319	0	1309
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	139	1038	0	0	1734	419	0	0	0	319	0	1309
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1800	3800	0	0	5700	1900	0	0	0	1800	0	3800
Capacity Analysis Module:												
Vol/Sat:	0.08	0.27	0.00	0.00	0.30	0.22	0.00	0.00	0.00	0.18	0.00	0.34
Crit Moves:	****				****							****
Green/Cycle:	0.15	0.51	0.00	0.00	0.35	0.35	0.00	0.00	0.00	0.40	0.00	0.40
Volume/Cap:	0.50	0.54	0.00	0.00	0.86	0.62	0.00	0.00	0.00	0.44	0.00	0.86
Delay/Veh:	31.6	9.3	0.0	0.0	23.5	20.7	0.0	0.0	0.0	14.7	0.0	22.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.6	9.3	0.0	0.0	23.5	20.7	0.0	0.0	0.0	14.7	0.0	22.5
LOS by Move:	C	A	A	A	C	C	A	A	A	B	A	C
HCM2kAvgQ:	3	6	0	0	14	7	0	0	0	4	0	15

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Note: Queue reported is the number of cars per lane.

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University Hills
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

****

Cycle (sec): 60 Critical Vol./Cap.(X): 0.868
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 20.0
Optimal Cycle: OPTIMIZED Level Of Service: C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	1 0		2 0 1	0 0		1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	534	470	1330	640	0	156	0	80	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	534	470	1330	640	0	156	0	80	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	562	495	1400	674	0	164	0	84	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	562	495	1400	674	0	164	0	84	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	562	495	1400	674	0	164	0	84	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.06	0.94	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2021	1779	3400	1900	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.28	0.41	0.35	0.00	0.09	0.00	0.04	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.32	0.32	0.47	0.79	0.00	0.11	0.00	0.11	0.00	0.00	0.00
Volume/Cap:	0.00	0.87	0.87	0.87	0.45	0.00	0.87	0.00	0.42	0.00	0.00	0.00
Delay/Veh:	0.0	27.1	27.1	17.9	1.0	0.0	64.5	0.0	31.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	27.1	27.1	17.9	1.0	0.0	64.5	0.0	31.6	0.0	0.0	0.0
LOS by Move:	A	C	C	B	A	A	E	A	C	A	A	A
HCM2kAvgQ:	0	13	13	16	1	0	6	0	2	0	0	0

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

****

Cycle (sec): 80 Critical Vol./Cap.(X): 1.025
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 46.9
Optimal Cycle: OPTIMIZED Level Of Service: D

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	1 0		2 0	1 0	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	819	456	1314	679	0	321	0	121	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	819	456	1314	679	0	321	0	121	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	862	480	1383	715	0	338	0	127	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	862	480	1383	715	0	338	0	127	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	862	480	1383	715	0	338	0	127	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.28	0.72	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2441	1359	3400	1900	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.35	0.35	0.41	0.38	0.00	0.19	0.00	0.07	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.34	0.34	0.40	0.74	0.00	0.18	0.00	0.18	0.00	0.00	0.00
Volume/Cap:	0.00	1.02	1.02	1.02	0.51	0.00	1.02	0.00	0.37	0.00	0.00	0.00
Delay/Veh:	0.0	56.2	56.2	52.6	1.5	0.0	88.7	0.0	31.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	56.2	56.2	52.6	1.5	0.0	88.7	0.0	31.6	0.0	0.0	0.0
LOS by Move:	A	E	E	D	A	A	F	A	C	A	A	A
HCM2kAvgQ:	0	25	25	28	1	0	15	0	3	0	0	0

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Little Mountain Drive (NS) at Northpark Boulevard (EW)

Cycle (sec): 121 Critical Vol./Cap.(X): 0.991
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 33.2
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	118	69	93	11	22	17	33	356	43	175	545	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	118	69	93	11	22	17	33	356	43	175	545	38
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	118	69	93	11	22	17	33	356	43	175	545	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	124	73	98	12	23	18	35	375	45	184	574	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	73	98	12	23	18	35	375	45	184	574	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	124	73	98	12	23	18	35	375	45	184	574	40
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.05	0.00	0.01	0.01	0.00	0.10	0.02	0.00	0.15	0.02
Crit Moves:	****				****			****		****		
Green/Cycle:	0.18	0.30	0.30	0.11	0.23	0.23	0.14	0.26	0.26	0.27	0.39	0.39
Volume/Cap:	0.38	0.06	0.17	0.06	0.03	0.04	0.14	0.38	0.09	0.38	0.39	0.05
Delay/Veh:	47.2	29.6	31.1	49.0	36.0	36.3	47.1	38.2	34.6	38.6	25.3	21.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.2	29.6	31.1	49.0	36.0	36.3	47.1	38.2	34.6	38.6	25.3	21.4
LOS by Move:	D	C	C	D	D	D	D	D	C	D	C	C
HCM2kAvgQ:	4	1	2	0	0	0	1	5	1	5	7	1

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Little Mountain Drive (NS) at Northpark Boulevard (EW)

Cycle (sec): 121 Critical Vol./Cap.(X): 0.991
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 27.8
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1 0 2	0	1	1 0 2	0	1	1 0 2	0	1	1 0 2	0	1
Volume Module:												
Base Vol:	82	12	137	41	44	56	63	502	131	85	341	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	12	137	41	44	56	63	502	131	85	341	15
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	12	137	41	44	56	63	502	131	85	341	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	86	13	144	43	46	59	66	528	138	89	359	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	13	144	43	46	59	66	528	138	89	359	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	86	13	144	43	46	59	66	528	138	89	359	16
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.08	0.00	0.01	0.03	0.00	0.14	0.07	0.00	0.09	0.01
Crit Moves:			****	****				****		****		
Green/Cycle:	0.09	0.24	0.24	0.08	0.24	0.24	0.16	0.45	0.45	0.16	0.45	0.45
Volume/Cap:	0.56	0.01	0.31	0.29	0.05	0.13	0.23	0.31	0.16	0.31	0.21	0.02
Delay/Veh:	66.8	34.7	39.1	57.0	35.4	36.6	46.2	18.5	17.1	47.7	17.4	15.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.8	34.7	39.1	57.0	35.4	36.6	46.2	18.5	17.1	47.7	17.4	15.7
LOS by Move:	E	C	D	E	D	D	D	B	B	D	B	B
HCM2kAvgQ:	4	0	4	2	1	2	2	5	2	3	3	0

Note: Queue reported is the number of cars per lane.

University Hills
Year 2030 Without Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 H Street (NS) at Northpark Boulevard (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.268
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	10	18	18	10	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	32	91	37	84	99	137	99	158	53	38	192	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	91	37	84	99	137	99	158	53	38	192	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	34	96	39	88	104	144	104	166	56	40	202	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	96	39	88	104	144	104	166	56	40	202	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	96	39	88	104	144	104	166	56	40	202	95
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.71	0.29	1.00	0.42	0.58	1.00	1.50	0.50	1.00	2.00	1.00
Final Sat.:	1800	1351	549	1800	797	1103	1800	2845	955	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.07	0.07	0.05	0.13	0.13	0.06	0.06	0.06	0.02	0.05	0.05
Crit Moves:					****		****				****	
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.16	0.29	0.29	0.16	0.29	0.29
Volume/Cap:	0.04	0.16	0.16	0.11	0.29	0.29	0.36	0.20	0.20	0.14	0.18	0.17
Delay/Veh:	8.0	8.8	8.8	8.4	9.8	9.8	26.6	16.9	16.9	23.3	16.7	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.0	8.8	8.8	8.4	9.8	9.8	26.6	16.9	16.9	23.3	16.7	17.0
LOS by Move:	A	A	A	A	A	A	C	B	B	C	B	B
HCM2kAvgQ:	0	1	1	1	2	2	2	2	2	1	1	1

Note: Queue reported is the number of cars per lane.

University Hills
Year 2030 Without Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

****

Intersection #12 H Street (NS) at Northpark Boulevard (EW)

****

Cycle (sec): 75 Critical Vol./Cap.(X): 0.216
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 15.5
Optimal Cycle: OPTIMIZED Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	10	18	18	10	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	46	55	39	28	55	58	50	343	87	29	256	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	55	39	28	55	58	50	343	87	29	256	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	48	58	41	29	58	61	53	361	92	31	269	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	58	41	29	58	61	53	361	92	31	269	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	58	41	29	58	61	53	361	92	31	269	58
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.59	0.41	1.00	0.49	0.51	1.00	1.60	0.40	1.00	2.00	1.00
Final Sat.:	1800	1112	788	1800	925	975	1800	3031	769	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.05	0.05	0.02	0.06	0.06	0.03	0.12	0.12	0.02	0.07	0.03
Crit Moves:					****			****		****		
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.20	0.41	0.41	0.13	0.35	0.35
Volume/Cap:	0.07	0.14	0.14	0.04	0.17	0.17	0.15	0.29	0.29	0.13	0.20	0.09
Delay/Veh:	14.2	14.7	14.7	13.9	15.0	15.0	25.9	13.4	13.4	29.7	16.3	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.2	14.7	14.7	13.9	15.0	15.0	25.9	13.4	13.4	29.7	16.3	15.6
LOS by Move:	B	B	B	B	B	B	C	B	B	C	B	B
HCM2kAvgQ:	1	1	1	0	2	2	1	3	3	1	2	1

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Note: Queue reported is the number of cars per lane.

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Year 2030 With Project
- Without Improvements

University Hills
Year 2030 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Palm Avenue (NS) at Kendall Drive (EW)

Cycle (sec): 85 Critical Vol./Cap.(X): 0.525
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 32.1
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	24	24	10	24	24
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	126	307	510	253	652	58	30	96	122	276	76	143
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	126	307	510	253	652	58	30	96	122	276	76	143
Added Vol:	0	0	5	1	0	0	0	1	0	23	4	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	126	307	515	254	652	58	30	97	122	299	80	147
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	133	323	542	267	686	61	32	102	128	315	84	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	323	542	267	686	61	32	102	128	315	84	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	133	323	542	267	686	61	32	102	128	315	84	155
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.84	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3490	310	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.07	0.09	0.29	0.15	0.20	0.20	0.02	0.05	0.07	0.17	0.04	0.08
Crit Moves:		****		****					****	****		
Green/Cycle:	0.14	0.21	0.43	0.19	0.26	0.26	0.15	0.28	0.28	0.22	0.36	0.36
Volume/Cap:	0.51	0.40	0.66	0.79	0.76	0.76	0.12	0.19	0.24	0.79	0.12	0.23
Delay/Veh:	40.9	30.4	20.3	49.3	34.8	34.8	32.3	23.9	24.5	45.4	17.6	18.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.9	30.4	20.3	49.3	34.8	34.8	32.3	23.9	24.5	45.4	17.6	18.8
LOS by Move:	D	C	C	D	C	C	C	C	C	D	B	B
HCM2kAvgQ:	4	4	11	9	11	11	1	2	2	10	1	2

Note: Queue reported is the number of cars per lane.

University Hills
Year 2030 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Palm Avenue (NS) at Kendall Drive (EW)

Cycle (sec): 85 Critical Vol./Cap.(X): 0.657
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 34.2
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	10	18	18	10	18	18	10	24	24	10	24	24
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	1 0	1	1 0	1 0	1
Volume Module:												
Base Vol:	169	578	578	186	309	50	41	77	149	402	61	141
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	169	578	578	186	309	50	41	77	149	402	61	141
Added Vol:	0	0	22	4	0	0	0	4	0	11	2	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	578	600	190	309	50	41	81	149	413	63	143
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	178	608	632	200	325	53	43	85	157	435	66	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	178	608	632	200	325	53	43	85	157	435	66	151
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	178	608	632	200	325	53	43	85	157	435	66	151
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.72	0.28	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3800	1900	1800	3271	529	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.10	0.16	0.33	0.11	0.10	0.10	0.02	0.04	0.08	0.24	0.03	0.08
Crit Moves:		****		****					****	****		
Green/Cycle:	0.12	0.21	0.49	0.13	0.22	0.22	0.17	0.28	0.28	0.28	0.40	0.40
Volume/Cap:	0.81	0.76	0.67	0.86	0.45	0.45	0.14	0.16	0.29	0.86	0.09	0.20
Delay/Veh:	63.0	38.0	16.5	67.3	30.5	30.5	31.3	23.5	25.2	45.7	14.5	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	63.0	38.0	16.5	67.3	30.5	30.5	31.3	23.5	25.2	45.7	14.5	15.6
LOS by Move:	E	D	B	E	C	C	C	C	C	D	B	B
HCM2kAvgQ:	7	9	11	8	4	4	1	2	3	14	1	2

Note: Queue reported is the number of cars per lane.

University Hills
Year 2030 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Campus Parkway (NS) at Kendall Drive

Cycle (sec): 75 Critical Vol./Cap.(X): 0.332
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 15.8
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	28	28	28	28	28	28	10	28	28	10	28	28
Lanes:	0 0	1! 0	0	1 0	1 0	1	1 0	1	1 0	1 0	2 0	1
Volume Module:												
Base Vol:	79	25	36	23	46	51	76	441	218	56	250	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	79	25	36	23	46	51	76	441	218	56	250	19
Added Vol:	0	19	0	4	92	50	11	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	79	44	36	27	138	101	87	441	218	56	250	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	83	46	38	28	145	106	92	464	229	59	263	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	46	38	28	145	106	92	464	229	59	263	21
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	83	46	38	28	145	106	92	464	229	59	263	21
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.51	0.27	0.22	1.00	1.00	1.00	1.00	1.34	0.66	1.00	2.00	1.00
Final Sat.:	919	512	419	1800	1900	1900	1800	2543	1257	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.02	0.08	0.06	0.05	0.18	0.18	0.03	0.07	0.01
Crit Moves:		****						****		****		
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.52	0.14	0.41	0.41	0.13	0.40	0.40
Volume/Cap:	0.24	0.24	0.24	0.04	0.20	0.11	0.35	0.44	0.44	0.25	0.17	0.03
Delay/Veh:	15.8	15.8	15.8	13.9	15.3	7.1	32.7	14.8	14.8	31.5	13.1	12.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	15.8	15.8	15.8	13.9	15.3	7.1	32.7	14.8	14.8	31.5	13.1	12.1
LOS by Move:	B	B	B	B	B	A	C	B	B	C	B	B
HCM2kAvgQ:	2	2	2	0	2	1	2	5	5	1	2	0

Note: Queue reported is the number of cars per lane.

University Hills
Year 2030 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #2 Campus Parkway (NS) at Kendall Drive

****

Cycle (sec): 70 Critical Vol./Cap.(X): 0.574
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 18.2
Optimal Cycle: OPTIMIZED Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	28	28	28	28	28	28	10	28	28	10	28	28
Lanes:	0 0	1! 0	0	1 0	1 0	1	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	293	38	86	38	35	130	63	575	133	42	616	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	293	38	86	38	35	130	63	575	133	42	616	20
Added Vol:	0	90	0	2	45	24	49	0	0	0	0	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	293	128	86	40	80	154	112	575	133	42	616	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	308	135	91	42	84	162	118	605	140	44	648	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	308	135	91	42	84	162	118	605	140	44	648	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	308	135	91	42	84	162	118	605	140	44	648	25
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.60	0.24	0.16	1.00	1.00	1.00	1.00	1.62	0.38	1.00	2.00	1.00
Final Sat.:	1064	465	312	1800	1900	1900	1800	3086	714	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.29	0.29	0.29	0.02	0.04	0.09	0.07	0.20	0.20	0.02	0.17	0.01
Crit Moves:		****					****				****	
Green/Cycle:	0.39	0.39	0.39	0.39	0.39	0.53	0.14	0.39	0.39	0.14	0.39	0.39
Volume/Cap:	0.75	0.75	0.75	0.06	0.11	0.16	0.47	0.50	0.50	0.18	0.44	0.03
Delay/Veh:	24.1	24.1	24.1	12.6	13.1	6.7	34.8	16.4	16.4	28.9	15.6	12.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.1	24.1	24.1	12.6	13.1	6.7	34.8	16.4	16.4	28.9	15.6	12.4
LOS by Move:	C	C	C	B	B	A	C	B	B	C	B	B
HCM2kAvgQ:	11	11	11	1	1	1	3	6	6	1	5	0

****

Note: Queue reported is the number of cars per lane.

****

University Hills
Year 2030 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #3 Campus Parkway (NS) at I-215 Freeway NB Ramp (EW)

****

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: A[10.0]

****

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	10	0			0	309	0			0	0	0			71	0	110		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	0	10	0			0	309	0			0	0	0			71	0	110		
Added Vol:	0	1	0			0	92	0			0	0	0			0	0	19		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	0	11	0			0	401	0			0	0	0			71	0	129		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95		
PHF Volume:	0	12	0			0	422	0			0	0	0			75	0	136		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	0	12	0			0	422	0			0	0	0			75	0	136		
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4	xxxx	6.2							
FollowUpTim:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5	xxxx	3.3							
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		434	xxxx	12							
Potent Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		583	xxxx	1075							
Move Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		583	xxxx	1075							
Volume/Cap:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		0.13	xxxx	0.13							
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		0.4	xxxx	0.4							
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		12.1	xxxx	8.8							
LOS by Move:	*	*	*	*	*	*	*	*	*		B	*	A							
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT				LT - LTR - RT									
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx							
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx							
Shared LOS:	*	*	*	*	*	*	*	*	*		*	*	*							
ApproachDel:	xxxxxx			xxxxxx			xxxxxx				10.0									
ApproachLOS:	*			*			*				A									

****

Note: Queue reported is the number of cars per lane.

****

University Hills
Year 2030 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #3 Campus Parkway (NS) at I-215 Freeway NB Ramp (EW)

****

Average Delay (sec/veh): 8.0 Worst Case Level Of Service: B[11.8]

****

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1
Volume Module:																				
Base Vol:	0	40	0			0	163	0			0	0	0			47	0	400		
Growth Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Initial Bse:	0	40	0			0	163	0			0	0	0			47	0	400		
Added Vol:	0	4	0			0	45	0			0	0	0			0	0	86		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	0	44	0			0	208	0			0	0	0			47	0	486		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95		
PHF Volume:	0	46	0			0	219	0			0	0	0			49	0	512		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	0	46	0			0	219	0			0	0	0			49	0	512		
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			6.4	xxxx	6.2		
FollowUpTim:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			3.5	xxxx	3.3		
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			265	xxxx	46		
Potent Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			728	xxxx	1029		
Move Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			728	xxxx	1029		
Volume/Cap:	xxxx	xxxx	xxxx			xxxx	xxxx	xxxx			xxxx	xxxx	xxxx			0.07	xxxx	0.50		
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			0.2	xxxx	2.8		
Control Del:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			10.3	xxxx	11.9		
LOS by Move:	*	*	*			*	*	*			*	*	*			B	*	B		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	*	*			*	*	*			*	*	*		
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					11.8				
ApproachLOS:	*					*					*					B				

****

Note: Queue reported is the number of cars per lane.

****

University Hills
Year 2030 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #4 Campus Parkway (NS) at I-15 Freeway SB Ramp (EW)

****

Average Delay (sec/veh): 5.4 Worst Case Level Of Service: A[8.0]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 0		
Volume Module:												
Base Vol:	0	10	31	269	130	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	10	31	269	130	0	0	0	0	0	0	0
Added Vol:	0	1	0	88	4	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	11	31	357	134	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	12	33	376	141	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	12	33	376	141	0	0	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	44	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	1577	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	1577	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.24	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.9	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

****

Note: Queue reported is the number of cars per lane.

****

University Hills
Year 2030 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #4 Campus Parkway (NS) at I-15 Freeway SB Ramp (EW)

****

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: A[7.9]

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			1 0 1 0 0			0 0 0 0 0			0 0 0 0 0		
Volume Module:												
Base Vol:	0	40	90	150	70	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	40	90	150	70	0	0	0	0	0	0	0
Added Vol:	0	4	0	43	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	44	90	193	72	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	46	95	203	76	0	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	46	95	203	76	0	0	0	0	0	0	0
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	141	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	1454	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	1454	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.14	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	*			*			*			*		

****

Note: Queue reported is the number of cars per lane.

****

University Hills
Year 2030 With Project
Morning Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

****

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.828
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 18.4
Optimal Cycle: 0 Level Of Service: C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	0 1	0	0 1	1 0	1	0 1	0 1	1	0 0	1! 0	0
Volume Module:												
Base Vol:	101	16	43	1	9	1	3	37	438	143	28	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	16	43	1	9	1	3	37	438	143	28	1
Added Vol:	0	0	33	1	0	0	0	31	0	157	146	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	16	76	2	9	1	3	68	438	300	174	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	106	17	80	2	9	1	3	72	461	316	183	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	17	80	2	9	1	3	72	461	316	183	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	106	17	80	2	9	1	3	72	461	316	183	5
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.17	0.83	0.36	1.64	1.00	0.04	0.96	2.00	0.63	0.36	0.01
Final Sat.:	871	87	414	148	676	454	25	577	1374	381	221	6
Capacity Analysis Module:												
Vol/Sat:	0.12	0.19	0.19	0.01	0.01	0.00	0.12	0.12	0.34	0.83	0.83	0.83
Crit Moves:			****	****					****	****		
Delay/Veh:	11.4	10.8	10.8	10.7	10.6	9.8	9.3	9.3	10.3	30.3	30.3	30.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.4	10.8	10.8	10.7	10.6	9.8	9.3	9.3	10.3	30.3	30.3	30.3
LOS by Move:	B	B	B	B	B	A	A	A	B	D	D	D
ApproachDel:	11.1			10.6			10.1			30.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	11.1			10.6			10.1			30.3		
LOS by Appr:	B			B			B			D		
AllWayAvgQ:	0.1	0.2	0.2	0.0	0.0	0.0	0.1	0.5	0.5	3.6	3.6	3.6

****

Note: Queue reported is the number of cars per lane.

University Hills
Year 2030 With Project
Evening Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

****

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

****

Cycle (sec): 100 Critical Vol./Cap.(X): 0.637
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 15.3
Optimal Cycle: 0 Level Of Service: C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2 0	0 1	0	0 1	1 0	1	0 1	0 1	1	0 0	1! 0	0
Volume Module:												
Base Vol:	259	18	178	1	18	2	1	41	171	112	39	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	259	18	178	1	18	2	1	41	171	112	39	1
Added Vol:	0	0	153	4	0	0	0	142	0	77	71	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	259	18	331	5	18	2	1	183	171	189	110	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	273	19	348	5	19	2	1	193	180	199	116	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	273	19	348	5	19	2	1	193	180	199	116	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	273	19	348	5	19	2	1	193	180	199	116	3
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.05	0.95	0.43	1.57	1.00	0.01	1.55	1.44	0.63	0.36	0.01
Final Sat.:	969	30	547	167	611	426	4	798	798	326	190	5
Capacity Analysis Module:												
Vol/Sat:	0.28	0.64	0.64	0.03	0.03	0.00	0.25	0.24	0.23	0.61	0.61	0.61
Crit Moves:		****		****			****			****		
Delay/Veh:	12.7	18.3	18.3	11.3	11.2	10.2	11.6	11.4	10.6	19.3	19.3	19.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.7	18.3	18.3	11.3	11.2	10.2	11.6	11.4	10.6	19.3	19.3	19.3
LOS by Move:	B	C	C	B	B	B	B	B	B	C	C	C
ApproachDel:		15.9			11.1			11.0			19.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		15.9			11.1			11.0			19.3	
LOS by Appr:		C			B			B			C	
AllWayAvgQ:	0.4	1.5	1.5	0.0	0.0	0.0	0.3	0.3	0.3	1.4	1.4	1.4

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.440
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 65.9
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Ignore			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	1 0 2	0	1	1 0 1	1	0	1 0 2	0	1	1 1 0	1	0
Volume Module:												
Base Vol:	342	1047	488	29	124	32	107	93	170	346	175	136
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	342	1047	488	29	124	32	107	93	170	346	175	136
Added Vol:	28	0	0	0	0	0	0	8	134	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	370	1047	488	29	124	32	107	101	304	346	177	136
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	389	1102	514	31	131	34	113	106	0	364	186	143
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	389	1102	514	31	131	34	113	106	0	364	186	143
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	389	1102	514	31	131	34	113	106	0	364	186	143
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.59	0.41	1.00	2.00	1.00	1.62	0.78	0.60
Final Sat.:	1800	3800	1900	1800	3021	779	1800	3800	1900	2908	1488	1143
Capacity Analysis Module:												
Vol/Sat:	0.22	0.29	0.27	0.02	0.04	0.04	0.06	0.03	0.00	0.13	0.13	0.13
Crit Moves:	****				****			****			****	
Green/Cycle:	0.15	0.33	0.59	0.09	0.26	0.26	0.26	0.26	0.00	0.26	0.26	0.26
Volume/Cap:	1.41	0.88	0.46	0.19	0.17	0.17	0.24	0.11	0.00	0.48	0.48	0.48
Delay/Veh:	258.1	49.0	10.3	57.9	37.4	37.4	39.0	36.7	0.0	41.7	41.7	41.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	258.1	49.0	10.3	57.9	37.4	37.4	39.0	36.7	0.0	41.7	41.7	41.7
LOS by Move:	F	D	B	E	D	D	D	D	A	D	D	D
HCM2kAvgQ:	33	23	7	1	2	2	3	1	0	8	8	8

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

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Cycle (sec): 130 Critical Vol./Cap.(X): 0.741
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 99.0
Optimal Cycle: OPTIMIZED Level Of Service: F

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Ignore			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	1 0	2 0	1	1 0	1 1	0	1 0	2 0	1	1 1	0 1	0
Volume Module:												
Base Vol:	372	781	526	112	470	49	28	192	400	720	279	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	372	781	526	112	470	49	28	192	400	720	279	81
Added Vol:	131	0	0	0	0	0	0	4	66	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	503	781	526	112	470	49	28	196	466	720	286	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95
PHF Volume:	529	822	554	118	495	52	29	206	0	758	301	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	529	822	554	118	495	52	29	206	0	758	301	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	529	822	554	118	495	52	29	206	0	758	301	85
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.81	0.19	1.00	2.00	1.00	2.00	0.78	0.22
Final Sat.:	1800	3800	1900	1800	3441	359	1800	3800	1900	3600	1481	419
Capacity Analysis Module:												
Vol/Sat:	0.29	0.22	0.29	0.07	0.14	0.14	0.02	0.05	0.00	0.21	0.20	0.20
Crit Moves:	****				****			****			****	
Green/Cycle:	0.15	0.32	0.58	0.09	0.26	0.26	0.26	0.26	0.00	0.26	0.26	0.26
Volume/Cap:	1.91	0.67	0.50	0.69	0.55	0.55	0.06	0.21	0.00	0.80	0.78	0.78
Delay/Veh:	478.6	40.0	11.5	77.9	43.6	43.6	36.3	38.0	0.0	49.8	48.6	48.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	478.6	40.0	11.5	77.9	43.6	43.6	36.3	38.0	0.0	49.8	48.6	48.6
LOS by Move:	F	D	B	E	D	D	D	D	A	D	D	D
HCM2kAvgQ:	55	14	8	6	9	9	1	3	0	16	15	15

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Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec): 115 Critical Vol./Cap.(X): 0.770
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 39.3
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	34	34	10	34	34
Lanes:	2 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	121	1424	270	74	485	111	181	476	196	528	318	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	1424	270	74	485	111	181	476	196	528	318	105
Added Vol:	0	25	0	11	119	4	1	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	1449	270	85	604	115	182	476	196	528	318	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	127	1525	284	89	636	121	192	501	206	556	335	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	1525	284	89	636	121	192	501	206	556	335	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	127	1525	284	89	636	121	192	501	206	556	335	113
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.53	0.47	1.00	2.52	0.48	2.00	1.42	0.58	2.00	1.50	0.50
Final Sat.:	3400	4805	895	1800	4788	912	3400	2692	1108	3400	2843	957
Capacity Analysis Module:												
Vol/Sat:	0.04	0.32	0.32	0.05	0.13	0.13	0.06	0.19	0.19	0.16	0.12	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.12	0.36	0.36	0.09	0.33	0.33	0.11	0.30	0.30	0.19	0.37	0.37
Volume/Cap:	0.32	0.88	0.88	0.57	0.40	0.40	0.51	0.63	0.63	0.88	0.32	0.32
Delay/Veh:	48.5	37.7	37.7	64.7	29.2	29.2	53.3	37.3	37.3	61.4	24.3	24.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.5	37.7	37.7	64.7	29.2	29.2	53.3	37.3	37.3	61.4	24.3	24.3
LOS by Move:	D	D	D	E	C	C	D	D	D	E	C	C
HCM2kAvgQ:	2	22	22	4	6	6	4	11	11	14	5	5

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.936
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 72.8
Optimal Cycle: OPTIMIZED Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	34	34	10	34	34
Lanes:	2 0	2	1 0	1 0	2	1 0	2 0	1	1 0	2 0	1	1 0
Volume Module:												
Base Vol:	687	1270	273	301	1210	125	105	526	113	697	459	154
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	687	1270	273	301	1210	125	105	526	113	697	459	154
Added Vol:	0	116	0	6	58	2	4	0	0	0	0	11
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	687	1386	273	307	1268	127	109	526	113	697	459	165
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	723	1459	287	323	1335	134	115	554	119	734	483	174
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	723	1459	287	323	1335	134	115	554	119	734	483	174
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	723	1459	287	323	1335	134	115	554	119	734	483	174
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	2.51	0.49	1.00	2.73	0.27	2.00	1.65	0.35	2.00	1.47	0.53
Final Sat.:	3400	4762	938	1800	5181	519	3400	3128	672	3400	2795	1005
Capacity Analysis Module:												
Vol/Sat:	0.21	0.31	0.31	0.18	0.26	0.26	0.03	0.18	0.18	0.22	0.17	0.17
Crit Moves:		****		****				****		****		
Green/Cycle:	0.21	0.30	0.30	0.17	0.26	0.26	0.11	0.26	0.26	0.21	0.36	0.36
Volume/Cap:	1.00	1.04	1.04	1.04	1.00	1.00	0.32	0.68	0.68	1.04	0.48	0.48
Delay/Veh:	85.6	77.3	77.3	114.5	72.6	72.6	55.9	46.8	46.8	95.1	30.9	30.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	85.6	77.3	77.3	114.5	72.6	72.6	55.9	46.8	46.8	95.1	30.9	30.9
LOS by Move:	F	E	E	F	E	E	E	D	D	F	C	C
HCM2kAvgQ:	22	31	31	20	26	26	3	12	12	23	9	9

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

Cycle (sec): 85 Critical Vol./Cap.(X): 0.947
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 32.3
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	186	491	0	0	1457	454	0	0	0	403	0	1719
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	186	491	0	0	1457	454	0	0	0	403	0	1719
Added Vol:	0	6	0	0	115	0	0	0	0	0	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	186	497	0	0	1572	454	0	0	0	403	0	1738
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	196	523	0	0	1655	478	0	0	0	424	0	1829
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	523	0	0	1655	478	0	0	0	424	0	1829
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	196	523	0	0	1655	478	0	0	0	424	0	1829
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1800	3800	0	0	5700	1900	0	0	0	1800	0	3800
Capacity Analysis Module:												
Vol/Sat:	0.11	0.14	0.00	0.00	0.29	0.25	0.00	0.00	0.00	0.24	0.00	0.48
Crit Moves:	****				****							****
Green/Cycle:	0.12	0.42	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.51	0.00	0.51
Volume/Cap:	0.92	0.33	0.00	0.00	0.95	0.82	0.00	0.00	0.00	0.47	0.00	0.95
Delay/Veh:	82.0	14.8	0.0	0.0	41.0	39.4	0.0	0.0	0.0	12.0	0.0	26.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	82.0	14.8	0.0	0.0	41.0	39.4	0.0	0.0	0.0	12.0	0.0	26.9
LOS by Move:	F	B	A	A	D	D	A	A	A	B	A	C
HCM2kAvgQ:	9	4	0	0	19	14	0	0	0	6	0	28

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 University Parkway (NS) at I-215 Freeway NB Ramps (EW)

Cycle (sec): 70 Critical Vol./Cap.(X): 0.831
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 21.6
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	10	18	0	0	18	18	0	0	0	0	0	0
Lanes:	1 0	2 0	0	0 0	3 0	1	0 0	0 0	0	1 0	0 0	2
Volume Module:												
Base Vol:	132	986	0	0	1647	398	0	0	0	303	0	1244
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	132	986	0	0	1647	398	0	0	0	303	0	1244
Added Vol:	0	26	0	0	56	0	0	0	0	0	0	86
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	132	1012	0	0	1703	398	0	0	0	303	0	1330
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	139	1065	0	0	1793	419	0	0	0	319	0	1400
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	1065	0	0	1793	419	0	0	0	319	0	1400
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	139	1065	0	0	1793	419	0	0	0	319	0	1400
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	3.00	1.00	0.00	0.00	0.00	1.00	0.00	2.00
Final Sat.:	1800	3800	0	0	5700	1900	0	0	0	1800	0	3800
Capacity Analysis Module:												
Vol/Sat:	0.08	0.28	0.00	0.00	0.31	0.22	0.00	0.00	0.00	0.18	0.00	0.37
Crit Moves:	****				****							****
Green/Cycle:	0.14	0.50	0.00	0.00	0.36	0.36	0.00	0.00	0.00	0.42	0.00	0.42
Volume/Cap:	0.54	0.56	0.00	0.00	0.89	0.62	0.00	0.00	0.00	0.43	0.00	0.89
Delay/Veh:	35.8	10.6	0.0	0.0	26.1	21.8	0.0	0.0	0.0	14.5	0.0	24.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.8	10.6	0.0	0.0	26.1	21.8	0.0	0.0	0.0	14.5	0.0	24.2
LOS by Move:	D	B	A	A	C	C	A	A	A	B	A	C
HCM2kAvgQ:	4	7	0	0	16	8	0	0	0	5	0	17

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.900
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	21.7
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	1 0		2 0	1 0	0	1 0	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	534	470	1330	640	0	156	0	80	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	534	470	1330	640	0	156	0	80	0	0	0
Added Vol:	0	6	0	88	27	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	540	470	1418	667	0	156	0	80	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	568	495	1493	702	0	164	0	84	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	568	495	1493	702	0	164	0	84	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	568	495	1493	702	0	164	0	84	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.07	0.93	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2032	1768	3400	1900	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.28	0.28	0.44	0.37	0.00	0.09	0.00	0.04	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.31	0.31	0.49	0.80	0.00	0.10	0.00	0.10	0.00	0.00	0.00
Volume/Cap:	0.00	0.90	0.90	0.90	0.46	0.00	0.90	0.00	0.44	0.00	0.00	0.00
Delay/Veh:	0.0	30.3	30.3	19.3	1.0	0.0	71.3	0.0	32.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	30.3	30.3	19.3	1.0	0.0	71.3	0.0	32.4	0.0	0.0	0.0
LOS by Move:	A	C	C	B	A	A	E	A	C	A	A	A
HCM2kAvgQ:	0	14	14	18	1	0	6	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

Cycle (sec):	85	Critical Vol./Cap.(X):	1.042
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	51.9
Optimal Cycle:	OPTIMIZED	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 1	1 0		2 0	1 0	0	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	819	456	1314	679	0	321	0	121	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	819	456	1314	679	0	321	0	121	0	0	0
Added Vol:	0	26	0	43	13	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	845	456	1357	692	0	321	0	121	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	889	480	1428	728	0	338	0	127	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	889	480	1428	728	0	338	0	127	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	889	480	1428	728	0	338	0	127	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	1.30	0.70	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	2468	1332	3400	1900	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.36	0.36	0.42	0.38	0.00	0.19	0.00	0.07	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.35	0.35	0.40	0.75	0.00	0.18	0.00	0.18	0.00	0.00	0.00
Volume/Cap:	0.00	1.04	1.04	1.04	0.51	0.00	1.04	0.00	0.37	0.00	0.00	0.00
Delay/Veh:	0.0	62.8	62.8	58.5	1.3	0.0	96.1	0.0	33.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	62.8	62.8	58.5	1.3	0.0	96.1	0.0	33.7	0.0	0.0	0.0
LOS by Move:	A	E	E	E	A	A	F	A	C	A	A	A
HCM2kAvgQ:	0	27	27	31	1	0	16	0	3	0	0	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Little Mountain Drive (NS) at Northpark Boulevard (EW)

Cycle (sec): 121 Critical Vol./Cap.(X): 0.991
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 33.9
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	118	69	93	11	22	17	33	356	43	175	545	38
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	118	69	93	11	22	17	33	356	43	175	545	38
Added Vol:	0	4	0	57	19	0	0	0	0	0	0	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	118	73	93	68	41	17	33	356	43	175	545	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	124	77	98	72	43	18	35	375	45	184	574	53
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	77	98	72	43	18	35	375	45	184	574	53
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	124	77	98	72	43	18	35	375	45	184	574	53
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.05	0.00	0.01	0.01	0.00	0.10	0.02	0.00	0.15	0.03
Crit Moves:			****	****				****		****		
Green/Cycle:	0.09	0.23	0.23	0.12	0.26	0.26	0.15	0.29	0.29	0.30	0.43	0.43
Volume/Cap:	0.75	0.09	0.22	0.34	0.04	0.04	0.13	0.34	0.08	0.34	0.35	0.06
Delay/Veh:	80.7	36.7	38.8	53.7	34.0	33.9	45.0	34.7	31.6	34.4	20.3	17.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	80.7	36.7	38.8	53.7	34.0	33.9	45.0	34.7	31.6	34.4	20.3	17.4
LOS by Move:	F	D	D	D	C	C	D	C	C	C	C	B
HCM2kAvgQ:	6	1	3	3	1	0	1	5	1	5	6	1

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #11 Little Mountain Drive (NS) at Northpark Boulevard (EW)

****

Cycle (sec): 121 Critical Vol./Cap.(X): 0.991
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 29.0
Optimal Cycle: OPTIMIZED Level Of Service: C

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	28	28	10	28	28
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1
Volume Module:												
Base Vol:	82	12	137	41	44	56	63	502	131	85	341	15
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	12	137	41	44	56	63	502	131	85	341	15
Added Vol:	0	19	0	28	9	0	0	0	0	0	0	56
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	31	137	69	53	56	63	502	131	85	341	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	86	33	144	73	56	59	66	528	138	89	359	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	33	144	73	56	59	66	528	138	89	359	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	86	33	144	73	56	59	66	528	138	89	359	75
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1800	3800	1900	1800	3800	1900	1800	3800	1900	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.08	0.00	0.01	0.03	0.00	0.14	0.07	0.00	0.09	0.04
Crit Moves:			****	****				****		****		
Green/Cycle:	0.09	0.23	0.23	0.12	0.26	0.26	0.15	0.43	0.43	0.15	0.43	0.43
Volume/Cap:	0.51	0.04	0.33	0.33	0.06	0.12	0.24	0.33	0.17	0.33	0.22	0.09
Delay/Veh:	62.9	36.0	40.5	52.3	33.5	34.5	47.2	20.6	19.1	48.9	19.4	18.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.9	36.0	40.5	52.3	33.5	34.5	47.2	20.6	19.1	48.9	19.4	18.2
LOS by Move:	E	D	D	D	C	C	D	C	B	D	B	B
HCM2kAvgQ:	4	0	4	3	1	1	2	5	2	3	3	1

****

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #12 H Street (NS) at Northpark Boulevard (EW)

****

Cycle (sec): 60 Critical Vol./Cap.(X): 0.273
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 14.8
Optimal Cycle: OPTIMIZED Level Of Service: B

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	10	18	18	10	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	32	91	37	84	99	137	99	158	53	38	192	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	91	37	84	99	137	99	158	53	38	192	90
Added Vol:	2	0	0	0	0	1	4	27	8	0	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	91	37	84	99	138	103	185	61	38	198	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	36	96	39	88	104	145	108	195	64	40	208	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	96	39	88	104	145	108	195	64	40	208	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	96	39	88	104	145	108	195	64	40	208	95
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.71	0.29	1.00	0.42	0.58	1.00	1.50	0.50	1.00	2.00	1.00
Final Sat.:	1800	1351	549	1800	794	1106	1800	2858	942	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.02	0.07	0.07	0.05	0.13	0.13	0.06	0.07	0.07	0.02	0.05	0.05
Crit Moves:					****		****				****	
Green/Cycle:	0.45	0.45	0.45	0.45	0.45	0.45	0.16	0.29	0.29	0.16	0.29	0.29
Volume/Cap:	0.04	0.16	0.16	0.11	0.29	0.29	0.37	0.23	0.23	0.14	0.19	0.17
Delay/Veh:	8.0	8.8	8.8	8.4	9.8	9.8	26.9	17.1	17.1	23.3	16.8	17.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.0	8.8	8.8	8.4	9.8	9.8	26.9	17.1	17.1	23.3	16.8	17.0
LOS by Move:	A	A	A	A	A	A	C	B	B	C	B	B
HCM2kAvgQ:	0	1	1	1	2	2	2	2	2	1	1	1

****

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 H Street (NS) at Northpark Boulevard (EW)

Cycle (sec): 75 Critical Vol./Cap.(X): 0.223
Loss Time (sec): 6 (Y+R=3.0 sec) Average Delay (sec/veh): 15.6
Optimal Cycle: OPTIMIZED Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	10	18	18	10	18	18
Lanes:	1 0	0 1	0	1 0	0 1	0	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	46	55	39	28	55	58	50	343	87	29	256	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	46	55	39	28	55	58	50	343	87	29	256	55
Added Vol:	7	0	0	0	0	4	2	13	4	0	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	53	55	39	28	55	62	52	356	91	29	282	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	56	58	41	29	58	65	55	375	96	31	297	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	58	41	29	58	65	55	375	96	31	297	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	58	41	29	58	65	55	375	96	31	297	58
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	0.59	0.41	1.00	0.47	0.53	1.00	1.59	0.41	1.00	2.00	1.00
Final Sat.:	1800	1112	788	1800	893	1007	1800	3026	774	1800	3800	1900
Capacity Analysis Module:												
Vol/Sat:	0.03	0.05	0.05	0.02	0.06	0.06	0.03	0.12	0.12	0.02	0.08	0.03
Crit Moves:					****			****		****		
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.20	0.41	0.41	0.13	0.35	0.35
Volume/Cap:	0.08	0.14	0.14	0.04	0.17	0.17	0.16	0.30	0.30	0.13	0.22	0.09
Delay/Veh:	14.2	14.7	14.7	13.9	15.0	15.0	26.0	13.5	13.5	29.7	16.5	15.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.2	14.7	14.7	13.9	15.0	15.0	26.0	13.5	13.5	29.7	16.5	15.6
LOS by Move:	B	B	B	B	B	B	C	B	B	C	B	B
HCM2kAvgQ:	1	1	1	0	2	2	1	3	3	1	2	1

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

Cycle (sec): 90 Critical Vol./Cap.(X): 0.237
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 6.5
Optimal Cycle: OPTIMIZED Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	28	28	28	28	28	28
Lanes:	2 0	0 1	0	1 0	1 0	1	0 1	0 0	2	1 0	0 1	0
Volume Module:												
Base Vol:	101	16	43	1	9	1	3	37	438	143	28	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	101	16	43	1	9	1	3	37	438	143	28	1
Added Vol:	0	0	33	1	0	0	0	31	0	157	146	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	101	16	76	2	9	1	3	68	438	300	174	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	106	17	80	2	9	1	3	72	461	316	183	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	17	80	2	9	1	3	72	461	316	183	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	106	17	80	2	9	1	3	72	461	316	183	5
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.17	0.83	1.00	1.00	1.00	0.04	0.96	2.00	1.00	0.97	0.03
Final Sat.:	3400	330	1570	1800	1900	1900	80	1815	3800	1800	1847	53
Capacity Analysis Module:												
Vol/Sat:	0.03	0.05	0.05	0.00	0.00	0.00	0.04	0.04	0.12	0.18	0.10	0.10
Crit Moves:		****								****		
Green/Cycle:	0.31	0.31	0.31	0.31	0.31	0.31	0.64	0.64	0.64	0.64	0.64	0.64
Volume/Cap:	0.10	0.16	0.16	0.00	0.02	0.00	0.06	0.06	0.19	0.27	0.15	0.15
Delay/Veh:	21.7	22.6	22.6	20.9	21.0	20.9	2.8	2.8	3.1	3.7	3.1	3.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.7	22.6	22.6	20.9	21.0	20.9	2.8	2.8	3.1	3.7	3.1	3.1
LOS by Move:	C	C	C	C	C	C	A	A	A	A	A	A
HCM2kAvgQ:	1	2	2	0	0	0	0	0	1	2	1	1

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Northpark Boulevard (NS) at Campus Parkway (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.326
Loss Time (sec): 4 (Y+R=3.0 sec) Average Delay (sec/veh): 8.5
Optimal Cycle: OPTIMIZED Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	28	28	28	28	28	28	28	28	28	28	28	28
Lanes:	2 0	0 1	0	1 0	1 0	1	0 1	0 0	2	1 0	0 1	0
Volume Module:												
Base Vol:	259	18	178	1	18	2	1	41	171	112	39	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	259	18	178	1	18	2	1	41	171	112	39	1
Added Vol:	0	0	153	4	0	0	0	142	0	77	71	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	259	18	331	5	18	2	1	183	171	189	110	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	273	19	348	5	19	2	1	193	180	199	116	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	273	19	348	5	19	2	1	193	180	199	116	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	273	19	348	5	19	2	1	193	180	199	116	3
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.05	0.95	1.00	1.00	1.00	0.01	0.99	2.00	1.00	0.97	0.03
Final Sat.:	3400	98	1802	1800	1900	1900	10	1889	3800	1800	1850	50
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.19	0.00	0.01	0.00	0.10	0.10	0.05	0.11	0.06	0.06
Crit Moves:		****								****		
Green/Cycle:	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47
Volume/Cap:	0.17	0.41	0.41	0.01	0.02	0.00	0.22	0.22	0.10	0.24	0.13	0.13
Delay/Veh:	7.8	10.0	10.0	7.0	7.1	7.0	8.3	8.3	7.4	8.5	7.7	7.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.8	10.0	10.0	7.0	7.1	7.0	8.3	8.3	7.4	8.5	7.7	7.7
LOS by Move:	A	B	B	A	A	A	A	A	A	A	A	A
HCM2kAvgQ:	1	4	4	0	0	0	2	2	1	2	1	1

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 105 Critical Vol./Cap.(X): 0.345
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 31.3
Optimal Cycle: OPTIMIZED Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	2 0	2 0	1	1 0	1 1	0	1 0	2 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	342	1047	488	29	124	32	107	93	170	346	175	136
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	342	1047	488	29	124	32	107	93	170	346	175	136
Added Vol:	28	0	0	0	0	0	0	8	134	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	370	1047	488	29	124	32	107	101	304	346	177	136
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	389	1102	514	31	131	34	113	106	320	364	186	143
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	389	1102	514	31	131	34	113	106	320	364	186	143
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	389	1102	514	31	131	34	113	106	320	364	186	143
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.84	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.59	0.41	1.00	2.00	1.00	3.00	1.00	1.00
Final Sat.:	3400	3800	1900	1800	3021	779	1800	3800	1900	4800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.11	0.29	0.27	0.02	0.04	0.04	0.06	0.03	0.17	0.08	0.10	0.08
Crit Moves:	****				****		****				****	
Green/Cycle:	0.18	0.39	0.48	0.11	0.32	0.32	0.10	0.33	0.50	0.10	0.32	0.32
Volume/Cap:	0.64	0.75	0.56	0.15	0.13	0.13	0.64	0.09	0.33	0.79	0.30	0.23
Delay/Veh:	45.1	28.6	17.6	43.4	24.5	24.5	62.2	23.8	12.7	59.6	27.0	26.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.1	28.6	17.6	43.4	24.5	24.5	62.2	23.8	12.7	59.6	27.0	26.0
LOS by Move:	D	C	B	D	C	C	E	C	B	E	C	C
HCM2kAvgQ:	7	15	10	1	2	2	5	1	4	7	4	3

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 University Parkway (NS) at Northpark Boulevard (EW)

Cycle (sec): 125 Critical Vol./Cap.(X): 0.547
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 37.7
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ovl			Include		
Min. Green:	10	34	34	10	34	34	10	34	34	10	34	34
Lanes:	2 0	2 0	1	1 0	1 1	0	1 0	2 0	1	3 0	1 0	1
Volume Module:												
Base Vol:	372	781	526	112	470	49	28	192	400	720	279	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	372	781	526	112	470	49	28	192	400	720	279	81
Added Vol:	131	0	0	0	0	0	0	4	66	0	7	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	503	781	526	112	470	49	28	196	466	720	286	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	529	822	554	118	495	52	29	206	491	758	301	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	529	822	554	118	495	52	29	206	491	758	301	85
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	529	822	554	118	495	52	29	206	491	758	301	85
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.84	1.00	1.00
Lanes:	2.00	2.00	1.00	1.00	1.81	0.19	1.00	2.00	1.00	3.00	1.00	1.00
Final Sat.:	3400	3800	1900	1800	3441	359	1800	3800	1900	4800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.16	0.22	0.29	0.07	0.14	0.14	0.02	0.05	0.26	0.16	0.16	0.04
Crit Moves:	****				****			****		****		
Green/Cycle:	0.19	0.36	0.56	0.11	0.27	0.27	0.11	0.27	0.47	0.20	0.36	0.36
Volume/Cap:	0.80	0.60	0.52	0.62	0.53	0.53	0.15	0.20	0.55	0.80	0.44	0.12
Delay/Veh:	57.8	32.4	13.3	67.5	40.6	40.6	52.4	35.5	22.0	54.9	30.1	25.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.8	32.4	13.3	67.5	40.6	40.6	52.4	35.5	22.0	54.9	30.1	25.1
LOS by Move:	E	C	B	E	D	D	D	D	C	D	C	C
HCM2kAvgQ:	13	12	9	5	9	9	1	3	11	13	8	2

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec):	105	Critical Vol./Cap.(X):	0.663
Loss Time (sec):	8 (Y+R=3.0 sec)	Average Delay (sec/veh):	35.8
Optimal Cycle:	OPTIMIZED	Level Of Service:	D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	28	28	10	28	28	10	34	34	10	34	34
Lanes:	2 0	3 0	1	1 0	3 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	121	1424	270	74	485	111	181	476	196	528	318	105
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	121	1424	270	74	485	111	181	476	196	528	318	105
Added Vol:	0	25	0	11	119	4	1	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	1449	270	85	604	115	182	476	196	528	318	107
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	127	1525	284	89	636	121	192	501	206	556	335	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	127	1525	284	89	636	121	192	501	206	556	335	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	127	1525	284	89	636	121	192	501	206	556	335	113
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	2.00	3.00	1.00	1.00	3.00	1.00	2.00	2.00	1.00	2.00	1.50	0.50
Final Sat.:	3400	5700	1900	1800	5700	1900	3400	3800	1900	3400	2843	957
Capacity Analysis Module:												
Vol/Sat:	0.04	0.27	0.15	0.05	0.11	0.06	0.06	0.13	0.11	0.16	0.12	0.12
Crit Moves:		****		****				****		****		
Green/Cycle:	0.11	0.31	0.31	0.10	0.30	0.30	0.12	0.32	0.32	0.19	0.40	0.40
Volume/Cap:	0.35	0.85	0.48	0.52	0.37	0.21	0.48	0.41	0.34	0.85	0.30	0.30
Delay/Veh:	46.1	38.4	31.1	56.1	29.0	27.8	47.5	27.7	27.5	54.5	19.8	19.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.1	38.4	31.1	56.1	29.0	27.8	47.5	27.7	27.5	54.5	19.8	19.8
LOS by Move:	D	D	C	E	C	C	D	C	C	D	B	B
HCM2kAvgQ:	2	18	7	4	5	3	4	6	4	12	4	4

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 University Parkway (NS) at Kendall Drive (EW)

Cycle (sec): 130 Critical Vol./Cap.(X): 0.815
Loss Time (sec): 8 (Y+R=3.0 sec) Average Delay (sec/veh): 54.9
Optimal Cycle: OPTIMIZED Level Of Service: D

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Protected						Protected						Protected						Protected					
Rights:	Include						Include						Include						Include					
Min. Green:	10		28		28		10		28		28		10		34		34		10		34		34	
Lanes:	2	0	3	0	1		1	0	3	0	1		2	0	2	0	1		2	0	1	1	0	
Volume Module:																								
Base Vol:	687	1270	273				301	1210	125				105	526	113				697	459	154			
Growth Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
Initial Bse:	687	1270	273				301	1210	125				105	526	113				697	459	154			
Added Vol:	0	116	0				6	58	2				4	0	0				0	0	11			
PasserByVol:	0	0	0				0	0	0				0	0	0				0	0	0			
Initial Fut:	687	1386	273				307	1268	127				109	526	113				697	459	165			
User Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95				0.95	0.95	0.95				0.95	0.95	0.95				0.95	0.95	0.95			
PHF Volume:	723	1459	287				323	1335	134				115	554	119				734	483	174			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
Reduced Vol:	723	1459	287				323	1335	134				115	554	119				734	483	174			
PCE Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
FinalVolume:	723	1459	287				323	1335	134				115	554	119				734	483	174			
Saturation Flow Module:																								
Sat/Lane:	1900	1900	1900				1900	1900	1900				1900	1900	1900				1900	1900	1900			
Adjustment:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
Lanes:	2.00	3.00	1.00				1.00	3.00	1.00				2.00	2.00	1.00				2.00	1.47	0.53			
Final Sat.:	3800	5700	1900				1900	5700	1900				3800	3800	1900				3800	2795	1005			
Capacity Analysis Module:																								
Vol/Sat:	0.19	0.26	0.15				0.17	0.23	0.07				0.03	0.15	0.06				0.19	0.17	0.17			
Crit Moves:		****					****							****					****					
Green/Cycle:	0.21	0.28	0.28				0.19	0.26	0.26				0.11	0.26	0.26				0.21	0.37	0.37			
Volume/Cap:	0.91	0.91	0.54				0.91	0.91	0.27				0.28	0.56	0.24				0.91	0.47	0.47			
Delay/Veh:	66.7	55.0	43.6				82.3	56.9	40.0				55.1	43.7	38.9				66.9	30.6	30.6			
User DelAdj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
AdjDel/Veh:	66.7	55.0	43.6				82.3	56.9	40.0				55.1	43.7	38.9				66.9	30.6	30.6			
LOS by Move:	E		D		D		F		E		D		E		D		D		E		C		C	
HCM2kAvgQ:	17		22		9		16		21		4		2		9		3		18		9		9	

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

Cycle (sec):	60	Critical Vol./Cap.(X):	0.755
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	19.7
Optimal Cycle:	OPTIMIZED	Level Of Service:	B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 2	0	1	2 0	1 0	0	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	534	470	1330	640	0	156	0	80	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	534	470	1330	640	0	156	0	80	0	0	0
Added Vol:	0	6	0	88	27	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	540	470	1418	667	0	156	0	80	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	568	495	1493	702	0	164	0	84	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	568	495	1493	702	0	164	0	84	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	568	495	1493	702	0	164	0	84	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	3400	1900	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.15	0.26	0.44	0.37	0.00	0.09	0.00	0.04	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.30	0.30	0.50	0.80	0.00	0.10	0.00	0.10	0.00	0.00	0.00
Volume/Cap:	0.00	0.50	0.87	0.88	0.46	0.00	0.88	0.00	0.43	0.00	0.00	0.00
Delay/Veh:	0.0	18.6	35.9	17.6	1.0	0.0	67.7	0.0	32.0	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	18.6	35.9	17.6	1.0	0.0	67.7	0.0	32.0	0.0	0.0	0.0
LOS by Move:	A	B	D	B	A	A	E	A	C	A	A	A
HCM2kAvgQ:	0	5	12	17	1	0	6	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 University Parkway (NS) at I-215 Freeway SB Ramps (EW)

Cycle (sec):	65	Critical Vol./Cap.(X):	0.928
Loss Time (sec):	6 (Y+R=3.0 sec)	Average Delay (sec/veh):	30.3
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	18	18	10	18	0	0	0	0	0	0	0
Lanes:	0 0 2	0	1	2 0	1 0	0	1 0	0	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	819	456	1314	679	0	321	0	121	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	819	456	1314	679	0	321	0	121	0	0	0
Added Vol:	0	26	0	43	13	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	845	456	1357	692	0	321	0	121	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	889	480	1428	728	0	338	0	127	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	889	480	1428	728	0	338	0	127	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	889	480	1428	728	0	338	0	127	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.00	2.00	1.00	2.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3800	1900	3400	1900	0	1800	0	1900	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.25	0.42	0.38	0.00	0.19	0.00	0.07	0.00	0.00	0.00
Crit Moves:		****		****			****					
Green/Cycle:	0.00	0.28	0.28	0.44	0.71	0.00	0.19	0.00	0.19	0.00	0.00	0.00
Volume/Cap:	0.00	0.85	0.91	0.96	0.54	0.00	0.96	0.00	0.34	0.00	0.00	0.00
Delay/Veh:	0.0	30.5	45.4	31.4	2.4	0.0	65.6	0.0	25.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	30.5	45.4	31.4	2.4	0.0	65.6	0.0	25.1	0.0	0.0	0.0
LOS by Move:	A	C	D	C	A	A	E	A	C	A	A	A
HCM2kAvgQ:	0	11	14	22	2	0	12	0	2	0	0	0

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #10 Little Mountain Drive (NS) at Project Access (EW)

****

Average Delay (sec/veh): 7.6 Worst Case Level Of Service: B[10.3]

****

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	1	0	0	0	1		0	0	0	0	0		0	0	1	0	1		1	0	1	0	0	
Volume Module:																								
Base Vol:	140		0		0		0		0		0		0		1		50		0		1		0	
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	140		0		0		0		0		0		0		1		50		0		1		0	
Added Vol:	0		0		16		0		0		0		0		0		0		77		0		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	140		0		16		0		0		0		0		1		50		77		1		0	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.95		0.95		0.95		0.95		0.95		0.95		0.95		0.95		0.95		0.95		0.95		0.95	
PHF Volume:	147		0		17		0		0		0		0		1		53		81		1		0	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
FinalVolume:	147		0		17		0		0		0		0		1		53		81		1		0	
Critical Gap Module:																								
Critical Gp:	6.4	xxxx			6.2		xxxxx	xxxx			xxxxx		xxxxx	xxxx			xxxxx		4.1	xxxx			xxxxx	
FollowUpTim:	3.5	xxxx			3.3		xxxxx	xxxx			xxxxx		xxxxx	xxxx			xxxxx		2.2	xxxx			xxxxx	
Capacity Module:																								
Cnflict Vol:	164	xxxx			1		xxxx	xxxx			xxxxx		xxxx	xxxx			xxxxx		54	xxxx			xxxxx	
Potent Cap.:	831	xxxx			1089		xxxx	xxxx			xxxxx		xxxx	xxxx			xxxxx		1565	xxxx			xxxxx	
Move Cap.:	798	xxxx			1089		xxxx	xxxx			xxxxx		xxxx	xxxx			xxxxx		1565	xxxx			xxxxx	
Volume/Cap:	0.18	xxxx			0.02		xxxx	xxxx			xxxx		xxxx	xxxx			xxxx		0.05	xxxx			xxxx	
Level Of Service Module:																								
2Way95thQ:	0.7	xxxx			0.0		xxxx	xxxx			xxxxx		xxxx	xxxx			xxxxx		0.2	xxxx			xxxxx	
Control Del:	10.5	xxxx			8.4		xxxxx	xxxx			xxxxx		xxxxx	xxxx			xxxxx		7.4	xxxx			xxxxx	
LOS by Move:	B	*			A		*	*			*		*	*			*		A	*			*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx		
SharedQueue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shrd ConDel:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shared LOS:	*	*		*			*	*		*			*	*		*			*	*		*		
ApproachDel:	10.3						xxxxxx						xxxxxx						xxxxxx					
ApproachLOS:	B						*						*						*					

****

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #10 Little Mountain Drive (NS) at Project Access (EW)

****

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: A[8.7]

****

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	1	0	0	0	1		0	0	0	0	0		0	0	1	0	1		1	0	1	0	0	
Volume Module:																								
Base Vol:	38		0		0		0		0		0		0		1		109		0		1		0	
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	38		0		0		0		0		0		0		1		109		0		1		0	
Added Vol:	0		0		75		0		0		0		0		0		0		38		0		0	
PasserByVol:	0		0		0		0		0		0		0		0		0		0		0		0	
Initial Fut:	38		0		75		0		0		0		0		1		109		38		1		0	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	38		0		75		0		0		0		0		1		109		38		1		0	
Reduct Vol:	0		0		0		0		0		0		0		0		0		0		0		0	
FinalVolume:	38		0		75		0		0		0		0		1		109		38		1		0	
Critical Gap Module:																								
Critical Gp:	6.4	xxxx			6.2		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx				4.1	xxxx	xxxxx					
FollowUpTim:	3.5	xxxx			3.3		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx				2.2	xxxx	xxxxx					
Capacity Module:																								
Cnflict Vol:	78	xxxx			1		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx				110	xxxx	xxxxx					
Potent Cap.:	930	xxxx			1090		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx				1493	xxxx	xxxxx					
Move Cap.:	912	xxxx			1090		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx				1493	xxxx	xxxxx					
Volume/Cap:	0.04	xxxx			0.07		xxxx	xxxx	xxxx		xxxx	xxxx	xxxx				0.03	xxxx	xxxx					
Level Of Service Module:																								
2Way95thQ:	0.1	xxxx			0.2		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx				0.1	xxxx	xxxxx					
Control Del:	9.1	xxxx			8.5		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx				7.5	xxxx	xxxxx					
LOS by Move:	A	*			A		*	*	*		*	*	*				A	*	*					
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx		
SharedQueue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shrd ConDel:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx		
Shared LOS:	*	*		*			*	*		*			*	*		*			*	*		*		
ApproachDel:		8.7						xxxxxx						xxxxxx						xxxxxx				
ApproachLOS:		A						*						*						*				

****

Note: Queue reported is the number of cars per lane.

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APPENDIX E

Traffic Signal Warrant Worksheets

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Opening Year (2011) With Project

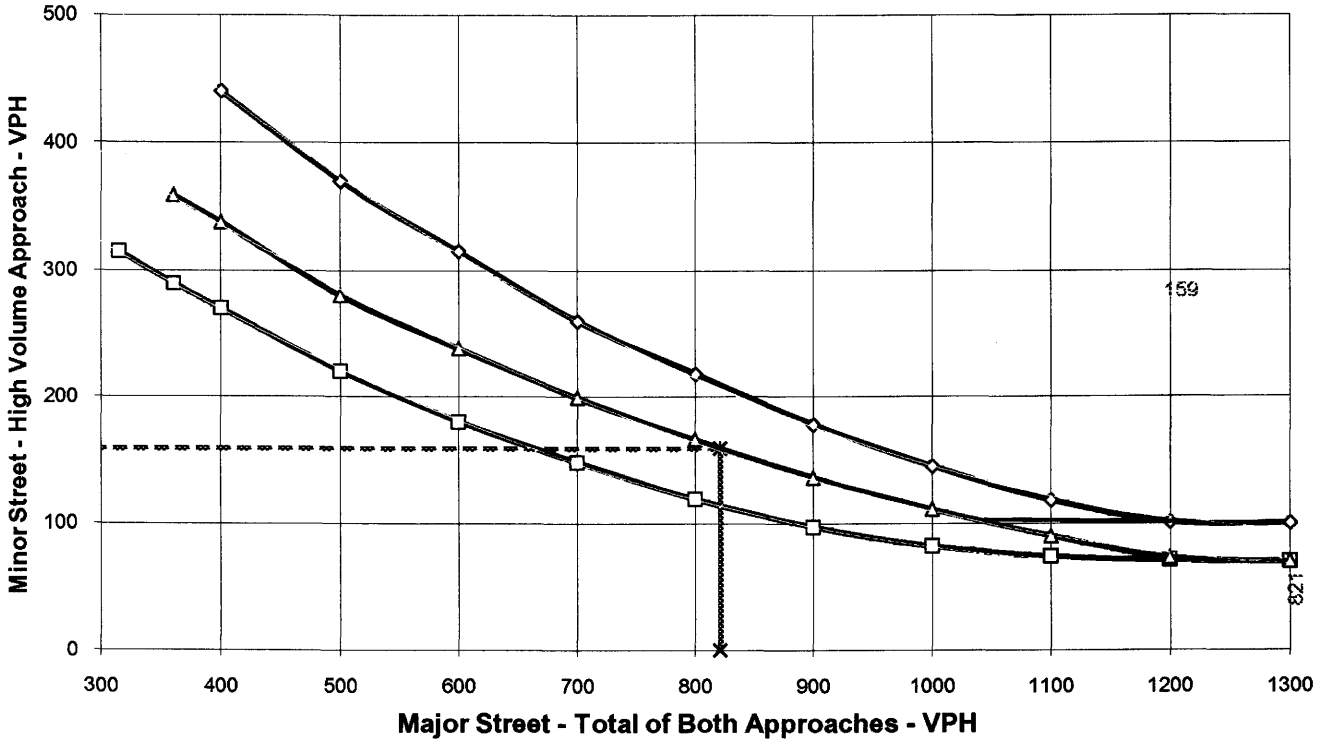
Major Street Name = **Campus Parkway** Total of Both Approaches (VPH) = **821**

Number of Approach Lanes Major Street = **1**

Minor Street Name = **Northpark Boulevard** High Volume Approach (VPH) = **159**

Number of Approach Lanes Minor Street = **2**

WARRANTED FOR A SIGNAL



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

PEAK HOUR VOLUME WARRANT
(Rural Areas)

Year 2030 With Project

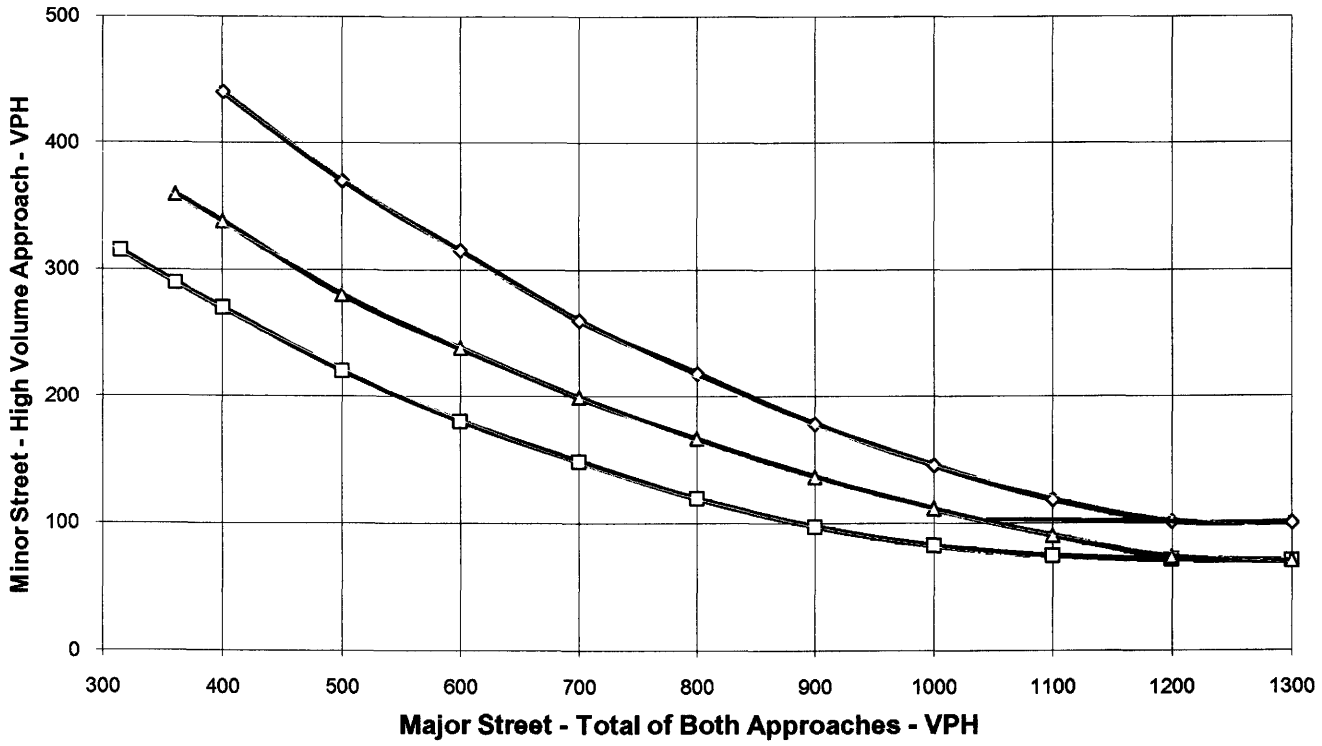
Major Street Name = **Project Access** Total of Both Approaches (VPH) = **149**

Number of Approach Lanes Major Street = **1**

Minor Street Name = **Little Mountain Drive** High Volume Approach (VPH) = **113**

Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



** NOTE:
100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

APPENDIX F

Preliminary Construction Cost Estimates for Congestion Management Program

PRELIMINARY CONSTRUCTION COST ESTIMATES
FOR
CONGESTION MANAGEMENT PLAN

Add One Lane Each Direction on Freeway	
Asphalt Concrete Pavement	$2,300,000 Per Mile
Portland Cement Concrete Pavement	$2,800,000 Per Mile
Includes: Excavation Paving Section Barrier Shoulder Upgrade Drainage System Traffic Control Mobilization @10% Design @11% Construction Mgt. @12.5%	**Excludes:** Environmental Costs Right of Way Widening of Bridge Structures Added Retaining Walls Added Sound Walls

Widen Existing UC Structures	
Total Cost =	$160 Per Square Foot
Includes: Structure Mobilization @10% Design @11% Construction Mgt. @12.5%	**Excludes:** Environmental Costs Right of Way Traffic Control Ramp Modifications Signal/Lighting Up Grades Drainage Upgrades Added Retaining Walls Added Sound Walls

Diamond Interchanges			
$10,000,000	EACH	NEW IC	Minimal Row/Environmental
$15,000,000	EACH	NEW IC	Includes Row/Environmental
$20,000,000	EACH	EXISTING	Minimal Row/Environmental
$25,000,000	EACH	EXISTING	Includes Row/ Environmental
Includes: Structure Retaining Walls Soil Nail Walls Drainage System Ramps Mobilization @ 10% Design @ 11% Construction Mgt. @ 12.5%		**Excludes:** As listed	

Retaining Walls

Height Feet	Structure Cost $/LF	Mobilization Design Constr. Mgt. $/LF	Total $/LF
4	$190	$70	$260
6	$260	$90	$350
8	$380	$140	$520
10	$430	$150	$580
12	$480	$170	$650
14	$590	$210	$800
16	$660	$240	$900
	Excludes: Environmental Costs Right of Way		

12' High Sound Walls (Masonry Block on Footing)

Structure Cost $/Mile	Mobilization Design Constr. Mgt. $/Mile	Total $/Mile
$800,000	$300,000	$1,100,000

Widen Conventional Highway

1. Add one outside lane (Work includes earthwork, modify existing drainage system and construct AC shoulder section. Asphalt Concrete Pavement	$1,000,000/Mile
2. Add one outside lane each direction (Work includes earthwork, modify existing drainage system and construct AC shoulder section) Asphalt Concrete Pavement	$2,000,000/Mile
With Median Concrete Barrier	$2,200,000/Mile
With Median Double Thrie Beam Barrier	$2,300,000/Mile

Local Interchange Improvements

1. New Interchange Urban Interchange	$10,000,000 to $17,000,000
Partial – Cloverleaf Interchange (Work includes new OC structure, earthwork, signal)	$6,000,000
Diamond Interchange (Work includes new OC structure, earthwork, signal)	$5,000,000

Local Interchange Improvements CONT...		
2.	Reconstruct Existing Interchange	
	Realign and widen existing ramps (to 2 lanes)	$750,000/Each Ramp
	Construct Loop on – ramps (Does not include realigning existing ramp)	$700,000/Each Ramp
	Upgrade existing Diamond IC to Partial – Cloverleaf	$6,000,000
3.	Improve Existing Interchange	
	Widen ramps (From one to two lanes)	$350,000/Each Ramp
	Widen existing OC structure	$110/Sq. Ft.
	Signalize ramp intersection	$90,000/Location
	Upgrade existing signal at ramp terminal	$75,000/Intersection
	Upgrade existing signal at ramp terminal (Add lights only)	$25,000/Each
4.	Ramp Metering System	$60,000/Each location
Intersection Improvements		
1.	Signalization of local intersection (with some roadwork)	$250,000
2.	Upgrade existing intersection signalization	$75,000
3.	Upgrade existing Traffic Controller/Assembles	$40,000/Each
4.	Install new signal	$90,000/location
5.	Add signal heads	$25,000/Intersection
6.	Construct left – turn lane (240' long)	$50,000/Each Location
7.	Street widening (12' wide) (Pavement only)	$180,000/Mile
8.	Curb and gutter (Type A2-8)	$15/LF

Other Improvements		
1.	Construct new OC structure (Does not include roadway work)	$100/Sq. Ft.
2.	Construct Retaining Walls (Type 1)	$285/LF (H=8') $360/LF (H=10') $460/LF (H=12') $560/LF (H=14')
3.	Construct Soundwall	$1,000,000/Mile (H=12')
4.	Traffic Management Plan	10% of total construction costs

NOTE: This cost estimate does not include the following items:

1. R/W engineering, appraisal, acquisition and utilities relocation costs.
2. Minor items and supplemental work (10%).
3. Mobilization (10%).
4. Contingencies (25%).
5. Landscaping costs.

General Note: **When adding a through lane, the minimum distance is 600' approach and 600' departure to the next intersection.**